



CAREC Institute

**Unlocking Private Investment
for Sustainable Infrastructure in Asia**

Videoconference Proceedings Report

25 March 2020

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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, analytical, or methodological issues relating to project/program economic analysis, and statistical data and measurement.

This proceedings report is a result of a videoconference titled Unlocking Private Investment in Sustainable Infrastructure in Asia which was co-organized by the CAREC Institute and the Asian Development Bank Institute with participation of the Centre for Economic Research and Reforms of Uzbekistan on 25 March 2020. It aimed at exchanging views and research findings on private investment potential and opportunities for the CAREC region.

The report is drafted jointly by Eisa Khan Ayoob Ayoobi, Chief of Capacity Building Division, and Dildar Zakir, Training Officer, CAREC Institute.

The report was complemented with a policy brief titled Mainstreaming Private Investment for Sustainable Infrastructure in CAREC in April 2020, written by Shakhboz Akhmedov.

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Abbreviations

ADB	Asian Development Bank
ADB I	Asian Development Bank Institute
CAREC	Central Asia Regional Economic Cooperation
e-banking	Electronic Banking
e-finance	Electronic Finance
GDP	Gross Domestic Product
PPP	Public-Private Partnership
PRC	People's Republic of China
RM	(ADB) Resident Mission
TIF	Tax Incentive Financing

1. Introduction

In 2019, the Central Asia Regional Economic Cooperation Institute (CAREC Institute) and the Asian Development Bank Institute (ADBI) launched a call for papers with the overall aim of inviting leading and interested experts and scholars of the field to undertake policy research on different aspects of attracting private investment for sustainable infrastructure in Asia¹. The call for papers was in response to the findings of an ADB research which indicated that the developing Asia will need to invest \$26 trillion from 2016 to 2030, or \$1.7 trillion per year in infrastructure, if the region is to maintain its growth momentum, eradicate poverty, and respond to climate change (climate-adjusted estimate). Without the climate adjustment, the investment need would stand at \$22.6 trillion. The estimated sustainable investment of \$14.7 trillion is deemed necessary for power and \$8.4 trillion for transport. Investments in telecommunications is estimated at \$2.3 trillion, with water and sanitation at \$800 billion over the period.

The main objective of the call for papers was to produce a policy handbook with innovative schemes to attract private investment for sustainable infrastructure in Asia. Qualified authors would attend a policy workshop to present their research findings and engage with CAREC senior government officials involved in attracting investment for sustainable infrastructure in CAREC. The planned workshop had to be postponed to June 2020 due to the Covid-19 pandemic.

Nonetheless, the videoconference titled *Unlocking Private Investment for Sustainable Infrastructure in Asia* was conducted on 25 March 2020 with participation of the Centre for Economic Research and Reforms of Uzbekistan. It aimed to:

- Update knowledge of CAREC experts on innovative and practical schemes of financing and attracting private investment for sustainable infrastructure development.
- Promote regional cooperation through policy discussion among policy makers and influencers of member countries as well as renowned international experts of the field.
- Enhance a collective action on regional schemes of cross-border private investment in sustainable infrastructure.

Hence, the virtual conference aimed at enhancing understanding of current trends, challenges, good practices and a way forward for sustainable infrastructure financing in the CAREC region.

The videoconference started with opening remarks by the CAREC Institute, ADBI, ADB Uzbekistan Resident Mission and the Government of Uzbekistan's Center for Economic Research and Reforms. It went on to the main research finding presentations that was divided into two sessions. Question and answer occasions were allocated for further discussions and elaborations on research findings after each presentation.

2. Opening Remarks

This videoconference was one of the first virtual capacity building events that the CAREC Institute has conducted in collaboration with partners since its inception.

The leading representatives of participating organizations presented valuable information. This report captures the gist of the conference. Further, recommendations for CAREC are captured in a

¹ CAREC Institute News (2019). *Call for Papers on Unlocking Private Investment in Sustainable Infrastructure in Asia*. Retrieved from <https://www.carecinstitute.org/news/call-for-papers-on-unlocking-private-investment-in-sustainable-infrastructure-in-asia/>

policy brief titled Mainstreaming Private Investment for Sustainable Infrastructure in CAREC released in April 2020 by the CAREC Institute.

Professor Dr. Naoyuki Yoshino, the Dean of ADBI, made the first opening remarks. He welcomed participants and thanked the CAREC Institute for continuous collaboration. He went on to acknowledge and praise the Government of Uzbekistan and the ADB Uzbekistan Resident Mission for support extended to the CAREC Institute and ADBI in planning and undertaking this joint activity².

He described the joint videoconference as an important opportunity to pave the way for the planned policy workshop after the Covid-19 pandemic is contained, hopefully by June 2020, in Tashkent, Uzbekistan. Professor Yoshino highlighted that the CAREC region has high demand for sustainable infrastructure financing and pointed out that the demand in Asian sub-regions is not the same. Demand differs from sub-region to sub-region. He concluded that his upcoming presentation would focus on the financing schemes and policies with an emphasis on Central Asian countries, mainly Uzbekistan.

Dr. Iskandar Abdullaev, Deputy Director Two of the CAREC Institute, delivered the second opening remarks of the videoconference. He thanked ADBI and all partners for their interest and readiness to welcome CAREC Institute's initiatives for collaboration and joint activities. He also viewed the videoconference as a constructive step towards achieving some of the objectives of the postponed policy workshop. He stated that there is an increasingly high demand for sustainable infrastructure investment in the CAREC region with slow supply of financing. Hence, according to him, unlocking private investment, public-private partnership (PPP) and any other potential schemes, such as pension funds and credit guarantees, are key for promoting sustainable infrastructure development in the CAREC region. To this end, he also highlighted the importance of knowledge support in the form of joint initiatives such as the CAREC Institute-ADBI call for papers on unlocking private investment for sustainable infrastructure in the CAREC region, the planned (postponed) policy workshop, and the videoconference. He concluded his remarks by calling for further research and capacity building interventions in attracting investment in sustainable infrastructure in the CAREC region. He ended his remarks by saying that knowledge and expertise sharing bring new ideas and open new opportunities for regional cooperation on sustainable infrastructure development.

Ms. Cindy Malvicini, the ADB Uzbekistan Resident Mission Country Director, made the third opening remarks of the videoconference. She appreciated the joint efforts leveraged by the CAREC Institute and ADBI and re-assured ADB's readiness and willingness to provide support for such efforts. She expressed readiness in facilitating attendance of relevant participants in the postponed policy workshop to be delivered in Tashkent in June 2020.

As ADB's leading representative in Uzbekistan, Ms. Malvicini recognized the importance of attracting private investment in sustainable infrastructure in the region. In particular, she highlighted the demand for investment in sustainable infrastructure in Uzbekistan's water sector and waste management. She, therefore, argued that knowledge activities are strongly needed to promote policy dialogue in the country and the region in support of sustainable development as a whole. While highlighting the role of ADB in supporting Uzbekistan, she praised the government's willingness to undertake and prioritize sustainable development policies. She pointed out that the country was on a long road of undertaking reform measures in various areas such as sovereign financing schemes, schemes for stronger PPP role, including tariff incentives for appropriate sectors. Ms. Malvicini concluded her remarks by emphasizing the role of a strong legal framework that would

² ADB Uzbekistan Resident Mission and the Government of Uzbekistan provided support to the CAREC Institute and ADBI during the preparatory work to deliver the policy workshop in Tashkent in March 2020, which has been postponed. All preparatory arrangements have been suspended. A tentative date of a rescheduled event is proposed for 4-5 June 2020.

provide the enabling environment for all aspects of sustainable development, including unlocking private investment for sustainable infrastructure in Uzbekistan while recognizing the need and importance of capacity building in helping the country's relevant officials to lead the process.

Mr. Obid Khakimov, Director of the Uzbekistan Center for Economic Research and Reforms, made the last remarks in the opening of the videoconference. After thanking the organizers for the invitation extended to him to deliver a remark, he appreciated the CAREC Institute-ADBI joint efforts in organizing videoconference that would be followed by a policy workshop in Tashkent in June 2020. He believed that unlocking private investment was an important topic for Uzbekistan, especially in rural areas where infrastructure improvements are needed. He argued that private investment in sustainable development has a major positive impact on poverty reduction and it is an important area for regional cooperation in CAREC. He highlighted the efforts of the Government of Uzbekistan in taking the issue seriously by allocating funds and schemes to attract investment for sustainable infrastructure. Mr. Khakimov also emphasized that research and capacity building interventions were key in promoting policy dialogue and regional cooperation on such important topics – aspects of sustainable development in the CAREC region.

3. Sectoral Financing and Tax-related Innovative Schemes

This session was allocated for research findings with regard to sectoral financing of sustainable infrastructure and tax-related innovative schemes for increasing sustainable infrastructure investment in the CAREC region. The presenters of the session were Professor Naoyuki Yoshino and Dr. Iskandar Abdullaev. The moderator was Dr. Umid Abidhadjaev, the Deputy Director of Uzbekistan Center for Economic Research and Reforms.

Professor Yoshino presented findings of his quantitative research. He started his presentation by framing the guiding question – how to attract private investment for infrastructure and how to make PPP successful.

He presented an overview of the infrastructure investment and its economic impact in details. The importance of investment in infrastructure and its impact on global gross domestic product (GDP) and overall global economic growth was presented in a historical trend. In a demonstrated trajectory of tracing the importance of investment in infrastructure, Professor Yoshino showed how investment in infrastructure and global GDP growth have correlated overtime. He went on to analyze the current status of investment in sustainable infrastructure and to present feasible and innovative investment schemes such as “spillover” effects of tax revenue to increase sustainable investment. From the outset, Professor Yoshino stated that attracting investment for sustainable infrastructure may emerge as a difficult task for governments or public entities involved in such work since the loans required would fall way beyond the conventional bank loans that look into shorter term loan periods with higher rates of return. According to his research findings, sustainable infrastructure investment requires more than 20 years of investment, which traditional loan givers, like banks, would be less interested given their understanding and methods of loan risk calculation and rate of return.

Hence, the role of non-traditional sources of loan is important. Professor Yoshino emphasized the PPP model, among others, and argued that if used effectively in practice, the share of investment in sustainable infrastructure will increase. His research findings indicated that PPP has failed in some CAREC countries. For PPP to work in CAREC, increased domestic savings are needed. Such savings lead to increased domestic investment in sustainable infrastructure projects. To propose ways of making PPP more effective, he laid out some feasible measures. He explained the role of government in bearing losses to counter conventional views on the risks associated with

infrastructure investment. He proposed that government should share tax incomes with private investors and advised accumulated debt and guarantee incentives for return in loans. He also proposed increased role for state-owned enterprises. Overall, incentive measures to guarantee reduced risk and increased rate of return would lead to increased private investment in infrastructure projects. Professor Yoshino, similarly, discussed the role of financial education in sustainable infrastructure investment since it would enhance space for investment through economic activities in stocks, insurance, deposits, trust funds, e-banking, and e-finance.

As soon as more investment sources are channeled for sustainable infrastructure, many economic impacts become foreseeable. Among others, infrastructure investment attracts new businesses, creates new jobs, increases GDPs, promotes tourism, and reduces poverty. To this end, Professor Yoshino presented his concept of “spillover” effects, which suggests that portions of taxes will need to be channeled into private investment. This proposal came to counter the ineffectiveness of user charges, which are insignificant to provide good rate of return for the private investors in sustainable infrastructure. He went on to share case studies where spillover effects have been successful. Tsukuba Express in Japan had brought various economic benefits to the region. STAR Highway in Philippines had similar economic impact.

Despite the positive economic impact, the traditional cost-benefit analysis for sustainable infrastructure does not include the spillover effects, according to Professor Yoshino. Thus, he proposed for its inclusion into enhanced economic analysis for sustainable infrastructure development. Finally, he presented land trust as one of his last recommendations for infrastructure development. Land acquisition for infrastructure projects is one of the most challenging issues. Practices, such as land trust allow the landowner to lease their land for infrastructure projects for long-term instead of disposal. This is a practice in place in countries like Japan and has proved to offer mutual benefits for both landowners and infrastructure projects since buying land for infrastructure projects demands high investment compared with the associated lease made on installment throughout the leasing agreement period. Additionally, he discussed the role of crowd funding (with increased female participation) to help attract investment in sustainable infrastructure³.

Dr. Abdullaev made his presentation on financing of water infrastructure in Central Asia. He presented the water sector as an intrinsic sector with nexus to energy and agriculture sectors. He said that water was the driver of socio-economic development in the region. Thus, sustainable investment in water infrastructure in the CAREC region should be an important and vital development priority that requires more attention.

Dr. Abdullaev’s research findings revealed that, in 20 years, Central Asia will have 10 percent less water reserve than it has now. This decrease will have detrimental impact on development and sustainability of other sectors – mainly energy and agriculture. It will also pose severe threats to regional cooperation in Central Asia as the shortage of water will complicate relations among neighboring countries which share the sources of water reserves. He also pointed out that the existing water infrastructure was built in the 1970s and insufficient funds have been allocated for their rehabilitation and upgrade. As a result, water usage efficiency is at around 70 percent. As much as 30 percent of overall water is wasted due to the outdated water management infrastructure.

Nonetheless, Dr. Abdullaev commended the synergy among Central Asian countries to sustain water distribution peacefully and avoid tensions among upstream and downstream countries. He provided some details on some of the ongoing efforts in water infrastructure investment and water

³ Crowdfunding could be utilized to provide small loans for female-led small businesses along infrastructure projects such as railways and highways. This could be similar to micro-financing that has proven successful in Bangladesh.

management and claimed that these efforts were insufficient to help the region effectively, particularly when it comes to environmentally sustainable water infrastructure development and management.

Overall, water infrastructure investment and water management need restructuring in Central Asia. These areas have been the sole responsibility of the governments, thus there are limitations in funding. According to the World Bank estimates, at least \$20 billion is needed to invest in water infrastructures upgrade in Central Asia. The governments cannot shoulder the increasing demand and need other sources. In fact, the governments do not have any feasible long-term plans for water infrastructure rehabilitation due to their budget constraints. National budgets of Central Asian countries are estimated to cover between 40-70 percent of the required fund for operation and maintenance of water infrastructure in the region. They do not have budget for upgrade and additional water infrastructure projects. Given that about 90 percent of water is channeled for use from transboundary infrastructure in Central Asia⁴, the countries could save funds if they planned to attract investment in transboundary water infrastructure. If the Central Asian countries fail to cooperate in transboundary water infrastructure development, their costs of non-cooperation will amount to billions of USD that will have further consequences for water infrastructure investment and overall development in the region.

Dr. Abdullaev concluded his presentation with a number of viable policy options that the Central Asian countries could consider in paving the way for more sources of investment in sustainable water infrastructure. He proposed PPP-based incentives to enhance irrigation services, in which operation and water delivery could be privatized transparently and openly. He advised creation of an enabling environment based on stronger legal platform and political willingness and commitment that would improve governance and efficiency while providing incentives for private investors. Agriculture policy reforms and efforts for enhanced transboundary water infrastructure development and management were also recommended. Finally, Dr. Abdullaev advised for more capacity building interventions in Central Asia for relevant senior public servants involved in attracting sources of investment for sustainable infrastructure and water management.

The session ended with constructive exchange of questions, answers and comments among presenters, discussants and virtual participants. In discussions, the importance of water sanitation and irrigation infrastructure was highlighted once again. It was viewed as critical for enhancing agricultural productivity to bring better payoffs for farmers and rural population in Central Asia.

It was also discussed that Central Asian countries need immediate focus on reforming their agricultural policies as well as water management to allow domestic stakeholders to compete on a level playing field. The discussions brought clarity on the concept of spillover effects of tax revenues. Examples were given to demonstrate how infrastructure projects would have a positive spillover tax revenue. For instance, building a railway would open up various opportunities along which small business will emerge to provide needed services for travelers and tourists, which would offer more tax collection opportunities.

4. Impact Evaluation of Infrastructure Projects and Case Studies from CAREC

The second session was designated to the impact evaluation of infrastructure projects and case studies from CAREC. The session's sole presenter was Dr. Umid Abidhadjaev, the Deputy Director of Uzbekistan Center for Economic Research and Reforms, and Eisa Khan Ayoob Ayoobi, Chief of Capacity Building Division of the CAREC Institute was the moderator. Dr. Abidhadjaev presented

⁴ Most of the infrastructure in Central Asia was built during the Soviet Union era where transboundary aspects of usage and management was incorporated. This provide a positive platform for ongoing cooperation among Central Asian countries.

lessons learned from Uzbekistan’s experience in infrastructure investment. The session had Dr. Abdullaev and Professor Yoshino as discussants.

Dr. Abidhadjaev’s presentation was titled as “Impact Evaluation of Infrastructure Provision: Case Studies from Uzbekistan.” It was based on an empirical research project that had analyzed the impact of newly built railway line – Toshguzar-Boysun-Kumkurgon in the south-east of Uzbekistan on the financial performance of enterprises and institutions. The research project was conducted through application of “evidence-based financing” approach and “difference in difference” method to evaluate the economic impact of the given infrastructure project on relevant enterprises and institutions.

According to his findings, the project has been a success with positive spillovers for the regions of origin – Surkhandarya and Kashkadarya. In addition to fostering transportation system in the county, in the short-term, the project has created, on average, nearly 250 billion increase in turnover in local currency for relevant economic entities, since its completion. The study predicts further increase in in the long term.

Dr. Abidhadjaev came to a similar conclusion as Professor Yoshino did to recommend employing “Tax Incentive Financing” (TIF) based on spillover effects when attracting investment for sustainable infrastructure. To end his presentation, Dr. Abidhadjaev emphasized that infrastructure development has important economic impact on any given economy. It helps connect the region while providing profit generating opportunities for financial and economic institutions of the country. Therefore, all countries in CAREC should prioritize investment in sustainable infrastructure projects.

At the of the second session, time was allocated for discussants to provide feedback and comments to the presentation and research findings. Dr. Abdullaev and Professor Yoshino offered suggestions to enrich the study while noting the importance and relevance of the research as a case study for sustainable infrastructure development in CAREC. Subsequently, the floor was opened for questions and answers. Exchanges took place where discussants, participants, and presenters shared knowledge and ideas until the videoconference ended. Throughout the videoconference, strong emphasis was placed on the need for more research and capacity building interventions.

5. Closing Remarks

Professor Naoyuki Yoshino, Dean of ADBI, thanked the presenters and participants for “fruitful and constructive discussions.” He hoped that the ongoing pandemic will be contained soon to have the face-to-face policy workshop on the subject matter in June 2020.

Dr. Iskandar Abdullaev, the Deputy Director of the CAREC Institute ended the videoconference with his closing remarks. He appreciated all colleagues for their constructive contributions to make the virtual conference an effective knowledge sharing event. He stated that “nothing can stop learning and knowledge sharing.” His reference was to the ongoing pandemic, which had forced the event to take place online. He continued by commending Professor Yoshino and other colleagues for the continued interest in partnership with the CAREC institute. On a particular note, he wished Professor Yoshino success in his new ventures as professor of economics as he was going to leave his position as the Dean of ADBI by the end of March 2020. Dr. Abdullaev continued that “we learned new concepts such as spillover effects and we are going to continue our learning journey.” He repeated that the CAREC Institute appreciates partnership with ADBI and it was productive to partner with the Uzbekistan Center for Economic Research and Reform in this important event.

6. List of participants

- I. Asian Development Bank Uzbekistan Resident Mission
 - 1) Ms. Cindy Malvicini, Country Director
- II. Asian Development Bank Institute
 - 2) Professor Dr. Naoyuki Yoshino, Dean
 - 3) Dr. Nella Hendriyetty, Senior Capacity Building and Training Economist
 - 4) Mr. Derek M. Hondo, Research Associate
 - 5) Ms. Misuzu Nakamura, Administrative Assistant
- III. CAREC Institute
 - 1) Dr. Iskandar Abdullaev, Deputy Director Two
 - 2) Mr. Eisa Khan Ayoob Ayoobi, Chief of Capacity Building Division
 - 3) Mr. Shakhboz Akhmedov, Capacity Building Consultant
- IV. Center for Economic Research and Reforms of the Government of Uzbekistan
 - 1) Mr. Obid Khakimov, Director
 - 2) Dr. Umid Abidhadjaev, Deputy Director