



2018 ANNUAL REPORT

UFPF

URBAN FINANCING
PARTNERSHIP FACILITY



Governance of the Urban Financing Partnership Facility

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Abbreviations

ADB	Asian Development Bank
BCDA	Bases Conversion and Development Authority (Philippines)
CDIA	Cities Development Initiative for Asia
CLP	community-led project
CRO	community or city resilience officer
DFID	Department for International Development (United Kingdom)
DC	direct charge
DMC	developing member country
DMF	design and monitoring framework
GMS	Greater Mekong Subregion
IFRM	integrated flood risk management
IG	investment grant
KPCIP	Khyber Pakhtunkhwa Cities Improvement Project
MRF	materials recovery facility
LWUA	Local Water Utilities Administration (Philippines)
NCC	New Clark City
NUA	national urban assessment
OBA	output-based approach
PMU	project management unit
PPP	public-private partnership
PPS	project preparation study
PPTA	project preparatory technical assistance
PRC	People's Republic of China
PRF	Project Readiness Facility
RA	Resilience Accelerator

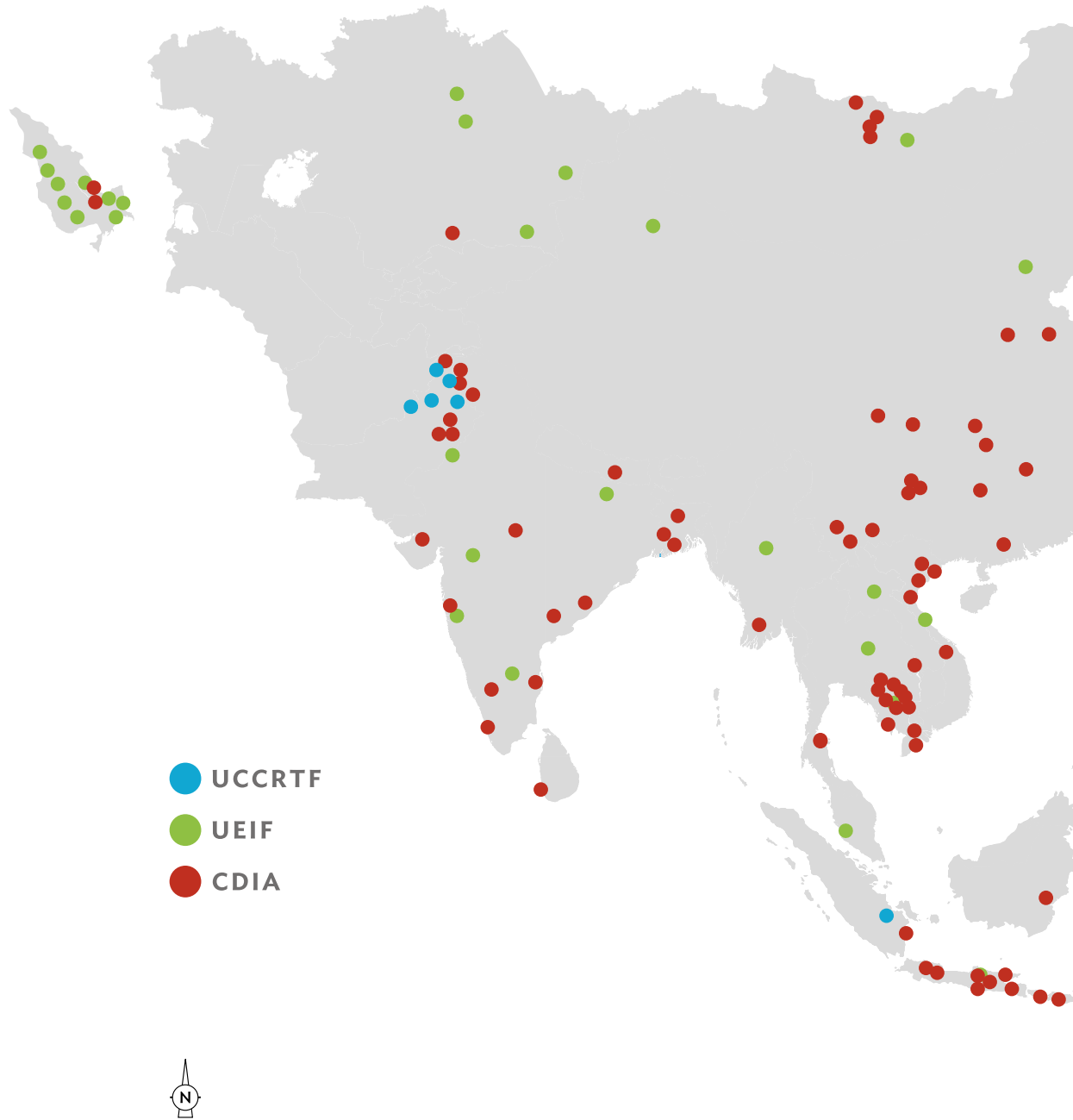
SDCC	Sustainable Development and Climate Change Department
SISHA	Slum Improvement in Strategic Human Settlement Area
SP2	subproject 2
SP3	subproject 3
SPADE	Spatial Data Analysis Explorer
SURF	Southeast Asia Urban Services Facility
SWM	solid waste management
TA	technical assistance
TBC	to be confirmed
TFP	Trade Finance Program
TRTA	transaction technical assistance
UCCR	urban climate change resilience
UCCRTF	Urban Climate Change Resilience Trust Fund
UEIF	Urban Environmental Infrastructure Fund
UFPF	Urban Financing Partnership Facility
USG	Urban Sector Group
WTE	waste-to-energy
YCDC	Yangon City Development Committee
YUSIP	Yangon Urban Services Improvement Project

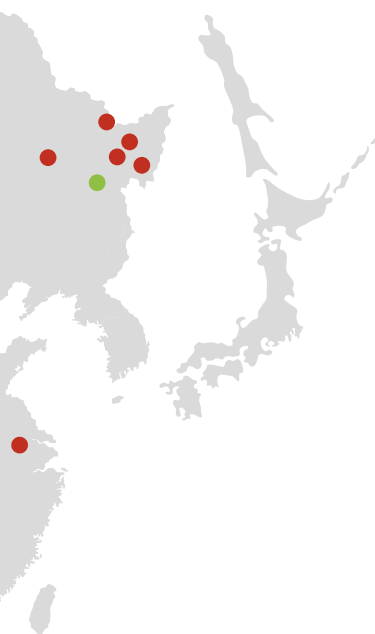
Notes

- (i) In preparing any country program or strategy, financing any project, or by making any designation of, or reference to, a particular territory or geographic area in this document, the Asian Development Bank does not intend to make any judgment as to the legal or other status of any territory or area.
- (ii) In this report, “\$” refers to US dollars.



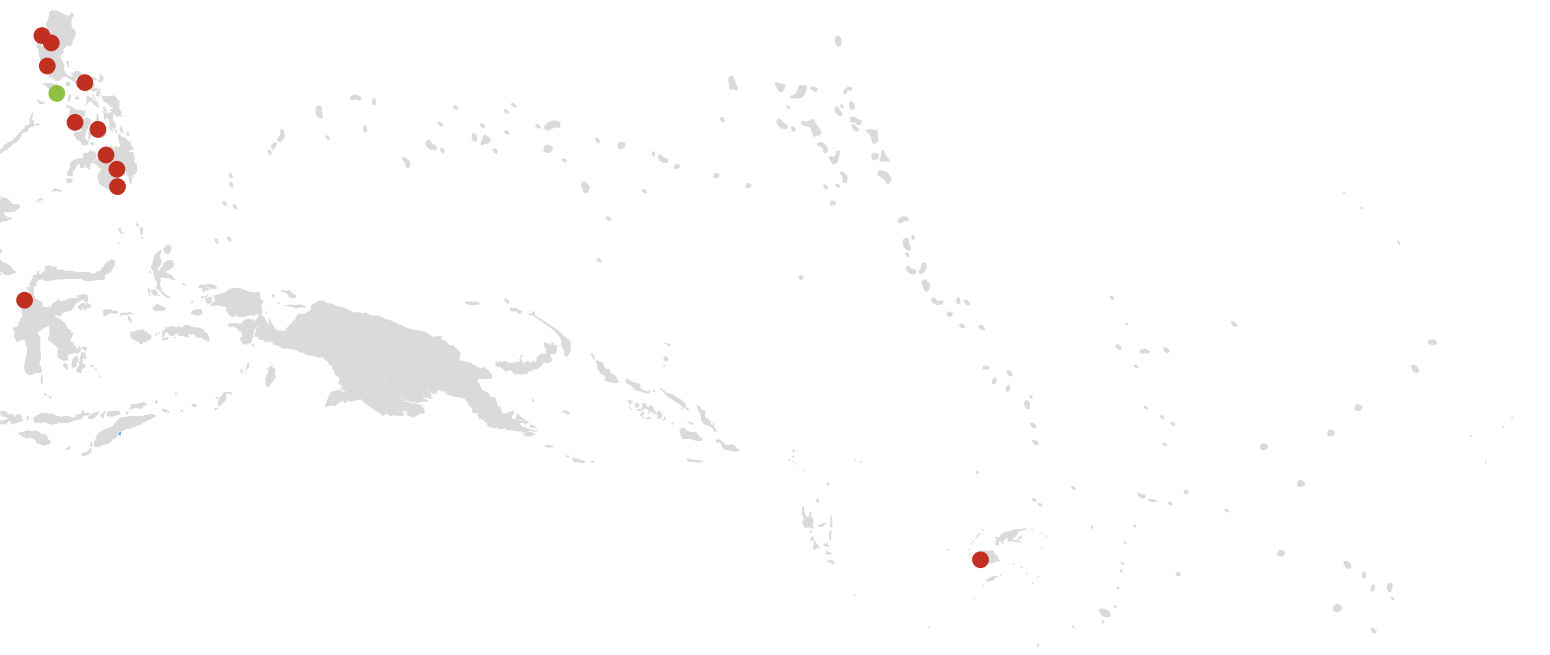
Summary at a Glance





UFPF at Work

By the end of 2018, the Urban Financing Partnership Facility (UFPF) assistance has led to a total of 138 completed projects (investment grants, technical assistance, direct charge activities, and project preparation studies): 7 for UCCRTF, 36 for UEIF, and 95 for CDIA.¹



¹ The Urban Financing Partnership Facility was established in November 2009; UEIF in December 2009; UCCRTF in December 2013; and CDIA was established in 2007, but only became part of the UFPF in January 2018. The cities noted in the map are only indicative of the projects and activities completed, as some projects are regional in scope, others included additional cities in the course of implementation, and a city or area may have had multiple projects over time.

Introduction



The Urban Financing Partnership Facility (UFPF or the Facility) will soon mark its 10-year anniversary. Established in November 2009, the UFPF continues its goal of raising and utilizing development partner funds to support urban infrastructure projects and technical assistance work that prioritizes the environment, climate change resilience, and the urban poor. It has become an instrumental component of the urban development operations of the Asian Development Bank (ADB), complementing its Urban Sector Strategy—approved in 1999—and the 2012–2020 Urban Operational Plan (UOP), which reflects the vision of ADB’s Strategy 2020.

In 2018, with the launch of the new long-term ADB corporate strategy, Strategy 2030, the UFPF has begun to align its investments and build on the thrust of the Strategy to achieve a prosperous, inclusive, resilient, and sustainable Asia and the Pacific, as well as its seven key operational priorities, one of which is “making cities more livable”. In this operational priority, ADB will pursue crosscutting projects that promote urban health, multimodal low-carbon public transport, gender equality, clean water and sanitation, and environmental sustainability. It also includes conducting inclusive and participatory urban planning processes, and exploring new sources of funding and expanding existing ones.

To illustrate the means to execute this operational priority, the Urban Sector Group (USG) of ADB has been preparing the Livable Cities Operational Priority Plan 2019–2024, which will replace and build on the current Urban Operational Plan.

The expectation to scale up ADB’s urban development operations is high, as the priority to make cities more livable is driven by the

continuing global megatrend of accelerating urbanization against a backdrop of a fast growing region and yet, which is bogged down with infrastructure deficits.

The role of the UFPF, thus, becomes even more vital. Synergizing the urban-related trust funds and programs, particularly shifting the Cities Development Initiative for Asia (CDIA) into an ADB-managed and independent trust fund under the UFPF in 2018, has made the Facility stronger and more adept in maximizing the unique strengths and resources of each trust fund. Leveraging on the Facility will become a substantial factor for the future of cities in the region.

Rapid Urbanization in Asia

Strategy 2030 significantly notes the changing landscape and challenges Asia and the Pacific will face in the coming decade. Despite the progress made in reducing poverty, more people remain entrenched in poor living conditions and lack of livelihood, and this only pushes for more rural to urban migration. By 2030, the share of the urban population in the region is projected to rise to 55%, or an estimated 2.5 billion people living in urban areas.² The islands of the Pacific are also not immune, as their capital and secondary cities are growing as well.

The region’s cities are “becoming more complex to manage”.³ The overlapping issues of environmental degradation, climate change impacts and disaster risks, slums, aging infrastructure, aging population, and the continuing lack of access to basic services like health, education, water supply and sanitation, and public transport appear to be insurmountable—but they are not.

² United Nations Department of Economic and Social Affairs, Population Division. 2018. *World Urbanization Prospects: The 2018 Revision*. New York.

³ Grant 0462-VIE: Urban Environment and Climate Change Adaptation



Key Interventions of UFPF

In 2018, the Facility approved, completed, and continued projects that help ADB and developing member countries (DMCs) to achieve cities that are green, competitive, resilient, and inclusive.

Through the Urban Climate Change Resilience Trust Fund (UCCRTF), the Urban Environmental Infrastructure Fund (UEIF), and the CDIA Trust Fund, the UFPF is helping to address pervasive urban issues, such as air pollution (e.g., assessing anticipated impacts from air pollution control policies in Ulaanbaatar); floods and other climate hazards (with flood forecasting and early warning systems, as well as storm shelters for coastal towns); tainted water supply (supporting an ADB loan for a smart water management system in arsenic-affected areas in West Bengal); and waste pollution (through solid waste management plans, materials recovery facilities, and feasibility studies on wastewater treatment).

The UFPF, following its pro-environment mandate, has also supported cities turning away from fossil fuels. In particular, UEIF and CDIA have respectively provided technical assistance and project preparation support for East Heilongjiang, a city cluster in the People's Republic of China (PRC) that used to be dependent on coal mining, to identify economic activities and priority infrastructure that ADB and other development partners can invest in to transform the area.

As for projects dedicated to the urban poor, the Facility is helping uplift slum areas with the Revitalization of Informal Settlements and their Environments Using a Water-Sensitive Approach, also known as the RISE project (through UCCRTF and UEIF), and the Slum Improvement in Strategic Human Settlement Area or SISHA (CDIA). The UFPF is also providing support for more toilets for the poor in Karnataka, India.

Additionally, the Facility has started to emphasize integrated solutions in the activities it decides

to fund, as espoused by Strategy 2030. Some examples include the urban primary healthcare interventions in Bangladesh; sustainable water supply and water resources management in Dushanbe (Tajikistan), Jalandhar (India), and the New Clark City (Philippines); promoting the use of sustainable energy technologies across the region and developing a floating solar energy park in India; and enhancing multimodal transport and logistics for regional cooperation in Shaanxi, PRC.

A highlight of the year as well is the swift response the Facility has been able to offer during moments of crisis, providing direct charge to Central Sulawesi after the earthquake and tsunami, and to Marawi City after the siege.

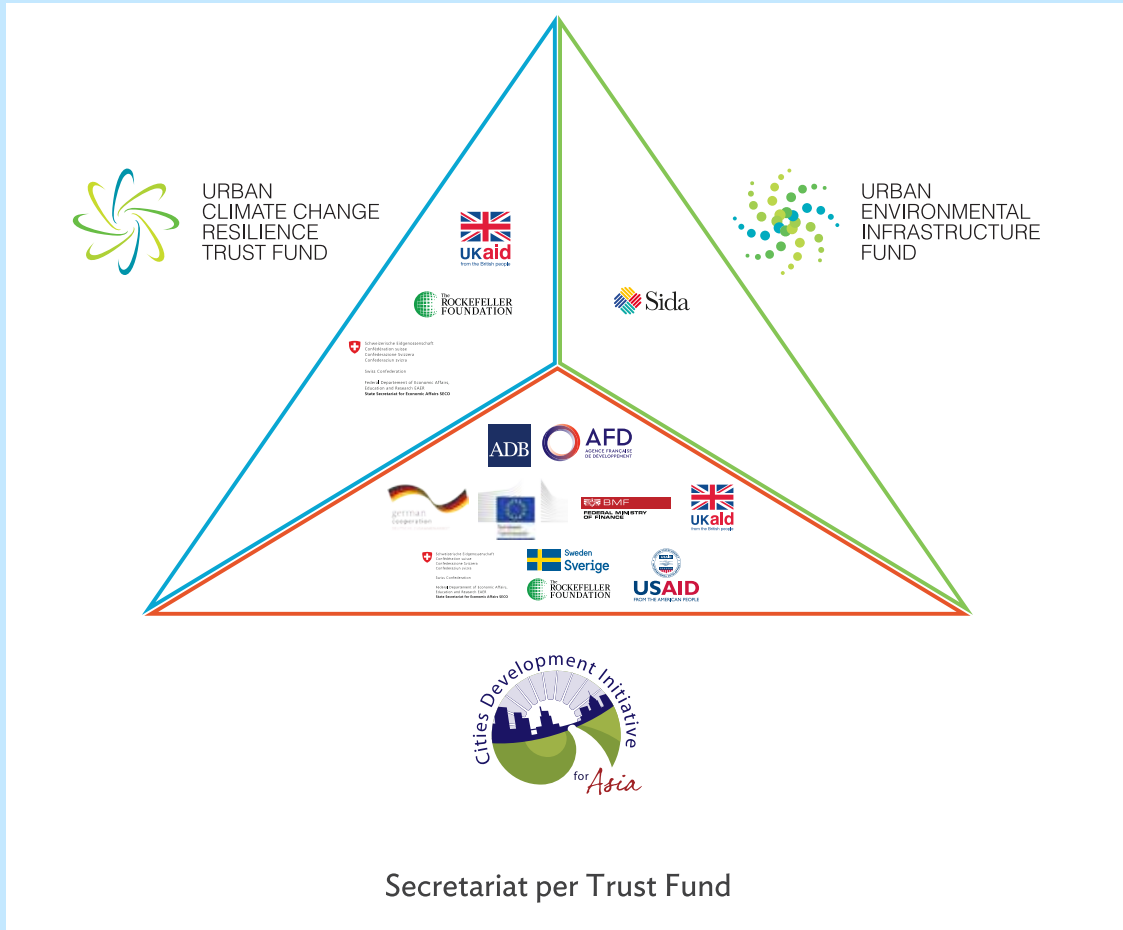
From 2018 to 2019

This annual report covers the period of January to December 2018, and details the performance of each trust fund for the year. Each chapter on a trust fund begins with a financial dashboard, followed by achievements and projects that have translated to downstream financing. For UCCRTF and CDIA, the work is also presented against targets through their individual Design and Monitoring Frameworks. Stories from the field are also shown in distinct boxes.

Plans for 2019 are likewise included, such as conducting more baselining activities for UCCRTF, implementing community-led projects in the Philippines, and working on climate economics that measure cost savings from climate change impacts due to the Facility's interventions. The trust fund also seeks to explore opportunities and knowledge sharing with non-UCCRTF priority countries. For CDIA, commitments and disbursements will begin afresh now that it has transitioned to a trust fund.

There is a wealth of knowledge and resources from the trust funds, donors, partners, and the entire ecosystem of the UFPF and continuing to tap these and align efforts to maximize impact will shape the direction of not only the UFPF, but also urban development in Asia and the Pacific.

UFPF ECOSYSTEM



Secretariat per Trust Fund

UFPF Secretariat

ADB



Financial Performance

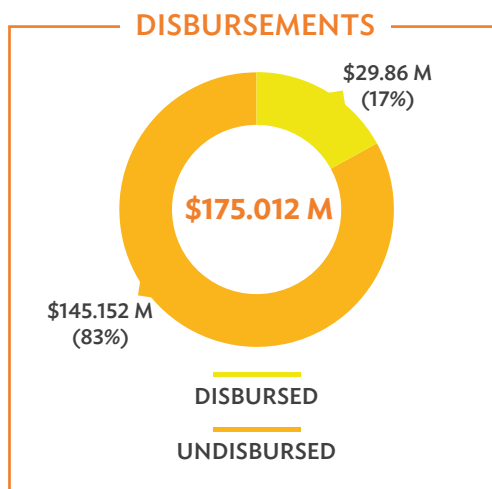
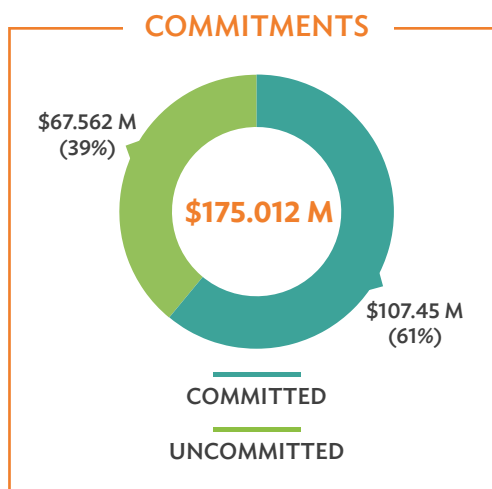
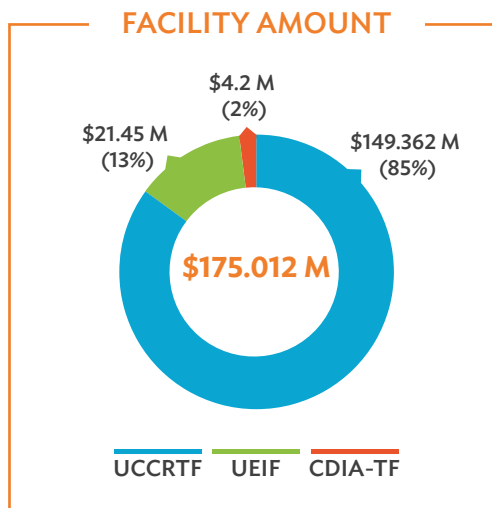


In 2018, there was a total of \$175.012 million in the Urban Financing Partnership Facility (UFPF or the Facility), with its largest share coming from the Urban Climate Change Resilience Trust Fund (UCCRTF). However, since the Cities Development Initiative for Asia (CDIA) only fully transitioned to a trust fund under the Facility during the year, its contributions to the Facility will only be committed and disbursed in 2019.

In addition to the myriad projects and activities financed by the UFPF, the support has also resulted into larger investments and programs due to linked financing with the Asian Development Bank (ADB), and in some cases, with other development institutions such as the European Investment Bank and World Bank. CDIA, in particular, considers links to financing as one of its performance indicators, and for the reporting period its support has led to \$2.5 billion in urban investments, bringing its total downstream financing to \$9.9 billion, as of end of December 2018.

There have also been some challenges for the Facility as it continues to operate. There are still challenges related to lack of updates on projects, as well as project delays. The Urban Sector Group Management is closely coordinating with the operations departments on how to improve slow disbursements and ensure projects are implemented on time. For delays due to procurement, there is a suggestion to consider introducing project design advance as one of the criteria for approval of funding application.

Challenges aside, it is clear in this report that visible action and successful implementation of activities can have a multiplier effect, inspiring confidence in project officers, other sector and thematic groups, and other departments to participate and/or invest in interventions done by the UFPF.



UCCRTF

URBAN CLIMATE CHANGE RESILIENCE TRUST FUND

FINANCING PARTNERS



TRUST FUND AMOUNT

Total amount
(\$ million)

149.362

Share in UFPF

85.34%

FINANCIAL STATUS

(\$ million)

Total approved^a

99.28

Total committed^b

85.95

Total disbursed

16.96

^a Approved by UFPF

^b Approved by ADB; Total approved by ADB is \$85.95 million, of which \$9 million is not yet effective

About UCCRTF

The Urban Climate Change Resilience Trust Fund (UCCRTF) was established in 2013 to help 25 fast-growing cities in Asia reduce the risks people face from floods, storms, droughts, and other climate-related impacts through better planning and design of infrastructure.

The fund prioritizes investments that especially target the poor and vulnerable in eight ADB developing member countries (DMCs): Bangladesh, India, Indonesia, Myanmar, Nepal, Pakistan, the Philippines, and Viet Nam.

UCCRTF is a \$150 million multidonor trust fund with contributions from the Governments of the United Kingdom and Switzerland and the Rockefeller Foundation. The trust fund is operational until December 2021.

TRUST FUND OVERVIEW

Projects approved
(cumulative)

50

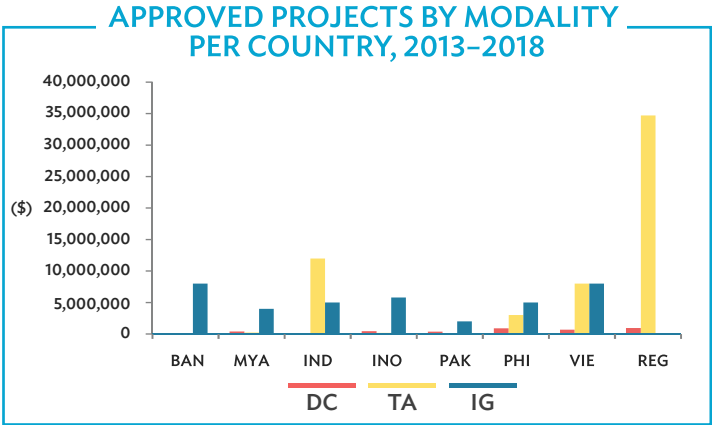
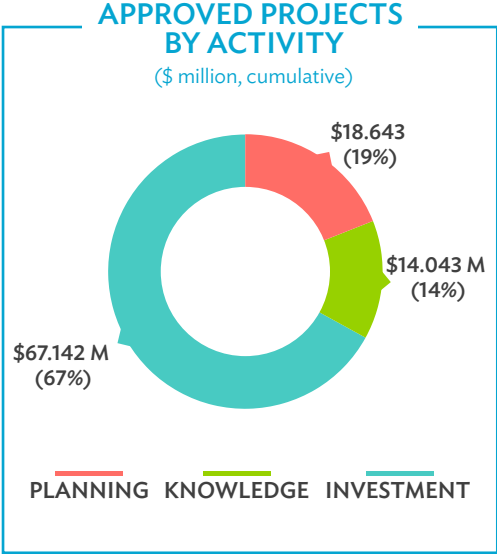
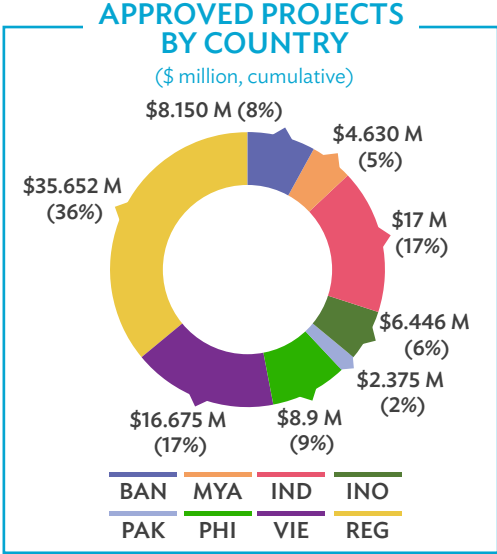
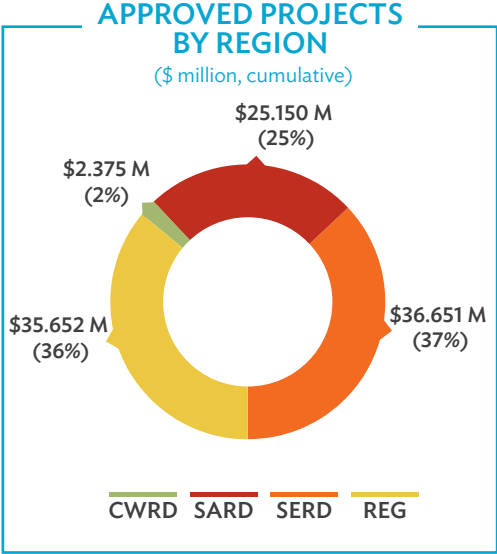
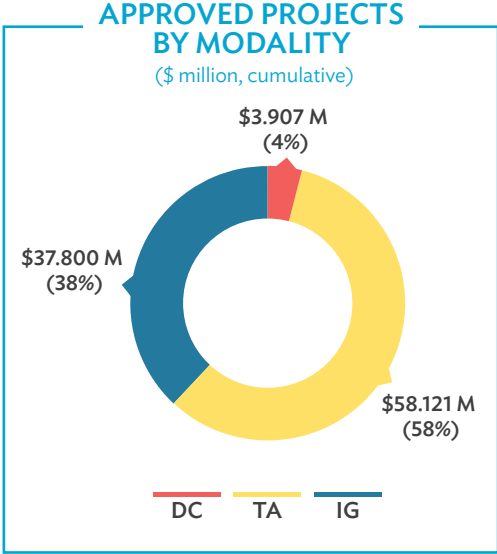
9 Investment grants 21 TA projects 20 Direct charge activities

Projects completed
(cumulative)

7

0 Investment grants 7 Direct charge activities





The Urban Climate Change Resilience Trust Fund (UCCRTF) has committed almost two-thirds of the trust fund at \$99.28 million, of which \$25.6 million was approved in 2018. To date, \$56.7 million of UCCRTF funding has been linked to \$1.92 billion of approved infrastructure lending by the Asian Development Bank (ADB), with an additional \$247.26 million from government funding and \$68.63 million from other financing.

Given the scale of the approved projects, a no-cost extension (valid for March 2018–December 2021) by the Department for International Development (DFID) of the United Kingdom (UK) was formalized through a second amendment to the fund’s memorandum of understanding in July 2018. The extension was approved on the premise that greater value for money will be achieved by prolonging the program, to allow delivery of the development results that both ADB and DFID originally sought to achieve, rather than terminating it prematurely.

The UCCRTF portfolio in 2018 saw a shift from single-country projects to regional projects, which aim to address climate issues that cross geographical boundaries (e.g., air quality, flooding) or require innovative technologies and approaches (e.g., renewable energy, nature-based solutions). These cross-sector projects support integrated solutions, one of the priorities of the upcoming Livable Cities Operational Priority Plan 2019–2024 of the Urban Sector Group (USG).

Also within the year, UCCRTF approved a \$2 million investment grant for Pakistan to support the development of climate-resilient urban infrastructure through project preparation and design, specifically for the Khyber Pakhtunkhwa Cities Improvement Project (KPCIP)—Project Readiness Financing (PRF). The PRF, one of the new financing modalities developed by ADB to support the implementation of Strategy 2030, helps ensure that ensuing ADB projects have a

high level of project implementation readiness. The KPCIP PRF is the first one that was put forward for ADB Board approval.

The trust fund also approved a \$225,000 direct charge (DC) to support the Government of Indonesia in planning the Sulawesi earthquake and tsunami recovery and reconstruction. Indonesia is one of the eight priority countries of UCCRTF. This DC support supplements the larger emergency response efforts of ADB.

Another highlight of the year was the approval of the fund’s first project with ADB’s Private Sector Operations Department, which focuses on integrating climate change and urban resilience into social and environmental safeguards in the ADB Trade Finance Program (TFP). The TFP has provided loans and guarantees to more than 12,000 small- and medium-sized enterprises across developing Asia.

UCCRTF has committed almost two-thirds of the trust fund at \$99.28 million. To date, \$56.7 million of UCCRTF funding has been linked to \$1.92 billion of approved infrastructure lending by ADB.

UCCRTF is also stepping up efforts to further incorporate climate resilience into infrastructure investments through projects that support ADB operations departments in the preparation of feasibility studies and project design.

The trust fund has been supporting the Spatial Data Analysis Explorer (SPADE), an online geospatial data platform for project preparation, production of maps, and analysis of climate change impacts. This was launched in May and a geographic information systems (GIS) specialist has been engaged to support ADB project officers who are interested to use the platform for their projects. Since then, UCCRTF has responded to requests from project officers in Pakistan and Viet Nam.



The consulting team for subproject 2 (SP2) of UCCRTF, which centers on resilience measurement and knowledge management, has completed activities that establish the baseline for a set of resilience indicators (commonly referred to as baselining activities) in 17 cities and launched the UCCRTF newsletter in August 2018. Meanwhile, under subproject 3 (SP3), four cities in the Philippines have completed their community resilience plans (CRPs).

Achieving resilience is included in ADB's Strategy 2030 Vision, which is "Achieving a prosperous, inclusive, resilient, and sustainable Asia and the Pacific".

Two Resilience Accelerator (RA) events were organized in 2018 for Yangon (September) and Pakistan (December). UCCRTF, in collaboration with the SP2 team, also supported the Resilience Roadshow during the 6th Asia Pacific Adaptation Network Conference in October. UCCRTF also contributed to other ADB training sessions during the year, including the ADB staff training on Counting Climate Finance, a pre-training session on Developing Urban Climate Resilience in Asia and the Pacific, and a workshop on Climate Risk and Adaptation Assessments.

Organizational and strategic developments within ADB have strengthened the opportunities for UCCRTF to make a broader impact. Achieving resilience is included in ADB's Strategy 2030 Vision, which is "Achieving a prosperous, inclusive, resilient, and sustainable Asia and the Pacific". In addition, one of the seven operational priorities of Strategy 2030 is "making cities more livable", giving impetus

for the urban sector portfolio to increase substantially. The USG, in this regard, has been preparing its Livable Cities Operational Priority Plan 2019–2024. UCCRTF has been deeply involved in contributing to this new plan.

At the project level, the Chief of the Urban Sector Group, who manages UCCRTF, is now required to peer review all urban projects prior to board approval. This provides an opportunity to influence and identify potential areas for UCCRTF engagement.⁴

Another highlight in 2018 is the Mid-Term Evaluation (MTE) of UCCRTF. This was commissioned to assess the trust fund's outcomes and impact and to generate lessons for the remaining years. Two external evaluators have been conducting the review since September, and will continue until March 2019. The MTE will also assess UCCRTF's progress and constraints faced, and will recommend areas for improvement against the fund's objectives and the DFID Managing Climate Risks for Urban Poor (MCRUP) Theory of Change. The results of the MTE will be presented to financing partners during the Annual UCCRTF Financing Partners Meeting in March 2019.

In total, as of end of 2018, UCCRTF has completed seven projects—all direct charge (DC) activities and one of these within 2018—out of the 50 projects approved. In terms of monetary value, about 58% of the approved funding has gone to technical assistance (TA) projects. By region, most of the allocations were for projects and activities in Southeast Asia, followed closely by those regional in scope. On the other hand, among the eight priority countries, India and Viet Nam account for the biggest share with 17% each.

⁴ MCRUP Annual Review 2018

Projects Approved

In 2018, UCCRTF approved 15 projects – comprise of investment grants (IG), TA projects, and DC-funded activities – that help cities integrate nature-based solutions into urban planning and boost resilience through integrated flood risk management, public-private partnerships (PPPs), climate-resilient roads, and other urban infrastructure such as water supply, drainage, sewage, and solid waste management, as well as through studies and capacity development.

Regional: Support for Urban Resilience Integration in ADB Operations

UCCRTF DC Support: \$225,000

UCCRTF was designed to have three complementary areas of support with different funding allocations offered to cities in DMCs through ADB operations departments and the Sustainable Development and Climate Change Department (SDCC). The three areas are: (i) investments (70% of UCCRTF funds); (ii) urban resilience planning (20%); and (iii) knowledge management and resilience measurement (10%). To support these three areas, the technical assistance Promoting Urban Climate Change Resilience in Selected Asian Cities was approved on 8 April 2015 and Subproject 1 (SP1) for urban resilience planning was approved on 22 June 2015. Under SP1, individual consultants were hired to comprise the UCCRTF Secretariat with the objective of developing a pipeline of projects to be financed and implemented by the trust fund. While the TA resources can finance the hiring of consultants, there are limitations on the types of activities that can be funded.

This DC application has been put forth to support the wider range of activities carried out by the UCCRTF Secretariat to benefit ADB project officers and DMC representatives, including those outside the UCCRTF priority countries where there are clear opportunities for knowledge sharing. This will provide additional resources for project-related and operational-related expenses and it will also help the

Secretariat to be more responsive and flexible to ADB operations by providing resources to finance activities and support opportunities for assessing and integrating resilience into ADB activities, which will contribute to achieving urban resilience-relevant plans and strategies.

Regional: Revitalization of Informal Settlements and their Environments Using a Water-Sensitive Approach (RISE)

UCCRTF TA Support: \$196,000⁵

UCCRTF IG Support: \$5.8 million

The pilot project will demonstrate a water-sensitive and nature-based approach to providing sustainable infrastructure and addressing climate change resilience in informal settlements through a participatory co-design process. It seeks to demonstrate an alternative to the traditional larger-scale trunk infrastructure approach for non-networked sanitation models that typically does not service lower income communities.

Piloting water-sensitive design in Makassar.

UCCRTF support will introduce a water-sensitive, nature-based approach that uses decentralized infrastructure to biologically treat contaminated and polluted water in select sites in Makassar (Indonesia) and Suva (Fiji), which will improve the environment and health of the communities.



⁵ UFPF approved the funding application for \$280,000. However, the amount approved by ADB was \$196,000.



Funding from UCCRTF and the Urban Environmental Infrastructure Fund (UEIF) will support the development of pilot sites in the Batua Community in Makassar, Indonesia and the Tamavua-I-Wai community in Suva, Fiji. Aside from testing and demonstrating the proposed co-design approach, the TA project will also include a water-sensitive and green infrastructure design and construction, costing, and related project implementation and procurement procedures. Lessons learned will inform the main project that will further cover 12 communities in Makassar (through UCCRTF's IG support).

India: Strengthening Smart Water Management and Climate and Disaster Resilience in Selected Districts of West Bengal

UCCRTF TA Support: \$2 million

This UCCRTF activity is linked to the proposed ADB-backed West Bengal Drinking Water Sector Improvement Project which will provide safe and reliable piped drinking water to about 1.6 million people in selected arsenic-, fluoride-, and salinity-affected areas in Bankura, North 24 Parganas, and Purba Medinipur districts of West Bengal. The project will (i) build climate-resilient drinking water infrastructure to provide a minimum of 70 liters per capita per day, 24/7 piped potable water through metered household connections; and (ii) strengthen institutions, skills, and capacity for inclusive operational sustainability.

The UCCRTF support will fund the following: (i) implementation of a state- and district-level smart management system for water supply in project districts; (ii) design and implementation of flood forecasting and early warning system for selected local authorities in Purba Medinipur district; and (iii) improvement of capacity and community awareness on drinking water supply efficiency, climate change, and disaster resilience in project districts.

JV DHI (India) Water and Environment and Tata Consulting Engineers will begin to mobilize mid-March 2019 and are expected to deliver their interim reports by end of 2019 and final reports by mid-2021.

India: Improving Kolkata Municipal Corporation Capacity to Provide Resilient Urban Services

UCCRTF TA Support: \$2 million

This UCCRTF TA project is linked to Tranche 3 of the Kolkata Environmental Improvement Investment Program supported by ADB, which will improve drainage, sewerage, water supply, and solid waste management in Kolkata City.

The \$2 million support will (i) help provide resilient design and due diligence of solid waste management services; (ii) analyze gaps and fund infrastructural interventions for improving public safety in pilot areas of Kolkata City by creating secure spaces for women and the vulnerable; and, (iii) develop institutional capacity, such as for smart urban services management systems and community awareness for improved urban resilience.

Activities on smart water management services are already ongoing, while the component on solid waste management and public safety will commence on April this year.

Viet Nam: Urban Environment and Climate Change Adaptation Project

UCCRTF DC Support: \$225,000

UCCRTF IG Support: \$4 million

Linked to an ADB-funded project of the same name, the DC-financed activity involves the loan's road components, such as Horizontal Road No. 3 and the Vertical Roads in Bao Ninh Peninsula in Dong Hoi and Provincial Road 608 and the Access Road to Cua Dai Bridge in Hoi An.⁶ The objective of the DC is to expedite the start of the loan and to help the Dong Hoi Project Management Unit (PMU) and the Chu Lai PMU enhance their ability to deliver climate-resilient infrastructure.

The DC also aims to serve as a catalyst prompting the PMUs to kick-off projects in the cities of Dong Hoi and Hoi An—under the bigger UCCRTF grant that was approved in August 2014—without further delay.⁷

The DC includes the following outputs: (i) detailed engineering designs updated for the packages for Horizontal Road No. 3, the Vertical

⁶ ADB Loan 3340-VIE: Urban Environment and Climate Change Adaptation Project

⁷ Grant 0462-VIE: Urban Environment and Climate Change Adaptation

Roads in Bao Ninh Peninsula, Provincial Road 608, and the Access Road to Cua Dai Bridge, fully integrating urban climate change resilience (UCCR) principles; (ii) bidding documents and bid evaluation reports prepared for the road components in contributing to enhance the ability of PMUs to deliver climate-resilient urban infrastructure; and, (iii) inception reporting of UCCRTF grant projects held in June 2018.

Both this direct charge and the investment grant have successfully started implementation.

Regional: Southeast Asia Urban Services Facility (SURF)

UCCRTF TA Support: \$3 million

This transaction technical assistance (TRTA) facility will provide technical, policy, and capacity development support for urban development and water projects and investment programs in Southeast Asian developing member countries (DMCs) over the 2019–2021 period. During this time, ADB’s Southeast Asia urban development and water portfolio is expected to increase by \$2.4 billion, equivalent to its portfolio developed between 2010 and 2018.

A highlight of SURF is how it will combine the preparation of various projects across the region, rather than having several project-specific TRTAs, which is expected to improve: (i) response time by providing DMCs with consistent urban solutions; (ii) quality of outputs through efficient delivery systems; (iii) sector assessment and policy support; and (iv) knowledge sharing.

In Indonesia and the Philippines, SURF will be linked to proposed Livable Cities loans under discussion with the governments. For Myanmar, it will include support to the proposed ADB-funded Yangon Urban Services Improvement Project (YUSIP), which will focus on water supply, sewerage, and drainage.

UCCRTF’s \$3 million support will be dedicated to the preparation of the urban development portfolio in the four UCCRTF priority countries in Southeast Asia. This will help ADB’s



Southeast Asia Urban Development and Water Division to integrate UCCR principles into their project preparation process in a more systematic way, adopting UCCRTF approaches and prioritizing the urban poor and vulnerable as direct beneficiaries.

Project outputs will improve: (i) integrated planning, project design, and readiness; (ii) DMC capacity in urban resilience project administration and urban service delivery; and, (iii) UCCR-related knowledge management and sharing among Southeast Asian DMCs.

The TRTA facility was approved in July 2018 with a combined total of \$10 million: \$5 million from the TA Special Fund, \$1 million from the Project Readiness Improvement Fund, \$3 million from UCCRTF, and \$1 million from the Bill & Melinda Gates Foundation. The contract was awarded to Egis Eau in October 2018.

Flood level marker in Hoi An. Members of the UCCRTF team and local officials check a flood level marker in the Vietnamese coastal city, where the trust fund is supporting an ADB-funded investment to deliver climate-resilient roads.



Pakistan: Khyber Pakhtunkhwa Cities Improvement Project – Project Readiness Financing

UCCRTF IG Support: \$2 million

ADB is processing a new project preparation facility that will support the preparation and design of two urban sector projects in Khyber Pakhtunkhwa, which will assist the Government of Pakistan in accelerating the delivery of critical infrastructure projects in the rapidly urbanizing province.

This UCCRTF-supported project preparation facility is the first of its kind proposed under Project Readiness Financing, which is part of a new set of ADB financing instruments to help deliver projects faster and better.

This is the first facility of its kind proposed under Project Readiness Financing (PRF), which is part of a new set of financing instruments approved by ADB's Board of Directors to help deliver projects in a faster and more responsive manner.⁸

The two urban projects for the planned facility are the Khyber Pakhtunkhwa Cities Improvement Project (KPCIP) Phase-I (\$300 million) and KPCIP Phase-II (\$200 million). The projects will help target cities improve their access to quality urban services and civic amenities through enhanced municipal infrastructure and public urban spaces. The PRF will deliver the following outputs: (i) detailed engineering designs completed; (ii) due diligence for KPCIP completed; (iii) service delivery standards and financing sustainability of municipal bodies strengthened; and (iv) capacity of executing and implementation agencies for PRF implementation improved.

The \$2 million grant will be linked to the KPCIP PRF loan, which is \$7 million plus \$1 million from the government, bringing the total to \$10 million. The expected outcome of the project is to have climate resilience technologies

integrated into the detailed engineering designs, while the expected project outputs include: (i) climate-resilient urban infrastructure for KPCIP identified; (ii) innovative climate resilience measures and technologies reflected in the engineering designs of KPCIP; and (iii) institutional climate resilience capacity improved.

Regional: Strengthening Integrated Flood Risk Management

UCCRTF TA Support: \$3 million

This knowledge and support technical assistance will strengthen the design and implementation of integrated flood risk management (IFRM) solutions, enhance knowledge and application of IFRM strategies, and raise awareness and capacity development activities in DMCs. It will provide targeted technical support for program and project preparation and promote more holistic, basin-scale IFRM solutions that incorporate non-structural and nature-based solutions.

Part of ADB's Water Sector Group 2018–2019 Work Plan, the TA project has three outputs: (i) knowledge to implement IFRM projects enhanced; (ii) evaluations of DMC flood risk management and investment strategies conducted; and, (iii) IFRM concepts integrated into ADB investments. This will be implemented in all UCCRTF priority countries, and the cities will be selected in consultation with the regional departments. The contract was awarded to a consulting firm in January 2019.

Indonesia: Support to the Government of Indonesia in Planning for Sulawesi Earthquake and Tsunami Recovery and Reconstruction

UCCRTF DC Support: \$225,000

A 7.4-magnitude earthquake occurred on 28 September 2018 near the city of Palu, Central Sulawesi, Indonesia. The temblor triggered a near-field tsunami, which struck parts of the coasts of Palu and Donggala. The areas of Balaroa (Palu Barat district), Petobo (Palu Selatan district), and Biromaru (Sigi Biromaru district) have been severely affected by

⁸ The PRF features simplified documentation and supports project preparation and design activities that help ensure that projects are "shovel ready," reducing both overall time and cost to borrowers.

liquefaction. At least 1,948 people were confirmed to have died, 10,679 injured, 835 missing, and 74,444 people displaced, while roads, bridges, electricity and communications lines, and 67,310 houses were damaged across Palu, Sigi, and Donggala.⁹

UCCRTF aims to provide a two-fold support to the Government of Indonesia: (i) identifying needs for recovery and reconstruction and developing the recovery and reconstruction plan, and (ii) understanding the root causes of the devastation to identify policies, regulations, and investments needed to strengthen longer-term resilience in the affected areas. As such, the direct charge will have two outputs: (i) post-disaster needs identified and recovery plan developed, and (ii) a scoping study for resilient master plan for the affected area completed.

Regional: Strengthening Knowledge-base and Actions for Air Quality Improvement

UCCRTF TA Support: \$1.2 million

This UCCRTF TA grant is in line with the knowledge and support TA project, Strengthening Knowledge-base and Actions for Air Quality Improvement, which has an estimated cost of \$2.5 million. Aside from UCCRTF, other funding sources are the TA Special Fund (\$0.50 million) and the People's Republic of China Poverty Reduction and Regional Cooperation Fund (\$0.80 million).

The \$1.2 million from UCCRTF will support the implementation of TA activities in four secondary cities in UCCRTF priority countries,

including the participation of government officials involved in air quality management in knowledge sharing and capacity building activities.¹⁰ The outputs of the project include (i) the current air quality situation and management practice assessed; (ii) innovative cost-effective technological and policy options for addressing air quality evaluated and made available to DMCs; and (iii) city-level clean air action plans developed along with the investment plan for air pollution control from key sources.

Regional: Integrated High Impact Innovation in Sustainable Energy Technology

UCCRTF TA Support: \$1 million

Linked to the \$7.5 million TA project, Integrated High Impact Innovation in Sustainable Energy Technology, the \$1 million UCCRTF investment will support (i) the preparation of regional, country, and/or city, as well as technology-specific analysis; (ii) piloting of innovative technologies; and (iii) knowledge sharing and capacity development specific to the experience gained through analysis and piloting. The TA project is expected to have an outcome resulting in the improvement of the use of sustainable innovative technologies in participating DMCs. It will deliver the following outputs: (i) energy system scenarios and technology roadmaps produced; (ii) city, country, and/or regional specific feasibility studies for pilots or investments produced; and (iii) pilot testing of innovative technologies deployed.

Recovery for Sulawesi.

Following the devastation of the earthquake and tsunami in Indonesia, UCCRTF is helping the country to assess the root causes of the disaster and to conduct a scoping study for a resilience master plan so as to build back better.



⁹ ASEAN Coordinating Centre for Humanitarian Assistance on Disaster Management (AHA Centre) Centre Situation Update No. 9

¹⁰ Faridpur (Bangladesh), La Trinidad (Philippines), Sialkot (Pakistan), and Vinh Yen (Viet Nam)



The project will help enable DMCs to meet the Sustainable Development Goals (SDGs) and their Nationally Determined Contributions as part of the Paris Agreement on Climate Change. SDG7, “Access to reliable, clean, and affordable energy”, remains a key development imperative for DMCs. Innovations in the energy sector may provide new opportunities to meet DMC energy sector needs faster in a decarbonized manner and potentially leapfrog conventional energy sector development pathways.

[Projects involving private sector](#)

[Regional: Capacity Building for Enhanced Safeguards, Anti-corruption and Integrity Measures, Gender Equity Policies and Digitization of Trade Finance Program Banks](#)
UCCRTF TA Support: \$1.5 million

ADB’s Trade Finance Program (TFP) fills market gaps by providing guarantees and loans to partner banks in support of trade. Since 2009, the TFP has supported more than 12,000 small- and medium-sized enterprises across developing Asia (through over 16,500 transactions valued at over \$30 billion) in sectors ranging from commodities and capital goods to medical supplies and consumer goods. The TFP also encourages commercial

sustainability by promoting environmental and social safeguards standards, ensuring integrity and transparency, as well as helping accelerate progress in gender equality and digital transformation.

UCCRTF aims to integrate climate change and urban resilience into social and environmental safeguards specific to the TFP by supporting this TA project—its first with ADB’s Private Sector Operations Department. There are four outputs: (i) environmental and social (E&S) safeguards guidelines with effective climate change resilience integration prepared for ADB TFP; (ii) E&S safeguards policies formulated and implemented by partner banks in Bangladesh, Indonesia, Nepal, and Viet Nam; (iii) gender balance in trade finance enhanced; and, (iv) E&S safeguards awareness deepened.

[Philippines: Enabling Local PPP Projects for Resilient Urban Development](#)
UCCRTF TA Support: \$3 million

This private sector project started from a request of the Philippine Country Office of ADB for additional funding for its TA project supporting the Public-Private Partnership (PPP) Center of the Philippines, TA 7796: Strengthening PPPs in the Philippines.

A guarantee against climate change. The UCCRTF support for ADB’s TFP marks the first time the trust fund is working with ADB’s Private Sector Operations Department. This will introduce climate change resilience into the program’s safeguards.



The TA project, set to last until 2021, is about creating a pipeline of PPP projects dedicated to local governments and which focus on enhancing resilience. It features a project development and monitoring facility (PDMF) that helps quicken the procurement process and provides access to an established panel of experts for PPP project structuring.

The funding request from the country office is to extend the use of the PDMF and support municipalities with PPP projects that are developing climate-resilient infrastructure. Anticipated projects out of this support include urban services that address water supply, wastewater management, solid waste management, energy stability and renewable energy generation, open and green spaces, food security, flood control, disaster risk management, and green buildings, among others.

The additional funding will be directed for two outputs: (i) preparing and awarding well-structured bankable local PPP projects focusing on urban resilience, and (ii) enhancing the technical expertise of the PPP Center to develop and implement climate-resilient local PPP projects and institutionalizing lessons learned.

Philippines: Water Resources Study for Resilient Water Supply System of New Clark City
UCCRTF DC Support: \$225,000

Building on the recommendations from the Master Plan Review of New Clark City (NCC), the Office of Public-Private Partnership (OPPP) requested additional support via a new direct charge to ensure resilient water supply system for NCC. In 2065, under the medium-demand scenario, the city's population and industrial areas are expected to grow to 1,023,826 and 609 hectares respectively, requiring a daily water supply of 276,000 cubic meters. However, there are no existing scientific studies to back up the assumptions on availability of water sources; and there is also a need to ascertain how climate change will affect availability.

The requested support from UCCRTF will have two key outputs: (i) surface and groundwater assessment and monitoring networks installation completed; and, (ii) roadmap for developing NCC's resilient water supply system prepared. The results and recommendations of the study will assist the Bases Conversion and Development Authority's (BCDA) evidence-based decision-making for the water supply system design and its subsequent monitoring mechanisms.

Envisioning a water supply system. The Philippines has great plans for its New Clark City, an upcoming urban center away from Metro Manila that is intended to be rooted in sustainability. Part of the plan is to have a resilient water supply system that will cater to future demands.





Urban growth in many developing countries is known to be unhampered, unchecked; and unfortunately, the solutions to address issues through upgrading infrastructure and services come too late.

The New Clark City (NCC) River Study in the Philippines, funded by UCCRTF through ADB's Office of Public-Private Partnership, was intended to support evidence-based decision making on the potential of the surrounding natural resources to become integral to the city's urban resilience and recreation. Along with city's river and green spaces, this descriptive-analytical study evaluated the NCC's planned systems and their inter-linkages through the assessments of climate risks, vulnerabilities of anticipated assets, local topography, and hydrology.

The study found that the proposed engineering solutions for the greenfield city would require massive earthworks and maintenance, and do not allow for leveraging the river as one of the most beautiful natural features of the site. Additionally, the drainage capacity may not be sufficient when accounting for climate change.

The River Study recommended the deliberate articulation of river edge conditions at multiple scales to provide certain urban functions and ecological services. This was taken forward by the Bases Conversion and Development Authority (BCDA), a government-owned corporation tasked with transforming former military bases and properties into centers of economic growth, and essentially the agency spearheading the NCC initiative. In the 200-hectare National Government Administrative Center (NGAC) of the NCC, which is the pilot phase, BCDA is establishing a river park that serves multiple functions.

This building-with-nature alternative approach prevents ill-planned river alignments thereby minimizing risks. Furthermore, there is strong economic rationale due to significant cost savings as a result of reduced earthworks and ecological modification, and there are also future savings in the form of mitigated damages caused by flooding. For the private sector, such solutions also enhance land value capture.

The River Study was presented by BCDA at the World Urban Forum on February 2018 in Kuala Lumpur, Malaysia, and at the International Water Association World Water Congress in Tokyo, Japan on September. ADB likewise shared the study at the 2018 United Nations Climate Change Conference (COP24) in Krakow, Poland in December.

Project Completed

Only one DC activity was completed during 2018, raising the total number of completed projects to seven, to date. All of these are through direct charge, out of 20 DC activities approved; and if including investment grants and TA projects, then out of 50 projects approved overall as of end of 2018.

Indonesia: Strengthening Spatial Planning for Resilient Urban Planning

UCCRTF DC Support: \$225,000

In 2017, ADB responded to a request from Indonesia's Ministry of Agrarian and Spatial Planning to help formulate policies on spatial planning and utilization, including the integration of resilience principles at the metropolitan-level planning process.

The approved DC support was directed at enhancing the spatial planning policy framework in urban areas, which would serve as a critical tool for increasing resilience to climate change and disaster-related shocks and stresses. Project outputs included the Guidance for the Preparation of Metropolitan Spatial Planning Framework, a Toolkit on Spatial Data Management, and a roadmap for a pilot activity.¹¹ A workshop was also held among four local governments in Palembang to discuss the application of the project outputs. The framework will be piloted for the preparation of the Mamminasata Metropolitan Spatial Plan in 2019.

Ongoing Projects

Regional: Advancing Inclusive and Resilient Urban Development Targeted at the Urban Poor

UCCRTF TA Support: \$5 million

Approved in late 2017, this project focuses on the capacity of DMCs (Bangladesh, Indonesia, and the Philippines) to design and implement investment projects that strengthen the resilience of urban poor. During the reporting period, the consulting firm engaged for the TA project completed three inception workshops (two at country level and one at the regional level) to start project activities. The team is currently working on Output 1, country studies to identify opportunities for strengthening the resilience of urban poor.

Regional: Spatial Data Analysis Explorer (SPADE)

UCCRTF TA Support: \$995,000

The pilot phase for the SPADE platform was completed in 2018, and it was marked with a formal launch on 23 May in ADB.¹² The attendees were comprised of ADB project officers; DMC representatives from Bangladesh, Indonesia, and the Philippines; project consultants (Royal HaskoningDHV); and knowledge partners (University of Tokyo, Japan Aerospace Exploration Agency, Asian Institute of Technology, International Center for Water Hazard and Future Cities Laboratory Singapore-ETH Centre).

Secondary cities and spatial planning. Since the launch of SPADE, ADB project officers have been interested in using the platform to inform project design. One of these projects is the Secondary Cities Environment Improvement Project in Viet Nam, where there have been meetings with the city government to discuss project preparation.



¹¹ J. Bailey and J. van Etten. 2018. Strengthening spatial planning in Indonesia for resilient urban development. www.livablecities.info/spatial-planning-indonesia

¹² As of December 2018, SPADE has climate and geographic information for two cities in Bangladesh (Bagerhat and Patuakhali) and three cities in Viet Nam (Hue, Ha Giang, and Vinh Yen).



A geographic information systems (GIS) specialist was engaged to support the integration of UCCRTF cities in the platform, as well as to provide support to project officers and DMCs in using SPADE for planning and project design.

In October, UCCRTF was asked to support a reconnaissance mission to four provinces in Viet Nam. This was to determine the scope of the proposed Secondary Cities Environment Improvement Project (SCEIP) using SPADE. The project—currently at the concept paper stage (i.e., the government’s project proposal stage)—involves Gia Nghia in Dak Nong province and Dong Xoai in Binh Phuoc province. The aim is to attain approval and loan signing in 2020.

The UCCRTF newsletter was a proactive response to the recommendation of financing partners to increase the visibility of the work being done to a wider audience.

SCEIP is one of the projects that will be supported by the Southeast Asia Urban Services Facility (SURF), which the trust fund is contributing to (see Projects Approved section). Once the SURF consulting team has joined, the digital datasets from SPADE will be turned over and the team will be also trained on how to use the platform for other projects that will be developed through SURF.

Regional: Subproject 2 (SP2): Resilience Measurement and Knowledge Management
UCCRTF TA Support: \$4.985 million

The consortium of Arup, Plan, Acclimatise, Oxford Consulting, and Daira has made progress on resilience measurement and knowledge management activities. Baseline activities (Output 1) have been completed in 17 cities across four countries.¹³

In parallel, the team has also been developing a methodology on the climate economics work intended to measure the reduction in

costs due to climate change owing to UCCRTF interventions. The baseline data collection for this indicator includes building socioeconomic profiles of the cities from global databases and household baselining surveys; creating a profile of typical impacts across a range of hazards; classifying the scale of impact to cities; and identifying economic costs associated with typical events (damage and losses) based on global databases, household baselining surveys, and monitoring by the trust fund’s city resilience officers (CROs).

Output 2 on capacity development has been reshaped to provide key tools and guidance for ADB, and to focus on learning by doing. The change is primarily due to the lack of access to key stakeholders and target audiences. Three briefing notes were published by the team: (i) Relationship between climate change mitigation, adaptation, and urban (climate change) resilience; (ii) Relationship between urban (climate change) resilience and sustainable development; and, (iii) Relationship between “green urban space” and “green infrastructure” on urban climate resilience. The team also supported the delivery of the Yangon Resilience Accelerator Workshop (26–28 September 2018) through workshop preparation, provision of a subject matter expert, and organization of field trips in Yangon.

For Output 3, the major milestone for the knowledge sharing and communications component was the launch of the external newsletter in September. This was a proactive response to the recommendation of financing partners to increase the visibility of the work being done by UCCRTF to a wider audience. The newsletter captures valued input such as blogs, videos, and project status updates from the UCCRTF Secretariat, SP2, Subproject 3 (SP3), CROs, as well as other partners.

The value of having a consortium as part of the Secretariat was largely recognized with the technical backstopping contributions of the SP2 team in the preparation of the Livable Cities Operational Priority Plan and the conduct

¹³ Bangladesh (Bagerhat, Faridpur, Gopalganj, Kushtia, and Patuakhali); Pakistan (Abbottabad, Marda, Peshawar, Sahiwal, and Sialkot); Philippines (Janiuay and La Trinidad); and Viet Nam (Doing Hoi, Ha Giang, Hoi An, Hue, and Vinh Yen)

of the Resilience Roadshow. The SP2 project management team supported the workshops, research, and write-up of the first draft of the operational plan, which aims to support ADB in implementing its Strategy 2030, particularly the operational priority on “making cities more livable”.

Regional: SP3: Pilot Activities and Project Development Support

UCCRTF TA Support: \$6.065 million

Oxfam GB, in association with Mercy Corps, leads the implementation of SP3. Together, they are expected to deliver 10 community-led projects in five countries: Bangladesh (Faridpur and Patuakhali), Indonesia (Makassar), Myanmar (Yangon), Pakistan (Abbottabad and Sialkot), and the Philippines (Del Carmen, Janiuay, La Trinidad, and Malay).

The SP3 Project Management Unit, based in ADB headquarters, is comprised of a team leader, communications specialist, and a project coordinator. The country teams include a CRO, based in the city, and other experts as needed.

In February 2018, the multi-country team convened in a regional inception workshop in Manila to develop the annual work plan and participate in training activities on community vulnerability assessment and the ADB safeguards policy. In July, the methodology for developing the community resilience plan (CRP) and community-led projects (CLPs) was finalized and rolled out to participating countries.

The four cities in the Philippines completed their Kick-off and Community Assessment and Resilient Planning workshops in October and are currently in the process of finalizing their CRPs and CLPs. Implementation of the CLPs is expected to commence in the first quarter of 2019.

In Bangladesh, CRP workshops were held in November. The outputs are still under process and should be ready by March 2019. SP3 activities in Pakistan are planned for February–March 2019, to be followed by Indonesia and Myanmar later in the year.

Regional: Supporting Cities Development Initiative for Asia (CDIA)

UCCRTF TA Support: \$5 million

UCCRTF is supporting CDIA in the preparation of feasibility studies for upstream and downstream resilience work for several projects. One of these, the Punjab Intermediate Cities Improvement Investment Program (Phase 1) in Pakistan, has been successfully linked to ADB Financing.¹⁴

Another part of the support went to the recently concluded city- and regional-level urban resilience assessments for three cities in Khyber Pakhtunkhwa province (Abbottabad, Mardan, and Peshawar) that then served as inputs for the proposed Khyber Pakhtunkhwa Cities Improvement Project—Project Readiness Facility, which is also supported by another UCCRTF investment grant (see Projects Approved). This loan has been submitted for ADB approval.

The rest of the \$5 million TA support is likewise contributing to four projects for possible ADB funding (see separate box on next page).

More clinics for better cities. UCCRTF is assisting an ADB investment that adds reproductive and primary healthcare centers to more municipalities. The trust fund’s support includes conducting climate risk vulnerability assessments and preparing six infrastructure packages.



¹⁴ \$200 million loan approved in September 2017



Trust Funds in Tandem: Integrating Resilience into Cities' Development

Two of the trust funds under the Urban Financing Partnership Facility are working together to boost their work toward making cities more livable. The Urban Climate Change Resilience Trust Fund (UCCRTF) has provided the Cities Development Initiative for Asia (CDIA) Trust Fund with a \$5 million technical assistance to increase the resilience of the urban infrastructure that the latter is helping to prepare with ADB project officers and municipal governments. By combining CDIA's expertise in project preparation and UCCRTF's focus on resilience, the intent is to integrate resilience principles into ADB projects and other investments. Below are some of the ADB projects currently supported by UCCRTF through CDIA:

- **India: Jalandhar Surface Water Supply System Project.** Completed in 2018, this CDIA project helped the city shift from groundwater to a surface water supply source, since the groundwater supply is almost exhausted and rainfall patterns are not sufficient to replenish and address the city's growing needs. A feasibility study helped to identify surface water sources and a stable location for equipment (pumps, water treatment, transmission lines), among others (see Chapter on CDIA, Projects Completed section).
- **Indonesia: Sewerage System Development Project.** This aims to ensure 100% safe disposal of wastewater in the target cities of Banda Aceh, Bekasi, and Mataram. CDIA is responsible for delivering the technical component of the project, which includes the: (i) preparation of wastewater management (WWM) feasibility studies (review of alternative processes, construction methods and designs, and selection of most appropriate processes, method, or design); and (ii) carrying out a high-level climate and environmental social assessment of potential WWM investments to determine the expected impact and potential mitigation mechanisms.
- **Myanmar: Yangon Sustainable Urban Transport Project.** An ongoing project, this consists of feasibility studies for the Pyay Road Corridor focusing on traffic management and parking and pedestrian facility improvements in the central area and around transit stations.
- **Myanmar: Yangon Urban Services Improvement Project.** ADB and the Yangon City Development Committee are developing the proposed loan, while CDIA is undertaking a project preparation study focused on two key subprojects: water supply and sanitation.

Bangladesh: Coastal Towns Environmental Infrastructure Project – Additional Financing
UCCRTF IG Support: \$6 million

The roads, drainage, and storm shelters for the project are already under construction. In Bagerhat, the two road improvement projects are at 70% and 40% completion, while the cyclone shelter is at 44% completion. In Patuakhali, the road improvements and cyclone shelters are 45% completed, while the drainage construction is at 26%.

The preparation of detailed engineering drawings and estimate for the fecal sludge management and solid waste management plans are also ongoing. In the meantime, the contract for the preparation of the integrated drainage plan is under negotiation. The ADB project officer is closely coordinating with the PMU to ensure that the alignment of the infrastructure concurs with the findings of the urban resilience assessments.

Bangladesh: Urban Primary Health Care Services Delivery Project – Additional Financing
UCCRTF TA Support: \$150,000
UCCRTF IG Support: \$2 million

UCCRTF is conducting a two-pronged support for ADB's \$110 million additional financing for the Urban Primary Health Care Services Delivery Project. The objective of the loan investment is to strengthen the ongoing healthcare project in the country, and to scale up the provision of primary healthcare services for urban residents, including slum and street dwellers.

First, there was a TA support called the Development of Integrated Climate Resilient Responses for Urban Health. This consisted of (i) preparing climate change assessment reports based on maps and resources, including the Multi-Hazard Risk and Vulnerability Assessment, Modeling and Mapping Atlas Volume I (Part I and Part II), Volume II, and Volume III prepared by the Bangladesh Department of Disaster

Management; (ii) developing a climate risk vulnerability assessment (CRVA) checklist and conducting CRVAs in four city corporations and nine municipalities; and, (iii) preparing a menu of UCCRTF activities (six infrastructure packages and five training activities) and bidding documents for all the infrastructure packages.

Second is the \$2 million grant, which will go toward the implementation of the infrastructure packages identified through the TA support: (i) rainwater harvesting system, (ii) flood protection drain, (iii) solar energy system, (iv) water conservation, (v) electricity conservation, and (vi) medical waste management.

It will also be used for training sessions on: (i) climate change and adaptation; (ii) water and electricity conservation; (iii) disaster and emergency response and management; (iv) medical waste management and disposal; and (v) the Expanded Programme on Immunization (EPI), disease surveillance, and outbreak response.

**India: Multitranches Financing Facility:
Visakhapatnam-Chennai Industrial Corridor
Development Program**

UCCRTF IG Support: \$5 million

The grant was approved in March 2016, and in August, Visakhapatnam was selected for development as a city in Andhra Pradesh under the Smart Cities Commission of India. In September 2017, the Steering Committee, under the State Chief Secretary of Andhra Pradesh, reviewed and identified the change in scope of activities for the investment grant. The project will now see to (i) the development of a floating solar energy park at Meghadri Gedda Reservoir; (ii) the development of a watershed management program for Mudasarlova Watershed and Lake; and (iii) piloting the establishment of an e-vehicle zone, including the deployment of e-vehicles.

The contract for the floating solar energy park has been signed and implementation will commence. The other components are also being prepared and will begin in the second or third quarter of 2019.

Bridging the resilience gap in Bagerhat. UCCRTF is supporting the ongoing construction of an emergency access road in Bagerhat, Bangladesh, through an investment grant for the ADB additional financing investment for the Coastal Towns Environmental Infrastructure Project.



India: Strengthening Climate Change Resilient Smart Cities Mission Project

UCCRTF TA Support: \$2.5 million

The trust fund is supporting the India Smart Cities Mission through two projects. First is this project focusing on identifying financially viable smart systems in urban planning, water supply, sanitation, and transport, particularly for the poor and vulnerable. The Steering Committee of the Ministry of Urban Development selected 10 smart cities that will be supported by UCCRTF: Kakinada (Andhra Pradesh); Raipur (Chhattisgarh); Srinagar and Jammu (Jammu and Kashmir); Amritsar, Jalandhar, and Ludhiana (Punjab); Kochi and Thiruvananthapuram (Kerala); and Agartala (Tripura). The CDIA Trust Fund will likewise support Jalandhar (Punjab) and Panaji (Goa).

For Raipur, the work included: (i) the Sarona dumpsite remediation/rehabilitation feasibility report, inclusive of investment plan over short, medium and long term; (ii) a resilient urban water management improvement plan, inclusive of feasibility studies for phased investments (short, medium, and long term) to achieve full-city coverage for continuous water supply and wastewater or septage services; and similarly, (iii) a training workshop and knowledge product that will help government personnel to strengthen their capacity to assess climate change impacts and risks.

India: Strengthening Climate Resilience of Kolkata City through Improved Planning and Disaster Risk Management

UCCRTF TA Support: \$1 million

The Kolkata Municipal Corporation, with the support of UCCRTF, launched on 27 September 2018 the first comprehensive city-level flood forecasting and early warning system (FFEWS) in India. The system is designed to provide forecasts as well as real-time updates from sensors installed in key points throughout the city. This will then enable informed decision-making before and during disasters. The system has the capacity to provide information on weather forecasts; flood models for various intensities of rainfall; real-time information on key pump status, sump and canal water levels, and actual rainfall inundation levels, among others. It also has a messaging system to provide warnings and real-time information to both city officials and citizens.

India: Strengthening Smart Water Management and Urban Climate Change Resilience in Tamil Nadu

UCCRTF TA Support: \$1.5 million

This is the second project supporting India's Smart Cities Mission. The primary objective of this project on smart water management in Tamil Nadu—encompassing the cities of Chennai, Cuddalore and Toothikudi (or Tuticorin)—is to improve the understanding of water-related disaster risks (both floods and

Flood forecasting in Kolkata.

Numerous studies rank Kolkata among the top 10 most vulnerable cities in the world due to high exposure to flooding under climate change projections. Flat deltaic terrain, insufficient natural drainage, and tidal blockage of channels also amplify the flooding; but the city will soon be able to cope through a UCCRTF-supported flood forecasting and early warning system.

For Kakinada (Andhra Pradesh) and Raipur (Chhattisgarh), the draft final reports are completed. The TA project for Kakinda consisted of: (i) a Smart City Livability Index and report; (ii) urban climate resilience plan, including a disaster risk reduction plan; (iii) urban infrastructure and infrastructure financing gap analysis (feasibility) report; and, (iv) a training workshop and knowledge product for key state and local government personnel to strengthen their capacity to assess climate change impacts and risks.



droughts) considering climate change, and to strengthen the capacity of the state and local governments to more effectively manage and respond to such risks.

The expected output is a technical study with clear and actionable recommendations to support improved water management in Chennai and selected urban areas in Tamil Nadu. To date, the consultants have completed the data collection and modeling work for three sub-basins; the results of which are informing the design of climate-resilient investments under the upcoming ADB Tamil Nadu Urban Flagship Investment Program (Tranche 1B).

In 2019, the team will organize local consultations to confirm their findings and preliminary recommendations. A draft final report can be expected in May, with a final workshop in July on the TA findings.

Myanmar: Climate Change Resilient Urban Planning and Community-based Solid Waste Management: Support to Mandalay Urban Services Improvement Project
UCCRTF IG Support: \$4 million

The implementation of the investment grant finally began in 2018 after experiencing some delays due to the change in the city administration.

Myanmar: Yangon Region Housing Market Study
UCCRTF DC Support: \$225,000

A study for developing a more affordable and inclusive housing program was completed in 2018. This DC support was a result of a government request to provide an assessment and advice on the housing sector, particularly on the implementation of climate-resilient housing and related policies. Some of the key recommendations from the study include:

- (i) Promote public sector-led affordable housing model to be complemented by financing models involving private sector as well as microfinance.



- (ii) Design and develop market-led solutions to be channeled through primary lenders.
- (iii) Develop a real estate information system to accelerate evidence-based housing policy reform, planning, and development.
- (iv) Establish the Myanmar National Climate Land Bank to allow land resources to be secured for families and communities permanently displaced due to climate change.
- (v) Integrate climate finance and housing finance under a local PPP framework to reduce funding costs and generate additional revenue streams from low carbon opportunities.

Following the study's completion, a workshop is being planned for March 2019 to discuss with government and other development partners on how to move forward with the recommendations.

Inclusive housing in Yangon. Following the completion of a study for an affordable housing program in Yangon, UCCRTF will soon hold a workshop with the government and other stakeholders to find ways to bring the study's recommendations to fruition.



Philippines: Emergency Assistance for Reconstruction and Recovery of Marawi

UCCRTF DC Support: \$225,000

UCCRTF IG Support: \$5 million

UCCRTF support to Marawi City in the Philippines was initiated through an initial scoping study to determine strategic interventions that can be undertaken by the trust fund. A resilience framework was also developed as a mechanism for screening possible projects.

As a result of the study and in consultation with the Government of the Philippines, the following projects will be financed through a \$5 million investment grant: (i) mobile health clinics, improvements to rural health clinics, and installation of medical waste treatment facility in Amai Pakpak Medical Center in Marawi for the health component; and (ii) for the water supply component, supporting the repair and rehabilitation of existing water supply facilities in the Marawi City Water District area, support to bulk water and/or distribution infrastructure for seven barangays, and preparation of a water supply and sewerage master plan for the city.

Rebuilding the capital.

ADB and UCCRTF are supporting the recovery of Marawi City, capital of Lanao Del Sur province in the Philippines, after it was embroiled in a long conflict. Through an investment grant, UCCRTF will help repair existing water supply facilities, among others.



In December, ADB approved a \$400 million loan as Emergency Assistance for the Reconstruction and Recovery of Marawi City. The Philippine Country Office and Southeast Asia Urban and Water Department (SEUW) acknowledged that the initial direct charge provided by UCCRTF successfully leveraged the ADB-funded loan.

Philippines: Review of the Clark City Comprehensive Master Plan on Smart and Green Infrastructure

UCCRTF DC Support: \$225,000

UCCRTF, through OPPP, supported BCDA in reviewing the NCC Master Plan. The DC activity on water resources is a follow-up to this DC.

The covered area is a former United States airbase that is being developed as an alternative capital located 90 kilometers north of Metro Manila. Through a direct charge, the team of consultants consolidated the review in a river study that focuses on anchoring the planned development on the natural terrain of the river (as opposed to the original plan of rechanneling the river) and incorporating nature-based solutions that reduce development costs, enhance land value capture, and improve resilience to climate change impacts.

The study was formally presented to the BCDA in October 2018 and was used by the developer of the National Government Administrative Center Phase 1 in NCC to determine the location of the sport facilities that are being constructed for the Southeast Asian Games in November 2019. The facilities are situated 1.5 meters above the 100-year return period mark based on modeling and forecasts of climate change impacts, thereby ensuring the protection of the infrastructure. Although actual savings have not yet been computed, the developer expects reduction in costs, having avoided filling, construction of bridges, concreting, provision of river embankments, drainage, and tree cuttings that were included in the original master plan.

The developers also recognized the river's potential to increase the land value, and thus, are establishing a River Park Corridor along its length. Apart from land value capture and recreational use of the park, maintaining the river also contributes to preserving the biodiversity of the area where some rare species of fauna have been found .

Such are the lessons learned from the river study that it has become a good case for promoting nature-based solutions and ecosystem-based approach to urban development. To share these widely, travel subsidy was provided to BCDA technical staff to speak at the World Urban Forum in Malaysia (February) and the International Water Association World Water Congress in Japan (September). In turn, this also exposed the BCDA staff to more innovative solutions and to network with various experts.

Currently, this DC activity has been working in conjunction with the recently approved DC support for a water resources study for NCC. The intention is to channel the results of the river study into the water resources study, and ensure the two are integrated.

Viet Nam: Flood Management and Coastal Protection in support of the Urban Environmental and Climate Change Adaptation Project

UCCRTF IG Support: \$4 million

The two projects under this support are underway. Contracts for the Sand Dune Stabilization in Dong Hoi and the Flood Forecasting and Warning System in Hoi An were awarded in the first quarter of 2018. An ADB-UCCRTF mission was fielded in April to meet with the city government and local stakeholders on the project. UCCRTF is working to link the consultants for the Hoi An project with the team that implemented that Kolkata FFEWS to share lessons learned on the technology and approach, as well as challenges in implementation.

Viet Nam: Ho Chi Minh City Wastewater and Drainage System Improvement Project

UCCRTF TA Support: \$5 million

UCCRTF is financing the preparation of the feasibility studies up to the detailed engineering drawings. This is to ensure that resilience features identified in the project preparation stage are carried through into the design. As part of the preparatory work, ADB organized a workshop on “Water Sensitive Urban Design and Application for the Tham Luong-Ben Cat-Nuoc Len Canal.” The workshop, which had more than 50 participants from the government, ADB, UCCRTF, and other experts, discussed the concept of water-sensitive urban design as an important element for project planning and design, and its possible application in the project. The contract for the first package was awarded in the first quarter of 2018.

Support to Capacity Building

In addition to the projects assisted by the trust fund, several capacity development events were also organized and supported throughout 2018. Chief among these are the Resilience Accelerator (RA) workshops, formerly known as Resilience Academy.

In February, ADB, through UCCRTF, co-organized a session at the World Urban Forum (WUF) in Kuala Lumpur to launch the Resilience Accelerator, a partnership between 100 Resilient Cities and the Columbia University Graduate School of Architecture, Planning, and Preservation, which aims to scale up the implementation of resilience academies worldwide. The event was opened by the two organizations and UCCRTF, followed by a mini-workshop to allow WUF participants to experience the format. Since then, UCCRTF has adopted the name and approach for such workshops.





Integrating Water Sensitive Urban Design

Water-sensitive urban design (WSUD) is an approach to the planning and design of urban environments that is sensitive to the issues of water sustainability, resilience, and environmental protection. The relationship between water and urban built areas needs to be given a higher priority to provide integrated green solutions to flood risk management, sustainable water use and supply, and building a vibrant community. The need for WSUD is more acute in cities in Viet Nam, where urban communities are highly exposed to floods and other risks related to water.

Two projects in Viet Nam, supported by UCCRTF, are currently in the process of integrating the WSUD concept into project design (Ho Chi Minh City Wastewater and Drainage System Improvement Project), and implementation (Secondary Green Cities Development Project for Hue, Vinh Yen, and Ha Giang).

In Ho Chi Minh City, as part of the project preparatory work, a workshop on “Water Sensitive Urban Design and Application for the Tham Luong-Ben Cat-Nuoc Len Canal” was held on December 2018 with the participation of an expert team from Ramboll Studio Dreiseitl. The workshop brought together more than 50 participants, including stakeholders from various departments and agencies, industry experts, and representatives from ADB and UCCRTF. During the workshop, participants discussed the concept as an important element for project planning and design, and how it could be applied in urban development. The concept is still new to stakeholders and the workshop helped participants better understand the potential of WSUD in delivering more livable and resilient urban communities in Ho Chi Minh City.

A similar effort is also ongoing in three secondary cities: Hue, Vinh Yen, and Ha Giang. The detailed engineering design (DED) is under preparation for each sub-component of the project. Fully recognizing the importance of the DED as a key phase in which a project’s objective and impact can materialize, ADB and the Ramboll Studio Dreiseitl team are working together with the cities to make the actual DED better embrace WSUD principles.

The overall WSUD experience will be shared through a knowledge product in the first half of 2019, followed by a bankwide presentation to discuss replication.

HO CHI
MINH CITY
WASTEWATER
AND DRAINAGE
SYSTEM
IMPROVEMENT
PROJECT AND
SECONDARY
GREEN CITIES
DEVELOPMENT
PROJECT

The first of these was on 26–28 September, when ADB with the Yangon City Development Committee (YCDC) organized a three-day RA workshop in Yangon, Myanmar. The primary objectives of the activity were to develop project concepts for consideration under the proposed Yangon Urban Services Improvement Program (YUSIP) and for a CLP to be financed by UCCRTF through TA 9329: Development of Pilot Activities and Project Development Support. About 80 participants attended the workshop, consisting of representatives from YCDC, multilateral and bilateral agencies, local and international NGOs, and facilitators and subject matter experts. The participants developed 10 project concepts in the areas of water supply, flood reduction, urban planning and housing, wastewater management, and solid waste management. The city-level projects will be endorsed to the ADB project officer for consideration under the YUSIP loan. Meanwhile, UCCRTF will discuss with YCDC on the selection of the CLP and the conduct of resilience baselining activities.

Another RA workshop was held on 10–12 December in Singapore, this time with ADB's Central and West Asia Department and the Pakistan Resident Mission. The RA workshop incorporated multisector topics – urban, water, transport, housing, green architecture and green infrastructure, renewable energy, and tourism – for discussions toward helping the cities formulate their development roadmaps. Officials from the Provincial Government of Punjab – Said Anjum, Secretary; Kanzal Shauzab, Parliamentary Secretary; and Naveed Ahmad Chaudhry, Parliamentary Member – were among the participants.

Close to 60 delegates from four ADB-funded project cities in Pakistan (Abbottabad, Mardan, Kohat, and Sialkot), including the organizing team, joined the event, which also included site visits to Singapore's housing, water and sanitation, transport, and waste-to-energy facilities to expose participants to innovative urban solutions. Singapore was selected as the venue since it can serve as a case study

Pakistani partners in Singapore. The Resilience Accelerator workshop in Singapore was the last capacity building event UCCRTF held in 2018.

A three-day training in December, it gathered nearly 60 participants from four cities in Pakistan where ADB currently has urban projects.



and accelerator on learning more about urban development sectors that have applied solutions and technologies that leapfrog pervasive urban issues. One of the goals of the workshop was to spark ideas on how to adapt and integrate the examples and lessons learned in upcoming ADB- and UCCRTF-funded projects. International experts were also on hand to provide insights from best practices in other countries.

into the Resilience Roadshow at the 6th Asia Pacific Climate Change Adaptation Forum. Members of the Secretariat participated in the forum proper as moderators or panel speakers. The workshop had high levels of participation and engagement by ADB staff and external stakeholders and provided useful feedback in relation to opportunities on building resilience and going “beyond business as usual”.

Resilience Roadshow.

The UCCRTF team joined the 6th Asia Pacific Climate Change Adaptation Forum in October at ADB headquarters, a flagship event of the Asia Pacific Adaptation Network or APAN. UCCRTF’s Virinder Sharma facilitated a session on Urban Resilience and Climate-Smart Cities, which focused on the resilience of the built environment at a systems level.

Aside from RA workshops, capacity development for SPADE was also conducted. Following the SPADE launch, a one-day training for DMC representatives in Viet Nam was held on 29 May. Over 40 participants attended the training. A half-day session on the platform was also organized for ADB project officers in October in ADB headquarters.

During the same month, the SP2 team, in collaboration with the UCCRTF Secretariat, co-designed and co-facilitated UCCRTF inputs

UCCRTF also contributed to other ADB training activities during the year, such as the ADB staff training on Counting Climate Finance in Manila (20 September), a pre-training in Manila for the Institute for Housing and Urban Development Studies (IHS) training on Developing Urban Climate Resilience in Asia and the Pacific in Rotterdam (28 September), and the ADB staff workshop on Climate Risk and Adaptation Assessments (20–23 November). In total, about 30 ADB staff participated in trainings supported by UCCRTF.



Knowledge Products

UCCRTF projects, notably the New Clark City and Kolkata Flood Forecasting and Emergency Warning System, were featured in a number of media articles and blog posts. Three briefing notes were published and circulated by the SP2 team in 2018, along with a bimonthly UCCRTF newsletter which has currently reached a global audience of over 500 ADB and external subscribers. This has also received positive feedback from ADB Management. The newsletter, called "Urban Resilience Uncovered", provides a vehicle to disseminate knowledge materials and lessons from project development and implementation.



[Briefing note: Urban resilience, climate change mitigation, climate change adaptation and disaster risk reduction](#)



[Briefing note: Urban resilience and sustainable development](#)



[Briefing note: Green urban spaces, green infrastructure, and urban resilience](#)



[Newsletter: Urban resilience uncovered \(October 2018 issue\)](#)



Progress Toward DMF Targets

● **ACHIEVED**
 ● **IN PROGRESS**
 ● **NOT YET AVAILABLE**

PERFORMANCE INDICATORS

2018 ACHIEVEMENT

Impact

Urban populations, especially the urban poor and vulnerable, are more resilient to the direct and indirect impacts of climate change.

At least 50% of the poor and vulnerable in cities that have had a UCCRTF-supported intervention have improved their resilience by 2026.

Baseline: To be confirmed for each UCCRTF-supported city

Estimated costs due to the effects of climate change reduced by at least 15% across all UCCRTF cities by 2026.

Baseline: To be confirmed for each UCCRTF-supported city

Outcome

UCCRTF-funded projects deliver UCCR benefits; demonstrate potential for integration of UCCR in urban development practice by the ADB; and, leverage complementary action and financing by other urban development actors.

At least 2.2 million poor and vulnerable urban residents (disaggregated by sex) are more resilient to the negative effects of climate change by 2021^a

Baseline: 0 in 2014

At least 40% of ADB urban sector lending incorporates UCCR principles by 2021^b

Baseline: 9% of urban sector lending reflects awareness of UCCR principles in 2014.

88% of approved ADB loans and the water and other urban infrastructure services sector incorporated UCCR principles

Total approved loans in the water and other urban infrastructure and services sector in 2018 was \$916 million, with \$875 million approved in India alone. Two loans in India (Kolkata Environmental Improvement Investment Program [Tranche 3] and Tamil Nadu Urban Flagship Investment Program [Tranche 1B]) are associated with UCCRTF activities.

At least 3 UCCRTF-supported DMCs include UCCR principles in national government strategies by 2021

Baseline: No DMCs included UCCR principles in national strategies in 2014.

To date, UCCRTF has successfully completed support to 2 DMCs to include UCCR principles in national government strategies.

In 2018, the trust fund completed the support to Indonesia's Ministry of Agrarian and Spatial Planning for policies on Metropolitan Spatial Planning, which began in 2017 and integrated resilience principles. UCCRTF was also requested in 2018 to provide inputs to the Viet Nam National Urban Development Strategy.

Component 1: Planning and Implementation

Output 1

Strengthened capacity of public authorities to incorporate UCCR principles into urban and sectoral planning.

PERFORMANCE INDICATORS

2018 ACHIEVEMENT

At least 25 UCCRTF supported cities include UCCR principles in local government strategies by 2021.

Baseline: No nonphysical measures implemented in 2014.

UCCRTF supported 9 new cities to incorporate UCCR principles in local strategies, bringing the total to 30 cities.

The 9 new cities supported includes 3 regional plans (Yangon, Myanmar; and Greater Peshawar and Greater Abbottabad, Pakistan), 1 provincial plan (Punjab, Pakistan), 2 metropolitan area plans (Marawi, Philippines; and Palembang, Indonesia), and 3 city level plans (New Clark City, Philippines; Yangon; and Gohat, Pakistan).

In Pakistan, UCCRTF supported the preparation of urban resilience assessments, which were incorporated into the regional, provincial, and city strategies. In New Clark City, UCCRTF completed a river study that is now being used as a basis for the initial development in the former military base. A resilience framework developed through UCCRTF support also provided the basis for the preparation of the recovery plan for Marawi City and surrounding areas.

At least 25 cities engage stakeholders in multisector and iterative processes to inform planning and project design by 2021.

Baseline: No cities engaged stakeholders in planning and project design in 2014.

9 new cities underwent planning processes that involved a cross-sector of local stakeholders. To date, all 30 cities that have prepared climate resilient city plans and strategies engaged stakeholders in the planning process.

During the preparation of the resilience framework for Marawi, a number of consultations were held with different government agencies and local stakeholders at various levels to ensure that the proposed plan responded to the most immediate issues arising from the conflict.

At least 40% of poor and vulnerable stakeholders in project areas (of which half are women) are engaged in UCCR activities by 2021.

Baseline: No engaged stakeholders are poor or vulnerable in 2014 .

UCCRTF documented the gender and inclusion targeting strategies of projects supported by the trust fund. The approaches developed under SP3 ensure that vulnerable groups, especially women and youth are prioritized within the design and identification of community-led projects.

The RISE project in Indonesia also adopts a community-drive development approach in identifying, prioritizing, designing, and implementing locally appropriate, non-network, climate resilient infrastructure improvement. The two projects in India (West Bengal Drinking Water Supply Improvement Project and Improving KMC Capacity for Resilient Urban Services) support the provision of infrastructure investments and services in areas where poor and vulnerable populations reside.



PERFORMANCE INDICATORS

2018 ACHIEVEMENT

Component 1: Planning and Implementation

Output 1

Strengthened capacity of public authorities to incorporate UCCR principles into urban and sectoral planning.

At least 40 nonphysical measures to enhance resilience to climate change are implemented in UCCRTF-supported cities by 2021

Baseline: No nonphysical measures implemented in 2014.

39 nonphysical measures were proposed for 13 projects approved in 2018.

As of end of December 2018, a total of 91 nonphysical measures have been proposed. These include smart water monitoring, capacity building, awareness raising, knowledge products, guidelines for integrating climate resilience into various programs, roadmap developing utility systems (water, energy), and flooding, among others.

At least 20 community-led initiatives that increase resilience are implemented in UCCRTF cities by 2021

Baseline: No community-led initiatives in 2014.

Activities for community-led projects were initiated in 10 cities in Bangladesh, Myanmar, Pakistan, and the Philippines.

In 2018, 4 cities in the Philippines and 2 cities in Bangladesh have completed the community led-planning process, which includes city profiling, a kick-off workshop, and a community assessment and resilience-planning workshop. City profiling activities were also completed for 2 cities in Pakistan and 1 city in Myanmar. In Indonesia, community co-design activities were held.

At least 2,500 people (disaggregated by sex) complete training and awareness building by 2021

Baseline: No UCCR training or awareness building was completed in 2014.

1,618 persons participated in 40 training and awareness activities, and about 52% were female.

In total, more than 6,700 persons have benefitted from capacity building activities organized by UCCRTF.

Component 2: Projects and Investments

Output 2

Public and private sources (including ADB) support and finance UCCR projects.

At least 20 UCCR-related infrastructure projects receive UCCRTF support by 2021

Baseline: No UCCRTF infrastructure projects supported in 2014.

9 infrastructure investments were proposed through 4 UCCRTF projects approved this year.

The investments in 2018 include pilots for improving security and safe spaces for women; a flood forecasting and early warning system; and e-mobility for two cities; piped water supply and metering; rainwater harvesting; wastewater treatment facilities; sanitation facilities; and urban amenities. There is a total of 22 proposed UCCR-related infrastructure projects to date, all due for completion in 2021.

Component 2: Projects and Investments

Output 2

Public and private sources (including ADB) support and finance UCCR projects.

PERFORMANCE INDICATORS

At least \$1 billion in UCCR-related loans or projects mobilized, including at least \$200 million in non-ADB financing, by 2021

Baseline: No UCCR-related loans or projects financed in 2014.

In total, \$56.7 million of UCCRTF funding has been linked to an approved \$1.92 billion of approved infrastructure lending by ADB, with an additional \$247.26 million from government funding and \$68.63 million from other financing.

2018 ACHIEVEMENT

\$12.2 million of UCCRTF support was linked to a proposed \$343.5 million in ADB financing.

Component 3: Knowledge

Output 3

UCCR knowledge is created, accessed, and utilized.

At least 12 knowledge products disseminated and their use demonstrated in DMC cities by 2021

Baseline: No knowledge products disseminated in 2014.

Three UCCRTF projects (MASP, SPADE, and New Clark City) produced 11 publications in the form of reports, toolkits, and guidelines. The SPADE manuals were used for trainings held during the year, but were adjusted to suit the technical know-how of the participants. In total, UCCRTF has produced 33 knowledge products in various forms.

In 2018, UCCRTF was also featured in a number of news articles featuring projects supported by the trust fund, namely SPADE, New Clark City, Marawi, and MASP.

20 knowledge products were published or produced (i.e., publications, blogs, articles, brochures, and videos).

At least 10 peer-to-peer learning or knowledge events completed by 2020

Baseline: No peer-to-peer or knowledge events completed in 2014.

The 2018 peer-to-peer learning or knowledge events included a side event at the World Urban Forum, 2 SPADE events, 1 peer exchange among cities in Indonesia, 2 Resilience Accelerators (Yangon and Pakistan), and 1 workshop for the Yangon Region Housing Market Study. In total, UCCRTF supported 19 peer-to-peer learning activities to date.

7 peer-to-peer learning activities organized

ADB = Asian Development Bank, DMC = developing member country, KMC = Kolkata Municipal Corporation, MASP = Ministry of Agrarian and Spatial Planning (Indonesia), RISE = Revitalization of Informal Settlements and their Environments Using a Water-Sensitive Approach, SP2 = subproject 2, SP3 = subproject 3, SPADE = Spatial Data Analysis Explorer, UCCR = urban climate change resilience, UCCRTF = Urban Climate Change Resilience Trust Fund.

Note: For more details on the 2017 Status, refer to the Design and Monitoring Framework in the Urban Financing Partnership Facility Annual Report 2017.

^a For indicators to be disaggregated by sex, the target will be an equal number of males and females.

^b These principles include seven "resilience qualities": reflective, robust, redundant, flexible, inclusive, and integrated. See Arup, City Resilience Framework, The Rockefeller Foundation, 2014. Inclusion of UCCR principles in ADB's country partnership strategies can also be counted for purpose of achieving this target.



Lessons Learned

Community-led projects (CLPs) present a strong entry point for UCCRTF to introduce innovation into ADB. While ADB has implemented some CLPs, there is still much to be learned in terms of community-level planning processes, engaging local stakeholders, as well as in the procurement, contracting, management and implementation of CLPs. The presence of SP3 community resilience officers (CROs) in each of the cities proved to be helpful in securing the buy-in of the local government, and ensuring close coordination with the ADB loan project officers and resident mission (where ADB projects exist).

CLPs also provide an entry point for ADB to establish closer engagement with the city government, and to get a better understanding of the urban context and issues they face. One of the main outputs of the subproject is a knowledge product on the design and implementation of CLPs. The lessons learned can help inform ADB business processes for future CLPs (i.e., updating of project administration instructions).

UCCR can be mainstreamed into TA loan preparation of non-UCCRTF countries, cities, and projects. Members of the UCCRTF Secretariat are invited to participate in peer review meetings for non-UCCRTF countries. This is an opportunity for the team to provide recommendations for integrating resilience into these projects. In the last year, the team participated in peer reviews for projects in Fiji, Mongolia, and the Lao People's Democratic Republic (Lao PDR). This is aligned with the Chief of the Urban Sector Group's proposal to organize a training activity for peer reviewers and project officers on UCCR. The Secretariat is likewise invited to brainstorming sessions of

TA concept papers and sessions reviewing TA completion reports in non-UCCRTF projects. UCCRTF has also approved a direct charge that will provide resources for knowledge sharing and training activities for both ADB project officers and DMC participants for non-UCCRTF countries.

An integrated approach to project preparation ensures UCCR principles are carried into project design. In projects in Mandalay, Ho Chi Minh, and Pakistan, UCCRTF is supporting the preparation of the transaction technical assistance (TRTA) and detailed engineering design. By doing this, the team is able to better ensure that resilience principles identified in the TRTA flow into the design. For example, UCCRTF has been providing support for the first ADB loan for Yangon (YUSIP1) through a scoping study, which included a climate resilience and vulnerability assessment that reviewed binding constraints for Yangon's sustainable and resilient urban development path. The findings will provide valuable inputs for further project preparation work by CDIA through UCCRTF funding.

SPADE provides a multidimensional platform for project design. SPADE has highlighted the value of using spatial planning for project design. During the launch, project officers were interested in the platform's ability to combine spatial, climate, and socioeconomic data, as well as other information. The team has also developed the beta version of an app that will help prepare the social and environmental safeguards analysis of ADB projects. It will be piloted through the CLPs of SP3. The team is concurrently exploring how SPADE can be integrated within the ADB system as a tool for project design, development, monitoring, and as a repository for project information.

UCCRTF combines knowledge, expertise, and resources to enhance and develop new approaches. The consortia leading SP2 and SP3 bring a wealth of knowledge and experience to the trust fund. On top of this, UCCRTF is utilizing the approaches of financing partners, such as the Resilience Accelerator and Future Cities Laboratory's Urscope data platform. The team is finding ways to bring these all together and to come up with new processes that can be adapted to specific situations. For instance, the RA model has been adapted for developing CLPs, identifying components for an ongoing investment, generating a pipeline of projects for an upcoming loan, and developing a long-term action plan for cities and provinces. The Urscope platform, on the other hand, was used in the metropolitan spatial planning project with the Ministry of Agrarian and Spatial Planning in Indonesia.

Welcoming more regional TA projects reinforce UCCR in interventions. ADB regional technical assistance projects (RETAs) help interventions become more programmatic across a number of DMCs. In 2018, UCCRTF approved six RETAs that prioritize UCCRTF's 25 priority cities for their technical analysis and pilot testing. These projects will help UCCRTF to cast a wider impact on each city and have a deeper engagement with the cities. This builds

on Strategy 2030, which promotes integrated solutions and cross-sector approaches.

Limited access to project officers and implementation restrains the potential of UCCRTF's value addition to the project. While the trust fund has made considerable headway in a number of projects, particularly when project officers have been very proactive in engaging the Secretariat, there are still occasions when UCCRTF struggles to implement projects. The Mid-term Evaluation of the trust fund will include recommendations to address this and improve project implementation.

UCCRTF Secretariat and subprojects continue to explore new ways of working in order to function more efficiently as one team. With the mobilization of the Arup and Oxfam consortia, there are now at least 10 people working full-time in ADB headquarters and another nine are deployed to UCCRTF countries. There is a wide range of experience and expertise embedded within the individual organizations as well as with the team members. To ensure efficiency, communication protocols were agreed in order to liaise with project officers, resident missions, and PMUs accurately and to ensure that the activities and quality of outputs conform to ADB standards and UCCRTF's branding.

Community engagement leads to inclusion. Targeting the poor and vulnerable, such as women and the elderly, is a priority of UCCRTF. This becomes more apparent during planning sessions for the community-led projects, which the trust fund believes is a vital avenue to foster relationships with local stakeholders.





Working as one team. Whenever possible, the UCCRTF Secretariat coordinates missions with other teams (whether ADB project teams or another partner) to improve efficiency and maximize resources, such as this Resilience Academy in Yangon, Myanmar.

The Secretariat has also prioritized combining UCCRTF missions (including SP2 and SP3) with ADB project missions (where possible) to improve efficiency and minimize associated approvals. While effective in some cases, in others it proved to be more cumbersome to coordinate the schedules of the team members, leading to delays and requiring re-planning of missions. With the scope of activities being implemented by the three teams, it is critical to find better ways collaborate and combine activities whenever possible in order to maximize efforts.

Apply reflective learning across UCCRTF projects. Lessons learned from previous UCCRTF-supported activities helped inform the design and monitoring of ongoing interventions. For example, the urban resilience assessments in Pakistan and the Resilience Accelerator modules inspired the refinement of the SP3 Community Assessment and Resilience Planning workshop. Similarly, the New Clark City Resilience Framework provided guidance on

developing the purpose and criteria for the for the Indonesia Metropolitan Spatial Planning Guideline and the Resilience Framework for the Post-conflict Reconstruction of Marawi City and other Affected Areas. SEUW's management of the direct charge for Marawi provided a learning ground for the division for post-disaster response, thereby easing ADB's entry points for the Central Sulawesi post-tsunami support in Indonesia.

Use of the direct charge modality for scoping and designing larger projects proves to be effective. ADB project officers have strategically utilized the direct charge modality of UCCRTF to provide inputs for the design of investment projects and to identify potential projects for investment. In Pakistan, two direct charges for Punjab and Khyber Pakhtunkhwa contributed to the design of the Punjab Intermediate Cities Improvement Investment Program and the proposed Khyber Pakhtunkhwa Cities Improvement Project – Project Readiness Facility.

It has also proven to be effective in designing emergency assistance programs. In Marawi, the direct charge was credited for sustaining the discussions with the Government of the Philippines, leading to the \$400 million emergency assistance loan approved in December 2018. Similarly, in Indonesia, the current direct charge is providing support to the Ministry of National Development Planning (BAPPENAS) in determining priority investments for post-tsunami recovery.

Monitoring UCCRTF influence on ADB projects and project officers needs to be enhanced. The Secretariat has observed that there is a greater reception among project officers for resilience components that have been translated into action. The UCCRTF intervention in New Clark City influenced the Environment Thematic Group of ADB to put in TA resources to conduct biodiversity assessment and to pilot nature-based solutions in New Clark City. The work in coastal towns in Bangladesh, the flood forecasting and early warning system in Kolkata, and the Resilience Accelerator are also some of the success stories that UCCRTF can claim. This could be an opportunity to measure how UCCRTF work is able to embed resilience thinking into ADB projects (in terms of design) and project officers (capacity building).

The Secretariat has observed that there is a greater reception among project officers for resilience components that have been translated into action.

UCCRTF needs to enhance internal capacity on ADB procurement policies. The implementation of small-scale civil works projects under a TA project – such as those UCCRTF is doing under SP3 – has raised a number of questions within the team in terms of procurement and contract arrangements, since these types of projects are usually implemented as a grant or attached to a loan. There are also issues on the applicability of ADB safeguards policy on these small projects (in terms of amount). In order to ensure that implementation of the CLPs strictly comply with ADB policies, UCCRTF is engaging a procurement specialist effective first quarter of 2019 to provide appropriate guidance in the process. This specialist will also be responsible for ensuring that the contracts of SP2 and SP3 undergo the right procedures and documentation.

Coordinating and ensuring proper procedures. The SP2 and SP3 teams did a courtesy call with the Mayor of La Trinidad in the Philippines ahead of their activities. In 2019, UCCRTF will engage a procurement specialist to make sure the implementation of CLPs follow ADB guidelines.



Work Plan 2019

Pipeline. UCCRTF has a current pipeline of \$27 million that includes two private sector projects in micro insurance and waste-to-energy and three possible investment grants (such as for Nepal). The Secretariat, along with the USG Secretariat, continues to coordinate with the operations departments to identify innovative projects that can be supported by the trust fund.

Financial performance. The USG Management is closely coordinating with the operations departments on how to address the issue of slow disbursements and ensure that projects are implemented in a timely manner. It is critical to speed up disbursement in order to utilize the remaining funds before the trust fund expires on December 2021.

Project implementation. About \$43.7 million of UCCRTF-funded projects have been contracted. Three investment grants equivalent to \$14 million are already well into implementation while another five are expected to start implementation within 2019. Of the nine TA projects approved by the trust fund in 2018, six were also approved by ADB within the year, meaning implementation can be expected within the first half of 2019.

Raising resilience in communities. CLPs in the Philippines are also set to start in 2019 once the appropriate procurement processes have been clarified. This will be followed by Bangladesh and Pakistan. Monitoring activities (through the CROs) will continue in cities that have completed baselining activities.

Knowledge management. For knowledge sharing, the SP2 team will focus on short-term activities such as case studies, contributing to the Livable Cities website, continued dissemination of the newsletter, writing blog posts, peer learning events, and other knowledge products.

Training and capacity building sessions. UCCRTF is working closely with SDCC to institutionalize SPADE and the RA model within ADB. A training workshop on SPADE is planned for cities in Bangladesh in the first quarter of 2019. Two RA workshops are also planned within the year: one could be integrated with the ADB-Korea Research Institute for Human Settlements planned in September and another is proposed for project officers and their DMC counterparts later in the year. Together with the SP2 team, the Secretariat will also explore other capacity building opportunities for project officers.

Support to USG. The UCCRTF Secretariat will continue to support the preparation and finalization of the Livable Cities Operational Priority Plan.

Mid-Term Evaluation (MTE) recommendations. The MTE recommendations will be presented to the financing partners in March and discussions will follow with Management on how to carry these forward.

A pipeline of projects. UCCRTF support in 2019 includes a pipelined waste-to-energy project with the private sector and about five investment grants are expected to commence implementation during the year.





A One-Track Purpose: Promoting the Benefits of Public Transport

UCCRTF has provided \$225,000 to support a wide range of public awareness activities in Hanoi, Viet Nam to illustrate the benefits that the new metro system can deliver for the community and environment, as well as to capture lessons learned and best practices from this support that can be utilized in other cities' efforts to improve public transportation. Ho Chi Minh City, in particular, is also in the process of developing a public metro system. To date, UCCRTF support has helped enhance awareness and public perceptions of the metro as a viable transport alternative, especially over private vehicles—a large cause of congestion.

InFocus, an international public opinion research firm, conducted quantitative and qualitative research to gauge priority information needs and the best channels of influence. Based on their findings, a national communication specialist worked with the Hanoi Metro Company and other government counterparts to develop a dynamic communications strategy. This led to a full range of activities to raise public awareness and build support for the metro, and more generally, for green transport solutions that have positive climate impacts. Activities included monthly newsletters, creative communication materials, television spots, and both print and online newspaper features.

Furthermore, to assist Hanoi Metro in establishing a partnership with the national and local media and thereby drive home key messages of the strategy, a public relations firm – Clickable Vietnam – also implemented a targeted media plan that consist of videos, radio clips, and articles in leading city and national television, radio, print, and online media outlets.

Pursuant to the findings of the survey, social media has been a cornerstone of public outreach efforts. A second national communication consultant specializing in social media worked closely with Hanoi Metro to build their social media presence. This is possibly one of the first instances a government agency in Viet Nam has actively employed social media for public outreach. The Hanoi Metro Facebook page has garnered over 20,000 likes and followers, and also has a presence on YouTube, Twitter, and Instagram. The consultant also helped Hanoi Metro develop a more engaging website, with a streamlined look and enhanced content.

In addition to these activities, UCCRTF support helped build the capacity of Hanoi Metro staff in a wide range of communications areas. Aside from day-in, day-out capacity support, trainings and workshops were held on strategic communication planning, crisis communications, marketing, public relations, key message development, holding press events, and conducting media interviews.

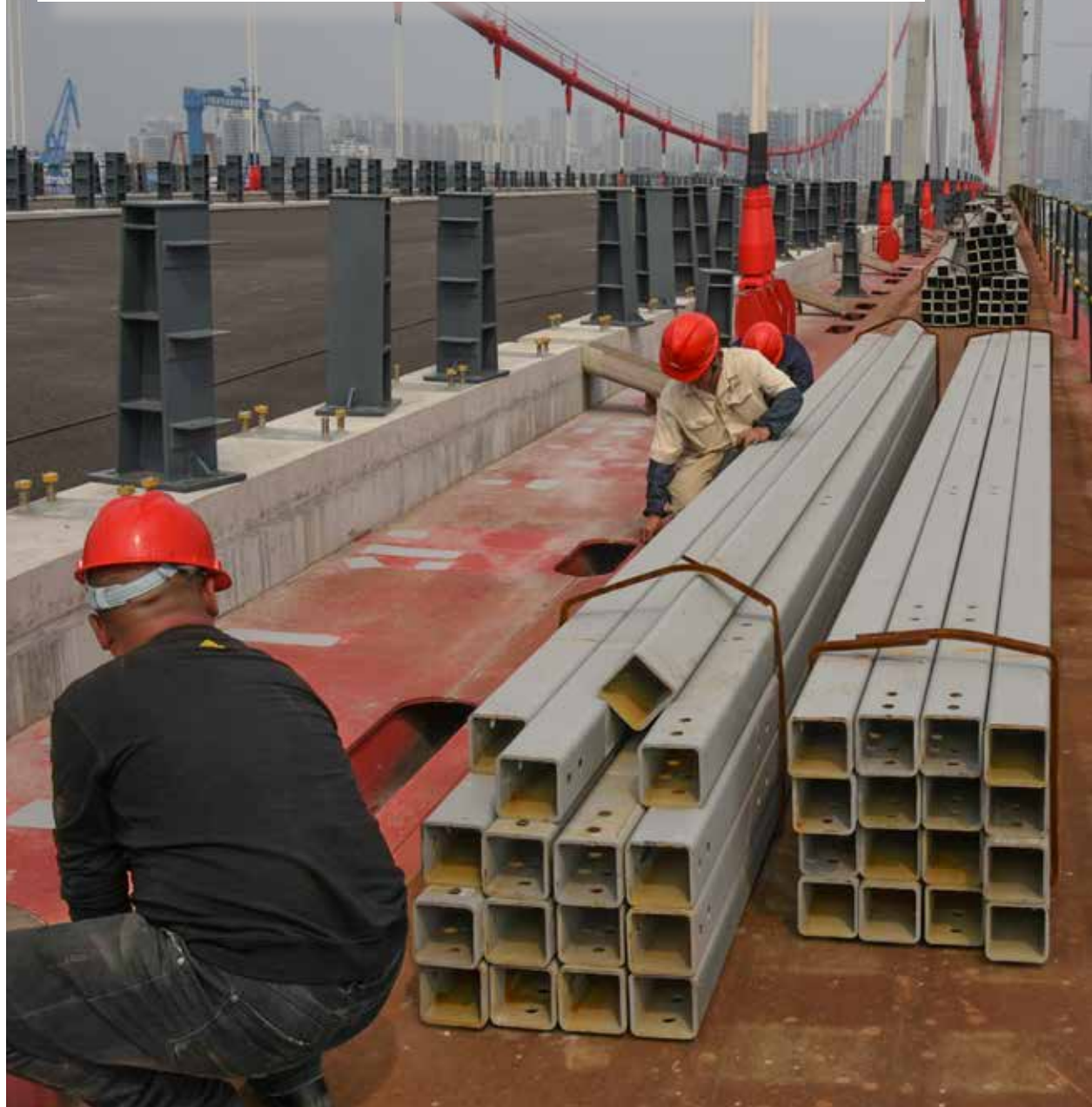
Today, the best practices and lessons learned from this support are beginning to be shared with the Ho Chi Minh City Metro, which has expressed interest in knowledge transfer. UCCRTF has successfully supported sustained communications that have raised public awareness of the metro as a preferred transport option, and fostered appreciation of its beneficial climate, environmental, and community impacts that can make Hanoi a more livable city.

HANOI
METRO
COMMUNICATIONS

UEIF

URBAN ENVIRONMENTAL INFRASTRUCTURE FUND

FINANCING PARTNER



TRUST FUND AMOUNT

Total amount
(\$ million)

21.45

Share in UFPF
12.26%

FINANCIAL STATUS

(\$ million)

Total committed^a

21.5

Total disbursed

12.9

^a This is the total committed amount for investment grants, technical assistance projects, and direct charge activities.

About UEIF

The Asian Development Bank (ADB) approved the establishment of the Urban Environmental Infrastructure Fund (UEIF) on 2 December 2009 under the Urban Financing Partnership Facility (UFPF). Parallel to this approval was the commitment of the Government of Sweden to contribute about \$14 million for the UEIF, followed by an additional contribution of \$7 million in 2011.

The fund supports ADB's response to the huge unmet needs of the region for both basic and economic infrastructure, which under the then prevailing Strategy 2020 is a core business area of operations.

The objective of UEIF is to raise and invest cofinancing from development partner agencies to support the implementation of Strategy 2020 through the provision of grants for technical assistance and investments focused on providing pro-poor and/or environmental benefits.

TRUST FUND OVERVIEW

Projects approved
(cumulative)

51

6 24 21
Investment grants TA projects Direct charge activities

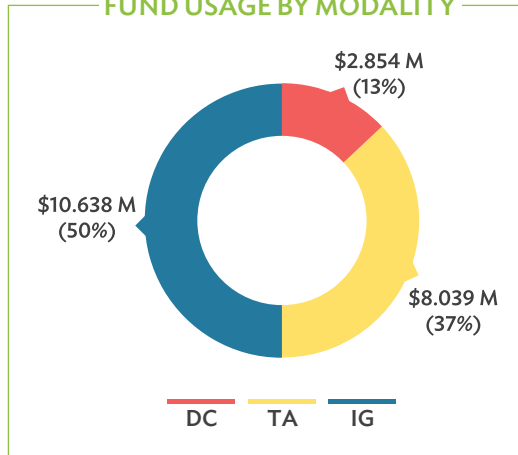
Projects completed
(cumulative)

36

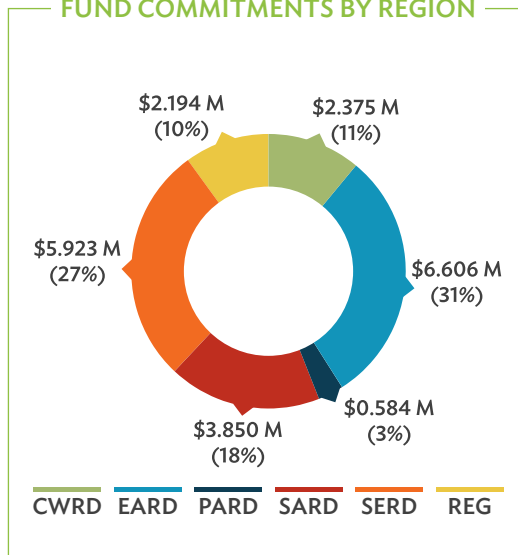
18 18
Investment grants Direct charge activities



FUND USAGE BY MODALITY



FUND COMMITMENTS BY REGION



As of end of 2018, a total of 36 projects under the Urban Environmental Infrastructure Trust Fund (UEIF) have been successfully completed, comprising 18 technical assistance (TA) projects and 18 projects under direct charge (DC) funding. About \$0.39 million (1.8%) of the funds remain uncommitted; these are from savings recovered and accounted for from completed activities.

UEIF has committed a total of \$21.5 million for 51 projects and activities since its establishment. These include six investment grants (IG), 24 TA projects, and 21 DC activities. In terms of monetary value, around 50% of the fund has been allotted to project investment grants. Total disbursements from all the projects and activities amount to \$12.9 million (62.9%).

Among the regional departments, majority of the UEIF allocations were on projects and activities in East Asia at 31%, followed by Southeast Asia (27%) and South Asia (18%).

Projects Approved

The year saw a total of four projects approved, covering urban solutions that intersect with transport, water, logistics and trade facilitation, and climate change resilience.

Regional: Knowledge Sharing Support for Urban Innovations and Livable Cities
UEIF DC Support: \$225,000

The activity, approved on 18 July 2018, will be implemented over a 24-month period. It will contribute to achieving the Strategy 2030 operational priority on “making cities more livable” by providing resources to ADB staff, especially those in operations departments and the Sustainable Development and Climate Change Department (SDCC), and to partners in developing member countries (DMCs) for knowledge work that deepen analysis of urban issues and promote urban innovations.

The project will engage the services of various experts to support: (i) the creation of a platform for sharing experiences on lessons and good

practices on urban innovations with other development banks, international organizations, and learning institutions; (ii) the preparation of the new Livable Cities Operational Priority Plan; and, (iii) knowledge and research work for a variety of activities done by ADB operations departments, such as documentation of project successes and impact stories.

Regional: Revitalization of Informal Settlements and their Environments Using a Water-Sensitive Approach (RISE)
UEIF TA Support: \$329,000

On 19 September 2018, a technical assistance project that will pilot and demonstrate the effectiveness of a water-sensitive approach for wastewater treatment, flood risk reduction, and urban environment improvement using decentralized green infrastructure to biologically treat contaminated and polluted water was approved. Both the Urban Climate Change Resilience Trust Fund (UCCRTF) and UEIF are financing the TA project.

This TA is expected to benefit at least 46 households (11 in Makassar and 35 in Suva) living in low-income communities. Residents will be provided with good quality sanitation services. This is in addition to improving their resilience to climate and disaster risks.

Pro-poor and pro-water housing. The project team interviewed residents in the pilot sites of the RISE project in Fiji, where both UEIF and UCCRTF are working to demonstrate the use of a water-sensitive design for urban sanitation.



The project is ongoing with the preparation of detailed engineering design and extensive community engagement.

People's Republic of China (PRC): Xiangtan Low-Carbon Transformation Sector Development Program
UEIF TA Support: \$300,000

This UEIF support supplements a \$200 million proposed loan from ADB. The loan aims to support the Xiangtan municipal government's efforts to transform Xiangtan from a carbon-intensive, heavily polluting city to a low-carbon, climate resilient, and livable one.¹⁵ It will combine project- and policy-based lending.

Approved in September 2018, the TA support will be utilized for establishing the core design of key infrastructure improvements under the project-based lending approach. Activities will include design improvements in urban transport and traffic signal management and control, hydraulic modeling and mapping to identify vulnerable areas, and the assessment

of the viability of ecosystem-based adaptation measures to mitigate effects of climate-related events. These initiatives are consistent with Strategy 2030, which emphasizes tackling climate change, building climate and disaster resilience, enhancing environmental sustainability, and making cities more livable.

PRC: Shaanxi Logistics Development Project
UEIF TA Support: \$400,000

Financing support was requested from UEIF in order to demonstrate an integrated logistics solution that will improve and optimize logistical and supply chain management and strengthen regional cooperation in Shaanxi Province. The funding is in support of a proposed ADB loan for the PRC amounting to \$200 million for the development of a comprehensive logistics and supply chain management system that will reduce logistics costs and build on the province's strategic location in both domestic and international trade, leading to economic development.

Inspecting the logistics.
UEIF is assisting an upcoming ADB investment in Shaanxi, PRC that will improve the supply chain management system in order to capitalize on the province's strategic location for domestic and international trade routes.



¹⁵ ADB. 2018. Concept Paper: *Proposed Loans People's Republic of China: Xiangtan Low-Carbon Transformation Sector Development Program*. Manila.

Also approved in September, the UEIF support for the TA project will be utilized to further enhance ADB's value-addition in project design by bringing in international best practices in multimodal connection, logistics facility planning, information system development, and other demonstrative aspects. Enhanced efficiency in movement of goods will translate to reduced urban congestion and improved urban environment, which is consistent with Strategy 2030 operational priorities on making cities more livable and fostering regional cooperation and integration.

Projects Completed

In 2018, the following three projects were successfully completed. This is in addition to projects financially closed within the year.

Projects with physical completion

India: Capacity Building of State Entities and Selected Cities in the State of Maharashtra to Develop and Implement India's National Flagship Urban Programs

UEIF DC Support: \$225,000

A direct charge was provided to initially support the State of Maharashtra, but this was later expanded to cover other states and cities so as to conduct technical due diligence on project proposals prepared by the respective government entities in accordance with the States, the Government of India, and ADB's policy requirements for funding. This led to firm proposals for ADB financing that support implementation of national flagship urban programs in various states.

The direct charge mainly supported development of citywide water, sewerage, and sanitation infrastructure, which would contribute directly to improved public health and sustainable urban growth.

India: Capacity Building of State Entities and Selected Cities in the State of West Bengal to Develop and Implement India's National Flagship Urban Programs.

UEIF DC Support: \$225,000

A direct charge provided support to the Government of West Bengal to conduct due diligence – technical, economic, financial, social and environmental safeguards, including climate change resilience – on project proposals prepared by state entities and selected cities. These proposals were prepared in accordance with both the state and national governments and ADB's policies and requirements to enhance their eligibility for funding under the country's flagship urban programs (e.g., Swachh Bharat [Clean India] Mission, Atal Mission for Rejuvenation and Urban Transformation, and Smart City Initiative). The UEIF undertaking led to ADB extending financial support for the West Bengal Drinking Water Sector Investment Program. The activity was financially closed on 13 August 2018.

Water for all in India's cities.

A number of UEIF projects aided the Government of India in implementing national urban programs, specifically in the states of Maharashtra, Tamil Nadu, and West Bengal, where direct charges primarily improved water and sewerage infrastructure.



Mongolia: Ulaanbaatar Air Quality Improvement Program

UEIF DC Support: \$61,000

Approved on 14 June 2017, this DC activity allowed the ADB-funded loan investment to engage experts to support the design of a policy-based loan program aimed at improving the air quality in Ulaanbaatar. The UEIF activity helped assess the anticipated social and environmental impacts (including whether positive or negative) of proposed air pollution control policies through qualitative and quantitative analysis. Through the funding assistance extended, ADB was able to assist the Government of Mongolia in setting up a sustainable emergency scheme to distribute cleaner fuel to poor families in peri-urban districts.

Saying farewell to coal.

In the PRC, UEIF is helping East Heilongjiang move away from fossil fuels and into a low-carbon future by preparing a mining remediation strategy and assessing infrastructure needed to ease the transformation.

Projects with financial closure

Financial closure was achieved for seven DC-funded initiatives and one TA project, including the aforementioned project in West Bengal, India. The projects are listed in order of financial closure.

PRC: Heilongjiang Coal-Rich Redevelopment Project

UEIF TA Support: \$300,000

The project preparatory technical assistance (PPTA), which has an estimated amount of \$1.1 million, was carried out in two phases. The first phase included activities such as: (i) subregional economic diagnostic study and strategy and non-coal industry development planning for East Heilongjiang, the city-cluster, and the four cities; (ii) identifying key economic activities and industries focusing on endogenous potentials and exploring further possibilities that can be implemented; (iii) preparing an investment strategy and program and demand analysis; (iv) identifying priority infrastructure that is expected to facilitate the proposed industrial transformation to be financed by the ADB loan (PRC: Heilongjiang Green Urban and Economic Revitalization Project); (v) assessing mining impact and preparing a mining remediation strategy including the identification of key environmental cleanup projects and coal mining remediation pilot projects to be financed by the loan; and (vi) identifying needed basic urban infrastructure and services that can be delivered through public-private partnerships (PPP).

Phase II covered (i) further developing and refining the economic and non-coal industry development plans; (ii) preparing the non-structural components of the project including possibly (a) strategic non-coal industry development implementation action plan for the subregion and the project cities, (b) labor force planning and human resource development strategy supporting the anticipated new industries with education, technical, and vocational education and training, (c) private sector finance programs, (d) mining remediation management plan, and (e) East Heilongjiang smart city cluster cooperation strategy and branding, marketing, and exchange platform development; and (iii) subjecting the structural investment components to careful due diligence on technical, environmental, social, safeguards, economic, and financial aspects.



UEIF funds were utilized to support key infrastructure that will contribute to enabling the much-needed non-coal economic revitalization and environmental cleanup. Financial closure for the PPTA was achieved on 5 July 2018.

Malaysia: Resilient Cities Asia-Pacific Conference

UEIF DC Support: \$10,000

With UEIF support, a subregional conference was organized and held in Melaka, where the objectives were to enable senior local government officials to share lessons learned and enhance regional integration of Green City Action Plans (GCAPs), and entrench ADB's role as the premier institution for green growth in Southeast Asia in order to drive implementation of climate-resilient and livable cities.¹⁶ The undertaking was successful in establishing information sharing opportunities among representatives of the GCAP cities through interactions and presentations of country experiences. This UEIF-supported activity was financially closed on 13 August 2018.

India: Technical Support to Implement Solid Waste Management Component of Swachh Bharat (Clean India) National Program in Urban Areas

UEIF DC Support: \$225,000

This stand-alone activity set to establish an entry point for (i) developing a pipeline of state-level investments in solid waste management (SWM) to be supported by ADB, and (ii) supporting the scale up of innovative approaches (i.e., waste-to-energy [WTE], regional landfilling, integrated processing facilities, etc.) in a critically weak area of sanitation in India.

Notable outputs from the activity include: (i) a detailed evaluation study and report for the Ministry of Urban Development, advising on the mid-term implementation performance of the Swachh Bharat Mission-Urban; (ii) implementation of awareness-raising activities such as a SWM branding toolkit; (iii) provision of advisory services on WTE, including a review on the Central Electricity Regulatory

Commission and how to encourage WTE from municipal solid waste; (iv) provision of advisory note on construction and demolition waste; (v) developing a model Request-for-Proposal for medical waste management services; and (vi) developing a handbook on municipal SWM technologies. The activity was financially closed on 15 August 2018.

India: Capacity Building of State Entities and Selected Cities in the State of Tamil Nadu to Develop and Implement India's National Flagship Urban Programs

UEIF DC Support: \$225,000

Similar to the West Bengal activity, the trust fund helped the Government of Tamil Nadu to conduct due diligence – technical, economic, financial, social and environmental safeguards, including climate change resilience – on project proposals prepared by state entities and selected cities. These proposals were prepared in accordance with the State, the Government of India, and ADB's policies and requirements to enhance their eligibility for funding under the flagship urban programs. The activity was deemed successful in that feasibility studies for water and wastewater subprojects were prepared for Tranche 1 of the ADB-funded Tamil Nadu Flagship Investment Program. The activity was financially closed on 15 August 2018.

Mongolia: Ulaanbaatar Urban Renewal Community Participation (Phase 1 and 2)

UEIF DC Support: \$170,000

Lack of investment in infrastructure and maintenance restricts access to urban services and raises the cost of doing business in Ulaanbaatar, Mongolia. The activity, done in two phases, was designed specifically to enhance community mobilization, participation, and empowerment to produce high quality and participatory local development plans in Ulaanbaatar City ger areas, and to bridge the gap between project preparation and project implementation stages. The initiative undertaken was integrated in PPTA 7970-MON¹⁷ and Ulaanbaatar Urban Services and Ger Areas Development Investment Program

¹⁶ The action plans take into account existing Green City frameworks, development master plans, and planned anchor projects to identify priority actions and projects that will support these communities to become models of urban sustainability.

¹⁷ ADB. 2011. *Technical Assistance to Mongolia for Ulaanbaatar Urban Services and Ger Areas Development Investment Program*. Manila.



activities.¹⁸ It directly contributed in achieving the program outcome of creating a sustainable, inclusive, and well-structured development of Ulaanbaatar peri-urban areas. The activity was financially closed on 19 November (Phase II) and 21 November (Phase I).

Ongoing Projects

During the year, significant progress was achieved on approved investment grants. The following are some of the ongoing projects:

Cambodia: GMS Corridor Towns Development Project – Mainstreaming 3R Approach

UEIF IG Support: \$1.5 million

The investment grant is intended to support activities under Loan 2983: Greater Mekong Subregion (GMS) Southern Economic Corridor Towns Development Project. The grant will be used to engage consultants and conduct civil works for the construction of materials recovery facilities (MRFs) for identified project towns to enhance their potential as agro-industrial and/or tourism hubs. MRFs for the towns of Battambang, Bavet, and Poipet have already been completed and have been undergoing testing since August 2018. These facilities will be handed over to the local authorities by the Ministry of Public Works and Transport for daily operation and management.

Lao People's Democratic Republic: GMS Corridor Towns Development Project – Mainstreaming 3R Approach

UEIF IG Support: \$0.638 million

The investment grant to support Loan 2931: GMS East-West Economic Corridor Towns Development Project will be used for the construction of an MRF for Kaysone Phomvihane, a border town considered as a major commercial, service, and agricultural center. The MRF will complement the proposed sanitary landfill in the area. Detailed engineering design for the proposed facility is already complete, and the construction on the new landfill and MRF started in the third quarter of 2018. The construction work has progressed well since the October–November rainy season ended. Substantial progress is expected before the rainy season starts in June 2019, as any time thereafter impacts the earthworks. Equipment for the MRF is also being procured. In addition,

The activity was deemed successful in that feasibility studies for water and wastewater subprojects were prepared for Tranche 1 of the ADB-funded Tamil Nadu Flagship Investment Program.

Mongolia: Mongolia National Urban Assessment (NUA)

UEIF DC Support: \$225,000

This activity focused on formulating a NUA for the country to (i) deepen the comprehensive understanding of the urban sector in Mongolia, (ii) improve the government and ADB's analytical tools and programming capacity, and (iii) to identify a priority project pipeline for urban development.

The implementation of the activity was deemed successful, except for some delays. The final report of the NUA produced a strategic and analytical framework that included a current situation assessment; a soum development index; a conceptual regional cluster territorial organization; an overall national urban development vision and strategic development goals; 106 development recommendations with implementation priority and phasing; and an urban infrastructure investment priority plan. The activity also saw a significant institutional impact made on the Ministry of Construction and Urban Development through the establishment of an enabling environment for innovative and integrated approaches to be developed by ongoing and future transaction and knowledge support technical assistance projects. Financial closure was attained on 13 December 2018.

¹⁸ ADB. 2013. *Report and Recommendation of the President to the Board of Directors: Proposed Multitranchise Financing Facility to Mongolia for the Ulaanbaatar Urban Services and Ger Areas Development Investment Program*. Manila. The investment program aims to promote an inclusive peri-urban development in the ger areas of Ulaanbaatar, the capital city of Mongolia.

the project team is assessing the use of the existing unofficial waste pickers working at the landfill and possibly providing them with a formal and safer employment at the MRF.

Viet Nam: GMS Corridor Towns Development Project – Mainstreaming 3R Approach

UEIF IG Support: \$1 million

The investment grant for Loan 2969: GMS Economic Corridor Towns Development Project was used to construct MRFs for the towns of Dong Ha and Moc Bai, strategic areas with big potential for economic opportunities and growth. Currently, the two facilities (total of \$0.75 million) are fully operational, having been commissioned by mid-2018. With the savings generated, the recipient towns have expressed intent to procure additional equipment, which is being prepared for endorsement.

India: Karnataka Integrated Urban Water Management Investment Program

UEIF IG Support: \$1.8 million

The investment grant supports the activities of said investment program (MFF Loan 3148), specifically in engaging a non-government organization that will develop community-based sanitation interventions (e.g., toilets) using an output-based modality. The goal of the output-based toilet and connection program is to install around 7,000 new toilets for poor and vulnerable households (Output 1.2 Sanitation Infrastructure). To date, a total of 1,814 toilets have been constructed (1,281 in Davangere, 129 in Byadgi, 288 in Ranebennur, and 116 toilets in Harihara).

Mongolia: Ulaanbaatar Water and Wastewater Operations Improvement

UEIF IG Support: \$3.7 million

UEIF contributed an investment grant to support the implementation of outputs under Multitranches Financing Facility (MFF) Loan 3098/99: Ulaanbaatar Urban Services and Ger Areas Development Investment Program – Tranche 1. This will help improve the provision of water supply and sewerage services in the subcenters of Ulaanbaatar's

ger areas. A \$3.37 million civil works contract for water and sanitation, awarded in October 2016, has made steady gains in 2018. To date, all activities (engineering design, supply and installation of pump equipment and SCADA system, and construction and commissioning of pumping stations) have been successfully completed, commissioned, and handed over to the Ulaanbaatar Water Supply and Sewerage Authority.

Philippines: Water District Development Sector Project

UEIF IG Support: \$2 million

This support will go toward constructing a septage treatment plant and procuring vacuum trucks for desludging and transport of septage to the treatment facility under Loan 3389: Water District Development Sector Project.

The project has experienced some start-up delays, primarily due to change in management at the Local Water Utilities Administration (LWUA) and consequently changes in project implementation arrangements. ADB is working closely with the LWUA to update implementation and project management arrangements in line with the approach of the new acting administrator, and to identify and develop seven subprojects totaling about \$23.6 million for financing under the loan. Preparation of bidding documents for these subprojects is ongoing, with completion expected by end of 2021.



No to Open Defecation, Yes to Sanitation



The Karnataka Integrated Urban Water Management Investment Program is a multitranche facility approved by ADB in March 2014. The primary objective of the project is to improve sustainable water security in select river basins in Karnataka. By July 2014, a \$75 million loan was approved for the first tranche of the program, which covers improving urban water supply and sanitation services in identified project towns, as well as strengthening water resources planning, monitoring, and service delivery.

UEIF provided grant cofinancing amounting to \$1.8 million, specifically to implement an output-based approach (OBA) toilet program. An OBA mechanism is a results-based financing modality wherein payments are triggered by achievements made on agreed upon outputs and outcomes. The OBA toilet program is about ensuring access to sanitation facilities particularly for low-income or below poverty line households is improved and that open defecation free communities are promoted across four project towns.

To date, over 1,800 toilets have been constructed. The OBA toilet program, with a target of 7,000 toilets, has provided a perfect complement to the first tranche of the investment program as it continues to build momentum and achieve sizable gains in terms of advancing the sanitation agenda for the poor. Upon completion, around 35,000 residents stand to benefit from this toilet program.

Support to Capacity Development

The UEIF through its direct charge support (Regional: Knowledge Sharing Support for Urban Innovations and Livable Cities) was able to fund the participation of ADB and officials from developing member countries (DMCs) in knowledge sharing events in 2018. These international events include the Asia Smart Cities Conference in Yokohama, Japan in partnership with the City of Yokohama and the ADB Institute; World Water Congress and Exhibition in Tokyo, Japan in collaboration with the International Water Association; and the Workshop on New Approaches to Public-Private Partnerships and Municipal Finance Innovations in South and South West Asia in New Delhi, India in partnership with the United Nations Economic and Social Commission for Asia and the Pacific (UN-ESCAP).

Lessons Learned

Among the three financing modalities, disbursement against total UEIF committed funding has still been lagging for investment grants, particularly for projects in India and the Philippines. For example, with the latter, the delay was attributed to the change in management in the implementing agency (LWUA). Under the new management, a different approach in project implementation was adopted, which has unfortunately negated the gains achieved (during procurement phase) using the previous method.

Generally, most of the delays are attributed to the procurement and contracting processes under loan projects—including those for detailed engineering design consulting services. It is therefore concluded that for financing applications attached to loans, advanced project design and contracting should be made one of the criteria for approval.

Provided UEIF will get fund replenishments in the future, financing support to direct charge activities and TAs should be more of a priority.

Disbursement for technical assistance and direct charge-funded activities, on the other hand, showed steady improvement as initiatives implemented were successfully completed within the year. These activities, aside from their smaller scope as compared to those funded under investment grants, require immediate utilization. If UEIF is replenished in the future, financing support to direct charge activities and TA projects should be made a priority.



CDIA

CITIES DEVELOPMENT INITIATIVE FOR ASIA TRUST FUND

FINANCING PARTNERS



IMPLEMENTING AGENCIES



About CDIA

In October 2017, the Asian Development Bank (ADB) approved the establishment of the Cities Development Initiative for Asia (CDIA) Trust Fund under the Urban Financing Partnership Facility (UFPF).

The overall objective of the fund is to support cities in ADB's developing member countries (DMCs) to prepare urban infrastructure investments and link these to financing. Specifically, the objectives are to: (i) assist medium-sized Asia-Pacific cities to prepare sustainable and bankable infrastructure projects; (ii) ensure financing for these urban infrastructure projects is secured; and, (iii) strengthen individual and organizational capacities of DMC stakeholders related to the preparation and financing of high priority urban infrastructure investments.

The fund builds on the 10-year track record of the CDIA program in supporting cities in Asia and the Pacific to bridge the gap between their development plans and the implementation of their infrastructure investments through technical assistance in project preparation and capacity building activities. Using a demand-driven approach, CDIA supports the identification and development of urban investment projects that emphasize one or more of the following impact areas: urban environmental improvement, urban poverty reduction, climate change mitigation and adaptation, and improved governance.

TRUST FUND AMOUNT

Total amount
(\$ million)

4.2

Share in UFPF

2.40%

FINANCIAL STATUS^a

Total committed

—

Total disbursed

—

^a Commitments and disbursements will begin in 2019.

TRUST FUND OVERVIEW

Project preparation studies (PPSs)
commissioned (cumulative)

95

84 Projects completed	67 Projects linked to financing	9.9 Total financing secured (\$ billion)
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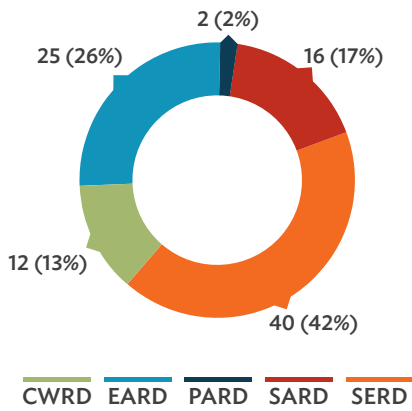
Projects completed
(cumulative)

9

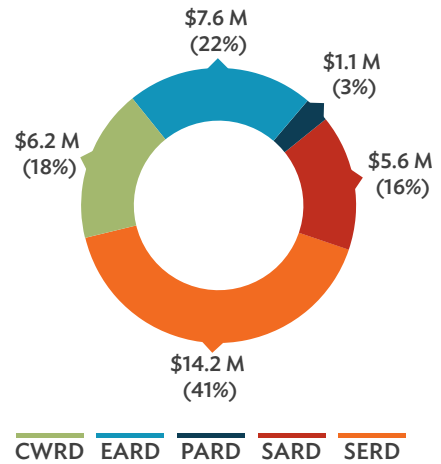
20 Projects linked to financing	2.5 Total financing secured (\$ billion)
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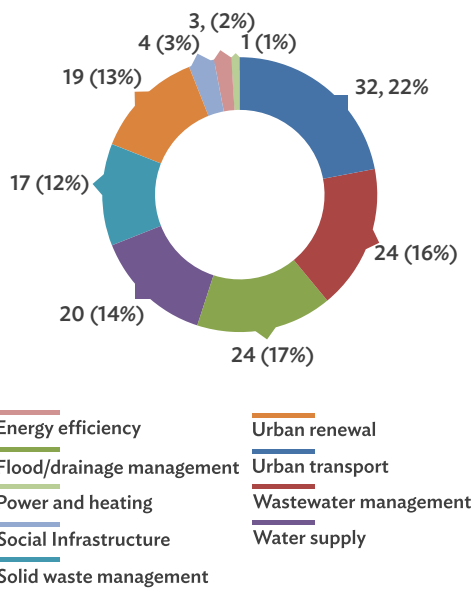
APPROVED PPS BY REGION



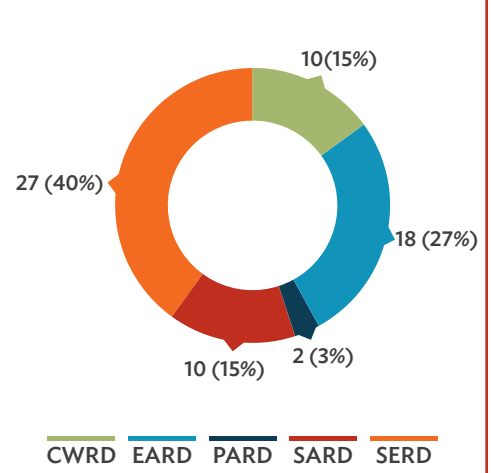
AMOUNT OF CDIA SUPPORT BY REGION



APPROVED PPS BY SECTOR



PPS LINKED TO FINANCE BY REGION



The Cities Development Initiative for Asia (CDIA) concluded its direct engagement with Gesellschaft für Internationale Zusammenarbeit (GIZ) by the end of 2018, wrapping up a year of transition as CDIA moves forward completely as a new ADB-managed and independent trust fund under UFPF in 2019. This ends 11 years of partnership with GIZ, working closely with cities across Asia and the Pacific to help address gaps in infrastructure project development and financing.

The milestone was marked with a knowledge sharing session on 21 November in ADB headquarters, along with the release of a publication entitled *Bridging Cities, People and Sustainable Development*.¹⁹

In 2018, the CDIA Trust Fund operations were guided by the new CDIA Strategy 2018–2022, which builds on the program’s achievements under the CDIA Strategy and Business Plan 2013–2017.²⁰ However, since contributions from financing partners were received only in the last quarter of the year, initial operations under the new strategy have been financed through ADB’s regional technical assistance (TA) and funds managed by other entities such as GIZ.

Contributions to the CDIA Trust Fund received in the last quarter of 2018 include \$2.2 million from Austria, \$2.0 million from Switzerland, and \$0.4 million from Germany. Other parallel funding from the European Union and France, amounting to \$6.8 million managed by the Agence Française de Développement (AFD), also formed part of CDIA resources in 2018. Of this amount, \$5.4 million are dedicated to project preparation studies (PPSs) targeting up to 12 cities in Asia and the Pacific covering urban development projects with climate co-benefits; \$1.13 million will cover the secondment of an international consultant to the CDIA office in Manila and administrative costs of a liaison office in Paris; and \$0.23 million are earmarked for CDIA’s communication, outreach, and networking activities.

The CDIA Trust Fund management acknowledges the significant achievements and high value addition of CDIA in the past

decade and is taking all necessary measures to ensure that it retains its original structure, independence, functionality, and systems and processes as far as possible, while moving toward a more institutionalized form of a trust fund.

Specifically, the CDIA transformation to a trust fund will retain and continue the following broad features of CDIA: (i) support cities in the areas of project preparation and capacity development; (ii) take up projects based on cities’ needs; (iii) support various development partners, in addition to ADB, and will remain an open multidonor initiative; (iv) retain its high development orientation and impact through its focus on development results; (v) prioritize efforts on innovation, knowledge sharing, and capacity development; (vi) continue its growth trajectory by making its services available to more cities, projects, and infrastructure investments per year; (vii) keep its own visual and organizational identity, handle financial and in-kind contributions, and provide all information and concrete products to individual donors, as requested; and, (viii) have competent experts and interdisciplinary team members with project preparation and broader advisory and capacity building skills. Overall, CDIA will continue to proactively engage with all important stakeholders including its current and potential donors.

During the year, CDIA completed nine PPSs, as well as approved four city applications for PPS support amounting to \$2.8 million. Cumulatively, CDIA has commissioned a total of 95 PPSs in 95 medium-sized cities across 19 countries in the region with total CDIA support amounting to \$34.6 million.

Of the 95 cities, 73 cities have linked their priority infrastructure projects to downstream financing estimated at \$9.9 billion (see Appendix).

By region, Southeast Asia accounts for the biggest share of the total CDIA PPS support at 41%, followed by East Asia at 22%. These two regions account for two-thirds of the total number of commissioned PPS work in CDIA-assisted cities.

¹⁹ CDIA. 2018. *Bridging Cities, People and Sustainable Development*. Manila. <http://cdia.asia/publication/cdia-2018-publication-bridging-cities-people-and-sustainable-development/>

²⁰ Approved by the CDIA Financing Partners in November 2017, the Strategy defines the strategic orientation and work plan of CDIA for the next phase, 2018–2022. www.cdia.asia/publications/cdia-strategy.



Projects Approved

In 2018, CDIA approved four city applications for technical assistance to conduct PPSs amounting to \$2.8 million.

India: Smart City – Panaji 24/7 Water Supply and Saint Inez Creek Rejuvenation Project

CDIA PPS Support: \$600,000
Linked to ADB Loan: To be confirmed (TBC)

CDIA will provide PPS support to two key subprojects: (i) upgrading of the city’s water supply system into a 24/7 customer-focused service, and (ii) rejuvenation of St. Inez Creek. Aimed at improving the livability of Panaji City and the Panaji Agglomeration Area, the PPS will assist Imagine Panaji Smart City Development Ltd to formulate two sub-components of a proposed ADB loan on water supply and sewerage infrastructure.

Indonesia: Slum Improvement in Strategic Human Settlement Area (SISHA)

CDIA PPS Support: \$600,000
Linked to ADB Loan: TBC

The SISHA project aims to improve the living conditions in slum areas by providing needed urban infrastructure. Key objectives of the CDIA PPS support are to: (i) identify priority urban infrastructure subprojects in slum areas within five Indonesian cities and prepare them to prefeasibility level; (ii) further develop the SISHA concept; and, (iii) develop the readiness criteria for slum alleviation projects. The PPS

supports the SISHA component of the Slum Alleviation Program under ADB’s updated Country Operations Business Plan 2019–2021 for Indonesia.

Myanmar: Yangon Urban Services Improvement Project

CDIA PPS Support: \$1,018,305
Linked to ADB Loan: TBC

The trust fund will support Yangon in the preparation of a prefeasibility study and preliminary engineering design, contract preparation, and loan diligence for two subprojects: (i) the replacement of the existing open raw water channel from the Ngamoeyeik reservoir to the Nyaungnabin water treatment plant and subsequently to the Aungtagon pumping station with a dedicated raw water transmission pipeline; and (ii) construction of a new sewerage system and wastewater treatment plant serving Zones W1 and W2. This PPS is linked to a proposed ADB loan that will help improve water and sanitation services in Yangon City, as well as its urban resilience, which are included under ADB’s updated Country Operations Business Plan for Myanmar.

Sri Lanka: Matara Sustainable Urban Development Project

CDIA PPS Support: \$550,000
Linked to AFD Loan: TBC

The prime objective of the CDIA support is to assist the city of Matara in preparing a sustainable and integrated infrastructure investment project, specifically bringing the project to the feasibility or preliminary engineering design stage that is ready for downstream financing by the AFD. The PPS will focus on five key components: (i) upgrading of on-site sanitation facilities and septic tank sludge collection, treatment, and disposal system; (ii) improvement of solid waste management; (iii) upgrading of the city’s flood protection measures; (iv) improvement of the storm water drainage infrastructure; and, (v) urban regeneration. This project will help raise the livability and climate change resilience of Matara and the broader Greater Matara Area.

Imagine an improved Panaji.

CDIA is supporting the city of Panaji in India with a study to map the current water network and pinpoint improvements that will lead to a continuous, reliable, and sustainable water supply system. The CDIA team held its inception meeting on October 2018.



Projects Completed

Nine project preparation studies were completed during the reporting period, bringing the total number of completed PPSs to 84 by end of 2018. The following are highlights from each study.

Georgia: Tbilisi Metro Upgrading Project

CDIA PPS Support: \$350,000

Linked to ADB Loan: \$14 million

The Tbilisi Metro study, which began in late February 2017 and concluded in June 2018, was geared toward modernizing the transport system in order to meet present-day technical, operational, safety, and accessibility standards. This was part of the city's vision to shift to sustainable urban mobility.

The key outputs of the CDIA support included: (i) audit and inventory of the Tbilisi Metro System; (ii) specific recommendations for Tbilisi Metro System modernization and refurbishment; (iii) phased investment plan for modernization; and, (iv) detailed design and technical specification for the top priority works including cabling and ventilators. ADB, under its Sustainable Urban Transport Investment Program (SUTIP) multitranchise financing facility, has agreed to finance the rehabilitation under Tranche 5 of SUTIP.

India: Jalandhar Surface Water Supply System Project

CDIA PPS Support: \$752,482

Linked to ADB Loan: TBC

Like many other cities in India, Jalandhar is dependent on groundwater for its water needs. However, its current supply is almost depleted, and rainfall patterns are insufficient to recharge the source for the city's growing volume requirements. This study assisted the city in pursuing a more sustainable and reliable water supply by preparing a feasibility study and preliminary design for a surface water supply system. This included identifying a surface water source and stable location for an intake pump, water treatment plant, and transmission lines that will connect to the existing distribution system, while considering social and environmental norms.

Another component of the PPS was an institutional review and assessment of the Municipal Corporation of Jalandhar and preparing a roadmap for capacity development. CDIA conducted a study tour in Bangladesh, sponsoring four technical experts from the Municipal Corporation to visit and learn from the successful turnaround of the Dhaka Water Supply and Sewerage Authority, which is now recognized as one of the top public water utilities in South Asia. Lessons learned from the tour are expected to aid infrastructure development and implementation toward a more resilient water supply in the city.

Modernizing the metro.

One of the projects completed during the reporting period is the Tbilisi Metro Upgrading Project, which proposed a detailed design to bring technical standards up to par in order to ensure passengers' safety.



The PPS was completed in November 2018 and the project is pipelined for ADB financing.

Indonesia: Sewerage System Development Project

CDIA PPS Support: \$750,000
Linked to ADB Loan: \$210 million (TBC)

Completed in February 2018, the PPS comprehensively reviewed the existing technical, social, environmental, and climate change issues surrounding wastewater and septage management in the cities of Banda Aceh, Bekasi, and Mataram in Indonesia. This feasibility study is in support of the ADB-funded Sewerage System Development Project (SSDP) that supports: (i) rehabilitation and construction of offsite and on-site wastewater management systems; (ii) establishment of effective service delivery system; and, (iii) implementation of public awareness campaigns. With the help of the PPS, the SSDP is expected to close the infrastructure gap that will ensure better health and environmental conditions in the three cities.

selected policy actions under the National Program for Reducing Air and Environmental Pollution. The PPS was carried out in coordination with the ADB-funded transaction TA that supported the Government of Mongolia in the preparation and due diligence for the Ulaanbaatar Air Quality Improvement Program, a \$130 million policy-based loan that was subsequently approved in March 2018.

People's Republic of China (PRC): Heilongjiang Green Urban and Economic Revitalization Project

CDIA PPS Support: \$70,000
Linked to ADB Loan: \$310 million

In addition to the support given by the Urban Environmental Infrastructure Fund (UEIF), CDIA participated in the due diligence mission of the Heilongjiang Green Urban and Economic Revitalization Project, specifically on techno-economic due diligence, procurement, and environmental and social aspects. The project aims to revitalize the economy through the establishment of non-coal industries and increasing the urban livability of East Heilongjiang province, since the region used to be a coal mining hub prior to the country's change in climate and energy policy. The project involves (i) building urban sewers and wastewater treatment plants; (ii) remediation and environmental cleanup of coal mining sites; (iii) developing an electronic bus system in one of the project cities; (iv) rehabilitation of heat supply pipes and utility distribution pipes, including reducing nonrevenue water measures; and, (v) improvement of storm water infrastructure and management system.

For the PPS, CDIA identified additional projects that financing agencies such as ADB and the European Investment Bank (EIB) could take forward.²¹ The team also identified information gaps and updated the technical aspects of nine infrastructure subprojects that were at different levels of readiness. By mid-2018, the project was linked to ADB financing amounting to \$310 million while an additional \$220 million has been pipelined for EIB cofinancing.

A breath of fresh air. The level of air pollution in Ulaanbaatar is one of the highest in the world. The CDIA team conducted a study reviewing economic implications of policies to improve air quality in the city, which eventually linked to further financing from ADB.

Mongolia: Ulaanbaatar Air Quality Improvement Program

CDIA PPS Support: Not applicable
Linked to ADB Loan: \$130 million

The aim of the PPS was to assist the Ministry of Finance of Mongolia in the rapid review and appraisal of the economic analysis supporting



²¹ CDIA. 2018. The Black Dragon Rises! How the Heilongjiang Region Rethinks its Coal-based Economy. <http://cdia.asia/2018/05/28/the-black-dragon-rises-how-the-heilongjiang-region-rethinks-its-coal-based-economy/>

PRC: Guiyang Vocational Education Project

CDIA PPS Support: \$400,000

Linked to public-private partnership (PPP):
\$100 million (TBC)

The Guiyang Municipal Government is planning to expand the Guiyang Vocational and Technical College (GVTC) model to boost the quality of public education and improve the overall educational experience of students, using a PPP model. CDIA supported various activities under the PPS, including: (i) preparation of a prefeasibility study that will guide the GVTC in the design, operation, and management of the school facilities; (ii) identification of suitable mechanisms of cooperation with the private sector to enhance revenue sources and improve the quality of GVTC trainings; and (iii) provision of transaction advisory services to GVTC. The project is currently pipelined for PPP financing estimated at \$100 million.

PRC: Kaili Green Public Transport Hub Project

CDIA PPS Support: \$310,394

Linked to PPP: TBC

Similar to the Guiyang project, CDIA assisted the city government in developing a PPP model and implementation plan for their Green Public Transport Hub project. The team also reviewed the overall design and operational strategy for the hub. Main PPS activities included the (i) review and validation of the transport hub's existing plans and documents, (ii) PPP model development and market testing, and (iii) capacity building of key project stakeholders. Pipelined for PPP financing, the project will improve not only the urban transport services but also reduce the congestion in the central area of Kaili.

PRC: Sichuan Ziyang Inclusive Green Development Project

CDIA PPS Support: \$549,870

Linked to ADB Loan: \$200 million

CDIA supported the Ziyang Municipal Government in preparing and ensuring compliance with ADB requirements for the proposed Sichuan Ziyang Green Transformation

and Development Project. Working closely with ADB's transaction TA team, CDIA assessed the technical feasibility of the project and provided due diligence on the economic and financial feasibility of the project. Safeguard requirements were reviewed as well, and the CDIA team assisted in preparing required project loan documents.

The PPS has since been linked to a \$200 million ADB loan, when the project was approved in December 2018. The project aims to improve the economic and environmental conditions in Ziyang and the Sichuan Ziyang High Technology Development Zone.

The project aims to revitalize the economy through the establishment of non-coal industries and increasing the urban livability of East Heilongjiang, since the region used to be a coal mining hub.

Tajikistan: Dushanbe Water Supply and Sanitation Project

CDIA PPS Support: \$530,000

Linked to ADB Grant: \$41 million

The prime objective of the CDIA PPS was to identify and prepare for the preliminary engineering design stage a priority subproject targeting demand management and the reduction of nonrevenue water in Dushanbe through the introduction of district metering areas, together with the rehabilitation of the water transmission, storage, distribution system and customer connections, and the installation of customer water meters. Parallel objectives included the preparation of a sanitation roadmap, improved water supply and sanitation infrastructure resilience, and an institutional capacity development roadmap for Dushanbe Vodokanal, the authority responsible for water supply and sanitation in the city. Carried out in close cooperation with a parallel ADB-financed transaction TA, the PPS has been linked to a \$41 million ADB grant approved in September 2018.



Ongoing Projects

As of December 2018, CDIA has 11 PPSs in the works across nine countries with total CDIA support amounting to about \$7.5 million. Of these 11 projects, four were approved within the year (see Projects Approved) and eight are pipelined for ADB financing.

Cambodia: Siem Reap Wastewater Collection Network Development Project

CDIA PPS Support: \$777,000

Linked to World Bank Loan: \$25 million

Doing away with sewage discharge. Despite the tourism income due to Angkor Wat, Siem Reap suffers from poor sanitation infrastructure. CDIA is working with the local government to prepare a wastewater development plan.

CDIA is supporting Siem Reap in preparing a feasibility study that includes a preliminary engineering design of secondary and tertiary wastewater network zones and conducting environmental and social safeguard assessments. This PPS is linked to the Small Town Water Supply and Sanitation Improvement Project to be funded by the World Bank.

Georgia: Twinning Support to United Water Supply Company

CDIA PPS Support: \$500,000

Linked to ADB Loan: TBC

Started in 2017, this project is about providing the United Water Supply Company of Georgia technical assistance on water operations and asset management. Focus areas include nonrevenue water and leak detection, customer service and metering, and water utility energy management.

Indonesia: Balikpapan and Singkawang Bulk Water Supply Project

CDIA PPS Support: \$569,976

Linked to National Government Financing: TBC

Two cities in the island of Borneo in Indonesia, Balikpapan sits on the east coast (particularly the province of East Kalimantan) while Singkawang is on the west at West Kalimantan. Support for the two cities constitute a rapid assessment of water supply source, a prefeasibility study and concept design of water supply systems, and evaluating the potential for a PPP. This TA project is linked to future investments by the Indonesian government in the water supply sector.

Myanmar: Yangon Sustainable Urban Transport Project

CDIA PPS Support: \$775,707

Linked to ADB Loan: TBC

For this PPS, CDIA is supporting Yangon to produce feasible bus priority measures for the Pyay road corridor, including associated traffic management and pedestrian and parking improvements for the downtown area. The PPS outputs will serve as basis for agreement between ADB and the government over the financing of the project.



Pakistan: Punjab Intermediate Cities Infrastructure Investment Program II
CDIA PPS Support: \$900,000
Linked to ADB Loan: TBC

In parallel with the ADB-funded transaction TA, Punjab Intermediate Cities Improvement Investment (Phase 2), which was approved in December 2017, CDIA is supporting the cities of Bahawalpur, Muzaffargarh, Rahim Yar Khan, and Sargodha in developing urban infrastructure.

As noted in the TA, the rate of urbanization in the country is unprecedented, where cumulatively the population of its cities has expanded by over 70% during the past two decades. As a result, its cities continue to undergo relentless urban densification and expansion, thereby increasing the demand for urban services and pressure on institutions to deliver.²²

Key PPS activities include the (i) preparation of a medium-term infrastructure investment program; (ii) identification and preparation of prioritized urban infrastructure projects on urban transport, water supply, sewerage and drainage and solid waste management; and (iii) conduct of climate change and vulnerability assessments in the targeted cities.

PRC: Chongqing Innovation and Human Capital Development Project
CDIA PPS Support: \$450,000
Linked to ADB Loan: \$427 million (TBC)

In partnership with the government, universities, colleges and industrial parks, this project seeks to advance technological innovation and provide an incubation environment to develop the next generation of technical professionals, entrepreneurs, and thought leaders in the region. The project plans to combine both hard and soft infrastructure with innovative and green approaches, in correlation to the country's request to ADB for the sustainable and inclusive industrial transformation of the Yangtze River, through the Yangtze River Economic Belt Green Transformation Project.

The PPS focus areas include flood control and river rehabilitation, business incubation, and technical and vocational education and training (TVET) education.

Vanuatu: Luganville Strategic Infrastructure Plan
CDIA PPS Support: \$738,034
Linked to ADB Loan: \$12 million (TBC)

Luganville, the second largest city in Vanuatu, is increasingly getting recognized for its economic potential; thus gaining more infrastructure investments. To maximize this potential, an integrated urban development plan is needed to guide the city's expansion.

CDIA is supporting ADB in preparing the Luganville Integrated Urban Development Plan, which is intended to be implemented in two phases. Phase I entails the formulation of a short yet actionable and integrated urban plan for the city, while Phase II includes producing feasibility study outputs for identified priority projects. ADB is expected to use the outputs to facilitate agreement on a \$12 million support to the Government of Vanuatu.

For its part, CDIA will prepare a spatial and integrated infrastructure plan until 2030, as well as identify and prepare priority subprojects to feasibility level.

Geared for take off.

The only project that the UFPF is supporting in the Pacific, the Luganville PPS aims to help the Government of Vanuatu in preparing an integrated urban development plan that will allow the country's second largest city to soar economically.



²² ADB. 2018. Quarterly Summary Report on Approved (A) Transaction Technical Assistance Not Exceeding \$5,000,000; (B) Knowledge and Support Technical Assistance Projects Not Exceeding \$225,000; and (C) Technical Assistance Cluster Subprojects (October–December 2017). Manila. www.adb.org/sites/default/files/project-documents/-ssta-en_2.pdf



Projects Linked to Financing

In 2018, a total of 20 completed and ongoing PPSs covering 18 additional cities across 11 countries in the region have translated to downstream financing estimated at \$2.5 billion. These projects include:

1	Bangladesh: Khulna Solid Waste Management and Drainage Management Project	ADB: \$120 million	10	Myanmar: Yangon Sustainable Urban Transport Project	ADB: \$150 million
2	Cambodia: Siem Reap Wastewater Collection Network Development Project	World Bank: \$25 million	11	Pakistan: Punjab Intermediate Cities Infrastructure Investment Program II	ADB: \$300 million
3	Georgia: Tbilisi Bus Network Improvement Project	Local government: \$70 million	12	PRC: Anxiang Flood and Integrated Water Management Project	Local financing institution (LFI): \$60 million
4	India: Jalandhar Surface Water Supply System Project	ADB: TBC	13	PRC: Chongqing Innovation and Human Capital Development Project	ADB: \$427 million
5	India: Visakhapatnam Water Supply Project	ADB: TBC	14	PRC: Handan Wastewater Treatment Project	LFI: \$32 million
6	Indonesia: Balikpapan/Singkawang Bulk Water Supply Project	National government: TBC	15	PRC: Heilongjiang Green Urban and Economic Revitalization Project	ADB: \$310 million
7	Indonesia: Banda Aceh-Bekasi-Mataram Sewerage System Development Project	ADB: \$210 million	16	PRC: Lincang Border Economic Zone Development Project	ADB: \$250 million
8	Mongolia: Ulaanbaatar Cultural Heritage and Tourism Development in Ger Areas	ADB: \$102 million	17	PRC: Yongzhou Existing Solid Waste Comprehensive Treatment Project	ADB: \$30 million
9	Mongolia: Ulaanbaatar Air Quality Improvement Project	ADB: \$130 million	18	PRC: Sichuan Ziyang Green Transformation and Development Project	ADB: \$200 million
			19	Tajikistan: Dushanbe Water Supply and Sanitation	ADB: \$41 million
			20	Vanuatu: Luganville Strategic Infrastructure Plan	ADB: \$12 million

Support to Capacity Building

To ensure sustainability and to enhance project impact within the supported cities, the CDIA program assists in the strengthening of capacities at the individual, organizational, and societal levels with a focus on linking capacity building initiatives with infrastructure project preparation support.

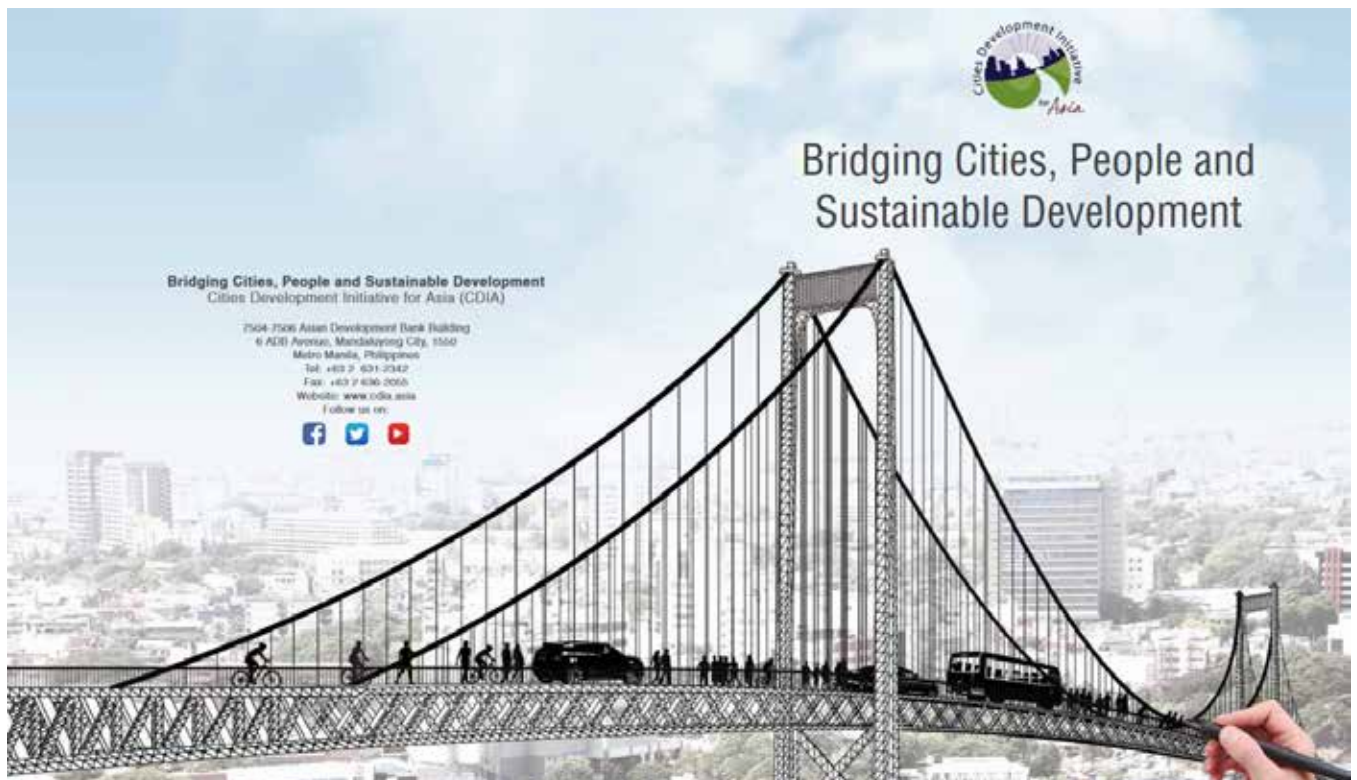
In 2018, four capacity development activities were undertaken in support of PPS interventions in Jalandhar, India (Surface Water Supply System Project); Tbilisi, Georgia (Tbilisi Metro Upgrading Project); Chongqing (Innovation and Human Capital Development Project) and Kaili (Green Public Transportation Hub) in the PRC.

Additionally, capacity development support on project preparation was provided to three national project development facilities (PDFs): (i) PT Serana Multi Infrastruktur (PT SMI) in Indonesia, through three batches of Linking to Finance training for some 55 participants from

PT SMI's partner cities; (ii) PPP Center in the Philippines, through staff training on concept note preparation, joint venture agreements for local government units, and financial modeling; and (iii) the Ministry of Public Works and Transport of Cambodia, through wastewater management training for selected cities surrounding the Tonle Sap basin.

Knowledge Products

During the year, CDIA produced the following knowledge products: (i) video documentary about the CDIA interventions in Tbilisi, Georgia; (ii) tracer studies on the progress and results of PPS interventions in Pu'er, PRC (Flood Control and Water Reclamation Works), Darkhan, Mongolia (Water Supply and Sanitation Improvement), and Palembang, Indonesia (Urban Transport); and (iii) a publication on *Bridging Cities, People and Sustainable Development* showcasing CDIA's contribution to the Sustainable Development Goals, particularly in creating sustainable cities and communities.



Progress Toward DMF Targets

● ACHIEVED
 ● IN PROGRESS
 ● NOT YET AVAILABLE

PERFORMANCE INDICATORS	2018 TARGET	2018 ACHIEVEMENT
Number of cities linked to finance for their CDIA-assisted projects	10	18
In 2018, 18 additional cities were linked to financing. As of December 2018, a total of 73 cities have linked their projects to downstream financing.		
Amount invested in CDIA-assisted infrastructure projects	\$0.64 billion	\$2.5 billion
In 2018, some \$2.4 billion were invested in CDIA assisted infrastructure projects. Total urban infrastructure investments linked to CDIA-assisted projects are estimated at \$9.9 B as of December 2018.		
Number of projects approved for CDIA technical assistance	8	4
In 2018, four PPSs were approved for CDIA technical assistance by the CDIA-TF Facility Manager: (i) India: Panaji 24/7 Water Supply; (ii) Indonesia: Slum Improvement in Strategic Human Settlements Area; (iii) Myanmar: Yangon Urban Services Improvement Project; and (iv) the Sri Lanka: Matara Sustainable Urban Development Project. As of December 2018, total projects approved for CDIA technical assistance is 95.		
Number of projects prepared for linking to finance	6	9
In 2018, nine PPSs were completed: (i) Georgia: Tbilisi Metro Upgrading Project; (ii) India: Jalandhar Surface Water Supply System; (iii) Indonesia: Sewerage System Development Project; (iv) Mongolia: Ulaanbaatar Air Quality Improvement; (v) PRC: Guiyang Vocational Education Project; (vi) PRC: Kaili Green Public Transportation Hub; (vii) PRC: Sichuan Ziyang Green Transformation and Development Project; (viii) PRC: Heilongjiang Green Urban and Economic Revitalization Project; and (ix) Tajikistan: Dushanbe Water Supply and Sanitation Project. As of December 2018, a total of 84 projects have been prepared for linking to finance with assistance from CDIA.		
Number of projects taken forward by financing institutions	9	20
In 2018, 20 CDIA-assisted PPSs were taken forward by financing institutions. As of December 2018, CDIA has a total of 67 PPS interventions that have been taken forward by funding agencies.		
Number of projects taken forward by financing institutions other than ADB as the prime financier	2	5
The five completed PPSs taken forward by financing institutions other than ADB as the main financier in 2018 include: (i) Cambodia: Siem Reap Wastewater Collection Network Development Project; (ii) Georgia: Tbilisi Bus Network Improvement Project; (iii) Indonesia: Balikpapan-Singkawang Bulk Water Supply Project; (iv) PRC: Anxiang Flood and Integrated Water Management Project; and (v) PRC: Handan Wastewater Treatment Project. This brings the total number of said projects to 34 as of December 2018.		

Outcome

In selected Asian cities, urban infrastructure investments which make a positive contribution to SDGs are linked to financing.

Output 1

The linking to finance of CDIA-developed projects is improved.

	PERFORMANCE INDICATORS	2018 TARGET	2018 ACHIEVEMENT
Output 2 Capacity development support to project preparation and linking to finance is improved.	Proportion of CDIA resources utilized for enhancing capacities to successfully implement projects	10%	>10%
	Number of national Project Development Facilities (PDFs) that have improved know-how on project preparation based on CDIA good practices	2	3
In 2018, CDIA provided capacity development support to three national PDFs, namely PT Sarana Multi Infrastruktur (PT SMI) or the Indonesia State-Owned Infrastructure Financing Company, the PPP Center in the Philippines, and the Ministry of Public Works and Transport in Cambodia.			
Output 3 Measurement of CDIA contribution to development impacts is improved.	Number of tracer studies completed.	4	4
	In 2018, four tracer studies were conducted on the following projects that were either partially or fully implemented after completion of CDIA PPS work: (i) Indonesia: Palembang Urban Transport Project; (ii) Mongolia: Darkhan Water Supply and Sanitation Improvement Project; (iii) Mongolia: Ulaanbaatar Cultural Heritage and Tourism Development in Ger Areas; and (iv) PRC: Pu'er Flood Control and Water Reclamation Works. As of December 2018, a total 19 tracer studies have been completed.		
	Number of external Mid-term Review of CDIA 2018–2022 Strategy conducted	0	0
The review will only be undertaken once CDIA reaches the halfway point of its strategy implementation.			

NA = not applicable.

Notes:

1. The table presents the progress made toward achieving the performance indicators in the Design and Monitoring Framework of the CDIA Strategy 2018–2022.
2. Overall targets for Output 1 indicators were adjusted to reflect number of PPS in lieu of number of project components.





Tajik Leaks: Reducing Nonrevenue Water

Dushanbe's water supply system covers 99% of its population – nearly one million people – but its services are seriously impaired by aging infrastructure, poor customer registration system, and inadequate billing and collection practices. Similarly, sanitation in the capital is characterized by a worn-out sewerage network that covers only 60% of the city, as well as an inadequate collector system and ineffective wastewater treatment mechanism, thereby exposing city residents to environmental and health risks.

To address these issues, the City of Dushanbe requested CDIA assistance, specifically a project preparation study (PPS) for the water supply and sanitation sub-sectors. Following the approval of the city application in April 2017, CDIA deployed a consulting team in Dushanbe from September 2017 to April 2018 to identify and prepare to feasibility or preliminary engineering design stage a priority subproject targeting the reduction of nonrevenue water (NRW) through the introduction of district metering areas, the replacement of existing water transmission, a storage and distribution system, and installation of customer water meters.

Parallel objectives of the PPS include the preparation of a sanitation investment roadmap, improved climate resilience and adaptation strategies, and capacity development of Dushanbe Vodokanal, the city authority responsible for water supply and sanitation.

As of May 2018, preliminary designs and accompanying institutional support have been prepared for an investment in the amount of \$76 million. The PPS was carried out in parallel with the ADB-financed transaction technical assistance that paved the way for an ADB grant of \$41.2 million to the Dushanbe Urban Water Supply and Sanitation Project. When fully implemented, the project will ensure the availability of water and sanitation services in the pilot area, decrease NRW from the current 65% to 30%, and ensure that the sanitation services comply with national and international standards.

DUSHANBE
WATER
SUPPLY AND
SANITATION
PROJECT

Appendix

CDIA Progress Update (as of December 2018)

