



# Country Operations Business Plan

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October 2017

India  
2018–2020

This document is being disclosed to the public in accordance with ADB's Public Communications Policy 2011.

Asian Development Bank

## CURRENCY EQUIVALENTS

(as of 21 August 2017)

Currency unit	–	Indian rupee (₹)
₹1.00	=	\$0.01559
\$1.00	=	₹64.1099

## ABBREVIATIONS

ADB	–	Asian Development Bank
COBP	–	country operations business plan
MFF	–	multitranches financing facility
OCR	–	ordinary capital resources
SASEC	–	South Asia Subregional Economic Cooperation
TA	–	technical assistance

## NOTE

In this report, "\$" refers to US dollars.

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## CONSISTENCY OF BUSINESS PLAN WITH COUNTRY PARTNERSHIP STRATEGY

1. The country operations business plan (COBP), 2018–2020 is consistent with the objectives of the new country partnership strategy for India, 2018–2022, which aims to support the government’s goal of faster, inclusive, and sustainable growth accompanied by rapid economic transformation and job creation. Asian Development Bank (ADB) assistance is articulated through the three strategic pillars of the CPS: boosting economic competitiveness to create more and better jobs, providing inclusive access to infrastructure networks and services, and addressing climate change and increasing climate resilience.

2. The CPS has five principles to enhance value addition, maximize impact, and sharpen the focus of ADB operations in support of India’s priorities. In line with these, ADB operations will (i) be driven by front-end strategic studies to identify and prioritize transformative investments and associated policy advice; (ii) adopt a synergic approach across sectors and themes; (iii) align assistance with the government’s strategies and flagship programs, as well as its commitments to the Sustainable Development Goals; (iv) progressively enhance engagement and forge partnerships with low-income states; and (v) integrate capacity development as an operational priority.

3. About 20% of the proposed program in the COBP will contribute to boosting competitiveness and job creation; close to 84% will support inclusive access to infrastructure and services; and about 53% will help address climate change issues. The indicative program will reflect the five CPS principles through a holistic approach: a strong knowledge program, capacity development as an integral element, alignment with the government’s flagship initiatives, and special attention to low-income states.

4. India, a group B developing member country, is eligible for regular ordinary capital resources (OCR) lending. The indicative resources available for commitment during 2018–2020 for sovereign operations total \$7.49 billion. The proposed cumulative lending program for the 3-year period is about \$10 billion. Over-programming of 38% is included to place the program on the trajectory for a scale-up, as requested by the government, and to allow for greater project readiness. Sovereign lending operations will be supplemented by nonsovereign resources. Cofinancing and funding from other sources, including the regular OCR regional cooperation and integration set-aside, will be explored.<sup>1</sup> The final amount of assistance will be subject to resource availability and project readiness.

5. In line with the government’s priorities and ADB’s areas of comparative advantage, the 3-year indicative program will continue to focus on infrastructure development, which is reflected in the sector shares. The transport sector will account for 42% of the program, water and other urban infrastructure and services 24%, and energy 16%. The agriculture, natural resources, and rural development sector will account for 10%; education and health 4%; and finance 4%.

6. The technical assistance (TA) program will support project preparation, capacity development, and strategic studies for a robust lending program and a well-performing portfolio.

7. ADB’s nonsovereign operations will focus on innovative and inclusive infrastructure, and catalyzing the development of financial sector. Support will be considered for initiatives in the areas of transport, power, urban infrastructure, agribusiness, health, education, small and medium-sized enterprises, affordable housing, and financial inclusion. In addition to direct funding, private equity funds that operate in ADB’s strategic priority areas will be supported. Synergy with sovereign operations will be maintained where possible.

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<sup>1</sup> The pilot period for the OCR regional cooperation and integration set-aside fund is up to 2019.

## COUNTRY ASSISTANCE RESULTS AREAS

Key Country Development Outcomes that ADB Contributes to	ADB		
	Key Areas of Assistance	Indicative Resource Allocation in 2018–2020	Changes from Last COBP <sup>a</sup>
<b>1. Transport</b>			
Better connectivity between domestic and international markets  Better connectivity in rural and urban areas  Environmentally sustainable transport system  Job creation and income-earning opportunities improved	Railway infrastructure and rolling stock, expressways, national roads, state roads, district and rural roads, ports, urban transport, urban transport planning and reforms, PPPs, and multimodal transport facilities	Amount: \$4.3 billion (regular OCR) and \$838 million (cofinancing)  Share of COBP envelope: 42%	Not applicable
<b>2. Water and Other Urban Infrastructure and Services</b>			
Improved supply of drinking water, sanitation, and waste management services  Healthier population  Job creation and income-earning opportunities improved	Drinking water system, sanitation systems, industrial wastewater, wastewater management, tariff policy and sector development, urban governance, urban planning, urban environmental policies, smart cities, and PPPs	Amount: \$2.5 billion (regular OCR)  Share of COBP envelope: 24%	Not applicable
<b>3. Energy</b>			
Greater availability and reliability of energy supply  Higher efficiency and carbon mitigation through power generation from renewable sources  Job creation and income-earning opportunities improved	Electric power transmission and distribution network strengthening and loss reduction, capacity development of state utilities, renewable energy, energy efficiency, cross-border power transmission lines and gas pipelines, and an enabling environment for private sector participation	Amount: \$1.7 billion (regular OCR)  Share of COBP envelope: 16%	Not applicable
<b>4. Agriculture, Natural Resources, and Rural Development</b>			
Improved agriculture productivity and rural incomes  Improved water management efficiency	Farm production enhancement, agribusiness, crop and non-crop value chain infrastructure and investments, surface and groundwater irrigation, irrigation systems management, flood protection, flood risk management, ecosystem management, marine ecosystem and coastal resources, PPPs, improved basin water management, and improved water use efficiency in irrigation	Amount: \$972 million (regular OCR)  Share of COBP envelope: 10%	Not applicable

Key Country Development Outcomes that ADB Contributes to	ADB		
	Key Areas of Assistance	Indicative Resource Allocation in 2018–2020	Changes from Last COBP <sup>a</sup>
<b>5. Finance</b>			
Efficient use of public finances	Infrastructure investment funds, finance sector policies and strategies, and PPPs	Amount: \$380 million (regular OCR) and \$70 million (cofinancing)  Share of COBP envelope: 4%	Not applicable
<b>6. Education</b>			
Improved employability and productivity of growing workforce	Reform and scaling up of technical and vocational education and training; introduction of vocational education in high schools and colleges; PPPs; industry engagement; and strengthening of assessment, certification, and monitoring of results	Amount: \$250 million (regular OCR)  Share of COBP envelope: 2%	Not applicable
<b>7. Health</b>			
Healthier population	Health system development to improve urban health care.	Amount: \$200 million (regular OCR)  Share of COBP envelope: 2%	Not applicable

ADB = Asian Development Bank, COBP = country operations business plan, CPS = country partnership strategy, OCR = ordinary capital resources, PPP = public-private partnership.

<sup>a</sup> This is not applicable as this is the first COBP prepared under the new CPS.

Source: ADB estimates.

## INDICATIVE ASSISTANCE PIPELINE

Table A2.1: Indicative Lending Products, 2018–2020

Project/Program Name	Sector	Poverty Targeting	Strategic Agendas and Drivers of Change	Division	Year of TRTA/PDA	Cost (\$ million)						
						Total	ADB			Total	Gov't	Co-finance
							Regular OCR	COL	ADF Grants			
<b>2018 Firm</b>												
1. Assam Integrated Flood and Riverbank Erosion Risk Management Investment Program (tranche 2)	ANR	GI	IEG, ESG, GEM, GCD, KNS, PAR	SAER		89.4	71.5	0.0	0.0	71.5	17.9	0.0
2. Karnataka Integrated and Sustainable Water Management Investment Program (tranche 2)	ANR	GI	IEG, ESG, GEM, KNS	SAER		177.0	119.0	0.0	0.0	119.0	58.0	0.0
3. Madhya Pradesh Irrigation Efficiency Improvement Project	ANR	TI-G	IEG, ESG, PSD, GCD, KNS	SAER	2016	530.2	370.3	0.0	0.0	370.3	159.9	0.0
4. Himachal Pradesh Clean Energy Transmission Investment Program (tranche 3)	ENE	GI	IEG, ESG, GCD	SAEN		136.0	105.0	0.0	0.0	105.0	31.0	0.0
5. Clean Energy Finance Investment Program (tranche 2)	FIN	GI	IEG, ESG, PSD, GCD, KNS, PAR	SAPF		600.0	300.0	0.0	0.0	300.0	300.0	0.0
6. Bihar State Roads Improvement Project III	TRA	GI	IEG	SATC	2018	315.0	220.0	0.0	0.0	220.0	95.0	0.0
7. Karnataka State Highways Improvement Project III	TRA	GI	IEG, PSD	SATC	2014	690.0	350.0	0.0	0.0	350.0	202.0	138.0
8. Railway Sector Investment Program (tranche 3)	TRA	GI	IEG	SATC		330.0	120.0	0.0	0.0	120.0	210.0	0.0
9. SASEC Road Connectivity Project (tranche 2)	TRA	TI-G	IEG, ESG, RCI, PSD	SATC		307.8	150.0	0.0	0.0	150.0	157.8	0.0
10. Second Rural Connectivity Investment Program (tranche 1)	TRA	GI	IEG, GEM, GCD, KNS	SATC	2015	590.0	250.0	0.0	0.0	250.0	340.0	0.0



Project/Program Name	Sector	Poverty Targeting	Strategic Agendas and Drivers of Change	Division	Year of TRTA/PDA	Cost (\$ million)						
						Total	ADB			Gov't	Co-finance	
							Regular OCR	COL	ADF Grants			Total
11. Sikkim Major District Roads Project (TA loan or PDA)	TRA	GI	IEG, ESG, GCD	SATC		6.3	5.0	0.0	0.0	5.0	1.3	0.0
12. Multisector TA Loan to Uttar Pradesh	TRA, ENE, WUS	GI	IEG, ESG, GEM, PSD, GCD, KNS, PAR	SAUW		28.6	20.0	0.0	0.0	20.0	8.6	0.0
13. Assam Urban Infrastructure Development Investment Program (tranche 2)	WUS	GI	IEG, ESG, GEM, GCD	SAUW		212.9	149.0	0.0	0.0	149.0	63.9	0.0
14. Bihar Urban Development Investment Program (tranche 2)	WUS	GI	IEG, ESG, GEM, GCD, KNS, PAR	SAUW		120.0	84.0	0.0	0.0	84.0	36.0	0.0
15. Delhi Water Supply Improvement Investment Program (tranche 1)	WUS	GI	IEG, ESG, GEM, GCD, KNS	SAUW	2013	226.0	158.0	0.0	0.0	158.0	68.0	0.0
16. Drinking Water Supply Project in West Bengal	WUS	GI	IEG, ESG, GEM, GCD, KNS	SAUW		428.6	300.0	0.0	0.0	300.0	128.6	0.0
17. Karnataka Integrated Urban Water Management Investment Program (tranche 2)	WUS	GI	IEG, ESG, GEM, GCD	SAUW		107.2	75.0	0.0	0.0	75.0	32.2	0.0
18. Kolkata Environmental Improvement Investment Program (tranche 3)	WUS	GI	IEG, ESG, GEM, GCD	SAUW		142.9	100.0	0.0	0.0	100.0	42.9	0.0
19. Tamil Nadu Urban Flagship Investment Program (tranche 1)	WUS	GI	IEG, ESG, GEM, GCD	SAUW	2016	214.3	150.0	0.0	0.0	150.0	64.3	0.0
<b>Total (2018 Firm)</b>						<b>5,252.2</b>	<b>3,096.8</b>	<b>0.0</b>	<b>0.0</b>	<b>3,096.8</b>	<b>2,017.4</b>	<b>138.0</b>

Project/Program Name	Sector	Poverty Targeting	Strategic Agendas and Drivers of Change	Division	Year of TRTA/PDA	Cost (\$ million)						
						Total	ADB			Gov't	Co-finance	
							Regular OCR	COL	ADF Grants			Total
<b>2018 Standby</b>												
1. Maharashtra Agribusiness Infrastructure Development Investment Program (tranche 3)	ANR	GI	IEG, ESG, PSD, GCD	SAER		71.5	50.0	0.0	0.0	50.0	21.5	0.0
2. Tamil Nadu Power Transmission Improvement Project	ENE	GI	IEG, ESG, GEM, GCD	SAEN	2016	714.3	500.0	0.0	0.0	500.0	214.3	0.0
3. Uttar Pradesh Power Distribution Improvement Project	ENE	TI-G	IEG, ESG, GEM, GCD, KNS	SAEN	2018	500.0	350.0	0.0	0.0	350.0	150.0	0.0
4. Mumbai Metro Rail Development Investment Program—Lines 2A, 2B, and 7 (tranche 1)	TRA	GI	IEG, ESG, GEM, GCD	SATC		900.0	300.0	0.0	0.0	300.0	600.0	0.0
5. Infrastructure Development Investment Program for Tourism (tranche 4)	WUS	GI	IEG, ESG, GEM, PSD	SAUW		64.3	45.0	0.0	0.0	45.0	19.3	0.0
6. Infrastructure Investment Facility for Smart Cities	WUS	GI	IEG, ESG, GEM, GCD, KNS	SAUW		400.0	200.0	0.0	0.0	200.0	200.0	0.0
<b>Total (2018 Standby)</b>						<b>2,650.1</b>	<b>1,445.0</b>	<b>0.0</b>	<b>0.0</b>	<b>1,445.0</b>	<b>1,205.1</b>	<b>0.0</b>
<b>2019 Firm</b>												
1. Construction of Rain Water Harvesting Structure and Construction of Small Ponds or Jalkunds Program in Meghalaya (tranche 1)	ANR	GI	IEG, ESG, GEM, GCD	SAER	2018	62.5	50.0	0.0	0.0	50.0	12.5	0.0
2. Support to the Implementation of the National Water Use Efficiency Improvement National Program	ANR	GI	IEG, ESG, PSD, GCD, KNS, PAR	SAER		40.0	20.0	0.0	0.0	20.0	20.0	0.0
3. Madhya Pradesh Skills Development Project	EDU	GI	IEG, GEM, GCD, PAR	SAHS	2016	214.3	150.0	0.0	0.0	150.0	64.3	0.0

Project/Program Name	Sector	Poverty Targeting	Strategic Agendas and Drivers of Change	Division	Year of TRTA/ PDA	Cost (\$ million)						
						Total	ADB			Gov't	Co-finance	
							Regular OCR	COL	ADF Grants			Total
4. Assam Power Sector Investment Program (tranche 3)	ENE	GI	IEG, ESG, GEM, GCD, KNS	SAEN		306.0	200.0	0.0	0.0	200.0	106.0	0.0
5. Tamil Nadu Power Transmission Improvement Project	ENE	GI	IEG, ESG, GEM, GCD	SAEN	2016	714.3	500.0	0.0	0.0	500.0	214.3	0.0
6. Uttar Pradesh Power Distribution Improvement Project	ENE	TI-G	IEG, ESG, GEM, GCD, KNS	SAEN	2018	500.0	350.0	0.0	0.0	350.0	150.0	0.0
7. Uttarakhand Power Sector Project	ENE	GI	IEG, ESG, GCD, KNS	SAEN	2018	160.0	128.0	0.0	0.0	128.0	32.0	0.0
8. Solar Rooftop Investment Program (tranche 2)	FIN	GI	IEG, ESG, PSD, GCD, KNS, PAR	SAPF		230.0	80.0	0.0	0.0	80.0	80.0	70.0
9. Madhya Pradesh Roads Project VI	TRA	GI	IEG, PSD	SATC	2017	950.0	665.0	0.0	0.0	665.0	285.0	0.0
10. Mumbai Metro Rail Development Investment Program— Lines 2A, 2B, and 7 (tranche 1)	TRA	GI	IEG, ESG, GEM, GCD	SATC		900.0	300.0	0.0	0.0	300.0	600.0	0.0
11. Tamil Nadu Roads Project	TRA	GI	IEG, PSD	SATC	2018	500.0	350.0	0.0	0.0	350.0	150.0	0.0
12. Visakhapatnam– Chennai Industrial Corridor Development Program (tranche 2)	TRA, WUS, ENE, IND	GI	IEG, ESG, RCI, GCD, PSD, PAR, GEM	SAUW		357.2	250.0	0.0	0.0	250.0	107.2	0.0
13. Gujarat Water Supply and Sewerage Project	WUS	GI	IEG, ESG, GEM, GCD	SAUW	2019	342.9	240.0	0.0	0.0	240.0	102.9	0.0
14. Infrastructure Development Investment Program for Tourism (tranche 4)	WUS	GI	IEG, ESG, GEM, PSD	SAUW		64.3	45.0	0.0	0.0	45.0	19.3	0.0
15. Rajasthan Secondary Town Development Investment Program (tranche 1)	WUS	TI-G	IEG, ESG, GEM, PSD, KNS, PAR	SAUW	2017	357.5	250.0	0.0	0.0	250.0	107.5	0.0
16. Urban TA Loan to Punjab	WUS	GI	IEG, ESG, GEM, GCD, KNS, PAR, PSD	SAUW		14.3	10.0	0.0	0.0	10.0	4.3	0.0
<b>Total (2019 Firm)</b>						<b>5,713.3</b>	<b>3,588.0</b>	<b>0.0</b>	<b>0.0</b>	<b>3,588.0</b>	<b>2,055.3</b>	<b>70.0</b>

Project/Program Name	Sector	Poverty Targeting	Strategic Agendas and Drivers of Change	Division	Year of TRTA/PDA	Cost (\$ million)						
						Total	ADB			Gov't	Co-finance	
							Regular OCR	COL	ADF Grants			Total
<b>2019 Standby</b>												
1. Indore Metro Rail Project Phase I	TRA	GI	IEG, ESG, GEM, GCD	SATC	2018	607.2	250.0	0.0	0.0	250.0	107.2	250.0
2. SASEC Roads II Program (tranche 1)	TRA	GI	IEG, RCI	SATC	2019	314.3	220.0	0.0	0.0	220.0	94.30	0.0
3. Sikkim Major District Roads	TRA	GI	IEG, ESG, GCD	SATC	2018	93.8	75.0	0.0	0.0	75.0	18.8	0.0
4. VadHAVAN Port Project	TRA	GI	IEG, RCI	SATC		1,050.0	350.0	0.0	0.0	350.0	350.0	350.0
5. Madhya Pradesh Urban Services Improvement Investment Program (additional financing)	WUS	GI	IEG, ESG, GEM, PSD, PAR	SAUW		440.0	308.0	0.0	0.0	308.0	132.0	0.0
6. State-level Urban Infrastructure Project	WUS	GI	IEG, ESG, GEM, GCD	SAUW	2019	285.7	200.0	0.0	0.0	200.0	85.7	0.0
<b>Total (2019 Standby)</b>						<b>2,791.0</b>	<b>1,403.0</b>	<b>0.0</b>	<b>0.0</b>	<b>1,403.0</b>	<b>788.0</b>	<b>600.0</b>
<b>2020 Firm</b>												
1. Bihar Irrigation Project	ANR	GI	IEG, ESG, GEM, PSD, GCD, KNS	SAER	2019	487.2	341.0	0.0	0.0	341.0	146.2	0.0
2. Supporting Kerala's Additional Skills (additional financing) (RBL)	EDU	GI	IEG, GEM, GCD, PAR	SAHS		142.9	100.0	0.0	0.0	100.0	42.9	0.0
3. Industrial Energy Efficiency Financing Project	ENE	GI	IEG, ESG, PSD, GCD, PAR	SAEN	2018	400.0	200.0	0.0	0.0	200.0	200.0	0.0
4. SASEC Energy Investment Program (tranche 1)	ENE	GI	IEG, ESG, GEM, GCD, RCI	SAEN		285.7	200.0	0.0	0.0	200.0	85.7	0.0
5. Supporting National Urban Health Mission (additional financing) (RBL)	HLT	GI	IEG, GEM, GCD, PAR	SAHS		400.0	200.0	0.0	0.0	200.0	200.0	0.0
6. Indore Metro Rail Project, Phase I	TRA	GI	IEG, ESG, GEM, GCD	SATC	2018	607.2	250.0	0.0	0.0	250.0	107.2	250.0
7. Mumbai Metro Rail Development Investment Program—Lines 2A, 2B, and 7 (tranche 2)	TRA	GI	IEG, ESG, GEM, GCD	SATC		1,000.0	300.0	0.0	0.0	300.0	600.0	100.0

Project/Program Name	Sector	Poverty Targeting	Strategic Agendas and Drivers of Change	Division	Year of TRTA/PDA	Cost (\$ million)						
						Total	ADB			Total	Gov't	Co-finance
							Regular OCR	COL	ADF Grants			
8. Rajasthan State Highway Investment Program (tranche 2)	TRA	GI	IEG, ESG, GCD, PSD	SATC		400.0	280.0	0.0	0.0	280.0	120.0	0.0
9. SASEC Roads II Investment Program (tranche 1)	TRA	GI	IEG, RCI	SATC		314.3	220.0	0.0	0.0	220.0	94.3	0.0
10. Second Rural Connectivity Investment Program (tranche 2)	TRA	GI	IEG, ESG, GEM, GCD	SATC		500.0	250.0	0.0	0.0	250.0	250.0	0.0
11. Sikkim Major District Roads	TRA	GI	IEG, ESG, GCD	SATC	2018	93.8	75.0	0.0	0.0	75.0	18.8	0.0
12. Uttarakhand State Highways Investment II Project	TRA	GI	IEG, PSD	SATC	2019	250.0	200.0	0.0	0.0	200.0	50.0	0.0
13. VadHAVAN Port Project	TRA	GI	IEG, RCI	SATC		1,050.0	350.0	0.0	0.0	350.0	350.0	350.0
14. Madhya Pradesh Urban Services Improvement Investment Program (additional financing)	WUS	GI	IEG, ESG, GEM, PSD, PAR	SAUW		440.0	308.0	0.0	0.0	308.0	132.0	0.0
15. State-Level Urban Infrastructure Project	WUS	GI	IEG, ESG, GEM, GCD	SAUW	2019	285.7	200.0	0.0	0.0	200.0	85.7	0.0
16. Uttar Pradesh Urban Development Investment Program (tranche 1)	WUS	GI	IEG, ESG, GEM, GCD	SAUW		214.3	150.0	0.0	0.0	150.0	64.3	0.0
<b>Total (2020 Firm)</b>						<b>6,871.1</b>	<b>3,624.0</b>	<b>0.0</b>	<b>0.0</b>	<b>3,624.0</b>	<b>2,547.1</b>	<b>700.0</b>
<b>2020 Standby</b>												
1. Maharashtra Sustainable Coastal Protection and Management Project	ANR	GI	IEG, ESG, EGM, GCD	SAER		142.9	100.0	0.0	0.0	100.0	42.9	0.0
2. Skills Development Project for Priority Industry Sectors	EDU	GI	IEG, GEM, GCD, PAR	SAHS	2019	300.0	150.0	0.0	0.0	150.0	150.0	0.0
3. Gujarat Smart Grid Development Investment Project	ENE	GI	IEG, ESG, GCD, KNS	SAEN	2013	142.9	100.0	0.0	0.0	100.0	42.9	0.0
4. Jharkhand Power Project	ENE	GI	IEG, ESG, GCD	SAEN		428.6	300.0	0.0	0.0	300.0	128.6	0.0
5. Odisha Power Transmission Improvement Project	ENE	GI	IEG, ESG, GEM, GCD	SAEN	2016	286.0	200.0	0.0	0.0	200.0	86.0	0.0

Project/Program Name	Sector	Poverty Targeting	Strategic Agendas and Drivers of Change	Division	Year of TRTA/PDA	Cost (\$ million)						
						Total	ADB			Total	Gov't	Co-finance
							Regular OCR	COL	ADF Grants			
6. Second Clean Energy Finance Investment Program II (tranche 1)	FIN	GI	IEG, ESG, PSD, GCD, KNS, PAR	SAPF		500.0	250.0	0.0	0.0	250.0	250.0	0.0
7. Project on Supporting Health System in States	HLT	GI	IEG, GEM, GCD, PAR	SAHS		171.5	120.0	0.0	0.0	120.0	51.5	0.0
8. Second Chhattisgarh State Roads Project	TRA	GI	IEG, ESG, GCD	SATC	2019	428.6	300.0	0.0	0.0	300.0	128.6	0.0
9. Second Uttar Pradesh Major District Roads Project	TRA	GI	IEG, ESG, GCD	SATC	2019	428.6	300.0	0.0	0.0	300.0	128.6	0.0
10. State-Level Urban Infrastructure Project II	WUS	GI	IEG, ESG, GEM, GCD	SAUW	2019	428.6	300.0	0.0	0.0	300.0	128.6	0.0
11. Punjab Smart Cities Development Project	WUS	GI	IEG, ESG, GEM, GCD, KNS	SAUW	2020	357.2	250.0	0.0	0.0	250.0	107.2	0.0
12. Kolkata Environmental Improvement Investment Program, Phase 3	WUS	GI	IEG, ESG, GEM, GCD	SAUW	2019	428.6	300.0	0.0	0.0	300.0	128.6	0.0
13. State-Level Urban Development Investment Program (tranche 1)	WUS	GI	IEG, ESG, GEM, GCD	SAUW	2019	125.0	100.0	0.0	0.0	100.0	25.0	0.0
14. State-Level Smart Cities Development Project	WUS	GI	IEG, ESG, GEM, GCD, KNS	SAUW	2020	357.2	250.0	0.0	0.0	250.0	107.2	0.0
15. Tamil Nadu Urban Flagship Investment Program (tranche 2)	WUS	GI	IEG, ESG, GEM, GCD	SAUW		285.7	200.0	0.0	0.0	200.0	85.7	0.0
<b>Total (2020 Standby)</b>						<b>4,811.4</b>	<b>3,220.0</b>	<b>0.0</b>	<b>0.0</b>	<b>3,220.0</b>	<b>1,591.4</b>	<b>0.0</b>

ADB = Asian Development Bank; ADF = Asian Development Fund; ANR = agriculture, natural resources, and rural development; COL = concessional OCR lending; EDU = education; ENE = energy; ESG = environmentally sustainable growth; FIN = finance; GCD = governance and capacity development; GEM = gender equity and mainstreaming; GI = general intervention; Gov't = government; HLT = health; IEG = inclusive economic growth; IND = industry and trade; KNS = knowledge solutions; OCR = ordinary capital resources; PAR = partnerships; PDA = project design advance; PSD = private sector development; RBL = results-based lending; RCI = regional cooperation and integration; SAEN = South Asia Energy Division; SAER = South Asia Environment Natural Resources and Agriculture Division; SAHS = South Asia Human and Social Development Division; SAPF = South Asia Public Management, Financial Sector, and Trade Division; SASEC = South Asia Subregional Economic Cooperation; SATC = South Asia Transport and Communications Division; SAUW = South Asia Urban Development and Water Division; TI-G = targeted intervention—geographic dimensions of inclusive growth; TA = technical assistance; TRA = transport; TRTA = transaction technical assistance; WUS = water and other urban infrastructure and services.

Note: Per the 10 March 2017 memo titled Transition Arrangements in 2017 for the Introduction of Commitments, the project and program pipeline is prepared based on the expected year of signing.

Source: ADB estimates.

Table A2.2: Indicative Multitranches Financing Facilities, 2018–2020

Project/Program Name	Sector	Poverty Targeting	Strategic Agendas and Drivers of Change	Division	Year of TRTA / PDA	Cost (\$ million)						
						Total <sup>1</sup>	ADB			Gov't	Co-finance	
Regular OCR	COL	ADF Grants	Total									
<b>2018 Firm</b>												
1. Second Rural Connectivity Investment Program	TRA	GI	IEG, GEM, GCD, KNS	SATC	2014	1,200.0	500.0	0.0	0.0	500.0	700.0	0.0
2. Delhi Water Supply Improvement Investment Program	WUS	GI	IEG, ESG, GEM, GCD, KNS	SAUW	2013	415.0	290.0	0.0	0.0	290.0	125.0	0.0
3. Tamil Nadu Urban Flagship Investment Program	WUS	GI	IEG, ESG, GEM, GCD	SAUW	2015	714.3	500.0	0.0	0.0	500.0	214.3	0.0
<b>Total (2018 Firm)</b>						<b>2,329.3</b>	<b>1,290.0</b>	<b>0.0</b>	<b>0.0</b>	<b>1,290.0</b>	<b>1,039.3</b>	<b>0.0</b>
<b>2018 Standby</b>												
1. Mumbai Metro Rail Development Investment Program—Lines 2A, 2B, and 7	TRA	GI	IEG, ESG, GEM, GCD	SATC		2,400.0	1,100.0	0.0	0.0	1,100.0	1,200.0	100.0
<b>Total (2018 Standby)</b>						<b>2,400.0</b>	<b>1,100.0</b>	<b>0.0</b>	<b>0.0</b>	<b>1,100.0</b>	<b>1,200.0</b>	<b>100.0</b>
<b>2019 Firm</b>												
1. Construction of Rain Water Harvesting Structure and Construction of Small Ponds or Jalkunds Program in Meghalaya	ANR	GI	IEG, ESG, GEM, GCD	SAER	2018	182.5	146.0	0.0	0.0	146.0	36.5	0.0
2. Mumbai Metro Rail Development Investment Program—Lines 2A, 2B, and 7	TRA	GI	IEG, ESG, GEM, GCD	SATC		2,400.0	1,100.0	0.0	0.0	1,100.0	1,200.0	100.0
3. Rajasthan Secondary Town Development Investment Program	WUS	TI-G	IEG, ESG, GEM, PSD, KNS, PAR	SAUW	2017	715.0	500.0	0.0	0.0	500.0	215.0	0.0
<b>Total (2019 Firm)</b>						<b>3,297.5</b>	<b>1,746.0</b>	<b>0.0</b>	<b>0.0</b>	<b>1,746.0</b>	<b>1,451.5</b>	<b>100.0</b>
<b>2019 Standby</b>												
1. SASEC Roads II Investment Program	TRA	GI	IEG, RCI	SATC	2019	742.9	520.0	0.0	0.0	520.0	222.9	0.0
<b>Total (2019 Standby)</b>						<b>742.9</b>	<b>520.0</b>	<b>0.0</b>	<b>0.0</b>	<b>520.0</b>	<b>222.9</b>	<b>0.0</b>

Project/Program Name	Sector	Poverty Targeting	Strategic Agendas and Drivers of Change	Division	Year of TRTA / PDA	Cost (\$ million)						
						Total <sup>(</sup>	ADB			Gov't	Co-finance	
							Regular OCR	COL	ADF Grants			Total
<b>2020 Firm</b>												
1. SASEC Energy Investment Program	ENE	GI	IEG, ESG, GEM, GCD, RCI	SAEN		714.3	500.0	0.0	0.0	500.0	214.3	0.0
2. SASEC Roads II Investment Program	TRA	GI	IEG, RCI	SATC	2019	742.9	520.0	0.0	0.0	520.0	222.9	0.0
3. Uttar Pradesh Urban Development Investment Program	WUS	GI	IEG, ESG, GEM, GCD	SAUW		357.2	250.0	0.0	0.0	250.0	107.2	0.0
<b>Total (2020 Firm)</b>						<b>1,814.4</b>	<b>1,270.0</b>	<b>0.0</b>	<b>0.0</b>	<b>1,270.0</b>	<b>544.4</b>	<b>0.0</b>
<b>2020 Standby</b>												
1. Second Clean Energy Finance Investment Program	FIN	GI	IEG, ESG, PSD, GCD, KNS, PAR	SAPF		714.3	500.0	0.0	0.0	500.0	214.3	0.0
2. State-Level Urban Development Investment Program	WUS	GI	IEG, ESG, GEM, GCD	SAUW	2019	500.0	400.0	0.0	0.0	400.0	100.0	0.0
<b>Total (2020 Standby)</b>						<b>1,214.3</b>	<b>900.0</b>	<b>0.0</b>	<b>0.0</b>	<b>900.0</b>	<b>314.3</b>	<b>0.0</b>

ADB = Asian Development Bank; ADF = Asian Development Fund; ANR = agriculture, natural resources, and rural development; COL = concessional OCR lending; ENE = energy; ESG = environmentally sustainable growth; FIN = finance; GCD = governance and capacity development; GEM = gender equity and mainstreaming; GI = general intervention; Gov't = government; IEG = inclusive economic growth; KNS = knowledge solutions; OCR = ordinary capital resources; PAR = partnerships; PDA = project design advance; PSD = private sector development; RCI = regional cooperation and integration; SAER = South Asia Environment Natural Resources and Agriculture Division; SAEN = South Asia Energy Division; SASEC = South Asia Subregional Economic Cooperation; SATC = South Asia Transport and Communications Division; SAUW = South Asia Urban Development and Water Division; TI-G = targeted intervention—geographic dimensions of inclusive growth; TRA = transport; TRTA = transaction technical assistance; WUS = water and other urban infrastructure and services

Note: Per the 10 March 2017 memo titled Transition Arrangements in 2017 for the Introduction of Commitments, the multitranche financing facility pipeline is prepared based on the expected year of signing.

Source: ADB estimates.



Table A2.3: Indicative Nonlending Products and Services, 2018–2020

Assistance Name	Sector	Division	Assistance Type	Sources of Funding				Total (\$'000)
				ADB		Others		
				Source	Amount (\$'000)	Source	Amount (\$'000)	
<b>2018</b>								
1. Bihar Irrigation	ANR	SAER	TRTA	TASF	750		0	750
2. Construction of Rain Water Harvesting Structure and Construction of Small Ponds or Jalkunds in Meghalaya	ANR	SAER	TRTA	TASF	750		0	750
3. Maharashtra Sustainable Coastal Protection and Management	ANR	SAER	TRTA	TASF	225		0	225
4. Providing Infrastructure in the Agriculture Sector	ANR	SAER	KSTA	TASF	500		0	500
5. Supporting Madhya Pradesh Skills Development Project	EDU	SAHS	TRTA		0	TBD	2,000	2,000
6. Skills Development Project (state level)	EDU	SAHS	TRTA	TASF	1,000		0	1,000
7. Preparing Industrial Energy Efficiency Project	ENE	SAEN	TRTA	TASF	500		0	500
8. Preparing Uttar Pradesh Power Transmission Project	ENE	SAEN	TRTA	TASF	1,500		0	1,500
9. Uttarakhand Power	ENE	SAEN	TRTA	TASF	225		0	225
10. Capacity Building for Project Implementation II	MUL	INRM	KSTA	TASF	750		0	750
11. Enhancing Gender Equality and Social Inclusion Results in ADB Operations	MUL	INRM	KSTA		0	TBD	3,000	3,000
12. Preparing SASEC Roads II Program	TRA	SATC	TRTA	TASF	500		0	500
13. Preparing Transport Sector Projects	TRA	SATC	TRTA	TASF	1,000		0	1,000
14. Capacity Development for Uttar Pradesh Urban Project	WUS	SAUW	TRTA	TASF	500		0	500
15. Capacity Development for State-Level Infrastructure Project	WUS	SAUW	TRTA	TASF	500	TBD	500	1,000
16. Drinking Water Supply Project in West Bengal <sup>a</sup>	WUS	SAUW	TRTA	TASF	1,000		0	1,000
17. Strengthening Smart Water Management, Climate Change and Disaster Resilience in West Bengal	WUS	SAUW	TRTA		0	UCCRTF	2,000	2,000
18. Tamil Nadu Urban Development Program	WUS	SAUW	TRTA		0	TBD	1,000	1,000
<b>Total (2018)</b>					<b>9,700</b>		<b>8,500</b>	<b>18,200</b>
<b>2019</b>								
1. Gujarat Irrigation	ANR	SAER	TRTA	TASF	1,000		0	1,000
2. Skill Development for Priority Industry Sectors – I	EDU	SAHS	TRTA	TASF	1,000		0	1,000
3. Assam Hydropower Development	ENE	SAEN	TRTA	TASF	750		0	750
4. Capacity Development for Uttar Pradesh Power Project	ENE	SAEN	TRTA	TASF	500		0	500
5. Energy Sector Project Development	ENE	SAEN	TRTA	TASF	500		0	500
6. Preparing Power Distribution Project	ENE	SAEN	TRTA	TASF	350		0	350
7. Renewable Energy Projects	ENE	SAEN	TRTA	TASF	500		0	500
8. Supporting the National Urban Health Mission (supplementary)	HLT	SAHS	TRTA	TASF	2,000		0	2,000
9. Knowledge Management for Inclusive Growth II	MUL	INRM	KSTA	TASF	1,500		0	1,500
10. Capacity Building for State Roads	TRA	SATC	TRTA	TASF	1,000		0	1,000

Assistance Name	Sector	Division	Assistance Type	Sources of Funding				Total (\$'000)
				ADB		Others		
				Source	Amount (\$'000)	Source	Amount (\$'000)	
11. Preparing Transport Sector Projects II	TRA	SATC	TRTA	TASF	1,000		0	1,000
12. Gujarat Urban	WUS	SATC	TRTA	TASF	500		0	500
13. Preparing Urban Projects (state level) I	WUS	SAUW	TRTA	TASF	500	TBD	500	1,000
14. Preparing Urban Projects (state level) II	WUS	SAUW	TRTA	TASF	500	TBD	500	1,000
15. Rajasthan Secondary Town Development	WUS	SAUW	TRTA	TASF	500		0	500
<b>Total (2019)</b>					<b>12,100</b>		<b>1,000</b>	<b>13,100</b>
<b>2020</b>								
1. Capacity Development for Irrigation Management	ANR	SAER	TRTA	TASF	1,500		0	1,500
2. Construction of Rain Water Harvesting Structure and Construction of Small Ponds or Jalkunds in Meghalaya	ANR	SAER	TRTA	TASF	1,000		0	1,000
3. Skill Development for Priority Industry Sectors – II	EDU	SAHS	TRTA	TASF	1,000		0	1,000
4. Preparing Sillahalla Pump Storage Hydro Power Project	ENE	SAEN	TRTA	TASF	1,500		0	1,500
5. State Level 24x7 Power Project	ENE	SAEN	TRTA	TASF	350		0	350
6. Capacity Building for Project Implementation II (Supplementary)	MUL	INRM	KSTA	TASF	750		0	750
7. Capacity Development for Smart City Development	WUS	SAUW	TRTA	TASF	1,000		0	1,000
8. Preparing Urban Projects (state level) II	WUS	SAUW	TRTA	TASF	500	TBD	500	1,000
9. Preparing Urban Sector Project	WUS	SAUW	TRTA	TASF	1,000		0	1,000
10. Urban Sector Projects in Low-Income States	WUS	SAUW	TRTA	TASF	1,500		0	1,500
<b>Total (2020)</b>					<b>10,100</b>		<b>500</b>	<b>10,600</b>

ADB = Asian Development Bank, ANR = agriculture, natural resources, and rural development, EDU = education, ENE = energy, HLT = health, INRM = India Resident Mission, KSTA = knowledge and support technical assistance, MUL = multisector, SAEN = South Asia Energy Division, SAHS = South Asia Human and Social Development Division, SASEC = South Asia Subregional Economic Cooperation, SATC = South Asia Transport and Communications Division, SAUW = South Asia Urban Development and Water Division, TASF = Technical Assistance Special Fund, TBD = to be determined, TRA = transport, TRTA = transaction technical assistance, UCCRTF = Urban Climate Change Resilience Trust Fund, WUS = water and other urban infrastructure and services.

Note: Per the 10 March 2017 memo titled Transition Arrangements in 2017 for the Introduction of Commitments, the TA pipeline is prepared based on the expected year of signing.

<sup>a</sup> In addition, \$4.0 million grant will be provided to the Drinking Water Supply Project in West Bengal.

Source: ADB estimates.

## ASSISTANCE PROGRAM FOR CURRENT YEAR

### Table A3.1: Lending Products, 2017

Project/Program Name	Sector	Poverty Targeting	Strategic Agendas and Drivers of Change	Division	Year of TRTA/PDA	Cost (\$ million)						
						Total	ADB			Gov't	Co-finance	
							Regular OCR	COL	ADF Grants			Total
<b>2017 Firm</b>												
1. Sustainable Coastal Protection and Management Improvement (tranche 2)	ANR	GI	IEG, ESG, PSD, KNS	SAER		93.6	65.5	0.0	0.0	65.5	28.1	0.0
2. Odisha Skills Development Project	EDU	GI	IEG, PAR, PSD, GCD, GEM	SAHS	2013	162.0	102.0	0.0	0.0	102.0	60.0	0.0
3. Skills Development in Himachal Pradesh	EDU	GI	IEG, GEM, PSD, GCD	SAHS	2016	100.0	80.0	0.0	0.0	80.0	20.0	0.0
4. Demand-Side Energy Efficiency Investment Project	ENE	GI	IEG, ESG, GCD, KNS, PAR	SAEN	2016	414.4	200.0	0.0	0.0	200.0	200.0	14.4
5. Green Energy Corridor and Grid Strengthening Project	ENE	GI	IEG, ESG, PSD, PAR	SAEN		3,206.3	500.0	0.0	0.0	500.0	2,081.3	625.0
6. Rajasthan Renewable Energy Transmission Investment Program (tranche 2)	ENE	GI	IEG, ESG, PSD, GEM, PAR	SAEN		418.0	238.0	0.0	0.0	238.0	70.0	110.0
7. Solar Transmission Sector Project	ENE	GI	IEG, ESG, GCD, KNS, PAR	SAEN	2016	450.0	175.0	0.0	0.0	175.0	225.0	50.0
8. Solar Rooftop Investment Program (tranche 1)	FIN	GI	IEG, ESG, PSD, GCD, KNS, PAR	SAPF	2017	847.9	0.0	0.0	0.0	0.0	100.0	747.9
9. Second West Bengal Development Finance Program	PSM	GI	IEG, PSD, GCD, KNS, PAR	SAPF		472.0	300.0	0.0	0.0	300.0	172.0	0.0
10. Madhya Pradesh District Roads II Sector Project	TRA	GI	IEG, ESG, PSD	SATC		500.0	350.0	0.0	0.0	350.0	150.0	0.0

Project/Program Name	Sector	Poverty Targeting	Strategic Agendas and Drivers of Change	Division	Year of TRTA/PDA	Cost (\$ million)						
						Total	ADB			Gov't	Co-finance	
							Regular OCR	COL	ADF Grants			Total
11. Rajasthan State Highways Investment Program (tranche 1)	TRA	GI	IEG, ESG, GCD, PSD	SATC		655.0	220.0	0.0	0.0	220.0	220.0	215.0
12. Uttar Pradesh Major District Roads Improvement Project	TRA	GI	IEG, ESG, PSD	SATC	2014	428.0	300.0	0.0	0.0	300.0	128.0	0.0
13. Visakhapatnam–Chennai Industrial Corridor Development Program	TRA, WUS, ENE, IND	GI	IEG, ESG, RCI, GCD, PSD, PAR, GEM	SAUW	2015	125.0	125.0	0.0	0.0	125.0	0.0	0.0
14. Visakhapatnam–Chennai Industrial Corridor Development Project	TRA, WUS, ENE, IND	GI	IEG, ESG, RCI, GCD, PSD, PAR, GEM	SAUW	2015	358.0	245.0	0.0	0.0	245.0	108.0	5.0
15. Madhya Pradesh Urban Services Improvement Project	WUS	GI	IEG, ESG, GEM, PSD, PAR	SAUW		399.0	275.0	0.0	0.0	275.0	124.0	0.0
<b>Total (2017 Firm)</b>						<b>8,629.2</b>	<b>3,175.5</b>	<b>0.0</b>	<b>0.0</b>	<b>3,175.5</b>	<b>3,686.4</b>	<b>1,767.3</b>

ADB = Asian Development Bank; ADF = Asian Development Fund; ANR = agriculture, natural resources, and rural development; COL = concessional OCR lending; EDU= education; ENE = energy; ESG = environmentally sustainable growth; FIN = finance; GCD = governance and capacity development; GEM = gender equity and mainstreaming; GI = general intervention; Gov't = government; IEG = inclusive economic growth; IND = industry and trade; KNS = knowledge solutions; OCR = ordinary capital resources; PAR = partnerships; PDA = project design advance; PSD = private sector development; PSM = public sector management; RCI = regional cooperation and integration; SAEN = South Asia Energy Division; SAER = South Asia Environment Natural Resources and Agriculture Division; SAPF = South Asia Public Management Financial Sector and Trade Division; SATC = South Asia Transport and Communications Division; SAUW = South Asia Urban Development and Water Division; TI-G = targeted intervention—geographic dimensions of inclusive growth; TRA = transport; TRTA = transaction technical assistance; WUS = water and other urban infrastructure and services.

Notes:

(i) Per the 10 March 2017 memo titled Transition Arrangements in 2017 for the Introduction of Commitments, the project and program pipeline is prepared based on the expected year of signing.

(ii) Investment lending is expected to account for 91% of the total in 2017 (86% during 2014–2016), while policy-based lending is expected to account for 9% (7% in 2014–2016). The share of results-based lending was 7% during 2014–2016.

Source: ADB estimates.

Table A3.2: Multitranche Financing Facilities, 2017

Project/Program Name	Sector	Poverty Targeting	Strategic Agendas and Drivers of Change	Division	Year of TRTA/PDA	Cost (\$ million)						
						ADB			Co-finance			
						Regular	COL	ADF	Total	Gov't		
						OCR		Grants				
<b>2017 Firm</b>												
1. Rajasthan State Highways Investment Program	TRA	GI	IEG, ESG, GCD, PSD	SATC		1,415.0	500.0	0.0	0.0	500.0	450.0	465.0
2. Visakhapatnam–Chennai Industrial Corridor Development Program	TRA, WUS, ENE, IND	GI	IEG, ESG, RCI, GCD, PSD, PAR, GEM	SAUW	2015	720.0	500.0	0.0	0.0	500.0	215.0	5.0
<b>Total (2017 Firm)</b>						<b>2,135.0</b>	<b>1,000.0</b>	<b>0.0</b>	<b>0.0</b>	<b>1,000.0</b>	<b>665.0</b>	<b>470.0</b>

ADB = Asian Development Bank, ADF = Asian Development Fund, ENE = energy, ESG = environmentally sustainable growth, GCD = governance and capacity development, GEM = gender equity and mainstreaming, GI = general intervention, Gov't = government, IND = industry and trade, OCR = ordinary capital resources, PAR = partnerships, PDA = project design advance, PSD = private sector development, RCI = regional cooperation and integration, SATC = South Asia Transport and Communications Division, SAUW = South Asia Urban Development and Water Division, TRA = transport, TRTA = transaction technical assistance, WUS = water and other urban infrastructure and services.

Note: Per the 10 March 2017 memo titled Transition Arrangements in 2017 for the Introduction of Commitments, the multitranche financing facility pipeline is prepared based on the expected year of signing.

Source: ADB estimates.

**Table A3.2: Nonlending Products and Services, 2017**

Assistance Name	Sector	Division	Assistance Type	Sources of Funding				
				ADB		Others		Total (\$'000)
				Source	Amount (\$'000)	Source	Amount (\$'000)	
1. Odisha Skills Development Project	EDU	SAHS	TRTA		0	JFPR	2,000	2,000
2. Solar Rooftop Investment Program	FIN	INRM	TRTA		0	CTF	5,000	5,000
3. Capacity Development for Second West Bengal Development Finance Program	PSM	SAPF	TRTA	TASF	500		0	500
4. Institutional Strengthening and Capacity Building of Aid Accounts and Aid Audit Division	PSM	INRM	KSTA	TASF	500		0	500
5. Capacity Development for Second Rural Connectivity Investment Program	TRA	SATC	TRTA	TASF	500		0	500
6. Strengthening Bridge Operation and Management	TRA	SATC	TRTA	TASF	900			900
7. Capacity Development for Industrial Corridor Management in Andhra Pradesh	WUS	SAUW	TRTA	TASF	1,000		0	1,000
8. Capacity Development of Institutions in the Urban Sector of Madhya Pradesh	WUS	SAUW	TRTA	TASF	1,000		0	1,000
9. Preparing the Rajasthan Secondary Towns Development Investment Program	WUS	SAUW	TRTA	TASF	1,300		0	1,300
10. Strengthening Climate Change Resilience in Urban India—Supporting Climate Change-Resilient Smart Cities Mission Projects (Subproject 2)	WUS	SAUW	TRTA		0	UCCRTF	2,500	2,500
11. Strengthening Climate Change Resilience in Urban India—Supporting Climate and Disaster Resilient Smart Urban Infrastructure in West Bengal (Subproject 3)	WUS	SAUW	TRTA		0	UCCRTF	1,000	1,000
<b>Total</b>					<b>5,700</b>		<b>10,500</b>	<b>16,200</b>

ADB = Asian Development Bank, CTF = Clean Technology Fund, EDU = education, FIN = finance, INRM = India Resident Mission, JFPR = Japan Fund for Poverty Reduction, KSTA = knowledge and support technical assistance, PSM = public sector management; SAHS = South Asia Human and Social Development Division, SAPF = South Asia Public Management Financial Sector and Trade Division, SATC = South Asia Transport and Communications Division, SAUW = South Asia Urban Development and Water Division, TA = technical assistance, TASF = Technical Assistance Special Fund, TRA = transport, TRTA = transaction technical assistance, UCCRTF = Urban Climate Change Resilience Trust Fund, WUS = water and other urban infrastructure and services.

Note: Per the 10 March 2017 memo titled Transition Arrangements in 2017 for the Introduction of Commitments, the TA pipeline is prepared based on the expected year of signing.

Source: ADB estimates.

## INDICATIVE KNOWLEDGE PUBLICATIONS AND EVENTS

Table A4.1: Knowledge Publications and Events for 2018

Title of Publication or Event	Subject	Type	Department or Sector Group or Thematic Group	Technical Assistance
West Bengal Comprehensive Development Plan	Industry and trade	Publication	SARD	RETA 8254
East Coast Economic Corridor: Opportunities for Growth	Industry and trade	Publication	SARD	TA 7734
Rajasthan Productive Clusters Development Roadmap	Industry and trade	Publication	INRM	TA 7734
Tamil Nadu Economic Corridor Master Plan	Industry and trade	Publication	SARD	RETA 8254
Capacity Development on International Best Practices in Multimodal Logistics Parks Management and Operation	Industry and trade Transport	Training	SARD	RETA 9231
Road Safety Guidelines	Transport	Publication	SARD	Admin
Fiscal Issues in States	Governance and Public Sector Management	Publication	INRM	Admin
Rural Connectivity Investment Program: Gender Equality Results Case Study	Gender and Transport	Publication	SARD	RETA 8311
India and Southeast Asia: Small and Medium-sized Enterprises–Foreign Direct Investment Study	Industry and trade, Regional Cooperation and integration	Publication	ERCD	RETA 9271
Enhancing Energy-Based Livelihoods for Women Entrepreneurs: Gender Equality Results Case Study	Gender and Energy	Publication	SARD	RETA 8311
Study Tour on International Best Practices in Debt Management	Governance and Public Sector Management	Training	SARD	
Solar Rooftop Investment Program: Training Workshops	Energy	Training	SARD	TA 9187
Subregional Workshop on Gender and Transport	Gender and Transport	Training	SARD	RETA 8311
Gender Equality Training Workshops	Gender	Training	SARD	RETA 8311
Vizag–Chennai Industrial Corridor: Capacity Development Workshops	Industry and trade	Training	SARD	TA 9173
Annual Capacity Development Resource Center Calendar	Capacity Development	Training	INRM	
ADB's Contribution to Urban Development in South Asia: Two-Decade journey	Water, Urban Development	Publication	SARD	
Asia Water Futures and Solutions Study	Water	Publication	SDCC, WSG	RETA 6498
Asia Water Forum	Water	Event	SDCC, WSG	RETA 6498

<b>Title of Publication or Event</b>	<b>Subject</b>	<b>Type</b>	<b>Department or Sector Group or Thematic Group</b>	<b>Technical Assistance</b>
Third Global Infrastructure Forum	Finance	Event	SDCC, FSG, OP PPP	Admin TA 50374-001
Transport Forum 2018	Transport	Event	SDCC, TSG	TA 50370-001
<b>Total number of publications = 11</b>				
<b>Total number of events = 10 sets</b>				

ADB = Asian Development Bank, ERCD = Economic Research and Regional Cooperation Department, FSG = finance sector group, INRM = India resident mission, OP  
PPP = office of public-private partnership, RETA = regional technical assistance, SARD = South Asia Department, SDCC = Sustainable Development And Climate Change Department, TA = technical assistance, TSG = transport sector group, WSG = water sector group.

Note: "Publications" may include databases, multimedia, and other forms of documentation. "Events" may include event organization and training or capacity development.

Sources: ADB estimates.



**Table A4.2: Additional Knowledge Publications and Events Delivered in 2017**

<b>Title of Publication or Event</b>	<b>Subject</b>	<b>Type</b>	<b>Department or Sector Group or Thematic Group</b>	<b>Technical Assistance</b>
Assessment of Power Sector Reforms in South Asia	Energy	Publication	SARD	RETA 7997
Gender Equality Results: Case Studies on SARD Projects	Gender	Publication	SARD	RETA 8113
Cross-Border Power Generation, Transmission, and Trading—A Way Forward for South Asia	Energy	Publication	SARD	RETA 7997
Support for the Implementation of the National Water Mission by State Governments in India	Agriculture and natural resources, Water	Publication	SARD	
SASEC 15-Year Anniversary Coffee Table Book	Regional cooperation and integration	Publication	SARD	RETA 7997
Next Steps to South Asian Economic Union	Regional cooperation and integration	Publication	SARD	RETA 6512
Updating and Enhancement of the BIMSTEC Transport and Logistics Study Final Report	Transport	Publication	SARD	RETA 8009
Productive Cluster Development Approach Paper	Industry and Trade	Publication	SARD	9031-IND
Odisha Corridor: Comprehensive Development Plan	Industry and Trade	Publication	SARD	RETA 8254
India Development Effectiveness Brief 2017	Economics	Publication	SARD	TA 7734
Assessing Investment Climate in Rajasthan	Economics	Publication	SARD	
BIMSTEC Connectivity	Economics	Publication	SARD	TA 7734
Publication on Green Skills	Education	Publication	SDCC	
Governance and Urban Health	Health, Urban Development	Publication	SDCC	
Vizag–Chennai Industrial Corridor: Master Plan	Industry and trade	Publication	SARD	TA 6949
Regulatory Assessment and Institutional Framework Assessment for Productive Clusters in Rajasthan	Economics	Publication	SARD	9031-IND
Health Solutions That Work for Indian Slums	Urban Development	Publication	SARD	
Mangalore Shows the Way on Wastewater Management in India	Water	Publication	SARD	
Tamil Nadu Economic Corridor: Comprehensive Development Plan	Industry and trade	Publication	SARD	RETA 8254
Fiscal Responsibility and Budget Management Act in India	Economics	Publication	SARD	RETA 7997
India: Smart Partnerships Making Kolkata a Smart City	ICT, Urban Development	Publication	SARD	
Leveraging Global Production Networks: Evidence from the Vizag–Chennai Industrial Corridor (WP 51)	Industry and trade	Publication	SARD	RETA 8254
Infrastructure Gap Analysis of Productive Clusters in Rajasthan	Industry and trade	Publication	SARD	TA 9031
What Contributes to Inclusive Growth? An Empirical Assessment Based on District-Level Data	Economics	Publication	SARD	
South Asia Subregional Economic Cooperation Vision: Powering Asia in the 21st Century	Regional cooperation and integration	Publication	SARD	

<b>Title of Publication or Event</b>	<b>Subject</b>	<b>Type</b>	<b>Department or Sector Group or Thematic Group</b>	<b>Technical Assistance</b>
SASEC's New Vision to Transform Subregion	Regional cooperation and integration	Publication	SARD	
Rajasthan Infrastructure Gap Analysis	Industry and trade	Publication	SARD	TA 7734
Development of East Coast Economic Corridor and Vizag–Chennai Industrial Corridor: Critical Issues of Connectivity and Logistics (WP 50)	Industry and trade	Publication	SARD	RETA 8254
Gender Equality Results Workshops	Gender	Training	SARD	RETA 8311
Subregional Workshop on Gender and Transport	Gender, Transport	Training	SARD	RETA 8311
Regional Hub Training on Economic Analysis	Economics	Training	ERCD	RETA 9249
Improving Livelihood of Small Island and Rural Communities: Deploying Hybrid Renewable Energy Systems in South Asia	Energy	Training	SARD	Admin
Gender Audit	Gender	Training	SARD	RETA 7593
6th SASEC Customs Subgroup Meeting	Regional cooperation and integration	Event	SARD	
Bilateral Negotiation Meeting on the Electronic Cargo Tracking System between India and Nepal	Regional cooperation and integration, Transport	Event	SARD	
Meeting on the Electronic Tracking System between India and Nepal	Regional cooperation and integration, Transport	Event	SARD	
Smart Grid Technologies and Implications for Inclusive Development	Energy, Gender	Event	SARD	TA 7831
Workshop on Gender Equality Results	Gender	Training	SARD	RETA 8311
Tamil Nadu Corridor Workshop	Industry and trade	Event	SARD	
Annual Capacity Development Resource Centre	Capacity Development	Training	SARD	
SASEC Trade Facilitation and Transport Working Group Meetings	Regional cooperation and integration	Event	SARD	
Client Portal for Disbursement	Finance	Training	SARD	Admin
Enabling Monetization of Infrastructure Assets in India	Finance	Event	SARD	TA 8876
Securitization: An Effective Solution to Manage Capital Constraints and Create Liquidity to Fund Infrastructure Assets in India	Finance, Economics	Publication	SARD	
Enhancing Energy-Based Livelihoods for Women Entrepreneurs: Gender Equality Results Case Study	Gender and Energy	Publication	SARD	RETA 8311
Supervisory Capacity Building: Actuarial Services	Finance	Training	SDCC, FSG	TA 8561
Regional Workshop for Asian Insurance Supervisors	Finance	Training	SDCC, FSG	TA 8561
2nd Asia Finance Forum: FinTech and Sustainable Development	Finance	Event	SDCC, FSG	Admin TA 50374-001

<b>Title of Publication or Event</b>	<b>Subject</b>	<b>Type</b>	<b>Department or Sector Group or Thematic Group</b>	<b>Technical Assistance</b>
Fourth Fecal Sludge Management Training	Urban	Event	SDCC, USG, WSG	Admin
Water Safety Planning for Urban Water Utilities: A Practical Guide for ADB Staff	Urban, Water	Publication	SDCC, USG, WSG	Admin
<b>Total number of publications = 31</b>				
<b>Total number of events = 17 sets</b>				

ADB = Asian Development Bank, BIMSTEC = Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation, ERCD = Economic Research and Regional Cooperation Department, ICT = information and communication technology, FSG = finance sector group, RETA = regional technical assistance, SARD = South Asia Department, SASEC = South Asia Subregional Economic Cooperation, SDCC = Sustainable Development and Climate Change Department, TA = technical assistance, USG = urban sector group, WP = working paper, WSG = water sector group.

Note: "Publications" may include databases, multimedia, and other forms of documentation. "Events" may include event organization and training or capacity development. The table includes additional knowledge publications and events delivered outside the list of indicative knowledge publications and events included in the previous country operations business plan.

Sources: ADB estimates.

**Table A4.3: Innovation, Advanced Technology, and Pilot Initiatives to Be Implemented in 2018**

<b>Item</b>	<b>Nature</b>	<b>Project Number</b>	<b>Sector or Theme</b>	<b>Division</b>
1. Assam Integrated Flood and Riverbank Erosion Risk Management Investment Program (tranche 2) [use of flood and erosion protection technologies]	INO	38412	ANR	SAER
2. Madhya Pradesh Irrigation Efficiency Improvement Project [fully pressurized irrigation system with SCADA for remote monitoring and operation]	TCH	45371	ANR	SAER
3. Himachal Pradesh Clean Energy Transmission Investment Program (tranche 3) [gas insulated switchgear (GIS) substations]	TCH	43464	ENE	SAEN
4. Karnataka State Highways Improvement Project III [use of hybrid annuity contracts for PPP]	INO	42513	TRA	SATC
5. Delhi Water Supply Improvement Investment Program [use of trenchless technology; automated meter reading; and SCADA]	TCH	47176	WUS	SAUW
6. Drinking Water Supply Project in West Bengal [smart water management, including IT-based information, technical and decision support system]	TCH		WUS	SAUW
<b>Total number of innovation, advanced technology, and pilot initiatives = 6</b>				

ANR = agriculture, natural resources, and rural development; ENE = energy, GIS = geographic information system; INO = innovation; PPP = public-private partnership; SAER = South Asia Environment Natural Resources and Agriculture Division; SAEN = South Asia Energy Division; SATC = South Asia Transport and Communications Division; SAUW = South Asia Urban Development and Water Division; SCADA = supervisory control and data acquisition; TCH = advanced technology; TRA = transport; WUS = water and other urban infrastructure and services.

Source: ADB estimates.