6

Subregional Cooperation Initiatives

Central and West Asia: Central Asia Regional Economic Cooperation Program[37]

Not long ago, Central and West Asia was a place to transit through when traveling between East Asia and Europe, the Middle East, and North Africa, and between Europe and South Asia. Today, it is vying to become the world's next growth area, linking to global value chains and as an energy supplier to rapidly growing South Asian economies (Table 6.1).

The Central Asia Regional Economic Cooperation (CAREC) program[38] promotes regional economic integration through cooperation, leading to accelerated economic growth and poverty reduction. CAREC, guided by its overarching vision of "Good Neighbors, Good Partners, and Good Prospects," has proven an effective honest broker as it continues to weave its network of transport and economic corridors across Eurasia.

Overview

Central Asia looks to the next decade.

From 6 transport projects in 2001 worth $247 million, by 2017 there were 185 projects valued at $31.6 billion

Table 6.1: Selected Economic Indicators, 2017—CAREC

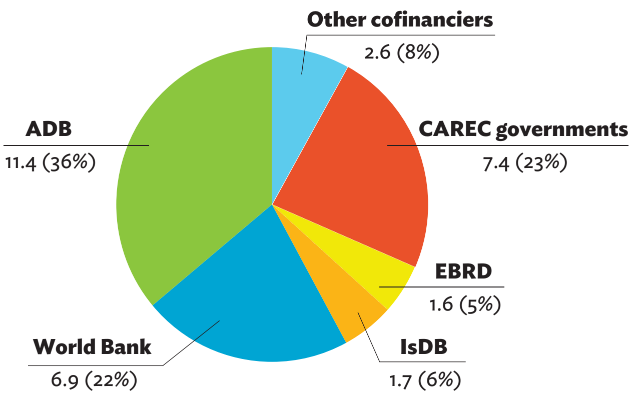
	Population (million)	**Nominal GDP** ($ billion)	**GDP growth** (%, 2013–2017, average)	**GDP per Capita** (current prices, $)	**Trade Openness** (total trade, % of GDP)
Afghanistan	35.5	20.1	2.9	565	49.4
Azerbaijan	9.8	40.8	1.3	4,151	38.4
China, People's Republic of	1,390.1	12,267.7	7.1	8,825	33.3
Georgia	3.7	15.2	3.7	4,104	45.1
Kazakhstan	18.2	159.4	3.3	8,762	45.1
Kyrgyz Republic	6.3	7.6	5.5	1,208	78.0
Mongolia	3.1	11.5	5.7	3,755	73.5
Pakistan	197.3	304.3	4.3	1,543	24.0
Tajikistan	8.8	7.3	6.8	828	54.6
Turkmenistan	5.7	41.7	7.9	7,298	33.1
Uzbekistan	32.1	73.0	7.4	2,272	26.5
CAREC	**1,710.6**	**12,948.5**	**7.0**	**7,570**	**33.3**

CAREC = Central Asia Regional Economic Cooperation, GDP = gross domestic product.
Note: CAREC's average GDP growth rate is weighted using nominal GDP.
Sources: ADB calculations using data from Asian Development Bank. 2018. *Asian Development Outlook 2018.* 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 June 2018).

[37] Contributed by Shaista Hussain, Regional Cooperation Specialist, Central and West Asia Department (CWRD); Guoliang Wu, Senior Regional Cooperation Specialist, CWRD; and Ronaldo J. Oblepias, Consultant, CWRD, ADB.

[38] The CAREC Program is a partnership of 11 countries—Afghanistan, Azerbaijan, Georgia, Kazakhstan, the Kyrgyz Republic, Mongolia, Pakistan, the People's Republic of China, Tajikistan, Turkmenistan, and Uzbekistan—supported by six multilateral institutions.

Figure 6.1: CAREC Projects, by Funding Source, end of 2017 ($ 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.

covering transport, energy, and trade facilitation. Of this, $11.4 billion (36%) was financed by ADB, $7.4 billion (23%) by CAREC governments, and the rest by other donor organizations and cofinanciers (Figure 6.1).

2017 was a landmark year with members formally endorsing CAREC 2030, the program's long-term strategic framework. CAREC 2030 matches members' national development strategies with international development agreements such as the United Nations Sustainable Development Goals (SDGs) and the 21st Conference of the Parties to the United Nations Framework Convention on Climate Change (COP21). While deepening cooperation in the traditional areas of transport, energy, trade, and economic corridor development, it also expands into new areas including financial stability, tourism, agriculture, water, education, and health. It aims to strengthen policy dialogue on regional issues, including through integrating the roles played by the private sector and civil society. It also strives to build an open, inclusive platform to better coordinate and build synergies with international and regional cooperation and other subregional initiatives.

CAREC's infrastructure now better connects countries within the subregion, and with East Asia and South Asia, the Russian Federation, and Europe. Its six multimodal transport corridors spread across the region—shortening distances and the time needed for people and freight to travel. With its large energy reserves, it continues to develop a common market to leverage its resources and attract new leapfrog technology—through cross-border energy connectivity projects and investment forums. CAREC also promotes trade facilitation, through new cross-border physical infrastructure and easing border processing. With much of Central Asia now interconnected by road and rail—and with links to the rest of Asia and Europe—the logical next step is to build seamless air connectivity. CAREC aims to become an aviation hub for both passenger and freight transport.

Performance and Progress over the Past Year

Continuing progress in transport, energy, and trade, CAREC launches a new strategy for a new era.

CAREC's 2017 Dushanbe Declaration, endorsed at its 16th Ministerial Conference in Dushanbe, Tajikistan, stressed that regional cooperation has become even more critical in meeting national development goals given new regional and global challenges.

Responding to members' evolving needs, CAREC 2030 was inspired by aspirations to connect people, policies, and projects for shared and sustainable development. The strategy aims to create an open and inclusive regional cooperation platform and prioritizes five operational clusters for cooperation: (i) economic and financial stability; (ii) trade, tourism, and economic corridors; (iii) infrastructure and connectivity; (iv) agriculture and water; and (v) human development.

CAREC 2030 will also integrate information and communication technology (ICT) across operations to increase productivity and efficiency. Its institutional framework promotes members' and development partners' active, sustained participation in policies and projects, with greater private sector and civil society involvement.

Transport. By the end of 2017, CAREC road and railway projects already surpassed 2020 targets. In 2017, 1,372 kilometers (km) of expressways or national highways were built, upgraded, or improved, bringing the cumulative total to 9,964 km, exceeding the 7,800 km CAREC had targeted for 2020. Work on railways—1,995 km new and 3,433 km improved lines—also surpassed 2020 targets. Kazakhstan's Aktau Port was expanded in 2017, while the Turkmenbashi international seaport and logistics hubs in Turkmenistan and Mongolia are expected to be completed in 2018.

Energy. By 2017, approximately 260,000 km of transmission lines have been installed or upgraded in CAREC countries (excluding the People's Republic of China [PRC] provinces), while generation capacity based on traditional sources reached nearly 15,000 megawatts (MW). Wind power in the CAREC countries (excluding the PRC) reached an estimated 156 MW net capacity producing over 240,000 megawatts per hour (MWh), while the 218 MW of solar net capacity could power nearly 23,000 MWh.

The Central Asia–South Asia Regional Electricity Market Initiative, begun in 2006, remains on track and involves three priority projects: (i) the Turkmenistan–Uzbekistan–Tajikistan–Afghanistan–Pakistan Power Interconnection project; (ii) the Turkmenistan–Afghanistan–Pakistan Power Interconnection project; and (iii) the Turkmenistan–Afghanistan–Pakistan–India Natural Gas Pipeline, to meet growing energy demand in Afghanistan and Pakistan with power imported from Central Asia.

Trade. The CAREC Integrated Trade Agenda 2030 will combine trade policy and facilitation measures to better link CAREC 2030's operational clusters and priorities—such as trade finance and economic corridor development. It will help CAREC members integrate further into the global economy based on three pillars: (i) expanding trade through increased market access, (ii) promoting economic diversification, and (iii) creating stronger institutions for trade. The CAREC Integrated Trade Agenda will be implemented using a pragmatic, phased approach involving 3-year rolling strategic action plans—the first starting 2018–2020.

CAREC's current trade initiatives focus on customs cooperation, modernization of sanitary and phytosanitary (SPS) measures, implementing the World Trade Organization Trade Facilitation Agreement (WTO TFA)—which came into force in February 2017—and boosting private sector participation. For example, the CAREC Federation of Carriers and Freight Forwarders Association is involved in developing harmonized regional standards and best practices on cross-border trade logistics operations. The Regional Improvement of Border Services initiative promotes projects that improve border crossing points, establish national single window systems and facilities, and strengthen project management and supervision capacity—covering the Kyrgyz Republic, Mongolia, Pakistan, and Tajikistan. Under CAREC's integrated trade facilitation approach, ADB is supporting implementation of the Common Agenda for the Modernization of Sanitary and Phytosanitary Measures for Trade (CAST). CAST will (i) create country agencies and a regional body to lead the modernization process; (ii) develop regulations, procedures, and other requirements aligned with international standards; and (iii) improve the capability of border agencies to implement these measures at selected common borders.

Other CAREC Operational Priorities. The Almaty–Bishkek Economic Corridor initiative facilitates the preparation of investment projects and reforms in Almaty, Bishkek, and the surrounding areas. The initiative is (i) developing cross-border agricultural value chains by establishing wholesale markets, collection centers, creating logistical infrastructure and providing export certification; (ii) preparing reforms to ease border-crossing procedures; and (iii) developing regional tourism and marketing.

The CAREC Institute, an intergovernmental organization supporting CAREC through knowledge generation and capacity building, was formally legalized in August 2017.[39] It began drafting its inaugural medium-term strategy and adopted a 2-year rolling operational program. It has already organized a high-level forum for regional think tanks and conducts training workshops for CAREC government officials and private sector representatives.

[39] The intergovernmental agreement requires ratification by at least three countries including the host country for it to enter into force. Four countries—Mongolia, Pakistan, the People's Republic of China, and Uzbekistan—had ratified the agreement by August 2017. By July 2018, Afghanistan, Azerbaijan, the Kyrgyz Republic, and Tajikistan had also ratified the agreement.

Prospects

CAREC 2030 will promote regional approaches to help members achieve the United Nations SDGs.

Most CAREC members are already meeting or are close to meeting several SDGs on poverty reduction, lowering the maternal mortality ratio, full literacy, and access to electricity for all, among others. However, much remains to be done on food security, renewable energy, road safety, and ICT development (ESCAP, ADB, and UNDP 2017; and ADB 2017a).

As mentioned, aligning national strategies and supporting the SDGs and COP21 are core principles of CAREC 2030. National priorities are typically SDG-aligned—for example, promoting inclusive growth, environmental sustainability, economic diversification, improved connectivity, and renewable energy. The importance of health and education, often linked to creation of a knowledge-based economy, is also a recurring theme. Issues related to gender and governance are now explicitly defined in many CAREC member development strategies. Considerations of sustainability and climate resilience will cut across all CAREC investments.

Policy Challenge

CAREC members need to promote economic and financial stability through regional cooperation and integration.

Given their dependence on natural resource exports and remittances from oil-exporting countries, most CAREC members remain vulnerable to external shocks. In theory, countercyclical policies should help, but in practice, many country policies are not countercyclical enough at most—given limited fiscal space, shallow financial markets, and difficulties in assessing whether external shocks are temporary or permanent.

A decade after the 2008/09 global financial crisis, the economic effects are still being felt across CAREC. Just as they began recovering postcrisis, they were hit again by the 2014 plunge in oil prices. While many CAREC members gained much experience on how effective monetary and fiscal measures were in mitigating shocks, they now face the challenge of phasing out fiscal stimulus without harming the continued fragile recovery in the region.

Aside from dialogue on what worked and what did not, regional cooperation also allows countries to work together to avoid crisis contagion across the region. Over time, joint initiatives for economic surveillance, cooperation among central banks and capital market regulators, and emergency liquidity safety nets based on lessons learned from the Chiang Mai Initiative Multilateralization of the Association of Southeast Asian Nations (ASEAN) Plus Three can help prevent and mitigate the impact of shocks or crises.

Southeast Asia: Greater Mekong Subregion Program[40]

Cambodia, Yunnan Province and the Guangxi Zhuang Autonomous Region in the PRC, the Lao People's Democratic Republic (Lao PDR), Myanmar, Thailand, and Viet Nam make up the Greater Mekong Subregion (GMS) Program—an economic partnership guided by a strategy of enhancing connectivity, improving competitiveness, and fostering a sense of community. After 25 years of cooperation, the GMS has created an interconnected, competitive subregion with generally robust economic growth. Through the end of 2017, GMS governments—with multilateral and bilateral development partners—approved 87 investment projects amounting to $20.8 billion. ADB contributed $8.2 billion, while GMS governments have contributed $5.5 billion and other development partners have contributed $7.1 billion. Since its inception, GMS has built, upgraded, or improved over 10,000 km of roads and 500 km of railway lines; built or added 3,000 km of power transmission and distribution lines; and installed 1,570 gigawatt-hours of power generation facilities.

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

Overview

The GMS Program takes on high priority subregional projects in both hard and soft infrastructure. One strategic priority is economic corridor development, an approach adopted in 1998. Economic corridors are designed to not only help participants improve physical connectivity, facilitate the movement of people, goods, and vehicles across borders, but also to develop border and corridor towns, and promote investment and enterprise development to ensure wider economic benefits to communities around the cross-border transport infrastructure. The economic corridors link GMS capitals and major urban centers to one another and to maritime gateways.

Gross domestic product (GDP) growth remains strong (Table 6.2). Although the subregion's 5-year average GDP growth slowed to 6.1% in 2013–2017 compared with 6.7% in 2012–2016, overall growth remains above the 2017 ASEAN average (5.2%). Trade between GMS members reached $483 billion in 2017. Trade-to-GDP ratios are rising in Cambodia (from 107.3 in 2016 to 126 in 2017) and in Myanmar (from 23.1 in 2016 to 40.0 in 2017). Tourism continues to boom with more than 60 million international tourist arrivals in 2016, 15% of which is intra-GMS tourism, generating $90 billion, creating jobs and boosting incomes. Improved transport connectivity, GMS marketing as a multi-country tourist destination, and rising per capita GDP within Asia have helped power tourism growth.

Table 6.2: Selected Economic Indicators, 2017—Greater Mekong Subregion

	Population (million)[a]	**Nominal GDP** ($ billion)[b]	**GDP Growth** (2013–2017, average, %)[c]	**GDP per Capita** (current prices, $)[d]	**Trade Openness** (total trade, % of GDP)[e]	**FDI Openness** (total FDI Inflows, % of GDP)[f]
Cambodia	16	22	7.1	1,384	126	12.6
Guangxi, PRC	56	302	8.3	5,354	20	0.4
Yunnan, PRC	48	245	9.4	5,095	10	0.4
Lao PDR	7	17	7.3	2,457	27	4.8
Myanmar	53	69	7.2	1,299	40	6.3
Thailand	69	455	2.8	6,495	88	1.7
Viet Nam	96	224	6.2	2,343	202	6.3
GMS	**345**	**1,334**	**6.1**	**3,864**	**75**	**2.4**

FDI = foreign direct investment, GDP = gross domestic product, GMS = Greater Mekong Subregion, Lao PDR = Lao People's Democratic Republic, LCU = local currency unit, PRC = People's Republic of China, UNCOMTRADE = United Nations Commodity Trade Database, UNCTAD = United Nations Conference on Trade and Development.

[a] Population data for Guangxi, PRC is estimated. Data for Cambodia, the Lao PDR, Myanmar, Thailand, and Viet Nam are from World Bank, Word Development Indicators (accessed August 2018). Data for Yunnan, PRC are from CEIC (accessed August 2018).

[b] GDP in LCU data of Cambodia, the Lao PDR, Myanmar, Thailand, and Viet Nam are from World Bank, World Development Indicators (accessed August 2018); GDP in LCU data are converted to market prices $ using Atlas method. Data for Guangxi and Yunnan are from CEIC (accessed April 2018) and converted to market prices $ using the Atlas conversion factor of the PRC.

[c] GDP growth rates of Cambodia, the Lao PDR, Myanmar, Thailand, and Viet Nam are from the *Asian Development Outlook April 2018*. Growth rates of Guangxi and Yunnan are computed from their respective GDP indexes. GDP indexes are from CEIC (accessed August 2018). GMS annual growth rate is weighted using shares in GDP current prices $. Average for 2013–2017 is simple average.

[d] GDP per capita is the ratio of GDP current market prices $ to total population. GMS GDP per capita is the ratio of total GMS GDP at market prices $ to total GMS population.

[e] Trade data of Cambodia, the Lao PDR, Myanmar, Thailand, and Viet Nam are from UNCOMTRADE (accessed August 2018); and all trade data are reporters' data. Trade data of Guangxi and Yunnan are sums of their monthly trade data; monthly data are from CEIC (accessed August 2018). Trade openness is the ratio of total trade (sum of exports to the world and imports from the world) to GDP at market prices $, multiplied by 100. GMS trade openness is the ratio of total GMS exports to the world and imports from the world to GMS GDP at market prices $, multiplied by 100.

[f] FDI inflows data for Guangxi and Yunnan are estimates. Data for Cambodia, the Lao PDR, Myanmar, Thailand, and Viet Nam are from UNCTAD (accessed August 2018). FDI openness is the ratio of total FDI inflows from the world to GDP at market prices $, multiplied by 100. GMS FDI openness is computed as the ratio of total GMS FDI inflows from the world to total GDP at market prices $, multiplied by 100.

Sources: ADB. 2018. *Asian Development Outlook 2018*. Manila; CEIC (accessed April and August 2018); GMS Secretariat calculations; UNCOMTRADE. https://comtrade.un.org/ (accessed August 2018); UNCTAD FDI Statistics. http://unctad.org/en/Pages/Home.aspx (accessed August 2018); and World Bank. World Development Indicators. https://data.worldbank.org/products/wdi (accessed August 2018).

Performance and Progress over the Past Year

GMS continued to strengthen its transport network, established new working groups on urban development and health cooperation, expanded private sector cooperation in e-commerce and agriculture, and deepened support to small and medium-sized enterprises through the Mekong Business Initiative.[41]

In March 2018, at the 6th GMS Leaders' Summit, GMS leaders adopted the Ha Noi Action Plan 2018–2022 (ADB 2018b) and Regional Investment Framework 2022 (ADB 2018c) to guide the implementation of the second half of the GMS Strategic Framework 2012–2022. The Regional Investment Framework 2022 is a $66 billion project pipeline supporting the Ha Noi Action Plan. The plan has four elements: (i) spatially focusing on an economic corridor network that balances internal and external connectivity; (ii) refining GMS program sector strategies and operational priorities; (iii) improving planning, programming, and monitoring and processes; and (iv) enhancing institutional arrangements and partnerships. Transport, tourism, agriculture, and environment sector strategies were updated while the health cooperation strategy is being completed and the current urban development strategy remains valid (ADB 2018d, Mekong Tourism Coordinating Office 2017, ADB 2018e, GMS Environment Operations Center 2017). The project pipeline—227 investment and technical assistance projects in 10 sectors,[42] which will be regularly updated—will be used (i) to strengthen alignment between regional and national planning and programming for GMS projects, and (ii) to attract new project financing.

Cross-Border Transport and Economic Corridor Development. In 2017, transport infrastructure development continued at a fairly rapid pace. Following completion of key transport links the previous 2 years—the Tsubasa Bridge in Neak Loeung, Cambodia, along the Southern Economic Corridor, Lao–Myanmar Friendship Bridge over the Mekong at Xiengkok–Kainglap, PRC–Viet Nam second road bridge over the Beilun River, the road section of the East–West economic corridor (EWEC) in Myanmar from Myawaddy to Kawkareik—several major connectivity infrastructure projects commenced or were ongoing in 2017: (i) the EWEC section from Kawkareik to Eindu in Myanmar; (ii) the second Myanmar–Thailand Bridge over the Moei River; (iii) upgrading of the Phitsanulok to Lom Sak Highway along the EWEC and the Phanom Sarakham to Sa Kaeo highway along the Southern economic corridor; (iv) the PRC–Lao PDR (Boten–Vientiane) Railway; and (v) the PRC–Thailand (Bangkok–Kele) Railway.

The Greater Mekong Railway Association also identified and is assessing the financial viability of nine priority railway links to complete GMS rail connectivity. Three of these links are already under construction: (i) the PRC–Lao PDR (Boten–Vientiane) line; (ii) the Viet Nam–PRC (Hekou–Lao Cai) line; and (iii) the Cambodia–Thailand (Poipet–Aranyaprathet) line.

The GMS Secretariat is also conducting a study to assess the physical condition and economic potential of transport and related infrastructure along its corridors.

Energy. In energy and power connectivity, the GMS countries are continuing to work together to develop more permanent institutional mechanisms to coordinate power sector integration. In the meantime, bilateral power trade between GMS countries also continues to expand, with two GMS projects advancing well: the Ban Hatxan–Pleiku 220 kilovolt (kV) transmission line and the Nabong 500 kV substation. The Regional Power Trade Coordination Committee continues to build the subregion's power interconnections and trade to seamlessly link GMS energy trade. Two working groups cover (i) performance standards and grid codes (WGPG) and (ii) regulatory issues (WGRI). They aim to harmonize regional power trade policy. The WGRI (i) analyzes GMS members' institutional structures,

41 The Mekong Business Initiative is a development partnership between ADB and the Government of Australia to accelerate growth in Cambodia, the Lao PDR, Myanmar, and Viet Nam. Launched in 2015, it is an advisory facility managed by ADB to help catalyze private sector-led sustainable business growth in the emerging ASEAN market through business advocacy, access to finance, and innovation support.

42 The GMS Program covers the following sectors: transport, energy, agriculture, environment, health and other human resources development, urban development, other multisector and border economic zones, tourism, transport and trade facilitation, and information and communication technology.

identifying potential barriers, and proposes member-specific reform agendas; (ii) proposes specific rules and principles for open access and develops an overall methodology for wheeling charge calculations; and (iii) proposes short-term trading rules and balancing mechanisms. The WGPG (i) reviews operational practices of each member relevant to the subregion, (ii) finalizes policies related to power transmission regulations, (iii) works on standardized metering, and (iv) reviews the Governance Code and Connection Code of the GMS grid.

Agriculture. The Second GMS Agriculture Ministers' Meeting was held in September 2017 in Cambodia, a decade since its first meeting. The ministers endorsed a new sector strategy to make the GMS a leading producer of safe and environment-friendly agriculture products through value-chain integration involving smallholders, rural women, and agriculture-based small and medium-sized enterprises (SMEs) (ADB 2018e). The ADB technical assistance on GMS Core Agriculture Support Program II 2011–2020 harmonizes food safety policies to ensure consumers and producers are protected—inclusively and sustainably—which supports the implementation of the strategy. Several projects have been completed: participatory guarantee systems for GMS farmer groups; piloting climate-friendly and gender-responsive farm practices; and applied research/extension work on climate- and environment-friendly agriculture.

Tourism. The ongoing ADB-funded GMS Tourism Infrastructure for Inclusive Growth Project for Cambodia, the Lao PDR, and Viet Nam is helping to accelerate inclusive economic growth along targeted segments of GMS economic corridors by improving tourism-related infrastructure and the environment at cross-border tourism centers. It also strengthens capacity of public and private tourist destination management organizations. Other initiatives of the GMS Tourism Working Group are bilateral and/or in cooperation with other development partners in strengthening human resources, developing sustainable infrastructure, enhancing tourist experience, services, creative marketing and promotion, and facilitating regional travel. A new GMS Tourism Sector Strategy 2016–2025 was completed with ADB technical assistance and endorsed in September 2017. Member consultations aim to establish an intergovernmental Mekong Tourism Coordinating Office. Cooperation on tourism took the theme "Prosper with Purpose" at the innovative Mekong Tourism Forum organized in Luang Prabang, Lao PDR, in June 2017, and in 2018 with the theme "Transforming Travel, Transforming Lives" held in Nakhon Phanom, Thailand.

Health and Other Human Resources Development. A 2016 ADB-funded GMS Health Security Project for Cambodia, the Lao PDR, Myanmar, and Viet Nam is strengthening public health security against communicable diseases such as severe acute respiratory syndrome, avian influenza, and Middle East respiratory syndrome as well as traditional communicable diseases, including drug-resistant malaria, dengue, and antimicrobial-resistant infections. It improves public health security systems and boosts national and regional capacity for disease surveillance and response, risk assessment, case management, and subregional collaboration. The project covers relatively poor border and economic corridor provinces where outbreaks of cross-border communicable disease can occur. It focuses on mobile and migrant populations as well as other vulnerable groups. In 2016, the Working Group on Health Cooperation was created to lead regional health cooperation initiatives and operationalize these through a vetted regional project pipeline. The working group met for the first time in December 2017 and is now preparing the GMS Health Cooperation Strategy.

Capacity-building programs and workshops were also held for government officials in the GMS and other ASEAN-centric subregional programs on a number of topics related to regional cooperation and integration, including health impact assessments in special economic zones, economic corridor development, cross-border power trade, and e-commerce.[43]

Environment. The ADB-supported Core Environment Program Phase II is being completed. In 2017, two major priorities were (i) adopting the Core Environment Program Strategic Framework and Action Plan 2018–2022 (GMS Environment Operations Center 2017);

[43] For example, the Indonesia–Malaysia–Thailand Growth Triangle (IMT–GT) program and Brunei Darussalam–Indonesia–Malaysia–Philippines East ASEAN Growth Area (BIMP–EAGA).

and (ii) consolidating and finalizing program activities, focusing on impact and sustainability. The program continued to support GMS members by (i) providing policy, strategic planning, and institutional support; (ii) applying sound environment management policies and tools; (iii) strengthening transboundary biodiversity landscape monitoring and management; (iv) training on climate change adaptation and disaster preparedness; and (v) attracting greater private sector participation. The 5th Environment Ministers' Meeting in January 2018 endorsed the Strategic Framework and Action Plan, which addresses climate change, leverages green growth opportunities, further decentralizes implementation to GMS members, and gives the GMS Working Group on Environment greater control in governing the program.

Transport and Trade Facilitation. In early 2018, a memorandum of understanding (MOU) was signed by GMS members covering "Early Harvest" implementation of the Cross-Border Transport Facilitation Agreement (CBTA), under which GMS road transport permits will be issued to ease border crossings. Work has also been initiated in updating the CBTA provisions to be at par with current international best practices, expanding the coverage of the routes covered under CBTA, and strengthening private sector transport and logistics services. Through a recently completed regional policy and advisory technical assistance project, partnership between customs administration and the private sector, particularly SMEs, was strengthened, enabling better understanding of and compliance with customs requirements. A time release study will be conducted in selected GMS members to help customs increase efficiency. And SPS arrangements under ADB-assisted projects in Cambodia and the Lao PDR were scaled up.

Urban and Border Area Development. This is a new focus for GMS in helping transform transport corridors into full economic corridors. Total investment from ADB and other development partners is estimated at $2.0 billion, covering the ongoing (i) GMS Corridor Towns Development projects in Cambodia, the Lao PDR, and Viet Nam; (ii) the Guangxi Regional Cooperation and Integration Promotion Investment Program; and (iii) the Cambodia–Lao PDR–Viet Nam Development Triangle Area Border Area Development Project. The Yunnan Lincang Border Economic Cooperation Zone Infrastructure Development and Corridor Towns Development projects (which extend to Myanmar) are expected to be approved in 2018.

Prospects

GMS is focusing more on spatial and multisector planning along with regional development. It will continue to build its economic corridor network by including more border areas, promoting subregional tourism and agriculture value chains, and strengthening domestic and cross-border transport networks.

As mentioned, the next 5 years of the GMS Program will be guided by the Ha Noi Action Plan; the Regional Investment Framework; and sector strategies in agriculture, tourism, the environment, transport, urban development, and health cooperation. All will require greater resource mobilization, including from the private sector, and more synergies with other regional cooperation frameworks. Officials will also begin considering the longer-term vision after the current GMS Strategic Framework (2012–2022).

Policy Challenge

As physical connectivity and economic growth continue to rise, GMS members must leverage new or strengthen existing regional institutions and mechanisms.

Establishing GMS institutions and mechanisms such as the Regional Power Coordination Center, the Mekong Tourism Coordination Office, and the GMS Railway Association can help ensure sustainable development, resource planning, and equitable resource sharing. Cooperative mechanisms like the Working Group on Environment and the Working Group on Health Cooperation have been effective in promoting regional public goods such as climate change and transnational health security. These working groups are also a platform for coordination and resource mobilization with development partners, and as a way for the private sector to join in implanting the Ha Noi Action Plan and Regional Investment Framework.

East Asia: Support for RCI Initiatives under CAREC and GMS Subregional Programs and Knowledge-Sharing Activities[44]

ADB supports regional cooperation and integration (RCI) in East Asia through CAREC and GMS. It also supports knowledge cooperation under the Regional Knowledge Sharing Initiative (RKSI). ADB aims to maximize synergies under new cooperation initiatives led by government stakeholders—as RCI is a strategic priority in ADB's country assistance to both the PRC and Mongolia.

Performance and Progress over the Past Year

ADB continues to support projects in Mongolia and the PRC related to CAREC and GMS.[45]

Under the GMS framework, ADB supports establishing border economic zones (BEZs) as a tool to harness border area development. ADB technical assistance helped facilitate the 2013 MOU between the PRC and Viet Nam prioritizing four paired-border gateways for BEZ development.[46] ADB currently supports the MOU implementation, including a large-scale investment program to develop BEZs in Guangxi Zhuang Autonomous Region (GZAR). The $450 million investment program will improve trade and transport efficiency, cross-border connectivity, and accelerate border area development. Another regional technical assistance project works to help maximize benefits of cross-border trade on both sides of the border.

In addition, a $250 million loan approved in 2017 will help develop and implement the Guangxi Modern Technical and Vocational Education and Training Development Program. From 2017 to 2022, the loan will help establish a technical and vocational education and training (TVET) system to offer graduates better employment opportunities in the GZAR. It will ensure TVET relevance, quality, and inclusiveness, and expand its role in regional economic development by promoting partnership agreements and cross-border training programs between TVET institutions and enterprises in GZAR and ASEAN (initially with Viet Nam).

Under CAREC, ADB supports efforts to improve cross-border trade and economic corridor development. An ADB-supported loan for Regional Upgrades of SPS Measures for Trade (RUST) in Mongolia aims to improve inspection and control systems that will increase agri-food trade and help diversify the economy. Investment focuses on the three *aimags* (first-level administrative subdivisions) of Darkhan-Uul, Dornogovi, and Selenge, and particularly the border crossing points (BCPs) of Altanbulag and Zamyn-Uud—which are part of a CAREC corridor. Work is underway to build or rehabilitate laboratories and equip them with new diagnostic equipment. This will decentralize testing and diagnostic capacity and support early disease detection. The project complements a $40 million loan for Mongolia's regional logistics development, expected to be completed in early 2019. The project develops multimodal facilities for road-to-road, road-to-rail, and rail-to-rail transshipment. It equips these with modern customs and quarantine facilities to connect Mongolia's road and rail links in Zamyn-Uud on the southeast border with the PRC.

Further to improving the Altanbulag and Zamyn–Uud BCPs, a $27 million Regional Improvement of Border Services Project was approved in April 2016. The project aims to reduce trade costs through infrastructure and technology upgrades, improving the automated information systems that support customs operations, cross-agency data sharing and coordination

[44] Contributed by Ying Qian, Dorothea Lazaro, Stephanie Kamal, Edith Joan Nacpil, and Aihua Wu—all from ADB's East Asia Department (EARD)—and Chaoyi Hu (Consultant, RKSI).

[45] EARD provides technical and administrative support for the CAREC trade program and provides direct support for Mongolia's participation in CAREC. It also supports projects in those PRC provinces and autonomous regions involved with CAREC and GMS.

[46] The border gateways are (i) Mong Cai–Dongxing, (ii) Lao Cai–Hekou, (iii) Tra Linh–Longbang, and (iv) Dong Dang–Pingxiang.

to eventually help build a single window system in Mongolia. ADB is also currently working on additional financing to expand the project in two BCPs of Borshoo and Bichigt.

ADB offers a platform for RCI dialogue and South–South knowledge-sharing.

ADB works closely with various institutions to help share South–South knowledge and experience on globalization and RCI. For example, a forum in September 2017 in Hohhot explored avenues of economic growth and regional integration. In December 2017 in Shanghai, the CAREC Institute and the Asia-Pacific Finance and Development Institute organized a series of workshops on public–private partnerships and e-commerce development.

The PRC and ADB established RKSI in 2012 to facilitate the exchange of development-related knowledge among ADB's developing member economies. RKSI draws primarily on the PRC's experience over the past 30 years in promoting and supporting rapid economic growth and social transformation. Currently, RKSI focuses on three themes: (i) inclusive growth, inclusive urbanization, and social transformation; (ii) environment and climate change; and (iii) regional cooperation.

From 2016 to 2018, RKSI organized three training sessions on special economic zones as catalysts for economic corridors, value chains, and production networks. It also jointly organized two annual CAREC Think Tanks Development Forums—on regional knowledge sharing for cross-border trade logistics and facilitation, and a knowledge-sharing workshop on RCI and on cross-border e-commerce. The forums brought together some 500 participants. Through RKSI, ADB also worked closely with (i) Tsinghua University in organizing a lecture series covering development and environment, and (ii) the Asia-Pacific Finance and Development Institute on a semester-long series of lectures on international development, emphasizing challenges, approaches, and case studies based on development projects.

Prospects

ADB supports cross-border economic zone development.

A $250 million loan is being processed for the Yunnan Lincang Border Cooperation Zone Development Project. The project will improve cross-border trade capacity by building logistics parks, border trade markets, and other facilities. It will also upgrade urban environment infrastructure—including municipal roads and water supply, wastewater treatment, and solid waste management facilities in selected border towns. It will provide social infrastructure and services, including hospitals and schools, and strengthen institutional capacity of implementing agencies. The project is expected to improve connectivity between the PRC and Myanmar and support RCI objectives such as control of transboundary diseases, improved cross-border labor mobility, and increased cross-border tourist flows promoted under the GMS program.

A multitranche financing facility for the $490 million Xinjiang Regional Cooperation and Integration Promotion Investment Program is being prepared to support development of cross-border economic zones between the PRC's Xinjiang Uygur Autonomous Region, Kazakhstan, and Mongolia. The investment program will develop essential trade-related facilities and services, support border transport connectivity, and provide support for SMEs in the border areas of Alashankou, Khorgos, Altay, Jeminay, and Qinghe of the Xinjiang Uygur Autonomous Region.

Another multitranche financing facility for the Inner Mongolia Regional Cooperation and Integration Promotion Investment Program is proposed to support the participation of the PRC's Inner Mongolia Autonomous Region (IMAR) in CAREC and other RCI initiatives. It will strengthen cooperation between IMAR and neighboring countries by improving connectivity, increasing cross-border trade and investment, and upgrading infrastructure and social services and people-to-people exchanges in border areas—including Erlian and Manzhouli (PRC) with Mongolia and the Russian Federation, respectively. Of the estimated $1.2 billion investment program, ADB will finance $420 million. To ensure complementarity and create synergies with the IMAR Investment Program, ADB technical assistance will help Mongolia establish a cross-border economic zone between Erlian (PRC) and Zamyn-Uud (Mongolia).

Policy Challenge

Open regionalism and coordination with other subregional initiatives must be maintained.

RCI is a priority in the PRC 13th Five-Year Plan for 2016–2020. In 2015, the PRC announced its Silk Road Economic Belt and 21st Century Maritime Silk Road Initiative—now referred to as the "Belt and Road Initiative"—which aims to promote connectivity and strengthen economic partnerships across Asia, Europe, and Africa in a spirit of open regionalism. Also, the PRC and Mongolia actively participate in other RCI programs—such as the ASEAN–PRC Pan Beibu Gulf Economic Cooperation; the Greater Tumen Initiative led by United Nations Development Programme; and the PRC–Mongolia–Russian Federation Economic Corridor Program. Coordination with other cooperation initiatives could enhance knowledge-sharing, create synergies, and optimize the use of resources toward open regionalism.

South Asia: South Asia Subregional Economic Cooperation[47]

In 2017, the South Asia Subregional Economic Cooperation (SASEC) Program added financing commitments for seven projects valued at $2.5 billion, including $1.3 billion in ADB financing. This brings investments in transport, trade facilitation, energy, and economic corridor development since 2001 to $10.72 billion. Its members—Bangladesh, Bhutan, India, Maldives, Myanmar, Nepal, and Sri Lanka—endorsed a vision of "SASEC Powering Asia in the 21st Century" and fine-tuned its operational plan 2016–2025 (ADB 2017b). Several flagship initiatives were launched, focusing on sustainable expansion of cross-border power trade and the development of new energy sector projects.

Overview

SASEC has consistently focused on building multimodal connectivity to facilitate trade.

In 2001, Bangladesh, Bhutan, India, and Nepal established SASEC to strengthen subregional economic cooperation and address development challenges such as low intraregional trade and persistent poverty (Table 6.3). Maldives and Sri Lanka joined in 2014 followed by Myanmar in 2017, expanding opportunities to improve cross-border connectivity, facilitate intraregional trade, and strengthen regional economic cooperation. ADB is lead financier, secretariat, and development partner, financing investments and technical assistance.

By the end of 2017, 49 ADB-financed projects (worth a total $10.7 billion) had been committed (Figure 6.2), with an additional $72 million in technical assistance grants. Investments in infrastructure connectivity accounted for the largest share (32 projects, $8.5 billion), with power generation, transmission, and cross-border electricity trade second (11 projects, $1.48 billion). Investments in economic corridor development, trade facilitation, and ICT development amounted to $785 million (Figure 6.3). ADB financed almost $6.2 billion in investments ($4.1 billion from ordinary capital resources and $2.1 billion in concessional finance), while SASEC members and cofinanciers contributed over $4.5 billion (Figure 6.4).

The SASEC Operational Plan 2016–2025 (SASEC OP) (ADB 2016a) laid the groundwork for broader investments in multimodal transportation networks along major trade routes with more focus on railway and seaport development, maritime- and land-based trade facilitation, and logistics. This more integrated approach to trade will standardize operations and enhance

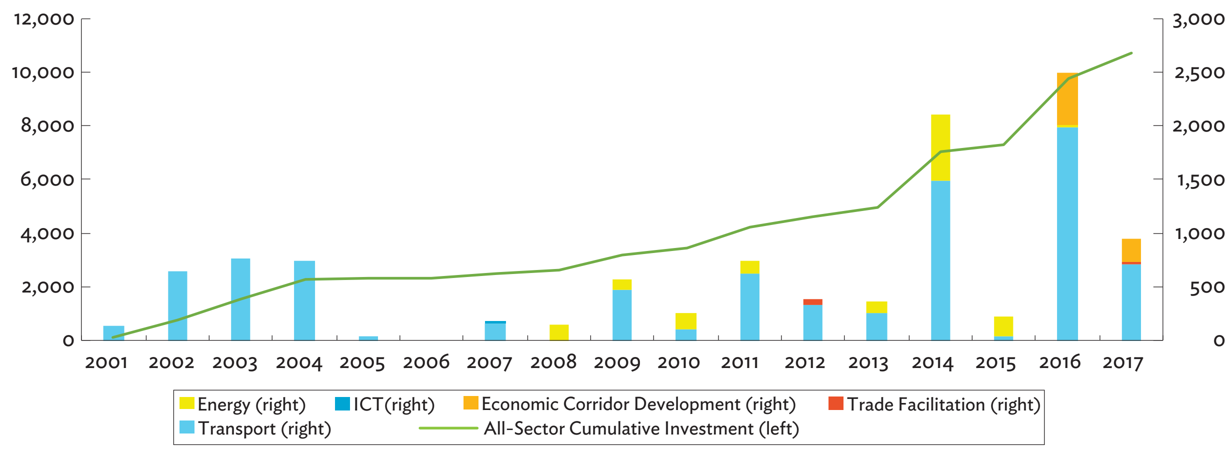
[47] Contributed by Rosalind McKenzie, Senior Regional Cooperation Specialist, South Asia Department (SARD); Jesusito Tranquilino, ADB Consultant, SARD; and Leticia de Leon, ADB Consultant, SARD.

Table 6.3: Selected Economic Indicators, 2017—SASEC

	Population (million)	Nominal GDP ($ billion)	GDP Growth (%, 2013–2017, average)	GDP per Capita (current prices, $)	Trade Openness (total trade, % of GDP)
Bangladesh	163.7	249.7	6.6	1,525.8	31.7
Bhutan	0.8	2.4	5.7	2,985.0	88.9
India	1,3316.0	2,572.4	7.1	1,954.7	28.4
Maldives	0.4	4.7	5.6	10,660.1	55.6
Myanmar	53.4	66.5	6.8	1,246.0	43.9
Nepal	29.1	24.5	3.9	843.3	44.2
Sri Lanka	21.4	87.2	4.4	4,065.2	36.6
SASEC	**1,584.8**	**3,007.3**	**7.0**	**1,897.6**	**29.5**

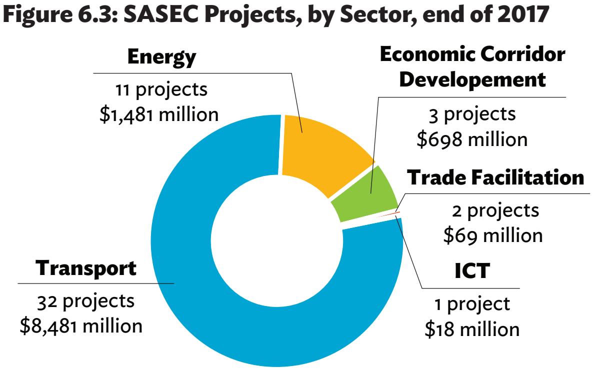
GDP = gross domestic product, IMF = International Monetary Fund, SASEC = South Asia Subregional Economic Cooperation.
Notes: Average GDP growth rates for Maldives and Sri Lanka cover 2014–2017, while Myanmar for 2017. SASEC average GDP growth rate is weighted using nominal GDP. Nominal GDP figures are based on IMF staff estimates.
Sources: ADB. 2018. *Asian Development Outlook 2018.* Manila; International Monetary Fund (IMF). Direction of Trade Statistics. http://data.imf.org; IMF. World Economic Outlook July 2018 Database. http://www.imf.org/external/pubs/ft/weo/2018/01/weodata/index.aspx; and World Bank. DataBank. Population estimates and projections. http://databank.worldbank.org (all accessed May 2018).

Figure 6.2: SASEC Investment, by Sector and Volume ($ million)



ICT = information and communication technology, SASEC = South Asia Subregional Economic Cooperation.
Source: ADB. SASEC Project Portfolio 2018.

Figure 6.3: SASEC Projects, by Sector, end of 2017

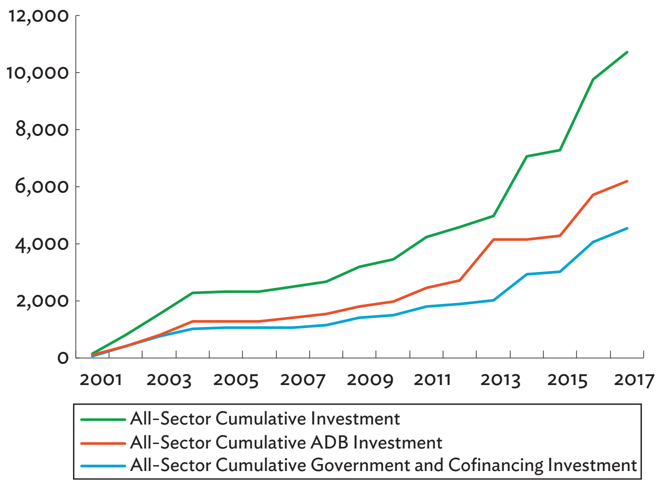


ICT = information and communication technology, SASEC = South Asia Subregional Economic Cooperation.
Source: ADB. SASEC Project Portfolio 2018.

overall trade. Regional power trade is focused on clean energy, master planning, and increased dialogue on pertinent issues. Finally, reinforcing existing value chains and developing new ones through economic corridor development will boost local economies along SASEC transport corridors throughout South Asia.

The SASEC Vision and SASEC OP aim to transform the subregion into a growth engine by seeking ways to leverage resource-based industries, expand and develop new regional value chains, and strengthen gateways and hubs across member economies.

Figure 6.4: SASEC Investment, by Financier ($ million)



ADB = Asian Development Bank, SASEC = South Asia Subregional Economic Cooperation.
Source: ADB. SASEC Project Portfolio 2018.

Performance and Progress over the Past Year

The SASEC OP is being reviewed to more accurately reflect regional project priorities of the member countries. It will also propose ways to integrate Myanmar, its newest member, into the group as a vital link between South Asia, Southeast Asia, and East Asia.

Transport. Multimodal and cross-border connectivity remains the focus of SASEC transport projects, including the upgrading of national road networks with special attention to challenges faced by landlocked Bhutan and Nepal. Rail corridors will link landlocked areas to ports, facilitating freight traffic and international trade. Airport capacity is also expanding with operations modernized for better safety and service. In 2017, seven SASEC transport projects received $1.77 billion in funding commitments ($787 million from ADB)—including road projects in Bangladesh and Bhutan, and a rail project in Bangladesh.

The Dhaka–Northwest Corridor Road Project, Phase 2–Tranche 1 ($714 million) will improve Bangladesh's second busiest artery and ultimately extend northward to Burimari Land Port, the gateway to India and landlocked Bhutan, while the SASEC Chittagong–Cox's Bazar Railway Project ($300 million) will bring the SASEC–Myanmar rail corridor closer to completion and strengthen international rail linkages. Nepal's SASEC Roads Improvement Project ($257 million) will improve Nepal's international road network and connectivity to India.

Trade Facilitation. The SASEC Trade Facilitation Strategic Framework 2014–2018 (ADB 2014) helps members move toward faster, more efficient, and less costly cross-border trade, as well as compliance with WTO TFA provisions that require harmonization and modernization, among others. Six national diagnostic studies identified trade-restrictive SPS and other technical barriers to trade and recommended ways to improve regulatory and institutional frameworks, along with the relevant infrastructure facilities. A study on coordinated development of border infrastructure at border crossings between Bangladesh, India, and Nepal laid out policy and investment options to narrow connectivity gaps. Electronic cargo tracking systems and motor vehicle agreements are easing transport across the subregion, with electronic cargo tracking system trial runs underway between India and Bangladesh as well as India and Nepal for inland cargo transport and off-border clearances. Motor vehicle agreements between Bangladesh, Bhutan, India, and Nepal are finalizing passenger and cargo protocols in 2018.

Nepal's Customs Reform and Modernization for Trade Facilitation Program ($21 million) will diversify exports and support the continued modernization of the country's WTO TFA obligations and comply with other international standards.

Energy. One of the SASEC Vision flagship initiatives is the SASEC Cross-Border Power Trade Working Group, a regional mechanism to promote power grid interconnection and hydropower development for energy trade. The group identified priority generation and transmission projects to form the backbone of the SASEC power market. It included necessary economic and commercial assessments, institutional and regulatory requirements for regional transmission and generation projects, and programs to share knowledge in renewable energy and energy efficiency. Three ongoing SASEC energy projects ($841 million) are the Nepal Power System Expansion, the Second Bangladesh–India Grid Interconnection, and the Bhutan Second Green Power Development. These will strengthen transmission and generation capacity while enabling greater cross-border power flows.

Other SASEC Vision flagship initiatives launched in 2017 include petroleum/gas pipeline corridors and the development of a liquid petroleum gas transshipment hub. Further studies were suggested on (i) the private sector role in the liquid petroleum gas hub development, and (ii) liquid natural gas demand and investment needs to address supply gaps.

Economic Corridor Development. In early 2017, ADB committed $370 million to develop the Vizag–Chennai Industrial Corridor—the first phase of India's East Coast Economic Corridor. SASEC then decided to expand its economic corridor development plans to Bangladesh, Nepal, and Sri Lanka, identifying multi-sector investment opportunities. A series of seminars shared the findings of these economic corridor development studies, including (i) the Multimodal Logistics Park in Karnataka, India; (ii) Chennai–Kanyakumari Industrial Corridor in India; (iii) Southwest Bangladesh Economic Corridor; and (iv) Colombo–Trincomalee Economic Corridor in Sri Lanka.

Financing was committed for Nepal's Regional Urban Development Project ($150 million) to improve urban services and facilities in the Terai region along the country's southern border with India. Increased competitiveness and economic growth along the project route could spur cross-border trade with India and across the subregion.

Prospects

Initiatives in the energy sector are in full swing and expanding regional trade markets.

SASEC Vision flagship initiatives in energy are beginning to leverage natural resources and address the energy imbalances in South Asia. For example, greater subregional power trade can make better use of available resources for power generation—whether coal, gas, hydropower, or other renewable energy—to meet varying demand and supply patterns and seasonal needs. The recently established SASEC Cross-Border Power Trade Working Group will continue to advance priority hydropower generation and cross-border transmission projects, while using technical assistance to gain expertise on the institutional, regulatory, and commercial aspects of power trading. Another initiative is examining a regional gas value chain with, for example, India and Bangladesh collaborating on oil and gas pipeline transportation. Potential benefits include savings and expanded markets for fuel products. Also, all SASEC members can coordinate and improve liquid natural gas and liquid petroleum gas supply chains through regional hubs and networks with inland and coastal transport corridors. As mentioned, preparatory studies were begun in 2017 to assess regional demand.

Policy Challenges

SASEC demographic dividend is both an opportunity and challenge for subregional development.

A rise in the share of working-age population within SASEC over the next decade—a "demographic dividend"—creates a strong opportunity for faster economic growth in South Asia. It could be driven by strong consumption and investment backed by sound macroeconomic and market-oriented reforms. The SASEC Vision seeks to tap the economic potential from this demographic dividend through more cohesive planning and policy, and program and project coordination. However, several risks could delay or upend the process, including trade tensions and rising protectionism, mounting debt, systemic financial issues, the human capital gap, and climate change, among others.

A major issue facing a rapidly growing labor force is the potential adverse impact of technological innovation on employment, with rising automation leading to job loss. Today's innovations are driving change faster than previous technological revolutions, so SASEC members must prepare for more complex adjustments to mitigate risk. Innovation can highly skew returns and widen inequality. National policies should focus on inclusiveness, social protection, better labor regulations, and education and skill-development systems geared toward adapting to occupational shifts, among others (ADB 2018a).[48]

[48] See *Asian Development Outlook 2018* theme chapter, "How Technology Affects Jobs."

The Pacific: Building Regional Disaster Resilience through Contingent Financing[49]

Regional contingent financing can assist the region in responding to disasters.

The Pacific Disaster Resilience Program establishes a regional contingent financing solution to assist in disaster response. The program supports policies that strengthen prevention and preparedness, and provides quick and flexible financing in the immediate aftermath of disasters that are becoming more frequent across the subregion. Tonga's February 2018 disaster—tropical cyclone Gita—proved the value of contingent finance, and efforts are underway to expand coverage through similar programs across the Pacific.

Overview

Several Pacific countries are exploring innovative measures to further build resilience against disasters. In December 2017, ADB approved the Pacific Disaster Resilience Program, which provides access to contingent finance to participating countries in the immediate aftermath of a disaster. The program uses a regional approach to address disaster risk—covering Samoa, Tonga, and Tuvalu—and builds upon a contingent financing model pioneered in the Cook Islands in 2016 (ADB 2016b, 2017c).

The availability of quick-disbursing finance enables these countries to better support disaster response—from early recovery to eventual reconstruction. In this way, the program fills a gap and supplements other existing disaster risk financing instruments including contingency allocations in annual budgets, national disaster funds, and various forms of insurance.

Disaster Risk in the Pacific. Pacific economies are highly exposed to a range of natural hazards from tropical cyclones, floods, and storm surges to droughts, earthquakes, tsunamis, and volcanic eruptions. The subregion also experiences a disproportionately high share of global disasters relative to its demographic and economic size. The Pacific accounts for only 0.1% of the world population but suffers 2.3% of disasters globally. Of the 10 economies with the highest potential annual losses relative to GDP in the world, 3 are in the Pacific (Figure 6.5). In per capita terms, Pacific economies face the highest disaster risk globally (ADB 2015).

Disaster risk is also growing with climate change. For example, climate change may increase the intensity of extreme weather events, particularly severe cyclones (typhoons). Rising sea levels accelerate erosion and increase the risk of storm surges in cyclone-affected countries, while rising ocean temperatures and ocean acidification are destroying the coral reefs that form natural coastal barriers, also resulting in ecosystem decline. Weak development planning and unmanaged urbanization further exacerbate the impacts of climate change and disasters on the welfare and livelihoods of vulnerable people and communities.

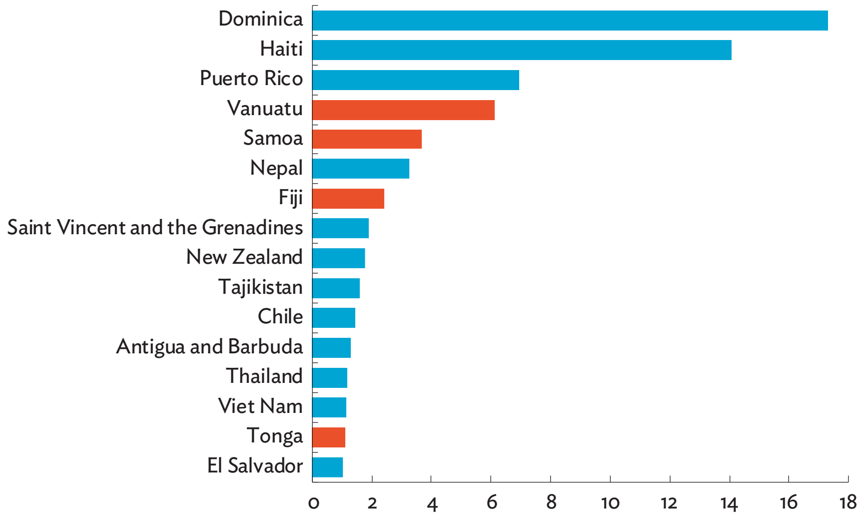
Disasters can set development gains back many years by damaging critical infrastructure, disrupting social services, and diverting resources from development spending toward disaster response and reconstruction (Table 6.4). In the Pacific, where economic growth has been perennially constrained by the twin challenges of small size and remoteness, disasters have further reduced average trend growth in GDP from an estimated potential of up to 3.3% with no disasters to an actual outcome of just 2.6% over 1980–2014 (Cabezon et al. 2015).

Financing Disaster Response

Most Pacific economies have relatively small populations widely dispersed over several islands—many of which are isolated and difficult to reach when disasters strike. These geographic challenges contribute to the relatively

[49] Contributed by Paul Curry, Principal Operations Coordination Specialist; Hanna Uusimaa, Climate Change Specialist; and Rommel Rabanal, Senior Economics Officer, Pacific Department. In this section, Pacific economies include the Cook Islands, the Federated States of Micronesia, Fiji, Kiribati, the Marshall Islands, Nauru, Palau, Papua New Guinea, Samoa, Solomon Islands, Timor-Leste, Tonga, Tuvalu, and Vanuatu.

Figure 6.5: Average Annual Losses from Disasters (% of gross domestic product, 2008–2017 averages)



Note: Red bars are for Pacific developing member countries.
Source: EM-DAT: The Emergency Events Database - Universite catholique de Louvain (UCL) - Centre for Research on the Epidemiology of Disasters, D. Guha-Sapir - www.emdat.be, Brussels, Belgium (accessed June 2018).

Table 6.4: Economic Impact of Recent Severe Disasters in the Pacific

Cyclone/Typhoon	Year	Affected countries	Estimated value of total damage and losses ($ million)
Evan	2012	Fiji, Samoa	318.8
Haiyan	2013	Palau	1.2
Ian	2014	Fiji,[a] Tonga	45.4
Ita	2014	Solomon Islands	100.0
Maysak	2015	Federated States of Micronesia	8.5
Pam	2015	Kiribati,[a] Tuvalu, Vanuatu	478.9
Winston	2016	Fiji	108.8
Gita	2018	Tonga	164.0

[a] The value of damages and losses in Fiji and Kiribati are not included in the estimated total.
Sources: Cabezon et al. (2015); and Tonga Ministry of Finance and National Planning.

high cost of disaster response. With their small economic size and limited access to international financial markets, these countries also have limited resources and capacity to invest in disaster risk reduction and facilitate timely post-disaster recovery and reconstruction. Delays in response and recovery in turn exacerbate the indirect economic and social costs of disasters, effectively extending and deepening their impacts at the expense of a government's long-term fiscal position.

No single financing instrument is suited for all types of disasters, which range from frequent, small-scale events to rare catastrophic cataclysms. Thus, a layered approach to disaster risk financing—using a range of tools within a common framework to address different types of risk—is the most cost-effective way to comprehensively finance disaster response. Ideally, a comprehensive disaster risk financing strategy combines mechanisms prepared ahead of time (ex ante)—such as disaster reserves, contingency budgets, and insurance—and those disbursed immediately afterward (ex post), which include post-disaster budget reallocations, borrowing, and international assistance. The precise mix depends on the relative cost-effectiveness of alternative instruments for specific layers of risk in individual country contexts.

A range of potential financing tools is already available across the Pacific—from annual budget allocations that address low-impact, high-frequency events (such as localized flooding) to global bonds that address rare yet highly damaging events (like catastrophic earthquakes). But there remains strong demand for additional instruments to strengthen financial preparedness for disasters, particularly given the rising incidence of disaster events.

Contingent Finance: An Innovative Approach

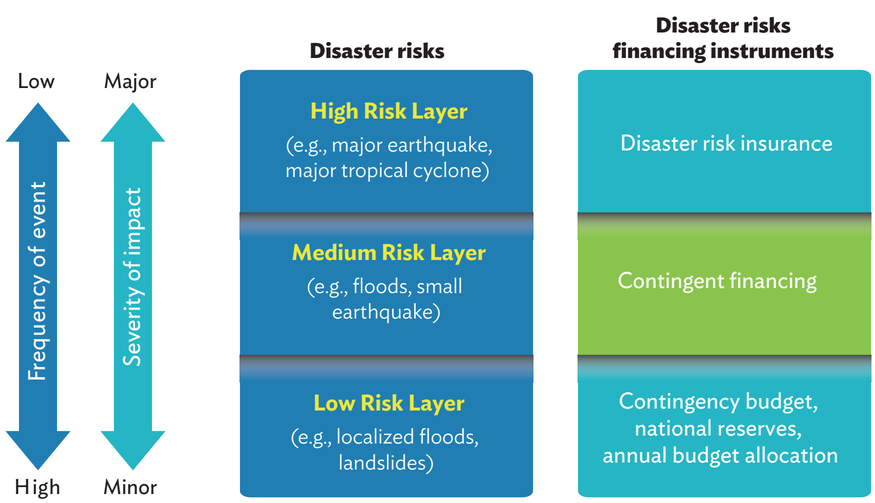
There is a clear financing gap for medium-layer risks in most Pacific countries. Governments typically set aside contingency budgets and reserves to cover lower-layer risks (up to 3-year cycles), while insurance schemes such as the Pacific Catastrophe Risk Assessment and Financing Initiative and international assistance cover high-layer risks (from 10-year events). However, medium-layer risks involve events that would exhaust annual contingency budgets and reserves, but are too frequent to be covered cost-effectively through insurance (Figure 6.6).

Contingent financing is particularly cost-effective for medium-layer risks. In 2016, ADB piloted contingent financing with the Cook Islands Disaster Resilience Program as a way to provide more timely disaster-response support. A contingent line of financing was established using a policy-based approach, whereby the country's eligibility to draw financing was based on prior actions taken to strengthen policy and institutional arrangements for disaster risk management (DRM). However, actual disbursements are deferred and only triggered after the government declares a state of disaster or emergency after a natural hazard event.

The Pacific Disaster Resilience Program. Building on its Cook Islands experience, ADB designed a Pacific Disaster Resilience Program in 2017 to develop a regional contingent financing approach. The program covers Samoa, Tonga, and Tuvalu. Each suffered recent disasters causing significant damage and losses: (i) cyclone Evan in Samoa (2012), with damage equivalent to about 29% of GDP; (ii) cyclone Ian in Tonga (2014; 11% of GDP); and (iii) cyclone Pam in Tuvalu (2015; 33% of GDP). In the immediate aftermath of these disasters, the response had to be mostly financed from contingency budgets (Samoa and Tonga) and reserve funds (Tonga National Emergency Fund and the Tuvalu Survival Fund).

The Pacific Disaster Resilience Program uses policy matrices that support the development of effective and comprehensive DRM strategies and programs at the country level, and disaster resilience-related policies. These policy actions strengthen the resilience

Figure 6.6: Three Layers of Disaster Risk



Source: World Bank (2011).

of institutions and communities in participating Pacific economies. Samoa, Tonga, and Tuvalu face similar DRM challenges and therefore benefit from a regional approach under which good practices are shared.

In the event of a declared disaster, governments can withdraw their allocations partially or entirely, depending on their assessment of the disaster's severity and resulting need. Therefore, the program provides a source of financing for response, early recovery, and reconstruction, complementing existing disaster risk financing instruments. It has several unique features: (i) it can make a payment quickly and use funds flexibly with no additional requirements—beyond national public financial management requirements—to track and report expenditures; (ii) the amount that can be released is significant in terms of immediate response needs; (iii) the amount is not dependent on any assessment of loss or measure of the intensity of the natural hazard; and (iv) funds are available for disaster events triggered by any type of natural hazard.

Immediate Proof-of-Concept: Cyclone Gita. On 12 February 2018, Cyclone Gita struck Tonga's main island of Tongatapu and neighboring 'Eua island with sustained winds of up to 230 km (145 miles) per hour. The cyclone damaged homes, government buildings, and infrastructure for basic services, including water supply, sanitation and waste management, electricity, and communications. The Ministry of Finance and National Planning estimated damage at $164 million, equivalent to about 38% of Tonga's annual GDP.

The Pacific Disaster Resilience Program allowed ADB to provide $6 million within days to help fund priority recovery activities. This marked the first time that ADB provided post-disaster funds through contingent financing, allowing the government to respond quickly to evolving needs. The contingent financing successfully supplemented Tonga's available financial resources to fund critical early response and recovery efforts. Recognizing the clear benefits of the program, Tonga has requested for replenishment of their line of contingent finance.

Moving Forward

Given the demonstrated value of contingent financing, ADB is exploring the expansion of its coverage to other Pacific economies. Initial discussions are underway, for example, to establish similar lines of contingent financing for Palau and Solomon Islands.

The Pacific Disaster Resilience Program also includes technical assistance to support and monitor progress toward achieving governments' long-term DRM goals, and to explore options for regional cooperation and collaboration for contingent financing and to potentially develop a permanent regional contingent savings mechanism. These new and innovative approaches can ensure the immediate availability of adequate disaster financing—which will be important cornerstones toward building the Pacific's overall resilience against ever-rising risks to its population's welfare and livelihood.

Improving the Provision of Public Goods through Regional Cooperation

Promoting Regional Public Goods in CAREC through Achievement of Sustainable Development Goals and COP21 Targets

CAREC 2030, the new strategic framework for CAREC, has been formulated in close alignment with the 2030 global development agenda. Achieving the 2030 global development agenda will largely depend on national efforts, but such efforts can be enhanced and complemented by regional cooperation. Coordination problems are more acute at the regional and global levels. CAREC, with its convening power, is facilitating high-level policy dialogue and promoting trust building among member countries on developing regional approaches to the SDGs and COP21 targets. Implementing the global development agenda involves coordination among many stakeholders operating at different levels (government agencies, the private sector, civil society, etc.). By providing a robust mechanism and platform for coordination and cooperation among member countries to discuss common development challenges and evolve joint approaches, CAREC is serving as a platform to unleash the potential of regional cooperation to help its members achieve the goals and targets set out in the global agenda. With support from the CAREC Institute, CAREC will help promote data collection and database creation, strengthen countries' institutional capacity, and facilitate exchange of knowledge, skills, and experience among member countries toward developing effective regional approaches to progress on the global development agenda.

Regional Public Goods in GMS

The GMS Program contributes to regional public goods in Southeast Asia by investing and developing policies that promote regional public health, mitigate climate change, and strengthen cooperation mechanisms. The GMS Health Security Project, for example, is a $114 million ADB loan to improve migrant health and mobile populations in areas where communicable disease is associated with poverty, poor sanitation, and weak health services—covering Cambodia, the Lao PDR, Myanmar, and Viet Nam. In December 2017, the GMS Core Environment Program published a Strategic Framework and Action Plan 2018–2022, designed to "mainstream sound environment management and climate resilience across priority development sectors to enhance the development impact and sustainability of the GMS Program." Finally, as regional public goods increasingly involve collective action, the GMS is strengthening cooperation mechanisms and developing regional institutions—such as the Greater Mekong Railway Association, the Mekong Tourism Coordinating Office, and working groups on environment and health.

Developing Clean Energy Resources as a Regional Public Good in SASEC

As South Asia addresses power supply and demand and increases power trade across the subregion, SASEC remains committed to developing clean energy resources, including low-carbon alternatives and energy efficiency and conservation measures. The SASEC OP anticipates harnessing unutilized hydropower potential, as well as abundant wind and solar power resources for renewable energy. SASEC members also endorsed an energy efficiency road map in 2012 to support energy efficiency policies and reform. Since the early years of SASEC power trade, the focus has been on renewable energy—for example, Bhutan's 2008 $266 million Green Power Development Project, which supported both power exports and rural electrification. It constructed the Dagachhu hydropower plant to export electricity from Bhutan to India—the first certified cross-border Clean Development Mechanism in the world—and increased domestic access to green power at lower prices using export revenues. While remote schools, health clinics, and community facilities in Bhutan benefited from access to green electricity, the project also contributed to inclusive economic growth. Nepal's 2014 $460 million SASEC Power System Expansion Project will likewise build transmission and distribution lines, along with grid substations, and will also install mini-hydroelectric power plants and mini-grid based solar or solar/wind hybrid systems.

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