

# **Evaluation Approach Paper**

# Sector Assistance Program Evaluation for the India's Water and Other Urban Infrastructure and Services Sector, 2012–2022

16 March 2023

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#### A. Introduction

- 1. India has been one of the world's fastest growing economies pre-coronavirus disease (COVID-19) pandemic, averaging an annual gross domestic product (GDP) growth rate of 7.0% in 2012–2017, which also resulted in its share in the global GDP increasing from 2.4% to 3.0% in 2013–2016. The GDP growth rate reduced to 3.7% in 2019 and –6.6% in 2020 but bounced back to 8.9% in 2021. Along with its fast economic growth, India experienced rapid urbanization with urban population increasing by 47%, from 335.5 million in 2005 to 493.2 million in 2021. Around 35% of India's population was urban in 2021. This phenomenon of rapid urbanization increases pressure on basic urban services, resulting in gaps in provision of services, environmental degradation, substandard quality of services, and high cost of economic activities.
- 2. The Asian Development Bank (ADB) financing for the water and other urban infrastructure and services (WUS) sector in India, amounted to around \$5.16 billion in Board approvals during 2012–2022 to support India's investment needs and its efforts in addressing its urbanization challenges. The purpose of this evaluation is to assess the extent to which ADB has been successful in achieving its stated objectives and to identify lessons for ADB's future investments and approach in the sector. The findings from this sector assistance program evaluation will feed into the thematic evaluation of the Independent Evaluation Department (IED) on livable cities and urban resilience planned for circulation in 2025. The evaluation will cover the project portfolio approved during 2012–2022 and is slated for completion in October 2023. It will build on the evaluative evidence on ADB's WUS sector operations in India from past IED evaluations. In particular, the recently completed validation of the India country partnership strategy final review, 2016–2021; the sector-wide evaluation of ADB's water sector policy and program, and the India country assistance program evaluation completed in 2017.<sup>4</sup>
- 3. The WUS sector operational focus is mainly on urban water supply and sanitation, sewerage, urban flood protection, and solid waste management. Other areas include housing, slum redevelopment, renovation and protection of culture and heritage, tourism-related infrastructure and services, and urban roads and traffic improvements. Apart from the operations in the WUS sector, ADB supports urban development through some of its operations in other sectors such as transport and energy. Since this is a sector assistance program evaluation, the

<sup>&</sup>lt;sup>1</sup> ADB. 2017. <u>Country Partnership Strategy: India, 2018–2022—Accelerating Inclusive Economic Transformation</u>. Manila.

<sup>&</sup>lt;sup>2</sup> ADB. 2022. <u>Asian Development Outlook 2022</u>. Manila (Statistical Appendix).

<sup>&</sup>lt;sup>3</sup> The World Bank Data. 2018. Urban population (% of total population. <a href="https://data.worldbank.org/indicator/SP.URB.TOTL.IN.ZS?locations=IN">https://data.worldbank.org/indicator/SP.URB.TOTL.IN.ZS?locations=IN</a> (accessed 30 September 2022).

<sup>&</sup>lt;sup>4</sup> IED. 2023. <u>Validation Report: India Country Partnership Strategy Final Review, 2016–2021</u>. Manila: ADB; IED. 2022. <u>Sector-wide Evaluation: Integrated Water Management—Evaluation of ADB's Water Sector Policy and Program, 2011–2021</u>. Manila: ADB; and IED. 2017. <u>Country Assistance Program Evaluation: India, 2007–2015</u>. Manila: ADB.

scope of the evaluation is mainly focused on the WUS sector operations. The scope will include urban-related interventions from transport and energy in so far as how the WUS sector operations are coordinated with other urban operations in the context of integrated urban development and planning.<sup>5</sup> The expanded scope would be consistent with ADB's Urban Operational Plan, 2012–2020, and the recently prepared Urban Sector Directional Guide which cover a wider set of operations apart from those classified as WUS.<sup>6</sup>

#### B. Sector Background

#### 1. Water and Other Urban Infrastructure and Services Sector Context

4. Urban households in India using piped water into dwelling as the principal source of drinking water was only about 41%; those using flush/pour-flush to septic tank type latrine was about 49%, and those that disposed-off household wastewater without treatment to drainage system was about 71%. Wastewater treatment capacity is at 37.0%, and untreated sewage is dumped into rivers or water bodies polluting the environment. Women are affected the most from poor quality of the water supply and sanitation system, as they are usually responsible for water and sanitation management as well as caregiving within the households. Around 75%–80% of the total municipal waste gets collected and only 22%–28% of this is processed and treated. A large portion of the collected waste is often dumped indiscriminately, clogging the drains and sewerage systems. According to the 2011 census, 69% of urban households live in owned dwelling units and the remaining in a rented dwelling unit or other accommodation and 17.00% of the urban population live in slums.

#### 2. Sector Challenges

- 5. Inefficiencies in urban planning, low investment cost recovery, and fragmented authorities in state agencies and urban local bodies (ULBs) are coupled with risks of fiscal stress and low implementation capacity as identified in the India country partnership strategy (CPS), 2018–2022 (footnote 1). States and ULBs face fiscal challenges due to rising development and recurrent expenditures needed to address infrastructure gaps. Low implementation capacity of ULBs affects results achievement and sustainability of outcomes, in turn affecting overall portfolio performance.
- 6. With regard to the issue on the sustainability of impacts, the 2010 study of the IED on post completion sustainability stressed the need to rigorously address risks at national and project levels, as well as in project formulation. It noted that financial sustainability of projects was constantly threatened by weak public sector management, and lack of operational capacities, i.e., lack of revenue generation at local levels, inability to enforce appropriate tariffs which affect funding for operation and maintenance, poor tariff collection, institutional inefficiencies, lack of business led corporate practice, and high nonrevenue water levels. These delivery constraints in the WUS sector are intertwined with service affordability issues, as well as cultural and political

<sup>&</sup>lt;sup>5</sup> Urban related operations in the transport sector are clearly identified as urban (e.g., urban roads and traffic management and urban public transport). For energy sector operations, since ADB does not tag them if they are urban the evaluation can infer if a project is urban or not by reviewing the project title and description or the expected outcomes and outputs stated in the design and monitoring frameworks.

<sup>&</sup>lt;sup>6</sup> ADB. 2013. <u>Urban Operational Plan, 2012–2020</u>. Manila; ADB. 2022. <u>Strategy 2030 Urban Sector Directional Guide—Toward Making Cities More Livable in Asia and the Pacific</u>. Manila.

National Sample Survey Report no. 584. Drinking Water, Sanitation, Hygiene and Housing condition in India, NSS 76th round (July–December 2018).

<sup>&</sup>lt;sup>8</sup> Government of India. 2021. Press Information Bureau. Information provided in Lok Sabha on wastewater treatment. https://pib.gov.in/Pressreleaseshare.aspx?PRID=1779799

<sup>&</sup>lt;sup>9</sup> Satpal Singh. 2020. Solid Waste Management in Urban India: Imperatives for Improvement. ORF Occasional Paper No. 283. Observer Research Foundation.

<sup>&</sup>lt;sup>10</sup> Government of India. 2013. State of housing in India: A statistical compendium.

<sup>11</sup> IED. 2010. <u>Special Evaluation Study: Post Completion Sustainability of Asian Development Bank Assisted Projects.</u> Manila: ADB.

sensitivity. Dealing with these problems requires a multipronged approach, that includes policy and regulatory reforms, among others.

- 7. Urbanization in India suffers broadly from weak urban governance and weak local government finances. While fiscal transfers from state governments through grants have increased, these have not resulted in improvements to local revenue generation. The overall size of the municipal finance system is about 1.00% of GDP, of which ULBs' own revenues comprise about 0.55%—showing ULBs' dependence on government support. ULBs' financial capacity remains weak because of the slow progress of nationwide delivery of the urban reform agenda, with inadequate incentives for reforms. This affects service delivery and environmental sustainability.
- 8. The 74th Constitutional Amendment of 1992 provided a constitutional status to ULBs as the third tier of governance. However, the amendment retained the key role of state governments in urban affairs. Legislative and institutional reforms have been difficult to implement across states, as they are perceived as impinging on states' discretion. The central government has encouraged states to increase their commitment to urban development through its flagship programs and fiscal transfers. In addition to the challenges associated with rapid rates of urbanization, and growing infrastructure deficits, cities face increasing risks of climate change and disasters, environmental stress, aging societies, and emerging threats like cyberattacks.

# C. Government's Plan Priorities and Strategies

- 9. The momentum for India's urban development and reform was provided with the passing of the 74th Constitutional Amendment in 1992. It intended to create a democratic governance structure with greater devolution of local responsibilities to the local level and lay the foundation for a new approach to urban management and governance that could fulfill the needs and aspirations of urban residents for development.
- The government's 8th Five-Year Plan (1992-1997) explicitly recognized the role and importance of urban development. The government launched three financial assistance schemes to support urban reforms: (i) Pooled Finance Development Scheme, (ii) Urban Reform Incentive Fund, and (iii) City Challenge Fund. The physical investment components of the integrated urban development projects were to focus on bankable revenue generating projects in water supply, sanitation, and solid waste management. These were to be combined with components to improve provision of urban services for the poor. 13 The 9th Five-Year Plan (1997-2002) gave priority to agriculture and rural development, although housing, urban development, water supply, and civic amenities were also focus areas aiming to bridge the gap between demand for and supply of infrastructure and services. The 10th Five-Year Plan (2002-2007) identified private sector development, infrastructure development, and increased foreign investment and trade as keys to increasing efficiency and achieving high growth. The midterm appraisal of the 10th plan pointed to the urgent need to upgrade infrastructure facilities. The government launched in 2005 the National Urban Renewal Mission (JNNURM) to develop urban centers and make them engines of growth, and to catalyze reform linked investments in more than 60 cities and focus on efficiency in urban infrastructure and service delivery mechanisms.<sup>14</sup> The 11th Five-Year Plan (2007–2012) and the 12th (2012–2017), which is the last of the 5-year plans, both had the theme of rapid and inclusive economic growth.

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ADB. 2021. Report and Recommendation of the President to the Board of Directors: Proposed Programmatic Approach and Policy Based Loan for Subprogram 1 and Technical Assistance Grant to India for the Sustainable Urban Development and Service Delivery Program. Sector Assessment (Summary): Water and Other Urban Infrastructure and Services. <a href="https://www.adb.org/sites/default/files/linked documents/55054">https://www.adb.org/sites/default/files/linked documents/55054</a> 001 ssa 1.pdf

<sup>&</sup>lt;sup>13</sup> ADB, 2003, Country Strategy and Program; India, 2003–2006, Manila,

<sup>&</sup>lt;sup>14</sup> ADB. 2005. Country Strategy and Program Update: India, 2006–2008. Manila.

11. In 2016, the government decided to replace its 5-year national development plan with a 15-year vision (up to fiscal year [FY] 2031), a 7-year strategy (up to FY2023), and a 3-year action agenda (FY2017–FY2019), as noted in the country partnership strategy, 2018–2022 (footnote 1). The emerging vision aims to achieve prosperity, poverty eradication, equality, cleanliness, transparency, employment, gender equality, and hopefulness. The vision and goals are set around India's pledge to pursue the Sustainable Development Goals (SDGs). Rapidly expanding growth to enable inclusive infrastructure in urban and rural areas, including higher private investments in affordable housing for all, is one of the key elements of the government's development strategy. Following the end of JNNURM, to invigorate urban transformation, the government launched in 2015 its flagship Smart Cities Mission (SCM) for 100 priority cities and the Atal Mission for Rejuvenation and Urban Transformation (AMRUT) for 500 cities with the aim to extend essential amenities with well governed administration.15 The SCM and AMRUT programs will establish dynamic economic growth hubs across the country, while the Swachh Bharat Abhivan (Clean India Mission) aims to end open defecation and contribute to livable urban and rural environments. 16 While SCM ends in March 2023, the AMRUT and Clean India Mission programs have been extended into a second phase. The government announced the Jal Jeevan Mission-Urban in 2021 to, among other things, extend coverage of water supply to all households; rejuvenate water bodies to augment water supply and promote circular economy of water through the actions reduce, recycle, restore, and recharge.

## 12. **Incentives for reforms.** The incentives for proposed reforms include the following:

- (i) The 15th Finance Commission has specified eligibility conditions that are applicable to all cities. To receive the grants, cities must increase their property tax collection at a rate equal to the state GDP growth and disclose audited annual accounts.
- (ii) AMRUT 2.0 has a separate subcomponent for reforms (\$0.87 billion). Cities that implement these reforms will receive an additional grant as an incentive. Key reforms include water management, municipal finance improvement, viability gap funding for public–private partnerships, and value capture financing. The Ministry of Housing and Urban Affairs has supported property tax reforms and has released its guidance for property tax increases in cities. States have a reasonable consensus that strengthening municipal revenue generation, state level urban finance intermediaries, and commercial borrowing is necessary.
- (iii) The incubation of new cities proposed through the 15th Finance Commission grants (\$1.10 billion) would also be administered through a challenge concept, with competitive proposals invited from the interested states.

## D. ADB's Policies and Strategies

13. **Strategy 2020.** ADB's Strategy 2020 provided the overall strategic framework for ADB's interventions in the water and other urban infrastructure and services.<sup>17</sup> The strategy aimed to

The development of 100 smart cities will provide best in class infrastructure and smart solutions to its people, such as smart energy systems, green transportation, and smart buildings intended to save energy. The initiative aims to increase urban share of GDP to 75% by 2030. AMRUT will provide basic infrastructure for the 500 biggest cities and towns. It will provide clean drinking water supply and improve sewerage networks and septage management systems, storm water drains, and public transport services. It is targeted that, by 2019, 100% households will have access to safe drinking water and improved sanitation, and they will be covered by solid waste management services. AMRUT will focus on the following thrust areas: water supply, sewerage and septage management, storm water drainage to reduce flooding, nonmotorized urban transport, and green space/parks. See <a href="https://smartcities.gov.in/and-http://amrut.gov.in/content/">https://smartcities.gov.in/and-http://amrut.gov.in/content/</a>.

<sup>&</sup>lt;sup>16</sup> The initiative targets 0% open defecation in the urban areas of the country by 2019. PMINDIA. Major Initiatives. Swachh Bharat Abhiyan. https://www.pmindia.gov.in/en/major initiatives/swachh bharat abhiyan/.

<sup>&</sup>lt;sup>17</sup> ADB. 2008. <u>Strategy 2020: The Long Term Strategic Framework of the Asian Development Bank, 2008–2020.</u> Manila.

increase investments in irrigation, water supply, sanitation, and waste management systems to support rural and urban infrastructure and to contribute to public health. Water was one of the five sectors whose output indicators was to be examined to enable monitoring of the core operational areas under Strategy 2020. In the Midterm Review of the Strategy 2020 prepared in 2014, water and urban services continued to be a core operational area for ADB, with increased emphasis on contributions to agriculture and food security and environment and climate change.<sup>18</sup>

- 14. **Strategy 2030.** Approved in July 2018, strategy 2030<sup>19</sup> reaffirms ADB's commitment to supporting urban development in its developing member countries. The strategy identified the importance of the water and other urban infrastructure services sector in achieving better health for all, gender equality, livable cities, environmental sustainability, and food security. Strategy 2030 identified "making cities more livable" (Operational Priority 4 [OP4]) as one of its seven operational priorities. The operational plan for OP4, 2019–2024 sets out the direction and approach for ADB to help its developing member countries build livable cities that are green, competitive, inclusive, and resilient. This plan focuses on three strategic areas: (i) improve the coverage, quality, efficiency and reliability of services in urban areas; (ii) strengthen urban planning and financial sustainability of cities; and (iii) improve urban environments, climate resilience, and disaster management. Water and sanitation are identified as core areas requiring considerable resources to fill infrastructure deficits, to eradicate poverty, and respond to climate change. The private sector will be a critical source of financing (footnote 15).
- 15. **Country partnership strategies.** Three CPSs were approved during 2012–2022. The first CPS during the period covered 2009–2012,<sup>20</sup> the second covered 2013–2017,<sup>21</sup> and the third covered 2018–2022. All of them were aligned with the priorities of the country and particularly treated water and urban development as a core area of engagement. As stated in the CPS, 2018–2022, ADB will contribute to improved supply of drinking water, sanitation, and waste management services in urban areas. The CPS will work towards achieving SDGs 6 (clean water and sanitation), 7 (affordable and clean energy), 8 (decent work and economic growth), 9 (industry, innovation, and infrastructure), and 11 (sustainable cities and communities).

# E. ADB's Assistance to India in the Water and Other Urban Infrastructure and Services and Urban Transport Sectors

16. ADB financing in support of India's WUS sector operations amounted to \$5.16 billion in approvals during 2012–2022 comprising 34 sovereign loans, 5 grants, 3 nonsovereign operations, and 28 technical assistance (TA) projects.<sup>22</sup> The financing amounts varied over the 10-year period, averaging about \$500.00 million a year (Figure 1). The financing amount was highest in 2021, being more than \$1.00 billion which included \$350.00 million for the Sustainable Urban Development and Service Delivery Program (Subprogram 1, Loan 4158) and \$251.00 million for the Integrated Urban Flood Management for the Chennai–Kosasthalaiyar Basin Project (Loan 4113).<sup>23</sup> Financing for urban transport under ADB's transport sector operations amounted to \$3.41 billion during 2012–2022 comprising 7 sovereign loans, 3 grants, 3 nonsovereign operations, and 5 TA projects. The financing amount for urban transport was over \$2.00 billion in

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<sup>&</sup>lt;sup>18</sup> ADB. 2014. Midterm Review of Strategy 2020: Meeting the Challenges of a Transforming Asia and Pacific. Manila.

<sup>19</sup> ADB. 2018. Strategy 2030: Achieving a Prosperous, Inclusive, Resilient, and Sustainable Asia and the Pacific. Manila.

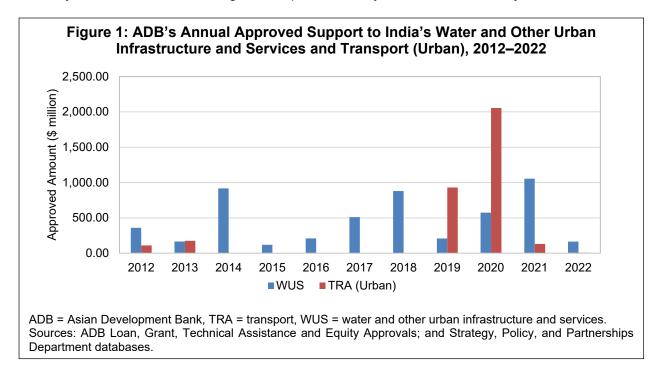
<sup>&</sup>lt;sup>20</sup> ADB. 2009. Country Partnership Strategy: India, 2009–2012. Manila.

<sup>&</sup>lt;sup>21</sup> ADB. 2013. <u>Country Partnership Strategy: India, 2013–2017</u>. Manila.

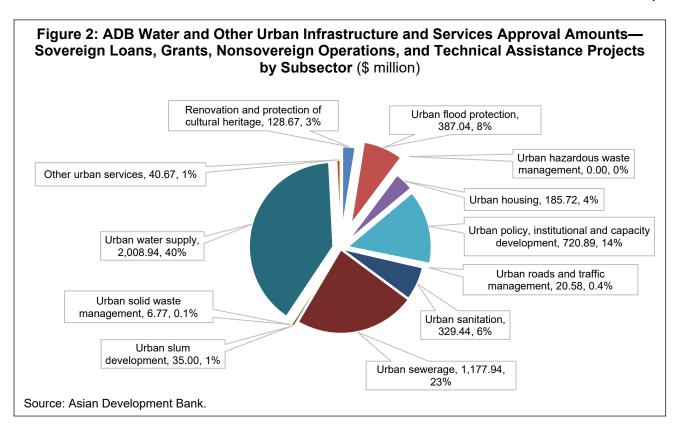
<sup>&</sup>lt;sup>22</sup> Attachment 1 provides a list of projects approved during the evaluation period.

<sup>&</sup>lt;sup>23</sup> ADB. India. India. Sustainable Urban Development and Service Delivery Program (Subprogram 1). <a href="https://www.adb.org/projects/55054-001/main">https://www.adb.org/projects/55054-001/main</a>; ADB. India. India: Integrated Urban Flood Management for the Chennai-Kosasthalaiyar Basin Project. <a href="https://www.adb.org/projects/49107-009/main">https://www.adb.org/projects/49107-009/main</a>.

2020 which included \$1.55 billion in approvals through the multitranche financing facility (MFF) modality for the Delhi-Meerut Regional Rapid Transit System Investment Project.



- 17. The WUS portfolio comprised 9 MFFs with 17 tranches, 5 standalone projects, 3 sector loans, 2 sector development programs and one policy-based loan. Urban transport investments comprised of three MFFs, three project loans, and one project readiness financing loan.
- 18. WUS financing mostly went into urban water supply and urban sewerage, with \$2.0 billion and \$1.2 billion respectively; the two subsectors accounted for 63.0% of total WUS support (Figure 2). Urban policy, institutional, and capacity development accounted for \$721.0 million or 14.0%, urban flood protection support totaled \$387 million or 8.0%, while urban roads and traffic management accounted for \$21.0 million or 0.4% of total WUS financing.



#### F. Evaluation Approach and Methodology

# 1. Conceptual Framework and Theory of Change<sup>24</sup>

- 19. The starting point for this evaluation is ADB's set up for delivery of the WUS program in India including its sector expertise (Figure 3).<sup>25</sup> The WUS sector portfolio is guided by the various strategies in place during the evaluation period including the Strategy 2020, the Water Operational Plan, the Urban Operational Plan, Strategy 2030, the Livable Cities Operational Priority (OP4), and the CPSs. Staff at ADB headquarters and India Resident Mission (INRM), in discussion with the Government of India, determines the investment mix that ADB supports in the WUS sector in India.
- 20. **Inputs.** ADB's inputs to the WUS sector include its loan, grant, and TA investments, alongside various partnerships and trust funds, which generate both cofinancing opportunities and knowledge generation.<sup>26</sup> These investments covering various subsectors are prioritized and determined in consultations and policy dialogue with the Government of India and channeled through INRM ADB.
- 21. **Outputs.** Through ADB's investments, a range of outputs are delivered to various degrees under each of the WUS subsectors. Water supply, sewerage, sanitation, and flood protection infrastructure provide urban communities with key basic urban services. Institutional and

A theory of change defines all building blocks required to bring about a given long term goal. This set of connected building blocks, referred to as outcomes, is depicted as a pathway of change. Built around the pathway of change, a Theory of Change describes the types of interventions that bring about the outcomes depicted in the pathway. For further information, refer to: <a href="http://www.researchtoaction.org/howto/theory">http://www.researchtoaction.org/howto/theory</a> of change 2/page/2/

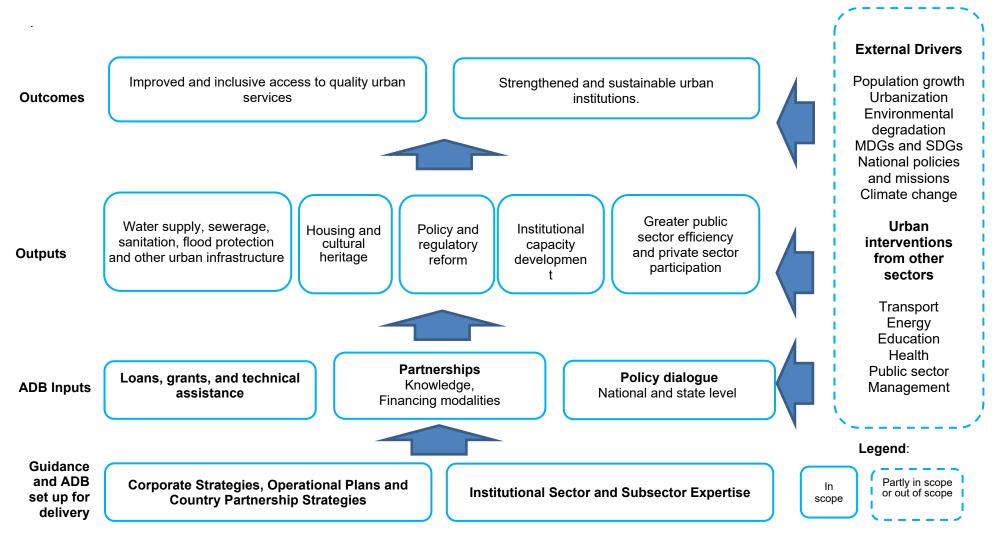
<sup>&</sup>lt;sup>25</sup> The theory of change developed for this evaluation is based on (i) a review of the CPSs over the evaluation period, including available results frameworks at the country and sector level; (ii) a review of the portfolio; and (iii) consultations with the South Asia Department's Urban Water Division. This theory of change drives the data collection and assessment on performance and results.

<sup>&</sup>lt;sup>26</sup> See list of projects in Attachment 1.

operational capacity development is another critical output. Policy reform outputs are supported by lending and nonlending instruments. Policy and regulatory reforms yield outputs in the form of greater public sector efficiency and greater private sector participation by creating the enabling environment and potential investment opportunities through public private partnerships. Developing capacity of government bodies to effectively coordinate with each other and to structure and implement financing instruments to attract private investments can also lead to greater private sector participation in urban infrastructure and service provision. Delivery of outputs relating to urban housing, and protection of cultural heritage is less common. Much of the support for urban transportation, urban roads and traffic management is undertaken in projects classified as transport, although some of the projects classified primarily as WUS have some urban transport components.

- 22. **Key outcomes.** Two key outcomes are envisaged from the outputs delivered: First, improved and inclusive access for urban communities to a range of quality urban services as a result of new or rehabilitated infrastructure relating to water supply, sanitation, and flood protection. Policy reform and institutional capacity development support will improve the delivery of urban services, including improved service cost structures, reliability, and water quality. This outcome will support, for example, India's achievement of SDG 6 targets, which include universal and inclusive access to safe drinking water and adequate sanitation. Second, stronger, and more sustainable and resilient infrastructure and institutions, an outcome of support for policy reform and institutional and operational capacity development, measured by the adequacy of technical (planning, designing, project management [procurement and contracting]) and financial capacity, and the backing of good governance and policies. Urban environments become more resilient, for example, through increased wastewater treatment, and climate proofed infrastructure and more resilient urban communities. Greater private sector participation also contributes to creating sustainable and resilient urban centers by providing the required investments and covering the rising infrastructure gaps.
- 23. **Impacts.** These outcomes will ultimately contribute to the impacts envisaged in the projects, CPS results frameworks and the operational plan for priority 4 of ADB's Strategy 2030, clean, inclusive, sustainable, and resilient Indian cities and urban centers. The various inputs, outputs, outcomes, and ultimate impacts and their linkages are affected by drivers of change for the WUS sector in India such as population growth, urbanization, and climate change. Successful deployment of ADB's WUS sector operations together with complementarity with development partners are key assumptions for the achievement of the desired impacts. In addition, urban operations of other sectors such as transport and energy also have a bearing on the planning of ADB inputs and achieving the desired outcomes and impacts. Although impact level indicators cannot be attributed to ADB operations, the extent to which they contribute to these indicators can be gauged from the outcome indicators attributed to ADB interventions. The linkages between outputs and outcomes to impacts and channels through which outcomes lead to impacts will be identified through literature review.

Figure 3: Theory of Change



ADB = Asian Development Bank, MDG = Millennium Development Goal, SDG = Sustainable Development Goal. Notes:

- 1. **Scope**. Topics in dashed boxes indicates external drivers or areas of ADB support and high-level impacts that will not be covered in detail or are beyond the scope of the evaluation.
- 2. **Assumptions**. (i) Complementarity with development partners and (ii) effective implementation of national policies and missions. Source: Asian Development Bank (Independent Evaluation Department).

## 2. Evaluation Scope

This evaluation is focused on ADB investments with a primary tag in the WUS sector approved between 2012 and 2022. These include the operations in subsectors: urban water supply and sanitation, sewerage, flood protection, urban policy, institutional and capacity development, solid waste management, housing, slum development, renovation and protection of culture and heritage, tourism related infrastructure and services, and road and traffic improvements. These were delivered by the Urban Division and INRM. Since this is a sector assistance program evaluation and not a thematic evaluation on urban development, the evaluation's focus is mainly on the WUS sector operations. However, apart from the operations in WUS sector, ADB supports urban development through its urban operations in other sectors such as transport, and energy. The evaluation will include urban related operations form these sectors but in a limited way to assess the relevance and coherence of the WUS sector operations considering the urban development objectives and examining the extent to which design of the WUS sector operations is coordinated with urban operations in other sectors in the context of integrated urban development and planning.<sup>27</sup> Urban related operations in the transport sector are clearly identified as urban (e.g., urban roads and traffic management and urban public transport).<sup>28</sup> For energy sector operations, since ADB does not tag them if they are urban, the evaluation will infer if a project is urban or not by reviewing the project title and description or the expected outcomes and outputs stated in the design and monitoring frameworks.

#### 3. Evaluation Objective and Key Questions

- 25. The overarching question is to what extent has ADB's WUS program in India supported improved access to quality urban services, in a sustainable, resilient, and inclusive manner?
- 26. Three subsidiary questions are proposed to help answer the overarching question:<sup>29</sup>
  - (i) What is the relevance and coherence of ADB's India WUS program with respect to its strategic approach and design of operations?
  - (ii) To what extent has ADB improved service quality, inclusion, resilience, gender equality, institutional capacity and efficiency, and sustainability through its operations?
  - (iii) To what extent has ADB' facilitated greater public sector efficiency and greater private sector participation in the financing and provision of infrastructure and services through support for the enabling environment and investment opportunities?
- 27. The evaluation will rely mostly on indicators described in the project DMF or CPS results frameworks or in ADB urban operational plan for the sector outputs and outcomes to answer these questions. When the outcome indicators are drawn from government programs these cannot be attributed to ADB interventions. ADB interventions should be viewed as contributing to these goals.

<sup>&</sup>lt;sup>27</sup> Including urban operations from other sectors in the evaluation would be consistent with the fact that ADB's urban sector strategic guidance includes a wider set of operations and not only to those classified as WUS. It is also consistent with fact that the mandate of the central ministry for urban development (Ministry of housing and urban affairs) included urban transport in addition to urban services such as housing, water supply, sanitation, sewerage and solid waste management and some of the central government's urban renewal missions such as AMRUT also include urban transport.

<sup>&</sup>lt;sup>28</sup> Attachment 1 provides a list of urban transport projects approved during the evaluation period.

<sup>&</sup>lt;sup>29</sup> Attachment 2 provides a more detailed list of evaluation questions.

28. The Coherence criterion is used to assess the compatibility of ADB's interventions with other interventions in the country, sector by ADB and other institutions. It includes internal coherence and external coherence. Internal coherence addresses the synergies and interlinkages between the interventions being assessed and other interventions carried out by ADB/government, as well as the consistency of the interventions with the relevant international norms and standards to which ADB /government adheres. External coherence considers the consistency of the intervention with other actors' interventions in the same context. This includes complementarity, harmonization and coordination with other development partners, and the extent to which the intervention is adding value while avoiding duplication of effort.

#### 4. Evaluation Components and Methods

- 29. The evaluation will gather evidence through literature review, along with review of ADB's directional and project documents, portfolio analysis, and interviews with ADB staff and other key sector stakeholders.
- 30. **Literature review.** The evaluation will rely on literature review to help understand the macroeconomic, institutional environment, and cultural context in which India's WUS sector functions. The literature review will help in gaining insightful perspectives on governance related issues and the role of private stakeholders in the sector. The literature review will also be used to help identify factors contributing to impacts and gather evidence on the channels linking outputs and outcomes to impacts. Since the achievement of impact indicators cannot be attributed to ADB's assistance the discussion will be in terms of ADB's contribution to the impact indicators. This contribution will be inferred from the outputs and outcomes achieved by referring to the established evidence in the literature on the links among outputs, outcomes, and impacts.
- 31. **Portfolio analysis.** The portfolio review in this approach paper is preliminary in nature. The evaluation report will have a detailed and comprehensive analysis involving (i) a descriptive analysis of all sovereign loan and grant projects, technical assistance projects, and nonsovereign operations interventions and PPPs approved during the study period; and (ii) an evaluative analysis of completed, self-evaluated, and independently validated operations. The descriptive analysis will illustrate the typology and evolution of ADB support during the study period and delineate reasons for changes in the portfolio mix (if any). Time trends and composition of financing instruments will be the key aspects of the portfolio analysis. The evaluative analysis will focus on the relevance, effectiveness, efficiency, and sustainability of operations completed during the evaluation period.
- 32. **ADB document reviews**. ADB's corporate policies, strategies, operational plans, and other directional documents will be reviewed, along with relevant CPSs that span the study period (2012–2022). Project documents (e.g., reports and recommendations of the President, back to office reports, and midterm review reports) relating to sovereign operations (investment, policy-based lending, grants, and TA) and nonsovereign operations (private sector lending, equity investments, and guarantees) covered in the portfolio analysis will be reviewed. Additionally, information from ADB's project performance database will be accessed and analyzed for the studied portfolio and knowledge products reviewed.
- 33. Interviews with key stakeholders. Key ADB personnel at headquarters and the India Resident Mission (including financial management staff) will be interviewed to gauge strategic and operational perspectives on ADB's interventions in India's WUS sector. Key stakeholders in government, client public sector entities and private sector participants (including business associations and chambers of commerce) will also be interviewed to gauge their perspectives on the sector's numerous challenges, ADB strategies and interventions, as well as on ADB's

efficiency and institutional matters. Additionally, stakeholders with significant presence in India's WUS sector such as from think tanks, academia, and civil society organizations will be interviewed, as well as from other multilateral development banks and international organizations (e.g., World Bank Group, Asian Infrastructure Investment Bank, New development Bank, and International Fund for Agricultural Development) and bilateral donors to gather information on issues of coordination and collaboration.

- 34. **Benefits assessment**. To supplement the findings from review of literature and project documents and interviews with project staff and site visits, the evaluation will assess benefits from selected projects based on beneficiary assessments undertaken as a part of project M&E process. In the absence of such assessments the evaluation will consider undertaking a survey of beneficiaries for one or two completed projects to elicit information on project outcomes such as coverage and quality of services.
- 35. **Geographical information systems (GIS).** The evaluation will also explore the use of GIS to address the questions of relevance and to examine the achievement of spatially based outcomes for selected projects.
- 36. **Key limitations.** Portfolio performance assessment in terms of percentage success rate is based mainly on completed operations with completion and validation reports. However, performance of ongoing mature operations will be assessed based on discussions with project officers and the BTORs or midterm reports available. The evaluation does not investigate ADB engagements in other sectors that could impinge upon the performance of water sector indirectly such as through public sector management measures aimed at improving governance in local bodies or public sector entities in general. However, these issues will be considered so long as they are part of the WUS sector operations.

#### G. Implementation Arrangements and Resource Requirements

- 37. The evaluation team will be supported by international and local consultants. The evaluation will be conducted by a team of IED staff comprising (i) Srinivasan Palle Venkata, senior evaluation specialist (team leader), with the overall responsibility for the evaluation implementation and report delivery; (ii) Hans Woldring (co-team leader), senior evaluation specialist, focusing on the water portfolio; (iii) Toshiyuki Yokota, principal evaluation specialist, focusing on transport and GIS; (iv) Syed Faraz Kazmi, senior evaluation specialist, focusing on private sector participation; (v) Arjun Guha, evaluation specialist, focusing on energy; (vi) Jerome Jovellanos, associate evaluation officer; (vii) Caren Joy Mongcopa, associate evaluation officer; and (viii) Elizabeth Li, evaluation analyst.
- 38. A team of consultants will be engaged in accordance with ADB Procurement Policy: (i) international consultants; (ii) headquarter based national consultant to support documentation review, and data analysis; and (iii) an in-field national consultant to assist in arranging and participating in mission meetings, facilitating interviews, and discussions at the country level, and following up with documents and data as necessary (Table 1). Internal and external peer reviewers who are experts in urban development will also be tapped to review the document and provide their views on how best to improve the content of the evaluation report as well as the approach to effectively communicate the findings and key messages.

**Table 1: Team Composition and Level of Effort** 

Team	Level of Effort (anticipated)
IED Staff	
Evaluation Specialist (team leader)	3 person months
Evaluation Specialist (co team leader)	3 person months
Evaluation Specialist (private sector)	2 person months
Evaluation Specialist (transport/GIS)	2 person months
Evaluation Specialist (energy)	2 person months
Consultants	
4 International Consultants (urban experts)	6 person months
1 In Country National Consultant (India)	2 person months
1 Portfolio and Database Management Consultant (national, ADB HQ)	3 person months
1 Evaluation Research Associate (national, ADB HQ)	3 person months
1 Geospatial/GIS National Consultant (ADB HQ)	3 person months

ADB = Asian Development Bank, GIS = geographic information system, HQ = headquarters, IED = Independent Evaluation Department.

Source: ADB (IED).

- 39. **Peer review**. The approach paper was peer reviewed by Sung Shin and Ramachandra Jammi. The evaluation report will be reviewed by external peer reviewers who will be selected at a later point.
- 40. **Dissemination.** The results of the evaluation will be disseminated in ADB. The presentation of evaluation results and findings to other stakeholders will be decided at a later stage.
- 41. Table 2 presents the proposed timeline for this evaluation.

**Table 2: Proposed Timeline** 

Activity	Tentative Schedule
Country visit	III April 2023
Storyline meeting	II May 2023
First draft	II June 2023
Peer review	III June 2023
One stop review meeting	IV June 2023
Interdepartmental circulation	l July 2023
Government review	l August 2023
Head of Departments meeting	l August 2023
Technical meeting	II August 2023
Editing	IV August 2023
IED Director General approval	l September 2023
Circulation of the final report	II September 2023
Development Effectiveness Committee meeting	l October 2023

Source: Asian Development Bank (Independent Evaluation Department).

#### Attachments:

- 1. List of Water and Other Urban Infrastructure and Services Sector Projects in India, 2012–2022
- 2. Evaluation Questions

# LIST OF WATER AND OTHER URBAN INFRASTRUCTURE AND SERVICES AND TRANSPORT (URBAN) SECTOR PROJECTS IN INDIA, 2012–2022

Table A1.1: Sovereign Loans (Water and Other Urban Infrastructure and Services Sector)

No.	Approv al Year	Project Name	Product Modality	Approval Amount (\$ million)	Subsector	Status
1	2012	North Karnataka Urban Sector Investment Program - Tranche 3	MFF - Tranche 3	60.00	Urban sewerage	Closed
2	2012	MFF - Bihar Urban Infrastructure Development Sector Program (Facility Concept)	MFF	200.00	Urban Water Supply	Closed
3	2012	Bihar Urban Development Investment Program - Tranche 1	MFF - Tranche 1	65.00	Urban water supply	Closed
4	2013	North Karnataka Urban Sector Investment Program - Project 4	MFF - Tranche 4	63.30	Urban water supply	Closed
5	2013	Kolkata Environmental Improvement Investment Program - Tranche 1	MFF - Tranche 1	100.00	Urban sewerage	Closed
6	2014	Infrastructure Development Investment Program for Tourism - Tranche 3	MFF - Tranche 3	123.51	Renovation and protection of cultural heritage	Closed
7	2014	Jammu and Kashmir Urban Sector Development Investment Program - Tranche 3	MFF - Tranche 3	60.00	Urban water supply	Closed
8	2014	Karnataka Integrated Urban Water Management Investment Program	MFF	150.00	Urban Water Supply	Active
9	2014	Rajasthan Urban Sector Development Program	SDP - Project Loan	250.00	Urban water supply	Closed
10	2014	Rajasthan Urban Sector Development Program	SDP - Program Loan	250.00	Urban water supply	Closed
11	2014	Karnataka Integrated Urban Water Management Investment Program - Tranche 1	MFF - Tranche 1	75.00	Urban water supply	Closed
12	2015	North Eastern Region Capital Cities Development Investment Program – Tranche 3	MFF - Tranche 3	80.00	Urban water supply	Closed
13	2016	Kolkata Environmental Improvement Investment Program - Tranche 2	MFF - Tranche 2	200.00	Urban flood protection	Active
14	2017	Madhya Pradesh Urban Services Improvement Project	Project Loan	275.00	Urban water supply	Active
15	2017	Bihar Urban Development Investment Program - Tranche 2	MFF - Tranche 2	84.00	Urban water supply	Closed
16	2017	Assam Urban Infrastructure Investment Program - Tranche 2	MFF - Tranche 2	149.00	Urban flood protection	Active
17	2018	Infrastructure Development Investment Program for Tourism-Tranche 4	MFF - Tranche 4	31.00	Other urban services	Closed

No.	Approv al Year	Project Name	Product Modality	Approval Amount (\$ million)	Subsector	Status
18	2018	Kolkata Environmental Improvement Investment Program-Tranche 3	MFF - Tranche 3	100.00	Urban sewerage	Active
19	2018	Karnataka Integrated Urban Water Management Investment Program-Tranche 2	MFF - Tranche 2	75.00	Urban water supply	Active
20	2018	Tamil Nadu Urban Flagship Investment Program	MFF	500.00	Urban policy, institutional and capacity development	Active
21	2018	Tamil Nadu Urban Flagship Investment Program - Tranche 1	MFF - Tranche 1	169.00	Urban sewerage	Active
22	2019	Tamil Nadu Urban Flagship Investment Program- Tranche 2	MFF - Tranche 2	206.00	Urban water supply	Active
23	2020	Madhya Pradesh Urban Services Improvement Project - Additional Financing	Sector Loan	270.00	Urban water supply	Active
24	2020	Rajasthan Secondary Towns Development Sector Project	Sector Loan	300.00	Urban sanitation	Active
25	2020	Tripura Urban and Tourism Development Project	Project Readiness Financing (Loan)	4.21	Urban policy, institutional and capacity development	Active
26	2021	Jharkhand Urban Water Supply Improvement Project	Project Loan	112.00	Urban water supply	Active
27	2021	Inclusive, Resilient, and Sustainable Housing for Urban Poor Sector Project in Tamil Nadu	Sector Loan	150.00	Urban housing	Active
28	2021	Integrated Urban Flood Management for the Chennai-Kosasthalaiyar Basin Project	Project Loan	251.00	Urban flood protection	Active
29	2021	Agartala City Urban Development Project	Project Loan	61.00	Renovation and protection of cultural heritage	Active
30	2021	Uttarakhand Integrated and Resilient Urban Development Project	Project Loan	125.00	Urban sewerage	Active
31	2021	Sustainable Urban Development and Service Delivery Program (Subprogram 1)	Programmatic Approach Policy- Based Lending (Loan)	350.00	Urban policy, institutional and capacity development	Active
32	2022	Nagaland Urban Infrastructure Development Project	Project Readiness Financing (Loan)	2.00	Urban roads and traffic management	Active
33	2022	Agartala Municipal Infrastructure Development Project	Project Readiness Financing (Loan)	3.00	Urban flood protection	Active
34	2022	Tamil Nadu Urban Flagship Investment Program Tranche 3	MFF - Tranche 3	125.00	Urban sewerage	Active

**Table A1.2: Sovereign Loans (Urban Transport)** 

No	Approval		Product	Approval Amount			
	Year	Project Name	Modality	(\$ million)	Sector	Subsector	Status
1	2012	Jammu and Kashmir Urban Sector Development Investment Program - Tranche 2	MFF - Tranche 2	110.00	Transport	Urban roads and traffic management	Closed
2	2013	Jaipur Metro Rail Line 1-Phase B Project	Project Loan	176.00	Transport	Urban public transport	Closed
3	2019	Mumbai Metro Rail Systems Project	Project Loan	926.00	Transport	Urban public transport	Active
4	2020	Delhi-Meerut Regional Rapid Transit System Investment Project	MFF	1,049.00	Transport	Urban public transport	Active
5	2020	Delhi-Meerut Regional Rapid Transit System Investment Project - Tranche 1	MFF - Tranche 1	500.00	Transport	Urban public transport	Active
6	2020	Bengaluru Metro Rail Project	Project Loan	500.00	Transport	Urban public transport	Active
7	2021	Aizawl Sustainable Urban Transport Project	Project Readiness Financing (Loan)	4.50	Transport	Urban public transport	Active
8	2022	Chennai Metro Rail Investment Project	Project Loan	350.00	Transport	Urban public transport	Active

**Table A1.3: Grants (Water and Other Urban Infrastructure and Services Sector)** 

No.	Title	Approved Amount (\$)	Subsector	Approval Date	Status
1	MFF: Karnataka Integrated Urban Water Management Investment Program-Tranche1	1,800,000	Urban water supply	29 Jul 2014	Closed
2	Rajasthan Urban Sector Development Program	2,000,000	Urban water supply	24 Oct 2014	Closed
3	MFF: Visakhapatnam-Chennai Industrial Corridor Development Program - Project 1	5,000,000	Urban water supply	26 Sep 2016	Active
4	MFF: Tamil Nadu Flagship Investment Program - Project 1	2,000,000	Urban sewerage	28 Sep 2018	Active
5	Integrated Urban Flood Management for the Chennai- Kosasthalaiyar Basin	6,880,000	Urban flood protection	03 Jun 2022	Active

**Table A1.4: Grants (Urban Transport)** 

No.	Title	Approved Amount (\$)	Sector	Subsector	Approval Date	Status
1	Delhi-Meerut Regional Rapid Transit System					Active
	Investment Project	3,000,000	Transport	Urban public transport	18 Aug 20	
2	Greencell Electric Bus Financing Project	325,000	Transport	Urban public transport	19 Aug 22	Active
3	Greencell Electric Bus Financing Project	5,200,000	Transport	Urban public transport	19 Aug 22	Active

# **Table A1.5: Nonsovereign Operations (Water and Other Urban Infrastructure and Services Sector)**

No.	Approval Year	Project Name	Product Modality	Approval Amount (\$ million)	Subsector	Status
1	2012	Pune Nirvana Hills Slum Rehabilitation Project (aka Pune Slum Rehabilitation)	Project Loan	35.00	Urban slum development	Cancelled
2	2015	Shapoorji Affordable Housing Project	Equity	35.00	Urban housing	Active
3	2022	Wabag Clean Water Supply Project	Debt Security	24.98	Urban sewerage	Active
4	2020	Indorama Ventures Regional Blue Loan	Project Loan	50.00	Urban solid waste management	Active

# **Table A1.6: Nonsovereign Operations (Urban Transport)**

No	Approval Year	Project Name	Product Modality	Approval Amount (\$ million)	Sector	Subsector	Status
1	2021	GRIL Phase II Highway Equipment	Debt Security	20.00	Transport	Urban roads and traffic	Active
		Finance Project				management	

# **Table A1.7: Technical Assistance (Water and Other Urban Infrastructure and Services)**

No.	TA Type	Title	Revised TA Amount (\$)	Subsector	TA Approval Date	Status
1	PPTA	Delhi Water Supply Improvement Investment Program	800,000	Urban water supply	29 Jul 2013	Closed
2	PPTA	Delhi Water Supply Improvement Investment Program	500,000	Urban water supply	29 Jul 2013	Closed
3	PPTA	Bangalore Cluster City Development Investment Program	1,300,000	Urban public transport Urban policy, institutional and capacity development	16 Aug 2013	Closed

No.	TA Type	Title	Revised TA Amount (\$)	Subsector	TA Approval Date	Status
4	CDTA	Rajasthan Urban Sector Development Program	1,000,000	Urban policy, institutional and capacity development	24 Oct 2014	Closed
5	CDTA	Rajasthan Urban Sector Development Program	130,133	Urban policy, institutional and capacity development	24 Oct 2014	Closed
6	CDTA	Supporting Public–Private Partnerships for Infrastructure Development	1,500,000	Urban policy, institutional and capacity development	15 Dec 2014	Closed
7	PPTA	Madhya Pradesh Urban Services Improvement Program	1,560,000	Urban policy, institutional and capacity development	16 Dec 2014	Closed
8	PPTA	Strengthening Municipal E-governance Reforms in Karnataka	500,000	Urban policy, institutional and capacity development	16 Dec 2014	Cancelled
9	TRTA	State Level Support for National Flagship Urban Programs	4,480,000	Urban water supply	11 Dec 2015	Closed
10	TRTA	Strengthening Smart Water Management and Urban Climate Change Resilience Tamil	1,550,000	Urban flood protection	4 Jul 2016	Closed
11	CDTA	Strengthening Climate Resilience of Kolkata City Thru Imp Planning & Dis Management	1,000,000	Urban flood protection	16 Aug 2016	Active
12	CDTA	Strengthening Climate Change-Resilient Smart Cities Mission Project	2,500,000	Urban sanitation	5 Dec 2016	Closed
13	TRTA	Capacity Development of Institutions in the Urban Sector of Madhya Pradesh	1,000,000	Urban water supply	18 May 2017	Active
14	TRTA	Preparing the Rajasthan Secondary Towns Development Investment Program	1,300,000	Urban sewerage	9 Jul 2017	Closed
15	TRTA	Strengthening Capacity of KMC for Resilient Urban Services	2,000,000	Urban sewerage	13 Aug 2018	Active
16	TRTA	Strengthening Institutional Capacity for Project Development and Urban Governance in Tamil Nadu	1,000,000	Urban sanitation	28 Sep 2018	Active
17	TRTA	India Urban and Water Projects Support Facility	2,000,000	Urban policy, institutional and capacity development	4 Nov 2019	Active
18	TRTA	India Urban and Water Projects Support Facility	1,000,000	Urban policy, institutional and capacity development	4 Nov 2019	Active
19	TRTA	Supporting Capacity for Affordable Housing Delivery	1,500,000	Urban housing	3 Sep 2021	Active
20	KSTA	Promoting Smart and Integrated Urban Planning for Livability and Cultural Economy in Rajasthan	750,000	Urban policy, institutional and capacity development	21 Sep 2021	Active
21	TRTA	Capacity Development for the Agartala City Urban Development Project	1,000,000	Renovation and protection of cultural heritage	27 Oct 2021	Active
22	TRTA	Enhancing Climate Resilience in Uttarakhand Urban Development	250,000	Urban sewerage	26 Nov 2021	Active

No	TA	Title	Revised TA Amount	Subsector	TA Approval	Ctatus
No.	Type	Title	(\$)	Subsector	Date	Status
23	TRTA	Enhancing Climate Resilience in Uttarakhand Urban Development	750,000	Urban sewerage	26 Nov 2021	Active
24	TRTA	Technical Assistance for Strengthening Institutional Capacity for Sustainable Urban Development and Service Delivery	1,500,000	Urban policy, institutional and capacity development	9 Dec 2021	Active
25	KSTA	Strengthening Regional Plan and Functional Plan Preparation in the National Capital Region	775,000	Urban policy, institutional and capacity development	13 Dec 2021	Active
26	TRTA	India Urban and Water Projects Support Facility (Supplementary)	1,000,000	Urban policy, institutional and capacity development	8 Nov 2022	Active
27	KSTA	Supporting Institutional Knowledge Development and Capacity Building for Planning of Innovative and Sustainable Projects and Programs	340,000	Urban policy, institutional and capacity development	22 Mar 2022	Active
28	KSTA	Supporting Institutional Knowledge Development and Capacity Building for Planning of Innovative and Sustainable Projects and Programs	1,500,000	Urban policy, institutional and capacity development	22 Mar 2022	Active

**Table A1.8: Technical Assistance (Urban Transport)** 

	TA		Revised			TA Approval	
No.	Type	Title	TA Amount	Sector	Subsector	Date	Status
1	CDTA	Supporting Sustainable Urban Transport in Aizawl City	225,000	Transport	Urban public transport	25 Nov 2014	Closed
2	TRTA	Strengthening Capacity to Design and Implement Transport Infrastructure	3,000,000	Transport	Urban roads and traffic management	11 Jul 2019	Active
3	TRTA	Support for Integrated and Sustainable Urban Development Along Mass Rapid Transport	2,000,000	Transport	Urban public transport	8 Dec 2020	Active
4	TRTA	Enhancing Urban Mobility and Livability of the Chennai Metropolitan Area	1,000,000	Transport	Urban public transport	8 Dec 2022	Active
5	TRTA	Strengthening Capacity to Design and Implement Transport Infrastructure Projects (Supplementary)	1,000,000	Transport	Urban roads and traffic management	10 Oct 2022	Active

CDTA = capacity development technical assistance, KSTA = knowledge and support technical assistance, MFF = multitranche financing facility, PPTA = project preparatory technical assistance, TA = technical assistance, TRTA = transaction technical assistance.

Source: Asian Development Bank.

## **EVALUATION QUESTIONS**

## Overarching Question:

To what extent has ADB's water and other urban infrastructure and services program in India supported institutions to deliver improved access and levels of urban services in a sustainable, resilient, and inclusive manner?

Sul	Key Activities		
1.	What is the relevance and coherence of ADB's India water and other urban infrastructure and services program with respect to its strategic approach and design of operations? <sup>a</sup>	Literature review  Document review	
	(i) To what extent is ADB's engagements (lending and nonlending) over the evaluation period in alignment with India's needs, plan priorities, and ADB's sector and corporate strategies?	Portfolio analysis Interviews with key stakeholders	
	(ii) To what extent has the design of sector portfolio reflected the latest evidence on good practices, innovative solutions, and integration of emerging technologies, considering country context? In particular, to what extent has the design of the more recent projects improved in addressing the sector challenges?	,	
	(iii) To what extent did the project design and monitoring framework indicators focus on financial sustainability, climate resilience, and social inclusion, apart from service coverage and quality?		
	(iv) To what extent are ADB's water and other urban infrastructure and services sector operations coordinated with other urban operations in the context of integrated urban development and planning?		
	(v) How well have the regional department, Private Sector Operations Department, Sustainable Development and Climate Change Department and India Resident Mission collaborated to meet the country sector needs?		
	(vi) How well has ADB partnered with other development partners to support better outcomes in water and other urban infrastructure and services sector in India?		
2.	To what extent has ADB improved service quality, inclusion, resilience, gender equality, institutional efficiency, and sustainability through its operations?	Document review	
	(i) To what extent did ADB's support contribute to improved quality of services? To what extent has the ADB procurement reform (introducing new forms of contract such as the Design Build Operate and the focus on quality in the process) helped in improving the quality of services? To what extent has introduction of new technologies contributed to improvements in services?	Interviews with key stakeholders Survey of Beneficiary households	
	(ii) How far has ADB's support helped improve financial performance of utilities through improved cost recovery from tariff revisions, taxes and fiscal transfers and increased operational efficiencies using modern practices and technology?	GIS based analysis for spatially based outcomes	
	(iii) To what extent did ADB's support contribute to improved sector governance (including through improved policy and regulatory frameworks for inclusive planning) and institutional effectiveness (through institutional capacity building including for financial governance)?	outcomes	
	(iv) To what extent did ADB's support contribute to improving environmental sustainability, gender equality, climate resilience, and social inclusion?		

Sı	Key Activities		
3.	To what extent has ADB fa and provision of infrastructu environment and investmer	Document review Portfolio analysis	
		It has ADB supported the creation of enabling environment Itional, legal and regulatory reforms for greater private service provision?	Interviews with key stakeholders
	(ii) To what extent has AD finance through PPP a	B support encouraged private sector as a source of nd other means?	

ADB = Asian Development Bank, GIS = geographic information system, PPP = public-private partnership.

Source: ADB (Independent Evaluation Department).

<sup>&</sup>lt;sup>a</sup> The Coherence criterion is used to assess the compatibility of ADB's interventions with other interventions in the country, sector by ADB and other institutions. It includes internal coherence and external coherence. Internal coherence addresses the synergies and interlinkages between the interventions being assessed and other interventions carried out by ADB/government, as well as the consistency of the interventions with the relevant international norms and standards to which ADB /government adheres. External coherence considers the consistency of the intervention with other actors' interventions in the same context. This includes complementarity, harmonization and coordination with other development partners, and the extent to which the intervention is adding value while avoiding duplication of effort.