



# Report and Recommendation of the President to the Board of Directors

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**INTERNAL**

Project Number: 56286-001  
November 2023

## Proposed Results-Based Loan and Administration of Technical Assistance Grants India: Swachh Bharat Mission 2.0—Comprehensive Municipal Waste Management in Indian Cities Program

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**Asian Development Bank**

## CURRENCY EQUIVALENTS

(as of 2 November 2023)

Currency unit	–	Indian rupee/s (₹)
₹1.00	=	\$0.01
\$1.00	=	₹83.27

## ABBREVIATIONS

ADB	–	Asian Development Bank
DLI	–	disbursement-linked indicator
E&S	–	environmental and social
GESI	–	gender equality and social inclusion
GFC	–	garbage-free city
GHG	–	greenhouse gas
IEC	–	information, education, and communication
IVA	–	independent verification agency
M&E	–	monitoring and evaluation
MOHUA	–	Ministry of Housing and Urban Affairs
ODF	–	open-defecation free
OP1–OP7	–	operational priorities 1–7
PAP	–	program action plan
PMU	–	project management unit
RBL	–	results-based loan or results-based lending
SBM	–	Swachh Bharat Mission
SBM-U	–	Swachh Bharat Mission–Urban
SWM	–	solid waste management
TA	–	technical assistance
ULB	–	urban local body

## NOTE

In this report, “\$” refers to United States dollars.

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## PROGRAM AT A GLANCE

Project Data			
<b>Project number</b>	56286-001	<b>Project name</b>	Swachh Bharat Mission 2.0– Comprehensive Municipal Waste Management in Indian Cities Program
<b>Country</b>	India	<b>Executing or implementing agency</b>	Ministry of Housing and Urban Affairs
<b>Borrower</b>	India		
<b>Sector office</b>	Water and Urban Development	<b>Geographical location</b>	Swachh Bharat Mission 2.0– Comprehensive Municipal Waste Management Program in Indian Cities
<b>Sector</b>	Water and other urban infrastructure services	<b>Subsector</b>	Urban sanitation Urban solid waste management
<b>Country economic indicators</b>	<a href="https://www.adb.org/Documents/LinkedDocs/?id=56286-001-CEI">https://www.adb.org/Documents/LinkedDocs/?id=56286-001-CEI</a>	<b>Portfolio at a glance</b>	<a href="https://www.adb.org/Documents/LinkedDocs/?id=56286-001-PortAtaGlance">https://www.adb.org/Documents/LinkedDocs/?id=56286-001-PortAtaGlance</a>
<b>Operational priorities</b>	OP1: Addressing remaining poverty and reducing inequalities OP2: Accelerating progress in gender equality OP3: Tackling climate change, building climate and disaster resilience, and enhancing environmental sustainability OP4: Making cities more livable OP6: Strengthening governance and institutional capacity	<b>Sustainable Development Goals</b>	SDG 3.9 SDG 5.5 SDG 6.2, 6.3 SDG 11.6 SDG 13.a
<b>Lending modality</b>	Results-based Lending		
Financing			
<b>ADB Financing</b>		<b>Amount (\$ million)</b>	
Regular ordinary capital resources loan		200.00	
<b>Cofinancing</b>		<b>Amount (\$ million)</b>	
None		0.00	
<b>Counterpart</b>		<b>Amount (\$ million)</b>	
Government		200.00	
<b>Total</b>		<b>400.00</b>	
ADB Climate Financing			
<b>ADB</b>			
Adaptation		10.60	
Mitigation		117.40	
<b>Cofinancing</b>			
Adaptation		0.00	
Mitigation		0.00	
<b>Total</b>		<b>128.00</b>	
Climate Change			
<b>Absolute GHG emissions (tCO<sub>2</sub>e per year)</b>		1,132,760	
<b>Relative GHG emissions (tCO<sub>2</sub>e per year)</b>		0	
<b>Climate change risk on the project without adaptation measures</b>		Medium	
Private Sector Development			
<b>Private capital mobilized (\$):</b>		None	
Safeguards			
<b>Category</b>	Environment: <input type="checkbox"/> A <input checked="" type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> FI    Indigenous peoples: <input type="checkbox"/> A <input checked="" type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> FI Involuntary resettlement: <input type="checkbox"/> A <input checked="" type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> FI		
Gender Equality			
<b>Category</b>	<input type="checkbox"/> Gender equity theme (GEN) <input checked="" type="checkbox"/> Effective gender mainstreaming (EGM) <input type="checkbox"/> Some gender elements (SGE) <input type="checkbox"/> No gender elements (NGE)		
Poverty Targeting			
<b>Category</b>	<input checked="" type="checkbox"/> General intervention <input type="checkbox"/> Individual or household (TI-H) <input type="checkbox"/> Geographic (TI-G)		

## I. THE PROPOSAL

1. I submit for your approval the following report and recommendation on a proposed results-based loan (RBL) to India for the Swachh Bharat Mission 2.0—Comprehensive Municipal Waste Management in Indian Cities Program. The report also describes the proposed administration of technical assistance (TA) to be provided by the Urban Resilience Trust Fund under the Urban Financing Partnership Facility, the Republic of Korea e-Asia and Knowledge Partnership Fund, and the Sanitation Financing Partnership Trust Fund under the Water Financing Partnership Facility, and if the Board approves the proposed loan, I, acting under the authority delegated to me by the Board, approve the administration of the TA.

2. In 2021, the Government of India launched its flagship 5-year Swachh Bharat (Clean India) Mission-Urban 2.0 (SBM-U 2.0), committing to making all cities “garbage-free cities” (GFCs) by 2026,<sup>1</sup> while maintaining open-defecation free (ODF) status across 4,372 urban local bodies (ULBs).<sup>2</sup> The RBL program is a geographic, time- and scope-based slice of the government’s program, covering an estimated 100 cities across eight states.<sup>3</sup> It will enhance sanitation and solid waste management (SWM) infrastructure, improve access and service delivery, and bolster the enabling environment for sustainable waste management. It aims to boost the performance of target states in comprehensive waste management, drawing on the experience, lessons, and previous engagements of the Asian Development Bank (ADB) in the sector of water and other urban infrastructure and services.

## II. THE PROGRAM

### A. Rationale

3. **Sector context.** As the fifth-largest economy in the world, India has a population estimated at 1.41 billion, with an urban component of 498 million (35%) growing at 2.3% annually.<sup>4</sup> Waste management, encompassing SWM and sanitation, represents a significant public health challenge. In 2020, India generated about 62 million tons of municipal solid waste.<sup>5</sup> Economic and demographic growth in cities has increased the challenges and complexity of municipal SWM. Collection rates range from below 50% in small cities and up to 90% in large cities, and an estimated 28% of waste is left untreated (footnote 5). Uncollected waste is openly burned or pollutes land and waterways, while collected waste may be illegally tipped or end up in uncontrolled dumpsites (footnote 5).<sup>6</sup> In 2014, the Government of India, as an initiative led by the Prime Minister, launched the Swachh Bharat Mission (SBM) to achieve an ODF India by 2019, grounded in the ambition expressed by Mahatma Gandhi of a clean and hygienic India. For

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<sup>1</sup> Government of India, Ministry of Housing and Urban Affairs (MOHUA). 2021. *Swachh Bharat Mission-Urban 2.0. Operational Guidelines*. Delhi. MOHUA adopted a SMART (single metric, measurable, achievable, rigorous verification, targeted towards outcomes) framework for rating ULBs. The indicators include source segregation, scientific processing of waste, dumpsite remediation, penalties and spot fines for littering, compliance by bulk waste generators, cleanliness of drains and water bodies, plastic waste management, and managing construction and demolition waste, all of which is critical for cities to achieve garbage-free status. A standardized rating is given for the level of holistic cleanliness achieved based on an independent assessment, as per the garbage-free protocol, including a scoring methodology. Government of India, MOHUA. 2021. *Azadi@75 Star Rating Protocol of Garbage-Free Cities. Toolkit 2022*. Delhi.

<sup>2</sup> ODF is defined as not a single person found defecating in the open at any point of the day. Government of India, MOHUA. 2020. *Declaring your City/Town SBM ODF+ and SBM ODF++ Toolkit for Urban Local Bodies*. Delhi.

<sup>3</sup> RBL program states: Assam, Bihar, Jharkhand, Karnataka, Maharashtra, Odisha, Tamil Nadu, and Uttar Pradesh.

<sup>4</sup> United Nations. *United Nations Population Division* (accessed 17 October 2022).

<sup>5</sup> Government of India, MOHUA. 2020. *Standing Committee on Urban Development 2020–2021*. Delhi.

<sup>6</sup> Central Pollution Control Board. 2016. *Solid Waste Management Rules*. Delhi.

sanitation, the first phase of the SBM eliminated open defecation among 500 million people, alleviating the acute health risks and preventing pollution of land and water bodies. Reaching ODF status for the remaining population and maintaining ODF status overall remains a constant challenge in terms of behavioral and cultural factors, maintenance of sanitary facilities, and equitable access.<sup>7</sup>

4. **Climate change, disaster, and other risks.** An inadequate infrastructure base makes India vulnerable to climate change impacts. Global warming is projected to cause frequent and extreme floods and landslides, damaging urban infrastructure. Clogged drainage systems from improper disposal of solid waste exacerbate flood and health risks, while natural hazards, such as flooding and earthquakes, increase the quantity of waste entering the environment and change the waste characteristics.<sup>8</sup> Pathogens and pollutants may be flushed into the environment from flooded septic tanks and storage pits, while water scarcity can impact the functionality of sanitation systems. Uncontrolled landfill sites are vulnerable to flood risks, while heatwaves increase the risk of landfill fires. India accounts for 4% of global greenhouse gas (GHG) emissions; its emissions from waste generate 75.2 megatons of carbon dioxide equivalent annually; and 15.8 megatons from municipal SWM.<sup>9</sup> Since solid waste is generally linked to development and per capita income, methane emissions from landfills are highly correlated with economic development and population growth.<sup>10</sup>

5. **Sector strategy and lessons.** The first phase of the government's urban SBM program (2014–2019) aimed to accomplish three primary objectives in all ULBs: (i) 100% ODF status, (ii) 100% modern and scientific SWM, and (iii) behavior change through people's movement. *Swachh Survekshan* (cleanliness survey) has emerged as an effective tool for transforming the urban landscape; it is an annual survey to evaluate and rank cities on various cleanliness parameters. SBM was able to advance these goals, achieving ODF status for 4,355 ULBs and ODF+ status for 547 ULBs.<sup>11</sup> ULB wards with 100% source segregation increased from 15% in 2021 to 89% in 2023.<sup>12</sup> The focus on scientific waste management is clear—waste processing in India increased more than fourfold from 18% in 2014 to 76% in 2023 (footnote 12). The government has shown a high level of commitment and proactively attracted development partners, including the World Bank, to commit \$1.5 billion to the rural SBM program between 2015 and 2021.<sup>13</sup> Key lessons from the first phase of the urban SBM highlight the remaining challenges, notably (i) inadequacies in managing various solid waste types; (ii) insufficient budgetary support for the disposal or management of legacy waste, plastic waste, and construction and demolition waste; (iii) risk of regress in ODF achievements; (iv) the need for sustained and adequate infrastructure; (v) inadequate institutional capacities; and (vi) limited information, education, and

<sup>7</sup> In 2019–2020, 19% of the population (6% in urban areas) practiced open defecation. Government of India, Ministry of Health and Family Welfare. 2021. [National Family Health Survey 2019–2021](#). Delhi.

<sup>8</sup> United Nations Office for the Coordination of Humanitarian Affairs. 2011. [Disaster Waste Management Guidelines](#). Geneva.

<sup>9</sup> Ministry of Environment, Forest and Climate Change, Government of India. [India's Long-Term Low-Carbon Development Strategy. Submission to the United Nations Framework Convention on Climate Change](#). 2022.

<sup>10</sup> NITI Aayog. [India Climate & Energy Dashboard](#) (Accessed 2 November 2023).

<sup>11</sup> ODF+ is defined as not a single person found defecating and/or urinating in the open at any point of the day, and all community and public toilets are functional and well maintained. ODF++ means ODF+ combined with ensuring safe containment, evacuation, transportation, and processing of fecal sludge, septage, and/or sewage from toilets as well as ensuring that no untreated fecal sludge, septage, or sewage is discharged into open drains, water bodies, or in open areas (footnote 1).

<sup>12</sup> Government of India, MOHUA. [Swachh Bharat Mission-Urban](#); and Government of India, Press Information Bureau. 2023. [MOHUA Conducts SBM-U 2.0 Planning and Implementation Review-cum-Workshop](#). Delhi.

<sup>13</sup> World Bank. [India: Swachh Bharat Mission Support Operation](#). The completion report rated the program-for-results financing modality as an *effective instrument for institutional strengthening when integrated in the program results framework*.

communication (IEC) outreach. Proactive political and administrative leadership and a whole-of-government approach are crucial to the resolution of these challenges.<sup>14</sup> In 2021, SBM-U 2.0 was launched to sustain and deepen the achievements of SBM, committing to GFCs by 2026 (footnote 1)<sup>15</sup> while maintaining ODF status across 4,372 ULBs. The Ministry of Housing and Urban Affairs (MOHUA) also introduced standardized protocols for achieving “Water+” status as a part of the SBM-U 2.0 program, i.e., for ULBs to prevent the discharge of untreated wastewater into the open environment or water bodies. In addition, SBM-U 2.0 encourages more private sector involvement in asset provision and the operation of municipal SWM services in India, which has been limited. Progress varies across states because the institutional capacity of ULBs varies, which affects service delivery. In seven of the eight states selected for the RBL program, 0%–4% of ULBs achieved a GFC 3-star rating, while that ratio is 18% in Maharashtra. ADB has incorporated valuable lessons from its earlier engagement with MOHUA into its support for SBM-U 2.0.<sup>16</sup> These strategic interventions are expected to enhance urban livability and stimulate increased investments in the cities.

**6. Sector governance.** The institutional arrangements for SBM-U 2.0 follow existing regulatory and institutional frameworks. The role of the central government is to formulate broad policy guidelines, provide TA and support to the states and ULBs for the development of human resources, and act as an intermediary for mobilizing external assistance.<sup>17</sup> MOHUA is responsible for overseeing the implementation of SBM-U 2.0 and its secretary is the mission director. The joint secretary in charge of SBM-U 2.0 is the focal for the national program in the ministry and a dedicated full-time program director supported by officials and consultants. Under each state’s administrative and regulatory framework, ULBs are responsible for planning, operating, and maintaining their ODF status and GCF ratings.<sup>18</sup> Under the SBM-U 2.0 framework, an incentive scheme is introduced that not only provides financial assistance to states for infrastructure investments but also supports institutional processes and measures the outcomes of those investments. Funds are released through the Ministry of Finance into separate bank accounts of the states and corresponding ULBs in installments based on performance. A robust online monitoring and evaluation (M&E) system, centrally managed by MOHUA with inputs from states and ULBs, is the foundation of the government program. The system tracks progress toward program goals as well as financial progress, i.e., fund releases and expenditures under different components of the program. Despite these sound central arrangements, many ULBs have weak institutional capacities for the planning, asset development, and management of solid waste, and are in poor financial condition. They need to boost source segregation (e.g., sorting and separation of waste to facilitate recycling, treatment, and disposal) and the infrastructure to manage solid waste. This requires capacity enhancements, increased enforcement, and stronger local regulatory and institutional arrangements.

**7. Private sector participation.** The participation of the private sector in the provision of SWM and sanitation assets and services in India is expected to grow, especially when it comes to innovative technologies, equipment, and systems for cost-efficient (i) waste collection,

<sup>14</sup> Government of India, MOHUA. 2021. *Swachh Bharat Mission-Urban 2.0. Operational Guidelines*. Delhi.

<sup>15</sup> For example, GFC 3-star is a rating to classify the garbage-free status of cities considering criteria such as rates of door-to-door waste collection, source segregation, and waste processing, among others. Cities can advance to higher categories if they satisfy the garbage-free protocols for i.e., GFC 1-star rating to GFC 3-star rating, cities must attain 16 criteria, whereas GFC 5-star rating to GFC 7-star rating, cities must meet 24 criteria, which includes construction and waste processing and recycling, digital monitoring of operations, geotagging of assets, and city beautification, among others.

<sup>16</sup> ADB. [India: Sustainable Urban Development and Service Delivery Program](#).

<sup>17</sup> Government of India, Ministry of Urban Development. 2013. *Advisory on Improving Municipal Solid Waste Management Services*. Delhi.

<sup>18</sup> Government of India, MOHUA. 1993. [74th Constitutional Amendment Act of 1992](#). Delhi.



transport, and sorting; (ii) recycling of plastic, tires, e-waste, and batteries; (iii) construction waste management and landfill design and technologies; and (iv) energy generation from waste. However, the financial viability is constrained by the absence of a gate fee, which is deemed necessary to underwrite an investment; limited consideration of payment mechanisms in concession agreements; and ULBs' request of royalty payments from concessionaires. The TA attached to the program will pilot digital solutions for SWM and explore other opportunities for the private sector to contribute solutions. The TA assessment will help identify the enablers and barriers for private players, and how to create an enabling environment for their participation under the RBL program that will improve service quality.<sup>19</sup> In addition, the TA will assist ULBs in enhancing the collection of user charges to lower the financial viability constraints now facing private players.

**8. ADB's experience and lessons in waste management.** The program was guided by ADB's experience in the sector and in several states—covering institutional capacity building; policy and regulatory frameworks; sustainable infrastructure development; cost-effective citywide inclusive sanitation systems, integration of centralized sewerage systems, and decentralized fecal sludge and septage management; and the mainstreaming of performance-based funding for urban services.<sup>20</sup> The lessons it derived show that (i) government commitment should be secured to increase operation and maintenance (O&M) staff in ULBs; (ii) adequate support to build the operational and financial capacity of ULBs should be linked to infrastructure investments; (iii) private sector engagement should ensure that professional O&M systems are immediately in place while transferring skills to ULBs; (iv) an efficient project management system, including M&E during implementation, enables executing agencies and the project management unit (PMU) to monitor multiple subprojects; and (v) sufficient human resources and logistics support should be allocated to the implementation of gender equality and social inclusion (GESI) activities. The program also reflects other insights—e.g., that procurement approaches should consider externalities,<sup>21</sup> governance, and market analysis—and therefore includes activities to build procurement capacity.

**9. Strategic alignment.** The RBL program is aligned with ADB's country partnership strategy, 2023–2027 for India, particularly pillars 2 and 3;<sup>22</sup> and ADB's Strategy 2030 and five of seven operational priorities (OP1–OP7): addressing remaining poverty and reducing inequalities (OP1); accelerating progress in gender equality (OP2); tackling climate change, building climate and disaster resilience, and enhancing environmental sustainability (OP3); making cities more livable (OP4); and strengthening governance and institutional capacity (OP6).<sup>23</sup> The RBL program

<sup>19</sup> Program Soundness Assessment (accessible from the list of annexes on the Contents page). The assessment provides further information on private sector participation.

<sup>20</sup> ADB. [India: Madhya Pradesh Urban Services Improvement Project](#); and ADB. [India: Sustainable Urban Development and Service Delivery Program \(Subprogram 1\)](#).

<sup>21</sup> ADB. 2020. [Project Completion Report: North Eastern Region Capital Cities Development Investment Program \(Project 1\) in India](#). Manila.

<sup>22</sup> ADB. 2023. [Country Partnership Strategy: India, 2023–2027—Catalyze Robust, Climate-Resilient, and Inclusive Growth](#). Manila. Pillar 2: promote climate-resilient green growth by incorporating climate- and disaster-resilient features in solid waste management infrastructure and/or service delivery; and pillar 3: deepen social and economic inclusiveness by enabling an environment for GESI initiatives. Moreover, under pillar 3, the program prioritizes lagging states, some of which are included under the program (Assam, Bihar, Jharkhand, Odisha, and Uttar Pradesh).

<sup>23</sup> ADB. 2018. [Strategy 2030: Achieving a Prosperous, Inclusive, Resilient, and Sustainable Asia and the Pacific](#). Manila. The program contributes to OP1 by combating open defecation in poor communities; to OP2 by introducing measures to increase the participation of women in SWM and sanitation, including livelihood opportunities; to OP3 by reducing waste-generated emissions, building climate and disaster resilience, and enhancing environmental sustainability; to OP4 by improving SWM and sanitation in 100 ULBs; and to OP6 by strengthening institutional capacity for waste management and private sector engagement.

is also assessed as being fully aligned with the goals of the Paris Agreement.<sup>24</sup>

10. **Results-based lending modality.** The RBL will support SBM-U 2.0 in selected states that found it difficult to make progress because of capacity constraints. RBL is the most suitable modality because the program (i) is a slice of a results-oriented and defined government program and expenditure framework; (ii) aligns with the results-based performance focus of SBM-U 2.0, which couples infrastructure provision with actions to induce behavioral change, such as providing incentives—for toilet construction and use, and increased community participation—that are tied to results and to standardized outcome-focused policies and protocols; (iii) provides a common framework for development partners to collaborate toward harmonized results; (iv) promotes institutional development by motivating states and ULBs to embrace effective planning and M&E; and (v) has strong government ownership spearheaded by MOHUA, the executing agency for the RBL program. Moreover, the RBL is the most efficient modality since it helps avoid transaction costs associated with managing numerous small-value contracts across states and ULBs. MOHUA has a proven track record through its involvement in SBM, and has the necessary systems to successfully implement the program across 100 cities in the selected states.<sup>25</sup>

## B. Program Scope

11. The scopes of the broader government-owned program and the RBL program are summarized in Table 1.

**Table 1: Program Scope**

Item	Broader Government Program	Results-Based Lending Program
Outcome	All cities are clean and garbage free. (i) All ULBs are certified at least GFC 3-star or higher. <sup>a</sup> (ii) All ULBs become at least ODF+. (iii) All ULBs with less than 100,000 population become at least ODF++. (iv) At least 50% of all ULBs with less than 100,000 population become Water+.	At least 100 ULBs have improved their waste management and attained both GFC 3-star rating or higher and ODF+ status. <sup>b</sup>
Key outputs	In all ULBs: <sup>c</sup> (i) sanitation infrastructure and services improved; (ii) SWM infrastructure, processes, and systems improved; (iii) urban sanitation and used water infrastructure, management, and systems improved; and (iv) IEC interventions and institutional capacities strengthened.	In all selected ULBs of target states: (i) sanitation and SWM infrastructure, access, and service delivery improved; and (ii) enabling environment for sustainable waste management strengthened.
Activities	Infrastructure development, governance systems improvement, national and local standards development and enforcement, IEC, and capacity building	Innovative technologies and digital solutions for urban SWM, city sanitation and solid waste planning, infrastructure development, institutional

<sup>24</sup> The assessment of the program's Paris Agreement alignment was conducted as part of the climate and disaster risk screening. The assessment adheres to the Joint Multilateral Development Banks Methodological Principles for Assessment of Paris Agreement Alignment of New Operations. Details are in the Climate Change Assessment (accessible from the list of annexes on the Contents page).

<sup>25</sup> ULBs are selected based on the following criteria: (i) aligned with SBM-U 2.0 criteria (e.g., linked to progress toward a specific DLI); (ii) at least 3 ULBs in each state; (iii) at least 50 ULBs out of 100 ULBs have a population of more than 50,000; and (iv) no more than 25 ULBs supported in any one state.

Item	Broader Government Program	Results-Based Lending Program
		strengthening, and IEC.
Expenditure size	₹1.416 trillion (\$17.40 billion) <sup>d</sup>	\$400 million
Main financiers and their respective total amounts	Government of India: ₹364.650 billion (\$4.5 billion) ADB: \$200 million Balance of funds from various sources <sup>e</sup>	ADB: \$200 million Government: 200 million
Geographic coverage	All states	8 target states (Assam, Bihar, Jharkhand, Karnataka, Maharashtra, Odisha, Tamil Nadu, and Uttar Pradesh) <sup>f</sup>
Implementation period	October 2021–October 2026	December 2023–October 2026

ADB = Asian Development Bank; GESI = gender equality and social inclusion; GFC = garbage-free city; IEC = information, education, and communication; ODF+ = open-defecation free plus functionality and maintenance of community/public toilets; ODF++ = ODF+ combined with safe management and treatment of fecal sludge/septage and sewage; SWM = solid waste management; ULB = urban local body; Water+ = no untreated waste/used water is discharged into the open environment or water bodies.

<sup>a</sup> Government of India, Ministry of Housing and Urban Affairs (MOHUA). 2023. [Garbage Free Star Rating \(Cities\)](#). Delhi. As of 20 October 2023, 199 ULBs out of 4,372 ULBs have achieved GFC 3-star status and 3,547 have achieved ODF+.

<sup>b</sup> ULB is used to indicate a subnational administrative unit, which is governed by an administrative entity such as a municipal corporation, municipality, and municipal committee. The entity is responsible for governing a city or a town.

<sup>c</sup> Government of India, MOHUA. 2021. [Swachh Bharat Mission-Urban 2.0 Operational Guidelines](#). Delhi.

<sup>d</sup> \$1.00 = ₹81.46 (27 January 2023). Broader government program expenditure size is as per Swachh Bharat Mission guidelines.

<sup>e</sup> For government funds, the balance is to be contributed by individuals as beneficiary contributions, and by states, union territories, and the private sector under public–private partnerships.

<sup>f</sup> States were chosen based on the following criteria: higher waste generation, focusing on ULBs with significant plastic waste generation; coastal states and states with riverine cities to align with the commitment to ocean health and to manage climate and disaster risks; states with high tourist arrivals and temple towns; states with existing or planned ADB urban investments to enhance synergy; and states offering a conducive environment for private sector involvement, driven by factors like high income, substantial waste generation, and waste with high calorific value.

Source: Asian Development Bank.

## C. Program Results

12. The RBL program is a geographic, time- and scope-based slice of SBM-U 2.0, covering an estimated 100 cities across eight states (Table 1). The RBL program impacts will be: healthy citizens living in resilient GFCs with clean air, clean water, and clean land; and “emission intensity reduced by 45% from 2005 levels, by 2030.”<sup>26</sup> The outcome—“improved performance of target states in comprehensive waste management”<sup>27</sup>—will be measured by at least 100 ULBs in the target states achieving a GFC 3-star rating or higher (disbursement-linked indicator [DLI] 1) and achieving ODF+ status (DLI 2).<sup>28</sup> Selected DLIs (paras. 13–14) will create incentives to achieve the program’s expected outcome within the broader government program (Table 1).

13. **Output 1: Sanitation and solid waste management infrastructure, access, and service delivery improved.** This will include (i) planning or upgrading infrastructure for waste segregation at source (DLI 3), door-to-door waste collection (DLI 4); and waste management,

<sup>26</sup> Government of India. 2022. *India’s Updated First Nationally Determined Contribution (NDC) Under Paris Agreement (2021–2030)*. Delhi. Emissions intensity is the volume of GHG emissions per unit of gross domestic product. Waste represents 3% of India’s annual emissions. Improving sanitation and waste infrastructure and management systems are “indispensable for further mitigation actions.” Government of India. 2021. *India: Third Biennial Update Report to the United Nations Framework Convention on Climate Change*. Delhi.

<sup>27</sup> Design and Monitoring Framework (accessible from the list of annexes on the Contents page).

<sup>28</sup> GFC 3-star is a rating to classify the garbage-free status of cities. ODF+ means open-defecation free plus functionality and maintenance of communal and/or public toilets for continued usage.

such as material recovery facilities, transfer stations, composting plants, bio-methanation plants,<sup>29</sup> refuse-derived fuel processing facilities,<sup>30</sup> plastic waste processing facilities, and managed landfills (DLI 5);<sup>31</sup> (ii) procuring mechanized sweeping equipment and setting up processing facilities for construction and demolition waste;<sup>32</sup> (iii) establishing public or communal toilets and urinals in selected open-defecation “hot spots;” (iv) supporting GESI-sensitive training for sanitation workers (DLI 6); (v) annually reviewing and updating city solid waste and city sanitation action plans (DLI 7); and (vi) incorporating climate- and disaster-resilient and GESI-responsive features in infrastructure and service delivery.<sup>33</sup> The coordinated implementation of these actions will help build an integrated waste management system.

#### 14. **Output 2: Enabling environment for sustainable waste management strengthened.**

Institutional strengthening measures will help stakeholders deliver, maintain, and reinforce assets and systems developed through the program, and increase resilience to the impacts of climate change and natural hazards. The output includes (i) GESI-sensitive IEC campaigns to promote behavior change in households and communities (DLI 8);<sup>34</sup> (ii) application of differential user charges (DLI 7); (iii) deployment of innovative technologies and digital solutions, including peer-to-peer learning (e.g., partnerships between solid waste managers); (iv) systems to collect data on informal waste workers disaggregated by gender and by vulnerable group; (v) upstream work for public–private partnerships and private sector engagement;<sup>35</sup> (vi) participation of women’s self-help groups; and (vii) institutional mainstreaming of climate change mitigation and adaptation.

15. The program will track progress using eight DLIs along with seven indicators not linked to disbursement.<sup>36</sup> DLI 1 and DLI 2 monitor outcome achievement through the progress of ULBs toward GFC 3-star and ODF+ status, respectively. Physical output 1 components are tracked through upgraded infrastructure for primary-level segregation of municipal solid waste (DLI 3), door-to-door waste collection (DLI 4), and scientific processing of waste (DLI 5). DLI 6 institutionalizes GESI-sensitive training for sanitation workers. DLI 7 institutionalizes annual reviews of cities’ solid waste action plans and sanitation action plans, while DLI 8 tracks the development and implementation of GESI-sensitive IEC. The DLIs and their disbursement allocations are summarized in Table 2.

**Table 2: Disbursement-Linked Indicators**

Indicator	Disbursement Allocated (\$ million)	Share of Total ADB Financing (%)
<b>Outcome</b>		
1. By 2026, GFC 3-star rating or above achieved by at least 100 additional ULBs in target states	27.0	13.50
2. By 2026, ODF+ status achieved by at least 100 additional ULBs in target	25.0	12.50

<sup>29</sup> For processing of separately collected organic materials.

<sup>30</sup> The facilities shall have end users for refuse-derived fuel produced in accordance with the defined fuel specifications (e.g., the cement industry would require refined fuel of consistent quality to sustain their production process).

<sup>31</sup> For disposal of solid municipal waste only. Hazardous waste landfills are excluded. The criteria for funding of landfills will be stipulated to ensure avoidance of safeguard category A.

<sup>32</sup> 154 ULBs nationwide are eligible for funding toward construction and demolition waste processing and mechanized sweeping as per the SBM-U 2.0 guidelines.

<sup>33</sup> The terms “climate- and disaster-resilient” and “GESI-sensitive” are explained Table A2.2 of Disbursement-Linked Indicators, Verification Protocols, and Disbursement Schedule (accessible from the list of annexes on the Contents page).

<sup>34</sup> The campaigns will involve at least 40% girls, women, and vulnerable groups.

<sup>35</sup> This may include strengthening procurement processes, exploring the introduction of concession agreements or service contracts with adequate commercial structures, payment mechanisms, risk allocation, and mitigation.

<sup>36</sup> Program Results Framework Assessment (accessible from the list of annexes on the Contents page).

Indicator	Disbursement Allocated (\$ million)	Share of Total ADB Financing (%)
states		
<b>Outputs</b>		
3. By 2026, systems for primary-level segregation of municipal solid waste upgraded in at least 100 additional ULBs in target states	27.0	13.50
4. By 2026, at least 90% coverage of door-to-door waste collection achieved in at least 100 additional ULBs in target states	27.0	13.50
5. By 2026, scientific processing of waste commenced in at least 100 additional ULBs in target states	22.0	11.00
6. By 2026, sanitation workers (at least 40% women) completed GESI-sensitive training certified by the national government, a state skills program, or a sector skills council in at least 100 ULBs in target states	22.0	11.00
7a. Beginning 2024, the city solid waste action plans of at least an additional 100 ULBs in target states are reviewed and progress updated annually	12.5	6.25
7b. Beginning 2024, the city sanitation action plans of at least an additional 100 ULBs in target states are reviewed and progress updated annually	12.5	6.25
8. By 2026, GESI-sensitive information, education, and communication campaigns on ODF+ and GFCs implemented in at least 100 ULBs in target states	25.0	12.50
<b>Total</b>	<b>200.0</b>	<b>100.0</b>

ADB = Asian Development Bank, GESI = gender equality and social inclusion, GFC = garbage-free city, ODF = open-defecation free, ULB = urban local body.

Note: The detailed formulation of disbursement-linked indicators is in Table A2.2 of Disbursement-Linked Indicators, Verification Protocols, and Disbursement Schedule (accessible from the list of annexes on the Contents page).

Sources: Asian Development Bank and the Government of India.

16. Verification protocols were developed for the DLIs,<sup>37</sup> and MOHUA's PMU will engage an independent verification agency (IVA), a private entity, to verify and confirm the achievement of DLIs and other indicators, including through sample spot checks.<sup>38</sup> An indicative timeline for DLI achievement has been set, and partial disbursement is allowed for selected DLIs.<sup>39</sup> ADB will undertake at least two review missions annually to examine (i) the achievement of DLIs and other verification processes conducted by the IVA, (ii) financial management and audit reports, and (iii) annual work plans and budgets.

#### D. ADB Value Addition

17. The government requested the involvement of ADB in SBM-U 2.0 to introduce international best practices in SWM and sanitation. To ensure that financing is streamlined and the RBL program remains a well-defined slice of the overall government program, DLIs are aligned with the SBM-U 2.0 guidelines.<sup>40</sup> The RBL program provides significant additionality by leveraging results and impact within a nationwide flagship government program. For example, several indicators proposed under the program are not included in SBM-U 2.0—their achievement is directly supported by the TA, and they provide opportunities to promote, scale up, and replicate best practices and innovative approaches. These program design features serve to strengthen capacity and program implementation at MOHUA and in selected states and ULBs, including

<sup>37</sup> Disbursement-Linked Indicators, Verification Protocols, and Disbursement Schedule (accessible from the list of annexes on the Contents page).

<sup>38</sup> Program Monitoring and Evaluation System Assessment (accessible from the list of annexes on the Contents page).

<sup>39</sup> Table A2.2 of Disbursement-Linked Indicators, Verification Protocols, and Disbursement Schedule (accessible from the list of annexes on the Contents page).

<sup>40</sup> Government of India, MOHUA. 2021. [Swachh Bharat Mission-Urban 2.0 Operational Guidelines](#). Delhi.

efforts related to climate and disaster resilience, GESI mainstreaming, digitalization, private sector engagement, knowledge management, and stronger M&E frameworks. These improvements will benefit the overall SBM-U 2.0.

18. The program is ADB's first use of the RBL modality in India's urban sector. ADB will bring further value additions to the program through (i) lessons from its long engagement in the sector in India using other financing modalities, including through the application of a replication strategy; (ii) mainstreaming of climate- and disaster-resilient solutions across the sector; (iii) digital technologies to enhance infrastructure, and data-informed decision- and policy-making; (iv) GESI-responsive innovations in sanitation, SWM infrastructure, and service delivery with measures for increased participation of women; (v) expertise from ADB's nonsovereign operations on strategies to attract private sector participation (para. 7); and (vi) international best practices in waste management, such as plastic waste management and circular economy, which may inform interventions pursued through the program.

## E. Expenditure Framework and Financing Plan

19. **Program expenditures.** The RBL program expenditures are estimated to be \$400 million from 2023 to 2026 (Table 3).

**Table 3: Summary of Program Expenditure Framework, 2023–2026**  
(in 2023 prices)

Item	Amount (\$ million)	Share of Total (%)
<b>A. Investment costs</b>		
1. Sanitation and solid waste management infrastructure, access, and service delivery improved	345.06	86.27
2. Enabling environment for sustainable waste management strengthened	38.34	9.59
<b>Subtotal (A)</b>	<b>383.40</b>	<b>95.85</b>
<b>B. Financial Charges During Implementation</b>	<b>16.60</b>	<b>4.15</b>
<b>Total (A+B)</b>	<b>400.00</b>	<b>100.00</b>

Source: Asian Development Bank estimates.

20. **Program financing.** The government has requested a regular loan of \$200 million from ADB's ordinary capital resources to help finance the program. The loan will have a 26-year term, including a grace period of 5 years; an interest rate determined in accordance with ADB's Flexible Loan Product; a commitment charge of 0.15% per year; and such other terms and conditions set forth in the draft loan and program agreements. Based on the straight-line method, the average maturity is 15.75 years, and the maturity premium payable to ADB is 0.10% per year.

21. The summary program financing plan is in Table 4.

**Table 4: Program Financing Plan**

Source	Amount (\$ million)	Share of Total (%)
Government	200.0	50.0
Development partners		
Asian Development Bank		
Ordinary capital resources (regular loan)	200.0	50.0
<b>Total</b>	<b>400.0</b>	<b>100.0</b>

Source: Asian Development Bank estimates.

22. Climate finance for the program totals \$128.0 million. The loan will finance \$117.4 million of the mitigation costs and \$10.6 million of the adaptation costs.

#### **F. Capacity Development and Program Action Plan**

23. Capacity development actions agreed with the government are summarized in the RBL program action plan (PAP). The PAP focuses on improving M&E systems and program reviews, addressing fiduciary concerns, enhancing gender equality, and strengthening systems for environmental and social (E&S) safeguards.<sup>41</sup> The PAP actions were developed based on an assessment of capacity challenges in the states targeted under the RBL program.

#### **G. Implementation Arrangements**

24. The program implementation arrangements will follow those of the government-owned program. MOHUA is the executing agency responsible for the overall coordination of the program, while the National Mission Directorate in MOHUA is the implementing agency and will supervise and monitor program implementation. MOHUA is supported by a team of 20 PMU staff. MOHUA engages with states through quarterly review forums and provides technical inputs and analysis routinely as the nodal entity. The state mission directorates are supported by dedicated PMUs. ULBs' municipal commissioners (executive officers) are responsible for implementing SBM-U 2.0 locally. ADB will conduct regular reviews during the implementation of the RBL program.

25. **Disbursement arrangements.** Disbursement of the loan proceeds will follow ADB's *Loan Disbursement Handbook* (2022, as amended from time to time) and detailed arrangements agreed between the government and ADB.

26. The loan proceeds will be disbursed to the consolidated fund account of the government, upon verified DLI achievement. Where achievements are partial, partial disbursements may be made as per the verification protocol. The RBL program includes a provision for financing for prior results of \$40 million, the achievement of which will be verified by the IVA.<sup>42</sup>

### **III. TECHNICAL ASSISTANCE**

27. The TA financing amount is \$3.15 million in aggregate, of which (i) \$2 million will be financed on a grant basis by the Urban Resilience Trust Fund under the Urban Financing Partnership Facility;<sup>43</sup> (ii) \$1 million will be financed on a grant basis by the Republic of Korea e-Asia and Knowledge Partnership Fund; and (iii) \$150,000 will be financed by the Sanitation Financing Partnership Trust Fund under the Water Financing Partnership Facility,<sup>44</sup> all to be administered by ADB. The TA will support the implementation of the RBL program by mainstreaming climate- and disaster-resilient and GESI-responsive solutions in municipal SWM and sanitation. It will (i) establish and pilot a system to collect data on informal waste workers in at least five ULBs, disaggregated by gender and vulnerable groups; (ii) explore private sector participation and apply digital technology solutions to SWM (e.g., source segregation) and sanitation in 10 ULBs; and (iii) strengthen selected states' M&E frameworks and financial

<sup>41</sup> The program action plan is included in the Program Implementation Document (accessible from the list of annexes on the Contents page).

<sup>42</sup> Table A2.3 of Disbursement-Linked Indicators, Verification Protocols, and Disbursement Schedule (accessible from the list of annexes on the Contents page).

<sup>43</sup> Financing partner: the Government of the United Kingdom.

<sup>44</sup> Financing partner: Bill and Melinda Gates Foundation.

management.<sup>45</sup> The TA will also allow city-to-city partnerships and twinning arrangements.<sup>46</sup>

28. The government will provide counterpart support in the form of counterpart staff, office space, and other in-kind contributions.

#### IV. DUE DILIGENCE

##### A. Program Technical Assessments

29. **Program soundness and results assessment.** Assessments show that the results framework and program design are sound and logical, and incorporate the lessons in the sector and from other RBL programs. The DLIs, developed in mutual consultation by ADB and counterparts, reflect the desired development outcomes, while the expenditure framework and financing plan are robust. The program soundness assessment justified the need for public interventions, while emphasizing the need for reforms to attract private sector participation. An estimated 7 million people in eight states will directly benefit from the program, while the state authorities and the remaining 177 million inhabitants in the eight states will be indirect beneficiaries.<sup>47</sup> Following the Joint Multilateral Development Banks Methodological Principles for Assessment of Paris Agreement Alignment of New Operations, the operation has been assessed as being aligned with the goals of the Paris Agreement.

30. **Economic analysis.** The various outputs, associated DLIs, and program actions are expected to collectively strengthen institutional capacity and SWM infrastructure and sanitation facilities in the selected states and ULBs. In turn, these will support the government's overall SBM-U 2.0 objective of achieving integrated and sustainable urban development and enhancing the quality of SWM services. Specifically, the RBL program will encourage economic development in India through (i) the introduction of modern waste management processes and technologies, leading to savings in public and household health expenditure thanks to improved public health and safety; (ii) the implementation of institutional strengthening measures, capacity building, and training, resulting in improved strategic planning, development, operation, and maintenance of waste management assets and systems; (iii) greater public participation and more awareness of sustainable SWM, bringing savings in public spending on waste management services thanks to improved source segregation; (iv) integration of informal recycling ventures into the formal SWM system, which will improve resource efficiency and increase income opportunities; (v) job creation and employment opportunities at newly developed waste management infrastructure; and (vi) reduction in GHG emissions from landfill remediation. Overall, the RBL program will contribute to the achievement of several Sustainable Development Goals.

##### B. Gender Equality

31. The project is categorized *effective gender mainstreaming*. GESI indicators (disbursement and non-disbursement linked), actions, and activities are included in the program design and monitoring framework and the PAP. The program will enhance the skills of sanitation workers, including women sanitation workers, through certified training curricula. There is an emphasis on equitable services catering to all gender groups through gender-separated public toilets and

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<sup>45</sup> Technical Assistance Report (accessible from the list of annexes on the Contents page).

<sup>46</sup> Twinning arrangements include the process of bringing together experienced and efficient operators to mentor service providers on specific aspects of their operations and transfer relevant operational knowledge between two organizations similar in function.

<sup>47</sup> Program Results Framework Assessment and Program Soundness Assessment (accessible from the list of annexes on the Contents).



urinals in line with the SBM-U 2.0 operational guidelines,<sup>48</sup> and through increased coverage of door-to-door waste collection. The program emphasizes women's empowerment and leadership through a greater involvement of women's self-help groups at various stages of waste and sanitation management, including as ward-level community mobilizers to spearhead GESI-sensitive IEC campaigns. The program will also strengthen the institutional capacities of ULBs and states in terms of dedicated GESI focal points and increased representation in management structures.

### C. Poverty and Social Dimensions

32. The RBL program will support SBM-U 2.0, which seeks to achieve better performance in comprehensive waste management by ULBs. The program is expected to contribute to better living standards and public health outcomes by reducing health risks and the disease burden for communities, especially the urban poor and settlements in the vicinity of existing waste disposal sites. The program also seeks to assist ULBs' efforts in developing a system to organize and engage with informal waste collectors, ensure their formal participation in waste management activities, and enhance their resilience and livelihoods (footnote 16).

33. The program will contribute to reducing poor people's vulnerability to climate change and disaster risks with safe and sustainable waste management and sanitation services. Communities will benefit from communication on behavioral change, which will inculcate safe segregation, disposal, and recycling practices among waste generators for a circular economy. This is expected to assist in alleviating the time poverty of women and girls by reducing time spent on waste-related unpaid work. The program also aims to formalize informal sector workers, mostly women and socially disadvantaged groups, through a robust enumerated database system, thus promoting their access to social protection, welfare benefits, occupational well-being, and other benefits.

### D. Program Systems Assessments

34. **Monitoring and evaluation system.** During the processing of the RBL program, due diligence assessed that MOHUA has a sound M&E system (footnote 38), which will be further strengthened to ensure that the results framework, including the DLIs, is monitored, measured, and evaluated. Quarterly reviews and semiannual verification reviews will verify that the M&E system for the RBL program is fit for purpose.

35. **Fiduciary systems.** The program fiduciary systems assessment rated the program financial management risk *substantial* and identified several risks.<sup>49</sup> It found that (i) in all states, the timeliness and format of audit reports are not aligned with ADB's audit requirements; submission delays exceed the required 12 months in some states and does not clearly identify expenditure within the RBL boundary; (ii) the levels of staff capacity for financial reporting and accounting were found to vary; and (iii) uneven and irregular receipts of utilization certificates from participating ULBs cause delays in central government funding to the states, which affects the overall program's resource allocation, accountability, and efficiency optimization, including financial management and particularly delays in taking action on audit findings. ADB's attached TA will help MOHUA and the selected states to resolve the audit issues. The required actions on audits, and the audited program financial statement formats, are included in the statement of audit needs in the PAP.

<sup>48</sup> Public toilets for all genders refer to separate toilets for men, women, and third genders as per SBM-U 2.0 guidelines.

<sup>49</sup> Program Fiduciary Systems Assessment (accessible from the list of annexes on the Contents page).

36. The Guidelines to Prevent or Mitigate Fraud, Corruption, and Other Prohibited Activities in Results-Based Lending for Programs were explained to and discussed with the government and MOHUA (footnote 48).

37. **Safeguard systems.** The program safeguard systems assessment was conducted to appraise applicable laws and regulations, and institutional capacity for mitigating E&S risks.<sup>50</sup> The assessment confirms the categorization of *B for environment* (i.e., potential impacts are site-specific, localized, and can be mitigated or minimized to acceptable levels; the program excludes activities that may have significant adverse environmental impacts that are diverse, irreversible, or unprecedented); *B for involuntary resettlement* (i.e., no land acquisition, physical displacement, or permanent economic displacement); and *B for indigenous peoples* (i.e., only positive impacts on scheduled tribe people). The weaknesses of the safeguard systems are the partial coverage of safeguard risks by policies, and the inadequate capacity and resources to address safeguard concerns in program implementation and monitoring. The program, to be fully aligned with ADB's Safeguard Policy Statement (2009), will therefore exclude activities with potential environmental risks and impacts that are exempted from the purview of the government's environmental clearance process or state pollution control boards' consent process. All proposed facilities will be on government land. Screening of projects for social safeguard risks and impacts, including those affecting squatters and non-titleholders, will be done to ensure that exclusion criteria are met. Program safeguard systems will be further strengthened by the screening process to exclude high-risk activities, and by building capacity for implementation, monitoring, and reporting.<sup>51</sup> The institutional arrangements, capacity-building measures, and related safeguard monitoring tools for the RBL program were agreed on with MOHUA. Safeguard focal persons at MOHUA (National Mission Directorate) and ULBs, and staff at state PMU offices will coordinate safeguard training, monitoring, and reporting. ULBs will obtain environmental clearance and will include E&S management plans in contracts for compliance by the contractors. MOHUA, and the participating states and ULBs have committed to implementing the PAP. MOHUA will submit E&S safeguards monitoring reports semiannually until program completion.

38. **Procurement and anticorruption.** Procurement under the program will not include high-value contracts. The procurement risk assessment identified two material risks for ADB-financed procurements under the RBL, so it needs to be ascertained that (i) no direct or indirect restrictions have been placed on the eligibility of ADB member countries to participate in ADB-financed procurements, and (ii) procurements are not awarded to firms and/or individuals that have been debarred by ADB or are subject to cross-debarment. The likelihood that these risks materialize is considered *low*, since (i) procurements under the program will be done through national competitive bidding; (ii) the local supplier and contractor market for the required works and supplies is competitive; and (iii) the small value of procurements by ULBs makes it unlikely that international firms will be interested in participating, especially contractors and suppliers from non-ADB member countries. MOHUA and the PMU have reasonable capacity to support the states and ULBs in procurement and contract management. Given the program actions introduced by the RBL program, anticorruption systems are found to be sound.

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<sup>50</sup> Program Safeguard Systems Assessment (accessible from the list of annexes on the Contents page).

<sup>51</sup> E&S management plans will be developed for selected facilities, including decentralized, small-scale compost plants and material recovery facilities (not exceeding 5 tons per day), transfer stations, and public toilets. Social mitigation measures will be included in environmental impact assessments.

## E. Sustainability

39. The RBL program is part of a national flagship program, with built-in incentive mechanisms to sustain improvements. Emphasizing economic and financial sustainability is central to the government's strategy to enhance urban living and tackle environmental concerns in India. SBM-U 2.0 advocates for public-private partnerships and encourages revenue opportunities through a circular economy approach, encouraging waste reduction through effective source segregation, increased recycling, and composting to ensure long-term sustainability. Furthermore, SBM-U 2.0 is underpinned by standardized protocols requiring an independent third-party verification system ensuring oversight under the program. Inadequate O&M of waste management infrastructure will be mitigated by providing adequate technical, health, and safety training to ULBs O&M staff, a schedule of plant maintenance and/or repair linked to the manufacturer's specifications and appropriate spares for critical plant components made available in order to reduce this risk (footnote 46). India also has a well-qualified workforce to keep up the improvements. To manage institutional risks, dedicated PMUs were established (footnote 48). In addition, IEC outreach activities will mitigate the risks of regress in people's behaviors. Institutional strengthening measures, capacity building, and training of all stakeholders will result in improved strategic planning, development, and O&M of waste management assets and systems. Institutionalized annual reviews and updates of city solid waste action plans and city sanitation action plans will ensure that the plans remain relevant and implementable.

## F. Summary of Risk Assessment

40. Major risks and mitigating measures are summarized in Table 5 and described in detail in the integrated risks assessment and mitigating measures section of the program implementation document.<sup>52</sup>

**Table 5: Summary of Risks and Mitigating Measures**

<b>Risks</b>	<b>Mitigation Measures</b>
<b>Results.</b> The weak human resource capacity of ULBs and inadequate governance, as well as the scale and scope of monitoring and evaluation required could lead to inefficiencies and delays.	Efficient quarterly monitoring mechanisms, capacity building, and actions to strengthen MOHUA's oversight role will alleviate such risks.
<b>Fund flows.</b> Late release of fund flows by the central government because of (i) budgeted funds appropriations by state governments, and (ii) inappropriate or delayed mapping of nodal accounts into the public financial management system at the ULB level.	Close monitoring by the National Advisory Review Committee at central and by SSMDs at state levels, with necessary action to transfer funds, will address this risk.
<b>Audits.</b> Inadequate internal audit function in terms of coverage and timeliness. Additionally, external audits and the audit reports issued from states are inconsistent with requirements in terms of content and timeliness. The lack of follow-up action on audit observations exacerbates the situation.	Structured monitoring mechanism for internal audits in each SSMD will ensure that audit requirements are met in a timely manner. The attached technical assistance will finance an independent verification agency to provide recommendations for strengthening the financial management capacity of ULBs and state agencies.
<b>Procurements.</b> Direct or indirect restrictions could be placed on the eligibility of ADB member countries to participate in ADB-financed procurements (para. 38).	MOHUA and all SSMD will ensure compliance in all bidding documents, and audit reports will specify the source of procurement.
<b>Anticorruption measures.</b> ADB-financed procurements may be awarded to firms and individuals that have been debarred by ADB or are subject to cross-debarment.	Regular anticorruption training for stakeholders will be conducted to ensure that MOHUA and state staff have knowledge of and access to and check ADB's sanctions list at the required contract stages.

ADB = Asian Development Bank, MOHUA = Ministry of Housing and Urban Affairs, SSMD = Swachh Bharat Mission

<sup>52</sup> Program Implementation Document (accessible from the list of annexes on the Contents page).

state mission directorate, ULB = urban local body.  
Source: Asian Development Bank.

## **V. ASSURANCES**

41. The government and MOHUA have agreed with ADB on certain covenants for the RBL program, which are set forth in the draft loan agreement and program agreement.

## **VI. RECOMMENDATION**

42. I am satisfied that the proposed results-based loan would comply with the Articles of Agreement of the Asian Development Bank (ADB) and recommend that the Board approve the loan of \$200,000,000 to India for the Swachh Bharat Mission 2.0–Comprehensive Municipal Waste Management in Indian Cities Program, from ADB’s ordinary capital resources, in regular terms, with interest to be determined in accordance with ADB’s Flexible Loan Product; for a term of 26 years, including a grace period of 5 years; and such other terms and conditions as are substantially in accordance with those set forth in the draft loan agreement presented to the Board.

Masatsugu Asakawa  
President

21 November 2023