



Chapter 8

TOWARDS E-COMMERCE DEVELOPMENT IN THE CAREC REGION



Digital literacy and affordability are the two main barriers to the widening gap across the CAREC region. Similarly, financial transactions have yet to adopt digital payment systems to cope with the growing number of online transactions. The digital payments landscape is promoted across the CAREC region; however, the lack of availability of e-commerce infrastructure, lax regulations, insufficient appropriate logistics for the integration of warehouse and delivery, and a trust deficit between internet users and potential online buyers are some of the fundamental challenges that hamper the proliferation of e-commerce across the region.

Unfortunately, barriers exist at micro and macro levels to the development and use of fintech (financial technology) in the CAREC region. At micro level, there is insufficient collateral or guarantee, a lack of relationship with financial institutions, and insufficient credit or performance history. At macro level, fintech development and usage hinges on the overall level of financial systems and how local firms are integrated.¹ To develop fintech in the CAREC region, the focus should be on building a fintech foundation, enhancing information and communication technology (ICT), and digital infrastructures to ensure a regulatory quality to facilitate trade finances and cross-border paperless trade.

Under the CAREC Trade Integrated Agenda 2030,² a number of trade facilitation initiatives were launched — in particular, mutual recognition of sanitary and phytosanitary (SPS) e-certification. In this context, the Common Agenda for the Modernization of Sanitary and Phytosanitary Measures for Trade was endorsed by CAREC ministers in 2015. ADB and the CAREC Institute's (2021)³ joint study explores most of the CAREC countries that have a legal basis for the recognition of phyto certificates and exchanges of electronic certificates. 'However, there are varying degrees in terms of provisions for allowing electronic exchange and international data storage including electronic certificates of

¹ 'Financial Inclusion in the CAREC region: Promoting Fintech to Meet Underserved Needs in Trade Finance.' ADB and CI Joint Study. Not yet published.

² <https://www.carecprogram.org/?publication=carec-trade-agenda-2030-strategic-action-plan>

³ <https://www.adb.org/sites/default/files/publication/720191/adb-brief-184-agri-trade-central-asia.pdf>

ePhytos (UNESCAP 2021).¹ Uzbekistan is the best-case scenario that transitioned fully to e-certification. The People's Republic of China (PRC) is integrated with HUB via national ePhyto system. Unfortunately, for the rest of the CAREC countries, the transition to ePhyto certification requires digital capacities (technical languages), legislative reforms to recognize ePhyto certificates, and regional cooperation.

The key challenge for e-commerce enactment, fintech proliferation, and ePhyto certification is the inconsistent regulatory environment prevailing in the CAREC countries. The ADB and CAREC Institute (2020)⁴ highlighted that the CAREC countries 'update their legislative framework, ensure conformity with internationally recognized standards, and harmonize laws and approaches among themselves.'

The next sections briefly present each one of the four parts of the chapter separately: e-commerce infrastructure, fintech inclusions, ePhyto certification, and e-commerce regulations. To tailor and align the discussion, each section provides a separate conclusion at the end of the section instead of just one conclusion at the end of the chapter. Section 2 discusses e-commerce infrastructure and its key components. Financial inclusion to promote financial technologies is discussed in section 3. The readiness of sanitary and phytosanitary (SPS) certification is presented in section 4. Finally, section 5 elaborates on e-commerce regulations in the CAREC region.

⁴ <https://www.carecinstitute.org/wp-content/uploads/2020/04/2-CI-Policy-Brief-e-Commerce-Framework-in-CAREC-25-Apr-2020.pdf>

8.2 E-COMMERCE INFRASTRUCTURE

The use of digital technology has become crucial in expediting and providing a conducive work environment by replacing manual work at the workplace. During the COVID-19 pandemic, a significant amount of reliance was placed on e-commerce. Countries with a reasonable e-commerce infrastructure and regulatory environment benefited from the use of e-commerce. An internet infrastructure, payment systems, logistics, and an e-commerce market are all necessary for the proficient functioning of e-commerce.

8.2.1 Internet infrastructure

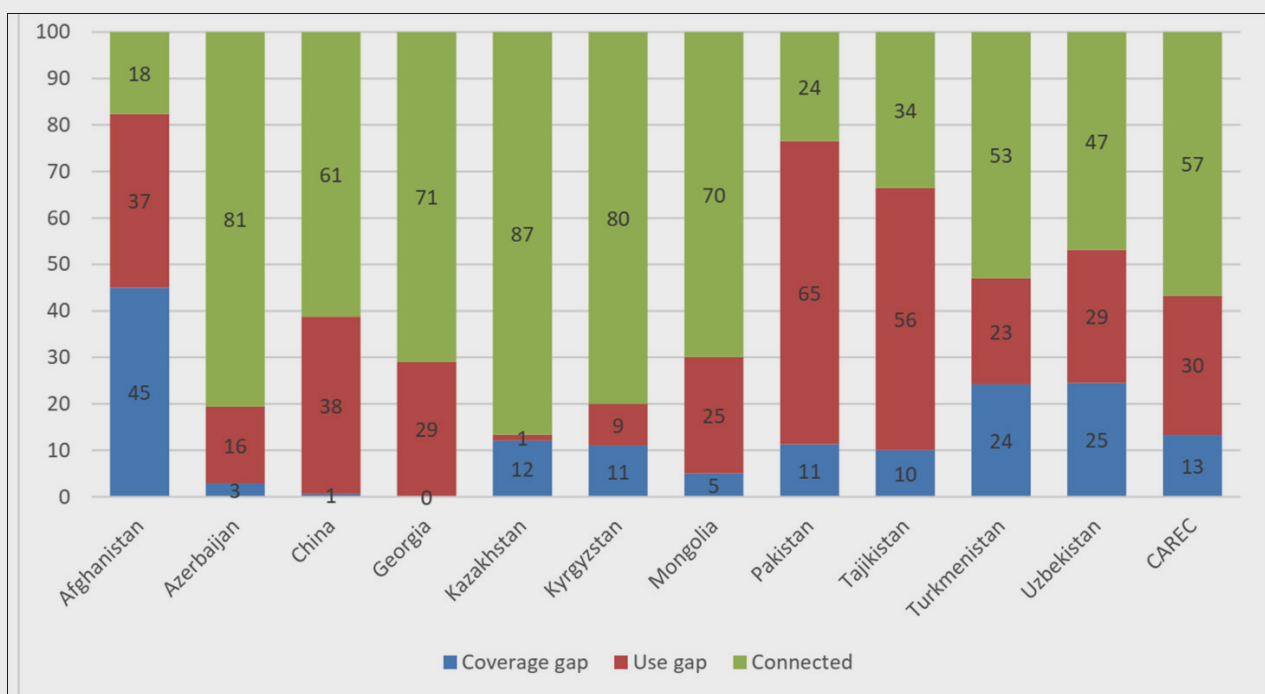
Internet infrastructure plays an important role in the facilitation of e-commerce development; it was vital during the COVID-19 crisis. Internet infrastructure consists of wireless networks, fiber optics, data centers, cloud computing, and other critical ingredients for e-commerce services. The ADB and CAREC Institute (2021)⁵ explore the gap concept to discern the relationship between having no access to the internet, having access to the internet but not using it, and using the internet.

Figure 8.1 shows the different types of use gap among CAREC countries. Internet access in Afghanistan is almost 55 percent; however, it has the lowest rate of internet users among the CAREC member countries, followed by Pakistan and Tajikistan, while Azerbaijan and Kazakhstan have the highest number of internet users. The coverage gap is very high in Afghanistan — 45 percent — followed by Turkmenistan and Uzbekistan. Surprisingly, 65 percent of Pakistan's population does not use the internet, which is the highest use gap in the CAREC region. Moreover, the CAREC region lags behind in critical data

⁵ <https://www.carecinstitute.org/wp-content/uploads/2021/05/CI-e-commerce-infra-policy-brief-May-2021-1.pdf>

infrastructure — for example, international bandwidth, internet exchange points (IXPs), data centers, and cloud services.

Figure 8.1: Coverage and use gap, 2019



Note: Coverage based on mobile broadband signal (that is, at least 3G).

Source: UN SDG database, national surveys.

8.2.2 Payments

The payment mechanism connects users and businesses within and across countries. Demand⁶ and supply-side payment infrastructure⁷ are of critical importance for payment systems. As per the CAREC policy brief,⁸ the growing number of order placements is becoming difficult to handle along with the increased number of payments owing to a very slow process in the case of international transactions. According to the World Bank's FINDEX report (2017),⁹ the demand for bank accounts has drastically increased over time in the CAREC region; one of the reasons for this is the mobile phone penetration. Figure 8.2 shows the mobile phone penetration and bank accounts in the CAREC region; it indicates that mobile phone penetration in Pakistan is only (approximately) 53 percent of the population. Overall, mobile phone penetration among CAREC member countries ranges from 53 percent to 98 percent, while there is a considerable difference found for availability of bank accounts.

In Turkmenistan, 40 percent of the population have a bank account; comparing this among CAREC member countries, the figures are much lower for Afghanistan and Pakistan. Domestically, it is possible to make online payments via mobile app or using a debit card, but this does not meet the international criteria in all CAREC countries. It is also observed that the demand for debit card ownership has increased. Fear of the COVID-19 pandemic motivates people to use online shopping channels and make digital payments to reduce physical interaction. China has the highest smartphone usage; the smartphone penetration is also directly related to the different bank apps.

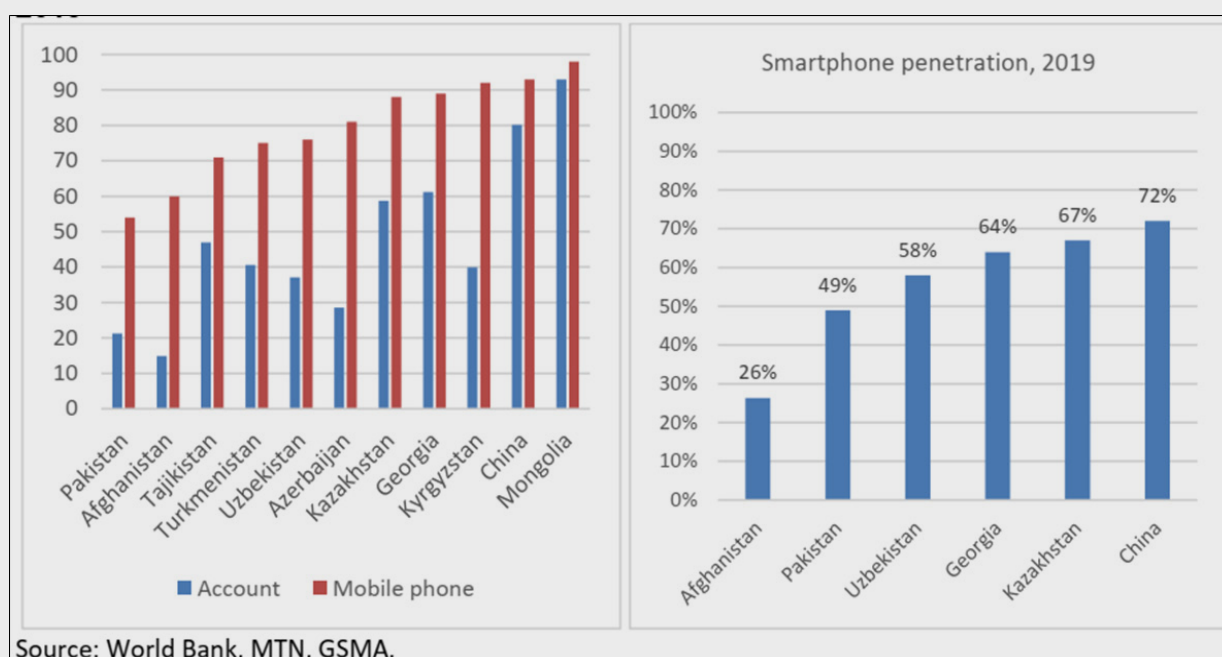
⁶ Physical payment cards and mobile phone based payment apps.

⁷ Telecommunication links between webshops and banks, automated teller machines, point of sale terminals, and software to handle processing.

⁸ <https://www.carecinstitute.org/wp-content/uploads/2021/05/CI-e-commerce-infra-policy-brief-May-2021-1.pdf>

⁹ <https://globalfindex.worldbank.org>

Figure 8.2: CAREC mobile phone and account penetration 2017 and smartphone penetration 2019



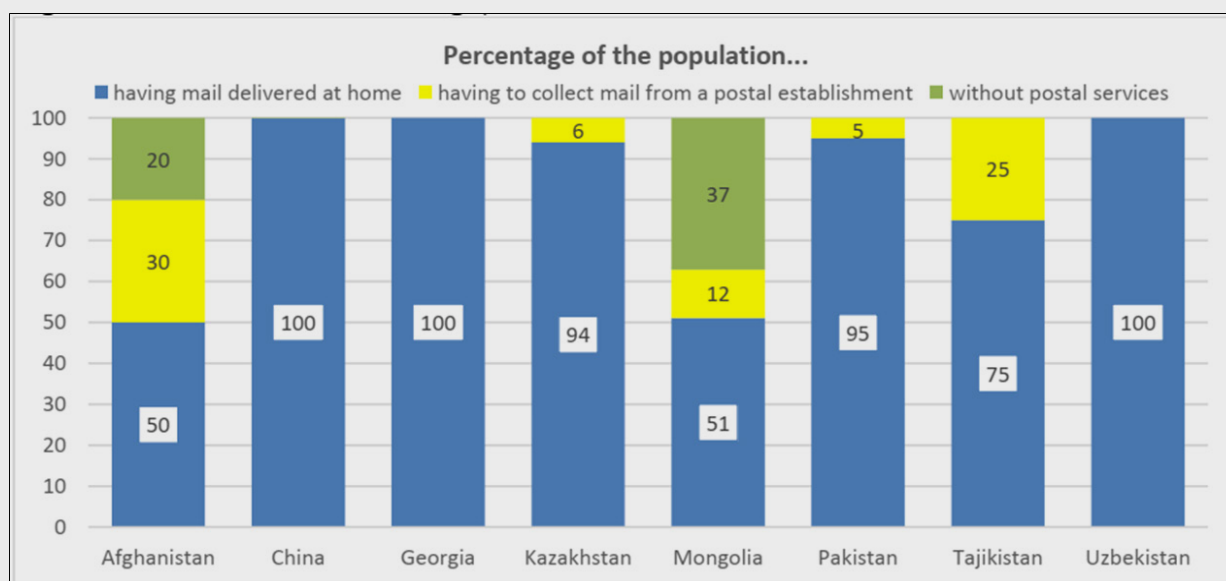
8.2.3 Logistics

E-commerce logistics is complex; the process is divided into different parts, such as service providers, consolidators, delivery operators, and reverse logistics. Challenges present themselves at every stage; the bureaucratic process suffocates the effective operation of cross-border trade. The critical part of the e-commerce process is fulfilment and delivery, which requires a custom procedure to be transparent and efficient for cross-border e-commerce. Customers expect to receive the order in a timely fashion; along with the other logistics, it requires a network of postal coverage in a country. The delivery service needs to be efficient, reliable, and resilient. According to the Universal Postal Union¹⁰ published by the Integrated Index for Postal Development, the China postal service scores 66 out of 100 in the index.

Figure 8.3 shows that more than 90 percent of the population in all CAREC countries have a mail delivery system, except for Tajikistan, Afghanistan, and Mongolia. In Afghanistan and Mongolia, only 50 percent of the population has a postal delivery system; the other half of the population has no mail system owing to the poor security situation and clusters of low population groups scattered over large territories — all of which created insurmountable obstacles for the postal system. Similarly, limited storage facilities — and limited integration of the storage facilities to the delivery networks — prevail in the CAREC region. Large corporations like Alibaba have established storage facilities and delivery networks. Pakistan and Kazakhstan are the other CAREC countries where logistic platforms exist. The rest of the CAREC countries have yet to achieve large inventories and delivery integration to e-commerce.

¹⁰ The index provides a benchmark performance score (from 0 to 100) for 170 countries (Universal Postal Union (UPU), 2020. 'Postal Development Report 2020.' <https://www.upu.int/en/Publications/2IPD/Postal-Development-Report-2020>)

Figure 8.3: Postal network coverage, 2019 or latest available



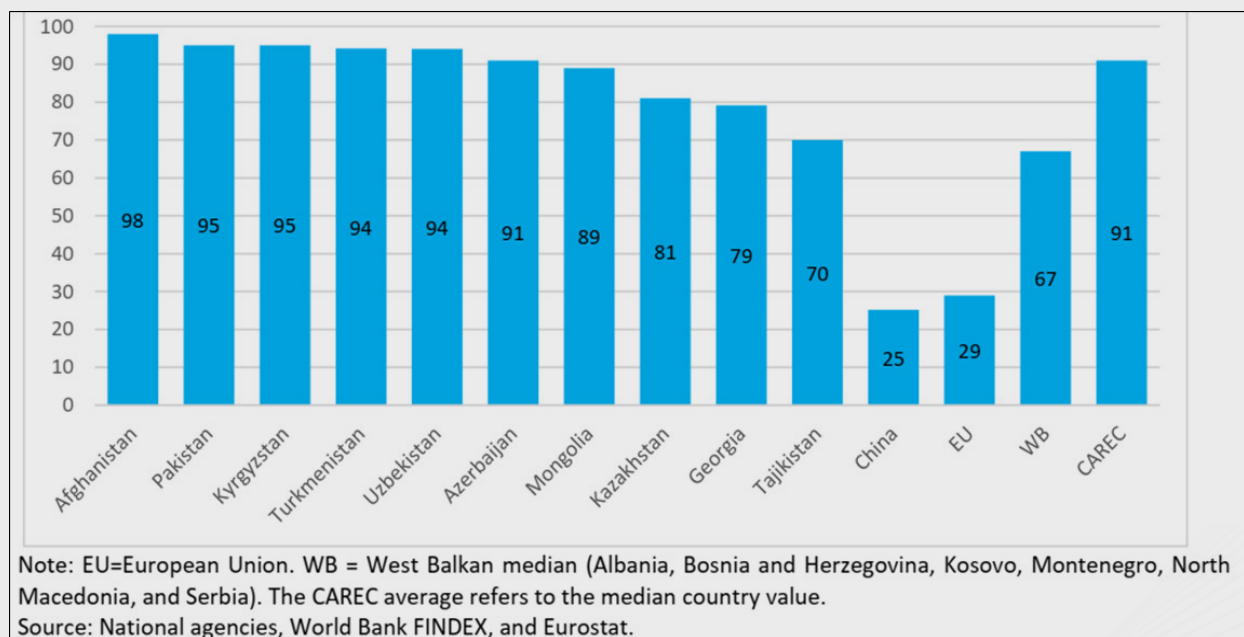
Note: No data for Azerbaijan, Kyrgyzstan, or Turkmenistan.

Source: UPU.

8.2.4 E-commerce market

To establish a working e-commerce market it is necessary to examine the internet infrastructure, payment mechanism, and other necessary logistics with a broader lens. The success of online sales and purchases depends on a well-functioning internet, payment system, and the necessary logistics. However, the presence of all these ingredients individually do not mean people will purchase and pay online; Figure 8.4 shows the number of internet users who do not purchase online in CAREC countries; only 2 percent of users in Afghanistan shopped online via the e-commerce market, while 98 percent do not use the internet for shopping online. Around 75 percent use the internet for online shopping in China.

Figure 8.4: Proportion of internet users who do not shop online



8.2.5 Conclusion

Overall, e-commerce infrastructure in the CAREC region has made progress, but it is uneven progress. The different indicators and subindicators discussed have not developed at the same pace or been adopted at the same time; therefore, some of the CAREC countries are leading the way and some are lagging behind. In 2020, UNCTAD published a B2C e-commerce index to measure a country's readiness for e-commerce. The B2C index is constructed by compiling different proxies for infrastructure as mentioned earlier. The success of e-commerce depends on the different indicators (online shopping, account ownership, internet users, and postal service reliability) as shown in Table 8.1. Table 8.1 shows the e-commerce ranking for the CAREC countries; Georgia and China ranked first and second respectively in the CAREC region, while their respective global rankings of 47 and 55 identify their readiness for e-commerce.

The e-commerce index identifies the strengths and weaknesses of each country: security of internet servers, number of the population with a bank account, number of internet users, and reliability of postal service. The average B2C e-commerce index indicates that 56 percent of the population in the CAREC region use the internet, which shows that this region is performing best, while the other indicator estimations show a relatively less good performance than that of internet use.

Table 8.1: B2C e-commerce index

2020 Rank	Economy	Share of individuals using the internet (2019 or latest)	Share of individuals with an account (15+,2017)	UPU postal reliability score (2019 or latest)	UPU postal reliability score (2019 or latest)	(2020 index value)	index value change (2018-19 data)
47	Georgia	71	61	64	98	73.6	0.5
55	The PRC	61	80	54	85	70.1	1.3
60	Kazakhstan	87	59	63	64	68.2	-0.4
61	Mongolia	76	93	60	31	65.0	736
65	Azerbaijan	81	29	49	82	60.0	-1.8
97	Kyrgyzstan	80	40	47	11	44.3	8.0
107	Uzbekistan	30	37	50	30	37.0	-8.4
116	Pakistan	24	21	35	50	32.5	1.2
121	Tajikistan	36	47	36	1	30.0	4.3
143	Afghanistan	18	15	29	7	17.1	-1.1
	Median	66	43	49	40	52	0.1
	Average	56	48	49	46	50	0.9

Note: No data available for Turkmenistan.

Source: UNCTAD (2021).

Country-level B2C e-commerce performance is also shown in Table 8.1. At an index value of 73.6 and a global ranking of 47, Georgia performs highest in the index for B2C e-commerce in the CAREC region. Georgia is followed by the PRC (index 70.1, rank 55) and Kazakhstan (index 68.2, rank 60). Working up from the baseline of the table, Afghanistan, Tajikistan, and Pakistan are the main low-performing CAREC countries as per the B2C e-commerce index, where their respective index values are 17.1 (rank 143), 30.0 (rank 121), and 32.5 (rank 116).

Improved internet infrastructure, widened financial inclusion, expansion of logistics and integration with delivery systems, and the development of the e-commerce market are all critical factors for the success of e-commerce in the CAREC region.

8.3 FINANCIAL INCLUSION TO PROMOTE FINTECH

Financial inclusion is the ability to have access to financial services in a country; it also refers to the procedure of how easily an individual or an MSME can own and operate a bank account at an affordable price with reliable services. As per the World Bank definition, '[F]inancial inclusion means that individuals and businesses have access to useful and affordable financial products and services that meet their needs — transactions, payments, savings, credit, and insurance — delivered responsibly and sustainably.' Whereas fintech is the use of technology for financial services; the use of digital financial services in combination with the internet, mobile phone, cloud services, digital IDs, and other applications (ADB and CAREC Institute 2021).¹¹ Financial inclusion for the promotion of financial technologies requires alternative financing firms, financial development, corresponding banking relationships, and regional integration.

8.3.1 Alternative finance landscape

Lack of trade financing creates barriers for traders at domestic and international levels (Korinek et al. 2010; Auboin & Engemann 2014). If financing is not available, international trade transactions are abandoned (Kim et al. 2019). Unavailability of financing brings a time lag to international transactions and delays the payments. There is a huge surge of global trade recovery; the adequate facility of trade finance is becoming more difficult as businesses are growing. In 2017 the unmet demand for trade finance was US\$1.5¹² trillion and this figure is expected to rise to more than US\$2.4 trillion by 2025 (WEF and Bain & Company 2018).

The People's Republic of China, Mongolia, Pakistan, and Kazakhstan have domestic-based alternative finance platforms (see Figure 8.5); however, the remaining countries rely heavily on foreign firms. The People's Republic of China facilitates more than half of the global alternate finance industry (US\$304.5 billion); the size of the PRC's alternate finance market volume was US\$215.4 billion in 2018, while 61 percent of SMEs are equipped with online facilities and use fintech (Ernst & Young 2019).

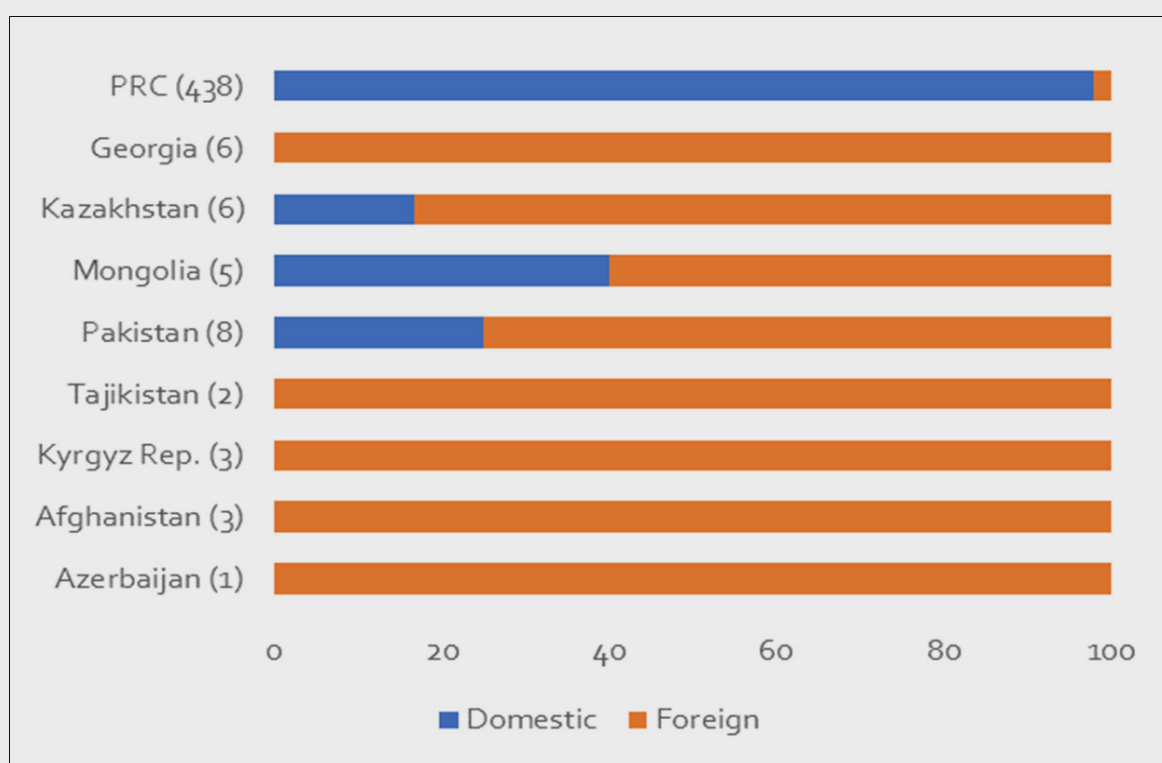
The size of the alternative finance market in CAREC is not well concentrated. The volume of Georgia's alternate finance market was worth around US\$193 million in 2018. Georgia is followed by Kazakhstan and Mongolia. Whereas Afghanistan and Azerbaijan recorded the lowest volume of alternate finance markets at US\$0.18 million and US\$0.002 million respectively. Low financing creates hurdles for inclusive financing, which eventually leads to a budding fintech ecosystem in the CAREC region.¹³

¹¹ Not yet published.

¹² 40 percent of which are from Asia and the Pacific (ADB & UNESCAP 2019).

¹³ 'Financial Inclusion in the CAREC Region: Promoting Fintech to Meet Underserved Needs in Trade Finance.' ADB and CI Joint Study. Not yet published.

Figure 8.5: Alternative financing firms operating in the CAREC region, 2018

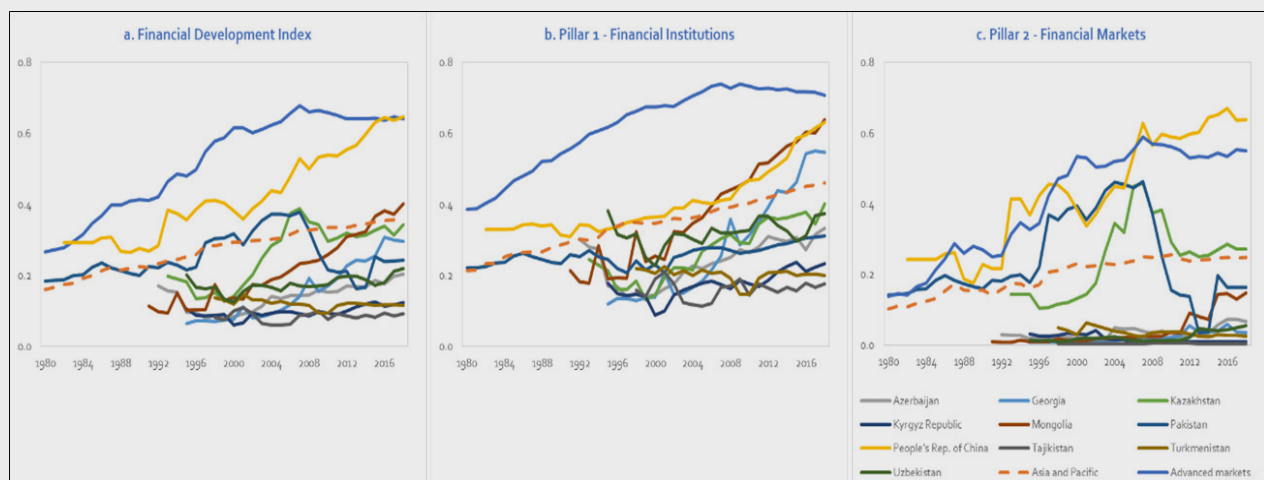


Source: Financial Inclusion in the CAREC Region, ADB-CAREC Institute (2021)

8.3.2 Financial development

The development of financial institutions is required for the efficient functioning of trade finance (Auboin & DiCaprio 2017). Similarly, when corporations and firms are associated with unhealthy banks, the finance rejections would be higher (Amiti & Weinstein 2011). Figure 8.6 advocates a dire need for improved financial development in the CAREC region, except for the PRC. The PRC has made significant improvements in the financial markets and become a global leader in fintech with a huge number of consumers (Ernst & Young 2019). Following the PRC, Mongolia and Georgia are performing quite well in terms of financial development.

Figure 8.6: Financial development in the CAREC region vis-à-vis advanced markets

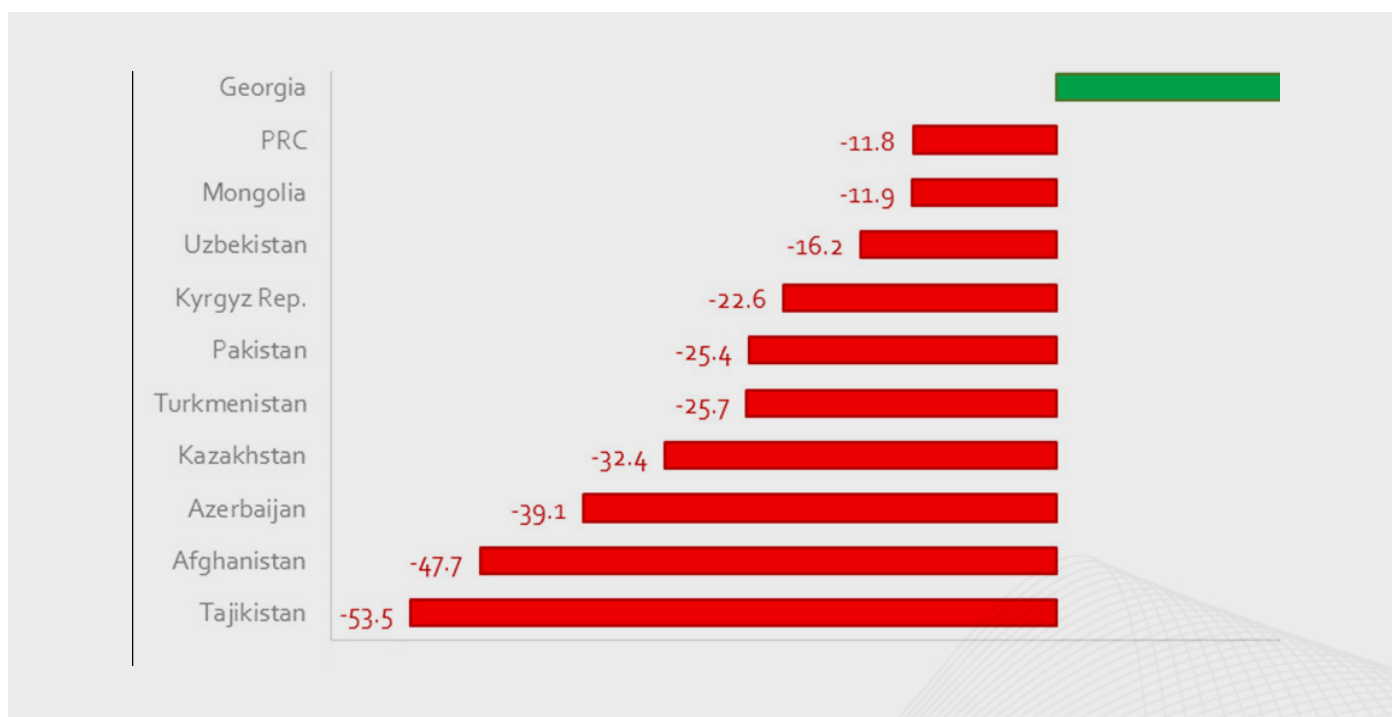


Source: International Monetary Fund, Financial Development Index Database. <https://data.imf.org/?sk=F8032E80-B36C-43B1-AC26-493C5B1CD33B> (Accessed November 2020)

8.3.3 Correspondent banking relationships

The traditional banking sector in the CAREC region remains slow owing to the weak financial market framework. The correspondent banking landscape required for international trade is limited in Central Asia compared to the regional players in East Asia and Southeast Asia. Also, the growth in corresponding banking relationships is reduced, which puts the CAREC region at a disadvantage. Figure 8.7 exhibits changes in the number of correspondent banking relationships among CAREC member countries. It shows that Tajikistan has declined 53.5 percent of the correspondent banking relationships from 2011 to 2019, followed by Afghanistan and Azerbaijan. Whereas Georgia endured the global trend and has gained 20 percent of the correspondent banking relationships for the same period. The correspondent banking relationships bring risks for many CAREC countries in terms of having access to safe and low-cost payments across the region.

Figure 8.7: Changes in the number of correspondent banking relationships between 2011 and 2019 in CAREC member economies



Source: Bank for International Settlements. CPMI quantitative review of correspondent banking data. https://www.bis.org/cpmi/paysysinfo/corr_bank_data.htm (Accessed November 2020)

8.3.4 Conclusion

To improve financial inclusion, which would eventually promote financial technologies, the CAREC member countries need to focus on the fintech foundations by developing their regulatory (cybersecurity, data governance, and privacy protection) and digital technology infrastructure. Similarly, there is a requirement for the facilitation of fintech in supply-chain finance to be promoted.

8.4 SPS — E-CERTIFICATION

Sanitary and phytosanitary (SPS) measures¹⁴ ensure food, animal, and plant safety as per international SPS standards. Phytosanitary certificates are the documents that designate the health obligations of tradable goods. E-phytosanitary certification has accelerated the movement of tradable goods across the border via electronic/digital gadgets. International trade products such as agriculture, fishery, food, or forestry products require SPS measures to provide the assurance of protection from pests, disease or contaminants, additives, and toxins. These measures are based on the international standards of the International Plant Protection Convention (IPPC), the World Organisation for Animal Health (OIE), and the Codex Alimentarius Commission (CAC).

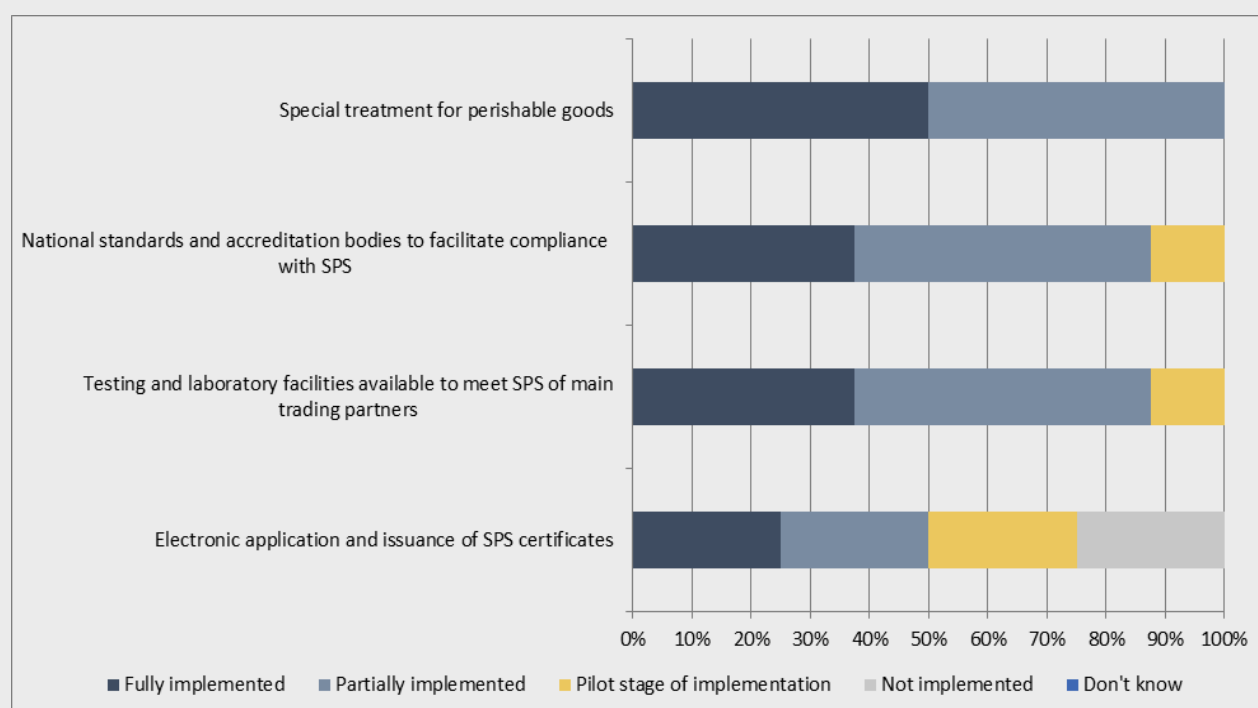
CAREC countries have continued to implement SPS and other agricultural trade facilitation measures, according to the results of the 2021 United Nations Global Survey on Digital and Sustainable Trade Facilitation. According to UNESCAP 2021,¹⁵ 'All CAREC countries have fully or partially implemented special treatment for perishable goods. Measures of national standards and accreditation bodies to facilitate compliance with

¹⁴ https://ec.europa.eu/europeaid/sectors/economic-growth/trade/sanitary-and-phytosanitary-measures_en

¹⁵ https://www.unescap.org/sites/default/d8files/knowledge-products/CAREC_report_2021_Low%20res.pdf

SPS and testing and laboratory facilities available to meet the SPS of main trading partners have been fully or partially implemented in over 80 percent of the countries. In contrast, electronic application and issuance of SPS certificates have not been implemented in over 40 percent of the countries, making it the least implemented measure in this subgroup' (Figure 8.8).

Figure 8.8. State of implementation of 'agricultural trade facilitation' measures in CAREC countries



Source: Digital and Sustainable Trade Facilitation in CAREC, UNESCAP 2021

8.4.1 Uses of ePhytosanitary system

Paper-based documentation brings complications to cross-border trade, including delay clearance, cost, risk of loss, entry process, and other costs. The electronic exchange of trade-related data and cross-border paperless trade could enhance trade competitiveness and address these challenges, thereby heralding an increase in small shipments associated with cross-border e-commerce and the digital economy. UNESCAP 2021 posits 'that most trade cost reductions are associated with paperless trade measures rather than conventional trade facilitation measures. Implementing both binding and non-binding WTO TFA measures could result in a 4 percent to 9 percent decrease in trade costs. In contrast, digital trade facilitation measures enabling the seamless electronic exchange of trade data and documents across borders could reduce about 17 percent in a full implementation scenario.' Global, regional, and subregional initiatives, such as the Framework Agreement on Facilitation of Cross-Border Paperless Trade in Asia and the Pacific, could enable countries to reap the benefits of digital trade facilitation. By supporting one of the crucial documents for international trade, the ePhytosanitary system enhances transparency, expediting the clearance of trade commodities and enhancing exports via its features of data sharing and transfer.

In 2018, the GDP of the CAREC region¹⁹ constituted 14.4 percent and employed 31.6 percent of workers. The UNESCAP 2021 report highlighted that almost one fifth to one quarter of GDP is produced by the agriculture sector for four countries and employed a third to half of the workers in five countries.²⁰ The global share of CAREC's GDP is less than 1 percent, while CAREC produces a significant proportion of the world's GDP—such as wheat, fruit (26.7 percent of global production), vegetables (54.9 percent), citrus fruit

¹⁶ http://www.standardsfacility.org/sites/default/files/SPS_Ecert_Backgroundpaper.pdf

¹⁷ Digital and Sustainable Trade Facilitation in Central Asia Regional Economic Cooperation (CAREC) 2021. Available at: <https://www.unescap.org/kp/2021/untf-survey-2021-carec?ref=untfsurveyorg>

¹⁸ More information on the Framework Agreement can be found at: <https://www.unescap.org/kp/cpta>

¹⁹ The Inner Mongolia Autonomous Region and Xinjiang Uygur Autonomous Region of the People's Republic of China, which are CAREC members, are excluded from the estimates owing to the unavailability of data

²⁰ <https://www.carecprogram.org/uploads/2019-Modernizing-Sanitary-Phytosanitary-CAREC.pdf>

(27.9 percent), nuts (25.1 percent), sheep and goats (25.6 percent). The total exported agriculture commodities in 2018 were 22 percent of ten CAREC countries.²¹ The several agriculture sectors in the CAREC region have an export value of high potential—such as wheat flour, several types of fruit and nuts, cotton fiber, silk-worm cocoons, asses, horsemeat, and animal hides and skin. WTO's²² Agreement agenda emphasizes the application of the SPS Agreement²³ and the Trade Facilitation Agreement (TFA)²⁴ to accelerate the agriculture trade.

8.4.2 CAREC readiness for ePhyto

The International Plant Protection Convention (IPPC) has, among other systems, developed a generic system called ePhyto Solution with two elements—HUB and Generic ePhyto National System (GeNS)—that allow parties to exchange ePhytos through a single point. It facilitates data entry, standard codes, and a list of translated export certifications. The agriculture trade plays a major role, especially in the CAREC countries; the digital landscape in the region is uneven for ePhyto certificates. The implementation of electronic certification (ePhyto system) requires legal environment, mode of transmission, import requirements, certification procedures, and the use of IT in the CAREC countries.

Table 8.2 shows the mode of transmission and validity of SPS certificates in the CAREC countries. The table indicates that, except for the PRC and Uzbekistan, countries still exchange hard copies. The PRC and Uzbekistan have implemented digital reforms and have successfully transitioned towards the adoption of digital technologies. Therefore, the PRC and Uzbekistan have issued a substantial number of e-certificates. The PRC

²¹ This consists of SITC Sections 0, 1, 2 (except 27 and 28), and 4. (Chapter 8 of WTO, World Trade Statistical Review, 2018)

²² Eight CAREC countries are WTO members: Afghanistan, People's Republic of China, Georgia, Kazakhstan, Kyrgyzstan, Mongolia, Pakistan, and Tajikistan

²³ Article 8: inspection and approval procedures for traded goods

²⁴ Article 5: inspection, detention, and test procedures for food, beverages, and foodstuffs. Article 7.9: perishable goods. Article 10: formalities and documentation requirements

²⁵ <https://www.adb.org/sites/default/files/publication/720191/adb-brief-184-agri-trade-central-asia.pdf>

has issued an annual figure of 0.69 million e-certificates to facilitate traders. The PRC is followed by Uzbekistan at 0.25 million ePhyto certificates per year.

Table 8.2: Mode of transmission and validity of ePhyto certificate

Country	Mode of transmission of PS certificates to other users like Customs and other countries	Validity/ duration of PS certificates after issuance and prior to export	Fee for PS certificate	Number of PS certificates issued per year
Afghanistan	Hard Copy	-	100Af(1.28 US \$)per sheet	-
Azerbaijan	Hard Copy	14 Days	10 AZN (5.88 US\$)	40, 000
People's Republic of China	Hard as well as Electronic (where countries can transmit/ receive)	Fresh Goods-14 Days Other Plant Products-21 Days In North Region(during Winter)-35 Days	Free	0.69 Million (690, 000/)
Georgia	Hard Copy	15 Days	25-50 GEL (8.67- 17.33 US \$)	3428(Border by Georgia Revenue Service) 10,333(National Food Agency)
Kazakhstan	Hard Copy	30 Days (from the date of issuance)	Free to Individuals and Legal Entities	Around 0.3 Million
Kyrgyz Republic	Hard Copy	Requirements of the importing country	200 SOM (2.86 US \$)	40,000
Mongolia	Hard Copy; Via the media and the website;By e-mail	5 Days to 1 month depending upon commodities	10000 MNT(10 thousand tugrik) 3.69 US \$	10,000
Pakistan	Hard Copy	90 Days	PKR 50-300 (0.32- 1.94 US \$)	Around 0.15 Million
Tajikistan	Letter or application to legal entities and individuals	30 Days	Based on estimates and volume of products	Depending on the volume of the shipment of goods
Turkmenistan	Hard copy as well as through email(where required)	30 Days	Based on tariffs approved by Ministry of Finance and Economy of Turkmenistan	Depends on the number of contracts awarded
Uzbekistan	Electronically	Unlimited until the delivery to the importer's country	up to 10 kg-0.15 MRZP(MP3n); up to 100 kg-0.18 MRZP(MP3n); up to 500 kg - 0.20 MRZP(MP3); up to 1000 kg - 0.25 MRZP(MP3);	0.25 Million

Source: https://www.unescap.org/sites/default/d8files/knowledge-products/CAREC_report_2021_0.pdf

8.4.3 Conclusion

COVID-19 posed challenges for countries to safeguard the free flow of goods within and across all regions while ensuring prevention from the epidemic. The Food Agriculture Organization (FAO)²⁶ has identified agriculture products as the sixth main channel to transmit the COVID-19 virus. Several trade measures²⁷ have been taken to temporarily restrict exports such as wheat, rice, grains, beans, soybeans, sunflower seeds, sugar, onions, garlic, potatoes, carrots, vegetable oil, vegetables, and timber in the CAREC region.

Trade facilitation, especially via the simplification and digitalization of trade procedures, could play a crucial role in minimizing disruption from the COVID-19 pandemic. Many CAREC countries are implementing digital measures to varying degrees to handle trade disruptions owing to the pandemic, but these measures are mostly on an adhoc, not a permanent, basis. The CAREC countries need a policy priority to prepare themselves for ongoing and future crises.²⁸

In the case of CAREC, there is a legal basis for the recognition of phytosanitary certificates and exchange e-certificates in most countries in the region. However, CAREC's digital landscape for the electronic application and exchange of SPS certificates, among other agricultural trade facilitation measures, is highly uneven.

The CAREC countries should continue implementing trade facilitation, including institutional arrangement, transparency, and formalities, as included in the WTO Trade

²⁶ Schmidhuber J, Pound J, and Qiao B (2020). 'COVID-19: Channels of Transmission to Food and Agriculture', Rome, FAO, <https://doi.org/10.4060/ca8430en>

²⁷ ITC. COVID-19 Temporary Trade Measures, <https://macmap.org/covid19>

²⁸ Digital and Sustainable Trade Facilitation in Central Asia Regional Economic Cooperation (CAREC) 2021. Available at: <https://www.unescap.org/kp/2021/untf-survey-2021-carec?ref=untfsurvey.org>

Facilitation Agreement (TFA). Moving forward, digitalization offers immense potential for making international trade simpler and more resilient. SPS certificates are one type of essential documentation for international trade. In this regard, ePhyto could contribute to a more significant reduction in trade costs and to the increased effectiveness of the CAREC countries.

8.5 E-COMMERCE REGULATIONS

The world is experiencing a massive transformation of online trade and communication, which provides improved economic efficiency and employment opportunities. It also helps to narrow the development gap and the rural-urban divide, as well as increasing inclusiveness.²⁹ There are countless benefits derived from international trade using e-commerce; whereas, cross-border paperless trade reduces up to 25 percent of transaction costs across Asia and the Pacific and increases regulations (UNESCAP 2019). E-commerce removes the entry barrier and allows SMEs to compete on an international scale.

The commercial laws are applicable to e-commerce transactions, while countries are introducing new amendments to the commercial laws in the line with e-commerce. Some countries have taken different paths; these differences cause trade barriers and inefficient practices. The CAREC members observed the same issues. Analysts recognized that legal measures are a critical element of the proper implementation and expansion of e-commerce. The law must enable consumers to trust e-commerce engagement

²⁹ Inclusiveness includes: demographic, economic, geographic, cultural, or linguistic. It also helps narrow the rural-urban divide (ADB and ESCAP 2018)

and online truncations such as personal privacy, cybercrime, and consumer protection. 'Opening the door does not mean that anyone will pass through it' (Development Asia).³⁰

The countries in the CAREC region have endorsed e-commerce laws. Effective regulatory and dispute-resolution systems reflect a country's capacity to adopt the technology.

8.5.1 Policy option: e-transaction and regulatory matters

The guiding principle of the United Nations Commission on International Trade Law (UNCITRAL) regarding e-commerce is the Model Law on Electronic Commerce and the Model Law on Electronic Signatures—namely, technology neutrality. Globally, for many states this approach does not address the authentication of origin or the integrity of electronic documents. Many countries around the globe have two laws: one for e-documents and one for e-signatures, while the countries in the CAREC region have a single law on e-transactions and e-documents; having the relevant rules in one place provides internal consistency. This consistency is in favor of technology neutrality, technology specificity, and hybrid laws.

The policy consequences of a country should be in line with reputable international laws. Trade Facilitation Agreement (TFA) obligations also facilitate harmonization among countries such as electronic customs processing. This obligation also harmonizes the CAREC member countries if they join the TFA. The regulatory matter deals with privacy, cybercrime, and consumer protection. The computer via the internet collects a huge amount of personal information directly and indirectly via any online activity. Some CAREC member countries have privacy legislation, which reflects international standards; personal data should be collected with the consent of the data subject.

³⁰ <https://development.asia/policy-brief/developing-e-commerce-policies-central-asia>

³¹ The remaining countries: Azerbaijan, Turkmenistan, and Uzbekistan

Table 8.3 shows data protection privacy laws in the CAREC region. Uzbekistan has updated data protection and privacy laws on personal data in 2019, followed by Tajikistan and Mongolia. Pakistan drafted the electronic data protection act in 2005. Pakistan is followed by Kyrgyzstan. No data is available for Afghanistan.

Table 8.3: Legislation/draft legislation

Country	Type	Title of legislation/draft legislation
Azerbaijan	Legislation	Law on Personal Data 2010 (in Azerbaijani)
China	Legislation	The Decision of the Standing Committee of the National People's Congress on Strengthening the Network Information Protection, 2012 (in Chinese)
Georgia	Legislation	Law of Georgia on Personal Data Protection (in English)
Kazakhstan	Legislation	On Personal Data and Its Protection No. 94-V/2013 (in Russian)
Kyrgyzstan	Legislation	Personal Data No. 58/2008
Mongolia	Legislation	Law on information transparency and right to information, 2011 (updated in 2015)
Pakistan	Draft legislation	Bill—Electronic Data Protection Act 2005 (in English)
Tajikistan	Legislation	Law of the Republic of Tajikistan No. 1537 about Personal Data Protection, 2018
Turkmenistan	Legislation	Law on Information on Private Life and its Protection No. 519-V (in Russian)
Uzbekistan	Legislation	Law No. ZRU-547, on Personal Data, dated 2 July 201

Source: <https://www.carecinstitute.org/wp-content/uploads/2021/08/ADB-e-commerce-carec-laws-policies-Aug-2021.pdf>

All CAREC member countries have cybercrime laws as per international standards. Cybercrime is an activity in which a computer allows criminal activity. This includes:

- a) Unauthorized access to a computer or a network, which is sometimes prohibited in every case and sometimes only if there is damage to data or interference in operations
- b) Infecting computers or networks with malware that harms or prevents their operation entirely, whether for malice, commercial advantage, or extortion ('ransomware')
- c) Exceeding one's authority to access a network and causing harm

The Budapest Convention of Cybercrime in 2001 of the Council of Europe. It required member countries to legislate against a large number of cybercrime activities including online fraud, forgery, and so on. Azerbaijan and Georgia are the member countries shown in Table 8.4; it further discusses the international instrument for various e-commerce-related legislation.

Table 8.4: International instruments

Instrument	Type/Scope	CAREC Members as Parties
UNCITRAL Electronic Communications Convention (ECC)	Global	AZE (Recommend: ALL for domestic & international)
ESCAP Framework Agreement on Facilitation of Cross-border Paperless Trade (FAPT)	Regional	AZE, CHN (Recommend: ALL)
Convention on the International Sale of Goods (CISG)	Global	AZ, CHN, GEO, KGZ, MON, UZB (Recommend: ALL)
World Trade Organization Trade Facilitation Agreement (WTO TFA)	Global	AFN, CHN, GEO, KGZ, KAZ, MON, PAK, TAJ
Revised Kyoto Customs Convention	Global	AZE, CHN, KAZ, MON (w/ UZB upcoming)
Council of Europe (Budapest) Cybercrime Convention	Global	AZE, GEO
TIR Trucking Convention (has an electronic supplement)	Global	AFN, AZE, CHN, GEO, KGZ, KAZ, MON, PAK, TAJ, TKM, UZB

Source: <https://www.carecinstitute.org/wp-content/uploads/2021/08/ADB-e-commerce-carec-laws-policies-Aug-2021.pdf>

Table 8.5 shows that only Azerbaijan, China, and Kyrgyzstan have consumer protection laws; other countries have no provision against fraud and misrepresentation. There is a dire need to legislate consumer protection law in each CAREC member country; countries should participate in the international enforcement of consumer rights including assisting cross-border investigations.

Table 8.5: Consumer protection laws

Country	Type	Title of legislation/draft legislation
Azerbaijan	Draft legislation	Bill—on protection of consumer rights (1995, amended up to 2012) No date for confirmation (in Azerbaijani)
China	Legislation	Consumer Rights and Interests Protection Law of the People's Republic of China (in English, unofficial translation)
Kyrgyzstan	Draft legislation	Bill—electronic commerce

Source: UNCTAD E-commerce legislation

8.5.2 Conclusion

Two sets of regulatory issues were highlighted: 'laws that do not recognize e-commerce, and laws that recognize it inconsistently, and possibly inadequately.' For electronic transactions, three approaches were discussed — technology neutrality, technology specificity, and a hybrid approach, having elements of both technology neutrality and specificity. Based on the regulatory landscape of the CAREC countries, hybrid approach was recommended for electronic transactions. Similarly, privacy, cyber-crime, and consumer protection issues were highlighted and given high importance to privacy, cyber-crime, and consumer protection legislations consistent with international best practices.

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