5 Subregional Cooperation Initiatives

Central and West Asia: Central Asia Regional Economic Cooperation Program[35]

The Central Asia Regional Economic Cooperation (CAREC) Program includes Afghanistan, Azerbaijan, the People's Republic of China (PRC), Georgia, Kazakhstan, the Kyrgyz Republic, Mongolia, Pakistan, Tajikistan, Turkmenistan, and Uzbekistan. The group is advancing cooperation under the CAREC 2030 strategy adopted in October 2017, which builds on the solid progress achieved in nearly 2 decades of cooperation—particularly in transport, energy, trade facilitation, and trade policy (Table 5.1). CAREC 2030 has a broader agenda which focuses on five operational clusters: (i) economic and financial stability; (ii) trade, tourism, and economic corridors; (iii) infrastructure and economic connectivity; (iv) agriculture and water; and (v) human development.

Table 5.1: Selected Economic Indicators, 2018—CAREC

	Population (million)	**Nominal GDP** ($ billion)	**GDP Growth** (2014 to 2018, average, %)	**GDP per Capita** (current prices,$)	**Trade Openness** (total trade, % of GDP)
Afghanistan	37.2	19.4	2.4	521	85.7
Azerbaijan	9.9	46.9	0.4	4,721	65.9
China, People's Republic of	1,392.7	13,608.2	6.9	9,771	34.1
Georgia	3.7	16.2	4.0	4,345	77.0
Kazakhstan	18.3	170.5	2.9	9,331	54.5
Kyrgyz Republic	6.3	8.1	4.1	1,281	80.8
Mongolia	3.2	13.0	4.7	4,104	99.1
Pakistan	212.2	312.6	4.7	1,473	26.7
Tajikistan	9.1	7.5	6.8	827	69.2
Turkmenistan	5.9	40.8	7.1	6,967	30.2
Uzbekistan	33.0	50.5	6.3	1,532	56.5
CAREC	**1,731.5**	**14,293.7**	**6.7**	**8,255**	**34.5**

CAREC = Central Asia Regional Economic Cooperation, GDP = gross domestic product.

Notes: CAREC's average GDP growth rate is weighted using nominal GDP. Total trade refers to the sum of exports and imports.

Sources: ADB calculations using data from Asian Development Bank. 2019. *Asian Development Outlook 2019.* Manila; CEIC; International Monetary Fund. Direction of Trade Statistics. http://data.imf.org; and World Bank. World Development Indicators. http://databank.worldbank.org/ (all accessed October 2019).

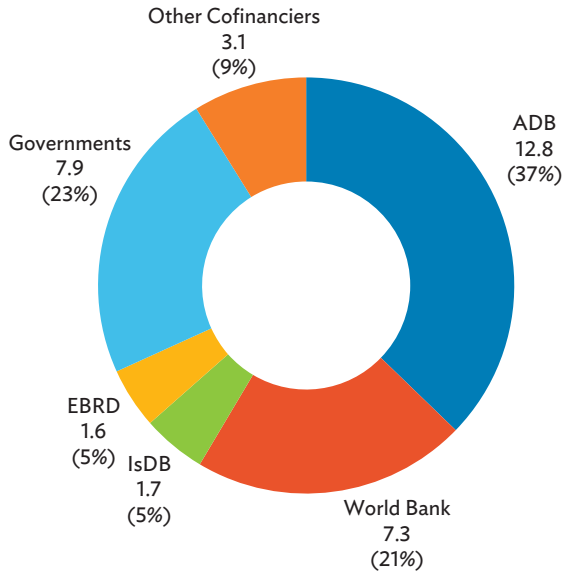
[35] Contributed by Guoliang Wu, senior regional cooperation specialist, Central and West Asia Department (CWRD); Xinglan Hu, senior regional cooperation specialist, CWRD; and Ronaldo Oblepias, CAREC consultant, CWRD, Asian Development Bank (ADB).

Overview

A new CAREC is envisaged as the subregion expands into new horizons of cooperation.

From six transport projects in 2001 valued at $247 million, CAREC investments reached $34.5 billion as of December 2018, covering 196 regional projects (Figure 5.1). Of this amount, $12.8 billion has been financed by the Asian Development Bank (ADB), $13.8 billion by other development partners, and $7.9 billion by CAREC governments. Of these investments, transport has the biggest share, with about 75%, or $26.1 billion; energy accounts for 23%, or $7.8 billion; and trade accounts for 2%, or $0.6 billion (Figure 5.2). CAREC 2030 aims for far greater shared and sustainable prosperity through increased joint endeavors and engagement in the five operational clusters.

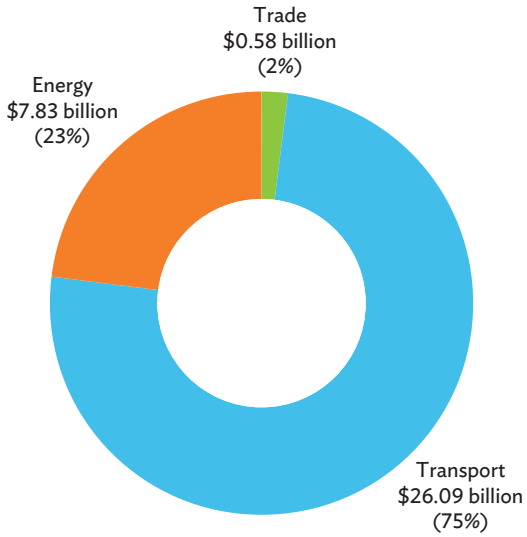
Figure 5.1: CAREC Investments by Funding Source, as of 31 December 2018 ($ billion)



ADB = Asian Development Bank, CAREC = Central Asia Regional Economic Cooperation, EBRD = European Bank for Reconstruction and Development, IsDB = Islamic Development Bank.

Source: ADB. CAREC Program Portfolio.

Figure 5.2: CAREC Investments by Sector, as of 31 December 2018 ($ billion)



CAREC = Central Asia Regional Economic Cooperation.

Source: ADB. CAREC Program Portfolio.

Central Asia is witnessing dynamic and fast changes. Regional cooperation is seen to continue to expand, capitalizing on new regional dynamics that open opportunities for CAREC agenda across the five operational clusters—in both traditional and new sectors. One key opportunity is a more open Uzbekistan and the improving relationships among neighboring countries.

CAREC's future embraces more than greater openness and expanded sectors. It also opens the door for greater policy dialogue on issues of regional significance, including economic diversification, debt sustainability, capital market development, and new financing mechanisms for infrastructure, among others. The more open and inclusive approach of CAREC is attracting new development partners that extend support to the CAREC Program particularly in new priority areas, such as tourism, education, health, agriculture, transboundary water issues, and disaster risk management.

Performance and Progress over the Past Year

Under CAREC 2030, rapid progress is made in the operational areas.

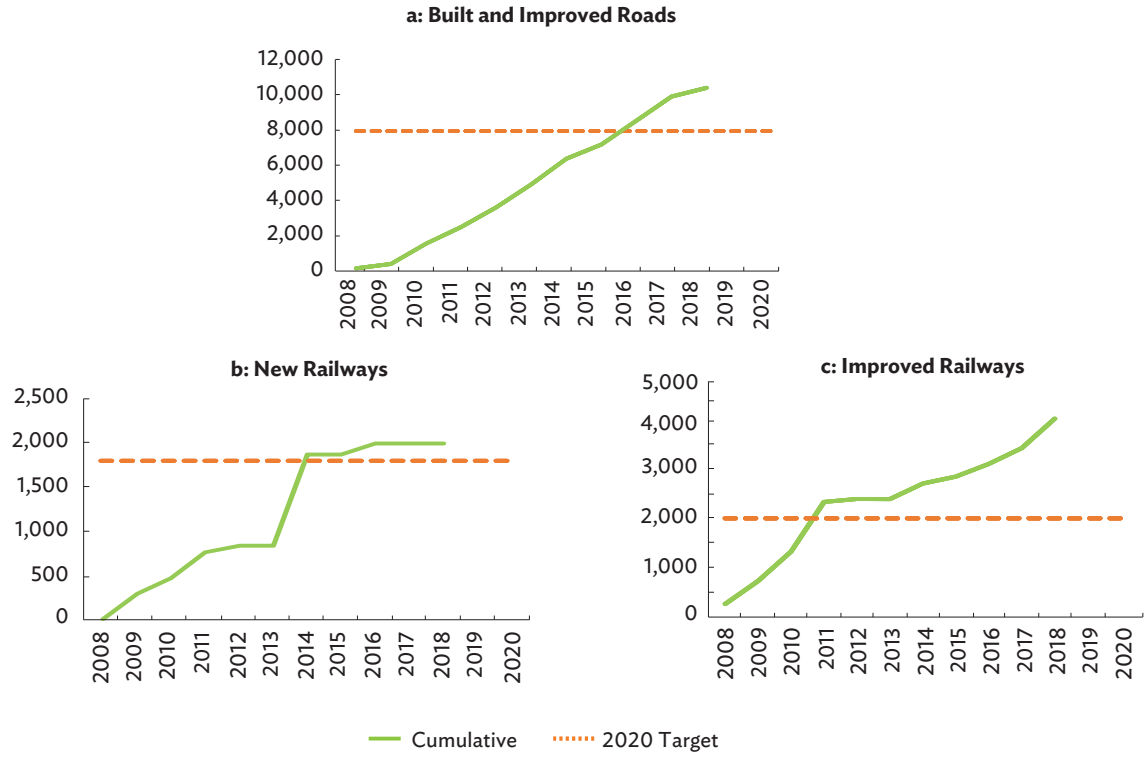
Economic and Financial Stability. Following the first CAREC High-Level Forum on Macroeconomic Policies for Economic and Financial Stability in 2018, the ADB, International Monetary Fund (IMF), and the World Bank organized another forum in Nur-Sultan, Kazakhstan in May 2019, where CAREC central bank governors, ministers, and other high-level attendees discussed infrastructure financing, fiscal constraints, debt sustainability, and how to attract more private sector investment. In August 2019, the First CAREC Capital Market Regulators' Forum was convened with co-sponsorship of the Securities and Exchange Commission of Pakistan, where senior officials from CAREC member countries and business leaders discussed reforms promoting financial access and private sector development through strengthened regional cooperation and integration in capital markets.

CAREC Integrated Trade Agenda (CITA) 2030. Since endorsement of CITA 2030 in November 2018, good progress has been achieved in the trade sector. Institutional mechanisms such as the CAREC customs cooperation committee and the regional trade group were strengthened. A new regional sanitary and phytosanitary (SPS) working group, comprising high-level representatives from national SPS working groups, was established in June 2019. Sector-specific mechanisms for cooperation in plant and animal health and the CAREC regional food safety network are being conceptualized. These regional initiatives complement country action plans to modernize SPS measures and help CAREC countries align SPS measures with the World Trade Organization (WTO) SPS Agreement and international standards. Ongoing efforts to assist CAREC customs administrations in complying with obligations under the WTO Trade Facilitation Agreement (TFA) were strengthened, with particular focus on developing a CAREC cross-border transit system. CAREC has also published the *Modernizing Sanitary and Phytosanitary Measures in CAREC: An Assessment and the Way Forward* (ADB 2019a) and the *CAREC Corridor Performance Measurement and Monitoring Annual Report 2018* (ADB 2019e). Initiatives to promote economic diversification such as in services trade, investment facilitation and e-commerce, began to take shape under CITA 2030's Rolling Strategic Action Plan (RSAP) 2019–2021.

Infrastructure and Economic Connectivity. Under the CAREC Transport and Trade Facilitation Strategy 2020, CAREC aims to (i) complete 7,800 kilometers (km) of road construction and rehabilitation; (ii) 1,800 km of new railways; and (iii) 2,000 km of renovated, electrified, or signalized railway track. The 2020 targets have already been surpassed. These include (i) 10,462 km of road constructed or rehabilitated; and (ii) 6,028 km of rail track newly built, renovated, electrified, or signaled (Figure 5.3). Progress also continues in other transport subsectors. Two major projects including the expansion of Aktau Port and the construction of the new international seaport in Turkmenistan were completed in 2018. The logistics centers which integrated with the international seaport in Tukmenistan were also completed in 2018, while the construction of the Zamiin-Uud logistics center (Mongolia) is expected to be completed by 2019.

In the energy sector, the flagship Turkmenistan–Uzbekistan–Tajikistan–Afghanistan–Pakistan power interconnection framework and Central Asia—South Asia Electricity Transmission and Trade Project continue to progress. Also, the Turkmenistan–Afghanistan–Pakistan–India (TAPI) Natural Gas Pipeline Investment Agreement was signed among pipeline shareholders in 2016, and investment for the first phase of TAPI project is under discussion. Electricity trade flows within the Central Asian Power System—Kazakhstan, the Kyrgyz Republic, Tajikistan, and Uzbekistan—increased from 583 gigawatt-hours (GWh) to 2,659

Figure 5.3: Progress of Multimodal Corridor Network Development—CAREC (kilometers)



CAREC = Central Asia Regional Economic Cooperation.

Source: ADB (2019b).

GWh from 2016 to 2018. The first CAREC Energy Ministers' Dialogue held in September 2019 in Tashkent, Uzbekistan discussed regional priorities and strategic issues on CAREC energy sector development and cooperation.

Tourism and Education. Opportunities and challenges including the way forward in developing regional tourism in CAREC were discussed at a workshop held between members and development partners in October 2018 in Tashkent, in a scoping study published in March 2019, and at a high-level panel session during the 52nd ADB Annual Meeting in Fiji in May 2019. Building on the findings from the scoping study, a $2 million regional technical assistance has been approved by ADB in August 2019 to support the development of a CAREC tourism strategy toward 2030 and a regional tourism investment framework over 2021–2025. Findings of a scoping study on education cooperation were also discussed at a workshop on enhancing regional cooperation in education and skills under CAREC conducted in March 2019 in Bishkek, which laid basis for future directions for education cooperation in CAREC.

CAREC Economic Corridor Development (ECD). The pilot Almaty-Bishkek Economic Corridor (ABEC) gained new momentum when the prime ministers of both countries created a Kazakhstan–Kyrgyz Republic ABEC Subcommittee in 2017 to oversee the implementation of ABEC. Since then, project preparation to modernize their agricultural wholesale markets and a joint plan for tourism development have been undertaken. A second pilot ECD initiative—the Shymkent-Tashkent-Khujand Economic Corridor—was conceptualized to support an assessment of ECD potential among targeted cities and neighboring oblasts (provinces) in Kazakhstan, Uzbekistan, and Tajikistan.

Prospects

Sector strategies recalibrated under CAREC 2030.

In 2018, CAREC ministers endorsed the CITA 2030 to support growth across the subregion and improve living standards. This needs to be realized through (i) trade expansion from increased market access; (ii) greater diversification; and (iii) stronger trade institutions (ADB 2019d).

The CAREC Transport Strategy 2030 being formulated builds on the Transport and Trade Facilitation Strategy 2020, and aligns with the Strategy 2030 infrastructure agenda. It shifts emphasis from construction and rehabilitation of transport corridors to improving connectivity and sustainability of the regional transport systems through prioritizing multimodal connectivity, quality, and sustainability of transport projects and assets, and development of demand-driven knowledge products. The CAREC Energy Strategy 2030 is also being prepared. Its main building blocks include (i) better energy security through regional interconnections, (ii) more investments through market liberalization reforms, and (iii) enhanced climate mitigation for a sustainable energy system. Energy efficiency and clean energy solutions will be the main drivers to reduce carbon emissions in the high energy-intensive subregion. Both new strategies are finalized for endorsement at the 2019 CAREC Ministerial Conference on 14 November.

Policy Challenges

Facilitating economic diversification through regional integration. Regional integration supports economic diversification by expanding markets, improving resource allocation and facilitating risk-sharing. Most countries in the CAREC region, particularly oil and gas exporting economies, are insufficiently diversified, making them more vulnerable to global and regional economic downturns and commodity price shocks.

CAREC efforts at improving physical connectivity, addressing regional energy demand and supply gaps, and facilitating trade support diversification efforts of member countries. CAREC 2030 strategy's new initiative in the area of strengthening agricultural trade and value chains, including through upgrading SPS systems, and supporting the establishment of regional wholesale markets, can help diversify economies in the agricultural sphere and build their competitiveness. The development of agriculture and horticulture value chains through establishing modern agro-logistics centers in Uzbekistan and modern agriculture wholesale centers development in the Kyrgyz Republic exemplify such endeavors. Likewise, developing the tourism potential of CAREC countries represents a significant opportunity for diversification of economies into the service and hospitality sectors and with potential to generate large-scale tourism-related employment for the workforce of member countries. CITA 2030 and its accompanying RSAPs provide a comprehensive framework to promote economic diversification through promoting e-commerce, trade in services, and the development of special economic zones and industrial parks.

Overall, strong regional cooperation will promote greater economic diversification. Using ADB's regional cooperation and integration (RCI) index to measure integration on a 0 to 1 normalized scale along six dimensions, CAREC is more integrated with Asia on regional value chain and infrastructure and connectivity dimensions while its integration with Asia lags in movement of people and money and finance dimensions (Figure 5.11, please refer to this chapter's section on Asia-Pacific Regional Cooperation and Integration Index). The World Bank's *Doing Business 2019: Training for Reform* puts all but four CAREC countries below the median in "Trading Across Borders." Challenges continue to exist in multimodal connectivity, border-crossing point infrastructure and services, and simplifying customs procedures and harmonization (ADB 2019e).

Southeast Asia: Greater Mekong Subregion Program[36]

Cambodia, the PRC (Yunnan Province and Guangxi Zhuang Autonomous Region), the Lao People's Democratic Republic (Lao PDR), Myanmar, Thailand, and Viet Nam comprise the Greater Mekong Subregion (GMS). ADB houses the GMS Program secretariat. Since 1992, GMS has created an interconnected subregion that improves economic growth with enhanced connectivity and competitiveness (Table 5.2). By the end of 2018, GMS governments and multilateral and bilateral development partners have approved $22.7 billion for 99 investment projects. ADB contributed $9.5 billion, GMS governments $6.0 billion, and other development partners $7.3 billion. The projects built, upgraded, or improved over 11,000 km of roads and 500 km of railway, and constructed 3,000 km of power transmission and distribution lines, adding 1,570 GWh and some 200,000 households to the grid.

Overview

The GMS Program supports subregional projects in transport, transport and trade facilitation, energy, tourism, urban development, health and human resources development, agriculture, and environmental protection. Although the subregion's gross domestic product (GDP) growth slowed marginally—from 6.1% (2013–2017) to 6.0% (2014–2018)—the growth rate remained strong the last 3 years in Cambodia, Viet Nam, and Yunnan Province, as well as Thailand (which recovered from 1% growth in 2014 to 4.1% in 2018). Growth in the subregion is bolstered by growing intraregional trade and tourism has helped, along with strong growth in foreign direct investment in Cambodia, Myanmar, Thailand, and Viet Nam. Intraregional trade as a share of overall trade continues to increase, growing from 5.1% in 2008 to 9.8% in 2018, while value increased from $416 billion in 2016 to $555 billion in 2018. Trade openness is high in Cambodia and Viet Nam, and is growing in Myanmar. GMS tourism

Table 5.2: Selected Economic Indicators, 2018—Greater Mekong Subregion

	Nominal GDP ($ billion)	**GDP Growth** (2014 to 2018, average, %) **and Trend**[a]	**GDP per Capita** (current prices, $)	**Trade Openness** (total trade, % of GDP)	**% Change in FDI** (2015 to 2018)[b]	**FDI Openness** (total FDI Inflows, % of GDP)[c]
Cambodia	25	7.1 ■	1,512	129	70.2	12.6
Guangxi, PRC	307	7.6↓	6,228	21	–34.8	0.4
Yunnan, PRC	270	8.8↓	5,581	11	–64.5	0.4
Lao PDR	18	7.1↓	2,649	73	18.0	7.3
Myanmar	73	6.8↓	1,377	46	25.9	4.9
Thailand	505	3.1↑	7,604	95	86.6	2.1
Viet Nam	245	6.6↑	2,593	196	31.4	6.3
GMS	**1,442**	**6.0↓**	**4,312**	**79**	**29.6**	**2.5**

↑ = Increase from 2013–2017 average, ↓ = Decrease, ■ = Unchanged.

FDI = foreign direct investment, GDP = gross domestic product, GMS = Greater Mekong Subregion, Lao PDR = Lao People's Democratic Republic, PRC = People's Republic of China.

[a] Average GDP growth rate for Greater Mekong Subregion is weighted using nominal GDP. Total trade refers to the sum of exports and imports.
[b] 2015 to 2017 for Guangxi and Yunnan, PRC.
[c] 2017 for Guangxi and Yunnan, PRC.

Sources: GMS Statistical Database. www.greatermekong/statistics; CEIC; International Monetary Fund. World Economic Outlook April 2019 Database. https://www.imf.org/external/pubs/ft/weo/2019/01/weodata/index.aspx; and United Nations Conference on Trade and Development. UNCTADstat. https://unctadstat.unctad.org (all accessed October 2019).

[36] Contributed by the GMS Secretariat, Southeast Asia Department, ADB.

is booming, with 78.8 million tourist arrivals in 2018 generating more than $90 billion. Intraregional tourism grew from 22.2 million arrivals in 2014 to 45.2 million in 2017, or 21.1 % of the subregion's total. For example, tourism receipts account for as much as 18% of GDP in Cambodia.

Performance and Progress over the Past Year

GMS connectivity has strengthened, paving the way for more dynamic subregional economic integration.

The Ha Noi Action Plan 2018–2022. GMS leaders adopted the Ha Noi Action Plan 2018–2022 (ADB 2018a) at the 6th GMS Leaders' Summit in March 2018—establishing strategic directions and operational priorities for GMS integration. It comprises four key elements: (i) a spatial strategy of a network of economic corridors; (ii) refinements in sector strategies; (iii) improvements in planning, programming, and monitoring systems and processes; and (iv) enhancements in institutional arrangements and partnerships. The plan uses a Regional Investment Framework 2022 (RIF 2022) to identify a medium-term pipeline of priority projects to be regularly monitored and updated. The RIF 2022: First Progress Report and Update for 2018 was endorsed by GMS ministers in April 2019, and showed progress on 247 investment and technical assistance projects—the expanded pipeline is valued at $80.9 billion (GMS Secretariat 2019).

In early 2019, GMS leaders directed the development of a new long term strategic framework 2030 in response to the changing global environment. The GMS secretariat supported GMS members, development partners, the private sector, and subregional think tanks in this work. The GMS Strategic Framework 2030 will be discussed at the 23rd GMS Ministerial Meeting for further adoption at the 7th GMS Leaders' Summit in 2020.

Cross-Border Transport Connectivity and Economic Corridor Development. The GMS Transport Sector Strategy 2030 boosts investments in RIF 2022 in railways and ports under construction to increase multimodal transport in non-road transport modes—including the Yuxi–Mohan Railway, Vientiane–Boten Railway, and the Laem Chabang Port Development Project. The Greater Mekong Railway Association has an investment program for priority rail links—some of which have already started, for example the Vientiane, Lao PDR-Boten, PRC line, and the Hekou, Viet Nam–Lao Cai, PRC line. The Poipet-Aranyaprathet Border Railway Bridge between Cambodia and Thailand has been completed. Under the GMS Transport Sector Strategy 2030, a study on GMS road safety regimes identified key challenges and offered ways to better collect data, conduct diagnostics, and formulate effective policies that promote road safety. Country-specific road safety studies are planned.

A study was completed in 2018 to assess existing GMS economic corridors. And while the study focused on the physical condition of transport infrastructure, it also assessed the economic potential of several corridor

Box 5.1: Promoting E-commerce in Greater Mekong Subregion

With its tremendous economic potential, particularly for small and medium-sized enterprises, GMS members established a framework for cross-border e-commerce cooperation at its 7th Economic Corridors Forum in Kunming, People's Republic of China, in 2015. Since then, an e-commerce business alliance was established and capacity building and regular dialogues have been conducted to share knowledge on cross-border e-commerce best practices, policies, and standards. The GMS e-commerce platform also encourages members to foster innovation and entrepreneurship; and promote dialogue on industrial standards, transaction processes, information systems, logistics supply chains, and business opportunities. Progress is reported annually at the GMS Economic Corridors Forum.

GMS = Greater Mekong Subregion, PRC = People's Republic of China.

Source: ADB.

areas. It provided a baseline for monitoring the progress of economic corridor development by identifying gaps and the corresponding required interventions. Cross-border e-commerce cooperation is also being promoted to unlock the economic potential a digital economy offers (Box 5.1).

Transport and Trade Facilitation. An "Early Harvest" of the GMS Cross-Border Transport Facilitation Agreement (CBTA) was launched in August 2018. Cambodia, the Lao PDR, the PRC, Thailand, and Viet Nam (with Myanmar joining in 2020) offer GMS transport permits to be issued and accepted along specified routes and border crossings. Several GMS members have issued these permits and Temporary Admission Documents (TADs) to commercial vehicles (buses and trucks) to expedite cross-border transport. Others are preparing to do so. In March 2019, the Joint Committee for the CBTA agreed to extend Early Harvest implementation for an additional 2 years—until 31 May 2021. It also agreed that Myanmar will initially join through bilateral agreements with neighboring countries. The negotiations for the expansion of corridors, routes and border crossings covered under the CBTA Protocol 1 were concluded in early 2019 and are expected to come into effect soon.

ADB continues to provide technical assistance to improve trade through time release studies with regional customs agencies to identify how to improve border procedures and support SPS arrangements in Cambodia and the Lao PDR, with Myanmar discussions ongoing.

Energy. The Regional Power Trade Coordination Committee (RPTCC) continues to accelerate regional power trade. Working groups on (i) performance standards and grid codes, and (ii) regulatory issues help to harmonize subregional power trade policies. In 2018, the RPTCC focused on determining national transmission charges and a draft GMS Regional Grid Code. Previously planned and ongoing bilateral and through-power trade is increasing. For example, the Lao PDR began exporting power to Malaysia through Thailand—trading 17 GWh in 2018. In March 2019, they agreed to expand up to 100 GWh annually. Also in March, the Lao PDR and Cambodia agreed to a power purchase agreement of up to 200 megawatts from the Lao PDR to support Cambodia's rising energy demand. Pre-feasibility studies are underway for a Lao PDR–Myanmar interconnection. Discussions for the establishment of a GMS Regional Power Coordination Center continue. Several studies in 2018 focused on integrating strategic environmental assessments into Viet Nam's power development planning to illustrate how strategic environmental assessments can help GMS members build sustainable national power development plans.

Tourism. Subregional tourism continues to increase, thanks to better connectivity, rising incomes, streamlined tourist visa requirements, and easy access to travel information. GMS members, led by the PRC's 19 million visitors to other GMS countries in 2018, were the main source markets. To better cope with steeply rising tourism numbers, the Tourism Working Group (TWG) is prioritizing secondary destination infrastructure, sustainable tourism, environmental management, digital marketing to promote secondary destinations, and human resources development.

The second GMS Tourism Sector Strategy 2016–2025 is being implemented with guidance from the GMS TWG and the Mekong Tourism Coordinating Office (2017). ADB supports two ongoing projects on GMS Tourism Infrastructure for Inclusive Growth in Cambodia, the Lao PDR, and Viet Nam. The first project helps accelerate inclusive economic growth along segments of GMS economic corridors by improving tourism-related access infrastructure and environmental conditions at cross-border tourism centers, and by strengthening the capacity of tourism organizations. The second helps improve urban–rural connectivity, environmental services, and the capacity to manage tourism growth in secondary destinations along GMS economic corridors. It also supports implementation of the Association of Southeast Asian Nations (ASEAN) Tourism Standards. Development partners in the TWG and GMS members also help develop tourism infrastructure and support services, strengthen tourism vocational training institutions and business support services, and expand digital tourism marketing and promotion.

Urban and Border Area Development. In 2018, ADB approved two projects to develop corridor towns in Myanmar, the Lao PDR, and Cambodia. They focus on building urban environment services and strengthening institutional capacity, private sector engagement, information and communication technology (ICT)-based public management systems, developing regional tourism, and supporting city master plans for regional economic connectivity. ADB also approved funding to support projects in the border areas of Guangxi, PRC-Viet Nam and Yunnan, PRC–Myanmar—both with high volumes of trade and human mobility. The Guangxi, PRC–Viet Nam project supports cross-border trade, investment, and financial transactions, particularly for small and medium-sized enterprises (SMEs); developing infrastructure and trade-related services; and improving connectivity and policy coordination. The Yunnan, PRC–Myanmar project supports cross-border trade, border connectivity, and urban and social development issues in Lincang Prefecture in Yunnan, and offers benefits to Myanmar nationals who trade, work, and use social services in Lincang.

ADB is leading a study on spatial planning along the GMS North–South Economic Corridor between Myanmar and the PRC. ADB also published a study examining the role special economic zones (SEZs) play in strengthening the competitiveness of economic corridors in the GMS.

Health and Other Human Resources Development. A GMS Health Cooperation Strategy 2019–2023 was endorsed in early 2019. The strategy focuses on three pillars: (i) improving health systems; (ii) strengthening protection for health impacts of regional integration; and (iii) enhancing human capacity to respond to health issues (ADB 2019c). The GMS Health Security Project for Cambodia, the Lao PDR, Myanmar, and Viet Nam is strengthening public health security against communicable diseases; improving public health security systems; and boosting national and regional capacity for disease surveillance and response, risk assessment, case management, and subregional collaboration. A regional capacity development initiative for government officials under the B-I-G Capacity Building Program for Connectivity (B-I-G Program) helps enhance capacity in developing policies, programs, and projects that support physical, institutional, and people-to-people connectivity in Southeast Asia and the PRC.[37] In 2018, training programs and knowledge events were conducted on economic corridors, SEZs, project management, transport, health assessment in SEZs, e-commerce, trade facilitation, and poverty reduction and social development.

Agriculture. Technical assistance to support a GMS Sustainable Agriculture and Food Security Program is being prepared to help implement the Strategy for Promoting Safe and Environment-Friendly Agro-Based Value Chains and Siem Reap Action Plan for 2018–2022 (ADB 2018b). The program will focus on areas such as climate-smart and gender-conscious agricultural value chains, food safety and quality, and the water–food–energy nexus through activities for (i) greening agribusiness supply chains; (ii) inclusive and gender-conscious food value chains; (iii) financing climate-friendly agribusinesses; (iv) food safety and quality standards, certification, and traceability; (v) cross-border animal health and value chain development; (vi) water for food security in a changing climate; and (vii) agricultural adaptation in the context of the water–food–energy nexus.

In 2018, ADB approved a Climate-Friendly Agribusiness Value Chain Sector Project for Cambodia, the Lao PDR, and Myanmar with cofinancing from the Green Climate Fund and the Global Agriculture Food Security Program. The project will help develop pro-poor agribusiness value chains, focusing on rehabilitating critical production and post-harvest infrastructure to link farming communities and urban centers along GMS corridors.

[37] The Brunei Darussalam–Indonesia–Malaysia–Philippines East ASEAN Growth Area (BIMP-EAGA), the Indonesia–Malaysia–Thailand Growth Triangle (IMT-GT), and the GMS or B-I-G Capacity Building Program for Connectivity is a regional capacity development initiative that provides opportunities for knowledge and experience-sharing between and among the three subregional programs given their unique roles as building blocks for Asian integration. It is funded by ADB and the governments of the Republic of Korea and the PRC. Its activities include training programs, knowledge events, and an internet-based information repository.

Environment. Several activities have been completed under the GMS Core Environment Program Phase II, involving the Green Freight Initiative, land use planning simulation modeling, environmental and air pollution assessments, a study on transboundary wildlife habitat and migration routes, and policy briefs on (i) Breaking Down Barriers to Green Freight Investments, and (ii) How to Promote Investments in Natural Capital in the GMS, among others.

A regional technical assistance on the GMS Climate Change and Environmental Sustainability Program is being prepared to support implementation of the GMS Core Environment Program Strategic Framework for 2018–2022 (GMS Environment Operations Center 2017). The assistance will focus on enabling conditions to leverage investments in green technologies and sustainable infrastructure, ecosystem services and climate resilience, and disaster risk management. Activities will support (i) green technologies for climate action and environmental sustainability; (ii) financing sustainable infrastructure and low-carbon, climate-resilient technologies; (iii) pollution control and sustainable waste management; (iv) climate-smart ecosystem landscapes; (v) decarbonization of agriculture, energy, and transport sectors; and (vi) climate change adaptation and disaster risk management.

Prospects

Tourism and trade will continue to drive GMS growth.

In the short and medium term, the GMS Program will be guided by the Ha Noi Action Plan; the RIF 2022 project pipeline; and sector strategies covering transport, health, tourism, the environment, and agriculture. Over the long term, once adopted, the GMS Strategic Framework 2030 will provide a GMS vision and build on past GMS strengths, while taking into account the rapidly changing global and regional contexts.

Increased multi-sector coordination and intervention is needed in spatial planning, border area development, and other areas under the GMS Program.

Although GMS growth has been strong generally, it has been driven by tourism and trade. To foster sustainable and inclusive tourism, the GMS Tourism Working Group has begun prioritizing promotion of secondary destinations, infrastructure and environmental management, and human resources development. On trade, despite the potential slowdown in global trade, GMS remains a dynamic subregion and could improve trade competitiveness with more efficient logistics and trade procedures.

Policy Challenge

Cooperation for customs and border procedures needs to keep up with growing cross-border movement of goods and people.

As subregional connectivity improves and the flow of goods and people continue to increase across the GMS, members will be challenged to ensure customs and border procedures are efficient and have systems in place to facilitate cross-border trade, especially but not limited to, trade in agriculture and livestock to meet SPS requirements. Members must also cooperate on cross-border health issues, from communicable diseases to animal health, to cross-border labor migration and mobile populations that require access to cross-border health services.

East Asia: Support for RCI Initiatives under CAREC and GMS Subregional Programs and Knowledge-Sharing Activities[38]

ADB continues to help the PRC and Mongolia participate in subregional cooperation programs through CAREC and GMS. It does this mainly through

[38] Contributed by the ADB East Asia Department (EARD) RCI team.

strategically aligned investments and capacity development in cross-border development areas to bring economic spillover benefits to other CAREC and GMS members. Cooperation in knowledge- and experience-sharing between CAREC and GMS members is coordinated through the PRC-based Regional Knowledge Sharing Initiative (RKSI) and CAREC Institute.

Performance and Progress over the Past Year

ADB continues to support projects in Mongolia and the PRC related to CAREC and GMS.[39]

ADB continues to promote active engagement of Yunnan Province and the Guangxi Zhuang Autonomous Region, PRC in GMS by supporting border economic zones (BEZs) and creating effective RCI linkages between the PRC and ASEAN. For example, Tranche 2 of ADB's multitranche financing facility (MFF) for the Guangxi RCI Promotion Investment Program—approved in 2018 for $180 million—helps strengthen key logistics infrastructure and services in the BEZs of the PRC, building roads both within BEZs and those leading to border-crossing points (BCPs). These BEZs also support development of cross-border e-commerce platforms, including an electronic business data center and cross-border trade exhibition center, together with software systems and advisory services. SMEs are being strengthened by providing a business development service information center and ASEAN vocational training facilities to provide SME-related training to students from the PRC and ASEAN.

The 2018-approved $250 million Yunnan Lincang Border Economic Cooperation Zone Development Project assists border towns in Lincang Prefecture, PRC, to improve cross-border trade-related infrastructure and connectivity, and strengthen the competitiveness of urban centers, logistics and industrial parks, and land ports. Urban populations will benefit from upgraded roads, schools, and medical facilities, together with improved social infrastructure and services. The project helps RCI in Yunnan Province under the GMS Program by further developing economic corridors.

Additional financing of $27 million was approved in September 2019 for Mongolia's Regional Improvement of Border Services (RIBS) project. The project, which began in 2016, will scale up and include two additional BCPs: Bichigt, bordering the PRC in eastern Mongolia; and Borshoo, bordering the Russian Federation in western Mongolia. The RIBS project envisages rehabilitating BCP facilities and introducing ICT-based customs systems. Ongoing work includes improving infrastructure at Altanbulag (connecting with the Russian Federation) and supporting ICT development in Bichigt and Zamiin-Uud. As Bichigt and Borshoo become increasingly functional gateways for Mongolia's bilateral trade with the PRC and the Russian Federation, the additional financing will improve infrastructure and facilities at both BCPs for border clearance and immigration protection standards.

ADB knowledge-sharing platforms will build more effective RCI.

ADB and the CAREC Institute organized a series of trade and RCI-related activities during 2018–2019. Following the endorsement of CITA 2030, a workshop on SEZs (November 2018 in Shenzhen, PRC) emphasized their increasing potential as catalysts for industrialization and drivers of CAREC economic growth—and for Shenzhen, a test of structural reforms. Another jointly organized workshop promoted SME trade finance through cross-country learning in the CAREC region (December 2018 in Xiamen, PRC). In partnership with the Asia-Pacific Finance and Development Institute, a workshop on environmental readiness for e-commerce (December 2018 in Shanghai, PRC) showed how to promote cross-border e-commerce. ADB and the CAREC Institute will continue to work closely to enhance linkages between policies and research, initially in e-commerce regulatory

[39] EARD is responsible for implementing CITA 2030, and provides direct support for Mongolia's participation in CAREC. It also supports loans and technical assistance projects in PRC provinces and autonomous regions within CAREC and GMS.

framework and potentially with mutual recognition—and acceptance of paperless SPS certificates during 2019–2020. The 4th CAREC Think Tanks Development Forum (August 2019 in Xi'an, PRC) focused on Trading for Shared Prosperity, underscoring the need to bridge trade policy discussions with knowledge work.

The RKSI was jointly established by the PRC and ADB in 2012 to exchange development knowledge among ADB developing member economies.[40] Drawing largely on the PRC's experience over the past 40 years promoting economic growth and social transformation, RKSI organized 56 events (workshops, conferences, and training) benefiting some 5,000 participants from ADB developing member countries as of the end of June 2019—focusing on the four broad themes of inclusive growth, urbanization, environment and climate change, and RCI.

During 2018–2019, RKSI continued to share knowledge among DMCs. For example, in collaboration with the International Poverty Reduction Center in the PRC, RKSI organized the Sixth and Eighth ASEAN+3 Village Leaders Exchange Program, and the Twelfth and Thirteenth ASEAN-PRC Forum on Social Development and Poverty Reduction. The Village Leader Program is designed specifically to strengthen the role of village leaders in rural development and helps them learn at ground-level from successful poverty alleviation projects and initiatives. In 2018, the Sixth Program focused on human capital development through improved community development, while the Eighth Program in 2019 addressed rural industrial development, agricultural value chains, and rural tourism. Partnering with the Asia-Pacific Finance Development Institute, RKSI also supported SEZ training for ASEAN and PRC officials, sharing the PRC's experience in using SEZs for economic development. The annual event—jointly organized with ADB's Southeast Asia Department—more broadly discusses concepts, trends, good practices, lessons learned for SEZ design, implementation and management, and identifies avenues for cross-border e-commerce development and cooperation.

ADB also supports inter-subregional forums: EARD's Public Management, Financial Sector, and Regional Cooperation Division partnered with both RKSI and the CAREC Institute for the inter-subregional knowledge- and experience-sharing forum on trade facilitation modernization and reform, held in October 2019, in Tbilisi, Georgia. Senior customs officials from the CAREC and South Asia Subregional Economic Cooperation (SASEC) countries worked to identify critical success factors to promote efficient and effective trade flows, resource allocation, and improved regional cooperation, while also supporting national efforts to adopt international best practices and complying with international commitments such as the WTO TFA.

Prospects

ADB supports cross-border economic zone development.

A $30 million ADB loan to Mongolia is being prepared to assist the government to operationalize the Zamiin-Uud free zone and support development of the cross-border economic zone (CBEZ) between Mongolia and the PRC at the Zamiin-Uud–Erenhot border crossing into the PRC's Inner Mongolia Autonomous Region. The project includes construction of infrastructure and facilities in the Zamiin-Uud free zone, strengthened management and operation of the Zamiin-Uud free zone, and establishing a coordination mechanism for Zamiin-Uud–Erenhot CBEZ port of entry.

On the PRC side of the CBEZ, a counterpart project supports construction of an inspection area, with smart port inspection also under preparation. This is part of a broader $420 million ADB-financed MFF under preparation for the PRC's Inner Mongolia RCI Promotion Investment Program. It will support the Inner Mongolia Autonomous Region in promoting RCI between the PRC, Mongolia, and other CAREC members. Enhanced cooperation between the PRC and Mongolia under CAREC will bring high regional spillover economic and

[40] The RKSI website is available at http://www.rksi.org/.

social benefits to Mongolia by improving connectivity, increasing cross-border trade, and expanding Mongolia's access to the PRC and other CAREC markets. The MFF will contribute to reduced poverty and inequality, while supporting rural development through improved infrastructure and increased trade. Program design and implementation is closely coordinated with Mongolia's ADB-financed CBEZ and RIBS projects. Such parallel and coordinated investment approaches between the PRC and Mongolia helps achieve national priorities and promotes RCI through cooperation agreements. It could serve as a model for similar border-related projects and particularly, for CAREC's landlocked countries.

ADB is also assisting the Xinjiang Uygur Autonomous Region, PRC, to develop a $490 million MFF for the Xinjiang RCI Promotion Investment Program, to expand economic opportunities in Xinjiang's border areas. It will increase transport and trade efficiency along CAREC transport corridors and provide better business opportunities to SMEs and local populations. Logistics and other trade-related infrastructure and facilities will help the emerging BEZs' physical expansion and provide international health care facilities for the PRC, Kazakhstan, and other CAREC members. Last-mile road linkages will connect the BEZs more rapidly and effectively with BCPs into Kazakhstan and Mongolia. Road networks within the BEZs will help expand and develop productive capacity. Physical infrastructure and business development services will be designed to provide access to SMEs and local training to improve employment opportunities as the BEZs expand.

Policy Challenges

Subregional trade and transport corridors require effective transit arrangements to promote trade.

With the PRC and Mongolia focusing investment on building better cross-border trade infrastructure and facilities—and reducing transaction costs through the WTO's TFA—there is a growing need to develop more effective CAREC and GMS cross-border transit trade policy. Current arrangements for multicountry transit trade from East Asia to markets in Central Asia, South Asia, and Europe can be expensive and cumbersome; with the plethora of bilateral transit agreements limited in scope. Subregional transit arrangements, such as those being prepared for a pilot phase under the CAREC trade sector, should be encouraged and supported.

South Asia: South Asia Subregional Economic Cooperation[41]

In 2018, the South Asia Subregional Economic Cooperation (SASEC) Program agreed to fund two transport connectivity projects in India and Nepal valued at $564.2 million to improve international trade corridors, along with a $20 million energy project in Nepal to raise power transmission capacity. Since 2001, ADB has helped finance 52 SASEC projects worth $11.36 billion, with about $6.52 billion in ADB financing. SASEC members—Bangladesh, Bhutan, India, Maldives, Myanmar, Nepal, and Sri Lanka—are following the SASEC Operational Plan 2016–2025 to prioritize gaps in transport and energy networks across the subregion.

Overview

In 2018, SASEC focused on reducing gaps in multimodal connectivity to boost RCI among its members.

Bangladesh, Bhutan, India, and Nepal established SASEC in 2001 to strengthen subregional economic cooperation and address development challenges—such as persistent poverty and demographic growth (Table 5.3). Maldives and Sri Lanka joined in 2014, followed by Myanmar in 2017, expanding opportunities to enhance cross-border connectivity, intraregional trade, and RCI. ADB is lead financier and home to the SASEC secretariat.

[41] Contributed by Aileen Pangilinan, Senior Regional Cooperation Officer of ADB's South Asia Department (SARD) and SARD consultants Jesusito Tranquilino and Leticia de Leon.

Table 5.3: Selected Economic Indicators, 2018—SASEC

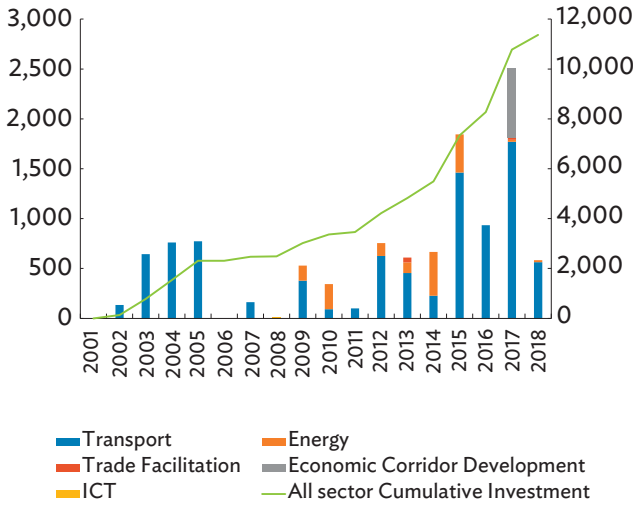
	Population (million)	Nominal GDP ($ billion)	GDP Growth (%, 2014–2018, average)	GDP per Capita (current prices, $)	Trade Openness (total trade, % of GDP)
Bangladesh	166.4	288.4	7.0	1,733.7	30.9
Bhutan	0.8	2.6	5.9	3,160.3	122.0
India	1,354.1	2,718.7	7.5	2,007.8	30.6
Maldives	0.4	5.3	6.4	12,000.0	59.0
Myanmar	53.9	68.7	6.8	1,275.0	52.7
Nepal	29.6	29.0	5.0	980.3	46.9
Sri Lanka	21.5	88.9	4.2	4,128.0	38.0
SASEC	**1,626.7**	**3,201.7**	**7.3**	**1,968.2**	**31.6**

GDP = gross domestic product, IMF = International Monetary Fund, SASEC = South Asia Subregional Economic Cooperation.

Notes: Average GDP growth rate for Myanmar is for 2017 and 2018. SASEC average GDP growth rate is weighted using nominal GDP, based on IMF staff estimates. Total trade refers to the sum of exports and imports.

Sources: ADB (2019f); IMF. Direction of Trade Statistics. https://www.imf.org; IMF. World Economic Outlook October 2019 Database. https://www.imf.org/external/pubs/ft/weo/2019/02/weodata/index.aspx; and World Bank. Population Estimates and Projections. https://datacatalog.worldbank.org/dataset/population-estimates-and-projections (all accessed October 2019).

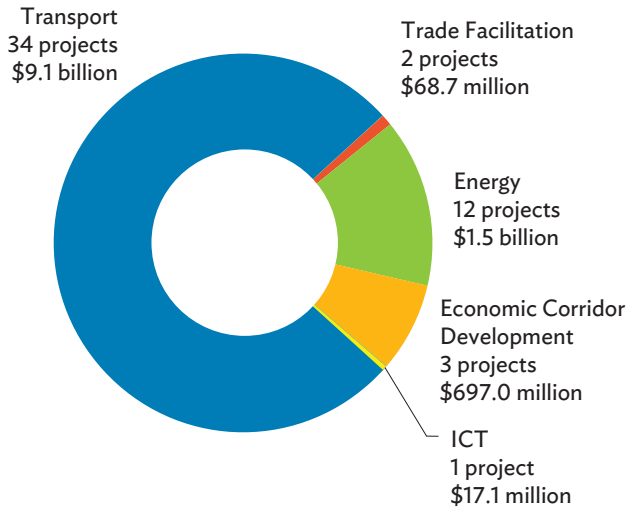
Figure 5.4: SASEC Investment by Sector and Volume ($ million)



ICT = information and communication technology, SASEC = South Asia Subregional Economic Cooperation.

Source: ADB (2019g).

Figure 5.5: SASEC Projects by Sector, as of 31 December 2018

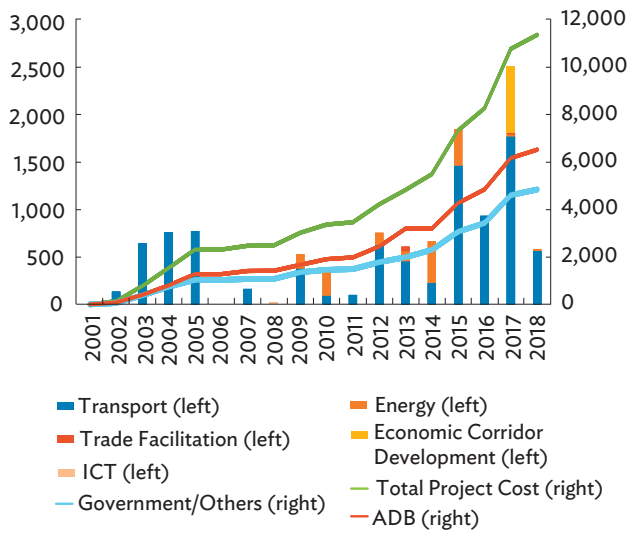


ICT = information and communication technology, SASEC = South Asia Subregional Economic Cooperation.

Source: ADB (2019g).

By the end of 2018, 52 ADB-financed projects worth $11.36 billion had been committed (Figure 5.4), with an additional $106.44 million in 81 technical assistance grants. Infrastructure connectivity investments held the largest share (34 projects, $9.08 billion), with power generation, transmission, and cross-border electricity trade second (12 projects, $1.50 billion). Investments in economic corridor development, trade facilitation, and ICT development amounted to $782.74 million (Figure 5.5). ADB financed $6.52 billion in investments ($4.31 billion from ordinary capital resources and $2.21 billion in concessional finance), while SASEC members and cofinanciers contributed $4.84 billion (Figure 5.6).

Figure 5.6: SASEC Investment by Sector, Volume, and Finance Partner ($ million)



ADB = Asian Development Bank, ICT = information and communication technology, SASEC = South Asia Subregional Economic Cooperation.

Source: ADB (2019g).

The SASEC Operational Plan 2016–2025 (SASEC OP) refocused SASEC's operational priorities with greater emphasis on enhancing multimodal transport networks, developing railways and seaports, land and maritime-based trade facilitation and logistics, promoting regional energy trade and cleaner energy, and reinforcing value chains within economic corridors. The 2017 SASEC Vision (ADB 2017a) aims to transform the subregion into a growth engine by leveraging resource-based industries, expanding regional value chains, and strengthening gateways and hubs. Energy cooperation has been widened to include oil and gas.

Performance and Progress over the Past Year

SASEC nodal officials and working groups met in Singapore in March 2018 to update the SASEC OP, adopting a clearer basis for prioritizing projects: (i) defining which projects comprised transport and energy networks; (ii) conducting a comprehensive list of completed and ongoing projects; and (iii) identifying future priority projects.

Transport. Filling gaps in identified multimodal transport networks that link main industry centers with key ports, airports, and logistics centers are priorities. The SASEC OP update identified six SASEC corridors that address the modal development needs, promoting multifaceted development along routes. These include (i) the Nepal-Kolkata Trade Corridor, (ii) Bay of Bengal Highway, (iii) India-ASEAN East-West Corridor, (iv) Nepal-Bhutan-Bangladesh North-South Corridor, (v) North Bangladesh-India Connector, and (vi) Sri Lanka Port Highway. Two 2018 ADB projects help address these: Nepal's SASEC Highway Improvement ($256.4 million) will support capacity, quality, and safety improvements of the East-West Highway—Nepal's main trade corridor linking to Dhaka and Chittagong through India (within SASEC corridor 4); and India's SASEC Road Connectivity Investment Program Tranche 2 ($307.8 million), will upgrade links between Manipur state and Myanmar (SASEC corridor 3), and develop last-mile connectivity for an international bridge between India and Nepal.

Bangladesh's railway projects, many financed by ADB, are designed to better link India's Mongla and Chattogram ports with Bhutan, Nepal, and Northeast India. Current development on ports and airports—mostly along SASEC corridors—will increase capacity. India's port development stresses improving container handling for port-led industrialization along the East-Coast Economic Corridor—the Bay of Bengal Highway (SASEC corridor 2). Sri Lanka's Colombo port investment helps meet demand for container transshipment and related logistics for international markets.

Trade Facilitation. The SASEC OP allowed more time for its Trade Facilitation Strategic Framework (TFSF) 2014–2018 (ADB 2014) to reach international best practices on clearances. ADB's trade facilitation assistance will focus on (i) simplifying trade documentation, (ii) promoting automation in border agencies and the development of national single windows, (iii) strengthening national conformance bodies to better address SPS measures and other technical barriers to trade, (iv) developing and implementing motor vehicle agreements, (v) developing trade-related infrastructure

in ports and land border crossings, and (vi) building trade facilitation capacity and coordination (ADB 2016). Current ADB assistance focuses on (i) support for the SASEC Customs Subgroup—national and subregional projects on exchange of trade documents and transit automation, among others, including capacity building in international customs best practices, (ii) improve cross-border facilities,[42] largely integrated in SASEC road connectivity projects, and (iii) facilitate more efficient movement of people, goods, and vehicles using a multi-track approach.[43]

Energy. Promoting subregional power trade is a SASEC Vision flagship initiative and a priority in the SASEC OP. It provides more reliable, cheaper, and cleaner energy (mainly hydropower) from Bhutan and Nepal to SASEC members Bangladesh, India, and Sri Lanka. India already has a bilateral power trade arrangement individually with Bangladesh, Bhutan, Nepal, and Myanmar. ADB has been supporting hydropower projects in Bhutan and transmission projects in Bangladesh and Nepal to enable power trading,[44] which will continue through the SASEC Cross-Border Power Trade Working Group (SPT-WG).

Two flagship initiatives involve trade in oil and gas: (i) a pipeline corridor between Bangladesh and India for crude oil imports and product supply; and (ii) using Sri Lanka as a liquid petroleum gas (LPG) transshipment and storage hub. The first is progressing via Bangladesh-India discussions within their hydrocarbon partnership framework—recently agreeing to construct a 130 km oil pipeline between Siliguri (India) and Partbatipur (Bangladesh) with a 1 million metric ton annual capacity. ADB will support studies on developing the Sri Lanka LPG Hub as well as establishing LPG and liquid natural gas infrastructure to meet emerging demand. The SASEC oil and gas supply chain was discussed at the SASEC Regional Gas and Petroleum Working Group (RGP-WG), established in late 2018.

Economic Corridor Development. After projects in India and Nepal in 2017, ADB expanded its ECD work through studies on (i) Multimodal Logistics Parks in India's Karnataka and Assam states, (ii) India's Chennai-Kanyakumari Industrial Corridor, (iii) the Southwest Bangladesh Economic Corridor, and (iv) the Colombo-Trincomalee Economic Corridor (CTEC) in Sri Lanka. A 2018 CTEC workshop in Colombo presented a comprehensive development plan for CTEC, laying out the framework and strategy for the corridor's development. ADB also financed a workshop on SEZs and ECD, held in Shanghai, PRC in June 2018, to better understand and share experiences in promoting SEZs, ECD, and defining the role logistics plays.

Prospects

The updated 2018 SASEC OP identified 77 projects ($45.6 billion) to be financed by SASEC members, ADB, and other development partners. Transport remains the bulk (53 projects, $34.0 billion), indicating that SASEC members continue to address their connectivity gaps and build needed links with Southeast Asia and East Asia.

An integrated and holistic approach under the SASEC OP will expand regional trade markets.

Priority transport projects under the updated SASEC OP will expand trade along the defined SASEC road and rail corridors—either by completing missing links to gateways or upgrading of road and rail capacity where congestion exists. Gateway ports and airports are also prioritized for capacity upgrading and removing operational bottlenecks. In trade facilitation, the holistic approach combines both hard and soft components to expedite processes and improve border clearance procedures, with most

[42] An ADB study on coordinated border infrastructure development—covering nine land customs stations pairings—examined infrastructural, institutional, procedural, ICT, and other issues that need to be addressed and emphasized the need for better coordination to synchronize investments and software.

[43] The multitrack approach involves (i) expanding pilots for electronic cargo tracking systems for better cargo security and revenue protection, (ii) finding soutions for cross-border routes or border point, and (iii) continuing support for finalizing Bangladesh-Bhutan-India-Nepal motor vehicle agreements.

[44] Nepal's SASEC Power System Expansion project (additional financing) will augment two earlier projects to build power transmission lines and substations to equip the Nepal grid with necessary capacity for future hydropower exports.

pipeline project cost dominated by investments in trade infrastructure, including conformance with SPS and Technical Barriers to Trade issues. By number, the majority of projects will streamline trade documentation, border agency automation, national single windows, and capacity building in trade facilitation best practices. In energy, the comprehensive approach involves broadening cooperation from power to oil and gas, emphasizing (i) power trading, with the SPT-WG promoting priority hydropower and transmission interconnection projects that address power resource imbalances, and (ii) oil and gas trading, with the RGP-WG tasked to look into prospects for enhancing the gas and fuel supply chain, such as setting up LPG and liquid natural gas transshipment and logistics.

Policy Challenges

SASEC countries need to intensify efforts to reduce poverty further.

The poverty rate in South Asia has declined remarkably—from 38.6% in 2002 to 12.4% in 2015. But it remains above the 10% global average. To meet the Sustainable Development Goal of ending all forms of poverty by 2030, SASEC countries would need to do more to reduce poverty and inequality, especially as it faces the dual challenges of rising populations and employment-reducing effects of new technology and innovation (ADB 2018c). Under ADB's Strategy 2030, eliminating poverty remains the primary development target (ADB 2018d). ADB will use all possible means to address poverty, including greater financial inclusion, creation of quality jobs, access for SMEs, women empowerment, and more support for rural-based agribusiness value chains. To counter future job losses from automation, ADB supports education, vocational training, and labor policies that engender occupational shifts.

SASEC contributes to poverty alleviation by improving market access through enhanced transport connectivity, more seamless cross-border flows of people and goods through trade facilitation, and raising revenues to fund socioeconomic projects of hydropower exporters, while giving importers more secure and affordable power supply. However, there is no guarantee that these RCI initiatives promote greater equity. Other RCI platforms in South Asia—such as the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation and the South Asian Association for Regional Cooperation can provide knowledge-sharing on good practices to avoid any regressive RCI effects—incorporating inclusive policies for regional connectivity initiatives, with special attention to capacity building of the rural poor, women, and SMEs. Box 5.2 elaborates

Box 5.2: SASEC as a Platform for Knowledge-Sharing for Enhanced Regional Cooperation

The SASEC Vision estimates that the rise in the share of working age population in the subregion by 2025 can become either a "demographic dividend" or a liability, depending on SASEC members' ability to provide avenues for growth (ADB 2017a). The SASEC Vision aims to tap into this potential through cooperative efforts of members, ensuring cohesive policies and programs that harness each country's strengths, creating economic synergies. ADB knows that serious risks can hamper this vision—such as trade tensions, debt and systemic financial issues, climate change, and automation technology.

Overall, however, technology and innovation can provide the means for stronger growth. Regional cooperation can provide a platform for knowledge exchange in new technologies that can accelerate growth and job creation. In energy, knowledge-sharing in state-of-the-art transmission technology under the SASEC Cross-Border Power Trade Working Group (SPT-WG), for example, can foster better grid interconnectivity where more robust power trade can take place. The SPT-WG will additionally examine sharing suitable renewable energy and more efficient energy technologies that can lead to more climate-friendly energy use. In oil and gas, the SASEC Regional Gas and Petroleum Working Group plans to look into technological advances that can enhance the fuel supply chain, ensure more stable and affordable fuel for importers. In trade facilitation, SASEC's promotion of electronic cargo tracking systems technology is helping realize safer, more secure and efficient cross-border transit between members, and is aligned with the Bangladesh-Bhutan-India-Nepal (BBIN) motor vehicle agreement to create a seamless flow of passenger, personal, and cargo vehicular traffic between BBIN countries.

ADB = Asian Development Bank, SASEC = South Asia Subregional Economic Cooperation.

Source: Asian Development Bank.

further on SASEC serving as a platform for knowledge sharing.

The Pacific: Partnering with the Private Sector to Expand Energy Access[45]

The Pacific Renewable Energy Program (PREP) uses a regional approach to encourage expanded private sector participation in the power sector. Through an innovative blend of financing support, the program aims to surmount current barriers to private investment by boosting the creditworthiness of power utilities. Sustained private sector involvement will help reduce reliance on grants and subsidies from the public sector. Over the longer term, the program will promote sustainable renewable energy generation that ultimately helps close gaps in electricity access.

Overview

Private sector participation in renewable energy may be bolstered with development partner financing support.

Pacific economies share similar development challenges—including small, often isolated populations, limited resources, remoteness, disasters, and vulnerability to external shocks. Power generation across the subregion is shifting from a reliance on fossil fuels to renewable energy sources. This will lower costs, reduce greenhouse gas emissions, and improve energy security. But to work efficiently, it needs the private sector to increasingly own and operate these renewable energy facilities.

Currently, power utilities lack the renewable energy technical capacity to manage grids that are rapidly shifting from relatively simple single-source generation systems (such as diesel) to grids with multiple intermittent renewable energy sources (available wind, solar, and hydropower). More sophisticated integration systems with strong technical expertise can be provided or transferred from experienced private operators. And, of course, this structural shift entails significant investment. Private sector participation can help fill current investment gaps and supplement human capacity.

The private sector currently relies on sovereign guarantees to backstop the offtake obligations of power utilities. However, some ADB DMCs in the Pacific cannot provide guarantees due to sovereign debt ceilings or the preference to use access to direct borrowing. ADB recently approved an umbrella facility designed to work within these constraints. It encourages private sector investment by using development partner financing to backstop payment obligations of power utilities. Each project under the facility will involve one—or a combination of—partial risk guarantees, direct loans, letters of credit, and technical assistance.

The Pressing Need to Expand Access to Electricity

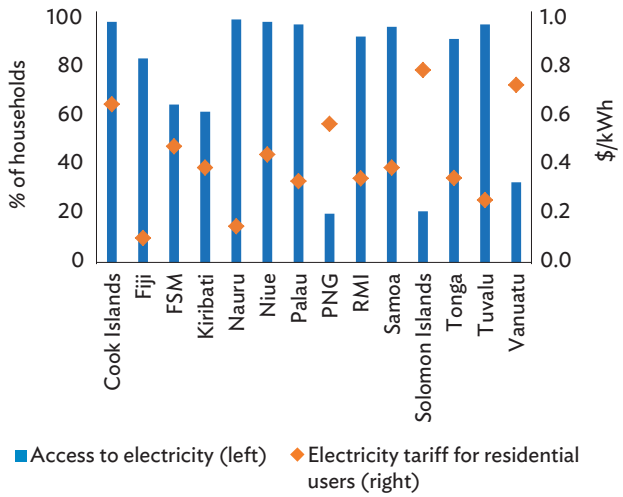
Latest data show less than a third of the Pacific's population has access to electricity (ADB 2018e). At the country level, while at least 90% of households in eight Pacific countries have access to electricity, households located in larger economies tend to have much lower access rates (Figure 5.7). This is mainly due to amplified geographic constraints and other issues, which contribute to complex logistical barriers to expand coverage. For example, in Papua New Guinea (PNG), Solomon Islands, and Vanuatu, collectively, only less than a quarter of households has access, implying that many households remain dependent on less reliable and inefficient substitutes for electricity—such as

[45] Contributed by Alix Burrell, principal investment specialist, Private Sector Operations Department; Anthony Maxwell, principal energy specialist, Pacific Regional Department (PARD); and Rommel Rabanal, public sector economist, PARD, ADB. In this section, Pacific economies include the Cook Islands, the Federated States of Micronesia, Fiji, Kiribati, the Marshall Islands, Nauru, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu, and Vanuatu.

kerosene lamps. And electricity costs are higher in the larger economies with less electricity access. Costs in PNG, Solomon Islands, and Vanuatu averaged $0.70 per kilowatt-hour, compared with the subregional average of $0.44 per kilowatt-hour.

Bridging the gaps in electricity access will require new investment initiatives. There are ways to simultaneously improve access while bringing down costs. They stem from expanding private sector participation in renewable energy generation. This both shifts away from the reliance on expensive diesel imports and supports sustainable energy production.

Figure 5.7: Cost of and Access to Electricity



FSM = Federated States of Micronesia, kWh = kilowatt-hour, PNG = Papua New Guinea, RMI = Republic of the Marshall Islands.

Note: Chart reflects latest available data.

Source: Pacific Region Infrastructure Facility (2016).

Barriers to Private Sector Participation

Commercial and public sector funding for power utilities in the Pacific are inadequate. Most Pacific countries are actively seeking investments from independent power producers (IPPs). However, investment is restricted by the lack of government credit support for paying power utility obligations, as most countries cannot provide guarantees:

(i) Governments are reluctant to provide guarantees because the obligation will be counted as a contingent liability and will contribute to national debt.
(ii) Often, Pacific countries have mandated debt ceilings or would prefer to utilize available headroom for direct borrowing.
(iii) The small scale of many transactions makes transaction costs for guarantees prohibitive.

Private investment is also hampered by a lack of bankable power purchase agreements (PPAs), uncertainties over foreign currency availability and convertibility, and perceived political risks. These factors have constrained the spread of successful partnerships with IPPs across the subregion.

Breaking Barriers: The Pacific Renewable Energy Program

In March 2019, ADB approved an umbrella facility of up to $100 million that will help finance loans, guarantees, and letters of credit to overcome constraints to private sector investment in Pacific renewable power projects. The PREP can support possibly five renewable energy projects in the Pacific over a 5-year period.

PREP is designed to overcome critical constraints and encourage private sector investment through an innovative blend of direct private sector lending, guarantees for commercial bank lenders, and development partner finance to backstop payment obligations of power utilities. More specifically, each project under the program will include one or more of the following forms of financing support:

- A partial risk guarantee (PRG) covering standard political risks and breaches of contract under a PPA—including coverage of failure by the utility to make a termination payment in the event of full default by the power utility, as set out in the PPA. Payment for breach of contract is made under the PRG upon arbitral award.
- A direct loan supporting a private sector IPP borrower. If ADB cannot fund a loan in local currency, then an ADB partial credit guarantee benefiting one or more local lenders to the project may be offered to the IPP instead of a direct loan.

- A letter of credit covering short-term liquidity risk, drawn down by the IPP to cover payments due under the PPA over a specific period. ADB may arrange for a maximum 24 months of PPA payments per project. The letter of credit will cover the risk that a power utility fails to make payments to the project in accordance with the terms of the PPA, and it will be reinstated once the utility has restored outstanding payments. The letter of credit, if provided, will be fully funded by development partner funds.
- Technical assistance for transaction advisory support and streamlined processes to reduce high transaction costs associated with the relatively small transactions in the Pacific, and to assist with capacity building in environmental and social safeguards.

These support mechanisms will help remove barriers to investment by enhancing the creditworthiness of power utilities and mitigating the perceived political risk for lenders. Providing ways to enhance credit to hedge against key risks will help increase private investment in power. Using this approach, PREP is expected to lower the cost of financing and encourage financing with longer tenors, which will feed through to lower power tariffs and attract new investors and lenders to the Pacific, where they might not otherwise invest.

PREP fulfills the Pacific Renewable Energy Investment Facility's (PREIF) identification of a development partner-backed guarantee program as a key means of promoting private investment in energy. PREIF supports ADB investments in sovereign renewable energy projects in the smallest 11 Pacific countries and assists in sector reform.[46]

Looking Ahead to a Sustainably Powered Future

PREP aims to spur self-sustaining private sector development and, over time, reduce reliance by power utilities on grants and subsidies. Currently, ADB is the largest investor in the Pacific energy sector. PREP is leveraging established relations with an extensive network of Pacific power utilities to identify potential transactions in its early stage. Technical assistance will also help Pacific power utilities and governments improve the quality of doing business with the private sector, build capacity for energy expansion, and further raise private sector interest in the subregion.

The first project proposed under the program has already been identified and a financing plan is under discussion. Participating projects will be required to adopt environmental and social standards and to demonstrate gender parity in energy and related community projects.

The Asia-Pacific Regional Cooperation and Integration Index

Regional Integration Trends in Asia

The Asia-Pacific Regional Cooperation and Integration Index shows that Asia's integration has been broadly steady.

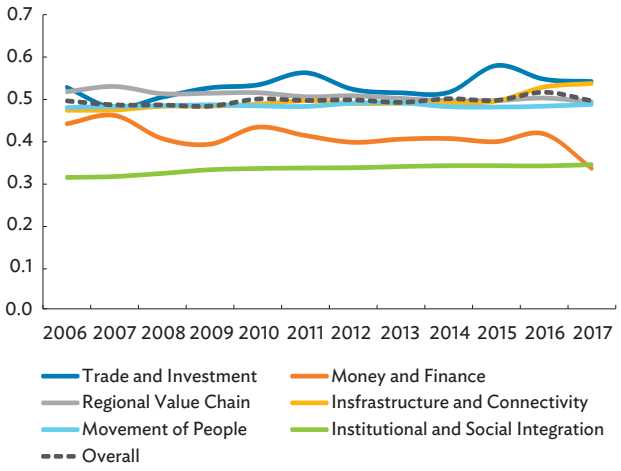
Introduced in 2017 and refined further in 2018 to cover panel data, the Asia-Pacific Regional Cooperation and Integration Index (ARCII) measures the extent to which each economy is integrated into the region. It identifies strengths and weaknesses of multiple regional integration drivers, and comprehensively and systematically tracks progress over time. Given the complex nature of regional integration, the ARCII combines 26 indicators categorized into six regional cooperation and integration dimensions: (i) trade and investment; (ii) money and finance; (iii) regional value chains; (iv) infrastructure and connectivity; (v) movement of people; and (vi) institutional and social integration. It covers ADB's members in Asia (46 developing member economies plus Australia, Japan, and New Zealand), where data are available (ADB 2017b, 2018f).[47]

[46] Formerly the Pacific Islands Renewable Investment Program as approved in May 2017. PREIF was featured in the Pacific section of the Subregional Cooperation Initiatives chapter of AEIR 2017.

[47] See ADB. Asia Regional Integration Center. ARCII. https://aric.adb.org/database/arcii for ARCII database, methodology, and other related resources.

The pace of regional integration measured by ARCII has been broadly steady during 2006–2017. But latest ARCII estimates show that regional integration in Asia weakened in 2017, driven largely by a decline in the pace of money and finance integration (Figure 5.8). Regional integration in dimensions of (a) trade and investment, and (b) regional value chain also weakened slightly. Meanwhile, the infrastructure and connectivity dimension strengthened together with movement of people and institutional and social integration.

Figure 5.8: Overall and Dimensional Subindexes—Asia



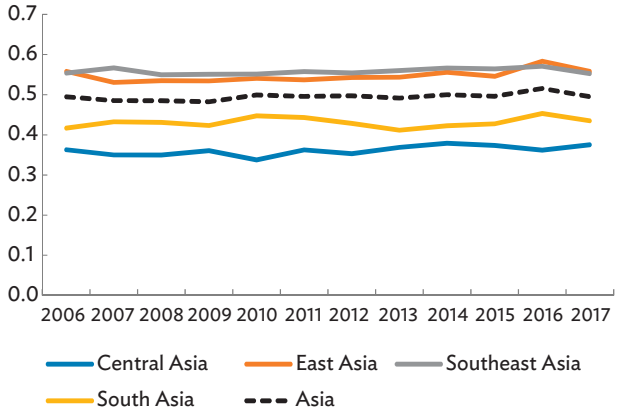
Source: ADB calculations using methodologies of Huh and Park (2018) and Park and Claveria (2018).

Across subregions, East Asia and Southeast Asia appear most integrated with Asia as a whole (Figure 5.9). Central Asia and South Asia scored below the average regional integration.

Subregional results vary across dimensions (Figure 5.10). For example, East Asia scored highest in the dimensions of money and finance, infrastructure and connectivity, regional value chain, and institutional and social integration. Southeast Asia outperformed other subregions in trade and investment and movement of people. South Asia and Central Asia trailed the other subregions in most dimensions.

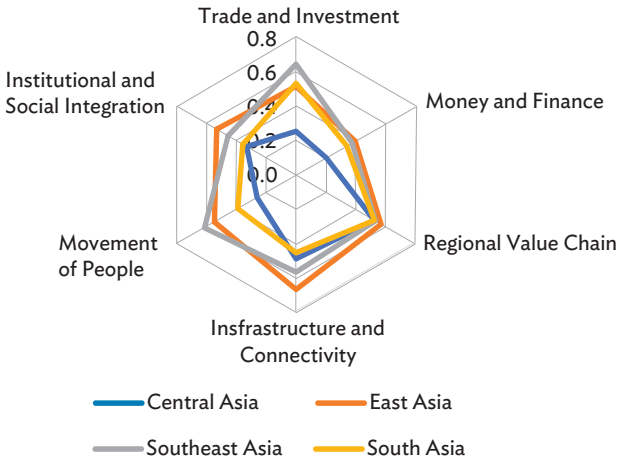
The ARCII likewise shows the degrees of regional cooperation and integration in Asia's subregional initiatives across the six RCI dimensions. ASEAN exhibits the highest degree of subregional cooperation and integration with an overall ARCII score of 0.553, particularly strong in the areas of trade and investment and movement of people (Figure 5.11). These two dimensions are also strongest in GMS and SASEC, while the main drivers for CAREC's integration with Asia are regional value chain and infrastructure and connectivity. Regional integration in money and finance seems to be one of the weakest dimensions across the four subregional initiatives. Movement of people is also weakest in CAREC, while institutional and social integration is also weak in ASEAN and SASEC.

Figure 5.9: Overall Indexes—Asian Subregions



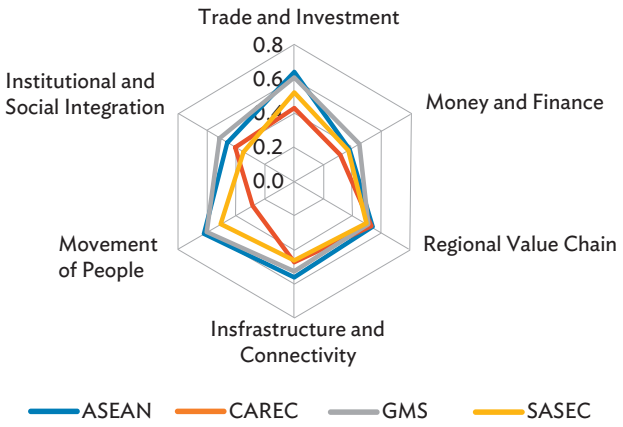
Sources: ADB calculations using methodologies of Huh and Park (2018) and Park and Claveria (2018).

Figure 5.10: Dimensional Subindexes by Asia Subregions, 2017



Source: ADB calculations using methodologies of Huh and Park (2018) and Park and Claveria (2018).

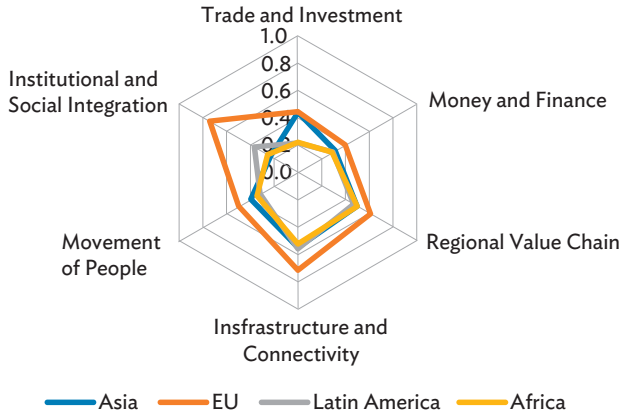
Figure 5.11: Dimensional Subindexes by Subregional Cooperation Initiatives, 2017



ASEAN = Association of Southeast Asian Nations, CAREC = Central Asia Regional Economic Cooperation, GMS = Greater Mekong Subregion, SASEC = South Asia Subregional Economic Cooperation.

Sources: ADB calculations using methodologies of Huh and Park (2018) and Park and Claveria (2018).

Figure 5.12: Regional Integration Index, 2017—Asia versus Other Regions



EU = European Union.

Sources: ADB calculations using methodologies of Huh and Park (2018) and Park and Claveria (2018).

The index can be applied to all countries around the globe. To allow global comparison, worldwide normalization is applied to the ARCII. In 2017, Asia was second to the European Union (EU) in overall integration relative to other regions. It remained equal to the EU in trade and investment integration (Figure 5.12). The EU outperformed all other regions in the remaining dimensions. It was strongest in institutional and social integration, given its economic and monetary union institutions.

Role of Economic Integration in Growth and Development

Economic integration can offer substantial economic benefits through efficiency gains, increases in market size, cost-sharing in regional production and cross-border infrastructure, as well as noneconomic benefits.

Economic integration—the process of creating common markets, establishing production sharing networks and promoting the free flow of goods, capital, and labor—promotes economic growth and development by harnessing efficiency through scale economies. Integration also facilitates positive spillover effects from technology diffusion, investment in knowledge and skills, as well as increased productivity through specialization and production sharing.[48] For example, opening markets, sharing production networks, and allowing the free flow of goods and capital—resources can be more efficiently reallocated—increase incomes, raises economic growth, and improves development outcomes. Technology and knowledge spillovers also hasten the convergence process as less-developed countries leapfrog development stages—using innovation, new technologies, and improved knowledge.

This process of economic integration, particularly through open trade and investment, benefited many Asian economies—including the PRC, the newly industrialized economies (NIEs), ASEAN4, and Viet Nam—achieve remarkable economic growth.[49] Open trade, gradually adopting flexible exchange rates and freer capital accounts (together with market-friendly policies) allowed them to attract foreign direct investment and access technology, management knowhow, and other specialized inputs that facilitated stronger linkages with global production networks.

[48] Economic integration, as defined here, can take several forms of varying degrees of integration. These are free-trade areas, customs unions, common markets, economic unions, and complete economic integration.

[49] NIEs comprise Hong Kong, China; Singapore; the Republic of Korea; and Taipei,China. ASEAN4 comprises Indonesia, Malaysia, the Philippines and Thailand.

Numerous studies show that the process of economic integration brings significant and positive effects on income and economic growth. For instance, endogenous growth models show that economic integration has positive effects on both output and growth (Grossman and Helpman 1991, Rivera-Batiz and Romer 1991, Walz 1998, Baldwin 1989). Several other studies also show a positive relationship between trade openness and economic growth (Dollar 1992, 2005; Dollar and Kraay 2002; Edwards 1992, 1993; Frankel and Romer 1996; Harrison 1996; Harrison and Hanson 1999; Sachs and Warner 1995)—although results were often subject to serious econometric (often endogeneity or missing variable) issues and data problems.

Another debate concerns the impact of economic integration on income inequality. Trade benefits are not uniform across all economies or all segments within any economy. Some gain from trade openness, but others lose. Fierce competition for resources and markets may contribute to economic and social inequality among individuals or economies, widening income gaps and political polarization which potentially undermine social and cultural cohesion. In addition, economic subordination of underdeveloped countries, marginalization of socioeconomically vulnerable groups, and the loss of sociocultural diversity are cited as legitimate concerns over public policy.

Economic literature also suggests uneven effects of global economic integration on income inequality. For example, Potrafke (2014) found that while some studies suggested that economic integration contributes to increased income, poverty reduction, and gender equality; it also increased income inequality within countries. Gozgor and Ranjan (2017) suggested that while globalization increased redistribution, it also increased inequality through subtle and ambiguous movements in trade, capital, and labor.

Seshanna and Decornez (2003) showed the global economy has become more unequal and polarized amid rapid globalization. Kanbur (2000) and Attanasio, Goldberg, and Pavcnik (2004) conclude that increased openness from globalization coincided with widening income inequality in developing countries. Some European countries, amid increased international competition, have also tried to reduce welfare programs, while shifting the tax burden from mobile capital to immobile labor (Gaston and Nelson 2004, Tanzi 1995). Arguments like these imply globalization worsens income inequality. By contrast, Bordo, Eichengreen, and Irwin (1999) and Rodrik (1998) argue that large welfare states adjust government aid and tax systems in ways that minimize the adverse consequences of globalization, such as income inequality. Mahler (2001) finds little evidence of a systematic relationship between the main modes of globalization and distribution of household income in developed countries. Collier and Dollar (2001) estimate the decline in income inequality for developing countries.

This report introduces a new measure of global economic integration that distinguishes intraregional and extraregional economic integration.

To help measure integration levels and assess their impact on economic growth and development, a globalization (GEII), intraregional (IEII), and extraregional (EEII) integration indexes have been constructed based on 25 indicators that represent the key socioeconomic components of global integration. These indicators are grouped into six dimensions: (i) trade and investment; (ii) money and finance; (iii) value chains; (iv) infrastructure and connectivity; (v) the movement of people; and (vi) institutional and social integration. The study covers 158 economies across Africa, Asia, the EU, Latin America, and North America. The indexes were calculated initially from 2006 to 2014, which is the latest year for which all required data are available. All indicators were normalized based on z-score[50], making each indicator follow a normal distribution with the mean equal to zero for the basis year of 2006. Therefore, a positive index score would generally indicate a higher than average degree of integration, while a negative score shows the opposite.

When the GEII is split into its components, the relative contributions of IEII and EEII to a country's full economic

[50] A z-score is a numerical measurement used in statistics of a value's relationship to the average of a group of values, measured in terms of standard deviations from the mean.

integration (with the global economy) vary by country, for both 2006 and 2014. However, it appears that the IEII contributes more to the degree of global economic integration than the EEII. There are some exceptions, with the United Kingdom and the four major Asian manufacturing economies—the PRC, Japan, the Republic of Korea, and Malaysia—have higher EEII scores, meaning integration with extraregional partners contributed more than intraregional partners to their global economic integration.

The GEII—averaged over all economies—shows an upward trend over time, suggesting globalization has increased (Figure 5.13). However, the global economic integration index fell during the global financial crisis and in 2011/12 during the eurozone debt crisis. The IEII and EEII follow the GEII pattern, rising over time but falling sharply during the two downturns. Between the two subcomponents, the EEII shows a larger variation than the IEII over time, suggesting that intraregional integration is a stabilizing factor for global economic integration.

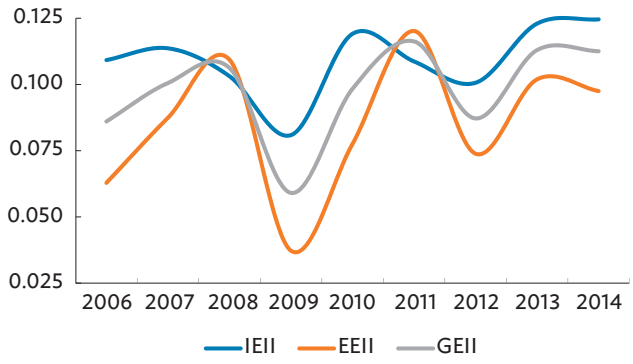
High-income countries show a higher degree of globalization compared with other income groups driven by both intraregional and extraregional integration.

The level of global economic integration is higher among high-income countries than among other income groups (Figure 5.14). Upper-middle and lower-middle income countries generally follow high-income countries, with low-income countries the least globally integrated. Also, high-income countries have higher IEII scores than those of the EEII, reflecting the inclusion of most EU countries in the high-income group. The order is reversed, however, in all other income groups.

By region, the GEII ranks North America highest and the EU second (Figure 5.15). This is in line with the findings in Figure 5.14, as all countries in North America and the EU (aside from Bulgaria and Romania) belong to the high-income group. Asia ranks third, although there is a considerable gap between this region and the first two groups. Latin America comes fourth with Africa the least globalized region.

Asia is not as globally integrated as the global average—its low integration partly comes from its relatively low intraregional integration compared with North America and Europe. Figure 5.16 presents the difference between Asia's index scores and the average index scores of all regional groups. Therefore, the negative score of intraregional integration indicates that Asia is below the regional group average. On the other hand, Asia maintains a higher than average extraregional integration score, reflecting the region's outward orientation in terms of trade, investment, and migration.

Figure 5.13: Intraregional, Extraregional, and Global Economic Integration Indexes (averaged over all economies in the sample)



EEII = extraregional economic integration index, GEII = global economic integration index, IEII = intraregional economic integration index.

Source: Huh and Park (2019).

While globalization promotes economic growth, it may widen income inequality.

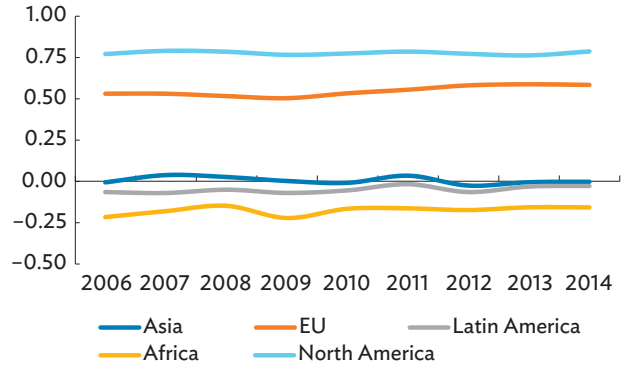
The new index of economic integration can be used to assess the impact of global economic integration on growth and income inequality. Growth regression analysis for the new globalization index shows that globalization promotes economic growth (Box 5.3). Between the two drivers of overall economic integration, extraregional integration appears to be mainly responsible—as against intraregional integration which has a small and insignificant effect. The other explanatory variables—per capita income, years of schooling, government transfers and subsidies, government expenditure, government effectiveness, and labor market regulation—also show significant effects consistent with expectations. Income inequality lessens with increases in GDP per capita, mean years of schooling, government payments of transfers and subsidies, government expenditure on education, government effectiveness, and labor market regulations.

Figure 5.14: Intraregional, Extraregional, and Global Economic Integration Indexes by Income Level

EEII = extraregional economic integration index, GEII = global economic integration index, IEII = intraregional economic integration index.

Source: Huh and Park (2019).

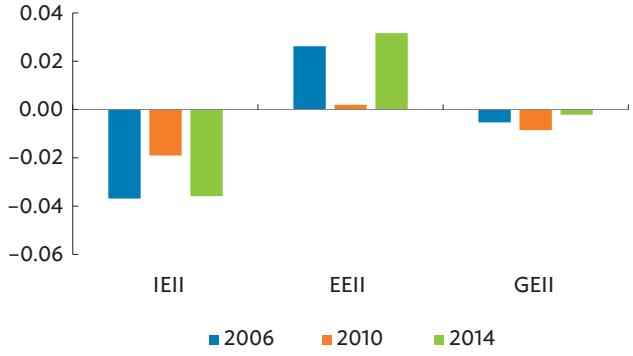
Figure 5.15: Global Economic Integration Indexes, by Region



EU = European Union.

Source: Huh and Park (2019).

Figure 5.16: Intraregional, Extraregional, and Global Economic Integration Indexes—Asia



EEII = extraregional economic integration index, GEII = global economic integration index, IEII = intraregional economic integration index.

Source: Huh and Park (2019).

Box 5.3: Global Integration and Its Effects on Growth and Inequality

The box table presents the panel regression results for the relationship between economic growth and globalization. A 0.1 percentage point increase in global economic integration index (GEII) expands gross domestic product (GDP) per capita growth by 0.57 percentage points. Both the intraregional (IEII) and extraregional (EEII) economic integration indexes scores contribute to economic growth with the increase in GDP per capita higher for IEII (0.40) than EEII (0.22). The results for other explanatory variables are consistent with expectations: a higher level of lagged GDP per capita, higher government consumption, and higher fertility rates are associated with lower growth rates. On the other hand, growth rates are higher with more years of schooling, longer life expectancy, larger investments, better rule of law, and greater political stability. Inflation has the expected negative coefficient, but is statistically insignificant.

However, when the regression analysis is done for different income groups, the results are mixed. For high-income economies, only IEII effects are statistically significant, suggesting that higher intraregional integration scores lead to higher economic growth. For upper-middle income countries, on the other hand, only GEII scores are significant, suggesting higher globalization is associated with higher growth rates. For lower-middle-income countries, none of the three scores matter for economic growth, although the small sample could explain this negative result.

To address the small sample issue, income groups are further collapsed into only two groups: upper-income groups (combining the high-income and upper-middle-income) and low-income groups (combining the lower-middle-income and the low-income groups). As expected, the GEII and IEII significantly leads to higher economic growth for the upper-income group. Yet none of the three scores affect economic growth rates. Other explanatory variables are as expected, except for political stability and inflation, which are not significant.

Globalization's positive effect on economic growth is strongest for high-income countries. Due to data limitations, the analysis of the effects of GEII, IEII, and EEII scores on inequality by income group can only be done on high-income and middle-income groups (combining upper- and lower-middle income groups). Results show that while globalization exacerbates income inequality significantly for middle-income countries, they do not affect inequality in high-income countries; again in this case, extraregional economic integration remains the main driver responsible for income inequality.

Regression Results on Globalization and Its Effects on Economic Growth and Income Inequality

	All Countries	High Income	Middle Income
a: Dependent variable = Growth rate of GDP per capita			
GEII	**0.568** (0.00)	0.404 (0.15)	0.320 (0.25)
IEII	**0.400** (0.02)	**0.320** (0.09)	0.272 (0.44)
EEII	**0.220** (0.07)	0.029 (0.89)	0.124 (0.47)
a: Dependent variable = Gini Index as proxy of income inequality			
GEII	**0.367** (0.00)	0.115 (0.52)	**0.513** (0.02)
IEII	0.014 (0.93)	-0.285 (0.13)	0.409 (0.31)
EEII	**0.244** (0.00)	**0.302** (0.04)	**0.232** (0.07)

EEII = extraregional economic integration index, GDP = gross domestic product, GEII = global economic integration index, IEII = intraregional economic integration index.

Notes: Figures in parentheses are the marginal significance levels (p-value) of the t-test statistics for the null hypothesis that the coefficient is equal to 0. Figures highlighted in bold are statistically different from zero at the 10% level of significance.

Source: Huh and Park (2019).

Source: Huh and Park (2019).

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Table A11: Outbound Migration Share—Asia, 2017 (% of total outbound migrants)

	Partner					
		of which				
Reporter	Asia	PRC	Japan	EU	US	ROW
Central Asia	**9.6**	**0.0**	**0.0**	**14.8**	**2.3**	**73.4**
Armenia	19.4	0.0	0.0	8.7	9.7	62.2
Azerbaijan	14.7	0.0	0.0	3.6	1.8	80.0
Georgia	11.8	0.0	0.0	20.0	3.2	65.0
Kazakhstan	1.4	0.0	0.0	26.2	0.7	71.8
Kyrgyz Republic	3.7	0.0	0.0	12.4	0.8	83.1
Tajikistan	5.9	0.0	0.0	5.7	0.8	87.6
Turkmenistan	2.5	0.0	0.0	4.2	0.9	92.3
Uzbekistan	21.7	0.0	0.0	3.7	3.0	71.6
East Asia	**47.0**	**3.3**	**9.2**	**9.4**	**29.1**	**14.5**
China, People's Republic of	51.5		7.4	10.0	24.0	14.5
Hong Kong, China	40.8	25.1	0.0	9.3	22.3	27.6
Japan	22.7	0.8		17.1	44.3	15.9
Korea, Republic of	40.1	7.6	23.7	4.0	48.0	7.9
Mongolia	39.0	0.0	0.0	25.8	0.0	35.2
Taipei,China	0.0	0.0	0.0	0.0	0.0	0.0
South Asia	**29.1**	**0.1**	**0.2**	**8.4**	**8.0**	**54.4**
Afghanistan	32.5	0.0	0.0	6.4	1.5	59.6
Bangladesh	48.9	0.1	0.1	5.1	2.9	43.1
Bhutan	89.1	0.0	0.0	4.0	0.0	7.0
India	19.7	0.1	0.2	7.5	13.5	59.4
Maldives	75.3	0.0	0.0	14.9	0.0	9.8
Nepal	50.8	0.0	0.0	5.4	6.1	37.7
Pakistan	24.3	0.1	0.2	14.0	6.2	55.5
Sri Lanka	20.8	0.3	0.6	21.4	3.1	54.7
Southeast Asia	**46.9**	**0.8**	**2.0**	**7.7**	**21.3**	**24.1**
Brunei Darussalam	77.0	0.0	0.0	12.1	0.0	11.0
Cambodia	71.0	0.0	0.3	6.6	16.2	6.1
Indonesia	42.8	1.0	0.7	4.3	2.4	50.4
Lao PDR	79.5	0.0	0.0	3.8	16.2	0.5
Malaysia	89.1	0.3	0.5	4.7	3.7	2.6
Myanmar	84.5	0.0	0.0	0.7	4.6	10.2
Philippines	15.8	1.3	4.2	8.7	36.8	38.7
Singapore	65.3	0.0	0.8	18.2	10.9	5.6
Thailand	34.5	1.7	5.2	26.7	29.2	9.5
Viet Nam	24.6	1.1	3.1	15.0	51.9	8.6
The Pacific	**64.7**	**0.0**	**0.0**	**2.8**	**19.1**	**13.4**
Cook Islands	99.9	0.0	0.0	0.0	0.0	0.0
Fiji	62.4	0.0	0.0	2.8	21.4	13.4
Kiribati	94.4	0.0	0.0	3.4	0.0	2.2
Marshall Islands	1.8	0.0	0.0	0.1	94.2	3.9
Micronesia, Federated States of	3.1	0.0	0.0	0.7	38.2	58.0
Nauru	96.3	0.0	0.0	1.2	0.0	2.5
Niue	99.3	0.0	0.0	0.0	0.0	0.7
Palau	12.2	0.0	0.0	7.4	0.0	80.4
Papua New Guinea	49.5	0.0	0.0	30.8	0.0	19.7
Samoa	69.9	0.0	0.0	0.7	15.7	13.8
Solomon Islands	91.3	0.0	0.0	8.4	0.0	0.3
Timor-Leste	89.7	0.0	0.0	10.1	0.0	0.2
Tonga	62.7	0.0	0.0	0.7	32.1	4.6
Tuvalu	78.1	0.0	0.0	1.9	0.0	20.0
Vanuatu	23.0	0.0	0.0	11.5	0.0	65.5
Oceania	**61.3**	**0.4**	**1.0**	**23.7**	**8.8**	**6.2**
Australia	26.9	1.0	1.9	45.5	16.2	11.4
New Zealand	83.6	0.0	0.4	9.6	4.0	2.7
Asia	**34.7**	**0.8**	**2.1**	**9.4**	**14.1**	**41.7**
Developing Asia	**34.4**	**0.8**	**2.1**	**9.1**	**13.9**	**42.6**

– = unavailable, EU = European Union, Lao PDR = Lao People's Democratic Republic, PRC = People's Republic of China, ROW = rest of the world, US = United States.

Source: ADB calculations using data from United Nations. Department of Economic and Social Affairs, Population Division. International Migrant Stock 2017. http://www.un.org/en/development/desa/population/migration/data/index.shtml (accessed July 2018).

Table A12.a: Inbound Visitor Share—Asia, 2017 (% of total inbound visitors)

Destination	Origin				
	Asia	of which PRC	EU	US	ROW
Central Asia	**63.3**	**0.8**	**3.3**	**0.8**	**32.7**
Armenia	9.2	1.1	21.0	17.5	52.3
Azerbaijan	25.3	0.4	4.0	0.6	70.2
Georgia	46.2	0.3	4.7	0.6	48.6
Kazakhstan	70.6	1.2	2.9	0.4	26.1
Kyrgyz Republic	86.1	0.8	1.0	0.3	12.6
Tajikistan	57.8	1.5	3.0	0.7	38.6
Turkmenistan	–	–	–	–	–
Uzbekistan	91.9	0.6	0.8	0.0	7.2
East Asia	**80.5**	**14.1**	**2.8**	**2.6**	**14.1**
China, People's Republic of	76.9		2.1	1.5	19.5
Hong Kong, China	88.3	66.0	4.4	3.1	4.2
Japan	87.6	25.7	4.7	4.8	2.9
Korea, Republic of	82.9	31.9	4.6	6.7	5.9
Mongolia	60.1	30.4	9.6	3.6	26.7
Taipei,China	90.8	25.8	2.4	5.3	1.5
South Asia	**49.4**	**6.5**	**24.5**	**10.8**	**15.3**
Afghanistan	–	–	–	–	–
Bangladesh	–	–	–	–	–
Bhutan	54.0	10.3	21.9	14.8	9.3
India	48.5	2.5	21.5	13.8	16.3
Maldives	44.7	22.1	36.4	2.8	16.0
Nepal	64.8	11.8	20.3	8.9	6.0
Pakistan	–	–	–	–	–
Sri Lanka	50.4	12.8	32.7	2.7	14.2
Southeast Asia	**82.0**	**21.0**	**9.1**	**3.4**	**5.5**
Brunei Darussalam	88.9	20.5	7.7	1.6	1.7
Cambodia	77.3	21.8	13.0	4.6	5.0
Indonesia	80.7	17.4	12.7	2.9	3.7
Lao PDR	94.8	16.7	3.2	1.0	1.0
Malaysia	93.2	8.8	3.7	0.8	2.3
Myanmar	90.6	29.6	6.3	2.2	1.0
Philippines	69.0	15.1	8.6	15.0	7.4
Singapore	85.3	19.1	8.3	3.4	3.1
Thailand	74.0	29.1	12.9	3.0	10.1
Viet Nam	80.0	32.7	8.7	5.0	6.3
The Pacific	**82.7**	**8.6**	**5.1**	**8.4**	**3.8**
Cook Islands	85.3	0.5	6.3	5.3	3.1
Fiji	81.5	6.4	5.6	10.7	2.2
Kiribati	51.0	3.3	9.8	36.7	2.5
Marshall Islands	35.6	–	0.7	61.0	2.6
Micronesia, Federated States of	–	–	–	–	–
Nauru	–	–	–	–	–
Niue	95.7	0.0	1.7	2.6	0.0
Palau	89.9	47.6	2.9	6.2	1.1
Papua New Guinea	85.6	8.1	6.9	6.3	1.2
Samoa	77.5	1.8	1.9	7.5	13.2
Solomon Islands	86.8	5.9	4.4	7.9	0.9
Timor-Leste	82.3	13.0	12.9	3.5	1.2
Tonga	81.4	2.7	3.8	14.1	0.8
Tuvalu	76.7	6.4	6.2	14.5	2.6
Vanuatu	82.3	4.0	1.2	0.0	17.7
Oceania	**67.0**	**14.2**	**16.4**	**8.9**	**7.7**
Australia	66.1	15.4	17.1	8.9	7.9
New Zealand	69.1	11.4	14.7	9.0	7.2
Asia	**78.4**	**15.0**	**5.9**	**3.2**	**12.5**
Developing Asia	**78.1**	**14.2**	**5.6**	**2.9**	**13.4**

– = unavailable, EU = European Union, Lao PDR = Lao People's Democratic Republic, PRC = People's Republic of China, ROW = rest of the world, US = United States.

Source: ADB calculations using data from United Nations World Tourism Organization. Tourism Satellite Accounts. http://statistics.umwto.org (accessed April 2019).

Table A12.b: Outbound Visitor Share—Asia, 2017 (% of total outbound visitors)

	Destination				
		of which			
Origin	Asia	PRC	EU	US	ROW
Central Asia	**56.1**	**1.3**	**0.9**	**0.2**	**42.8**
Armenia	64.2	0.3	1.3	0.6	34.0
Azerbaijan	35.0	0.3	0.7	0.2	64.1
Georgia	17.7	0.3	2.6	0.1	79.6
Kazakhstan	55.2	2.5	0.9	0.3	43.6
Kyrgyz Republic	76.7	1.5	0.1	0.1	23.1
Tajikistan	70.5	1.6	0.1	0.1	29.3
Turkmenistan	30.3	2.5	0.4	0.2	69.1
Uzbekistan	86.2	0.9	0.4	0.2	13.2
East Asia	**74.9**	**35.2**	**5.8**	**3.6**	**15.7**
China, People's Republic of	61.1		8.2	3.2	27.6
Hong Kong, China	92.5	85.6	0.3	0.2	7.0
Japan	59.2	11.6	14.9	15.6	10.3
Korea, Republic of	71.9	12.7	8.9	7.7	11.5
Mongolia	82.4	74.5	0.1	0.5	17.0
Taipei,China	84.4	32.8	4.7	2.7	8.3
South Asia	**49.2**	**5.4**	**8.0**	**6.3**	**36.4**
Afghanistan	18.2	1.3	1.1	0.2	80.5
Bangladesh	85.5	2.8	0.5	1.0	13.0
Bhutan	96.2	1.4	1.1	1.1	1.7
India	48.6	6.2	12.7	9.7	28.9
Maldives	94.3	3.0	0.2	0.1	5.3
Nepal	86.8	24.6	0.7	5.9	6.6
Pakistan	12.5	3.3	3.1	2.4	82.0
Sri Lanka	85.3	6.9	1.3	2.5	10.8
Southeast Asia	**92.5**	**24.5**	**1.3**	**1.0**	**5.2**
Brunei Darussalam	99.4	0.4	0.0	0.1	0.5
Cambodia	98.5	4.7	0.1	0.4	1.1
Indonesia	79.9	6.2	1.6	1.0	17.5
Lao PDR	99.9	30.4	0.1	0.0	0.1
Malaysia	91.1	9.8	2.0	0.6	6.3
Myanmar	99.7	91.5	0.0	0.1	0.2
Philippines	80.9	17.2	2.5	4.6	12.0
Singapore	95.9	4.7	1.5	0.7	1.9
Thailand	92.6	7.2	1.6	1.0	4.8
Viet Nam	97.9	56.1	0.1	1.0	0.9
The Pacific	**84.1**	**4.0**	**0.3**	**3.5**	**12.0**
Cook Islands	95.7	0.0	0.2	0.4	3.7
Fiji	88.5	4.3	0.4	6.4	4.7
Kiribati	90.9	31.7	0.4	2.9	5.7
Marshall Islands	42.9	12.9	0.8	4.4	52.0
Micronesia, Federated States of	9.6	1.8	0.4	2.8	87.2
Nauru	92.1	3.9	1.6	1.8	4.5
Niue	95.7	0.0	0.2	0.9	3.2
Palau	11.5	1.7	0.6	3.2	84.7
Papua New Guinea	96.4	2.3	0.1	1.1	2.4
Samoa	77.9	4.2	0.1	0.0	22.0
Solomon Islands	91.2	6.4	1.0	1.7	6.1
Timor-Leste	93.7	6.9	0.9	1.1	4.3
Tonga	89.1	3.5	0.2	9.3	1.4
Tuvalu	81.0	10.3	1.1	2.6	15.4
Vanuatu	81.6	3.1	0.4	0.6	17.4
Oceania	**58.2**	**4.4**	**23.5**	**8.2**	**10.2**
Australia	54.7	4.5	26.3	8.2	10.8
New Zealand	73.4	3.9	11.2	8.0	7.4
Asia	**75.1**	**27.7**	**5.5**	**3.2**	**16.2**
Developing Asia	**76.9**	**29.9**	**4.0**	**2.2**	**16.9**

– = unavailable, EU = European Union, Lao PDR = Lao People's Democratic Republic, PRC = People's Republic of China, ROW = rest of the world, US = United States.

Source: ADB calculations using data from United Nations World Tourism Organization. Tourism Satellite Accounts. http://statistics.umwto.org (accessed April 2019).