

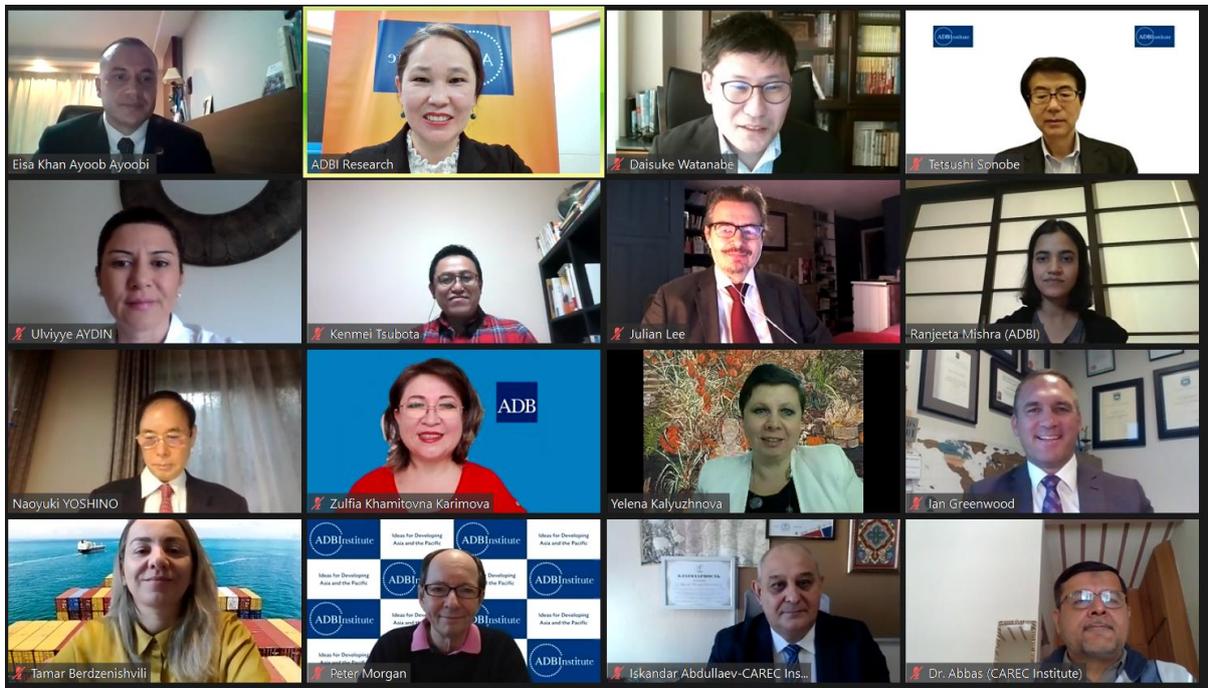


CAREC Institute

**Trans-Caspian Transport Corridor:
Infrastructure and Trade**

Virtual Workshop Proceedings Report

16, 17, 20 November 2020



Disclaimer

The CAREC Institute workshop proceedings report and policy brief series is a forum for stimulating discussion and eliciting feedback on ongoing and recently completed research and workshops undertaken by the CAREC Institute staff, consultants, or resource persons. The series deals with key economic and development issues, particularly those facing the CAREC region, as well as conceptual or analytical issues relating to program or policy design and implementation.

This proceedings report is one of the outputs of the virtual workshop on “Trans-Caspian Transport Corridor: Infrastructure and Trade.” The CAREC Institute delivered the workshop during 16, 17 20 November 2020. The overall aim of this workshop was to bring together authors of the selected papers, and member country officials and experts to exchange knowledge, expertise to promote the regional cooperation among countries not only along the trans-Caspian route but the route from Asia to Europe.

The report is drafted by Dildar Zakir, Capacity Building Specialist, the CAREC Institute, and edited by Eisa Khan Ayoob Ayoobi, Chief of Capacity Building Division, the CAREC Institute. Rovshan Mahmudov, Senior Capacity Building Specialist, the CAREC Institute, Gary Huang, E-Learning Specialist, the CAREC Institute, Dr. Dina Azhgaliyeva, Research Fellow, ADBI, Ranjeeta Mishra, Project Consultant, ADBI, and Kumiko Suzuki Administrative Assistant, ADBI have contributed to the report.

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Abbreviations

ADB	Asian Development Bank
ADBI	Asian Development Bank Institute
AEO	Authorized Economic Operator
BRI	Belt and Road Initiative
BTK	Baku-Tbilisi-Kars
CAREC	Central Asia Regional Economic Cooperation
COVID	Corona Virus Disease
CPMM	CAREC Corridor Performance Measurement and Monitoring
CTTN	CAREC Think Tank Network
EU	European Union
GDP	Gross Domestic Product
GLINS	Global Logistics Intermodal Network Simulation
GTAP	Global Trade Analysis Project
IDE-GSM	Institute of Developing Economies - Geographical Simulation Model
OPEC	Organization of the Petroleum Exporting Countries
PRC	People's Republic of China
RAM	Road Asset Management
SEZ	Special Economic Zones
TCTC	Trans-Caspian Transport Corridor
TEU	Twenty-foot Equivalent Unit
TITR	Trans-Caspian International Transport Route
US	United States of America

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Introduction

Investments in infrastructure are essential for economic growth of developing countries. Such investments include not only investments in the development of new infrastructure, but also investments in quality improvements. Major barriers for infrastructure investments include long-term projects, high upfront cost, large scale, significant risk and uncertain benefits. Benefits of infrastructure projects depend on many factors including population density, connectivity, access to complementary infrastructure, economic growth. Infrastructure investments in Central Asia, are challenged by low population density and large distances. Greater regional connectivity in Central Asia would create business opportunities for firms and increase access to markets and jobs for individuals. Therefore, the infrastructure and trade development along the trans-Caspian transport corridor will help create potential economic benefits, including increased cross-border trade, GDP, investments, employment, and decreased transportation costs. At the same time, allow participating countries benefit not only from export and import activities, but also from transit.

The trans-Caspian trade and transit corridor is an important cross-continental transport infrastructure, trade facilitator, and viable transit connector between Europe and Asia. Comprising of Azerbaijan, Georgia, and Turkey in the west, and Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan, and Afghanistan in the east of CAREC, this corridor brings together a market worth in hundreds of billions of dollars in overall trade while connecting the economies of the European Union and the People's Republic of China. It also provides transport, trade and commerce access to Russia, the Middle East, Pakistan, and India.¹

According to high-level CAREC officials, the corridor will be more convenient and economical route for transmitting the goods between Asia and Europe by its decreased transportation time of freight and goods to 14 days compared with 60 days by sea, and four times cheaper when compared with air.²

Understanding the importance of this crucial trans-regional trade route, the CAREC Institute and ADBI conducted this workshop as a dialogue platform among leading international experts and CAREC senior government officials. This virtual workshop offered paper authors a chance to receive and provide peer reviewed feedback to one another's papers while interacting with leading CAREC experts in relevant discussions to obtain practical input on best practices in optimizing trade corridors such as the trans-Caspian.

Over 100 participants have registered for this webinar from 30 countries. Majority, around 60%, of the participants were from South Asia and South-East Asia, 20% from Central Asia, 18% from Australia, Europe and the USA. Majority of participants (70%) were from academia and research institutions, the rest (30%) from industries. Expert presentations were given on various aspects of trans-Caspian transport corridor, with extensive question and answer sessions to engage in regional policy dialogue. The workshop received very positive feedback from the participants, with follow-up actions planned to build on the strong foundation laid.

The workshop was based around one session per day for over three days – with each day consisting of nominally about three hours of discussions. Representatives from ADBI and the CAREC Institute chaired the workshop, introducing sessions, moderators, authors, discussants, and encouraging discussions and active participation.

¹ 5TH ANNUAL TRANS-CASPIAN FORUM
<http://transcaspianforum.org/>

² B&R countries convene on Trans-Caspian corridor construction
<http://www.chinadaily.com.cn/a/201802/07/WS5a7add12a3106e7dcc13b5d4.html>

Welcoming and Opening Remarks

Dr. Tetsushi Sonobe, Dean and CEO of the Asian Development Bank Institute (ADBI) opened the workshop by welcoming all participants. He praised the work of organizers for successfully planning and delivering such an important and timely event. He applauded the productive cooperation built between ADBI and the CAREC Institute to jointly organize various successful events in 2020 despite the ongoing pandemic. He briefly highlighted the work of ADBI in areas of trans-regional connectivity, trade, and transport.

Dean Sonobe encouraged and invited other implementing partners to join hands with the CAREC Institute and ADBI for further collaboration on all pressing areas of regional connectivity. He congratulated the organizers and wished a fruitful event and constructive dialogue. He expressed his personal interest to attend the event throughout the sessions and engage with scholars and country representatives during the discussions.

Dr. Iskandar Abdullaev, Deputy Director of the CAREC Institute, in his opening remarks, thanked all participants and organizers. He stressed that improving border-crossing services will reduce customs clearance time and related costs that are essential for Trans-Caspian and CAREC corridor competitiveness. At the same time, the achievement of improved services will influence poverty reduction, and attract cross-border investments in the region with increased trade and commerce activities along the corridors. Efforts in this area contribute to increasing employment opportunities, the social mobility of communities, generating revenue and decreasing inequalities in income distribution.

Dr. Abdullaev said that the CAREC region is one of the least integrated sub-Asian regions but has immense potential and various opportunities to reap the recent high levels of economic growth of some member countries. The trade and economic cooperation in the region are key for achieving sustainable development, economic growth, and social stability. There are huge opportunities for the countries of the region, if they have trade activities with fewer barriers and limitations. Therefore, role of economic corridors for high rates of trade, export-import operation without delays and quick passage of goods and services will support the economic spillover among CAREC countries. Moreover, information exchange, compatible standards, and certifications enhance economic partnership – beneficial for all member countries. He concluded his remarks by inviting all scholars and development partners (present in the workshop) to leverage efforts and expertise with the CAREC Institute and ADBI for further work on this important front.

Keynote Address: Asset Management Aspects of Trans-Regional Transport Infrastructure

Dr. Ian Greenwood, Principal Consultant, Greenwood Associates Infrastructure Consultants (GAIC), New Zealand, gave the workshop's first keynote address. He highlighted the importance of asset management aspects of the transport infrastructure. His address was centered around why asset management is important, what is asset management, and where to start. He said that it was important to avoid the broken cycle of "build and neglect" since transport infrastructures require life cycle management. A system needs to be adopted which defines service levels better, has an ability to track performance, improves transparency in decision making, demonstrates an ability to predict consequences of funding decisions, demonstrates asset custodianship, decreases financial, operational, legal risk, and abides by environmental norms.

Dr. Greenwood went on to define asset management, which is "everything you perform to define and

provide the agreed level of service in the most cost-effective, transparent and informed manner for the present and future owners of the asset.” Infrastructure asset management is the all-encompassing framework within which all activities take place. Road safety, climate change, capacity increases – these are all part of road asset management.

Dr. Greenwood illustrated some of the key messages that were derived from the international infrastructure management manual for asset management and highlighted components of the asset management process. In this regard, Road Asset Management (RAM) covers the operation and maintenance of remaining assets, along with the investment in alternative assets – as these are all means of achieving the desired level of service. Improving RAM ability also enables the trade-off between the cost and level of service.

Dr. Greenwood stressed that an asset manager starts by trying to figure out “where do we want to go, what are the service levels we want, what risks are we willing to live with, and what's the cost of that.” Through such thinking, the asset manager can provide a higher level of service and reduce the risks to the network. At the same time, budgets will be optimized for agreed targets. He also illustrated RAM process from various perspectives that can be the same across all road hierarchies, and across all CAREC countries. For instance, a road network in a mountainous region will be more focused on identifying and managing risks than a road network in the non-mountainous region. In addition, a high-growth urban network will care more about forecasting future demand than a low-growth rural network, as well as a high-volume national highway will naturally be more effort-driven than non-essential rural lanes.

To comprehend the essence of the RAM process, Dr. Greenwood, stressed the importance of looking at the performance through lots of challenges such as data deficiencies, organizational silos, institutional inertia, a lack of corporate buy-in, time, training and competency. He highlighted the role of main actors to improve asset management who could be a champion minister, a secretary, a chairman of a board to encourage do the right thing and believe in asset management.

Dr. Greenwood said that asset management is a marathon, as a result of which you become competent, achieve the framework of standards and demonstrate the best practices. The implementation process includes the core functions of starting simple, with something that is sustainable for your road authority. Focusing on all assets and collecting essential information that help in their management.

Dr. Greenwood concluded by saying that implementing RAM is essential to ensure the investments of the past can deliver the projected benefits in present and future. Many recent challenges can merely be acknowledged when analyzed within a holistic RAM framework. We must move away from “build and neglect” and try establish the system and maintain it as our way of life. He recommended to start out simple, and add complexity to RAM only when necessary and feasible.

Session 1: Policy Development: Drivers and Barriers of Cross-Border Connectivity

This session was comprised of presentations from three selected paper authors and it was chaired by **Prof. Yelena Kalyuzhnova**, Vice Dean (International), Henley Business School, University of Reading, United Kingdom. She gave a brief moderation remark by stressing the importance of assessing the impacts of investments in sustainable infrastructures.

The first presenter was **Mr. Daisuke Watanabe**, Associate Professor, Department of Logistics and Information Engineering, Tokyo University of Marine Science and Technology, Japan. He presented his

study on **“Logistics Policy Analysis and Network Model Simulation for Cross-Border Transport in the Trans-Caspian Transport Corridor: the Kazakhstani Viewpoint.”**

Prof. Watanabe’s study was focused on the effectiveness of logistics policy and infrastructure development for cross-border transport along the Trans-Caspian Transport Corridor (TCTC), in which he applied a simulation analysis based on a network equilibrium assignment model. TCTC, according to him, plays a significant role in facilitating cross-border logistics in the region.

Prof. Watanabe used the global logistics intermodal network simulation (GLINS) to cover intermodal freight transport networks, including roads, railways, ferries, and maritime shipping across the Eurasian continent. This was to simulate the impact of TCTC, mainly from the Kazakhstani perspective, and to include two-layered traffic network assignment model representing maritime shipping and road transport. This way, he was able to provide a realistic scenario in global logistics from several viewpoints by comparing the estimated quantity and distribution of cargo transported by land. His research findings indicated progress in the case of Kazakhstan to reduce transit time and transport tariffs, while improving cooperation within Trans-Caspian International Transport Route (TITR) Association.

Ms. Ulviyye Aydin, Associate Professor, Department of Political Science and International Relations, Manisa Celal Bayar University, Turkey, presented the second paper. Her presentation was on **“The Trans-Caspian Transport Corridor Infrastructures in Globalizing Regional Economies: Baku-Tbilisi-Kars Railway Project.”** She discussed the role of infrastructure projects along the Trans-Caspian Transport Corridor in conflict resolution as well as the functionality of the Baku-Tbilisi-Kars railway project (BTK) and current commercial requirements of stakeholders to maintain their competitiveness in the global economy.

Prof. Aydin has applied the method of conceptual content analysis to conduct her study. Her research findings showed that almost all news about the BTK railway project published were under the category of “politics” – more than “economy” and “regional cooperation.” Despite that, her study concluded that media news about the role of infrastructure projects on the trans-Caspian transport corridor had a favorable effect on general perceptions and thus could influence strengthening regional cooperation. She concluded that heads of states and high-ranking officials are the main agenda setters in their respective countries. Thus, their statements in the news media play significant roles in shaping regional cooperation and economic integration in the region. One of her main recommendations was that high-ranking officials continue political support through all possible channels to promote regional cooperation and collective mutual sustainable development along the corridors.

Mr. Julian Lee, Analyst, J Lee Energy Experts, United Kingdom, was the last presenter in the session. He presented his research findings on **“Trans-Caspian Transport Corridor: A Story of Ships, Trains and Pipelines.”** He provided an overview of the oil and gas sectors by tracing the historical development of the current network and the challenges that have shaped exporting of oil and gas, including the impacts of COVID-19. He highlighted that Caspian Sea region is landlocked and the producers rely on transit through second and often third countries. The transit countries are also oil and gas producers. Therefore, webs of pipelines and rail networks are required to transport oil and gas that reflects the interests of all actors in the Caspian Sea region.

Mr. Lee noted that Trans-Caspian oil and gas transportation has elements of geopolitics involving major players like the European Union, US, Russia, Iran, and the PRC. This adds more complexities to alternate routes and helps diversify the transport sector in the region based on competitive advantages. His research findings indicated drop in oil demand due to COVID-19 pandemic and the need to address environmental considerations. The situation may further deteriorate given the

predicted peak in global oil demand by 2030. Therefore, he recommended that all actors may need to look for common ground to align their conflicting interests in addressing the situation collectively.

At the end of the session, all paper presenters received peer reviewed feedback from discussants and engaged with CAREC country lead experts of the field to receive practical input on best practices underway in the CAREC region. More importantly, the CAREC country representatives had the chance to engage with leading scholars to update knowledge and upgrade skills on the policy development considering drivers and barriers of cross-border connectivity with an emphasis on the role of trans-Caspian transport corridor infrastructures in interdependent regional economies.

Session 2: Measuring Economic Impacts of the Trans-Caspian Corridor, Day 1

This session was comprised of two research paper presentations, and was chaired by **Ms. Zulfia Karimova**, Principal Regional Cooperation Specialist, EARD, ADB, Philippines. Ms. Karimova gave a brief moderation remark by highlighting the importance of regional transport corridors and their impacts on trade and connectivity.

The first presenter was **Mr. Zhenhua Chen**, Assistant Professor, City and Regional Planning, the Ohio State University, United States. His study was on **“Regional Impact of the Trans-Caspian Infrastructure Improvement in Post COVID-19: A Computable General Equilibrium Analysis.”**

Prof. Chen started by saying that the Caspian region is an important economic corridor for Central Asia – connecting Asia and Europe. The COVID-19 has affected the global economy as well as the economy of the CAREC region that is one of the main beneficiaries of the Trans-Caspian International Transport Route (TITR). Through his study, Professor Chen traced the impacts of transportation infrastructure on trade and the economy along the TITR countries under different scenarios.

Prof. Chen’s analysis on the transportation infrastructure investment included the economic effects of infrastructure construction and business activities along the Belt and Road Initiative (BRI). He also demonstrated the TITR’s role as one of the most important trade corridors for the BRI.

Four TITR countries (Azerbaijan, Georgian, Kazakhstan, and Turkey) and four trading partner countries (Poland, Romania, the PRC, and Ukraine) were selected as case studies. This was to measure the stock of transport infrastructure investment through quality (including road, rail, air, and sea) together with other relevant data including GDP, tariff, and trade costs.

Prof. Chen’s quantitative research was based on five-year data of selected countries. He estimated elasticity of trade cost to highlight the economic impacts of infrastructure investment. In his conclusion, he advocated for investment in sustainable transport infrastructure since it reduces trade costs and stimulates economic growth.

Ms. Tamar Berdzenishvili, Senior Knowledge Management Specialist, CAREC Institute, the PRC, presented her analysis titled **“CAREC Corridor Performance Measurement and Monitoring (CPMM): Trade Impediments of CAREC Trans-Caspian Corridors.”**

Ms. Berdzenishvili started her presentation with information on the CAREC Program and CAREC corridor number two, which is the trans-Caspian corridor uniting the nine CAREC countries. She illustrated CPMM indicators that were developed by ADB for road shipments from the Caucasus to Central Asia to estimate the time and costs incurred at border crossing points, complemented by the drivers’ surveys and 2973 samples of cross-border shipments of 2019. She stressed that the prospects

for trade in terms of goods in transit are promising. Ms. Berdzenishvili elaborated that that trade between the PRC and Europe is around 1 billion EUR a day, where 90 percent is trade in goods which are transported by maritime routes and through railway along the New Eurasia Land Bridge. The trans-Caspian corridor provides an opportunity to reduce time for cargo shipments to two weeks from a month by the New Eurasia Land Bridge rail and to two weeks from 45 days by sea. The potential of trans-Caspian container shipping was estimated at 300,000 TEU containers by 2020 from nearly zero in 2017 to 15,000 in 2018 and 30,000 in 2019.

Ms. Berdzenishvili highlighted the key impediments to trade, which the practitioners on the ground and transport operators bring forward. Key obstacles at the Caspian and along the corridor represent uncertainty of rail ferry schedule and capacity shortage at the Caspian, partially outdated ferry fleet, lack of rail container terminals, lack of class-A warehouses, and practical absence of modern logistics centers. In addition, rail wagons take priority over truck cargo and oil over other cargo for trans-Caspian services, as well as time consuming shunting, marshalling, ferry loading and unloading, relatively high rail freight and road toll cost, lack of cooperation agreements, etc.

In conclusion, Ms. Berdzenishvili emphasized key policy recommendations which are suggested to remove some of these bottlenecks to enhance trans-Caspian shipping capacity, development of inland dry ports and container terminals, free trade zones, opening of the corridor for private businesses and reduction of the state monopoly in the corridor operation, adoption of Authorized Economic Operator (AEO) program in all corridor countries to alleviate the visa bottleneck, facilitation of efficient handling and standardization across break-in-gauge and wagon quantity issues, harmonization of wagon repair standards, among others.

At the end of the presentations, time was allocated for peer reviewed discussions and questions and answers. Each paper presenter received comprehensive feedback from peers, and they engaged with CAREC country representatives for knowledge sharing and further practical feedback on their papers.

Session 3: Measuring Economic Impacts of the Trans-Caspian Corridor, Day 2

Dr. Dina Azhgaliyeva, Research Fellow, ADBI, Japan, chaired this session, which included presentations from two authors. After short moderation remarks, Dr. Azhgaliyeva introduced the paper presenters.

Dr. Kamalbek Karymshakov, Economist, Chief Economist Team, CAREC Institute, PRC, presented a research paper that he had written in collaboration with **Dr. Naoyuki Yoshino**, Professor Emeritus, Keio University, Japan. This paper was on “**Infrastructure and Firm Performance in CAREC Countries: Cross-Sectional Evidence at the Firm Level.**”

Dr. Karymshakov et al. examined the direct and indirect impacts (spillover effects) of infrastructure on firm performance in the nine selected CAREC countries, namely, Afghanistan, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Mongolia, Pakistan, Tajikistan, and Uzbekistan. The dependent variable of the study included log of total sales, share of capacity utilized, export and share of export on the one hand. On the other hand, the explanatory variable comprised duration of power outages, electricity expenses, broadband internet, and customs.

Research findings of Dr. Karymshakov et al. indicated that higher electricity expenses and duration of power outages have negative impact on total sales and capacity utilization and on the share of capacity utilized, respectively. They concluded that stable energy infrastructure is important for firm performance. Efficient customs and border management system increases export and share of export

sales. Access to broadband internet has considerable positive impact on total sales and export sales – the spillover effects from the broadband access will assist new businesses in the region.

Therefore, Dr. Karymshakov et al. proposed floating infrastructure bond for financing the infrastructure projects. Revenue from infrastructure bond will come from the user charges and the spillover tax revenues. They also suggested that the CAREC countries could apply mutual usage of infrastructures on water, electricity, energy and digital infrastructure, which will help increase the user charges and spillover tax revenues as well as increase the rate of return in floating infrastructure investments.

Mr. Kenmei Tsubota, Associate Professor, Faculty of Global and Regional Studies, Toyo University, Japan, was the second presenter of the session. He presented his paper – **“Corridor Developments for Transforming Central Asia: A Spatial Computable General Equilibrium Model.”**

Prof. Tsubota started by projecting a map to demonstrate the trajectories and intersections between TITR and CAREC corridors. He has applied Spatial Computable General Equilibrium Model (IDE-GSM) to estimate the heterogeneous economic impacts across regions. He used different scenarios, including baseline scenario, an individual CAREC corridor, all CAREC corridors (relevant to the trans-Caspian route), all CAREC corridors plus TITR. The scenario showed investment opportunities for connecting the missing transport infrastructure links that would increase the average speed and optimize specific highways and railways. Most importantly, the TITR and CAREC corridors could bring spillover effects to the neighboring countries and synergy effects to the whole region by combining the several projects which could deliver more significant impacts to the region’s economy.

Prof. Tsubota’s research findings showed that the transport network improvement for better connectivity could bring balanced regional development and economic benefits to the region. He also highlighted the economic effects of special economic zones (SEZs) and other industrial development efforts and recommended that such industrialization be considered in line with transport infrastructure network improvement.

At the end of the session, the designated discussants provided peer-reviewed feedback on the papers. There were exchanges between paper authors and discussants as well as country representatives for knowledge sharing and further practical inputs from practitioners.

Session 4: Trans-Caspian International Transportation: What Does the Future Hold?

Mr. Eisa Khan Ayoob Ayoobi, Chief of Capacity Building Division, CAREC Institute, PRC, chaired this session, in which three research papers were presented. Mr. Ayoobi opened the session with brief moderation remarks. He shed lights on the importance of trans-regional corridors and connectivity.

Mr. Richard Pomfret, Professor of Economics, Institute for International Trade, The University of Adelaide, Australia, was the first presenter. His presentation was on **“Trans-Caspian Trade Corridors: Present and Future.”**

Prof. Pomfret provided a historical overview of the trade routes which were historically mainly overland. He discussed the geostrategic role of the Ancient Silk Road that connected East and West Asia all the way to Europe. However, with the discovery and development of continental maritime trade routes between Asia and Europe in the 1500s, the role of overland trade routes significantly diminished, and the focus shifted towards maritime trade. Hence, overland routes were unable to compete with the maritime shipping because of land conditions (not only road conditions but also

seasonal factors like snow) and the cargo volume and size.

According to Prof. Pomfret, since 2011, the situation has started to change with the development of railway services and overland interaction between Asian countries (mainly the PRC) and Europe. This revived overland international trade brought about new developments in infrastructure, services (part-container loads, refrigerated containers, multimodal connections, etc.), land bridge termini and regional corridors.

Among others, the trans-Caspian transport corridor connecting Central Asia to Europe through the Caspian Sea is revived by constructing the Zhezkazgan-Beyneu trans-Kazakhstan railway in 2014 and Baku-Tbilisi-Kars line in 2017. Therefore, the volume of overland trade is increasing again to the extent that overland corridors are able to compete with maritime routes. The future of overland trade is even more promising given emerging trans-border international infrastructure projects like the BRI. To this end, Prof. Pomfret suggested that CAREC countries (in addition to the PRC) shift focus to overland trade route infrastructure improvement to remain competitive in trade and commerce.

Dr. Iskandar Abdullaev, Deputy Director, CAREC Institute, PRC, presented his study on **“CAREC Corridors: Increased Connectivity and Improved Trade and Knowledge Exchange.”**

Dr. Abdullaev highlighted the current status, challenges and prospects of the CAREC region. He emphasized the benefits of providing competitive economic corridors (in terms of level of services) in the CAREC region. He also mentioned the strategic role of the CAREC Program that aims to promote sustainable economic development through regional connectivity and cooperation.

Dr. Abdullaev pointed out that the CAREC region is one of the least integrated sub-regions in the world. Only 8% of the trade is intra-regional, therefore, the regional cooperation through the development of the CAREC corridors is important for optimizing trade potentials in the region. He argued that corridors do not only improve trade but also create businesses and employment to localities that in return contribute to the economic development and livelihood generation in rural areas.

Dr. Abdullaev suggested that economic development should consider the sustainability and meet the needs of the present and future generations. There should be long-term planning. The CAREC Institute as a knowledge platform through its CAREC Think Tank Network (CTTN) Forum, CTTN research grants, visiting fellow program and research program has been advocating for knowledge generation and knowledge sharing on how to promote sustainable development in the region. He called on all scholars, country representatives and development partners, present in the conference, to collaborate with the CAREC Institute on this important front.

Dr. Tristan Kenderdine, Research Director, Future Risk, Tasmania, presented his study titled **“Middle Corridor—Policy Development and Trade Potential of the Trans-Caspian International Transport Route.”**

Through his research, Dr. Kenderdine analyzed the policy development and trade potential for trans-regional (the PRC - Middle Corridor - Europe) containerized rail freight in the middle corridor economies. Dr. Kenderdine presented an unusual perspective that came from his years of experience working in the region, including the PRC. He recognized that trade between the PRC and EU was taking pace and more so since the emergence of the PRC as the second largest economy after USA.

However, Dr. Kenderdine was pessimistic about the data provided in the volume of trade and he argued that CAREC countries should contain their own transparent mechanism to understand the degree of trade in the region and participate in more trade interaction with Europe utilizing all existing

trade corridors. His research findings echoed certain subjectivity, for which he was provided comprehensive peer reviewed feedback and was advised to shape his paper more fitting for policy advocacy.

At the end of the session, there were exchanges between paper authors and discussants as well as country representatives for knowledge sharing and further practical inputs from practitioners. All three paper presenters received feedback and pledged to improve their papers to meet the criteria of the book.

Remarks About Academic Writing

Dr. Dina Azhgaliyeva, Research Fellow, ADBI, Japan, and Prof. Yelena Kalyuzhnova, Vice Dean (International), Henley Business School, University of Reading, United Kingdom, made remarks on the academic writing.

Prof. Kalyuzhnova expressed the enjoyment of the excellent work completed by the authors in submitting their papers and presenting their research findings in this three-day workshop. During the workshop, authors together with the experts and participants had a brain storming, exchanged ideas, and crystalized the views. This is an initial stage for the working paper that will formulate the book structure. She said that authors understood what was expected for the book. She repeatedly suggested that the writing should be clear, engaging and the content should well-articulated and referenced since the selected papers are going to be published. Therefore, authors should balance their content between technical and academic writings. It is also important for the authors to get in touch with the editors to have one-on-one discussions.

Dr. Azhgaliyeva shared the resources for ADBI publication, including ADB Handbook of Style and Usage, ADBI style Notes, Authors Submission Guidelines, ADBI's Standard Terms for Providers, all of which are accessible through ADBI website. She stressed the question of copyright and made it clear that the selected papers should be original and unpublished in any form or shape elsewhere. At the same time, the copyright issue should be strictly followed, and the source of information should be cited carefully according to the guidelines already shared with the authors.

Closing Remarks

Dr. Peter Morgan, Senior Consulting Economist, Vice Chair of Research, ADBI, Japan, and **Dr. Iskandar Abdullaev**, Deputy Director of the CAREC Institute gave closing remarks at the end of the workshop.

Dr. Peter Morgan thanked ADBI and CAREC Institute management for organizing such a timely and interesting conference and appreciated all colleagues involved in making this webinar possible. He underlined the importance of investment in sustainable infrastructure in Central Asia. He argued any efforts on this front would create business opportunities for firms to increase access to markets and jobs for individuals to contribute to sustainable and inclusive growth in the region.

Dr. Morgan concluded that the workshop succeeded to highlight how the trans-Caspian corridors help participating countries benefit not only from export-import activities, but also from transit. However, some obstacles need to be addressed, including relatively mundane, but important issues such as the need for proper maintenance. The PRC's investment policy under the BRI would benefit from more cost-benefit analysis. He additionally noted that the workshop had a very diverse mix of participants from different regions and academia. At the end, he said that he was looking forward to successful completion of the book and to future collaboration with the CAREC Institute in delivering more similar joint activities.

Dr. Iskandar Abdullaev closed the workshop by thanking the organizers, namely the ADBI and CAREC Institute colleagues for the excellent organization and facilitation. He highlighted that this is an invaluable opportunity to think how to transform the research to policy recommendations. On the one hand, COVID-19 can be seen as a challenge and on the other hand as a major opportunity to consider alternative sustainable development approaches, including digitalization. “During the workshop, we have seen how this trans-Caspian corridor could be used, applied, and utilized to bring more prosperity and economic development to the region,” he continued.

Dr. Abdullaev argued that dialogue among researchers is always fruitful and productive. He also recognized the role of the editors for providing very detailed editorial guidance to the authors while appreciating the discussants’ peer reviewed feedback as excellent contributions. He emphasized that the CAREC Institute is willing to continuously hold discussions with the colleagues from ADBI. Through collaboration, the CAREC Institute and ADBI have acquired a great deal of knowledge in delivering joint activities to member countries effectively. He proposed that the CAREC Institute and ADBI plan for a joint research conference on a yearly basis. He has highlighted that the CAREC region needs an intellectual and knowledge sharing platform to utilize potentials and become a knowledge hub.

Appendices

Agenda

Day 1: 16 November (Monday) 15:50 - 18:15 (Tokyo time)

Introduction (Technical Guidance) and speakers' group photo

15:50-16:00 Dina Azhgaliyeva, Research Fellow, ADBI, Japan

Opening Session

Welcoming Remarks

16:00-16:10 Tetsushi Sonobe, Dean and CEO, ADBI, Japan
Iskandar Abdullaev, Deputy Director, CAREC Institute, People's Republic of China

Asset Management Aspects of Trans-Regional Transport Infrastructure

16:10-16:30 **Keynote Address:** Ian Greenwood, Principal Consultant, Greenwood Associates Infrastructure Consultants (GAIC), New Zealand

Session 1 Policy Development: Drivers and Barriers of Cross-Border Connectivity

16:30-18:15 **Chair:** Yelena Kalyuzhnova, Vice Dean (International), Henley Business School, University of Reading, United Kingdom

Paper 1: Logistics Policy Analysis and Network Model Simulation for Cross-Border Transport in the Trans-Caspian Transport Corridor: the Kazakhstani Viewpoint

16:30-16:45 **Presenter:** Daisuke Watanabe, Associate Professor, Department of Logistics and Information Engineering, Tokyo University of Marine Science and Technology, Japan

16:45-16:55 **Discussant:** Yelena Kalyuzhnova, Vice Dean (International), Henley Business School, University of Reading, United Kingdom

16:55-17:05 **Q&A**

Paper 2: The Trans-Caspian Transport Corridor Infrastructures in Globalizing Regional Economies: Baku-Tbilisi-Kars Railway Project

17:05-17:20 **Presenter:** Ulviyye Aydin, Associate Professor, Department of Political Science and International Relations, Manisa Celal Bayar University, Turkey

17:20-17:30 **Discussant:** Daisuke Watanabe, Associate Professor, Department of Logistics and Information Engineering, Tokyo University of Marine Science and Technology, Japan

17:30-17:40 **Q&A**

Paper 3: Trans-Caspian Transport Corridor: a Story of Ships, Trains and Pipelines

17:40-17:55 **Presenter:** Julian Lee, Analyst, J Lee Energy Experts, United Kingdom

17:55-18:05 **Discussant:** Ulviyye Aydin, Associate Professor, Department of Political Science and International Relations, Manisa Celal Bayar University, Turkey

18:05-18:15 **Q&A**

Day 2: 17 November (Tuesday) 15:50 - 18:10 (Tokyo time)

Introduction (Technical Guidance) and speakers' group photo

15:50-16:00 Dina Azhgaliyeva, Research Fellow, ADBI, Japan

Session 2 Measuring Economic Impacts of Trans-Caspian Corridor I

16:00-17:00 **Chair:** Zulfia Karimova, Principal Regional Cooperation Specialist, EARD, ADB, Philippines

	Paper 4: Regional Impact of the Trans-Caspian Infrastructure Improvement in the Era of Post COVID-19: A Computable General Equilibrium Analysis
16:00-16:15	Presenter: Zhenhua Chen, Assistant Professor, City and Regional Planning, The Ohio State University, United States
16:15-16:25	Discussant: Kenmei Tsubota, Associate Professor, Faculty of Global and Regional Studies, Toyo University, Japan
16:25-16:35	Q&A
	CAREC Corridor Performance Measurement and Monitoring (CPMM): Trade Impediments of CAREC Trans-Caspian Corridors
16:35-16:50	Presenter: Tamar Berdzenishvili, Senior Knowledge Management Specialist, CAREC Institute, People's Republic of China
16:50-17:00	Q&A

Session 3 Measuring Economic Impacts of Trans-Caspian Corridor II

17:00-18:10 **Chair:** Dina Azhgaliyeva, Research Fellow, ADBI, Japan

	Paper 5: Infrastructure and firm performance in CAREC countries: Cross-Sectional Evidence at the Firm Level
17:00-17:15	Presenter 1: Kamalbek Karymshakov, Economist, Chief Economist Team, CAREC Institute, People's Republic of China
	Presenter 2: Naoyuki Yoshino, Professor Emeritus, Keio University, Japan
17:15-17:25	Discussant: Ghulam Samad, Senior Research Specialist, CAREC Institute, People's Republic of China
17:25-17:35	Q&A
	Paper 6: Corridor Developments for Transforming Central Asia: A Spatial Computable General Equilibrium Model
17:35-17:50	Presenter: Kenmei Tsubota, Associate Professor, Faculty of Global and Regional Studies, Toyo University, Japan
17:50-18:00	Discussant: Zhenhua Chen, Assistant Professor, City and Regional Planning, The Ohio State University, United States
18:00-18:10	Q&A

Day 3: 20 November (Friday) 15:50 - 18:10 (Tokyo time)

Introduction (Technical Guidance) and speakers' group photo

15:50-16:00 Dina Azhgaliyeva, Research Fellow, ADBI, Japan

Session 4 Trans-Caspian International Transportation: What does the future hold?

16:00-17:45 **Chair:** Eisa Khan Ayoob Ayoobi, Chief of Capacity Building Division, CAREC Institute, People's Republic of China

	Paper 7: Trans-Caspian Trade Corridors: Present and Future
16:00-16:15	Presenter: Richard Pomfret, Professor of Economics, Institute for International Trade, The University of Adelaide, Australia
16:15-16:25	Discussant: Kamalbek Karymshakov, Economist, Chief Economist Team, CAREC Institute, People's Republic of China
16:25-16:35	Q&A
	Paper 8: New corridors in Central Asia: Increased Connectivity and Improved Trade
16:35-16:50	Presenter: Iskandar Abdullaev, Deputy Director, CAREC Institute, People's Republic of China

16:50-17:00 **Discussant:** Richard Pomfret, Professor of Economics, Institute for International Trade, The University of Adelaide, Australia

17:00-17:10 **Q&A**

Paper 9: Middle Corridor—Policy Development and Trade Potential of the Trans-Caspian International Transport Route

17:10-17:25 **Presenter:** Tristan Kenderdine, Research Director, Future Risk, Tasmania

17:25-17:35 **Discussant:** Eisa Khan Ayoob Ayoobi, Chief of Capacity Building Division, CAREC Institute, People's Republic of China

17:35-17:45 **Q&A**

17:45-18:00 **Remarks about academic writing**

Dina Azhgaliyeva, Research fellow, ADBI, Japan

Yelena Kalyuzhnova, Vice Dean (International), Henley Business School, University of Reading, United Kingdom

Q&A

Closing Session

18:00-18:10 **Closing Remarks**

Peter Morgan, Senior Consulting Economist, Vice Chair of Research, ADBI, Japan

Iskandar Abdullaev, Deputy Director, CAREC Institute, People's Republic of China

List of Organizers from the CAREC Institute and ADBI

CAREC Institute

Eisa Khan Ayoob Ayoobi, Chief, Capacity Building Division, CAREC Institute

Rovshan Mahmudov, Senior Capacity Building Specialist, Capacity Building Division, CAREC Institute

Dildar Zakir, Capacity Building Specialist, Capacity Building Division, CAREC Institute

Gary He Huang, E-Learning Specialist, Capacity Building Division, CAREC Institute

Rose Shuai Shao, Capacity Building Specialist, Capacity Building Division, CAREC Institute

Steven Hao Liu, Capacity Building Specialist, Capacity Building Division, CAREC Institute

Asian Development Bank Institute

Dina Azhgaliyeva, Research Fellow, ADBI

Ranjeeta Mishra, Project Consultant, ADBI

Kumiko Suzuki, Administrative Assistant, ADBI

Meeting Recording and Materials

The Workshop is running on the **CAREC Institute E-Learning Platform** and is open for Distance Learning at the following link: <https://elearning.carecinstitute.org/workshop-on-trans-caspian-transport-corridor-infrastructure-and-trade.html>

The workshop materials are also available on ADB website at the following link: <https://www.adb.org/news/events/trans-caspian-transport-corridor-infrastructure-trade>