



CAREC at 20: Reimagining Regional Cooperation Through Digital Transformation

A Policy Note for the High-Level Session during the ADB Annual General Meeting

**ADB 54th Annual General Meeting
Central Asia Regional Economic Cooperation
4 May 2021
Manila, Philippines and online**

CAREC High-Level Session During the Annual General Meeting
“Reimagining Regional Cooperation Through Digital Transformation”

(4 May 2021, 15:30–17:30, Manila, Philippines)

I. Introduction

- The Central Asia Regional Economic Cooperation (CAREC) Program aims to support socio-economic development in its member countries¹ through cooperation guided by the overarching vision of “Good Neighbors, Good Partners, and Good Prospects”. Endorsed at the 16th Ministerial Conference in October 2017, the CAREC 2030 strategy seeks to expand the horizons of economic cooperation in the region by better connecting people, policies and projects for shared and sustainable development.²
- CAREC countries have an unprecedented opportunity to emerge as a centre for trade and commerce, to achieve higher levels of economic growth, and to reduce poverty. These prospects are closely linked to wider global megatrends, including the rise of digital technologies that can promote economic development, and the reintegration of the Eurasian continent that is driving demand for improved connections between Europe and Asia.³
- The novel coronavirus disease (COVID-19) outbreak has presented acute local, regional and global economic challenges. However, the crisis also provides unprecedented incentives for CAREC states to improve co-ordination, reduce costs for producers and consumers, and boost taxable revenues. While it is important not to underestimate the difficulties that COVID-19 presents, it is worth stressing that the crisis also offers unique opportunities.
- The purpose of this high-level session is to generate dialogue on how digital transformation can foster increased co-operation between CAREC countries, accelerate the region’s recovery in the wake of the COVID-19 pandemic and lead to new opportunities for socio-economic development and job creation.

II. Digital Technology’s Role in Driving Economic Growth

- A series of studies in the 2000s highlighted the potential of digital technology, notably the spread of mobile phones and internet access, to accelerate growth. A pioneering analysis of fish prices on the coast of Kerala by Robert Jensen of Harvard University, published in 2007, showed how access to mobile networks made markets more efficient, eliminating waste, reducing prices and increasing fishermen’s profits. “Information makes markets work, and markets improve welfare,” Mr Jensen concluded. More broadly, a study led by Christine Zhen-Wei Qiang, an economist at the World Bank, in 2009, examined the impact of mobile phones and internet access in 120 countries. An extra ten phones per 100 people in a typical developing country was found to be correlated with a 0.8 percentage-point increase in GDP growth. For internet access, an extra ten users per 100 people was correlated with an increase in GDP growth of as much as 1.4 percentage points.⁴

¹ CAREC countries include Afghanistan, Azerbaijan, People’s Republic of China, Georgia, Kazakhstan, Kyrgyz Republic, Mongolia, Pakistan, Tajikistan, Turkmenistan and Uzbekistan.

² CAREC. 2017. “CAREC 2030: Connecting the Region for Shared and Sustainable Development.” Manila.

³ CAREC Program, About CAREC. https://www.carecprogram.org/?page_id=31

⁴ Qiang, C.Z., Rossotto, C.M., and Kimura, K. “Economic Impacts of Broadband.” World Bank, 2009.

<http://documents1.worldbank.org/curated/en/645821468337815208/pdf/487910PUB0EPI1101Official0Use0Only1.pdf>

- In developing countries, communications technologies can compensate for inadequate infrastructure, such as poor roads and slow postal services, allowing information to move more freely, making markets more efficient and unleashing entrepreneurship. This has a direct impact on economic growth. Jeffrey Sachs of Columbia University called mobile phones “the single most transformative tool for development”. Muhammad Yunus, founder of Grameen Bank, said that “when you get a mobile phone, it is almost like having a card to get out of poverty in a couple of years.” This led governments and development agencies to focus on boosting overall connectivity, through telecoms liberalization, “village phone” projects and cheap handsets. Even today there is still much scope for improving coverage. Mobile-phone penetration varies widely within the CAREC region, with fewer than 75 subscriptions per 100 inhabitants in Afghanistan, Pakistan and Uzbekistan, and more than 150 subscriptions per 100 inhabitants in Turkmenistan.⁵ Regional connectivity and access speeds could be boosted through projects such as TASIM (Trans-Eurasian Information Super Highway). But in the past decade the focus has shifted to other ways, beyond basic connectivity, in which digital technologies can boost economic development.
- Foremost among those has been the rise of mobile money, payments and banking services, delivered via mobile phones. A pioneer in this area was the M-PESA scheme in Kenya, which provided instant person-to-person payments and a safer alternative to traditional forms of saving. One study in 2009 found that the incomes of Kenyan households increased by 5-30% after they started using M-PESA.⁶ In recent years mobile-payment schemes based on QR codes and “super-apps”, pioneered in the People’s Republic of China (PRC), have become the dominant paradigm. The bKash system in Bangladesh is another success story. The range of financial services delivered via mobile devices has expanded beyond payments to include savings, insurance, loans and other services. Delivering financial services via mobile devices reduces friction, saves people time, limits the potential for corruption, and brings more people into the formal economy, and thus ultimately into the tax system. Within the CAREC region (excluding PRC), the proportion of adults with mobile-money accounts is highest in Mongolia (38%) and Pakistan (14%), both of which are above the global average of 10%, and lowest in Georgia (5%), Afghanistan (1%) and Tajikistan (0%).⁷
- Moving away from cash is a key element of digitizing commerce more generally, and allowing people to buy and sell on e-commerce platforms. In the past decade PRC has become the global leader in e-commerce, with more than a quarter of its retail sales now occurring online. Globally, the value of e-commerce sales exceeded \$4trn in 2019, and adoption was accelerated in 2020 by the pandemic, which prompted people around the world to shift more of their spending away from physical, in-person transactions. This has reduced employment opportunities in traditional, in-person retail, while creating new jobs for warehouse workers and delivery workers. At a macroeconomic level, buying and selling via online platforms drives growth by making it easier for buyers and sellers to find each other, increasing price discovery and competition, and deepening markets. However, a 2021 report by UNCTAD notes that in

⁵ Holzhaecker, H. “COVID-19 and Acceleration of Some Megatrends.” CAREC Institute economic brief, 2020. https://www.carecinstitute.org/wp-content/uploads/2020/11/CI-HH-COVID-19-Acceleration-of-Megatrends-3-Nov-2020_H.pdf

⁶ Morawczynski, O. and Pickens, M. “Poor People Using Mobile Financial Services: Observations on Customer Usage and Impact from M-PESA.” CGAP Brief, 2009. <https://www.cgap.org/sites/default/files/CGAP-Brief-Poor-People-Using-Mobile-Financial-Services-Observations-on-Customer-Usage-and-Impact-from-M-PESA-Aug-2009.pdf>

⁷ Umar, K. “Financial Inclusion and Fintech in CAREC: Constraints and Prospects.” CAREC Institute, 2021. <https://www.carecinstitute.org/wp-content/uploads/2021/01/CI-working-paper-fintech-in-CAREC-11-Jan-2021.pdf>

many developing countries, the growth of e-commerce has been held back by factors including lack of affordable internet access, over-reliance on cash, lack of trust, poor digital literacy, and governments' failure to remove regulatory barriers.⁸

- Beyond connectivity, payments and commerce, another area where digital transformation can boost growth is e-government. By digitizing government services and moving processes online, governments can increase the efficiency of the state, speed up inefficient bureaucracies and raise the quality of public services for citizens and companies alike. Digitizing the process of interacting with government agencies makes it easier for people and companies to apply for permits, register property, claim benefits and pay taxes, among other things. Countries that have led the way in e-government include Denmark, the Republic of Korea and Estonia, all of which score highly in the United Nations E-Government Survey.⁹ The e-government leader within the CAREC region is Kazakhstan, which ranks higher than Japan, PRC and Sweden in the provision of online services — a reminder that performance in e-government is not simply a function of wealth. The UN report notes that “all customs declarations [in Kazakhstan] have been processed electronically since 2018, and internet connectivity for customs offices and other border agencies is strong and well supported.”
- As well as encouraging the take-up of e-commerce and highlighting the value of efficient e-government services (and their absence in some countries), the pandemic has also highlighted the strengths and weaknesses of online education, as school closures forced students in many countries to switch to remote learning. Lack of access to broadband connections, or suitable devices, disrupted the education of many students. Schools also varied widely in their preparedness. But a lasting legacy of the pandemic may be to accelerate the adoption of online education, because with the right technology and materials it can work very well. Greater emphasis on remote learning has the potential to address inequalities in global access to education, and higher education in particular. It is also the logical way to enable workers to acquire new skills later in life, in response to technological shifts in the workplace.
- One final technology worth keeping a close eye on, because of its potential impact on socio-economic development, is the emerging field of satellite constellations. Several such constellations, notably SpaceX's Starlink, are under construction. Within a few years they promise to deliver fast, low-latency and low-cost broadband anywhere on earth.¹⁰ The plunging cost of satellite launches is also making high-resolution satellite imagery more available and affordable, with potential uses in agriculture, land management, and so on.

III. Digital Transformation's Potential to Enhance Regional Co-operation

- Individual governments can take various steps to exploit technology's growth-boosting potential. They can promote competition in telecoms markets to drive down prices and increase coverage; modernize regulations around banking, payments and commerce to facilitate electronic payments and purchases, and broaden access to financial services in general; move government processes online to streamline access for individuals and

⁸ “COVID-19 and e-commerce: a global review.” UNCTAD, 2021. <https://unctad.org/news/how-covid-19-triggered-digital-and-e-commerce-turning-point>

⁹ “UN E-Government Survey 2020.” United Nations Department of Economic and Social Affairs. <https://publicadministration.un.org/egovkb/en-us/Reports/UN-E-Government-Survey-2020>

¹⁰ The satellites do not communicate with handheld devices directly, but require a small ground station, for example in a village or school, or mounted on a ship.

business; and adjust educational policies to allow for greater emphasis on remote learning. But digital transformation presents even greater opportunities if governments choose to work together. How might CAREC members benefit from co-operation in their use of digital technologies? Considering each of the five clusters of the CAREC 2030 strategy in turn, here are some potential areas of opportunity for digital transformation to enhance co-operation.

- *Economic and financial stability.* A recent CAREC Institute working paper noted that the region “trails the world and other regions on financial inclusion” but has “immense potential for financial inclusion by harnessing financial technologies”.¹¹ Co-ordinated regulatory reform could encourage the use of such technologies to promote financial inclusion and boost growth. Governments can learn from the way that other countries (for example, in sub-Saharan Africa) have encouraged private-sector partnerships between banks and mobile network operators to promote financial inclusion, and have leveraged existing infrastructure, such as post offices, to act as local financial-inclusion hubs. In some regions this has, however, led to a lack of interoperability between national or regional mobile-money systems. The CAREC region has the opportunity to leapfrog this problem by promoting regional interoperability of mobile payment and banking systems. Alignment and standardization could smooth cross-border transactions, strengthen financial integration and promote stability.
- *Trade, tourism and economic corridors.* Another area where co-ordinated regulatory reform could encourage technological adoption and provide regional benefits is e-commerce. As was pointed out at a CAREC virtual workshop, held in May 2020, e-commerce “requires economic, technical, and cultural conditions as [an] enabling environment to have its potentials and benefits optimized”¹². In practice, this means updating national laws to reflect the realities of the internet era. Regional co-ordination of such changes would facilitate cross-border trade. Other practical steps that could be taken to boost regional trade include supply-chain digitization on common standards, and easier intra-regional travel through the introduction of a “Silk Road Visa”. Both would require interoperability of systems and standards. But the pandemic may be a helpful catalyst for change, because it already requires border procedures to be revisited and enhanced (for example with covid testing and vaccine passports). Co-ordination of regional trade rules is, however, hampered by a lack of data, a gap that could be filled by establishing a body to gather such data. Closer co-operation on cross-border trade and tourism could ultimately pave the way towards regional free-trade agreements.
- *Infrastructure and connectivity.* Energy, aviation and telecoms are three areas where there is scope for technical enhancements and regional co-operation in infrastructure. In energy, the harmonization of regulatory frameworks and technical standards for cross-border power connectivity and trade, coupled with knowledge sharing around low-carbon technologies, could improve the availability, affordability and resilience of energy supplies while reducing carbon emissions.¹³ In aviation, upgrading regional airports to support contactless technology and digital ticketing, following International Civil Aviation Organization (ICAO) guidelines and eliminating differences between countries, would streamline travel both within the CAREC region and to and from the rest of the world. In telecoms, the region might benefit by

¹¹ Umar, “Financial Inclusion and Fintech in CAREC”

¹² “Regulatory Framework for e-Commerce Development in CAREC.” Virtual Workshop Proceedings Report, 2020. <https://www.carecinstitute.org/wp-content/uploads/2020/05/CI-CBD-e-commerce-workshop-proceedings-28-May-2020.pdf>

¹³ Tsevegjav, Bulganmurun. “Regional Cooperation in Promoting Low-Carbon Energy Development in CAREC: Challenges and Opportunities.” CAREC Institute, 2020. <https://www.carecinstitute.org/wp-content/uploads/2020/09/VFP-2020-low-carbon-energy-development-ED.pdf>

considering the efforts of the East African Community, under the aegis of the International Telecoms Union (ITU), to reduce or eliminate mobile roaming charges. An ITU report noted in 2016 that the “One Network Area” project in East Africa “contributes strongly to the drive for integrated regional economic development” by facilitating cheaper cross-border communication.¹⁴

- *Agriculture and water.* A regional data repository for disease surveillance and monitoring of animal products could facilitate regional trade by allowing closer integration within regional and global value chains. This could build on existing initiatives to introduce common sanitary and phytosanitary measures. Another potential opportunity for enhanced regional co-operation is to address gaps in the provision and analysis of weather data, and other predictive tools for farmers. Such a project might also encompass the monitoring of regional water distribution, basin water management and storage. Satellite imagery, procured and analyzed at the regional level, could be used to support weather forecasting, agricultural monitoring and water management.
- *Human development.* Greater use of digital platforms could boost the development of skills and integrate the regional labour market. A regional job-search system would help match workers to jobs more efficiently. It would also provide valuable information about the availability or shortage of skills in particular areas. The pandemic has highlighted the potential of remote-learning technologies. It could provide the catalyst for cross-border co-operation on higher education, adult learning and technical/vocational training, based on the pooling of educational resources and expertise. Promotion of regional trade in education services could expand supply and choice while enhancing quality. Virtual, regional educational establishments, based on co-operation between educational institutions, could be established based on remote-learning technology. A similar approach could be taken in health care, where tele-health technology allows for remote consultations, sharing of resources and expertise and greater co-operation between health specialists across the region. And the pandemic may serve as a catalyst for regional co-operation over the monitoring of communicable diseases, including the development of early-warning systems and surveillance centres.
- CAREC can play a key role in driving digital transformation in the region given that:
 - i. CAREC has the convening power to facilitate high-level policy dialogue and build trust among member countries as they develop shared, regional approaches to setting standards and implementing technology projects. By providing a robust mechanism and platform for co-ordination and co-operation among member countries to discuss common development challenges and evolve joint approaches, CAREC can help member countries work together to achieve their goals.
 - ii. Co-ordination in many areas, from supply-chain integration to water management to the administration of regional visas, requires the pooling and sharing of technical expertise and data. Through the CAREC Institute, CAREC can support exchange of knowledge and skills among member countries, and bring in relevant expertise from other parts of the world, to help them develop effective regional approaches to digital transformation. CAREC can help strengthen countries’ institutional capacity, facilitate information sharing among member countries, and promote best practices around data management.
 - iii. Digital transformation delivers many benefits but requires investment. CAREC can build

¹⁴ “A Case Study of ONA”. ITU, 2016. https://www.itu.int/dms_pub/itu-d/opb/pref/D-PREF-EF.ONA-2016-PDF-E.pdf

upon its strong track record of implementing regional projects and provide access to development partners' financing instruments, including sovereign lending and technical assistance, to incubate and implement innovative regional projects and initiatives.

- iv. While the delivery of technology projects is often undertaken by the private sector, successful implementation depends on policy planning and management at governmental level. CAREC can support public-private partnerships in the region by advising on project conceptualization and structuring while firmly rooting transactions on public-policy imperatives. It can help governments leverage the financing, efficiency and quality of the private sector for projects that benefit society.

IV. Key Questions for Discussion

- Where are the greatest opportunities for CAREC member countries to collaborate on regional initiatives, infrastructure and knowledge-sharing as part of their digital transformation? What are the barriers to greater co-operation?
- What can CAREC members learn from each other, and from countries outside the region, about the most effective approaches to digital transformation? What ideas, policies and best practices can be borrowed from other countries and regions?
- What are the most important areas of common focus and opportunity among CAREC members when it comes to digital transformation? How can CAREC members work together to develop regional approaches in these areas, and how can CAREC facilitate this co-operation?
- Given the need for harmonized standards, data-sharing and specialist knowledge in many areas, what role can CAREC play in co-ordinating standards, data-management and knowledge-sharing across the region, and bringing in expertise from outside the region?
- How can CAREC more effectively facilitate public-private dialogue and help strengthen the participation of the private sector to mobilize the technical and financial resources needed for digital transformation efforts?
- Which is the single most promising area in which to develop a pilot project to demonstrate the value of digital transformation in promoting regional co-operation?