

Greater Mekong Subregion
Economic Cooperation Program

Annex to the Regional Investment Framework 2022: Project Pipeline

Ha Noi, Viet Nam
March 2018



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Investment Framework 2022:
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How to reach us: GMS Secretariat
Southeast Asia Department
Asian Development Bank

Fax: +63 2 636 2226

E-mail: gms@adb.org

Web address: <https://www.adb.org/countries/gms/main> or www.greatermekong.org **to download report:** <https://www.adb.org/countries/gms/strategy>

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Transport

Cambodia

Investment Projects

No.	Project Title	Subsector	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
1	Sihanoukville Port Access Road Improvements	Roads and bridges	The project will improve the final 9.5 kilometers (km) of National Road (NR) 4 leading to Sihanoukville port.	To be determined (TBD)	40.0	TBD	Proposed
2	Road Network Improvement Project (formerly GMS: Deepening Connectivity of Southern Economic Corridor Project)	Roads and bridges	The redefined project includes (i) Provincial Roads Improvement Project II (PRIP II) and the (ii) Second Road Asset Management Project (Second RAMP). This will involve 415 km of roads, broken down as follows: (i) rehabilitation of approximately 130 km of roads, which are mostly multimodal transport in character, and regional integration, connecting Cambodia with Thailand and Viet Nam; and (ii) rehabilitation and maintenance of about 285 km of national roads (under a performance-based contract), which are high-priority and flood-prone roads connecting Cambodia with Thailand and Viet Nam.	2017	77.5	Asian Development Bank (ADB)—70.0 Government of Cambodia—7.5	Ongoing
3	Phnom Penh–Sihanoukville Highway Corridor Improvements	Roads and bridges	This is a 191 km expressway project. A build–operate–transfer (BOT) model with a 50-year concession period is being considered. The expressway will provide a high-capacity road link between Phnom Penh and the port city of Sihanoukville, and to the Greater Mekong Subregion (GMS) Southern Coastal Corridor.	2016	1,600.0	People’s Republic of China (PRC) Private sector—1,600.0	Ongoing
4	Link road between NR5 and NR6 near Kampong Tralach, north of Phnom Penh	Roads and bridges	The proposed new 21 km road, including 1 km bridge across Tonle Sap Lake, will shorten the distance between NR5 and NR6 from 64 km to 22 km. The link will facilitate the movement of traffic between these major highways north of Phnom Penh and will reduce traffic congestion within Phnom Penh.	2019	60.0	TBD	Proposed

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Investment projects continued—Cambodia

No.	Project Title	Subsector	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
5	Railway access to the new Phnom Penh Port (53 km)	Rail	This project is expected to provide the following benefits: (i) connecting two international ports, (ii) enhancing multimodal transport, (iii) reducing road accidents and traffic congestion, and (iv) reducing the cost and time of mass transit modes for containers.	TBD	200.0	TBD	Proposed
6	Southern Siem Reap bypass road (193.7 km)	Roads and bridges	The project will construct a road needed to bypass Siem Reap city to avoid traffic congestion in the city as one moves along the Southern Economic Corridor toward the border with Viet Nam. The road will also enable traffic to avoid the protected area around Angkor Wat.	TBD	200.0	TBD	Proposed
7	Construction of Bus/Truck Driving Test Center	Other	The estimated project cost involves the acquisition of equipment and/or construction of facilities. It may consist of a combination of a technical assistance project and an investment project, with the latter involving the actual setting up of the center. The reasons for this project are (i) the lack of testing facilities and equipment for bus and truck drivers; (ii) lack of professional drivers of heavy vehicles, especially cross-border vehicles; and (iii) need to reduce the frequency of road accidents.	TBD	10.0	TBD	Proposed
8	Construction of Logistics Complex at Stung Bot (Poipet, Cambodia–Thailand border)	Other	In addition to reducing the overall logistics cost, the development of the Stung Bot Logistics Complex (SLC), located on the border with Thailand, along the Southern Economic Corridor, is expected to boost economic growth and improve trade within the region, especially with Thailand. The SLC will integrate all logistics services, such as ports, storage, and transport networks; the collection and distribution of goods; and cross-border clearance arrangements along the Southern Economic Corridor. The SLC will be an integrated project, involving (i) land development, (ii) a multimodal logistics system, and (iii) a storage–consolidation–distribution system.	TBD	50.0	TBD	Proposed

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Investment projects continued—Cambodia

No.	Project Title	Subsector	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
9	Construction of Logistics Complex at Bavet (Bavet, Cambodia–Viet Nam Border)	Other	In addition to reducing the overall logistics cost, the development of the Bavet Logistics Complex (BLC), at the border with Viet Nam along the Southern Economic Corridor, is expected to boost economic growth and improve trade within the region, especially with Viet Nam. The BLC will integrate all logistics services, such as a port, storage, and transport network; the collection and distribution of goods; and cross-border clearance arrangements along the Southern Economic Corridor. The BLC will be an integrated project, involving (i) land development; (ii) a multimodal logistics system; and (iii) a storage–consolidation–distribution system.	TBD	50.0	TBD	Proposed
10	Strengthening Overload Control System	Other	The proposed project includes (i) capacity building, (ii) institutional strengthening, and (iii) the provision of overload control equipment and facilities. This was proposed by the Cambodian delegation at the 21st GMS Subregional Transport Forum (STF-21), in Luang Prabang, Lao People’s Democratic Republic (Lao PDR).	TBD	5.0	TBD	Proposed
11	Cambodia: Poipet–Border Bridge/Aranyaprathet (6.5 km)	Rail	This project will rehabilitate part of the GMS Rail Link 1: Kunming–Ha Noi–Ho Chi Minh City (HCMC) to Phnom Penh–Bangkok (Singapore–Kunming Rail Link [SKRL] main line)	TBD	6.5	TBD	Proposed
Subtotal (Transport Investment Projects: Cambodia)					2,299.0		

People's Republic of China

Investment Projects

No.	Project Title	Subsector	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
12	Rehabilitation of the Ning'er–Jiangcheng–Longfu road (Yunnan Pu'er Regional Integrated Road Network Development Project)	Roads and bridges	This 234 km road runs from Ning'er to the No.3 boundary marker (Longfu check point) along the border between PRC and Viet Nam, via Jiangcheng county. This road is an important route connecting southern Yunnan to Lao PDR and Viet Nam, and important, providing infrastructure to support trade and regional cooperation among the People's Republic of China (PRC), Lao People's Democratic Republic (Lao PDR), Myanmar, and Viet Nam.	2014	279.9	ADB—200.0 Government of the PRC—79.9	Ongoing
13	Dali–Ruili Railway	Rail	This 330km railway from Dali to Ruili via Baoshan is connected with the Guangtong–Dali Railway, and is an important section of the western route of the Singapore–Kunming Rail Link (SKRL). It is essential for the completion of the SKRL's western route and for the establishment of the Third Asia–Europe Continental Land Bridge. The line will be Class I, electrified, and with a maximum speed of 140 km per hour (km/h) for passenger trains.	2006	3,889.0	Government of the PRC—3,889.0	Ongoing

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Investment projects continued—People’s Republic of China

No.	Project Title	Subsector	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
14	Further Maintenance and Improvement of the Upper Mekong River Navigation Channel from the PRC (at Landmark 243) and Myanmar to Luang Prabang, in the Lao PDR	Inland waterways	The project encompasses a 631km river section between PRC–Myanmar Boundary Marker 243 and Luang Prabang, in the Lao PDR. It includes the following activities: (i) the improvement and maintenance of 146 rapids and shoals, (ii) installation of 1,199 navigation aids, (iii) construction of five ports, (iv) building of three channel maintenance and emergency response bases in the abovementioned five ports, and (v) construction of four emergency response and rescue ships of 15 meters in length. The training of crew and shore personnel will be carried out for the safe operation of vessel and port. A ship monitoring and reporting system will be set up. The project will ensure the navigational safety of the Upper Mekong River navigation channel, promote the development of international navigation among the four countries, and enhance connectivity within the region.	2016	338.0	Government of the PRC—14.2 Balance (TBD)—323.8	Ongoing
15	Yuxi–Mohan Railway	Rail	The 507 km railway runs from Yuxi to Mohan via Xishuangbanna, linking with the Kunming–Yuxi Railway. Once it is connected with railways of other countries in the region, this route will be the most direct from the PRC to the Association of Southeast Asian Nations (ASEAN) countries. As a section of SKRL’s middle route, this line is crucial to the establishment of an ASEAN–PRC Free Trade Agreement, the economic development of the GMS subregion, and a modern integrated transport network. The line will be Class I, electrified, and with a maximum speed of 160 km/h for passenger trains; double track from Yuxi to Xishuangbanna; and single track from Xishuangbanna to Mohan, while reserved for upgrade to double track.	2014	7,799.0	Government of the PRC—7,649.0 ADB—150.0	Ongoing

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Investment projects continued—People’s Republic of China

No.	Project Title	Subsector	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
16	Jinghong–Daluo Expressway	Roads	The project is an important part of the north–south corridor (Kunming–Daluo–Tachilek–Chiang Rai), and has already been incorporated into the PRC’s Planning for the National Expressway Network (G8512), including a total length of 108.5km; 4 lanes; and the border control point at Menghai, the PRC. The existing road along the corridor links Daluo, the PRC; northern Myanmar; Tachilek, Myanmar; and Chiang Rai, Thailand. However, the road is in poor condition and in need of a renovation. The construction of a new road will improve transport connectivity among the PRC, Myanmar, and Thailand; and will boost the development of the economy, trade, tourism, etc. Meanwhile, the completed corridor will serve as a strong complement to the Kunming–Bangkok Highway, and will provide more options for the movement of people and cargo within the region.	2016	2,388.0	PRC	Ongoing
	Viet Nam: Lao Cai–Hekou (154 km) PRC: Hekou–Lao Cai (249 km)	Rail	The proposal regarding Rail Link 9—connecting Kunming, Ha Noi, HCMC, Phnom Penh, and Bangkok (SKRL main line)—is for a standard gauge track between the PRC and Viet Nam systems. Viet Nam is funding a feasibility study, and the PRC and Viet Nam are conducting bilateral discussions regarding the actual route and the points where the line would cross the border.	TBD	Cost estimate listed under Viet Nam to avoid double counting	ADB	Proposed
Subtotal (Transport Investment Projects: PRC)					14,693.9		

Lao People's Democratic Republic

Investment Projects

No.	Project Title	Subsector	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
17	Vang Tao Border-Crossing Point	Border-crossing facilities	This facility between Vang Tao and Chong Mek along National Road (NR) 16 is one of the border-crossing points between southernmost Lao PDR and Thailand. The border-crossing facility does not meet the implementation requirements of the GMS Cross-Border Transport Facilitation Agreement (CBTA).	2013	15.0	Provincial government budget—15.0	Ongoing
18	NR13 Improvement and Maintenance Project (Vientiane to Phon Hong) (formerly Upgrading NR13N and N13S [Portion through Phon Hong–Vientiane Capital–Ban Hai]; ASEAN Highway AH11 NR13S)	Roads and bridges	NR13 North (NR13N) connects Vientiane to the country's northern provinces, and NR13 South (NR13S) connects Vientiane to the southern provinces. Present and projected traffic demand requires an expansion of the road to four lanes in some sections and improvements in two other sections. The government has decided to start on the section of NR13N from Sikeut to Phon Hong, which totals 58 km. The project will be implemented using the Output- and Performance-Based Road Contracts (OPRC) approach.	2018	129.5	World Bank (International Development Association credit)—40.0 Nordic Development Fund (NDF)—9.5 Asian Infrastructure Investment Bank (AIIB)—40.0 Government of the Lao PDR—40.0	Proposed
	Mekong Bridge at Bungkan–Paksan (with Thailand)	Roads and bridges	The bridge will facilitate the transport of goods and passengers from northeastern Thailand through central Lao PDR and central Viet Nam via NR8.	2018	Cost estimate listed under Thailand to avoid double counting	Neighbouring Countries Economic Development Cooperation Agency (NEDA) Thailand—36.0	Proposed

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Investment projects continued—Lao People’s Democratic Republic

No.	Project Title	Subsector	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
19	Thanaleng Border-Crossing Infrastructure Improvement Project	Border-crossing facilities	The existing Thanaleng border crossing operates restrictively and inefficiently for both passenger and freight traffic, and this will become more severe as daily freight traffic grows beyond the present 300 trucks and 1,000 passenger cars and buses . There is also an urgent need to separate freight traffic from passenger traffic, and to significantly upgrade the road and other infrastructure.	2018	25.0	Seeking financing	Proposed
20	Hongsai (Xayaboury)–Chomphet (Luang Prabang) Rehabilitation (120 km)	Roads and bridges	This road is part of the tourism corridor that includes Chiang Rai, Chiang Mai, Luang Prabang (Chiang Thong), and Vientiane. The section’s rehabilitation will promote trade, investment, and tourism.	2015	90.0	NEDA Thailand—90.0	Ongoing
21	Upgrading of NR8 East–West Transport Route; ASEAN Highway AH15 (Ban Lao–Nam Phao)	Roads and bridges	NR8 branches off from NR13S at Ban Lao, passing through the districts of Khamkeut and Lak Sao before reaching the Lao PDR–Viet Nam border crossing point at Nam Phao–Cau Treo. After the point, it connects to Cua Lo seaport, in the city of Vinh, Viet Nam. The road does not meet ASEAN standards, but this portion of the road has been slated for upgrading under the Master Plan on ASEAN Connectivity.	2018	80.0	The Korea International Cooperation Agency (KOICA) is supporting the feasibility study	Proposed
22	Xiengkong River Port	Ports and waterways	Xiengkong, in Luang Namtha Province, is located on the Mekong River, and is a suitable location for a river port. Under the quadrilateral Lancang–Upper Mekong River Commercial Navigation Agreement (PRC, Lao PDR, Myanmar, and Thailand), Xiengkong River Port will be a checkpoint for downstream river traffic from the PRC to the Chiang Saen Port, in Thailand. The port will be equipped with cargo handling equipment, immigration and customs offices, and warehouses.	2018	15.0	Government of the PRC	Proposed

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Investment projects continued—Lao People’s Democratic Republic

No.	Project Title	Subsector	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
23	Ban Mom River Port	Ports and waterways	Ban Mom, in Bokeo Province, is situated on the Mekong River. Under the Agreement on Commercial Navigation on Lacang-Mekong River (PRC, Lao PDR, Myanmar, and Thailand), Ban Mom Port will be a checkpoint for upstream river traffic from Chiang Saen Port (Thailand) to the PRC. The port will be equipped with cargo handling equipment, immigration and customs offices, and warehouses.	2018	12.0	Bokeo Provincial government, Private sector	Proposed
24	Lalay Border-Crossing Point (NR15)	Border-crossing facilities	This facility is located at the Lao PDR–Viet Nam border-crossing point on NR15 in Salavan Province. This road is a crucial link to the seaports in Viet Nam. The existing border-crossing facilities do not meet the requirements of the GMS CBTA.	2018	10.0	Seeking financing	Proposed
25	Nam Phao Border–Crossing Point (NR8)	Border-crossing facilities	This facility is located at the Lao PDR–Viet Nam border-crossing point on NR8 in Bolikhamxay Province. NR8 is a vital route that provides the shortest link between Vientiane and the seaports in Viet Nam. The existing border-crossing facilities do not meet the requirements of the GMS CBTA.	2019	8.0	Seeking financing	Proposed
26	Na Phao Border-Crossing Point (NR12)	Border-crossing facilities	This facility is located at the Lao PDR–Viet Nam border crossing point on NR12 in Khammouane Province. After the Third Thai-Lao Friendship Bridge was opened, transit traffic through Thailand, the Lao PDR, and Viet Nam, increased considerably. The existing border-crossing facilities do not meet the requirements of the GMS CBTA.	2018	10.0	NEDA Thailand—10.0	Proposed
27	Luang Namtha– Xiengkok–Lao–Myanmar Friendship Bridge (NR17)	Roads and bridges	NR17 starts from Luang Namtha town, in Luang Namtha Province, passes through Muang Sing and Muang Long, and connects with the Lao–Myanmar Friendship Bridge, in Xiengkok. This road is part of the ASEAN–India transport corridor. This section also falls in the North East–West Transport Corridor, or ASEAN Highway (AH) 13.	2018	150.0	TBD	Proposed

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Investment projects continued—Lao People’s Democratic Republic

No.	Project Title	Subsector	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
28	Vientiane–Boten Railway Project (427.2 km) ¹	Rail	The Vientiane–Boten Railway Project will connect the Chinese railway in the north of Lao PDR at the Chinese border to Vientiane, and can potentially connect soon to the Thai rail line via Nong Khai in the near future. This standard gauge railway with a speed of 160 km/h for passenger train and 120 km/h for freight train will form part of the substantial 3,000 km Singapore–Kunming Rail Link.	2016	5,800.0	Government of the PRC—5,800.0	Ongoing
29	Luang Prabang–Samneua (NR4B & NR6) Second Northern GMS Transport Network Improvement Project	Roads and bridges	The Second Northern GMS Transport Network Improvement Project will link the North–South Corridor (Kunming–Bangkok), Central Corridor (Kunming–Vientiane–Phnom Penh–HCMC), and the Eastern Corridor (Kunming–Ha Noi–Da Nang–HCMC).	2016	54.6	ADB—20.0 Government of the PRC—13.6 Organization of the Petroleum Exporting Countries Fund for International Development—21.0	Ongoing, with additional financing approved in 2016
30	Luang Prabang–Dien Bien Phu (107 km) under Lao PDR–Viet Nam Bilateral Assistance	Roads and bridges	Luang Prabang and Dien Bien Phu are both historic sites and tourist attractions. Providing road connections will promote tourism between the two countries.	2018	90.0	Government of Viet Nam	Proposed
31	Phiafay–Attapeu: NR18A (150 km) ASEAN Highway: AH132 (261 km) East–West Transport Route	Roads and bridges	NR18 comprises NR18A and NR18B. NR18A branches off in Phiafay, starting from the junction with NR35, and ending in Muong Samakheexay, the capital of Attapeu Province. NR18B starts from Muong Samakheexay and passes through the Lao PDR–Viet Nam border-crossing point at Beu Ee.	2013	130.0	Private sector—130.0	Ongoing

¹This project is supported under bilateral cooperation between PRC and Lao PDR; it is for further discussion between the countries if the project should be retained in the GMS RIF 2022.

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Investment projects continued—Lao People’s Democratic Republic

No.	Project Title	Subsector	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
32	Vientiane–Thakhek–Mu Gia Railway Project (450 km) Mu Gia–Vung Ang (119 km)	Rail	The Vientiane–Thakhek–Mu Gia Railway Project covers a portion of the spur line of the SKRL. This spur line will connect the Thai railway network to the Vietnamese railway network. The Republic of Korea assisted with a feasibility study.	2018	4,402.0	KOICA feasibility study completed in 2017	Proposed
33	Thanalaeng–Nong Khai Railway Extension Project (7 km)	Rail	The construction of section one, with support from NEDA, was completed in April 2016. The extension from Thanaleng to Vientiane Station (section 2) is ongoing.	2016	28.5	NEDA Thailand—28.5	Ongoing
34	Savannakhet–Lao Bao Railway Project (220 km)	Rail	The Government of the Lao PDR signed an agreement with a Malaysian company to develop the Savannakhet–Lao Bao Railway Project as a build–own–operate–transfer (BOOT) scheme.	2018	4,200.0	BOOT–Giant Group Ltd., based in Malaysia	Proposed
35	Mekong Bridge at Luang Prabang	Roads and bridges	The project will develop a tourism corridor between the Lao PDR and Thailand, in particular from Chiang Rai to Chiang Mai, Luang Prabang, and the capital city, Vientiane. The road project from Muong Ngeune to Luang Prabang, which crosses the Mekong Bridge at Luang Prabang, is part of this initiative.	2018	65.0	Government of the Netherlands	Proposed
36	Selamphao Bridge, at the end of NR14A between the Lao PDR and Cambodia	Roads and bridges	This bridge project is located at the end point of NR14A, which runs from Pakse to Wat Phou, in Champassak Province (World Heritage Site), and to the Lao–Cambodian border. NR14A could connect to Angkor Wat, in Siem Reap, if a bridge across the Selamphao River were in place. Both the Lao PDR and Cambodia are considering the most suitable border-crossing points, and will jointly construct a bridge across Selamphao River.	2018	30.0	Joint 50:50 investment by the governments of Cambodia and the Lao PDR	Proposed
37	Mekong Bridge for Thanalaeng–Nong Khai Railway Project ²	Roads and bridges	Under a Sino–Lao cooperation scheme, a railway bridge will be built to accommodate the standard gauge at Thanalaeng–Nong Khai. The site for the bridge has been selected by officials from both countries.	2018	TBD	Government of the PRC (Under Sino–Lao cooperation scheme)	Proposed

²This project is listed for bilateral cooperation between PRC and Lao PDR; it is for further discussion between the countries if the project should be retained in the GMS RIF 2022.

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Investment projects continued—Lao People’s Democratic Republic

No.	Project Title	Subsector	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
38	Dak Chung Border-Crossing Point (NR16)	Border-crossing facilities	These facilities are located at the Lao PDR–Viet Nam border-crossing points on NR16 in Sekong Province. The existing border-crossing facilities do not meet the implementation requirements of the GMS CBTA.	2018	10.0	TBD	Proposed
39	Houei Sai River Port	Ports and waterways	As inland transport is becoming more important, especially for tourism, building this river port is necessary.	2018	13.0	TBD	Proposed
40	Pakbeng River Port (Oudomxay Province)	Ports and waterways	The town of Pakbeng is situated on the Mekong River, on NR2. It is also on the border between Sayabouly and Oudomxay provinces, at the midpoint between Bokeo and Luang Prabang. As inland transport is becoming more important, especially for tourism, building this river port is necessary.	2018	13.0	Government of the PRC	Proposed
41	Khokchong River Port (same as Luang Prabang River Port)	Ports and waterways	Inland water transport traffic between Bokeo and Luang Prabang, in terms of goods and passengers, is growing steadily. There is an urgent need to construct a good river port in Luang Prabang that will have the necessary handling equipment and warehouses.	2018	15.0	Government of the PRC	Proposed
42	Vientiane–Ha Noi Expressway Project (Portion from Vientiane to Nam On: 335 km)	Roads and bridges	This is the first expressway project linking the two capitals, and it is the top priority project under the Lao PDR and Viet Nam national investment plans.	TBD	3,500.0	Seeking financing from the Government of Japan (with a Japan International Cooperation Agency [JICA] team undertaking a site survey prior to a feasibility study)	Proposed

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Investment projects continued—Lao People’s Democratic Republic

No.	Project Title	Subsector	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
43	Upgrading 13S (portion from Savannakhet Province to Bolikhamxay) (253 km)	Roads and bridges	This will link the East–West Economic Corridor (EWEC), also known as NR9 (or AH16), and the two newly established economic corridors: NR12 (or AH131) and NR8 (or AH15). It will also provide the foundation for a connection between the Kunming–Luang Prabang–Vientiane–Paksan–Thakhek–Savannakhet stretch of the North–South Economic Corridor (NSEC) and connecting Cambodia, up to Savannakhet, via the Southern Economic Corridor (SEC).	TBD	TBD	Seeking financing	Proposed
44	Navigation Channel Improvements: Lower Mekong from Luang Prabang to Savannakhet (Mekong River Commission)	Ports and waterways	The project will carry out a site investigation and survey the free-flow section of the hydropower dam for installation of aid for navigation and channel improvement.	2019	12.2	TBD	Proposed
45	Port Construction and Improvement from Vientiane to Savannakhet (Vientiane Port; Paksan Port; Thakek Port and Savannakhet Port)	Ports and waterways	<p>The capital city, Vientiane, is the political, economic, and transport center of the Lao PDR. The existing 4 km-long port is located downtown, and it can no longer accommodate the growing quantity of cargo and passengers. This location will be renovated as a registration and inspection center. This port must move downstream, near the industrial economic zone and container yard, around 40 km from the capital.</p> <p>Paksan, in Bolikhamxay Province, is located between Vientiane, Thakhek, and Savannakhet. In the future, the Vientiane–Hanoi expressway will link Bolikhamxay Province with the two capital</p>	2020	19.4	TBD	Proposed

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Investment projects continued—Lao People’s Democratic Republic

No.	Project Title	Subsector	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
			<p>cities. The existing Paksan Port is not suitable for expansion, so it should be moved to the special economic zone (SEZ) that is next to the new Thai–Lao Friendship Bridge, where it can connect to roads R8, R12, R13; the railway network; and the Vientiane–Hanoi expressway.</p> <p>Similar to Paksan Port, Thakhek Port cannot berth a big vessel and load or unload its cargo. The new location should be farther upstream, next to the Thai–Lao Friendship Bridge and the SEZ, where it could also connect to the railway and to roads R8, R12, R13.</p> <p>Savannakhet is in a very important location, and it could be a second-rank transportation hub for the Lao PDR. Savannakhet is a conjunction of roads R9 and R13, the railway, and air traffic. The existing Kengkabao Port is no longer suitable for use as a port terminal, so the provincial government has allowed a local investor to renovate this port and adapt it for other purposes.</p>				
Subtotal (Transport Investment Projects: Lao PDR)					18,927.2		

Myanmar

Investment Projects

No.	Project Title	Subsector	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
46	East–West Economic Corridor Eindu–Kawkareik Road Improvement Project	Roads and bridges	The project will improve 66.4 km of road between Eindu and Kawkareik. It is in Myanmar’s Kayin State, which borders on Thailand.	2016	121.8	ADB—100.0 ASEAN Infrastructure Fund—20.0 Government of Myanmar—1.8	Ongoing
	Mae Sot–Myawaddy Border Crossing Project and Infrastructure Improvements (with Thailand)	Border-crossing facilities	The project involves a new bypass road and bridge to the north of the existing border crossing at Mae Sot (Thailand)–Myawaddy (Myanmar), which is in the congested area between the two cities. This new crossing will be dedicated to cross-border freight traffic. The bypass will link up with a newly envisioned special trade zone in Myanmar. The overall project will include about 16.9 km of a new four-lane divided highway (13.3 km in Thailand; 3.6 km in Myanmar), a 100-meter-long bridge across the Moei River at the border, and associated border-crossing facilities.	2015	Cost estimate listed under Thailand to avoid double counting	Government of Thailand	Ongoing
47	Improvement of Six Inland Ports	Ports and waterways	The project includes the establishment of six inland ports along the Ayeyarwaddy and Chindwin rivers. The feasibility study for Mandalay Port was completed in February 2014. To construct Mandalay port, the government is seeking financial support from JICA. The estimated implementation cost for Mandalay Port is \$38.0 million, and the estimated implementation time is about 2 years. Pakokku Port (\$25 million) and Monywa Port (\$21 million) are proposed to be constructed with Belgium loans. Two other inland ports (Magway Port and Kalewa Port) are slated to be built with the support of private investors.	2018	190.0	JICA Government of Belgium Private sector	Proposed

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Investment projects continued—Myanmar

No.	Project Title	Subsector	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
48	Loilem–Kyaington Road Section (359 km) (GMS Road Section of R7 and Secondary Road of Corridor)	Roads and bridges	This is the road section of GMS route R7 and of the Asian and ASEAN highways. It will link with the NSEC and the Northern Economic Corridor as a secondary road. It must be upgraded to ASEAN Class III standards.	2018	359.0	TBD	Proposed
49	Thaton–Payagyi Road Improvement Project	Roads and bridges	The expected components of this 151 km, two-lane road improvement project will primarily consist of road repairs and upgrading along most of the road's length, with major reconstruction and widening of the road sections running through the towns of Bilin, Kyaikto, and Payagyi, including a possible grade-separated interchange with NR1 at Payagyi.	2018	128.0	TBD	Proposed
50	Ruili (PRC)–Kyaukpyu (Myanmar) Highway	Roads and bridges	The road will promote connectivity between the PRC and Myanmar, and will improve the region's road network overall. The PRC and Myanmar have already had some technical discussions concerning the project.	2018	1,000.0	TBD	Proposed
51	Daluo (PRC)–Tachilek (Myanmar) Highway	Roads and bridges	This project involves the improvement of an existing highway that is a part of the GMS NSEC (and of the Asian and ASEAN highways) in Myanmar, linking with the PRC to the north and Thailand to the south. This highway is also one of the major border trade routes between Myanmar and Thailand via Tachileik. The improvement will consist of upgrading the Kyaington–Mongla section (93 km) of this highway to ASEAN Class II standards.	2018	93.0	TBD	Proposed
52	Bridge on the Kyaington–Lyainglin–Taunggyi Road (AH2)	Roads and bridges	The service life of the Tarkaw (Thanlwin) Bridge (bank-to-bank 900 feet) is about 40 years, and its load capacity is only HS-20. A new bridge of four lanes with an HS-25 load capacity has been proposed. The type of bridge will be specified after the feasibility study.	2018	15.8	TBD	Proposed
53	GMS EWEC Corridor Improvement I and II	Roads and bridges	The bridges and expenditure amounts involved in this project are: Attran Bridge (\$68.25 million), Gyaing (Kawkareik) Bridge (\$122.86 million), Gyaing (Zathapyin) Bridge (\$129.11 million), and Sittaung (Kyaikhto) Bridge (\$180.7 million, proposed for approval in 2020).	2017	560.9	JICA—560.9	Ongoing

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Investment projects continued—Myanmar

No.	Project Title	Subsector	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
54	Bago–Kyaikto Road	Roads and bridges	The project entails a new highway alignment on an extension of the EWEC, between Bago and Kyaikto, in order to provide easier access to Thilawa SEZ. This road is expected to be reconstructed as an asphalt-concrete, two-lane road of 7-meter in width, with 1.5-meter paved shoulders. The goal is to achieve a safer and more efficient movement of goods and people along the GMS EWEC and NSEC in Myanmar.	2020	200.0	ADB	Proposed
55	Upgrading of Wan Pong Port with 500-ton container-handling facilities	Ports and waterways	The project will modernize the facilities at Wan Pong Port for handling shipping containers. It will thus help increase the trade in cargo between Myanmar and other GMS countries. Myanmar will be extensively involved in GMS trade, and will effectively use the Mekong River transport route to boost the country's economic development.	2018	50.0	Joint Committee on Coordination of Commercial Navigation	Proposed
56	Upgrading of Dawei–Mawlamyine Rail Link (310.58 km)	Rail	This railway section (310.58 km) was constructed during 1994–1998. It is one of the most important branch lines of Myanmar Railways, not only for local railway transport but also for its link to Thailand and the ASEAN railway network. This project will improve railway transport for passengers and freight. This railway line is a part of the Trans-Asian Railway (TAR) southern corridor in Myanmar. It will be linked with the new Dawei–Htikhee line as a proposed spur line of the Singapore–Kunming Rail Link (SKRL) to Thailand.	2020	TBD	ADB NEDA Thailand	Proposed
57	Border Control Facilities at Border Crossing Points: Tachilek, Muse, and Lao–Myanmar Friendship Bridge	Border-crossing facilities	These border control facilities are needed to facilitate cross-border transport with neighboring GMS member countries under the full GMS CBTA.	2018	TBD	ADB NEDA Thailand	Proposed

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Investment projects continued—Myanmar

No.	Project Title	Subsector	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
58	GMS Highway Modernization Project	Roads and bridges	<p>The project will rehabilitate and improve about 280 km of highways, improve the safety of the Yangon–Mandalay Expressway, and finance detailed technical preparations of a new highway project—all along Myanmar’s GMS corridors.</p> <p>Major components include:</p> <ul style="list-style-type: none"> (i) Yangon–Patheingyi Road Project (177 km): The project will focus on improving priority sections of a highway that is part of the GMS corridor system. This highway is expected to be reconstructed as an asphalt-concrete, two-lane road of 7 meters in width, with 1.5-meter paved shoulders. The goal is to achieve a safer and more efficient movement of goods and people along the GMS EWEC and NSEC in Myanmar. (ii) Bago–Thanlyin Road (99 km): The project will focus on improving priority sections of a highway that is part of the GMS corridor system. This highway is expected to be reconstructed as an asphalt-concrete, two-lane road of 7 meters in width, with 1.5-meter paved shoulders. The goal is to achieve a safer and more efficient movement of goods and people along the GMS EWEC and NSEC in Myanmar between Bago and Kyaikto. This project also entails a new highway alignment on an extension of the EWEC, between Bago and Kyaikto. 	2018	372.5	ADB—340.0 ASEAN Infrastructure Fund—20.0 Government of Myanmar—12.5	Proposed
Subtotal (Transport Investment Projects: Myanmar)					3,091.0		

Thailand

Investment Projects

No.	Project Title	Subsector	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
59	Bang Yai–Kanchanaburi Intercity Motorway Project (part of Laem Chabang–Bangkok–Dawei [Myanmar] Corridor)	Roads and bridges	In addition to playing a strong national role, this expressway will be part of the Laem Chabang–Bangkok–Dawei (Myanmar) highway corridor, linking the port at Laem Chabang with the proposed deepwater port at Dawei, and with Myanmar's highway network, connecting with Mawlamyine and Yangon. The proposed expressway is an important component of Thailand's National Highway Development Plan.	2016	2,000.0	Government of Thailand—2,000.0	Ongoing
60	Tak–Mae Sot Highway Improvement Project	Roads and bridges	The project will improve highway capacity on the EWEC in Thailand, specifically, the stretch of the corridor that connects with the Myanmar section at Myawaddy. It will upgrade the existing 76 km road from two to four lanes.	2008	90.0	Government of Thailand—90.0	Ongoing
61	Lomsak–Phetchabun Highway Improvement Project	Roads and bridges	The project will upgrade the existing 92 km road from two to four lanes. The government budgeted for 11 km in the fiscal year (FY) 2016. The upgrading of the remainder is envisaged in the next five-year plan.	2016	120.0	Government of Thailand—120.0	Ongoing
62	Kalasin–Nakrai–Kamcha I Highway Improvement Project	Roads and bridges	The project will improve highway capacity of the EWEC in Thailand between Kalasin and Kamcha I. It will upgrade the existing 107 km road from two to four lanes.	2015	140.0	Government of Thailand—140.0	Ongoing
63	Chiang Rai–Chiang Khong Highway Improvement Project	Roads and bridges	The project will improve highway capacity of the NSEC in Thailand. It will upgrade the existing 103 km road from two to four lanes.	2015	80.0	Government of Thailand—80.0	Ongoing

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Investment projects continued—Thailand

No.	Project Title	Subsector	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
64	Mae Sot–Myawaddy Border Crossing Project and Infrastructure Improvements	Border-crossing facilities	The project will build a new bypass road and bridge to the north of the existing border crossing, currently located in the congested centers of the two border cities, Mae Sot and Myawaddy. This new crossing will be dedicated to cross-border freight traffic, and will avoid the congested urban areas. The bypass will link with a newly envisioned special trade zone on the Myanmar side. The overall project will consist of about 16.9 km of new four-lane divided highway (13.3 km in Thailand, 3.6 km in Myanmar), a 100-meter-long bridge across the Moei River at the border, and associated border-crossing facilities.	2015	116.0	Government of Thailand—116.0	Ongoing
65	Mekong Bridge at Bungkan–Paksan	Roads and bridges	This bridge will connect Amphoe Muang, Bungkan Province (Thailand) and Muong Paksan, Bolikhamxay Province (Lao PDR). It will facilitate the transport of goods and passengers from northeastern Thailand to central Lao PDR and central Viet Nam via NR8.	2018	110.0	NEDA Thailand	Proposed
66	Laem Chabang Port Development Project, Phase 3—Feasibility Study	Ports and waterways	Projections of demand indicate that the total containers accommodated in Basin I and Basin II will exceed 10 million 20-foot equivalent units (TEUs) per year by 2018, while the maximum capacity of Basin I and Basin II together is approximately 11 million TEUs per year. Given these projections, the development of Basin III will be necessary to accommodate the increasing throughput and to strengthen the port's role as a gateway to the GMS. The proposed study will present technical and other options regarding the expansion of the port.	2016	5.0	Government of Thailand—5.0	Ongoing

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Investment projects continued—Thailand

No.	Project Title	Subsector	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
67	Single Rail Transfer Operator Development Project of Laem Chabang Port	Rail	Currently, approximately 88% of the transport from the Laem Chabang Port to the hinterland is via the road system, with the remainder by rail (9.5%) and inland waterway (2.5%). The proposed project will develop infrastructure and necessary facilities for serving the discharging and loading containers transported by rail to the port area. The project will facilitate rail transfer in response to the completion of the State Railway of Thailand's double-track construction project. It will increase the handling capacity of rail transport at the port from the current 500,000 TEUs/year to 1–2 million TEUs/year. The objective of the project is to increase the proportion of container traffic moved by rail from 9% of port throughput to 20%, in line with the government's policy of reducing logistics costs.	2018	90.0	Government of Thailand—90.0	Proposed
68	Aranyaprathet–Poipet New Road with Border-Crossing Facilities (Thailand part)	Roads and bridges	Recent discussions at the Prime Minister's office between representatives of Thailand and Cambodia have resulted in a general agreement regarding the location for a new Poipet–Aranyaprathet border crossing, this one specifically for freight traffic. Passenger traffic will continue to use the existing border crossing. The construction of Thailand's part of this new facility will consist of a 5km bypass road and a bridge over the Prom Hrod Canal.	2015	26.4	Government of Thailand—26.4	Ongoing
69	The Construction of a New Railway Line from Den Chai to Chiang Rai and Chiang Khong	Rail	The construction of this new doubling track from Den Chai to Chiang Rai will diminish the country's logistics costs and fuel imports; enhance speed, convenience, and safety; and support integration with neighboring transport systems, such as those in the Lao PDR and southern PRC. It will also benefit development, especially in the northern provinces, such as Phayao, Phare, and Chiang Rai, which will lead to the country's overall economic growth.	TBD	2,199.0	TBD	Proposed

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Investment projects continued—Thailand

No.	Project Title	Subsector	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
70	The Construction of a New Railway Line from Baan Pai (Khon Kaen) to Mahasarakham, Roi Et, Mukdahan, and Nakhon Phanom	Rail	In 1989, the Government of Thailand decided to improve the nationwide rail network. One important network expansion was the Bua Yai–Mukdahan–Nakhon Phanom line on the GMS EWEC. Circumstances later resulted in the need for a feasibility study on the construction of a new railway line that would be integrated into the EWEC. This new, updated study was significant because it represented one of the milestones of rail infrastructure expansion in the EWEC. The study showed that this proposed route should be built as a doubling track on the new alignment for the Baan Pai (Khon Kaen)–Mahasarakham–Roi Et–Mukdahan–Nakhon Phanom line. For the time being, the State Railway of Thailand is carrying out a detailed design study on the new route alignment, which will be able to link with the Thai–Lao Friendship Bridge No. 2, in Mukdahan, and the Thai–Lao Friendship Bridge No.3, in Nakhon Phanom.	2018	1,724.0	TBD	Proposed
71	Coastal Terminal Development Project of Laem Chabang Port	Ports and waterways	This project will reduce the logistics costs for exporters, importers, and logistics providers. The coastal terminal will serve domestic waterway transport through Laem Chabang Port.	2018	58.5	TBD	Proposed
72	GMS Highway Expansion Phase 2 Project	Roads and bridges	The proposed project will (i) upgrade about 125 km of a national highway in northeastern Thailand from a two-lane to a four-lane carriageway, and (ii) strengthen capacity in road safety management by introducing road safety audits and awareness training for the executing agency during project implementation.	2018	213.6	ADB—99.4 Government of Thailand—114.2	Proposed
73	National Railway Improvement	Rail	TBD	2021	3,500.0	ADB—300.0 Government of Thailand—3,200.0	Proposed
Subtotal (Transport Investment Projects: Thailand)					10,472.5		

Viet Nam

Investment Projects

No.	Project Title	Subsector	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
74	GMS Ben Luc–Long Thanh Expressway (Stage 2)	Roads and bridges	The project will construct a 57.1 km expressway between Ben Luc and Long Thanh, south of Ho Chi Minh City (HCMC). This is a section of the GMS Southern Economic Corridor (SEC).	2013	1,201.9	ADB—636.0 Japan International Cooperation Agency (JICA)—517.6 Government of Viet Nam—48.3	Ongoing
75	GMS Ha Noi–Lang Son Expressway	Roads and bridges	This project will construct a 156.6 km expressway between Ha Noi and Huu Nghi, in Lang Son Province, on the border with the PRC’s Guangxi Zhuang Autonomous Region.	TBD	1,400.0	ADB—381.6 Government of Viet Nam TBD—0.5 TBD— 1,017.9	Proposed
76	Second GMS Southern Coastal Corridor (also known as SSCP2)	Roads and bridges	The project will (i) construct the remaining 84 km (between Ha Tien and Rach Gia) of <i>National Route 80, or Quoc Lo 80 (QL80)</i> , in Viet Nam; and (ii) upgrade the border-crossing facilities at Ha Tien (formerly Xa Xia) and streamline the procedures there—all via additional financing. In line with one of the strategies of the GMS Strategic Framework (2012–2022), the project is a precondition for promoting broader economic corridor development. It will also facilitate Viet Nam’s plans for implementing the Association of Southeast Asian Nations (ASEAN) single-window border-crossing mechanism by 2015. In addition, the project will seek to mainstream gender imbalances, prevent human trafficking and the spread of HIV/AIDS, mitigate and adapt to climate change impacts, strengthen institutional capacity, and facilitate regional cooperation between Cambodia and Viet Nam.	TBD	373.0	TBD	Proposed

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Investment projects continued—Viet Nam

No.	Project Title	Subsector	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
77	Second Northern GMS Transport Network Improvement (Luang Prabang–Thanh Hoa)	Roads and bridges	This project aims to provide more efficient transport across the Lao PDR–Viet Nam border, as well as on the project road sections of the GMS northeastern corridor through the provinces of Thanh Hoa, in northern Viet Nam, and Houaphanh, in northeastern Lao PDR. It includes two components: (i) an upgrade to all-weather status of 196 km of Highway 217 in Viet Nam and of 143 km of routes 6, 6A, and 6B in the Lao PDR; and (ii) improvements in the safety of these road sections.	2015	175.2	ADB—146.1 Government of Viet Nam—29.1	Ongoing Additional financing approved in November 2015
78	GMS Corridor Connectivity Enhancement Project	Roads and bridges	The project aims to improve the international and national transport connectivity of underdeveloped provinces in Viet Nam by improving access to the GMS North–South Economic Corridor (NSEC). The Northern Mountains Connectivity Project, submitted by Viet Nam for inclusion in Regional Investment Framework 2022, is covered by this proposed project.	2018	180.0	ADB—120.0 Government of Viet Nam— 60.0	Proposed
79	Central Region Connectivity Enhancement Project	Roads and bridges	National Highway 14D, submitted by Viet Nam for inclusion in Regional Investment Framework 2022, is covered by this proposed project.	2019	110.0	ADB—100.0 Government of Viet Nam— 10.0	Proposed
80	Central Mekong Delta Connectivity	Roads and bridges	This investment project will improve connectivity between Viet Nam and the rest of the Mekong Delta region, and provide better access to the southern coastal region from HCMC by building two cable-stayed bridges across the Mekong River, and building associated roads.	2013	860.0	ADB—410.0 Government of Australia—134.0 Korea Export-Import Bank— 260.0 Government of Viet Nam—56.0	Ongoing

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Investment projects continued—Viet Nam

No.	Project Title	Subsector	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
81	GMS Kunming–Haiphong Transport Corridor—Noi Bai–Lao Cai Highway (additional financing)	Roads and bridges	The project is designed to provide (i) a 244 km grade-separated and access-controlled highway, including 10 interchanges with toll booths and 5 service areas, starting at Noi Bai, near Ha Noi, and ending in Lao Cai on the border with the PRC in northwest Viet Nam; (ii) electric, communications, and tolling systems, and associated facilities, as well as the Vietnam Expressway Corporation’s highway operation and maintenance (O&M) equipment and vehicles; and (iii) capacity building for the Corporation in project-implementation management, corporate-financing management, highway O&M, and safeguard planning and implementation.	2014	182.0	ADB—147.0 Government of Viet Nam—35.0	Ongoing
82	GMS Road Corridors Maintenance	Roads and bridges	The project will undertake frequent and periodic maintenance for selected GMS corridor sections. It will have two components: (i) maintenance of road sections, and (ii) construction of five or six weigh stations on selected road sections.	2018	120.0	TBD	Proposed
83	Ho Chi Minh City–Loc Ninh (Cambodia Border) Railway	Rail	The HCMC–Phnom Penh route (via Loc Ninh) is part of the Singapore–Kunming Rail Link (SKRL). The project will construct a new railway section of 128 km from HCMC to Loc Ninh.	2020	900.0	TBD	Proposed
84	Ben Luc–Long Thanh Expressway (Ring Road 0.3 Ho Chi Minh City)	Roads and bridges	The project aims to contribute to the socioeconomic development of the Southern Economic Region, exploiting the economic development of, and attracting investment and tourism to, HCMC. It also aims to reduce the pressure on and congestion of Highway 1.	2019	733.7	ADB—342.0 Cofinancing (TBD)—361.7 Government of Viet Nam—30.0	Proposed

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Investment projects continued—Viet Nam

No.	Project Title	Subsector	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
85	Viet Nam: Lao Cai–Hekou (15 km) PRC: Hekou–Lao Cai (249 km)	Rail	The proposal is for standard gauge route between the PRC and Viet Nam rail systems, via GMS Rail Link 9: Kunming–Ha Noi–HCMC–Phnom Penh–Bangkok (SKRL main line). ADB will only finance it if a standard gauge link is provided as the connection. A feasibility study was conducted, funded by Viet Nam. There remain bilateral issues regarding the route alignment and the location where the line would cross the border.	TBD	33.6	ADB	Proposed
	Vientiane–Thakhek–Mu Gia Railway Project (450 km) Mu Gia–Vung Ang (F/S completion expected in 2017) 119 km	Rail	The project covers a portion of the spur line of the SKRL. This spur line will connect the Thai railway network to the Vietnamese railway network. The Republic of Korea has given assistance with a pre-feasibility study.	2018	Cost estimate is listed under the Lao PDR to avoid double counting.	TBD	Proposed
Subtotal (Transport Investment Projects: Viet Nam)					6,269.4		
Total (Transport Investment Projects)					55,753.0		

Technical Assistance Projects

No.	Project Title	Subsector	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
1	GMS Corridor Enhancement Project (formerly Project Preparatory Technical Assistance for National Highway 14D Improvement)	Viet Nam	The technical assistance (TA) will prepare a project to improve the national and international transport connectivity of underdeveloped provinces in Viet Nam by improving access to GMS corridors. The project comprises (i) improving National Highway 14D (NH14D) in Quang Nam Province, and three National Highways (NH32, N279 and upgraded PR175) in Yen Bai Province, Lai Chau Province and Lao Cai Province; and (ii) supporting the Department of Road Viet Nam (DRVN) in road asset management.	2016	1.8	ADB—1.8	Ongoing
2	Proposed Hoa Lac–Hoa Binh City Expressway Public–Private Partnership Feasibility Study	Viet Nam	The Lang–Hoa Lac–Hoa Binh Expressway is one of the seven expressways connecting to Hanoi. The Lang–Hoa Lac section has been in operation since October 2010. The Hoa Lac–Hoa Binh section, 33.3 km in length, is in the preparatory stage.	TBD	1.0	TBD	Proposed
3	GMS Road Corridors Maintenance	All GMS countries	The TA will strengthen the institutional and operational aspects of the road maintenance.	TBD	1.2	Seeking financing	Proposed
4	Strategic Study on the Development and Management of the GMS Motorway Network System	All GMS countries	The improvement and expansion of the existing motorway network system, raising it to an advanced standard with fully controlled access, is a key part of the strategic plan for the development of GMS highways to promote cross-border transport, including transit traffic. The GMS motorway network system will be the main point of road connectivity to other modes of transport, border areas, special economic zones (SEZs), and other high-potential development areas in the GMS countries. It will efficiently reduce travel time, improve road safety, and lower transport logistics costs. The strategic study will look at all the GMS corridors, and consider how they mesh with the GMS motorway network system.	TBD	TBD	Seeking financing	Proposed

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Technical assistance projects continued

No.	Project Title	Subsector	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
5	Knowledge Transfer between Thailand and the Other GMS Member Countries on Highway and Bridge Standards and Specifications, including Transport Facilitation Facilities	All GMS countries	The objective of this TA is to enhance knowledge and experience sharing in the field of road engineering, and to brainstorm better engineering ideas for sustainable road development in the GMS. Thailand's Department of Highways will fulfill its role of providing technical experts and training-center facilities, and of organizing the staff for various training courses in road and bridge engineering.	TBD	0.4	Seeking financing	Proposed
6	Study on Dry Port Development Plan along International Railway Lines Connecting Thailand with Cambodia, the Lao PDR, and Myanmar	Cambodia, Lao PDR, Myanmar, Thailand	<p>Thailand aims to develop Laem Chabang Port as a gateway to neighboring countries in the GMS, and to promote a modal shift from road to rail transport. Among the cross-border railway projects that are being emphasized by the GMS countries governments are: the Nong Khai–Thanaleng–Vientiane line, to connect with the Lao PDR; the Aranyaprathet–Klong Luk–Poipet line, to connect with Cambodia; and the Kanchanaburi–Dawei line, to connect with Myanmar.</p> <p>Thailand seeks to formulate a clear development plan for dry ports, which function as cross-border facilities or inland container terminals and are connected via GMS economic corridors. The dry ports should also be maximized by considering connections with other important ports in the GMS, such as Dawei, Myanmar; Sihanoukville, Cambodia; and HCMC, Viet Nam. The TA study will determine the need for dry ports at strategic rail locations on international borders.</p>	TBD	0.5	Seeking financing	Proposed

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Technical assistance projects continued

No.	Project Title	Subsector	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
7	GMS Transport Database Capacity Development	All GMS countries	<p>This is a project proposed by a transport and logistics assessment study conducted under the process for preparing the GMS Regional Investment Framework 2022.</p> <p>The project is intended to set up a systematic and coordinated approach to gathering (i) existing cross-border traffic and commodity data; and (ii) existing traffic data for major road corridors, including periodic traffic surveys.</p> <p>The TA project may be implemented in two steps: (i) small-scale assistance in scoping out the required database (including individual country database activities), and a GMS secretariat and coordination function for a concept paper for large-scale capacity development; and (ii) a large-scale standardized and integrated database capacity-building assistance targeted at Cambodia, the Lao PDR, and Myanmar, but incorporating data from the PRC, Thailand, and Viet Nam.</p>	TBD	TBD	Seeking financing	Proposed
8	Feasibility Study on Upgrading of Dawei–Mawlamyine Rail Link (310.58 km)	Myanmar	<p>The railway section that is the focus of this feasibility study is one of the most important branch lines of Myanmar Railways, not only for local transport, but also for its links to Thailand and the railway network of the Association of Southeast Asian Nations (ASEAN). However, the railway line is in poor condition. The project will contribute to the improvement of passenger, freight, and logistics transport on this line. Given that the line is part of the SKRL and Trans-Asian Railway (TAR) networks, Thailand has already conducted a full feasibility study on the Laem Chabang–Bangkok–Kanchanaburi–Ban Phu Nam Ron (border crossing) section. A feasibility study for Myanmar’s Htikhee–Dawei missing link has not yet been done, however. The feasibility study for an extension of the Dawei–Mawlamyine section is expected to be conducted as soon as possible, to promote the continuity of the TAR corridor.</p>	2018	TBD	TBD	Proposed (by Myanmar)

Technical assistance projects continued

No.	Project Title	Subsector	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
9	Transport Sector Reform and Modernization (additional financing)	Myanmar	This TA project will support the next phase of ADB's participation in the development of Myanmar's road transport sector.	2017	2.0	ADB—2.0	Ongoing
10	Various TA projects proposed by the Lao PDR Department of Waterways and Ministry of Public Works and Transport	All GMS countries	The TA projects are as follows: (i) regulatory TA to standardize the vessel and waterway classifications, set up a vessel inspection system, develop a short- and long-term fleet policy, and build a search-and-rescue center (timeline: 2020–2030, no cost estimate yet); (ii) feasibility studies for a multimodal transportation system and for an import-and-export logistics information system (timeline: 2018–2020, no cost estimate, Republic of Korea as source of funding); (iii) the formulation of a regional plan for developing inland waterway transport in the ASEAN countries (timeline: 2016–2018, \$100,000, to be carried out by the Korean Maritime Institute); (iv) a development plan for international navigation on the Lancang/Mekong River, 2015–2025 (timeline for the planning: 2015–2018, no cost estimate, to be carried out by the Joint Committee on Coordination of Commercial Navigation expert group); (v) the implementation of the Mekong River Commission Waterborne Transport Master Plan (timeline: 2016–2040, no cost estimate); and (vi) the implementation of the Sustainable Management of Dangerous Goods on Waterway Transport Plan (12 documents have been completed, but funding is needed for implementation, no cost estimate).	2018	TBD	PRC Republic of Korea	Proposed

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Technical assistance projects continued

No.	Project Title	Subsector	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
11	Greater Mekong Subregion East–West Economic Corridor Highway Development Project (formerly GMS EWEC Road Corridor Improvement II)	Myanmar	The project will develop a direct highway link between Bago and Kyaikto, along the Greater Mekong Subregion (GMS) East–West Economic Corridor (EWEC). The project will (i) improve connectivity between Myanmar and Thailand; compounding with ongoing ADB transport infrastructure and cross-border transport facilitation activities to enable more intense trade between Myanmar and Southeast Asia, (ii) enhance road access to Mon and Kayin state, demonstrating the governments commitment to improving the well-being of people in areas that have long been affected by conflict, (iii) provide a new high class road access to Kyaikto, a major tourism and pilgrimage site, and (iv) build governments capacity to develop and manage high-class highways meeting international standards.	2017	2.0	ADB—2.0	Ongoing
12	GMS Regional Transport Corridor Improvement I	Myanmar	The technical assistance project will prepare a project to upgrade sections of Myanmar’s GMS North-South and East-West transport corridors.	2019	1.5	ADB—1.5	Proposed
Subtotal (Transport TA Projects)					10.4		
Total (Transport Investment and TA Projects)					55,763.4		

Energy

Investment Projects

No.	Project Title	Country Coverage	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
1	Lao PDR–Viet Nam Power Transmission Interconnection II	Lao People’s Democratic Republic (Lao PDR), Viet Nam	This project will (i) construct a 59-kilometer (km), 500-kilovolt (kV) transmission line and a 230 kV/500 kV substation in Hatxan, Lao PDR; and (ii) will construct a 94 km, 500 kV transmission line and expand the existing 220 kV/500 kV substation in Pleiku, Viet Nam. The project will enable the transmission of 3,157 gigawatt-hours/year of electricity, to be produced by eight small hydropower plants (with a total capacity of 1,013 megawatts [MW]) in southern Lao PDR, to be developed by independent power producers.	2019	120.0	World Bank—40.0 Cofinancing (TBD)—80.0	Proposed
2	Lao PDR–Thailand Nabong 500 kV Substation Transmission Facility	Lao PDR, Thailand	The project aims to construct a 500 kV line from Udon Thani (Thailand) to Nabong (Lao PDR) to transfer power from three hydropower projects in the Central-1 area of the Lao PDR to Thailand. The hydropower projects are Nam Ngum 2, Nam Theun 1, and Nam Ngiep 1, which have a total capacity of over 1,500 MW, largely for export to Thailand.	2014	106.0	Nam Ngum 2 Power Company—106.0	Ongoing
3	Continued Projects in Rural Electrification and Off-Grid Power Development in Northern Part of Lao PDR	Lao PDR	The project involves grid extension based on sound selection principles and the implementation of off-grid projects where grid extensions are not feasible. The new Greater Mekong Subregion (GMS) strategy calls for enhancing energy access, particularly to poor and remote areas, through the promotion of best practices in the GMS. Costs and scheduling are aligned with the completion report for the Lao PDR: Northern Area Rural Power Distribution Project, with some increases reflecting inflation. That project installed 268 km of a 115 kV line, along with distribution facilities, which connected over 30,000 households. (The scope of this project may have overlapped with that of the Northern Cross-Border Power Trade and Distribution Project.)	2019	50.0	TBD	Proposed

Continued on next page

Investment projects continued

No.	Project Title	Country Coverage	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
4	Northern Cross-Border Power Trade and Distribution	Lao PDR	This project will expand the power distribution network in northern Lao PDR near border-crossing points. Components of the project include, among others: (i) a transmission interconnection from the Lao PDR (Luang Namtha) to Myanmar (Shan State, with a possible extension), and (ii) a transmission interconnection from the Lao PDR (Ton Pheung) to Thailand (Mae Chan).	2020	37.4	ADB—27.4 Government of the Lao PDR—10.0	Proposed
5	500 kV Line from Mawlamyine to the Main Grid	Myanmar	This will connect the isolated grid at Mawlamyine to the main grid, thereby bringing the 500 kV Myanmar system closer to the Thai grid for future interconnection. This will result in lower costs and improved reliability of the power supply in the Mawlamyine area, which will be the western terminus of the GMS East–West Economic Corridor (EWEC). The costs are estimated based on 360 km of a single-circuit 500 kV line at \$1.5 million/km and two 500 kV substations at \$50 million each. (Tentative routing: Mawlamyine–Thaton–Bago)	2020	640.0	TBD	Proposed
6	Demonstration of Second Generation Biofuel Technologies and Associated Biomass Value Chains	All GMS countries	This project will build pilot plants under a public–private partnership (PPP) that will aim to meet financial targets, successfully demonstrate feasible technologies, and create value chains. Upgrading biofuel technology will reduce conflicts over food security and will increase rural incomes through biomass value chains. The schedule will take into account the need for a careful consideration of technological issues and for the selection of private partners. Estimated cost is \$13.3 million per GMS member country.	2019	80.0	TBD	Proposed

Continued on next page

Investment projects continued

No.	Project Title	Country Coverage	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
7	Extension of Energy Access in Myanmar from Nodes in Thailand and in the People's Republic of China (PRC)	Myanmar	<p>This project involves a grid extension from Myanmar's borders with the PRC and Thailand using generation plants in those two countries, based on the regional experience in grid extension in Cambodia, the Lao PDR, and Viet Nam.</p> <p>Ideally, such a project would build on the successful build–operate–transfer (BOT) model of the transmission project in Cambodia. The costs will depend on the number of distribution facilities and household connections in the chosen areas. It is likely that there will be few or no distribution facilities, in which case the costs will be much higher, closer to those for a conventional renewable energy project. The schedule will allow for the negotiating process under the BOT model. Estimated cost breakdown: \$10.0 million for the connection to a local isolated grid; and \$60.0 million if the distribution and connection are to be carried out.</p>	2019	70.0	TBD	Proposed
8	Transmission Interconnection Project from Lao PDR (Na Bong) to Thailand (Udon Thani 3)	Lao PDR, Thailand	The project is upgrading an existing 230 kV transmission line, designed for 500 kV transmission from the Lao PDR (Na Bong) to Thailand (Udon Thani 3). When completed, the line will be 107 km in length and have 1,800 MW peak capacity.	2014	60.0	TBD	Ongoing
9	Transmission Interconnection Project from Lao PDR (Ban Lak25) to Thailand (Ubon Ratchathani 3)	Lao PDR, Thailand	The project will construct a 500 kV transmission line that will initially be energized at 230 kV from the Lao PDR (Ban Lak25) to Thailand (Ubon Ratchathani 3). When completed, the line will be 150 km in length and have 1,400 MW peak capacity.	2019	90.0	ADB—15.0	Proposed

Continued on next page

Investment projects continued

No.	Project Title	Country Coverage	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
10	Transmission Interconnection Project from Lao PDR (Pak Beng or Pak Nguyen) to Thailand (Tha Wang Pha)	Lao PDR, Thailand	The project will construct a 500 kV AC transmission line from the Lao PDR (Pak Beng or Pak Nguyen) to Thailand (Tha Wang Pha). When completed, it will be 120 km in length and have 800 MW peak capacity. This project is currently under consideration and subject to a power purchase agreement (PPA) approval by both sides.	TBD	TBD	TBD	Proposed
11	Nam Ngiep 1 Hydropower Project	Lao PDR	The project involves the construction and operation of a 250 MW hydropower generation facility on a build-operate-transfer (BOT) arrangement at the Nam Ngiep River in the province of Bolikhamxay and Xaysomboun, Lao PDR.	2014	976.7	ADB—215.7 JBIC—197.0 Private Sector—564.0	Ongoing
Subtotal (Energy Investment Projects)					2,230.1		

Technical Assistance Projects

No.	Project Title	Country Coverage	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
1	Harmonizing GMS Power Systems to Facilitate Regional Power Trade (formerly Support to RPTCC in the Completion of Performance Standards, Grid Codes, Market Rules, and Subregional Transmission Expansion Plan)	All GMS countries	The technical assistance (TA) supports the development of a clear basis for regional market rules that would comprise agreed rules and indicative planning of interconnections. It will result in a more functional regional market with genuine exchanges of electricity, leading to an improved reliability and quality of power supply and lower costs. A supplementary TA project was approved in 2017, the outcome of which will be a set of GMS performance standards and grid codes, and an enhanced regulatory framework. Additional output, among others, include feasibility studies for four new interconnection projects.	2014	3.5	ADB—2.5 PRC Trust Fund—0.5 Agence Française de Développement (AFD)—0.5	Ongoing

Continued on next page

Technical assistance projects continued

No.	Project Title	Country Coverage	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
2	Ensuring Sustainability of Greater Mekong Subregion Regional Power Development (Phase 2)	All GMS countries	The TA will support the efforts of the Regional Power Trade Coordination Committee to forge agreements among the GMS countries on the technical, institutional, and operational aspects of the GMS regional power market, and ensure that these comply with environmental sustainability requirements.	2016	1.0	AFD—1.0	Ongoing
3	Development of GMS Coordination Center for Regional Power Trade	All GMS countries	The project will help set up the Regional Power Coordination Center (RPCC) and build the capacity of national and subregional bodies. These bodies will work with the RPCC in implementing and overseeing cross-border power exchanges; coordinating regional power planning; and developing transmission facilities of regional importance through (i) technical and equipment support and staffing, (ii) staff training, and (iii) support for specific studies (e.g., on tariff structures, operational standards, etc.) and activities (e.g., power planning, database maintenance, etc.).	To be determined (TBD)	3.0	TBD	Proposed
4	Scoping Study on the Future of the Trans-ASEAN Gas Pipeline (TAGP)	All GMS countries	<p>This project is specified in the Association of Southeast Asian Nations (ASEAN) Master Plan on Connectivity, and aims to contribute to ASEAN's energy security. The study will lead to an agreed concept for the deployment of the TAGP in the future, with the critical investments identified.</p> <p>This is a wide-ranging project that needs strong cooperation with the ASEAN Council on Petroleum (ASCOPE). It should be steered by a national committee of experts and executed by a small part-time team of national experts, but also include funding for short-term studies on strategic issues (e.g., shale gas and coal bed methane prospects, future liquefied natural gas markets, carbon capture and storage, storage options, the role of gas as a backup for renewables, and future gas demand). Four meetings over 2 years will be sufficient. The budget must cover the participation of ASCOPE experts.</p>	TBD	1.0	TBD	Proposed

Continued on next page

Technical assistance projects continued

No.	Project Title	Country Coverage	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
5	Development of Coherent Energy-Efficiency Action Plans Across the Subregion	All GMS countries	<p>This TA will entail preparing national energy efficiency action plans according to a common format, with stronger and better-targeted actions to promote energy efficiency.</p> <p>This project is predicated on the supposition that the Subregional Energy Forum can act as a technical advisory body to policy makers, proposing policies that can support regional activities. It can be executed by a team of high-level national experts (supported by international and regional consultants) that reviews progress in energy efficiency across the subregion; conducts benchmarking; proposes aggressive targets, stronger policies, and subregional convergence; and, where feasible, identifies sources of financial support (e.g., Clean Development Mechanism and post-Kyoto mechanisms). It should be an ongoing project funded initially for 3 years.</p>	TBD	1.0	TBD	Proposed
6	GMS: Renewable Energy Development (Phase 2)	All GMS countries	This TA will support follow-up activities from the Phase I regional technical assistance. It will include further propagation and preparation of policy manuals based on the pilot results of Phase I, covering GMS-appropriate practices in renewable energy and cleaner fuel promotion, continuing knowledge sharing and training, and laying the groundwork for investment projects in renewable energy.	TBD	2.0	TBD	Proposed
7	GMS Northern Cross-Border Power Trade and Distribution	Lao PDR	This project will examine new potential cross-border power-transmission projects.	2018	1.0	ADB—1.0	Proposed

Continued on next page

Technical assistance projects continued

No.	Project Title	Country Coverage	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
8	Regional Action Plans for Sustainable Power Sector Development and Climate Change Mitigation	All GMS countries	<p>The proposed TA aims to improve energy security and mitigate climate change in the GMS through strengthened regional power cooperation, with an increased use of clean energies, knowledge sharing in GMS power development, and better policy and business environments for promoting renewable and efficient energies.</p> <p>The TA will assist the GMS countries in adopting specific climate-mitigation measures for the power interconnection projects; establish measurable targets and action plans for reducing greenhouse gas emissions resulting from power sector development; adopt measures for renewable-energy and energy-efficiency improvements over time that can be monitored against a well-defined baseline; and to clearly define the public policy interventions under the action plans. These activities will all contribute to sustainable power sector development and climate change mitigation.</p>	2018	2.0	ADB—2.0	Proposed
Subtotal (Energy TA Projects)					14.5		
Total (Energy Investment and TA Projects)					2,244.6		

Agriculture

Investment Projects

No.	Project Title	Country Coverage	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)																				
1	Greater Mekong Subregion Flood and Drought Risk Management and Mitigation Project	Lao PDR, Viet Nam	<p>The Asian Development Bank (ADB) is helping the Lao People’s Democratic Republic (Lao PDR) and Viet Nam reduce economic losses resulting from floods and droughts. The project will combine upgrades in water-management infrastructure with community-based disaster risk management and enhanced regional forecasting in order to improve disaster preparedness in the Greater Mekong Subregion (GMS).</p> <p>The breakdown of the estimated costs in terms of millions of dollars is as follows:</p> <table border="1"> <thead> <tr> <th>Country</th> <th>Total</th> <th>ADB</th> <th>Government</th> <th>Cofinancing</th> </tr> </thead> <tbody> <tr> <td>Lao PDR</td> <td>37.1</td> <td>36.5</td> <td>0.6</td> <td>0.0</td> </tr> <tr> <td>Viet Nam</td> <td>64.4</td> <td>45.0</td> <td>13.5</td> <td>5.9</td> </tr> <tr> <td>TOTAL</td> <td>101.5</td> <td>81.5</td> <td>14.1</td> <td>5.9</td> </tr> </tbody> </table>	Country	Total	ADB	Government	Cofinancing	Lao PDR	37.1	36.5	0.6	0.0	Viet Nam	64.4	45.0	13.5	5.9	TOTAL	101.5	81.5	14.1	5.9	2013	101.5	ADB—81.5 Governments of the Lao PDR and Viet Nam—14.1 Cofinancing (Government of Australia)—5.9	Ongoing
Country	Total	ADB	Government	Cofinancing																							
Lao PDR	37.1	36.5	0.6	0.0																							
Viet Nam	64.4	45.0	13.5	5.9																							
TOTAL	101.5	81.5	14.1	5.9																							
2	GMS Flood and Drought Risk Management and Mitigation Project (additional financing)	Lao PDR	ADB is helping the Lao PDR and Viet Nam reduce economic losses resulting from floods and droughts. The project will combine upgrades in water-management infrastructure with community-based disaster risk management and enhanced regional forecasting to improve GMS disaster preparedness.	2020	67.0	ADB—42.0 Government of the Lao PDR—5.0 Cofinancing—20.0	Proposed Cofinancier sought																				

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Investment projects continued

No.	Project Title	Country Coverage	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)																									
3	Climate Friendly Agribusiness Value Chains Sector Project	Cambodia, Lao PDR, Myanmar	<p>The project will promote activities under pillars 2 and 3 of the Core Agriculture Support Program (CASP) II, on climate-friendly agriculture and bioenergy. The project will invest in the development of climate-friendly pro-poor agribusiness value chains in the GMS. It will focus on the creation of agribusiness centers near GMS corridor towns and rural-growth clusters to effectively link farming communities and urban centers along the corridors by developing upstream and downstream linkages. Key infrastructure investments will include (i) efficient roads that provide access to markets; (ii) renewable bioenergy systems that can meet the growing energy needs of rural communities and agribusiness centers; and (iii) efficient storage, processing-and-aggregation, grading, and marketing-and-logistics infrastructure to ensure the delivery of safe quality food products.</p> <p>The breakdown of the estimated costs in terms of millions of dollars is as follows:</p> <table border="1"> <thead> <tr> <th>Country</th> <th>Total</th> <th>ADB</th> <th>Government</th> <th>Cofinancing</th> </tr> </thead> <tbody> <tr> <td>Cambodia</td> <td>135.0</td> <td>90.0</td> <td>5.0</td> <td>40.0</td> </tr> <tr> <td>Lao PDR</td> <td>72.5</td> <td>40.5</td> <td>2.0</td> <td>30.0</td> </tr> <tr> <td>Myanmar</td> <td>70.5</td> <td>40.5</td> <td>8.0</td> <td>22.0</td> </tr> <tr> <td>TOTAL</td> <td>278.0</td> <td>171.0</td> <td>15.0</td> <td>92.0</td> </tr> </tbody> </table>	Country	Total	ADB	Government	Cofinancing	Cambodia	135.0	90.0	5.0	40.0	Lao PDR	72.5	40.5	2.0	30.0	Myanmar	70.5	40.5	8.0	22.0	TOTAL	278.0	171.0	15.0	92.0	2018	278.0	ADB—171.0 Cofinancing (Green Climate Fund or Global Agriculture Food Security Program-[GAFSP])—92.0 Governments of Cambodia, Lao PDR, and Myanmar—15.0	Proposed
Country	Total	ADB	Government	Cofinancing																												
Cambodia	135.0	90.0	5.0	40.0																												
Lao PDR	72.5	40.5	2.0	30.0																												
Myanmar	70.5	40.5	8.0	22.0																												
TOTAL	278.0	171.0	15.0	92.0																												

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Investment projects continued

No.	Project Title	Country Coverage	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
4	Agro-industrial zones (AIZs) to support promotion of safe and environment-friendly agro-based value chains	Cambodia, People's Republic of China (PRC), Lao PDR, Myanmar, Viet Nam	<p>Each country designs its agro-industrial zone (AIZ) subprojects to promote safe and environment-friendly agriculture products (SEAPs) with a focus on (i) demonstrations for small and medium-sized enterprises (SMEs); (ii) processing, packaging, and labeling facilities, as well as common post-farm product facilities (cold storage and warehouses), laboratories, one-stop shops for inspection, and quarantine for SEAP products; (iii) strategic collection centers linked to common post-farm facilities that empower the farmers and community via access to quick and reliable testing; (iv) supply chain management; (v) aquaculture value chain development; (vi) tools to ensure quality assurance; (vii) capacity building and institution building, and research and development (R&D); (viii) promotion of participatory guarantee systems; (ix) integration into SEAP wholesale markets or organic retail markets; and (x) integration into biochar and waste management.</p> <p>The cost estimates by country in terms of millions of dollars are: Cambodia: 71; PRC: 50; Lao PDR: 45; Myanmar: 30; and Viet Nam: 90.</p>	2022	286.0	ADB Private sector Governments of the PRC, Lao PDR, Myanmar, and Viet Nam via public—private partnerships (PPPs)	Proposed (Endorsed by the Second GMS Agriculture Ministers' Meeting, September 2017)

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Investment projects continued

No.	Project Title	Country Coverage	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
5	Animal Disease Control Zone	Cambodia, PRC, Lao PDR, Myanmar	<p>Subprojects in Cambodia will focus on (i) the development of quarantine zones, including border quarantine posts (12 along the Cambodia–Thailand border and 8 along the Cambodia–Viet Nam border); (ii) the development of a livestock identification and traceability system; (iii) R&D in disease control and prevention; (iv) capacity building; and (v) a surveillance system.</p> <p>Livestock disease-control zones in key border areas of the PRC (Yunnan Province), Lao PDR, and Myanmar (towns of Muse and Myawaddy) will be set up to (i) mitigate and manage the risk of foot-and-mouth disease via cattle; (ii) control other key production and zoonotic diseases; and (iii) serve as a buffer zone for regulating livestock trade between the PRC and other GMS countries. The zone will house facilities for preventive measures such as animal identification (tagging), livestock movement management (e-traceability), quarantine, serological and pathological surveillance work, and vaccination facilities and services. Food-safety pathogen and residue testing can be added to the system once operational. It is also important to encourage the private sector to be involved in the zone and to set up modern slaughterhouses, meat processing, and biodigester facilities, as well as local feedlots, through PPP schemes.</p> <p>The cost estimates by country in terms of millions of dollars are: Cambodia: 30; PRC: 50; Lao PDR: 25; Myanmar: 15; and Viet Nam: 30.</p>	2021	150.0	ADB, Private sector, Central and provincial governments of Cambodia, the PRC, Lao PDR, and Myanmar, Banks in the PRC	Proposed (Endorsed by the Second GMS Agriculture Ministers' Meeting, September 2017)

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Investment projects continued

No.	Project Title	Country Coverage	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
6	Cluster and Value Chain Development for Geographical Indications related to SEAP	Cambodia, PRC, Lao PDR, Myanmar	<p>Based on unique advantages of geography, resources, environment, and technology, the project will promote characteristic and advantageous agriculture and develop a series of agro-products with geographical indications (GI) to build industry clusters of characteristic and advantageous agriculture in the GMS. Main project components include (i) improvement of agricultural infrastructure construction for GI products; (ii) agricultural science and technology innovation and extension services for GI products; (iii) reform and innovation of management and operation of GI agriculture; (iv) capacity building and knowledge innovation; and (v) awareness raising and marketing.</p> <p>The cost estimates by country in terms of millions of dollars are: Cambodia: 2; the PRC: 320; Lao PDR: 3; and Myanmar: 20.</p>	2022	345.0	Agence Française de Développement (AFD), ADB, Food and Agriculture Organization of the United Nations (FAO), Private sector, Ministries of agriculture and commerce of Cambodia, the PRC, Lao PDR, and Myanmar	Proposed (Endorsed by GMS Agriculture Ministers' Meeting, September 2017)
7	GMS East–West Economic Corridor Agriculture Infrastructure Sector Project (additional financing)	Lao PDR	The project will continue to support the transformation of the East–West Economic Corridor (EWEC) into an inclusive economic growth corridor, and to target areas of good agricultural potential with existing irrigation schemes. It will regenerate, replace, and upgrade underdeveloped or outdated agricultural infrastructure, including that concerned with irrigation and rural access. The project will also continue to support capacity development at the farm level for managing and using agriculture infrastructure efficiently and effectively, so as to optimize agricultural outputs and sustain agricultural practices and trade.	2022	67.0	ADB—42.0 Cofinancing—20.0 Government of the Lao PDR—5.0	Proposed

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Investment projects continued

No.	Project Title	Country Coverage	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
8	Basic Infrastructure for Inclusive Growth in the Northeastern Provinces Sector Project (BIIG 1)	Viet Nam	<p>BIIG 1, the proposed project, will (i) rehabilitate and upgrade about 265 kilometers (km) of roads in the four northeastern provinces; (ii) install 10 rural domestic water-supply schemes; (iii) provide infrastructure support for agricultural and rural value chains in Lang Son; and (iv) strengthen provincial-infrastructure-asset management.</p> <p>The project is aligned with ADB's long-standing support for the GMS Economic Cooperation Program Strategic Framework 2012–2022, which prioritizes local and regional economic development through multi-sector investments that require strong cross-sector linkages and integration, particularly with special economic zones and border areas.</p>	2017	197.2	ADB—150.0 Government of Viet Nam—37.2 Cofinancing—10.0	Ongoing (Approved in December 2017)
9	Basic Infrastructure for Inclusive Growth in the North Central Provinces Sector Project (BIIG 2)	Viet Nam	<p>The proposed project will accelerate the socioeconomic development of the four north central provinces. It will (i) rehabilitate and upgrade district and provincial roads in the north central provinces; (ii) support productive and business infrastructure, including water supply networks, sea and river protection, and drainage works with associated river transport infrastructure, and support flood and irrigation command areas; and (iii) establish decentralized public-asset-management processes, and build road, water-supply, and irrigation infrastructure.</p> <p>The project is aligned with ADB's long-standing support to the GMS Cooperation Program Strategic Framework 2012–2022, which prioritizes local and regional economic development through multi-sector investments that require strong cross-sector linkages and integration, particularly with special economic zones and border areas.</p>	2017	203.5	ADB—149.0 Government of Viet Nam—54.5	Ongoing (Approved in December 2017)
Subtotal (Agriculture Investment Projects)					1,695.2		

Technical Assistance Projects

No.	Project Title	Country Coverage	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
1	Climate-Friendly Agribusiness Value Chains in the GMS	Cambodia, Lao PDR, Myanmar	The main outputs of the project preparatory technical assistance (PPTA) will include detailed reports on feasibility assessments, including technical, economic, and financial due diligence concerning priority agribusiness value chains in Cambodia, the Lao PDR, and Myanmar. The PPTA will produce an agreed project design in relation to the four outputs of the investment project (agribusiness value chain infrastructure, bioenergy use and sustainable biomass management, agribusiness policy and capacity-support services, and project implementation and knowledge management) with implementation arrangements suitable for each country. The PPTA will define the scope and cost of investments, subproject locations and activities, financing plan, implementation arrangements, procurement strategy, technology issues, capacity development needs, and post-project operation and project maintenance arrangements.	2015	2.5	Canadian Climate Fund for the Private Sector—1.0 Asia Clean Energy Fund (ACEF)—1.5	Ongoing
2	SEAP Strategy Implementation Support (formerly called “Implementing the Strategy on Agro-based Value Chain Investments in the GMS”)	All GMS countries	This knowledge and support technical assistance will build on the successful pilots of the Core Agriculture Support Program Phase II, which is included in the 2018 pipeline of ADB’s Environment, Natural Resources and Agriculture Division (SEER).	2018	10.0	Swedish International Development Cooperation Agency (Sida), Nordic Development Fund (NDF)	Proposed

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Technical assistance projects continued

No.	Project Title	Country Coverage	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
3	Supporting Infrastructure Development of Agro-industrial Zones for SEAP	Cambodia, PRC, Myanmar	The project involves (i) facilitating and/or enabling farmer cooperatives to engage in contract farming with the private sector to promote SEAP cultivation (crops, horticulture, vegetables, industrial crops, livestock, and aquaculture); (ii) controlling and efficiently using acceptable pesticides and fertilizers to boost SEAP production; (iii) strengthening institutions and building the capacity of government officials to deliver services and manage agro-industrial zones (AIZs), and building the capacity of farmers to produce SEAPs for the AIZs; (iv) promoting appropriate technologies, such as Good Agricultural Practices (GAP), Good Animal Husbandry Practices (GAHP), Good Aquaculture Practices (GAqP), and Good Handling Practices (GHP), as well as Good Manufacturing Practices (GMP); and (v) managing supply chains.	2020	25.0	ADB, Other donors, Private sector	Proposed
4	Animal Disease Control Zone	Cambodia, PRC, Lao PDR, Myanmar, Viet Nam	The project includes (i) building an e-traceability system for tracking livestock movement along GMS borders to better control transboundary animal diseases; (ii) investigating animal movement along the borders between the PRC and the other GMS countries, and conducting research on the livestock product value chain; (iii) building capacity in related fields; (iv) establishing financing mechanisms for sustaining the zones; (v) developing surveillance and inspection systems; and (vi) fostering technical exchanges between animal disease laboratories in GMS countries.	2019	16.0	ADB, Food and Agriculture Organization of the United Nations (FAO), World Health Organization (WHO), Private sector	Proposed

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Technical assistance projects continued

No.	Project Title	Country Coverage	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
5	Geographic Indications (GI) Value Chain Development and Brand Building	Cambodia, PRC, Viet Nam	The project includes (i) the development of value chain financing; (ii) promotion of public–private partnership (PPP) schemes; (iii) development of farmer organizations; (iv) establishment of GI processes and regulations; (v) capacity and institution building, including interministerial and public–private dialogue; (vi) incubator development (R&D to increase productivity); (vii) guidelines for responsible agribusiness investments; (viii) R&D on production and processing; (ix) capacity building and cooperation with regard to brand research and brand evaluation; (x) capacity building in brand management for government officials; (xi) knowledge sharing concerning brand development; (xii) a study of export markets; and (xiii) studies of market and consumer preferences.	2018	18.0	AFD, ADB, FAO, Private sector, Governments of Cambodia, PRC, and Viet Nam	Proposed
6	Agribusiness Incubator Development	Cambodia, Lao PDR, Myanmar	Strengthening small and medium-sized enterprises (SMEs), forging links between SMEs and smallholder farmers, and prioritizing farmers from agribusiness incubators and farmers dedicated to SEAPs.	2019	19.00	ADB, International Finance Corporation (IFC), Other donors, Private sector	Proposed
7	GMS East–West Economic Corridor Agriculture Infrastructure Sector Project (additional financing)	Lao PDR	This TA project will prepare the due diligence for additional financing to support the transformation of the EWEC into an inclusive economic corridor; and it will target areas with good agricultural potential by including them in existing irrigation schemes.	2018	1.00	ADB—1.0	Proposed

Continued on next page

Technical assistance projects continued

No.	Project Title	Country Coverage	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
8	Enhancing Productivity and Competitiveness of Safe and Environment Friendly Agriculture	Thailand	This TA will be appropriate given the ultimate goal of building this country into the knowledge and innovation center for the modernization of agricultural value chains (to make them safe and environment friendly). The TA will involve pilot projects in areas relevant for cross-border trade between Thailand and at least two other GMS countries. Priority will be given to potential crops such as organic rice, fruits, vegetables, or livestock. The pilot projects should achieve economies of scale by interlinking segments of value chains (horizontal and/or vertical) domestically or bilaterally, or by developing innovative methods for consolidating land (other than through contract farming). The TA will also focus on knowledge-related measures on capacity building, policy advice, and knowledge sharing.	2018	2.0	Trust fund—2.0	Proposed
9	Economic Corridor Agribusiness Development	Myanmar	The project will support value chain development in priority economic corridors in Myanmar, building on the Climate-Friendly Agribusiness Value Chain Project and the Irrigated Agriculture Inclusive Development Project. It will seek to promote linkages with planned and ongoing transport investments in the ADB portfolio, and will adopt an area-based approach to fostering agribusiness links.	2019	0.8	ADB—0.8	Proposed
10	GMS Second Agriculture Value Chain Infrastructure Investment Project	Cambodia (regional)	This TA will establish efficient agricultural value chains by means of production and post-production infrastructure investments, with private sector involvement.	2019	1.5	ADB—1.5	Proposed
Subtotal (Agriculture TA Projects)					95.8		
Total (Agriculture Investment and TA Projects)					1,791.0		

Environment

Investment Projects

No.	Project Title	Country Coverage	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
1	Global Environment Fund Regional Biodiversity and Forestry Program	All GMS countries	The program aims to enhance biodiversity and forest conservation in Greater Mekong Subregion (GMS) transboundary landscapes. Interventions will focus on the following four activities: i) increasing the capacity of GMS countries to manage transboundary landscapes, (ii) strengthening protected area management, (iii) promoting ecosystem-based climate change adaptation, and (iv) devising innovative ways to finance conservation.	2015	20.0	Global Environment Facility—20.0	Ongoing
2	Rural Environmental Management, Pollution Control, and Waste Management	All GMS countries	<p>The project will help to improve the quality of the environment; reduce vulnerability to water, food, and health security; and subsequently boost market competitiveness (through the production of safe and environment-friendly agriculture products [SEAPs]), as well as the incomes of rural communities.</p> <p>The project will also target the geographic nexus between rural and peri-urban areas along the GMS economic corridors, focusing on environmental quality issues arising from the flow of agriculture goods and services. It will work to enhance the environmental performance of the agriculture sector and of the development investments in small corridor towns specified in the Regional Investment Framework 2022. A few of the targeted ongoing and planned investment projects are as follows:</p> <ul style="list-style-type: none"> (i) GMS Corridor Town Development Project (ii) Agro-industrial zones (AIZs) to support promotion of safe and environment-friendly agro-based value chains (iii) Corridor Town Development Project 	2022	300.0	Asian Development Bank (ADB), Green Climate Fund	Proposed (Project is seeking cofinancing partners)

Continued on next page

Investment projects continued

No.	Project Title	Country Coverage	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
			<p>Outputs</p> <ul style="list-style-type: none"> (i) Integrated pollution-control measures for agricultural small and medium-sized enterprises (SMEs), for instance in pig and dairy farming: <ul style="list-style-type: none"> (a) infrastructure for waste treatment, waste recycling, and the use of organic waste as an agricultural input; (b) integrated livestock management that will reduce greenhouse gas emissions; (c) waste-to-energy technology selection and related clean-solutions infrastructure; (d) promotion of nutrient and water management as an addition to agricultural practices; and (e) low-carbon and climate-resilient infrastructure for agro-industrial zones (AIZs), to support the promotion of the SEAP value chain project. (ii) Development of integrated, environmentally sustainable aquaculture: <ul style="list-style-type: none"> (a) infrastructure for wetlands conservation and water recirculation, including flow-through-farm effluent management systems; (b) restoration and improvement of degraded and polluted fish ponds; (c) controlled use of additives and environmentally safe chemicals; and (d) the adoption of low-cost aquaculture technologies. <p>The cost estimates by country in terms of millions of dollars are: Cambodia: 40; People’s Republic of China (PRC): 70; Lao People’s Democratic Republic (Lao PDR): 35; Myanmar: 35; Thailand: 70; and Viet Nam: 50.</p>				

Continued on next page

Investment projects continued

No.	Project Title	Country Coverage	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
3	Integrated Land Use Management for Sustainable Development	All GMS countries	<p>The project will promote a better allocation and management of land resources, and develop pro-poor, green commodities and services. A multidisciplinary value-chain approach will be adopted to enhance productivity and market linkages, and to reduce both environmental (degraded air, water, and soil quality) and climate-related risks.</p> <p>In addition, the project will focus on critical agricultural landscapes in an effort to better manage vital ecosystems, and will offer provisioning and regulatory services to improve productivity and resiliency. The project will also support other planned or ongoing investment projects such as:</p> <ul style="list-style-type: none"> (i) Climate-Friendly Agribusiness Value Chains in the GMS, and (ii) Cluster and Value Chain Development for Geographic Indications. <p>It will build on proven investment models such as that used for the GMS Biodiversity Conservation Corridor Project, and will align with GMS transboundary biodiversity landscape management strategies that are currently under development.</p> <ul style="list-style-type: none"> (i) Strengthened land management: <ul style="list-style-type: none"> (a) integrated spatial and land-use planning (delineation, demarcation, land management, protection, restoration, soil pollution control, and remediation); and (b) recommendations of community-development initiatives to enhance livelihood options, provide food security, and reduce poverty; 	2022	240.0	ADB, Green Climate Fund	Proposed (Project is seeking co-financing partners)

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Investment projects continued

No.	Project Title	Country Coverage	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
			<ul style="list-style-type: none"> (ii) market development for green commodities and ecotourism: <ul style="list-style-type: none"> (a) certification and accreditation systems, (b) a value chain approach to developing ecotourism, and (c) market linkages through private sector participation; (iii) skill development for value addition and for the inclusion of rural communities in green commodity value chains; (iv) financing to support the management of ecosystem services; and (v) analysis and design of compensation mechanisms for environmental services based on an ecosystems approach (including the development of a mechanism for payment for ecosystem services [PES]). <p>The estimated costs by country in terms of millions of dollars are: Cambodia: 60; PRC: 40; Lao PDR: 40; Myanmar: 20; Thailand: 40; and Viet Nam: 40.</p>				
Subtotal (Environment Investment Projects)					560.0		

Technical Assistance Projects

No.	Project Title	Country Coverage	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
1	GMS Environment Service Facility (a.k.a. GMS Core Environment Program 2018–2022)	All GMS countries	A Knowledge and Support Technical Assistance (KSTA) entitled GMS Environment Service Facility is in the 2018 ADB-SEER pipeline. CEP (2018–2022) aims to transform the GMS Environment Operation Center and National Support Units into a GMS environment services facility to provide the following services: Policy and regulatory framework support, Investment project preparation support, and Knowledge capitalization and information management support.	2018	10.0	ADB—2.0 Regional Cooperation and Integration Fund/PRC Regional Cooperation and Poverty Reduction Fund—6.0 TBD—2.0	Proposed
2	Rural Environmental Management (GMS CEP Strategic Framework and Action Plan)	All GMS countries	This preparatory TA will assess the technical, financial, and institutional feasibility of the Rural Environmental Quality, Pollution Control, and potential Waste Management Projects.	2019	1.5	ADB	Proposed
3	Integrated Land-use Management for Sustainable Development (GMS CEP Strategic Framework and Action Plan)	All GMS countries	This preparatory TA will assess the technical, financial, and institutional feasibility of Integrated land use management systems for sustainable development.	2019	1.5	ADB	Proposed
4	Capacity Building for the Management on Environmental Laboratory and Environmental Monitoring	Myanmar	The project activities consist of (i) the management of the environmental laboratory, (ii) measurement of the environmental-quality monitoring equipment, and (iii) maintenance of environmental-quality monitoring equipment.	2018	0.3	TBD	Proposed (by Myanmar)
Subtotal (Environment TA Projects)					13.3		
Total (Environment Investment and TA Projects)					573.3		

Health and Other Human Resource Development

Investment Projects

No.	Project Title	Country Coverage	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
1	GMS Health Security Project (formerly GMS Communicable Disease Control Project [Phase III])	Cambodia, Lao People's Democratic Republic (Lao PDR), Myanmar, Viet Nam	The project aims to strengthen public health security in the face of emerging diseases and other communicable diseases relevant to the Greater Mekong Subregion (GMS) by improving public-health security systems and Centers for Disease Control and Prevention (CDC) in border areas in Cambodia, the Lao PDR, Myanmar, and Viet Nam. It focuses mainly on mobile and migrant populations (MMPs), as well as on other vulnerable groups. Project outputs include (i) strengthened regional, cross-border, and inter-sectoral CDC services; (ii) strengthened national disease surveillance and outbreak response; and (iii) improved laboratory services and hospital infection prevention and control. The project will procure equipment for laboratory work, information technology (IT) services, and infection prevention and control; and it will build the capacity of health personnel at the provincial or township level.	2016	132.2	Asian Development Bank (ADB)—125.0 Counterpart—7.2	Ongoing
2	Strengthening Local Health Care Support Program	Viet Nam	The project will enhance the delivery of primary health-care services in order to more effectively address the key challenges involved in the prevention and control of communicable and noncommunicable diseases, taking into account the overall health security of the region. The program's impact will include strengthened health systems, with the aim of achieving universal health coverage (UHC) and inclusive growth. The program's outcome will include a better quality of and easier access to local health services, especially for poor and vulnerable populations in disadvantaged, remote, mountainous, or border areas. The program outputs will be (i) the availability of family medicine at the local level, (ii) improved local health care and financing mechanisms, and (iii) upgraded local health facilities.	2018	20.0	ADB	Proposed

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Investment projects continued

No.	Project Title	Country Coverage	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
3	GMS Health Security (additional financing)	Cambodia, Lao PDR, Myanmar, Viet Nam	The additional financing will support the current GMS Health Project, particularly the (i) regional disease control and treatment response for MMPs in border provinces; (ii) support for joint outbreak response; (iii) the piloting of a regional information and communication technology (ICT) platform for surveillance and outbreak response; (iv) monitoring and support of regional cooperation in health security; (v) regional knowledge management support; and (vi) surveillance, control, and prevention of emerging or reemerging diseases.	2021	100.0	ADB—100.0	Proposed
4	Guangxi Modern Technical and Vocational Education and Training (TVET) Development Demonstration	PRC	The project will help the Guangxi Zhuang Autonomous Region to establish a modernized technical and vocational education and training (TVET) system with strengthened capacity and facilities for carrying out quality training programs for local workers and workers from other ASEAN countries. The outputs include improved (i) relevance of TVET, (ii) quality of TVET teaching and learning, (iii) effectiveness of TVET for promoting local and regional economic development, and (iv) management capacity of TVET system.	2017	450.0	ADB—250.0 Kreditanstalt für Wiederaufbau (KfW)—200.0	Ongoing
Subtotal (Health and Other Human Resource Development Investment Projects)					702.2		

Technical Assistance Projects

No.	Project Title	Country Coverage	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
1	Strengthening Resilience to Climate Change in the Health Sector in the Greater Mekong Subregion	Cambodia, Lao PDR, Viet Nam	This regional capacity development technical assistance (TA) will work with regional academic and research institutions, as well as with public health and environmental authorities, to build the scientific knowledge needed to address the health impact of climate change and quantify the additional burden of affected health outcomes. It will support workforce development by training a new generation of competent and experienced public health staff to respond to the threats posed by climate change and incorporate mainstream climate concerns into health policies and programs. It will increase awareness in the public and private sectors of the significance of climate change, and identify potential public-private partnerships (PPPs) for the implementation of adaptation measures, such as climate-proof infrastructure.	2015	4.5	ADB—4.4 Governments of Cambodia, Lao PDR, and Viet Nam—0.1	Ongoing
2	Malaria and Communicable Diseases Control in the GMS	Cambodia, Lao PDR, Myanmar	This regional capacity development TA is expected to fill policy gaps by (i) targeting vulnerable groups, in particular MMPs; (ii) strengthening diagnostic and treatment capacity in remote districts; (iii) improving disease surveillance and rapid response to epidemics; and (iv) involving the private sector in the delivery of health services targeting vulnerable groups. The TA has three key components: (i) improving Myanmar's malaria surveillance and diagnostic systems; (ii) responding to the specific needs of MMPs with regard to malaria prevention and treatment (Cambodia, Lao PDR, and Myanmar); and (iii) strengthening regional coordination among the GMS countries in addressing malaria.	2015	4.5	Trust Fund under Health Financing Partnership Facility—4.5	Ongoing

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Technical assistance projects continued

No.	Project Title	Country Coverage	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
3	GMS HRD Strategic Framework and Action Plan 2013–2017, Phase 2	All GMS countries	The project focuses on the three of the seven strategic thrusts of the Strategic Framework and Action Plan 2013–2017, and it is generating the following outputs: (i) improved cooperation regarding TVET, (ii) improved cooperation in higher education, and (iii) strengthened national implementation and monitoring of the strategic framework and action plan. The project also supports the annual meetings of the working group on human resource development (HRD), held to share knowledge and experiences concerning emerging HRD issues and to enhance regional networks and partnerships in HRD.	2013	2.1	ADB—1.3 PRC Fund—0.5 Governments of the GMS countries—0.3	Ongoing
4	Capacity Building in Labor Migration Management	Cambodia, Lao PDR, Myanmar, Viet Nam	The TA will train migration officials and labor attachés in Cambodia, the Lao PDR, Myanmar, and Viet Nam. The training will address vulnerabilities specific to men or women. The TA will be managed by the International Organization for Migration (IOM).	TBD	0.3	To be determined (TBD)	Proposed
5	Strengthening Regional Health Cooperation in the Greater Mekong Subregion	All GMS countries	The proposed TA will strengthen health cooperation in the GMS by developing a subregional framework and strategy for health cooperation, and by establishing a working group on health cooperation to oversee the implementation of the strategy and ensure its effectiveness. The proposed TA will also promote knowledge exchange and capacity development.	2018	1.8	ADB—1.8	Proposed
6	Improving UHC Coverage in Border Areas for MMPs Project	Cambodia, Lao PDR, Myanmar, Thailand, Viet Nam	The proposed project is a combination of loan, grant, and TA that will assist GMS countries in designing and implementing UHC for MMPs in the subregion. It will review existing national UHC programs and promote an expansion of the programs to include MMPs, particularly in border areas. The project will also develop service delivery packages suited to MMPs.	2019	TBD	ADB	Proposed (at the Workshop on Health Cooperation in Bangkok on 5 July 2017)

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Technical assistance projects continued

No.	Project Title	Country Coverage	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
7	Poverty Reduction through Safe Migration, Skills Development and Enhanced Job Placement in Cambodia, Lao People's Democratic Republic and Thailand (PROMISE)	Cambodia, Lao PDR, Myanmar, Thailand	PROMISE is a new regional program led by the IOM that will strengthen the linkages between labor migration to Thailand and efforts to reduce poverty in the region, with a particular focus on engaging employers and training institutions in skill development, facilitating ethical recruitment and protection, and improving the safety of migration and the access of migrant workers to decent employment opportunities. PROMISE will establish partnerships between employers in Thailand and skill-development partners based in Cambodia, the Lao PDR, Myanmar, and Thailand to develop market-driven and migrant-centered skills training, and promote ethical recruitment models that will improve the protection and employability of migrants. PROMISE will also facilitate greater cross-border exchanges, as well as bilateral and subregional collaboration on skill development and certification. In addition, the return and reintegration component will broaden the opportunities for returning migrants to utilize their skills and invest their social and financial capital productively upon their return. PROMISE will also build the capacity of migrant support services in Cambodia, the Lao PDR, and Myanmar to provide reintegration services and enhance the linkages of these services with employment offices, skills certification authorities, financial institutions, and professional associations. Finally, PROMISE will work to support migrant-protection frameworks at the national and subregional levels, engaging in policy development and capacity building of governments and non-state actors (including the promotion of the employer-paid ethical recruitment model).	2017	8.3	Swiss Agency for Development and Cooperation (SDC), International Organization for Migration (IOM)	Ongoing
Subtotal (Health & Other Human Resource Development TA Projects)					21.5		
Total (Health & Other Human Resource Development Investment and TA Projects)					723.7		

Urban Development

Investment Projects

No.	Project Title	Country Coverage	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)																									
1	Corridor Towns Development Project II	Cambodia, Lao PDR, Viet Nam	<p>The Second Greater Mekong Subregion (GMS) Corridor Towns Development Project is being implemented in seven towns in Cambodia, the Lao People’s Democratic Republic (Lao PDR), and Viet Nam. The project has been in operation since 2016 and is slated to end in 2022. It includes livelihood support, development of climate resilience, and institutional capacity building in public investment management. The expected impact of the project will be the transformation of the towns into centers of activity in the GMS economic corridors. The outcome will be improved urban infrastructure that supports economic linkages, strengthens the green-growth potential of participating GMS towns and corridors, and enhances the climate resilience of those towns and corridors.</p> <p>The breakdown of the estimated costs in terms of millions of dollars is as follows:</p> <table border="1"> <thead> <tr> <th>Country</th> <th>Total</th> <th>ADB</th> <th>Government</th> <th>Cofinancing</th> </tr> </thead> <tbody> <tr> <td>Cambodia</td> <td>38.1</td> <td>33.0</td> <td>5.1</td> <td>0.0</td> </tr> <tr> <td>Lao PDR</td> <td>52.0</td> <td>37.0</td> <td>5.0</td> <td>10.0</td> </tr> <tr> <td>Viet Nam</td> <td>121.7</td> <td>100.0</td> <td>21.7</td> <td>0.0</td> </tr> <tr> <td>TOTAL</td> <td>211.8</td> <td>170.0</td> <td>31.8</td> <td>10.0</td> </tr> </tbody> </table>	Country	Total	ADB	Government	Cofinancing	Cambodia	38.1	33.0	5.1	0.0	Lao PDR	52.0	37.0	5.0	10.0	Viet Nam	121.7	100.0	21.7	0.0	TOTAL	211.8	170.0	31.8	10.0	2016	211.8	Asian Development Bank (ADB)—170.0 Governments of Cambodia, the Lao PDR, and Viet Nam—31.8 Association of Southeast Asian Nations (ASEAN) Infrastructure Fund—10.0	Ongoing
Country	Total	ADB	Government	Cofinancing																												
Cambodia	38.1	33.0	5.1	0.0																												
Lao PDR	52.0	37.0	5.0	10.0																												
Viet Nam	121.7	100.0	21.7	0.0																												
TOTAL	211.8	170.0	31.8	10.0																												
2	Corridor Towns Development Project III	Myanmar	<p>The Third GMS Corridor Towns Development Project will expand the geographic scope to include Myanmar. The project is anticipated to develop the cities of Mawlamyine, in Mon State, and Hpa-An and Myawaddy, in Kayin State, as competitive economic nodes along the GMS East–West Economic Corridor (EWEC). The expected impact of the project is increased activity along the GMS EWEC. The outcome will be improved access to sustainable urban services in the project cities.</p>	2018	87.0	ADB—80.0 Government of Myanmar—7.0	Proposed																									

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Investment projects continued

No.	Project Title	Country Coverage	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)																				
3	Fourth Greater Mekong Subregion Corridor Towns Development Project	Cambodia, Lao PDR	<p>The proposed project will support the governments of Cambodia and the Lao PDR in their efforts to enhance the competitiveness of towns along GMS economic corridors. The project will result in improved urban services in the participating towns due to investments in basic urban infrastructure such as drainage, sanitation, solid waste management facilities; urban roads; river bank protection structures; and public gardens. The project will also enhance climate resilience, and will be in line with ADB's "3 Es" of economy, environment, and equity, as outlined in its Urban Operational Plan.</p> <p>The breakdown of the estimated costs in terms of millions of dollars is as follows:</p> <table border="1"> <thead> <tr> <th>Country</th> <th>Total</th> <th>ADB</th> <th>Government</th> <th>Cofinancing</th> </tr> </thead> <tbody> <tr> <td>Cambodia</td> <td>80.0</td> <td>80.0</td> <td>0.0</td> <td>0.0</td> </tr> <tr> <td>Lao PDR</td> <td>53.0</td> <td>48.0</td> <td>5.0</td> <td>0.0</td> </tr> <tr> <td>TOTAL</td> <td>133.0</td> <td>128.0</td> <td>5.0</td> <td>0.0</td> </tr> </tbody> </table>	Country	Total	ADB	Government	Cofinancing	Cambodia	80.0	80.0	0.0	0.0	Lao PDR	53.0	48.0	5.0	0.0	TOTAL	133.0	128.0	5.0	0.0	2018	133.0	ADB—128.0 Government of Lao PDR—5.0	Proposed
Country	Total	ADB	Government	Cofinancing																							
Cambodia	80.0	80.0	0.0	0.0																							
Lao PDR	53.0	48.0	5.0	0.0																							
TOTAL	133.0	128.0	5.0	0.0																							
4	Second Mandalay Urban Services Improvement Project	Myanmar	The proposed project will improve the urban environment and public health conditions in Mandalay city through the improvement of urban infrastructure and services.	2019	150.0	ADB—150.0	Proposed																				
5	Fifth Greater Mekong Subregion Corridor Towns Development Project	Selected GMS countries	The project will help the governments of selected GMS countries to enhance the competitiveness of towns located along GMS economic corridors. It will result in improved urban services in the participating towns due to investments in basic urban infrastructure.	2021	240.0	ADB—240.0	Proposed																				

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Investment projects continued

No.	Project Title	Country Coverage	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
6	Hekou Urban Infrastructure and Public Services Improvement Project	People's Republic of China (PRC)	The proposed project will improve urban infrastructure and public services in the border town of Hekou, in Yunnan Province, adjacent to the Vietnamese town of Lao Cai. The outputs will include the construction and/or rehabilitation of: (i) infrastructure for 44 kilometers (km) of urban roads, (ii) four schools (a kindergarten, elementary, middle, and high school), (iii) a cultural exchange center, and (iv) a hospital. In terms of linkages with national and/or regional strategies, the Hekou–Lao Cai Border Economic Zone is a critical node on the GMS North–South Economic Corridor (NSEC) and on the eastern branch of the Pan-Asia Railway Network; it is also one of the key border economic zones supported by the Chinese government. Hekou is a national land port, Yunnan's closest one to the Pacific Ocean. It is also the only land port in Yunnan Province with railway transportation.	2018	175.3	ADB Government of the PRC	Proposed
7	Yangon Urban Services Improvement Project	Myanmar	The project will help the Yangon City Development Committee (YCDC) improve its urban planning and management to support a resilient and inclusive growth trajectory for the city.	2020	150.0	ADB—150.0	Proposed
Subtotal (Urban Development Investment Projects)					1,147.1		

Technical Assistance Projects

No.	Project Title	Country Coverage	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
1	PPTA for Corridor Towns Development Project III	Myanmar	This project preparatory technical assistance (PPTA) is formulating the Third GMS Corridor Towns Development Project. The subprojects include feasibility studies, and assessment of all safeguard requirements. This project is helping the participating towns to consolidate their urban-planning and investment policies into a strategic local economic development plan. The PPTA is also preparing capacity development and training plans for the local or provincial authorities involved.	2015	1.5	ADB—1.1 Cofinancing—0.4	Ongoing
2	Greater Mekong Subregion: Capacity Development for Economic Zones in Border Areas	All GMS countries	The revised outcome of the technical assistance (TA) is strengthened capacity of border institutions to prepare for future GMS corridor towns development projects. This will improve the GMS approach to corridor town development, create a pipeline for such projects in the future, and facilitate the preparation of these projects.	2015	0.9	ADB—0.5 Cofinancing—0.4	Ongoing
3	Corridor Towns Development Project IV	Cambodia, Lao PDR	The TA is formulating the Fourth GMS Corridor Towns Development Project. The proposed subprojects include feasibility studies, and assessment of all safeguard requirements.	2016	1.8	ADB—1.8	Ongoing
4	PPTA for Second Mandalay Urban Services Improvement Project	Myanmar	The TA will prepare the proposed loan and grant project scheduled for ADB approval in 2019.	2017	1.0	ADB—0.8 AFD—0.2	Proposed
5	PPTA for Fifth Greater Mekong Subregion Corridor Towns Development Project	Select GMS countries	The TA will prepare the proposed Fifth GMS Corridor Towns Development Project, which is scheduled for ADB financing approval in 2020–2021.	2019	1.5	ADB—1.5	Proposed
6	Yangon Urban Service Improvement Project – 1 (TA)	Myanmar	The technical assistance will help the Yangon City Development Committee (YCDC) improve its urban planning and management to support a resilient and inclusive growth trajectory for the city.	2018	3.0	ADB—1.0 Urban Financing Partnership Facility (UFPF)—2.0	Proposed
Subtotal (Urban Development TA Projects)					9.7		
Total (Urban Development Investment and TA Projects)					1,156.8		

Other Multisector/ Border Economic Zones

Investment Projects

No.	Project Title	Country Coverage	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)																									
1	Guangxi Regional Cooperation and Integration Promotion Investment Program, MFF tranches 1–3 (formerly Joint PRC–Viet Nam Cross-Border Economic Zones)	People’s Republic of China (PRC)	<p>The program will help the Guangxi Zhuang Autonomous Region of the PRC implement its strategies and action plans for regional cooperation and integration with countries of the Association of the Southeast Asian Nations (ASEAN), particularly those in the Greater Mekong Subregion (GMS). This multitranch financing facility (MFF) will generate five major outputs: (i) sustainable development of small and medium-sized enterprises (SMEs); (ii) cost-competitive, safe, and efficient cross-border financial transactions and investments; (iii) e-commerce to facilitate access to markets; (iv) key infrastructure- and trade-related services; (v) improved cross-border connectivity.</p> <p>The breakdown of the cost estimates and years of approval is as follows:</p> <table border="1"> <thead> <tr> <th>Tranche</th> <th>Year</th> <th>Total</th> <th>ADB</th> <th>Government</th> </tr> </thead> <tbody> <tr> <td>Tranche 1</td> <td>2016</td> <td>280.0</td> <td>130.0</td> <td>150.0</td> </tr> <tr> <td>Tranche 2</td> <td>2018</td> <td>490.0</td> <td>200.0</td> <td>290.0</td> </tr> <tr> <td>Tranche 3</td> <td>2020</td> <td>120.0</td> <td>120.0</td> <td>0.0</td> </tr> <tr> <td>TOTAL</td> <td></td> <td>890.0</td> <td>450.0</td> <td>440.0</td> </tr> </tbody> </table>	Tranche	Year	Total	ADB	Government	Tranche 1	2016	280.0	130.0	150.0	Tranche 2	2018	490.0	200.0	290.0	Tranche 3	2020	120.0	120.0	0.0	TOTAL		890.0	450.0	440.0	2016	890.0	Asian Development Bank (ADB)—450.0 Government of the PRC—440.0	Ongoing
Tranche	Year	Total	ADB	Government																												
Tranche 1	2016	280.0	130.0	150.0																												
Tranche 2	2018	490.0	200.0	290.0																												
Tranche 3	2020	120.0	120.0	0.0																												
TOTAL		890.0	450.0	440.0																												
2	Construction of a Phnom Penh New Port Special Economic Zone	Cambodia	<p>The project will comprise the first phase of development of the Phnom Penh New Port Special Economic Zone (SEZ). It will involve an area of 143 hectares (ha), of which 106.0 ha will be allocated to long-term leases to manufacturers, 3.0 ha to apartments and shops, 2.7 ha to a logistics center, and the remainder to service facilities. The pilot phase is also intended to induce further SEZ development (more than 600 ha) as a means of attracting private sector investment.</p>	TBD	60.0	To be determined (TBD)	Proposed																									

Continued on next page

Investment projects continued

No.	Project Title	Country Coverage	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
3	Yunnan–Lincang Border Economic Cooperation Zone Infrastructure Development	PRC	Lincang Border Economic Zone is a national border economic zone along the PRC-Myanmar border. The planned area covers 200 square kilometers, with Mengding Qingshuihe land port industrial park at the core, Zhenkang Nansan industrial park and Cangyuan Yonghe industrial park at both wings. The proposed project plans to construct the road, water supply and drainage, garbage disposal facilities within the three industrial parks mentioned above.	2017	385.0	ADB—250.0 Government of the PRC—135.0	Ongoing
4	PRC and Thailand Industrial Park Cooperation	PRC, Thailand	The establishment of this joint industrial park, which will straddle the territories of the PRC and Thailand, will contribute to industrial cooperation between the two countries. The proposed project will support (i) infrastructure construction in the park, (ii) the planning of subsequent construction there, and (iii) publications and investment invitations relating to the park.	TBD	TBD	TBD	Proposed
5	Support to Border Areas Development Project	Viet Nam	The project is supporting the Cambodia–Laos–Viet Nam (CLV) Development Triangle Area objectives of facilitating the flow of goods, people, and investment capital; and of exploring agricultural, forestry, and tourism potential by accelerating economic growth within Viet Nam’s Development Triangle Area (VDTA). Outputs will include (i) rehabilitated road infrastructure in five VDTA provinces; (ii) developed VDTA plans and facilities for transport and trade facilitation, with a focus on inclusive growth; and (iii) strengthened institutional capacity for VDTA planning, project design, and implementation, and for resource management.	2017	122.1	ADB—106.5 Government of Viet Nam—15.6	Ongoing

Continued on next page

Investment projects continued

No.	Project Title	Country Coverage	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
6	Ruili Border Economic Zone Infrastructure Development Project	PRC	The proposed project will support the development of infrastructure and public services on the Chinese side of the Ruili Muse Border Economic Zone (shared with Myanmar). The objectives are to facilitate the flow of goods, people, and investment capital, and to provide better public services to local residents. Outputs will include (i) building four schools (a kindergarten, elementary, middle, and high school); and (ii) improving the infrastructure of the Ruili International Logistics Park, which has a total area of 239.2 ha. In terms of linkages with national and/or regional strategies, the Ruili–Muse Border Economic Zone is a critical node on the GMS NSEC and on the western branch of the Pan-Asia Railway Network; it is also one of the key border economic zones supported by the Chinese government.	2018	627.8	To be determined (TBD)	Proposed
Subtotal (Other Multisector/Border Economic Zones Investment Projects)					2,084.9		

Technical Assistance Projects

No.	Project Title	Country Coverage	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
1	Policy Coordination and Planning of Border Economic Zones of the People's Republic of China and Viet Nam (formerly Joint Feasibility Study on Cross-Border Economic Zones in the PRC and Viet Nam)	PRC, Viet Nam	This policy and advisory technical assistance (TA) is enhancing the capacity of the governments of the PRC and Viet Nam to develop, manage, negotiate, and promote border economic zones (BEZs) in their border areas. Outputs will include (i) policy recommendations for coordinated BEZs; (ii) strengthened development and management of the BEZs, along with public-private coordination; and (iii) capacity building of government stakeholders.	2017	0.4	PRC Regional Cooperation and Poverty Reduction Fund (PRCF)—0.4	Ongoing
2	PPTA for Yunnan–Lincang Cross-Border Economic Cooperation and Integration Promotion Investment Program prepare	PRC	This project preparatory technical assistance (PPTA) will arrange the proposed loan for a project focused on the PRC–Myanmar border, with a scope that will include: (i) cross-border economic cooperation zone infrastructure (water supply, wastewater, solid waste, roads), (ii) border facilities, (iii) hospitals, (iv) schools (primary and vocational); and (v) capacity development.	2018	0.5	ADB	Proposed
3	Preparatory TA for Guangxi Regional Cooperation and Integration Promotion Investment Program	PRC	The PPTA has been (i) conducting sector reviews to identify the key issues to be addressed by the investment program; (ii) identifying subprojects covered by the first tranche of the MFF, and helped the executing agency prepare preliminary feasibility studies; (iii) doing pre-implementation work for the investment program; (iv) assisting the executing agency and implementing agencies in assessing preliminary engineering designs and specifications, verifying detailed cost estimates, etc.; (v) suggesting key features for the contractual agreements and/or other necessary legal or institutional arrangements; and (vi) helping prepare the facility's administration manual.	2016	1.2	ADB Technical Assistance Special Fund (TASF)—1.0 Government of the PRC—0.2	Ongoing

Continued on next page

Technical assistance projects continued

No.	Project Title	Country Coverage	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
4	Research on China–Indochina Peninsula Economic Corridor Transportation and Business Planning	GMS countries	Beginning in Nanning, the China–Indochina Peninsula Economic Corridor passes through seven countries (PRC, Viet Nam, Lao PDR, Cambodia, Thailand, Malaysia, and Singapore). The corridor could impact Myanmar via its connection to the GMS East–West Economic Corridor (EWEC). Although the corridor has transportation capacity, the associated infrastructure is not good enough, and economic development there is still insufficient. The proposed project aims to study the status of the corridor’s transportation infrastructure and to propose key projects to address any challenges. The research will also generate suggestions regarding the planning of the business environment and the change from a transportation corridor into an economic corridor.	TBD	4.2	TBD	Proposed
5	Feasibility Study for Thakhek Special Economic Zone	Lao PDR, Thailand	The Thakhek Special Economic Zone (SEZ) is located near the Third Mekong Lao–Thai Friendship Bridge, and thus could possibly serve as a logistics center. The TA would support studies conducted by the governments of the Lao PDR and Thailand to determine the zone’s potential for facilitating flows of goods and services between the two countries and among the other GMS countries, and to come up with a strategy for realizing that potential.	TBD	1.5	TBD	Proposed

Continued on next page

Technical assistance projects continued

No.	Project Title	Country Coverage	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
6	Training and Technical Assistance for Implementing Cross-Border Economic Zone between Myanmar and the PRC	Myanmar, PRC	The ministries of commerce of Myanmar and the PRC signed a memorandum of understanding (MOU) on the establishment of the Myanmar–PRC Border Economic Cooperation Zone. To carry out the responsibilities mentioned in the MOU, Myanmar needs to set up a joint working group composed of competent government officials. Myanmar should recruit these officials from line ministries, and train them to be able to formulate a master development plan, design a structure for cross-border administration, create an investor-friendly business environment, and enhance private–public partnerships (PPPs). To accomplish this, Myanmar needs to design a 3-month training course that would include course work and field trips to SEZs in Cambodia; Hong Kong, China; Japan; and the Lao PDR. It is proposed that 20 officials undergo this training.	2018	0.2	ADB	Proposed
Subtotal (Other Multisector/ Border Economic Zones TA Projects)					8.0		
Total (Other Multisector/ Border Economic Zones Investment and TA Projects)					2,092.9		

Tourism

Investment Projects

No.	Project Title	Country Coverage	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)																				
1	GMS Tourism Infrastructure for Inclusive Growth	Cambodia, Lao People's Democratic Republic (Lao PDR), Viet Nam	<p>The project will accelerate inclusive economic growth along targeted segments of the Greater Mekong Subregion (GMS) economic corridors by improving tourism-related access infrastructure and environmental conditions at cross-border tourism centers, and by strengthening the capacity of public and private destination management organizations. The project will support (i) improvements in the last-mile tourism access infrastructure, (ii) enhanced environmental services at cross-border tourism centers, (iii) strengthened institutional capacity for promoting and managing inclusive tourism growth, and (iv) effective project implementation and knowledge management. Project areas will include contiguous segments of the Southern Coastal Corridor in Cambodia and Viet Nam, the Southern Corridor in Viet Nam, the Central Corridor in the Lao PDR, and the Eastern Corridor in northern Viet Nam.</p> <p>The breakdown of the estimated costs in terms of millions of dollars is as follows:</p> <table border="1"> <thead> <tr> <th>Country</th> <th>Total</th> <th>ADB</th> <th>Government</th> </tr> </thead> <tbody> <tr> <td>Cambodia</td> <td>18.77</td> <td>18.0</td> <td>0.77</td> </tr> <tr> <td>Lao PDR</td> <td>43.57</td> <td>40.0</td> <td>3.57</td> </tr> <tr> <td>Viet Nam</td> <td>55.08</td> <td>50.0</td> <td>5.08</td> </tr> <tr> <td>TOTAL</td> <td>117.42</td> <td>108.0</td> <td>9.42</td> </tr> </tbody> </table>	Country	Total	ADB	Government	Cambodia	18.77	18.0	0.77	Lao PDR	43.57	40.0	3.57	Viet Nam	55.08	50.0	5.08	TOTAL	117.42	108.0	9.42	2014	117.4	Asian Development Bank (ADB)—108.0 Governments of Cambodia, the Lao PDR, and Viet Nam—9.4	Ongoing
Country	Total	ADB	Government																								
Cambodia	18.77	18.0	0.77																								
Lao PDR	43.57	40.0	3.57																								
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TOTAL	117.42	108.0	9.42																								

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Investment projects continued

No.	Project Title	Country Coverage	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)																				
2	Construction of the Sino–Vietnamese Detian–Ban Gioc Waterfalls International Tourism Cooperation Zone	PRC, Viet Nam	The project aims to develop tourism infrastructure and support service facilities in the Sino–Vietnamese Detian–Ban Gioc Waterfalls International Tourism Cooperation Zone, which is located in the GMS Northern Economic Corridor. The project includes the construction or renovation of river ports, frontier trading facilities, highways, water supply systems, electricity supply systems, and sewage and garbage-disposal systems, as well as support for village-based development within the Detian Tourism Area. The PRC has suggested including improvements in the local rural environment and ecosystem, and the construction of a tourist center, parking lots, sightseeing walkways, green bicycle paths, a Sino–Vietnamese museum, and a center for Sino–Vietnamese intercultural communication.	2016	200.0	Governments of the PRC and Viet Nam	Ongoing																				
3	GMS Tourism Infrastructure for Inclusive Growth II	Cambodia, Lao PDR, Viet Nam	<p>The project will improve urban–rural connectivity; environmental services; and the capacity to boost tourism revenues, jobs, and environmental performance in secondary destinations along the GMS economic corridors. It will also support the implementation of the Association of Southeast Asian Nations (ASEAN) Tourism Standards.</p> <p>The breakdown of the estimated costs in terms of millions of dollars is as follows:</p> <table border="1"> <thead> <tr> <th>Country</th> <th>Total</th> <th>ADB</th> <th>Government</th> </tr> </thead> <tbody> <tr> <td>Cambodia</td> <td>30.0</td> <td>30.0</td> <td>0.0</td> </tr> <tr> <td>Lao PDR</td> <td>52.0</td> <td>47.0</td> <td>5.0</td> </tr> <tr> <td>Viet Nam</td> <td>49.0</td> <td>45.0</td> <td>4.0</td> </tr> <tr> <td>TOTAL</td> <td>131.0</td> <td>122.0</td> <td>9.0</td> </tr> </tbody> </table>	Country	Total	ADB	Government	Cambodia	30.0	30.0	0.0	Lao PDR	52.0	47.0	5.0	Viet Nam	49.0	45.0	4.0	TOTAL	131.0	122.0	9.0	2018	131.0	ADB—122.0 Governments of the Lao PDR, and Viet Nam—9.0	Proposed
Country	Total	ADB	Government																								
Cambodia	30.0	30.0	0.0																								
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TOTAL	131.0	122.0	9.0																								

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Investment projects continued

No.	Project Title	Country Coverage	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
4	Tourism Infrastructure Development in the Green Triangle Development Area	Cambodia, Lao PDR, Viet Nam	The project will develop tourism-related infrastructure within the framework of the Green Triangle Development Plan. In northeastern Cambodia, for instance, the project will develop tourism-related infrastructure (including the airport in Ratanakiri Province), vocational training, and small-scale community-based tourism.	2022	75.0	To be determined (TBD)	Proposed
5	Tourism Infrastructure Development in the Emerald Triangle Development Area	Cambodia, Lao PDR, Thailand	The project will develop tourism-related infrastructure within the framework of the Emerald Triangle Development Plan.	2022	75.0	ADB—50.0 Government of Thailand—25.0	Proposed
6	River and Coastal Port Improvements	All GMS countries	The project will develop and/or improve water transport terminals to facilitate access to tourist attractions and secondary destinations.	2022	250.0	Governments of the GMS countries, ADB, Official Development Assistance (ODA)	Proposed
7	Improve Tourism Infrastructure and Facilities in the Konglor Cave–Phong Nha Ke Bang–Nakhon Phanom Corridor	Lao PDR, Thailand, Viet Nam	The project is helping improve small infrastructure and public amenities to provide better visitor services and tourist information.	2017	1.6	Governments of the Lao PDR, Thailand, and Viet Nam, ODA (New Zealand)	Ongoing
8	Tourism Information Center and Roadside Rest Area Development	All GMS countries	The project is developing or improving tourism information centers at primary and secondary tourist attractions, and will professionalizing facilities management.	2017	30.0	Governments of the GMS countries, ODA	Ongoing
9	Improve Environmental Services in World Heritage Sites	All GMS countries	The project will improve the infrastructure and services relating to solid waste and wastewater management at United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Sites.	2022	250.0	Governments of the GMS countries, ODA	Proposed

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Investment projects continued

No.	Project Title	Country Coverage	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
10	Border Facilities Improvement Program	All GMS countries	The project will upgrade border infrastructure, information technology, and management systems to improve passenger and vehicle clearance efficiency, safety, and security.	2022	200.0	Governments of the GMS countries, ODA	Proposed
11	Strengthening Tourism Vocational Training Institutions	Cambodia, PRC, Lao PDR, Thailand, Viet Nam	The project is establishing vocational training institutions, strengthening teaching capacity, and developing curriculum and training materials that harmonize with ASEAN and PRC standards. It is also promoting exchanges and cooperation among GMS tourism schools and university programs to promote better tourism management and hospitality services.	2017	70.0	Governments of Cambodia, Lao PDR, Thailand, and Vietnam, ODA (Luxembourg, ADB)	Ongoing
12	Community-Based Tourism Enterprise Support Program	All GMS countries	The project will provide business support services to facilitate community-based tourism development and local access to tourism-related value chains.	2021	30.0	Governments of the GMS countries, ODA	Proposed
Subtotal (Tourism Investment Projects)					1,430.0		

Technical Assistance Projects

No.	Project Title	Country Coverage	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
1	Preparing Second GMS Tourism Infrastructure for Inclusive Growth Project	Cambodia, Lao PDR, Myanmar, Viet Nam	The technical assistance (TA) is supporting the preparation of investment projects to improve urban–rural connectivity, environmental services, and the capacity to boost tourism revenues, jobs, and environmental performance in secondary destinations along the GMS economic corridors. The project is also supporting the implementation of ASEAN regional tourism standards.	2016	2.5	ADB—1.5 Nordic Development Fund (NDF)—1.0	Ongoing

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Technical assistance projects continued

No.	Project Title	Country Coverage	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
2	Preparing the Tourism Infrastructure Development in the Green Triangle Development Area	Cambodia, Lao PDR, Viet Nam	The TA will support the preparation of a project to develop tourism-related infrastructure within the framework of the Green Triangle Development Plan. In northeastern Cambodia, for instance, the project will cover tourism-related infrastructure (including the airport in Ratanakiri Province), vocational training school, and small-scale community-based tourism.	To be determined (TBD)	1.0	Governments of Cambodia, Lao PDR, and Viet Nam, ODA	Proposed
3	Preparing the Tourism Infrastructure Development in the Emerald Triangle Development Area	Cambodia, Lao PDR, Thailand	The TA will support the preparation of a project to develop tourism-related infrastructure within the framework of the Emerald Triangle Development Plan.	TBD	1.0	Governments of Cambodia, Lao PDR, and Viet Nam, ODA	Proposed
4	Strengthening Coordination of GMS Tourism Product Development and Promotion	All GMS countries	The TA will strengthen the capacity of the Mekong Tourism Coordinating Office to coordinate multi-country experience development, marketing, and delivery of knowledge services.	TBD	0.5	Governments of the GMS countries, ODA	Proposed
5	Capacity Building for Sustainable Destination Management	All GMS countries	The project will strengthen the capacity of public officials to develop and manage tourism destinations sustainably. Initiatives will include regional planning, policy development, service delivery, ecotourism management, and thematic interpretation.	TBD	12.0	Governments of the GMS countries, ODA	Proposed
6	Mekong Inclusive Growth and Innovation Program	Cambodia, Lao PDR	The project is strengthening responsible tourism development and management capacity, as well as business support services, to increase income and job opportunities in southern Lao PDR and southern Cambodia.	2017	3.0	ODA, Swisscontact	Ongoing
7	Cambodia, Lao PDR, Viet Nam Development Triangle Tourism Development Plan	Cambodia, Lao PDR, Viet Nam	The project will prepare a plan to promote the natural and cultural values of the area, enhance visitor experiences and services, and support local communities.	TBD	1.0	Governments of Cambodia, Lao PDR, and Viet Nam, ODA—TBD	Proposed

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Technical assistance projects continued

No.	Project Title	Country Coverage	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
8	Integrated Destination Planning and Management Support Program	All GMS countries	The project will develop integrated destination-management plans to boost local economic development and strengthen cultural, natural, and urban heritage management.	TBD	20.0	Governments of the GMS countries, ODA	Proposed
9	Formulation of Travel Guidelines along the Main GMS Corridors	All GMS countries	The project will gather inventory data on travel formalities and border gates along the main GMS corridors to develop tourist travel guidelines that will help enhance visitors' experiences and improve service quality.	TBD	0.2	Governments of the GMS countries, ODA	Proposed
10	Tourism Product Development for Lao–Thai Heritage Quadrangle	Lao PDR, Thailand	The project will develop experiences linked to Lanexang and Lanna heritage resources.	TBD	4.0	Governments of the Lao PDR and Thailand, ODA—TBD	Proposed
11	Common Tourism Standards Implementation Program	All GMS countries	The project will strengthen and expand the implementation of common ASEAN tourism standards and the PRC's scenic area rating system.	TBD	12.0	Governments of the GMS countries, ODA—TBD	Proposed
12	Child-Safe Tourism Program and GMS Conference on Preventing Child Sex Tourism	All GMS countries	The project will strengthen information, education, and communication activities to equip governments, tourism enterprises, and communities with the knowledge and skills needed to make tourism safe for children.	TBD	3.0	Governments of the GMS countries, ODA	Proposed
13	Climate Resilience and Green Growth Planning Program	All GMS countries	The project will develop green growth strategies to promote climate-resilient, lower-carbon, and socially inclusive tourism.	TBD	12.0	Governments of the GMS countries, ODA	Proposed
14	Explore Mekong Digital Marketing Initiative	All GMS countries	Improve the functionality and usability of the www.mekongtourism.org website, including the "Mekong Moments" campaign, "Mekong Storytellers," and other public–private digital marketing partnerships.	TBD	3.0	Governments of the GMS countries, ODA	Proposed

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Technical assistance projects continued

No.	Project Title	Country Coverage	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
15	Improve Subregional Tourism Data Collection and Analysis	All GMS countries	The project will harmonize methodologies for collecting tourism statistics and produce an annual GMS tourism statistics report. It will also include the establishment of a GMS tourism big data center in the PRC.	TBD	6.0	Governments of the GMS countries, ODA	Proposed
16	Monitoring GMS Visitor Satisfaction	All GMS countries	The project will develop and implement a GMS visitor satisfaction index to track multiple dimensions of the visitor experience, including attractions, hotels, immigration procedures, restaurants, retail shops, and transportation services.	TBD	1.0	Governments of the GMS countries, ODA	Proposed
17	Third GMS Tourism Infrastructure for Inclusive Growth Project	Select GMS countries	The project will improve transport infrastructure and environmental services in secondary GMS corridor towns to boost tourism growth and service-sector investment.	2020	1.0	ADB—1.0	Proposed
Subtotal (Tourism TA Projects)					83.2		
Total (Tourism Investment and TA Projects)					1,513.2		

Transport and Trade Facilitation

Investment Projects

No.	Project Title	Country Coverage	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
1	Improved SPS Handling in GMS Trade Project (additional financing) (formerly Modernization of Sanitary and Phytosanitary [SPS] Agencies for Trade Facilitation Project in GMS [Phase 2])	Lao PDR	The project is a follow-up to the first phase of the Greater Mekong Subregion (GMS) Sanitary and Phytosanitary (SPS) Project for Cambodia and the Lao People's Democratic Republic (Lao PDR). It will aim to continue building an effective SPS system by introducing information technology to SPS management for risk identification, risk sharing, procedural streamlining, and food safety development at the provincial level to facilitate trade and protect health.	2017	10.3	Asian Development Bank (ADB)—10.0 Government of the Lao PDR—0.3	Ongoing
2	ASEAN Economic Community Support Program	Cambodia, Lao PDR	This is a policy-based loan for Cambodia and the Lao PDR under the Association of Southeast Asian Nations (ASEAN) Economic Community (AEC) Support Program Facility to support the country in its efforts to formulating and implement national reform programs designed to meet their AEC commitments, possibly including the SPS-related commitments. There is a proposal to include Myanmar, and Viet Nam in this program in the future, with additional funding.	2019	61.0	ADB—60.0 Government of the Lao PDR—1.0	Proposed
3	Establishment of Logistics Hub and Truck/Trailer Terminal in Wartayar Industrial Zone (northwest part of Yangon)	Myanmar	The project aims to establish a truck/trailer terminal and a logistics hub for training transporters. The terminal and hub will facilitate smoother trade flows and enable better logistics between the main trading cities, Yangon and Mandalay, with both inland and off-land transportation. The proposed location is near Wartayar Industrial Zone, in the northwestern outskirts of Yangon. This will be a multimodal transport facility that could include bonded transports, cool chain transports, bonded warehouse services, third-party logistics services, inland water services, and rail transports.	TBD	20.0	To be determined (TBD)	Proposed
Subtotal (Transport and Trade Facilitation Investment Projects)					91.3		

Technical Assistance Projects

No.	Project Title	Country Coverage	Description	Year of Approval Timeline of Project Commencement	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
1	Strengthening Quarantine Facilities in Myanmar	Myanmar	Myanmar has demonstrated that market-oriented reforms and increased trade are on its national development agenda. The importation and exportation of agricultural products, as well as quarantine facilities, are important for the country's commercial development. Proposed outputs include (i) the implementation of a fully online system for applications and certifications for the importation and exportation of animals, animal products, animal feed, and veterinary drugs; (ii) the upgrading and facilitation of animal quarantines and checkpoints; and (iii) the upgrading of the website of the Government of Myanmar's Livestock Breeding and Veterinary Department.	2018	0.5	TBD	Proposed by Myanmar
2	Trade Facilitation through Partnership with the Private Sector	Cambodia, Lao PDR, Myanmar, Thailand, Viet Nam	The outcome of this regional policy and advisory technical assistance (TA) will be improved trade facilitation through the simplification, standardization, and harmonization of customs procedures and operations in the participating countries. The outputs of the TA include (i) a business perception survey for private sector stakeholders engaged in international trade (e.g., the industrial sector, freight forwarders, and trade brokers in the region); (ii) the promotion of public-private sector dialogue on trade facilitation through joint workshops with participants including government officials and private sector stakeholders, including the GMS Business Forum and representatives of small and medium-sized enterprises (SMEs); and (iii) capacity building for improved private sector outreach, to be achieved through reviews of the private sector's provisions and practices with regard to customs and security standards, and through the organization of capacity building workshops.	2014	1.5	ADB Japan Fund for Poverty Reduction (JFPR)—1.5	Ongoing

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Technical assistance projects continued

No.	Project Title	Country Coverage	Description	Year of Approval Timeline of Project Commencement	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
3	Support for Implementing the Action Plan on Transport and Trade Facilitation in the GMS (Subproject 2)	All GMS countries	The cluster regional policy advisory TA supports the implementation of the GMS Trade and Transport Facilitation Action Plan, which was endorsed by the 16th GMS Ministerial Conference, in August 2010 in Ha Noi. The TA has the following expected outputs under three components: (i) under transport facilitation, an exchange of traffic rights; (ii) under trade facilitation, (a) coordinated border management, (b) an enhanced SPS regime, (c) strengthened national and subregional transport and trade facilitation (TTF) institutions, and (d) a regional trade logistics strategy; (iii) under capacity building and regulatory reform: (a) capacity development, and (b) legal and regulatory improvements and harmonization. The TA is being implemented through a cluster approach, with Subproject 1 (\$2 million) implemented from 2011 to 2013, and Subproject 2 (\$3.7 million) from 2014 to 2017. The cluster approach was adopted to (i) acquire the flexibility needed for successful TTF outcomes, and (ii) allow a fine-tuning of activities based on the outcomes of previous efforts and the evolving context of TTF initiatives, as the GMS countries implement the ASEAN Economic Community Blueprint.	2014	3.7	Department of Foreign Affairs and Trade (Australia)— 3.7	Ongoing
4	ASEAN Economic Community Support Program, Technical Assistance	Cambodia	The AEC Support Program Facility will assist countries in formulating and implementing national reform programs designed to meet their AEC commitments. This TA will help prepare the AEC Support Program for Cambodia.	TBD	1.4	ADB	Proposed

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Technical assistance projects continued

No.	Project Title	Country Coverage	Description	Year of Approval Timeline of Project Commencement	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
5	Strengthening Capacity Building for Logistics for Small and Medium Enterprises along GMS Corridors	PRC, Viet Nam	As a driving force of economic corridor development, the SMEs, especially logistics SMEs, face many constraints and bottlenecks. Before transforming a transport corridor into a logistics corridor, the capacity of logistics SMEs should be addressed. As a starting point, training the logistics SMEs that are operated by minority ethnics could be a good way to support the inclusive growth agenda of the GMS. The train-the-trainers approach would be desirable for this TA, and logistics associations could play an important role.	TBD	TBD	TBD	Proposed
6	Strengthening the Cooperation among Cambodia, Lao PDR, and Viet Nam in the Development Triangle Area	Cambodia, Lao PDR, Viet Nam	The TA will involve (i) an assessment of the potential of the Cambodia–Lao PDR–Viet Nam (CLV) Development Triangle; (ii) the facilitation of structured dialogues among the CLV countries, and between these countries and other stakeholders in the development triangle area, including potential investors and donors; (iii) an improvement of the capacity of joint coordination committees by providing selected sector and/or thematic studies with policy recommendations to the central and provincial governments.	TBD	1.0	TBD	Proposed
7	GMS Trade and Investment Information Service Platform	All GMS countries	Using the official GMS website as a model, this project will establish the only official internet portal for all GMS members. The portal will have circular sectors, with the trade and economic sectors focusing on the economic corridors. Independent and interconnected websites on politics, economics, culture, tourism, customs clearance, investment, e-commerce, and logistics will be developed gradually. In the next step, the project will address technology issues and questions regarding the operation mode and business system, as the information and industrial sectors for each GMS member develop. The project will also strengthen market information sharing among the GMS countries by (i) building and improving a database on the cross-border trade of key goods, and (ii) initiating and institutionalizing information-sharing mechanisms among the entities concerned.	2018	2.5	TBD	Proposed

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Technical assistance projects continued

No.	Project Title	Country Coverage	Description	Year of Approval Timeline of Project Commencement	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
8	Commodity Fairs in GMS Countries	Selected GMS countries	<p>The annual commodity fairs in GMS countries are important platforms for strengthening GMS trade cooperation. The fairs are held in GMS countries on an alternate basis. The project aims to support the booth rentals for the exhibitors.</p> <p>Commodity trade fairs are supported by the Yunnan provincial government and the Japan International Cooperation Agency (JICA)</p>	2014	5.0	PRC (Yunnan), JICA	Ongoing
9	Advancing Time Release Study in Southeast Asia (formerly Advancing Time Release Study in the Greater Mekong Subregion)	Cambodia, Lao PDR, Myanmar,	The TA will assist the participating countries in undertaking specific customs reforms and modernization steps (based on data from a time release study) to support substantive trade-facilitation measures based on the associated investment project's action plan, and will conduct a study of their checkpoints to improve their handling of bottlenecks.	2017	1.0	ADB—1.0	Ongoing
Subtotal (Transport and Trade Facilitation TA Projects)					16.6		
Total (Transport and Trade Facilitation Investment and TA Projects)					107.9		

Information and Communication Technology

Investment Projects

No.	Project Title	Country Coverage	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
1	Time-Division Long-Term Evolution Demonstration Network in the Lao People's Democratic Republic ³	People's Republic of China (PRC), Lao People's Democratic Republic (Lao PDR)	<p>At the Greater Mekong Subregion (GMS) Information and Communications Technology (ICT) Ministers' Meeting in June 2011, the PRC's Ministry of Industry and Information Technology and the Lao PDR's Ministry of Posts and Telecommunications signed a memorandum of understanding (MOU) on Continuing with Demonstration Projects of Applicable Communication Technologies in Rural Areas.</p> <p>The private sector in the PRC and the Lao PDR initially intended to cooperate with each other in building a time-division long-term evolution demonstration network in Vientiane, capital of the Lao PDR, to provide high-speed mobile data services in order to promote communications development in rural areas and to reduce the digital gap.</p>	TBD	5.0	To be determined (TBD)	Proposed
2	Broadband Development Strategies and Implementation Programs of the GMS	All GMS countries	<p>The GMS member countries have many people living in remote rural areas (for example, 70% of the population in the Lao PDR), where there is typically no broadband internet access. But the government policies to meet rural demand are hindered by low returns on infrastructure investments. The project aims to survey and analyze the status of broadband development in the GMS member countries, identify problems and development needs, implement pilot spectrum frequencies (LTE 700MHz, TV White Space [TVWS], or other types of frequency bands), and develop broadband strategies for the GMS countries.</p> <p>An example of linkage between national and subregional plans: the ASEAN ICT Master Plan (AIM) 2015 and AIM 2020 (which will soon start implementation) and the Lao PDR country analysis report prepared under the Lao PDR–United Nations Partnership Framework (2017–2021).</p>	2018	8.0	Official Development Assistance (ODA)	Proposed

³This project is under discussion between PRC, Lao PDR and Thailand for change in scope and coverage area.

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Investment projects continued

No.	Project Title	Country Coverage	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
3	Digital Connectivity	All GMS countries	<p>GMS members have to adapt to the ever-changing economic landscape and explore new ways of cooperating to promote growth. A new scientific and industrial revolution is currently underway, featuring the emergence of new technologies, new industries, and new business models. Digital technologies in particular, have spread rapidly, connecting and deeply transforming the world to an unprecedented degree. By creating new business opportunities and significantly reducing the costs of transactions and transplantation, digital connectivity will prove to be a key driver of growth, creating jobs and promoting innovations.</p> <p>An example of linkage between national and subregional plans: the ASEAN ICT Master Plan (AIM) 2015 and AIM 2020 (which will soon start implementation) and the Lao PDR country analysis report prepared under the Lao PDR–United Nations Partnership Framework (2017–2021).</p>	2018	15.0	ODA	Proposed
Subtotal (Information and Communication Technology Investment Projects)					28.0		

Technical Assistance Projects

No.	Project Title	Country Coverage	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
1	Broadband Development Strategies and Implementation Programs of the GMS	All GMS countries	Broadband is the cornerstone of national development. The United Nations defines its new broadband objective as “20 megabits per second (Mbps) access at \$20 per person by 2020.” The technical assistance (TA) project will make recommendations to GMS governments and enterprises concerning their participation in broadband development. To this end, the project will analyze each country’s national broadband development status, identify problems and development needs, establish GMS broadband development goals, and set major tasks and key construction projects.	TBD	10.0	TBD	Proposed
2	Workshops on E-Commerce Cooperation and Exchanges in GMS	All GMS countries	The project involves a joint effort with related Chinese internet value-added enterprises (such as Alibaba) to conduct exchanges on e-commerce solutions and typical cases, with a view to implementing the MOU on the Joint Cooperation in Further Accelerating the Construction of the Information Superhighway and its Application in the GMS, promoting pilot programs involving electronic applications in cross-border and domestic projects of member countries, boosting e-commerce development in the GMS, and providing favorable conditions for those value-added enterprises to expand their presence in the GMS markets.	TBD	10.0	TBD	Proposed

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Technical assistance projects continued

No.	Project Title	Country Coverage	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
3	Cross-border International Interconnected Bandwidth Expansion Project	PRC, Lao PDR, Viet Nam	China Unicom signed a cooperation contract with Viettel, Vietnam Posts and Telecommunications Group (VNPT), FPT, HTC, and CMC, in Viet Nam; and Lao Telecom (LTC), Unitel, and ETL, in the Lao PDR, to extend the communication bandwidth across the border. The project will build a cable network encompassing Hong Kong, China, and the United States. An over 300-gigabyte bandwidth is expected to be available through 2018.	TBD	2.1	State-owned telecom operators (China Unicom, Viettel, and LTC)—2.1	Proposed
4.	Workshop on international roaming for all operator/regulator in GMS countries	Lao PDR, Cambodia, Myanmar, Thailand, Viet Nam	<p>International roaming has become a global service of interest not only to tourists, but to investors and businesses, as well. Therefore, the techniques of negotiating interconnections and international roaming charges will be discussed by experts in the proposed workshop, which would be open to operators and regulators from the GMS countries.</p> <p>The project's outputs will include:</p> <ul style="list-style-type: none"> (i) technical skill training given to operators and regulators at telecom companies and internet service providers in MOK countries, (ii) exchanges of ideas and experiences about international roaming, (iii) linkages between national and subregional strategies, and (iv) improved technical knowledge in the public and private sectors. 	TBD	0.1	ODA	Proposed

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Technical assistance projects continued

No.	Project Title	Country Coverage	Description	Year of Approval	Cost Estimate (\$ million)	Potential Funding Source and Amount (\$ million)	Status (Proposed or Ongoing)
5.	Training in Quality of Experience (QoE) in Voice/Data Services over Communication Network Monitoring	Cambodia, Lao PDR, Myanmar, Thailand, Viet Nam	<p>The quality of experience (QoE) associated with voice and data services is very important for measuring the efficiency of networks and the users' level of satisfaction. For this reason, it is important to have the capacity to monitor network performance and understand user perspectives.</p> <p>The project's outputs will include:</p> <ul style="list-style-type: none"> (i) training in technical skills given to relevant personnel in MOK countries, (ii) exchanges of ideas and experiences regarding the QoE with voice and data services, (iii) linkages between national and subregional strategies, and (iv) improved technical knowledge in the government and private sectors. 	TBD	0.1	ODA	Proposed
Subtotal (Information and Communication Technology TA Projects)					22.3		
Total (Information and Communication Technology Investment and TA Projects)					50.3		

Regional Investment Framework 2022

The Regional Investment Framework 2022 (RIF 2022) is the medium term pipeline of priority projects in the Greater Mekong Subregion (GMS). It is a consolidation and expansion of the earlier Regional Investment Framework (2013-2022) and continues to operationalize the strategic priorities of the GMS Program under the GMS Strategic Framework (2012-2022) and the Hanoi Action Plan 2018-2022 (HAP).

The RIF 2022 covers a wide range of sectors including transport, energy, environment, agriculture, health and human resource development, information and communication technology, tourism, transport and trade facilitation, and urban development.

This pipeline is intended to be used as an instrument to have greater alignment between regional and national planning for GMS projects and as a tool to galvanize new financing for projects.

About the Greater Mekong Subregion Economic Cooperation Program

The GMS is made up of Cambodia, the People's Republic of China (specifically Yunnan Province and Guangxi Zhuang Autonomous Region), the Lao People's Democratic Republic, Myanmar, Thailand, and Viet Nam. In 1992, with assistance from the Asian Development Bank and building on their shared histories and cultures, the six countries of the GMS launched a program of subregional economic cooperation—the GMS Program—to enhance their economic relations, initially covering the nine priority sectors: agriculture, energy, environment, human resource development, investment, telecommunications, tourism, transport infrastructure, and transport and trade facilitation.

About the Asian Development Bank

ADB's vision is an Asia and Pacific region free of poverty. Its mission is to help its developing member countries reduce poverty and improve the quality of life of their people. Despite the region's many successes, it remains home to a large share of the world's poor. ADB is committed to reducing poverty through inclusive economic growth, environmentally sustainable growth, and regional integration.

Based in Manila, ADB is owned by 67 members, including 48 from the region. Its main instruments for helping its developing member countries are policy dialogue, loans, equity investments, guarantees, grants, and technical assistance.



GMS SECRETARIAT

Southeast Asia Department

Asian Development Bank

6 ADB Avenue Mandaluyong City

1550 Metro Manila, Philippines

Fax: +63 2 636 2226

E-mail: gms@adb.org

Web addresses: <https://www.adb.org/countries/gms/main>
<https://www.greatermekong.org/>