

# Updated Facility Administration Manual

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## India: Delhi–Meerut Regional Rapid Transit System Investment Project

## ABBREVIATIONS

ADB	–	Asian Development Bank
AEFS	–	audited entity financial statement
AIIB	–	Asian Infrastructure Investment Bank
APFS	–	audited project financial statement
CPM	–	chief project manager
EARF	–	environmental assessment and review framework
EIA	–	environmental impact assessment
EMOP	–	environmental monitoring plan
EMP	–	environmental management plan
EWCD	–	elderly, women, children, and differently abled
FAM	–	facility administration manual
FY	–	fiscal year
GESI	–	gender equality and social inclusion
GNCT	–	Government of the National Capital Territory of Delhi
GOI	–	Government of India
GOUP	–	Government of Uttar Pradesh
GRC	–	grievance redress committee
GRM	–	grievance redress mechanism
JFPR	–	Japan Fund for Poverty Reduction
km	–	kilometer
LFIS	–	Loan Financial Information Services
MFF	–	multitranche financing facility
MOHUA	–	Ministry of Housing and Urban Affairs
NCR	–	National Capital Region
NCRTC	–	National Capital Region Transport Corporation
PIU	–	project implementation unit
PMO	–	project management office
R&R	–	resettlement and rehabilitation
RISA	–	resettlement implementation support agency
RRTS	–	regional rapid transit system
SEMU	–	social and environmental management unit
SHE	–	safety, health, and environment
SOE	–	statement of expenditures
SPS	–	Safeguard Policy Statement
TA	–	technical assistance
TOD	–	transit-oriented development
TOR	–	terms of reference
VCF	–	value capture financing

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## **Facility Administration Manual**

The facility administration manual (FAM) describes the essential administrative and management requirements to implement the investment project on time, within budget, and in accordance with the policies and procedures of the government and Asian Development Bank (ADB). The FAM includes references to all available templates and instructions either through linkages to relevant URLs or directly incorporated in the FAM.

The Ministry of Housing and Urban Affairs (MOHUA) acting through the National Capital Region Transport Corporation (NCRTC) is the executing agency that is wholly responsible for the execution and implementation of the investment project, as agreed jointly between the borrower and ADB, and in accordance with the policies and procedures of the government and ADB. ADB staff is responsible for supporting implementation including compliance by the executing agency of its obligations and responsibilities for implementation of the investment project in accordance with ADB's policies and procedures.

At loan negotiations, India, the executing agency, and ADB have agreed to the FAM and ensured consistency with the loan documents, including the Framework Financing Agreement and legal agreements for Project 1. Such agreements are reflected in the minutes of the negotiations. In the event of any discrepancy or contradiction between the FAM and the loan agreement for the related project, the provisions of the loan agreement shall prevail.

After ADB Board approval of the facility's report and recommendations of the President (RRP), changes in implementation arrangements are subject to agreement and approval pursuant to the government's and ADB's relevant administrative procedures (including the Project Administration Instructions), and upon such approval, they will be subsequently incorporated in the FAM.



## I. INVESTMENT PROJECT DESCRIPTION

1. The Delhi–Meerut Regional Rapid Transit System Investment Project will finance the first of three prioritized rail corridors of the planned regional rapid transit system (RRTS) network in the National Capital Region (NCR) of India. The Delhi–Meerut RRTS will pass through the densely populated sections of the NCR, connecting Delhi to Meerut via Ghaziabad and providing safe, reliable, and high-capacity commuter transit services. With a design speed of 180 kilometers (km) per hour and high frequency operations of 5 to 10 minutes, this 82 km corridor is expected to substantially reduce journey time from 3–4 hours to about 1 hour. The investment project will finance rail tracks, station buildings, multimodal hubs, maintenance depots, and traction and power supply.<sup>1</sup> About 22 km of the RRTS line from Partapur to Modipuram will be used to operate local transit service (akin to metro) in Meerut to meet local mobility needs in place of a separate metro originally planned as a parallel line to the RRTS. These services will have 13 stops (for all RRTS stations in Meerut besides smaller exclusive stations being constructed for metro operations). The investment project will also support capacity and institutional development of the National Capital Region Transport Corporation (NCRTC), a joint venture company of the Government of India and the states of Delhi, Haryana, Rajasthan, and Uttar Pradesh, which is mandated to implement the RRTS projects across the NCR.<sup>2</sup> The project is included in the country operations business plan, 2020–2022 of the Asian Development Bank (ADB) for India.<sup>3</sup>

2. **Impact and outcome.** The investment project is aligned with the following impact: urban mobility in the NCR improved.<sup>4</sup> The investment project will have the following outcome: efficiency, safety, social inclusiveness, and environmental sustainability of transport in the Delhi–Meerut RRTS corridor improved.<sup>5</sup>

3. **Output 1: Delhi–Meerut RRTS corridor commissioned.** The investment project will help finance the construction of the 82 km Delhi–Meerut RRTS corridor, including civil works, railway tracks, station buildings, multimodal hubs, maintenance depots, and traction and power supply (footnote 1). The corridor will be built on elevated viaducts and will go underground (14 km) in heavily populated areas. It will connect Sarai Kale Khan in Delhi to Modipuram in Meerut.<sup>6</sup> The viaduct will be built along the central median of the national highway connecting Delhi to Meerut, wherever feasible. The investment project also includes (i) construction of depots at Duhai and Modipuram for the maintenance of rolling stock and fixed assets, and an operation control center and stabling yard at Jangpura; (ii) 25 stations integrating design features that are friendly to the elderly, women, children, and differently abled (EWCD), at least five of which are to be developed as major multimodal hubs;<sup>7</sup> and (iii) closed-circuit television (CCTV) cameras installed to monitor coaches and public areas of all stations, as well as pick-up and drop-off areas.

4. **Output 2: Institutional capacity of the National Capital Region Transport Corporation strengthened.** Although the NCRTC's scope as a special purpose vehicle is limited to implementing the RRTS and creation of the comprehensive integrated multimodal commuter transportation system for the National Capital Region, the broad scope, technical complexity, and

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<sup>1</sup> ADB financing will not include rolling stock or the signaling and telecommunications system.

<sup>2</sup> The National Capital Region Transport Corporation was incorporated on 1 August 2013.

<sup>3</sup> ADB. 2019. [Country Operations Business Plan: India, 2020–2022](#). Manila.

<sup>4</sup> Government of India, Ministry of Housing and Urban Affairs. 2006. [National Urban Transport Policy](#). New Delhi.

<sup>5</sup> The design and monitoring framework is in Appendix A.

<sup>6</sup> About 20 km of the RRTS line from Partapur to Modipuram will be used to run the proposed Meerut Metro, originally planned as a parallel line to the RRTS. This section will have six stations dedicated for Meerut Metro.

<sup>7</sup> Two stations are at-grade catering to depots. Major multimodal hubs are RRTS stations that will include easy interchange to rail, metro, and bus stations for passengers.

the large-scale nature of the investment project require a high level of capacity in managing projects, contracts, and document flow, including financial reporting and auditing. The project will (i) develop an institutional strategy including an organizational, financial, and technology plan; (ii) develop training programs in project and contract management, financial management, procurement, and safeguards; (iii) adopt a gender-friendly workplace policy; (iv) support the NCRTC in developing a transit-oriented development (TOD) action plan and value capture financing (VCF) instruments for enhancing financial sustainability; and (v) strengthen the capacity of the NCRTC to undertake public–private partnership (PPP) initiatives.

**5. Output 3: Mobility and economic opportunities of women and the differently abled improved.** The investment project will ensure that the RRTS improves urban mobility, and its economic impacts will benefit women and the differently abled. The project will include (i) training; (ii) provision of mobility aids; (iii) safe mobility for EWCD; (iv) increased awareness on safe mobility, self-defense, and improved employability skills for females living in informal settlements and selected female students along the RRTS corridor; and (v) provision of gender-inclusive, socially inclusive, and environmentally sustainable public toilets around RRTS stations. The project will also maximize the spillover effects of developing the RRTS and multimodal hubs, encouraging more women and differently abled persons to engage in employment and other economic activities.

**6. Finance-plus and value added by ADB assistance.** The investment project provides a new type of rail-based regional urban transport system in India, combining high speeds, widely spaced stations, and metro-like operations. ADB will assist the NCRTC in developing the first of three prioritized corridors, which will have a substantial demonstration effect for future corridor development. ADB assistance will help develop innovative elements that require international expertise, which will enhance and supplement the available skills of the executing agency. ADB support will also ensure that special attention is given to the following important areas:

- (i) **High-level technology.** ADB will help develop the specifications for a modern signaling technology based on the European Train Control System Level II with automatic train operation functionality and platform screen door integration for the first time in India. It will also help implement the latest international best practice for mitigating noise and vibration on the corridor. ADB assistance will also help in the use of emerging technologies in IoT (internet of things system) in track and rolling stock operations.
- (ii) **Station design.** ADB will assist in designing stations using building information modeling (BIM). This follows an intelligent three-dimensional model-based process that will help to more efficiently plan, design, construct, and manage stations.<sup>8</sup> The station designs will incorporate EWCD-inclusive features to provide universal accessibility. ADB will assist in the establishment of the BIM platform and framework for asset management through BIM and its integration with other technologies such as the geographic information system (GIS) platform and the Continuous Operating Reference Stations System (CORS) providing global navigation satellite system (GNSS) network for land information management.

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<sup>8</sup> ADB. 2019. [Technical Assistance to India for Strengthening Climate Change Resilience in Urban India Subproject 3: Strengthening Smart Urban Mass Rapid Transit and Climate Change Resilience in the National Capital Region](#). Manila. Building information modeling, universal access design features, TOD, and VCF instruments are being supported by the cluster technical assistance funded by the Urban Climate Change Resilience Trust Fund under the ADB-administered Urban Financing Partnership Facility. Financing partners are the Rockefeller Foundation and the governments of Switzerland and the United Kingdom.



- (iii) **Multimodal hubs and last-mile connectivity.** The investment project will develop multimodal hubs for smooth interchange with other transport modes. Multimodal integration will be provided through elevators, walkways, escalators, and underpasses, depending on the location, to ensure seamless connectivity to metro lines, bus terminals, railway stations, or other transport modes. The project will also ensure last-mile connectivity through nonmotorized transport options as well as e-rikshaw and electric feeder buses.
- (iv) **Transit-oriented development and value capture financing.** ADB will support the NCRTC to develop an action plan for TOD in areas around the RRTS stations. The ADB technical assistance (TA) will provide for a dedicated unit of experts to provide knowledge support in this area and help identify and apply VCF instruments (footnote 8). The TA support will assist the NCRTC in land value capture from the land parcels available with the NCRTC and identify strategy to generate non-fare box revenue from the built-up area of the RRTS station box through property development and property business activities.
- (v) **Minimizing operational risks.** ADB has engaged a shadow operator to review plans and designs to support decision-making, and to ensure efficiency and cost effectiveness.<sup>9</sup> Appraisals by the shadow operator will help ensure that the designs integrate long-term operations and maintenance requirements. The NCRTC through its subsidiary firm, NCRTC Express Transit Limited (NETRA), will develop operations and maintenance (O&M) capacity and capture private sector efficiency in the O&M of train operations, and involve the private sector in the automatic fare collection system on PPP basis.

7. **One ADB (Office of Public–Private Partnership and Private Sector Operations Department).** ADB’s South Asia Department is working with ADB’s Public–Private Partnership Thematic Group in the Office of Public–Private Partnership to support the NCRTC in identifying the most appropriate PPP opportunities.<sup>10</sup> It is also coordinating with ADB’s Private Sector Operations Department to engage with the NCRTC in exploring additional nonsovereign lending, coinciding with the timing for the third tranche of the investment project.

8. **Public–private partnership initiatives.** Capital-intensive projects, such as the RRTS, are implemented as public services and full cost recovery through user charges is not expected. The NCRTC is not operated as a commercial undertaking and is completely dependent on government funding. Hence, it is proposed that a model will be followed whereby the government finances the assets using its own funds and development assistance, and then outsources service contracts. This is the practice in most metros and new railway lines worldwide. The project will explore PPP in three major areas: (i) development of an operations contract through which the operations of the corridors are expected to be undertaken by a private sector operator engaged by the NCRTC; (ii) provision of logistics services to accommodate freight traffic, especially perishable commodities during the off-peak hours of passenger services (the service is likely to enhance supply chain operations in the catchment area and unlock additional revenue potential for the RRTS); and (iii) procurement of a rolling stock contract that will include 15-year performance-based maintenance obligations to improve asset quality and service levels. The payment to the rolling stock provider will be based on specified key performance indicators like

<sup>9</sup> ADB. 2019. [Technical Assistance to India for Preparing the Delhi–Meerut Regional Rapid Transit System Investment Project](#). Manila. Seoul Metro has been selected as the shadow operator for the project. It will provide operational expertise during the design and construction phases of the project.

<sup>10</sup> Public–Private Partnership Initiatives (accessible from the list of linked documents in Appendix 2).

availability obligations, and reliability. At least 30 train sets of six coaches each will be provided for the RRTS and 10 train sets of three coaches each for the Meerut Metro.

## II. IMPLEMENTATION PLANS

### A. Project Readiness Activities

**Table 1: Project Readiness Activities**

Year	Month	Milestones	Responsibility
2018	November	Advance contracting actions	NCRTC, ADB
2019	February	Budget inclusion	MOHUA
	May	Retroactive financing actions	NCRTC
		Establish project implementation arrangements	NCRTC
	July	Advertisement of the first ADB-financed contracts	NCRTC, ADB
2020	February	Award of the first ADB-financed contracts	NCRTC
	June	Loan negotiations (ADB)	GOI, MOHUA, NCRTC, ADB
	August	ADB Board consideration of MFF and tranche 1	ADB
	September	Loan signing of tranche 1	GOI, MOHUA, NCRTC, ADB
	October	Loan effectiveness of tranche 1	GOI, MOHUA, NCRTC, ADB
2021	December	ADB management approval of tranche 2	ADB
2022	January	Loan signing of tranche 2	GOI, MOHUA, NCRTC, AIIB
	March	Loan effectiveness of tranche 2	GOI, MOHUA, NCRTC, AIIB

ADB = Asian Development Bank, AIIB = Asian Infrastructure Investment Bank, GOI = Government of India, MFF = multitranches financing facility, MOHUA = Ministry of Housing and Urban Affairs, NCRTC = National Capital Region Transport Corporation.

Source: Asian Development Bank.

## B. Overall Project Implementation Plan

**Table 2: Implementation Activities**

Activities	2019				2020				2021				2022				2023				2024				2025			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
<b>Output 1: Delhi–Meerut RRTS corridor commissioned</b>																												
1.1. Award and mobilize general consultants and detailed design consultants.	■	■																										
1.2. Commence advance contracting.		■	■																									
1.3. Award contracts.					■	■	■	■	■	■	■	■																
<b>Output 2: Institutional capacity of the NCRTC strengthened</b>																												
2.1. Complete initial capacity-building plan and structuring.		■	■	■	■	■	■	■	■																			
2.2. Award BIM platform support consultants.									■	■	■	■	■															
2.3. Award and mobilize consultants for TOD and VCF.								■	■	■	■	■																
2.4. Establish BIM platform for the project design, implementation, and management.									■	■	■	■	■	■	■													
2.5. Establish institutional capacity for project implementation and management using smart technologies.										■	■	■	■	■	■													
2.6. Develop gender-friendly workplace policy.										■	■	■	■	■	■													
2.7. Award training and capacity-building contracts.											■	■	■	■	■													
<b>Output 3: Mobility and economic opportunities of women and differently abled improved</b>																												
3.1. Establish the GESI implementation unit.											■	■	■	■														
3.2. Award and mobilize national (nongovernment or consulting) organizations.																■	■	■	■									
<b>Project Management Activities</b>																												
Procurement plan key activities to procure contract packages	■	■																										
Consultant selection procedures	■	■																										
Environmental management plan key activities		■	■																									

BIM = building information modeling, GESI = gender equality and social inclusion, NCRTC = National Capital Region Transport Corporation, Q = quarter, RRTS = regional rapid transit system, TOD = transit-oriented development, VCF = value capture financing.

Sources: Asian Development Bank and National Capital Region Transport Corporation.

### III. INVESTMENT PROJECT MANAGEMENT ARRANGEMENTS

#### A. Investment Project Implementation Organizations: Roles and Responsibilities

**Table 3: Investment Project Implementation Roles and Responsibilities**

Investment Project Implementation Organizations	Management Roles and Responsibilities
<p><b>Executing agency</b> India's MOHUA acting through the NCRTC</p>	<ul style="list-style-type: none"> <li>(i) Facilitating loan disbursement</li> <li>(ii) Ensuring timely release of counterpart funding</li> <li>(iii) Ensuring overall compliance with national and/or state-level environmental policies and ADB's Safeguard Policy Statement (2009), including an executing agency-level grievance redress mechanism</li> <li>(iv) Overall coordination of facility implementation</li> <li>(v) Interagency coordination</li> <li>(vi) Compliance with all loan covenants</li> <li>(vii) Providing funds and staffing as per the commitments and assurances on the institutional development component</li> <li>(viii) Timely provision of agreed counterpart funds for project activities</li> <li>(ix) Establishing a strong financial management system and conducting timely financial audits based on the agreed timeframe, and taking recommended actions</li> <li>(x) Recruiting consultants for project management, nongovernment organization, monitoring and evaluation, safety, gender equality and social inclusion, and institutional development support</li> <li>(xi) Procuring contractors and vendors</li> <li>(xii) Overseeing the performance of the project management office and the project implementing units</li> <li>(xiii) Ensuring project sustainability during the post-implementation period and reporting to ADB on the assessed development impacts</li> <li>(xiv) Providing funds for operational sustainability during operation</li> <li>(xv) Interstate coordination</li> <li>(xvi) Timely submission of withdrawal applications to ADB</li> <li>(xvii) Preparing regular periodic progress reports, and project completion reports and their timely submission to ADB</li> </ul>
<p>Project management office, PIU  Office of the Chief Project Manager (Delhi, Ghaziabad, Meerut, Modinagar offices for civil works packages)</p>	<ul style="list-style-type: none"> <li>(i) Responsible for all aspects of the project including civil works</li> <li>(ii) Conducting preconstruction activities</li> <li>(iii) Monitoring and evaluation of project activities and outputs, including periodic review, preparation of review reports reflecting issues and timebound actions taken (or to be taken)</li> <li>(iv) Involving beneficiaries and/or representatives in all stages of project development and implementation</li> <li>(v) Public disclosure of project outputs</li> <li>(vi) Quality assurance of works and services of consultants and counterpart staff</li> </ul>

<b>Investment Project Implementation Organizations</b>	<b>Management Roles and Responsibilities</b>
Office of General Manager (Planning)	<ul style="list-style-type: none"> <li>(vii) Responsible for project planning and policy related matters of the NCRTC</li> <li>(viii) Preparation of corporation plan and NCRTC corporation strategy for sustainable operations</li> <li>(ix) Coordination with MOHUA, Ministry of Railways, state governments, development authorities, municipal corporations for effective implementation of the project</li> <li>(x) Technical planning of the RRTS system, safety and security related aspects</li> <li>(xi) Coordinate with MOHUA and Ministry of Railways on matters of technical planning of RRTS systems, notification of general rules, O&amp;M act, O&amp;M manuals, track manual, etc.</li> <li>(xii) Monthly project progress review and interface among NCRTC units</li> <li>(xiii) Implementation of BIM for station design and asset management</li> <li>(xiv) Implementation of multimodal integration, last-mile connectivity, property development, property business, land value monetization, value capture financing, and transit-oriented development along the RRTS corridor</li> </ul>
Office of General Manager (Procurement)	<ul style="list-style-type: none"> <li>(xv) Responsible for procurement planning of the NCRTC and for award of contract packages</li> <li>(xvi) Contract management and review and monitoring of contractual obligations of the contractors</li> </ul>
Office of General Manager (General)	<ul style="list-style-type: none"> <li>(xvii) Responsible for project planning, implementation, land acquisition, resettlement and rehabilitation of project affected persons, environmental and social monitoring of the project</li> <li>(xviii) Maintain land and asset records of the NCRTC</li> <li>(xix) Provide support to project offices in traffic diversion, shifting of utility during construction</li> <li>(xx) Planning of environmental protection measures such as compensatory forestation, water harvesting, noise, water and air pollution mitigation measures</li> </ul>
Office of Director (Finance) and Human Resources unit in the NCRTC	<ul style="list-style-type: none"> <li>(xxi) Development of gender inclusive policy of the NCRTC</li> <li>(xxii) Implementation of the GESI Action Plan through the GESI focal point of the NCRTC</li> <li>(xxiii) Training of female staff and gender sensitization among NCRTC staff</li> <li>(xxiv) Training and skills development of the NCRTC staff</li> <li>(xxv) Compliance with labor laws of the countries in the NCRTC project and review of labor welfare measures in the NCRTC projects</li> <li>(xxvi) Submission of audited project financial statements and audited entity financial statements to ADB</li> </ul>
Concerned units in NCRTC Headquarters in the Office of Director (Project)	<ul style="list-style-type: none"> <li>(xxvii) Quarterly review of project progress</li> <li>(xxviii) Submission of semiannual and annual progress reports as per ADB requirements</li> <li>(xxix) Interface with the civil, track work, electrical system and signaling system units of the NCRTC for effective coordination during project execution</li> </ul>

Investment Project Implementation Organizations	Management Roles and Responsibilities
Concerned units in NCRTC Headquarters (Director systems)	(xxx) Matters relating to disclosure of information and to entertain and adjudicate appeals on access to project related information (xxxi) Implementation of anticorruption and integrity policies of the NCRTC
	(xxxii) Responsible for all aspects of the project related to systems works (xxxiii) Monitoring and evaluation of project activities of systems works and outputs (xxxiv) Establishment of BIM platform and framework for asset management through BIM (xxxv) Planning of IoT, digital technology in RRTS operations and maintenance
ADB	(i) Providing timely support at each stage of the investment project for smooth implementation according to agreed implementation arrangements (ii) Reviewing all documents that require ADB approval (iii) Conducting periodic loan review missions, a midterm review, and a completion mission (iv) Monitoring compliance with all loan covenants

ADB = Asian Development Bank, BIM = building information modeling, GESI = gender equality and social inclusion, IoT = internet of things, MOHUA = Ministry of Housing and Urban Affairs, NCRTC = National Capital Region Transport Corporation, O&M = operations and maintenance, PIU = project implementation unit, RRTS = regional rapid transit system.

Sources: Asian Development Bank and National Capital Region Transport Corporation.

## B. Key Persons Involved in Implementation

### Executing agency

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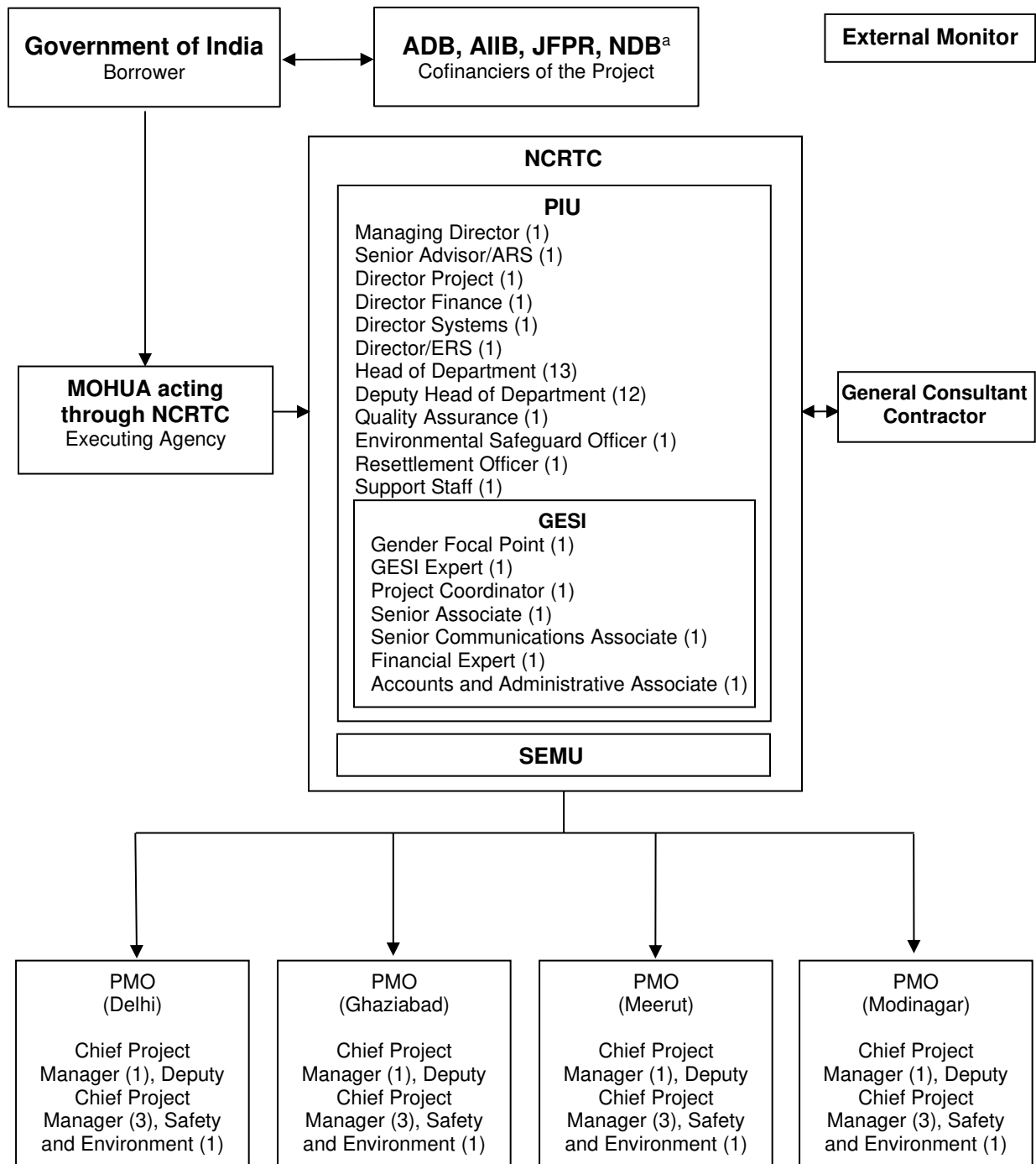
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**C. Investment Project Organization Structure**

**Figure 1: Investment Project Organization Structure**



ADB = Asian Development Bank, AIIB = Asian Infrastructure Investment Bank, ARS = alternative revenue sources, ERS = electrical and rolling stock, GESI = gender equality and social inclusion, JFPR = Japan Fund for Poverty Reduction, MOHUA = Ministry of Housing and Urban Affairs, NCRTC = National Capital Region Transport Corporation, NDB = New Development Bank, PIU = project implementation unit, PMO = project management office, SEMU = social and environmental management unit.

<sup>a</sup> NDB loan will not be administered by ADB.

Source: National Capital Region Transport Corporation.



9. The NCRTC is a joint venture institution between the central government and the participating states of Haryana, Rajasthan, Uttar Pradesh, and the National Capital Territory of Delhi. Agreeing to this partnership, the Memorandum of Understanding between participating stakeholders was signed on 29 June 2011 and an equity share in the NCRTC was agreed upon for setting up an initial seed capital of ₹1 billion. The contributions for this equity share from the stakeholders were received by 1 August 2013 together with the signing of the Memorandum of Association and Association of Agreement of the NCRTC.

10. The NCRTC was formally incorporated on 21 August 2013 under the Company Act, 1956. As a joint venture project between the central government and the states, the NCRTC has one nominated director from each of the participating states, and four nominee directors from the Government of India. The Secretary (Urban Development) is the ex-officio chairperson of the Board of Directors and the managing director is a nominee of the Ministry of Urban Development. The NCRTC also has the flexibility of forming separate subsidiary companies for implementing specific projects.

11. The NCRTC Board of Directors is fully authorized to make technical decisions and depends on the government principally for funding and land acquisition. This arrangement has proven very effective in reducing political interference in other infrastructure projects in India.

#### IV. COSTS AND FINANCING

12. The investment project is estimated to cost \$3,449.7 million, including taxes and duties, physical and price contingencies, interest, and other charges during implementation (Table 4).

**Table 4: Summary Cost Estimates**  
(\$ million)

Item	Amount <sup>a,b</sup>
<b>A. Base Cost<sup>c</sup></b>	
1. Output 1: Delhi–Meerut RRTS corridor commissioned	2,526.5
2. Output 2: Institutional capacity of the NCRTC strengthened	14.8
3. Output 3: Mobility and economic opportunities of women and differently abled improved	2.7
<b>Subtotal (A)</b>	<b>2,544.0</b>
<b>B. Contingencies<sup>d</sup></b>	<b>760.5</b>
<b>C. Financial Charges During Implementation<sup>e</sup></b>	<b>145.2</b>
<b>Total (A+B+C)</b>	<b>3,449.7</b>

NCRTC = National Capital Region Transport Corporation, RRTS = regional rapid transit system.

Note: Numbers may not sum precisely due to rounding.

<sup>a</sup> Includes taxes and duties of \$197.6 million. With the exception of output 3, the government will finance taxes and duties through cash contribution.

<sup>b</sup> The New Development Bank will provide an additional \$500 million in parallel cofinancing.

<sup>c</sup> In mid-2019 prices as of 2 January 2020, and excludes the contributions toward state taxes and government-owned land.

<sup>d</sup> Physical contingencies computed at 17% for civil works and goods. Price contingencies computed at an average of 4.0% on local currency and 1.6% for foreign currency costs.

<sup>e</sup> Includes interest and commitment charges. Interest during construction for the ordinary capital resources loan has been computed at the 5-year United States dollar fixed swap rate plus an effective contractual spread of 0.5% and maturity premium of 0.2%. Commitment charges for the Asian Development Bank ordinary capital resources loan is 0.15% per year to be charged on the undisbursed loan amount.

Sources: Asian Development Bank and Asian Infrastructure Investment Bank estimates.

13. **Financing plan.** The government has requested an MFF in an amount of up to \$1,049 million from ADB's ordinary capital resources to finance part of the investment project. The MFF will consist of four tranches, subject to the government's submission of related periodic financing

requests, execution of the related loan agreement for each tranche, and fulfillment of terms, conditions, and undertakings set forth in the framework financing agreement. The government has also requested (i) a loan not exceeding about \$500 million from the AIIB, and (ii) a grant not exceeding \$3 million from the JFPR. The summary financing plan is in Table 5.

**Table 5: Summary Financing Plan**  
(\$ million)

Source	Tranche (Estimated Year of PFR Submission)				Amount <sup>a</sup>	Share of Total (%)
	1 (2020)	2 (2021)	3 (2023)	4 (2025)		
Asian Development Bank						
OCR (regular loan)	500.0	0.0	250.0	299.0	1,049.0	30.4
Asian Infrastructure Investment Bank (loan) <sup>b</sup>	0.0	500.0	0.0	0.0	500.0	14.5
Japan Fund for Poverty Reduction (grant) <sup>c</sup>	3.0	0.0	0.0	0.0	3.0	0.1
Government <sup>d</sup>	799.6	799.6	206.0	92.5	1,897.7	55.0
<b>Total</b>	<b>1,302.6</b>	<b>1,299.6</b>	<b>456.0</b>	<b>391.5</b>	<b>3,449.7</b>	<b>100.0</b>

OCR = ordinary capital resources, PFR = periodic financing request.

Note: Numbers may not sum precisely due to rounding.

<sup>a</sup> The New Development Bank will provide an additional \$500 million in parallel cofinancing.

<sup>b</sup> Partially administered by ADB.

<sup>c</sup> Fully administered by ADB.

<sup>d</sup> The government will provide contributions to cover (i) part of civil works, (ii) part of signaling and telecommunications system and track works, (iii) procurement of rolling stock, (iv) taxes and duties, (v) land acquisition and resettlement, and (vi) part of contingencies.

Sources: Asian Development Bank and Asian Infrastructure Investment Bank estimates.

14. ADB will finance the expenditures for civil works, traction, and consulting services. The AIIB will provide joint cofinancing and the loan will be partially administered by ADB.<sup>11</sup> The New Development Bank will also provide \$500 million in parallel financing for specific packages. These will be under separate contracts and will not be administered by ADB. The JFPR grant, fully administered by ADB, will finance a range of pilot activities including toilet blocks outside station areas, assistive aids for the differently abled, training for women and the differently abled on safe mobility and employment opportunities, and sensitization and behavioral change training of public transport providers. Counterpart funding will be provided by the government to finance taxes and duties, and other in-kind contributions. Universal procurement applies to the components cofinanced by ADB and AIIB.<sup>12</sup>

15. **Project 1.** The first tranche of the MFF will comprise a regular loan of \$500 million, have a 25-year term, including a grace period of 8 years; an annual interest rate determined in accordance with ADB's London interbank offered rate (LIBOR)-based lending facility; a commitment charge of 0.15% per year, and such other terms and conditions set forth in the draft loan and project agreements. Based on the annuity type repayment method with 10% discount rate, the average maturity is 19 years, and the maturity premium payable to ADB is 0.20% per year.

<sup>11</sup> Under joint cofinancing, ADB and its financing partners finance a common list of goods, works, and services required for the project. Under partial administration, the funds provided by the financing partner are not transferred to ADB. ADB will provide a range of services, including procurement and disbursement supervision.

<sup>12</sup> Pursuant to an ADB Board of Directors blanket waiver of member country procurement eligibility restrictions, universal procurement will apply, whereby (i) ADB administers cofinancing resources for ordinary capital resources-financed resources, or (ii) ordinary capital resources and a cofinancier's resources are used to jointly finance an individual procurement package. This applies to all packages except the first ADB-financed civil works package for which bids had been opened prior to reaching the cofinancing agreement. ADB. 2015. *Enhancing Operational Efficiency of the Asian Development Bank*. Manila; The Cofinancing Framework Agreement for Sovereign Operations between ADB and AIIB was signed on 21 March 2019.

16. **Project 2.** The second tranche of the MFF is estimated to cost \$1,299.6 million. No funds will be sourced from ADB. The government has requested a loan not exceeding \$500 million from the Asian Infrastructure Investment Bank (AIIB) (38.47%), with terms and conditions set forth in the negotiated loan agreement. The government will finance the balance of \$799.6 million (\$61.53%).

**Table 6: Summary of Project 2 Financing Plan**  
(\$ million)

Source	Amount (million)	Share of Total (%)
Asian Development Bank	0.0	0.0
Asian Infrastructure Investment Bank (loan) <sup>a</sup>	500.0	38.5
Government <sup>b</sup>	799.6	61.5
<b>Total</b>	<b>1,299.6</b>	<b>100.0</b>

Note: Numbers may not sum precisely due to rounding.

<sup>a</sup> Partially administered by the Asian Development Bank.

<sup>b</sup> The government will provide contributions to cover (i) part of civil works, (ii) part of the signaling and telecommunications systems and track works, (iii) procurement of rolling stock, (iv) taxes and duties, (v) land acquisition and resettlement, and (vi) part of contingencies.

Sources: Asian Development Bank and Asian Infrastructure Investment Bank estimates.

17. The estimated costs under the investment project are \$3,439.6 million for climate mitigation and about \$10.1 million for climate adaptation. ADB will finance 30.4% of mitigation and adaptation costs while AIIB will finance 14.5%. Details are in the climate change assessment.

18. ADB will review and partially administer procurement packages financed by the AIIB loan in accordance with the ADB–AIIB cofinancing agreement. The implementation arrangements are summarized in Table 7.

**Table 7: Implementation Arrangements**

Aspects	Arrangements		
Implementation period	August 2021–August 2027		
Estimated completion date	30 August 2027		
Estimated loan closing date	31 December 2027		
Management			
Executing agency	Ministry of Housing and Urban Affairs acting through NCRTC		
Procurement	OCB international advertisement	56 contracts	\$2,320,080,353
	OCB national advertisement	22 contracts	\$27,496,917
Retroactive financing and advance contracting	The NCRTC will use advance contracting and retroactive financing for civil works, goods and services, and consultant recruitment. Retroactive financing will be up to 20% of the loan proceeds, to finance expenditures incurred prior to loan effectiveness but not earlier than 12 months from the date of the legal agreements.		
Disbursement	The loan proceeds will be disbursed following ADB's <i>Loan Disbursement Handbook</i> (2017, as amended from time to time) and detailed arrangements agreed between the government and ADB.		

ADB = Asian Development Bank, MFF = multitranches financing facility, NCRTC = National Capital Region Transport Corporation, OCB = open competitive bidding.

Source: Asian Development Bank.

## A. Cost Estimates Preparation and Revisions

19. The NCRTC prepared the cost estimates. Costs are based on recent tenders floated for metro rail projects in India, updated to July 2019 prices. The NCRTC will be responsible for (i) preparing disbursement projections, (ii) requesting budgetary allocations for counterpart funds,

(iii) collecting supporting documents, and (iv) preparing and sending withdrawal applications to ADB.

## B. Key Assumptions

20. The following key assumptions underpin the cost estimates and financing plan:

- (i) Exchange rate: ₹71.36 = \$1.00 (as of 2 January 2020).
- (ii) Price contingencies based on expected cumulative inflation over the implementation period are as follows:

**Table 8: Escalation Rates for Price Contingency Calculation**  
(%)

Item	2020	2021	2022	2023	2024	2025	Average
Foreign rate of price inflation	1.5	1.6	1.6	1.6	1.6	1.6	1.6
Domestic rate of price inflation	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Source: Asian Development Bank.

### C. Detailed Cost Estimates by Financier

**Table 9: Detailed Cost Estimates by Financier**  
(\$ million)

Item	ADB		AIIB		JFPR		Government		Total Cost
	Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category	Amount
	{A}	{A/E}	{B}	{B/E}	{C}	{C/E}	{D}	{D/E}	{E}
<b>A. Investment Costs</b>									
1. Civil works	806.2	43.6	374.5	20.3	0.3	0.0	667.3	36.1	1,848.3
2. Rolling stock	-	-	-	-	-	-	170.8	100.0	170.8
3. Land (except government land)	-	-	-	-	-	-	188.0	100.0	188.0
4. General charges	-	-	-	-	-	0.9	73.1	99.1	73.1
5. Consulting services	2.8	4.3	-	-	2.4	1.9	60.9	93.8	66.1
6. Taxes (except state taxes)	-	-	-	-	-	-	197.6	100.0	197.6
<b>Subtotal (A)</b>	<b>809.0</b>	<b>31.8</b>	<b>374.5</b>	<b>14.7</b>	<b>2.7</b>	<b>0.1</b>	<b>1,357.7</b>	<b>53.4</b>	<b>2,543.9</b>
<b>Total Base Cost</b>	<b>809.0</b>	<b>31.8</b>	<b>374.5</b>	<b>14.7</b>	<b>2.7</b>	<b>0.1</b>	<b>1,357.7</b>	<b>53.4</b>	<b>2,543.9</b>
<b>B. Contingencies</b>									
1. Contingencies	141.3	31.6	73.9	16.5	0.3	0.1	232.4	51.9	447.9
2. Escalation	98.7	31.6	51.6	16.5	-	-	162.4	51.9	312.7
<b>Subtotal (B)</b>	<b>240.0</b>	<b>31.6</b>	<b>125.5</b>	<b>16.5</b>	<b>0.3</b>	<b>0.0</b>	<b>394.8</b>	<b>51.9</b>	<b>760.6</b>
<b>C. Financial Charges During Implementation</b>									
		0.0		0.0		0.0		0.0	-
1. Interest during construction	-	-	-	-	-	-	143.7	100.0	143.7
2. Commitment charges	-	-	-	-	-	-	1.5	100.0	1.5
<b>Subtotal (C)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>145.2</b>	<b>100.0</b>	<b>145.2</b>
<b>Total Project Cost (A+B+C)</b>	<b>1,049.0</b>	<b>30.4</b>	<b>500.0</b>	<b>14.5</b>	<b>3.0</b>	<b>0.1</b>	<b>1,897.7</b>	<b>55.0</b>	<b>3,449.7</b>

ADB = Asian Development Bank, AIIB = Asian Infrastructure Investment Bank, JFPR = Japan Fund for Poverty Reduction.

Notes:

- Numbers may not sum precisely because of rounding.
  - The New Development Bank will provide an additional \$500 million in parallel cofinancing.
- Sources: National Capital Region Transport Corporation and Asian Development Bank.

**Table 10: Detailed Cost Estimates by Financier for Tranche 1**  
(\$ million)

Item	ADB		JFPR		Government		Total Cost
	Amount {A}	% of Cost Category {A/E}	Amount {C}	% of Cost Category {C/E}	Amount {D}	% of Cost Category {D/E}	Amount {E}
<b>A. Investment Costs</b>							
1. Civil works	384.3	57.7	0.3	0.1	281.2	42.2	665.7
2. Rolling stock	-	-	-	-	72.0	100.0	72.0
3. Land (except government land)	-	-	-	-	79.2	100.0	79.2
4. General charges	-	-	-	2.1	30.8	97.9	30.8
5. Consulting services	1.3	4.7	2.4	4.3	25.7	91.0	29.4
6. Taxes (except state taxes)	-	-	-	-	83.3	100.0	83.3
<b>Subtotal (A)</b>	<b>385.6</b>	<b>40.2</b>	<b>2.7</b>	<b>0.3</b>	<b>572.0</b>	<b>59.6</b>	<b>960.4</b>
<b>Total Base Cost</b>	<b>385.6</b>	<b>40.2</b>	<b>2.7</b>	<b>0.3</b>	<b>572.0</b>	<b>59.6</b>	<b>960.4</b>
<b>B. Contingencies</b>							
1. Contingencies	67.4	39.4	0.3	0.2	103.3	60.4	171.0
2. Escalation	47.0	40.7	-	-	68.4	59.3	115.5
<b>Subtotal (B)</b>	<b>114.4</b>	<b>39.9</b>	<b>0.3</b>	<b>0.1</b>	<b>171.8</b>	<b>60.0</b>	<b>286.5</b>
<b>C. Financial Charges During Implementation</b>							
1. Interest during construction	-	-	-	-	54.7	100.0	54.7
2. Commitment charges	-	-	-	-	1.1	100.0	1.1
<b>Subtotal (C)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>55.8</b>	<b>100.0</b>	<b>55.8</b>
<b>Total Project Cost (A+B+C)</b>	<b>500.0</b>	<b>38.4</b>	<b>3.0</b>	<b>0.2</b>	<b>799.60</b>	<b>61.4</b>	<b>1,302.6</b>

ADB = Asian Development Bank, JFPR = Japan Fund for Poverty Reduction.

Notes: Numbers may not sum precisely because of rounding.

Sources: National Capital Region Transport Corporation and Asian Development Bank.

**Table 11: Detailed Cost Estimates by Financier for Tranche 2**  
(\$ million)

Item	ADB		AIIB		Government		Total Cost
	Amount {A}	% of Cost Category {A/E}	Amount {C}	% of Cost Category {C/E}	Amount {D}	% of Cost Category {D/E}	Amount {E}
<b>A. Investment Costs</b>							
1. Civil works	-	-	374.5	57.1	281.2	42.9	655.7
2. Rolling stock	-	-	0.0	0.0	72.0	100.0	72.0
3. Land (except government land)	-	-	0.0	0.0	79.2	100.0	79.2
4. General charges	-	-	0.0	0.0	30.8	100.0	30.8
5. Consulting services	-	-	0.0	0.0	25.7	100.0	25.7
6. Taxes (except state taxes)	-	-	0.0	0.0	83.3	100.0	83.3
<b>Subtotal (A)</b>	-	-	<b>374.5</b>	<b>39.6</b>	<b>572.0</b>	<b>60.4</b>	<b>946.5</b>
<b>Total Base Cost</b>	-	-	<b>374.5</b>	<b>39.6</b>	<b>572.0</b>	<b>60.4</b>	<b>946.5</b>
<b>B. Contingencies</b>							
1. Contingencies	-	-	73.9	43.0	97.9	57.0	171.8
2. Escalation	-	-	51.6	43.0	68.4	57.0	120.0
<b>Subtotal (B)</b>	-	-	<b>125.5</b>	<b>43.0</b>	<b>166.4</b>	<b>57.0</b>	<b>291.9</b>
<b>C. Financial Charges During Implementation</b>							
1. Interest during construction	-	-	0.0	0.0	60.5	100.0	60.5
2. Commitment charges	-	-	0.0	0.0	0.6	100.0	0.6
<b>Subtotal (C)</b>	-	-	<b>0.0</b>	<b>0.0</b>	<b>61.2</b>	<b>100.0</b>	<b>61.2</b>
<b>Total Project Cost (A+B+C)</b>	-	-	<b>500.0</b>	<b>38.5</b>	<b>799.6</b>	<b>61.5</b>	<b>1,299.6</b>

ADB = Asian Development Bank, AIIB = Asian Infrastructure Investment Bank.

Notes: Numbers may not sum precisely because of rounding.

Sources: National Capital Region Transport Corporation, Asian Development Bank, and Asian Infrastructure Investment Bank.

## D. Detailed Cost Estimates by Year

**Table 12: Detailed Cost Estimates by Year**  
(\$ million)

Item	Total Cost	2019	2020	2021	2022	2023	2024	2025
<b>A. Investment Costs</b>								
1. Civil works	1,848.3	50.5	212.3	490.8	381.6	153.8	200.7	358.4
2. Rolling stock	170.8	-	70.1	70.1	30.5	-	-	-
3. Land (except government land)	188.0	18.8	59.5	59.5	50.1	-	-	-
4. General charges	73.1	6.7	14.0	17.3	11.3	13.0	8.3	2.4
5. Consulting services	66.1	7.9	11.4	11.4	12.7	8.9	6.9	6.9
6. Taxes (except state taxes)	197.6	5.8	27.4	47.8	38.7	19.5	30.8	27.5
<b>Subtotal (A)</b>	<b>2,543.9</b>	<b>89.7</b>	<b>394.8</b>	<b>697.0</b>	<b>525.0</b>	<b>195.3</b>	<b>246.7</b>	<b>395.2</b>
<b>Total Base Cost</b>	<b>2,543.9</b>	<b>89.7</b>	<b>394.8</b>	<b>697.0</b>	<b>525.0</b>	<b>195.3</b>	<b>246.7</b>	<b>395.2</b>
<b>B. Contingencies</b>								
1. Contingencies	447.9	10.8	51.4	101.1	79.7	70.1	120.4	14.4
2. Escalation	312.7	0.8	16.1	53.8	63.1	45.2	80.5	53.3
<b>Subtotal (B)</b>	<b>760.6</b>	<b>11.6</b>	<b>67.5</b>	<b>154.9</b>	<b>142.8</b>	<b>115.3</b>	<b>200.9</b>	<b>67.7</b>
<b>C. Financial Charges During Implementation</b>								
1. Interest during construction	143.7	-	1.4	8.9	18.9	25.5	38.4	50.6
2. Commitment charges	1.5	-	0.4	0.2	0.4	0.1	0.1	0.3
<b>Subtotal (C)</b>	<b>145.2</b>	<b>-</b>	<b>1.8</b>	<b>9.1</b>	<b>19.3</b>	<b>25.6</b>	<b>38.5</b>	<b>50.9</b>
<b>Total Project Cost (A+B+C)</b>	<b>3,449.7</b>	<b>101.3</b>	<b>464.1</b>	<b>861.0</b>	<b>687.1</b>	<b>336.2</b>	<b>486.1</b>	<b>513.8</b>
<b>% Total Project Cost</b>	<b>100.0</b>	<b>2.9</b>	<b>13.5</b>	<b>25.0</b>	<b>19.9</b>	<b>9.7</b>	<b>14.1</b>	<b>14.9</b>

## Notes:

- Numbers may not sum precisely because of rounding.
  - The New Development Bank will provide an additional \$500 million in parallel cofinancing.
- Sources: National Capital Regional Transport Corporation and Asian Development Bank.



**Table 13: Detailed Cost Estimates by Year for Tranche 1**  
(\$ million)

<b>Item</b>	<b>Total Cost</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
<b>A. Investment Costs</b>						
1. Civil works	665.7	50.5	212.3	116.3	143.3	143.3
2. Rolling stock	72.0	-	70.1	1.8	-	-
3. Land (except government land)	79.2	18.8	59.5	0.9	-	-
4. General charges	30.8	6.7	14.0	10.1	-	-
5. Consulting services	29.4	7.9	11.4	10.1	-	-
6. Taxes (except state taxes)	83.3	5.8	27.4	47.8	2.2	-
<b>Subtotal (A)</b>	<b>960.4</b>	<b>89.7</b>	<b>394.8</b>	<b>187.0</b>	<b>145.5</b>	<b>143.3</b>
<b>Total Base Cost</b>	<b>960.4</b>	<b>89.7</b>	<b>394.8</b>	<b>187.0</b>	<b>145.5</b>	<b>143.3</b>
<b>B. Contingencies</b>						
1. Contingencies	171.0	10.8	51.4	27.2	81.6	-
2. Escalation	115.5	0.8	16.1	2.2	63.1	33.3
<b>Subtotal (B)</b>	<b>286.5</b>	<b>11.6</b>	<b>67.5</b>	<b>29.4</b>	<b>144.7</b>	<b>33.3</b>
<b>C. Financial Charges During Implementation</b>						
1. Interest during construction	54.7	-	1.4	8.9	18.9	25.5
2. Commitment charges	1.1	-	0.4	0.2	0.5	-
<b>Subtotal (C)</b>	<b>55.8</b>	<b>-</b>	<b>1.8</b>	<b>9.1</b>	<b>19.4</b>	<b>25.5</b>
<b>Total Project Cost (A+B+C)</b>	<b>1,302.6</b>	<b>101.3</b>	<b>464.1</b>	<b>225.5</b>	<b>309.6</b>	<b>202.1</b>
<b>% Total Project Cost</b>	<b>100.0</b>	<b>7.8</b>	<b>35.6</b>	<b>17.3</b>	<b>23.8</b>	<b>15.5</b>

Notes: Numbers may not sum precisely because of rounding.

Sources: National Capital Regional Transport Corporation and Asian Development Bank.

**Table 14: Detailed Cost Estimates by Year for Tranche 2**  
(\$ million)

<b>Item</b>	<b>Total Cost</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>
<b>A. Investment Costs</b>					
1. Civil works	655.7	491.0	54.9	54.9	54.9
2. Rolling stock	72.0	60.2	3.9	3.9	3.9
3. Land (except government land)	79.2	68.4	3.6	3.6	3.6
4. General charges	30.8	30.8	0.0	0.0	0.0
5. Consulting services	25.7	6.9	6.2	6.2	6.2
6. Taxes (except state taxes)	83.3	1.9	27.1	27.1	27.1
<b>Subtotal (A)</b>	<b>946.5</b>	<b>659.3</b>	<b>95.8</b>	<b>95.8</b>	<b>95.8</b>
<b>Total Base Cost</b>	<b>946.5</b>	<b>659.3</b>	<b>95.8</b>	<b>95.8</b>	<b>95.8</b>
<b>B. Contingencies</b>					
1. Contingencies	171.8	73.9	32.6	32.6	32.6
2. Escalation	120.0	51.6	22.8	22.8	22.8
<b>Subtotal (B)</b>	<b>291.9</b>	<b>125.5</b>	<b>55.5</b>	<b>55.5</b>	<b>55.5</b>
<b>C. Financial Charges During Implementation</b>					
1. Interest during construction	60.5	0.0	20.2	20.2	20.2
2. Commitment charges	0.6	0.0	0.2	0.2	0.2
<b>Subtotal (C)</b>	<b>61.2</b>	<b>0.0</b>	<b>20.4</b>	<b>20.4</b>	<b>20.4</b>
<b>Total Project Cost (A+B+C)</b>	<b>1,299.6</b>	<b>784.8</b>	<b>171.6</b>	<b>171.6</b>	<b>171.6</b>
<b>% Total Project Cost</b>	<b>100.0</b>	<b>60.0</b>	<b>13.0</b>	<b>13.0</b>	<b>13.0</b>

Notes: Numbers may not sum precisely because of rounding.

Sources: National Capital Regional Transport Corporation and Asian Development Bank.

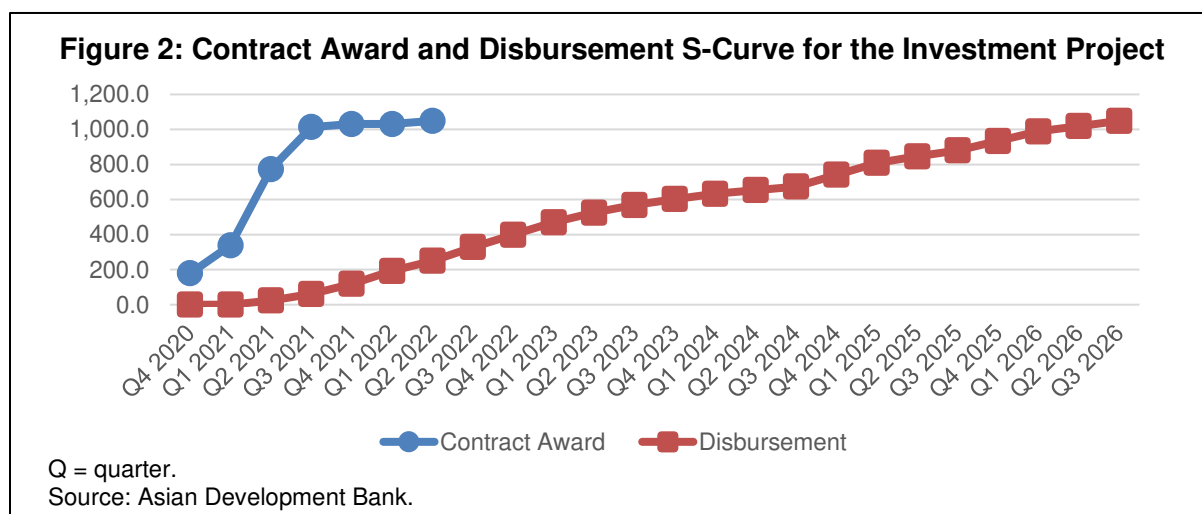
## E. Contract and Disbursement S-Curve

**Table 15: Contract Awards and Disbursement Projections for the Investment Project**

Quarter	Quarterly Contract Award	Cumulative Contract Award	Quarterly Disbursement	Cumulative Disbursement
Q4 2020	178.7	178.7	0.0	0.0
Q1 2021	160.5	339.2	0.0	0.0
Q2 2021	434.1	773.3	23.7	23.7
Q3 2021	240.6	1,013.9	37.2	60.9
Q4 2021	17.4	1,031.3	57.6	118.5
Q1 2022	0.0	1,031.3	74.5	193.0
Q2 2022	17.7	1,049.0	57.6	250.6
Q3 2022			77.9	328.5
Q4 2022			71.1	399.6
Q1 2023			71.1	470.7
Q2 2023			54.2	524.9
Q3 2023			44.0	568.9
Q4 2023			33.9	602.8
Q1 2024			30.5	633.3
Q2 2024			20.3	653.6
Q3 2024			20.3	673.9
Q4 2024			67.7	741.6
Q1 2025			67.7	809.3
Q2 2025			37.2	846.5
Q3 2025			33.9	880.4
Q4 2025			54.2	934.6
Q1 2026			54.2	988.8
Q2 2026			30.5	1,019.3
Q3 2026			29.7	1,049.0
<b>Total</b>	<b>1,049.0</b>	<b>1,049.0</b>	<b>1,049.0</b>	<b>1,049.0</b>

Q = quarter.

Sources: Asian Development Bank and National Capital Region Transport Corporation.

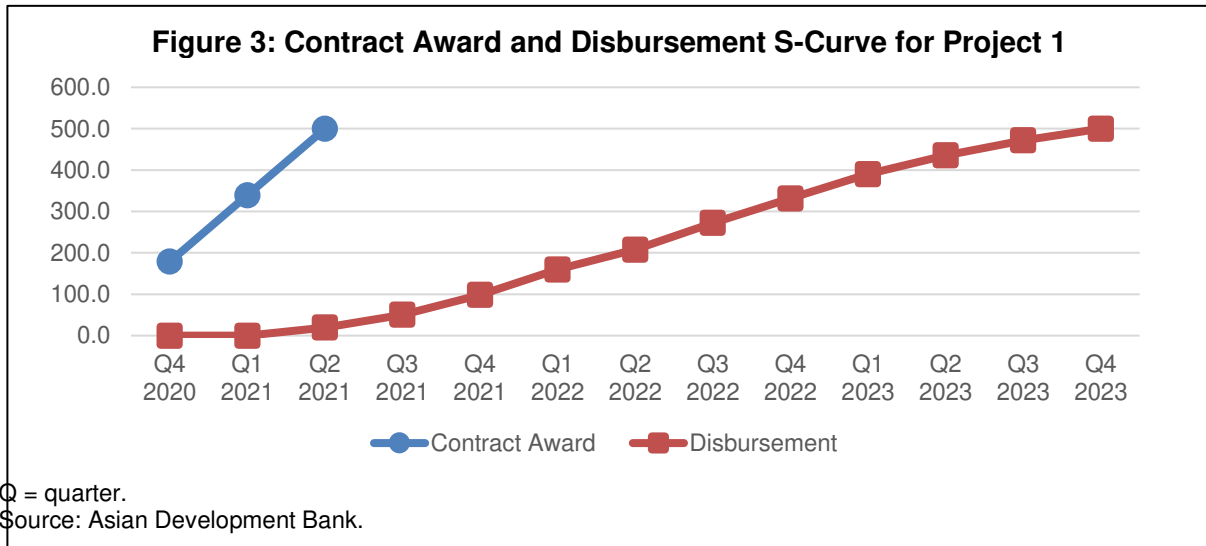


**Table 16: Contract Awards and Disbursement Projections for Project 1**

Quarter	Quarterly Contract Award	Cumulative Contract Award	Quarterly Disbursement	Cumulative Disbursement
Q4 2020	178.7	178.7	0.0	0.0
Q1 2021	160.5	339.2	0.0	0.0
Q2 2021	160.8	500.0	19.7	19.7
Q3 2021			30.9	50.5
Q4 2021			47.8	98.3
Q1 2022			61.8	160.1
Q2 2022			47.8	207.9
Q3 2022			64.6	272.5
Q4 2022			59.0	331.5
Q1 2023			59.0	390.4
Q2 2023			45.0	435.4
Q3 2023			36.5	471.9
Q4 2023			28.1	500.0
<b>Total</b>	<b>500.0</b>	<b>500.0</b>	<b>500.0</b>	<b>500.0</b>

Q = quarter.

Sources: Asian Development Bank and National Capital Region Transport Corporation.

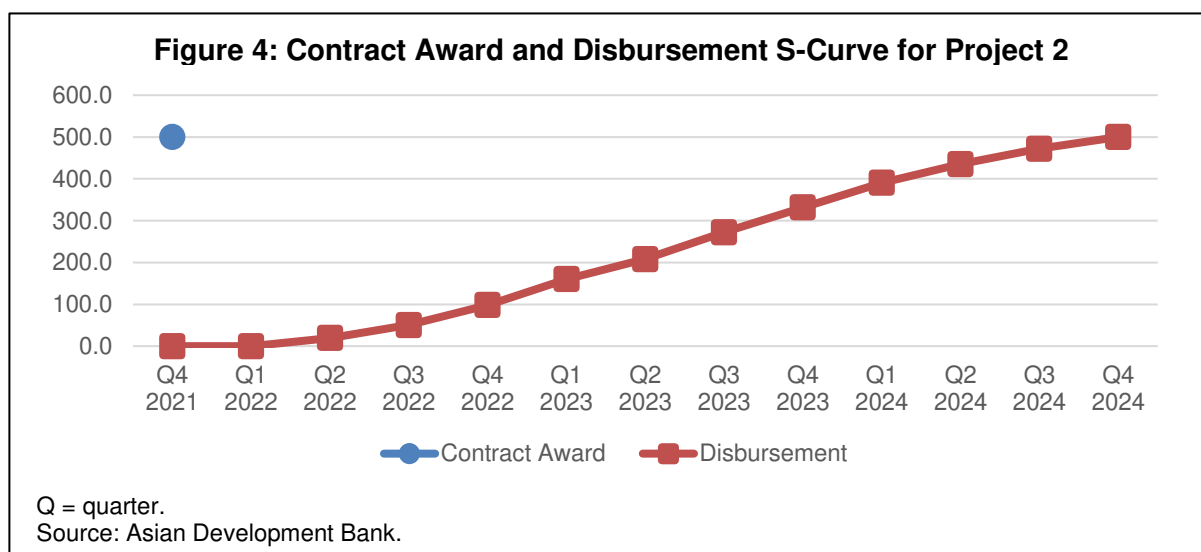


**Table 17: Contract Awards and Disbursement Projections for Project 2**

Quarter	Quarterly Contract Award	Cumulative Contract Award	Quarterly Disbursement	Cumulative Disbursement
Q1 2022	500.0	500.0	0.0	0.0
Q2 2022			19.7	19.7
Q3 2022			30.9	50.5
Q4 2022			47.8	98.3
Q1 2023			61.8	160.1
Q2 2023			47.8	207.9
Q3 2023			64.6	272.5
Q4 2023			59.0	331.5
Q1 2024			59.0	390.4
Q2 2024			45.0	435.4
Q3 2024			36.5	471.9
Q4 2024			28.1	500.0
<b>Total</b>	<b>500.0</b>	<b>500.0</b>	<b>500.0</b>	<b>500.0</b>

Q = quarter.

Sources: Asian Development Bank and National Capital Region Transport Corporation.



## F. Allocation and Withdrawal of Loan and Grant Proceeds

**Table 18: Allocation and Withdrawal of ADB Loan Proceeds—Project 1**

Sl. No.	Item	Total Amount Allocated for	
		ADB Financing (\$)	Basis for Withdrawal from the Loan Account
1	Project Cost	500,000,000	100% of total expenditure claimed <sup>a</sup>
<b>Total</b>		<b>500,000,000</b>	

ADB = Asian Development Bank.

<sup>a</sup> Exclusive of all duties and taxes imposed within the territory of the borrower.

Source: Asian Development Bank.

**Table 19: Allocation and Withdrawal of Grant Proceeds—Project 1**

Sl. No.	Item	Total Amount Allocated for	
		JFPR Financing (\$)	Basis for Withdrawal from the Loan Account
1	Grant Cost	3,000,000	100% of total expenditure claimed <sup>a</sup>
<b>Total</b>		<b>3,000,000</b>	

JFPR = Japan Fund for Poverty Reduction.

<sup>a</sup> Inclusive of all duties and taxes imposed within the territory of the borrower.

Source: Asian Development Bank.

**Table 20: Allocation and Withdrawal of AIIB Loan Proceeds—Project 2**

Sl. No.	Item	Amount of the	Percentage of AIIB's Share of
		Loan Allocated (\$)	Eligible Expenditures to be Financed (exclusive of taxes)
1	Goods, works and nonconsulting services for the project	500,000,000	100%
<b>Total</b>		<b>500,000,000</b>	

AIIB = Asian Infrastructure Investment Bank.

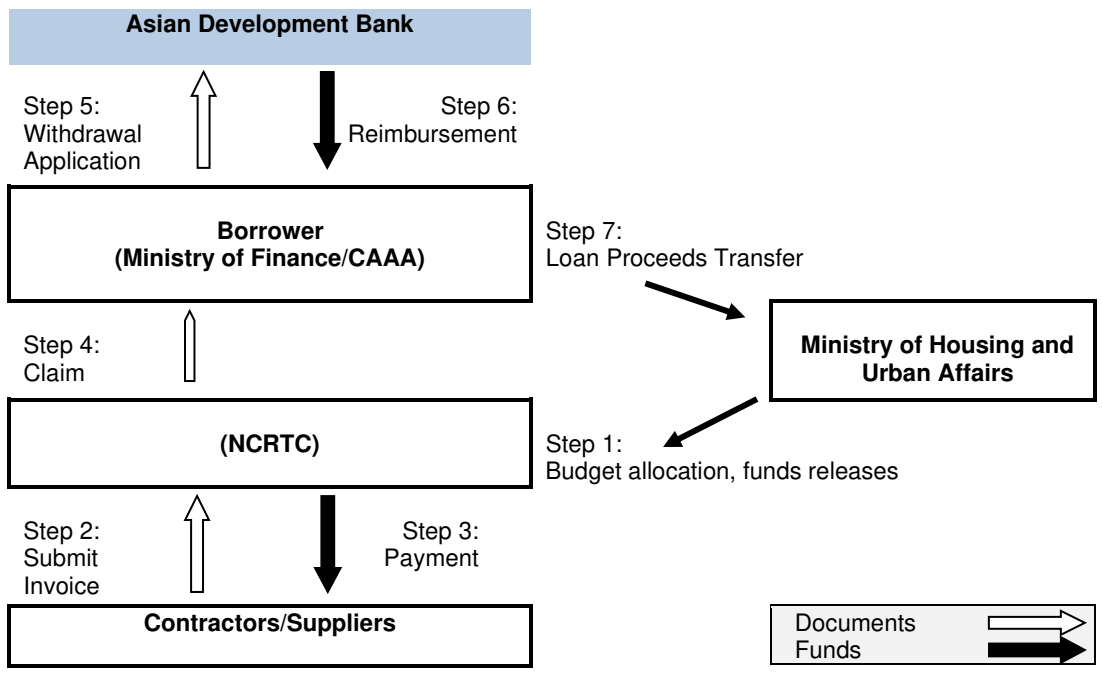
Source: Asian Infrastructure Investment Bank.

## G. Fund Flow Diagrams

21. The MOHUA will provide the ADB loan funds to the NRCTC for project implementation, whereas the MOHUA, the Government of Uttar Pradesh (GOUP), and the Government of the National Capital Territory of Delhi (GNCT) will provide counterpart funds in their respective proportions in accordance with the Presidential Sanction Order for the Delhi–Ghaziabad–Meerut RRTS. The MOHUA, GOUP, and GNCT will be responsible for meeting the financial responsibilities and obligations of the NRCTC for the project.

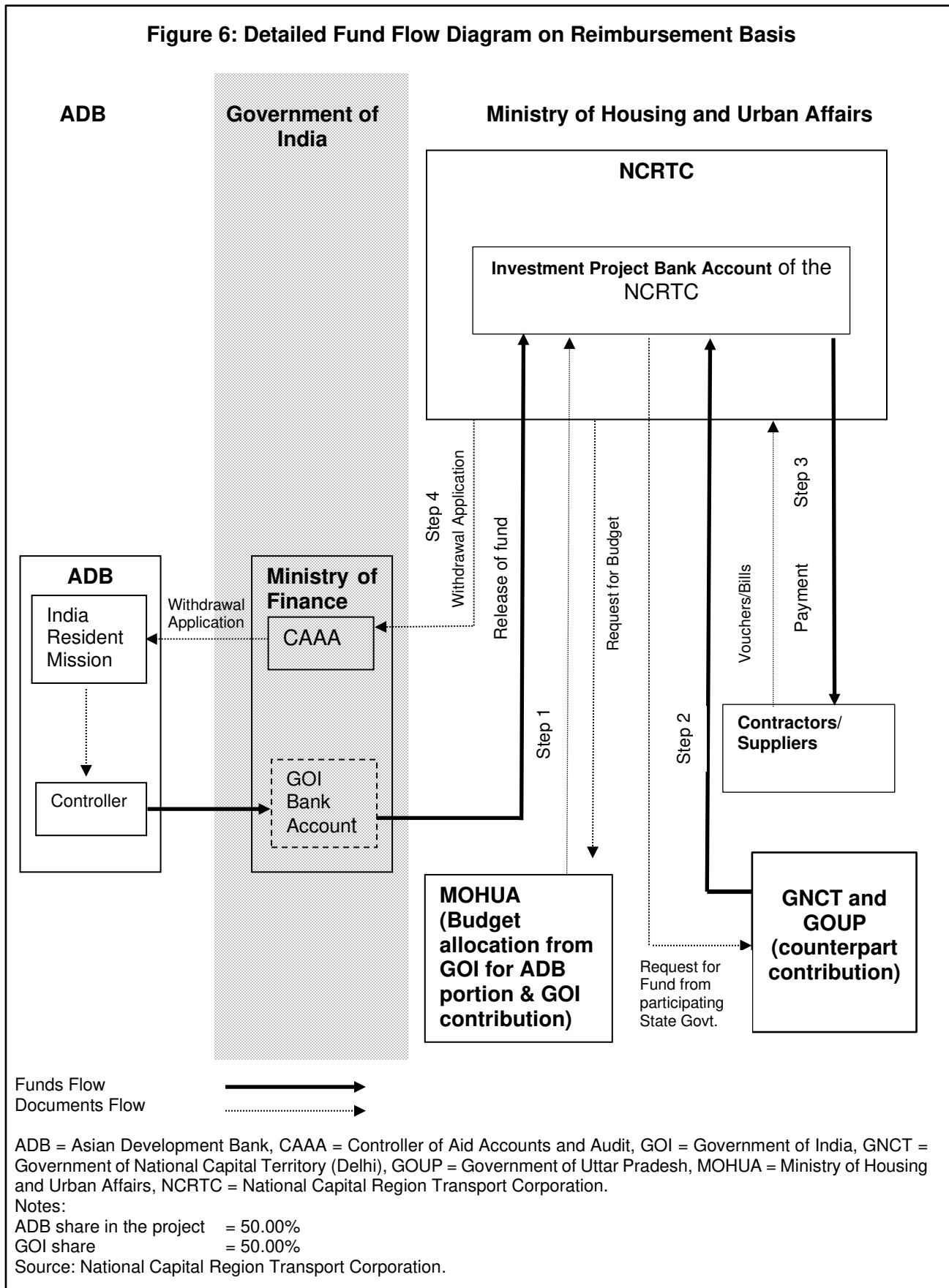
22. The project will be budgeted through a single line item in the MOHUA budget for the ADB loan component and capital grant from the government. After the budget is approved, fund allocation will be made by the MOHUA to the NRCTC. The ADB portion will be prefinanced and released by the MOHUA based on estimation of expenditure. Eligible project expenditures will be submitted to the Controller of Aid Accounts and Audit, the Ministry of Finance, and the Department of Economic Affairs through the statement of expenditure (SOE) procedure for reimbursement by ADB. The proposed fund-flow mechanism for the project is detailed in Figure 5 and Figure 6.

**Figure 5: Fund Flow Diagram on Reimbursement Basis**



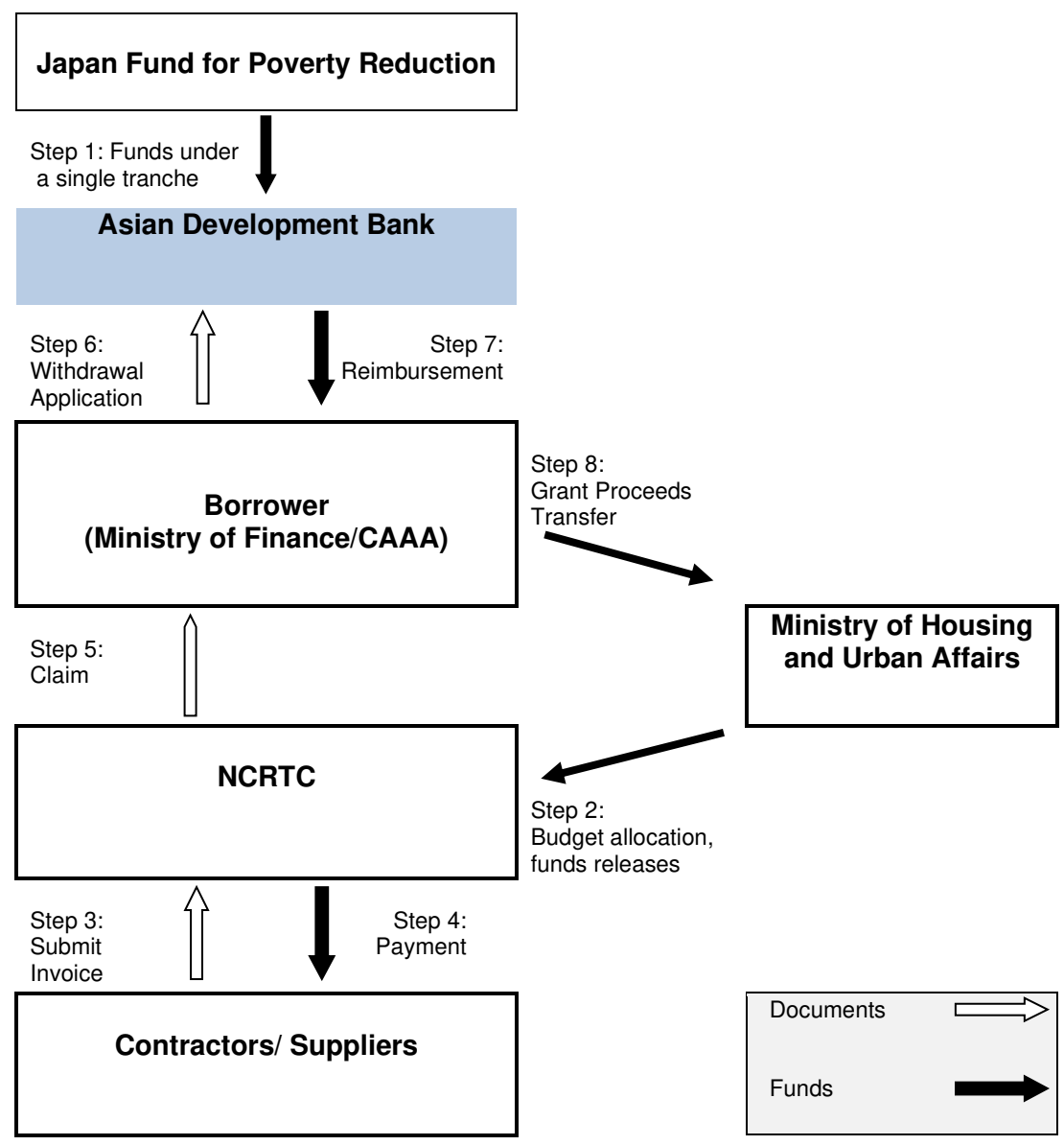
CAAA = Controller of Aid Accounts and Audit, NCRTC = National Capital Region Transport Corporation.  
Source: National Capital Region Transport Corporation.

**Figure 6: Detailed Fund Flow Diagram on Reimbursement Basis**

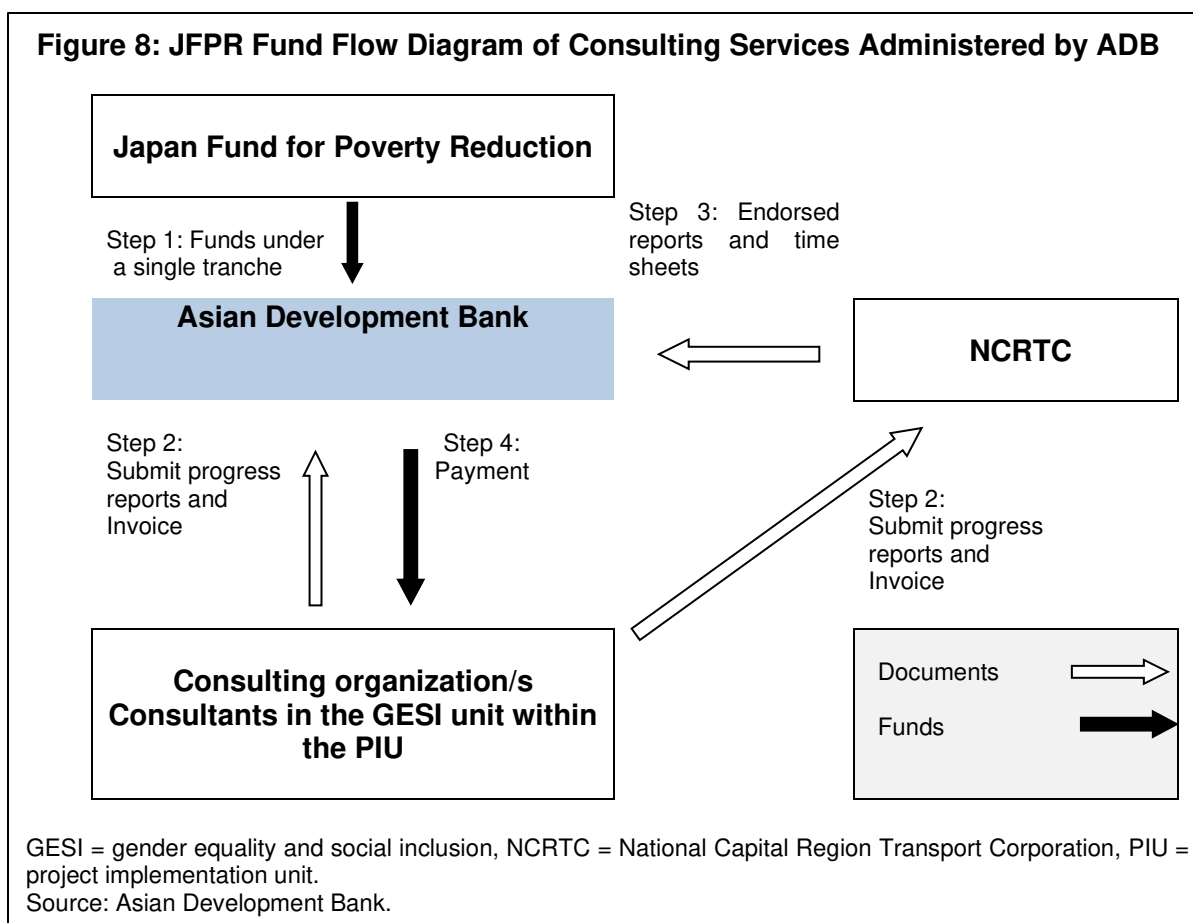




**Figure 7: JFPR Fund Flow Diagram on Reimbursement Basis for Goods and Works**



ADB = Asian Development Bank, CAAA = Controller of Aid Accounts and Audit, NCRTC = National Capital Region Transport Corporation.  
Source: Asian Development Bank.



## V. FINANCIAL MANAGEMENT

### A. Financial Management Assessment

23. The financial management assessment (FMA) was conducted in September 2019 in accordance with ADB's Guidelines for Financial Analysis and Evaluation, Financial Management Assessment, and related technical guidance notes.<sup>13</sup> The FMA considered the capacity of the NCRTC, including fund-flow arrangements, staffing, budgeting, accounting and financial reporting systems, financial information systems, and internal and external auditing arrangements. A status update consisting of the re-evaluation of financial management and internal control risk assessment, and progress review and update of the financial management action plan were carried out in August 2021 for tranche 2 processing. Based on the assessment, the NCRTC was assessed to have reasonable capacity to handle the proposed investment project. The statutory audit of the NCRTC at entity level is carried out by a chartered accountant firm and is also subject to audit by the Comptroller and Auditor General of India (CAG). The statutory auditors have given unmodified audit opinions on financial statements of the NCRTC, and internal controls over financial reporting and corporate governance compliance for fiscal years (FY) 2019 and 2020. The external audit of the NCRTC for financial year 2021 has been completed, the NCRTC Board has approved the entity financial statements on 1 July 2021, and supplementary audit by the CAG is in progress. The first financial year of the project implementation ended on 31 March 2021. The preparation and audit of the first set of project financial statements are on track and the audited

<sup>13</sup> ADB. 2019. [Financial Analysis and Evaluation](#). Manila; and ADB. 2015. [Financial Management Assessment](#). Manila.

project financial statements are submitted within the due date of 30 September 2021. The NCRTC has submitted the quarterly progress report for the quarter ending 31 March 2021 and the report for the quarter ending 30 June 2021 is under preparation. As per the quarterly report submitted, the NCRTC has substantially complied with all financial covenants but the same will be validated after submission of audited entity financial statements and audit report on compliance with financial covenants for FY2021.

24. As part of the risk analysis for the NCRTC, inherent risk was assessed as *low*, and control risk was assessed as *moderate*. This resulted in the recommendation for the NCRTC to (i) closely follow up with the MOHUA, GNCT, and GOUP for the release of funds for the ADB portion (under reimbursement mechanism) and counterpart contributions; (ii) strengthen the reporting system by incorporating the physical and financial report with variance analysis and disbursement report quarterly to ADB; (iii) prepare the accounting procedure manual; and (iv) receive training on ADB policies and procedures for the finance and accounts staff. The overall financial management risk was assessed as *moderate*, with appropriate risk mitigation measures identified. The FMA also concluded that the NCRTC has the capacity to administer the SOE procedure. Details of risks and key mitigating measures are in Table 21.

**Table 21: Financial Management and Internal Control Risk Assessment**

<b>Risk</b>	<b>Risk Assessment</b>	<b>Risk Description</b>	<b>Mitigation Measures or Action Plans</b>
<b>Inherent Risk</b>			
Country-specific risks	L	<p>Strong public financial management is one of the key elements of the Government of India's strategy for strengthening governance, optimizing outputs from public resources, and ensuring inclusive and broad-based development. The 2010 Public Financial Management Performance Assessment Report for India identified that the public financial management system is well structured but unevenly implemented.</p> <p>ADB's 2018–2022 country partnership strategy for India notes that public financial management at the state level needs to be improved to facilitate the strategic pillar of providing inclusive network infrastructure and services.</p>	<p>There is no significant weakness in the budgetary process or in the public sector accounting and reporting system that is expected to directly impact the NCRTC (to the extent that entity and project financial management are at risk). Public and private sector auditing standards and capacity are generally adequate. The NCRTC is registered as a company and contributions from the MOHUA and participating states are guaranteed through a Presidential Sanction Order and appropriate budgetary allocations. Adequate budget allocations have been made by MOHUA and participating states and no specific material risks were identified for the NCRTC.</p> <p>The NCRTC has received a total of \$847.46 million until 31 March 2021 from the GOI, GOUP, and GNCT, whereas, the budget allocation for FY2022 amounts to \$790.13 million.</p>
Entity-specific Risks	M	The executing agency is implementing an ADB-	Most of the finance and accounting staff of the NCRTC come from the Indian Railways as well as metro

Risk	Risk Assessment	Risk Description	Mitigation Measures or Action Plans
		funded investment project for the first time.	corporations across India, including the DMRC, and have sufficient experience in implementing railway and metro projects. Finance and accounting staff have experience in implementing externally aided projects, particularly the senior staff members. Most of those staff are permanent staff. Training in ADB policies and procedures was provided by ADB and will be given on an annual basis in future to strengthen the experience of the NCRTC in handling the project.
<b>Overall Inherent Risk</b>	<b>L</b>		
<b>Control Risk</b>			
Executing entity	M	The NCRTC is implementing an ADB-funded investment project for the first time.	<p>The NCRTC is a government company registered under the Indian Companies Act, 1956. The RRTS is being implemented by the NCRTC formed by the GOI with the participating state governments of Delhi, Haryana, Rajasthan, and Uttar Pradesh. The overall share contribution between GOI and state governments is kept at 50:50. The authorized capital of the NCRTC is ₹1 billion, which is fully paid by the GOI and participating states as of FY2019. Most finance and accounts staff in the NCRTC are permanent staff. The staff also have experience in implementing externally aided projects. The financial management arrangements of the NCRTC will be further strengthened as described in the financial management action plan.</p> <p>The NCRTC has also hired a renowned international firm (Boston Consulting Group) in Q4 2020 for the establishment of the PMSSU. As per the TORs for the consultancy services, the PMSSU will work as strategic partners in the management of the NCRTC. The scope of work of the PMSSU will comprise (i) development of a project dashboard, (ii) establishment of an effective governance structure including development of organization and</p>

Risk	Risk Assessment	Risk Description	Mitigation Measures or Action Plans
			roadmap, (iii) development of passenger business strategy, (iv) development of technology road map to leverage technology and become a digitally enabled organization; (v) identification and leveraging of innovative funding sources, and (vi) development of a financial sustainability strategy.
Budgeting and fund flow	M	<p>The timely release of ADB funds by the MOHUA to the NCRTC may not take place.</p> <p>The timely release of counterpart fund to the investment project may not take place.</p>	<p>ADB disbursement will follow the reimbursement procedure. Fund flows will be through the annual budgetary process, through contributions by the MOHUA and the state governments of Delhi and Uttar Pradesh in their respective proportions.</p> <p>As per the sanction order for Delhi–Meerut RRTS, the central government of India, the GNCT, and the GOUP are to make contributions in the form of equity and subordinated debt. The MOHUA and the NCRTC are to ensure timely contributions by the central government and the participating states of Delhi and Uttar Pradesh. In FY2020, funds received are GOI, ₹8.24 billion and GOUP, ₹4 billion. In FY2021, funds received are GOI ₹13.14 billion and GOUP ₹9.0 billion. For FY2022, budget allocations amount to ₹58 billion.</p> <p>The NCRTC has received a total of ₹62 billion as budget releases from the GOI, GOUP, and GNCT until 31 March 2021.</p>
Staffing	M	The financial management staff lack experience in implementing ADB projects.	Most finance and accounts staff in the NCRTC are permanent staff. As of August 2021, the NCRTC has a strength of 20 full-time finance and accounting staff. Most of these are chartered and/or cost and management accountants, while the rest have finance qualifications like MBA (Finance). All of them are well experienced in the transport sector in India and other countries, and have worked on various externally funded projects. Currently, most of the staff at the corporate office are working for the investment project. Six staff members are dedicated for the project in CPM offices in Delhi,

Risk	Risk Assessment	Risk Description	Mitigation Measures or Action Plans
			<p>Ghaziabad, Meerut, and Modi Nagar.</p> <p>ADB conducted trainings for the NCRTC staff on ADB financial management and disbursement requirements and trainings will be provided on annual basis in future.</p>
Accounting policies and procedures	M	The accounting policies and procedures manual is being updated.	The NCRTC follows accrual basis double entry accounting system at the corporate level. Since the NCRTC is a government company formed under the Companies Act, 1956, it is following all the guidelines issued by the ICAI. The NCRTC is developing an accounting procedure manual for day-to-day activities. The NCRTC has appointed an international accounting firm (KPMG) for preparation of the accounting manual. A draft manual has been shared by KPMG and is expected to be finalized by January 2022.
Internal audit	L	Arrangements for internal audit function need strengthening.	<p>Currently, the internal audit function is outsourced to a chartered accountant firm. Internal audits are conducted quarterly and findings are reported to the audit committee of the NCRTC.</p> <p>Internal audit for all the four quarters of financial year 2020–2021 have been completed and reported to the Audit Committee. For the first quarter of financial year 2021–2022, internal audit is in process.</p>
External audit	M	The timely submission of the APFS and resolution of audit findings need to be ensured.	The financial statements are prepared based on Indian Accounting Standards, which are in line with International Financial Reporting Standards. The statutory audit is carried out by the chartered accountant firm appointed by the CAG of India. Audited accounts are placed before the board of the NCRTC. The statutory auditors will also be engaged for performing audits of the separate project-level financial statements for the ADB-funded project. Template of financial statements provided in the standard terms of reference for the audit of ADB-assisted projects, agreed between the CAG, DEA, and ADB, shall be referred to as a guide.

<b>Risk</b>	<b>Risk Assessment</b>	<b>Risk Description</b>	<b>Mitigation Measures or Action Plans</b>
Reporting and monitoring	S	Frequency, timeliness, and format of periodic financial reporting require strengthening.	<p>Since the NCRTC is implementing an ADB-funded project for the first time, specific requirements of ADB for continuous monitoring and reporting need to be clarified. Quarterly and annual progress reports will be required from the NCRTC for the proposed project, containing physical and financial reports with variance analysis, and disbursement reports. Amounts in quarterly reporting and annual project financial statements need to be reconciled with the ADB disbursement amount that can be found in ADB's LFIS webpage (suggested form attached).</p> <p>The QPR for the period ending 31 March 2021 has been submitted to ADB. The QPR for the period ending 30 June 2021 will be submitted shortly.</p>
Information systems	L	The information system is not used optimally.	The NCRTC uses Tally-ERP software to record the accounting transactions, which is acceptable given the relatively less complex nature of financial transactions. In addition, the NCRTC is planning to further strengthen its system of accounting by using the integrated ERP system, which was planned for implementation in 2021. However, due to COVID-19, there are some delays. The NCRTC has invited bids for design and implementation of ERP.
<b>Overall Control Risk</b>	<b>M</b>		
<b>Overall Pre-Mitigation Risk</b>	<b>M</b>		

H – High, S-substantial, M – Moderate, L – Low.

ADB = Asian Development Bank, APFS = audited project financial statement, CAG = Comptroller and Auditor General, COVID-19 = coronavirus disease 2019, CPD = Client Portal for Disbursement, CPM = chief project manager, DEA = Department of External Affairs, DMRC = Delhi Metro Rail Corporation, ERP = enterprise resource planning, FY = fiscal year, GOI = Government of India, GNCT = Government of National Capital Territory of Delhi, GOUP = Government of Uttar Pradesh, ICAI = Institute of Chartered Accountants of India, LFIS = Loan Financial Information Services, MBA = master of business administration, MOHUA = Ministry of Housing and Urban Affairs, NCRTC = National Capital Region Transport Corporation, PMSSU = project monitoring and strategic support unit, Q = quarter, QPR = quarterly progress report, RRTS = regional rapid transport system, TOR = terms of reference.

Sources: Asian Development Bank and National Capital Region Transport Corporation.

25. The NCRTC has agreed to implement an action plan as part of key measures to address the deficiencies. The financial management action plan, which should be reviewed and updated throughout the life of the investment project, is provided in Table 22.

**Table 22: Financial Management Action Plan**

<b>Key Risks</b>	<b>Agreed Actions</b>	<b>Responsible</b>	<b>Agreed Completion Date</b>
Lack of accounting procedure manual	An accounting procedure manual is being developed, including a separate chapter on ADB financial management and reporting requirements and a chart of accounts for ADB project accounting. The KPMG has prepared a draft Accounting Procedure Manual. It is under consideration of the NCRTC. The NCRTC financial management staff will be provided detailed training for effective implementation of the manual. TORs of internal auditors will include monitoring compliance with requirements of the manual.	NCRTC	January 2022
Appropriate and timely budgetary release and counterpart fund may not take place	Timely budgetary release and provision of the ADB portion and counterpart funds to be ensured  As per the sanction order for the Delhi–Meerut RRTS, equity contributions and subordinated debts are to be contributed by the central government and the participating state governments. Appropriate budget allocations in the respective governments' budgets and timely release of funds need to be ensured. All tranches will follow the reimbursement method for disbursement of funds from ADB. Appropriate budget allocations to ensure sufficient and timely funds available to the NCRTC shall be made in the budgets of participating states.	NCRTC, MOHUA, GNCT, GOUP	Throughout the project period
Effectiveness of PMSSU	Hiring of consultants completed for establishment of PMSSU (Boston Consulting Group appointed as PMSSU consultants)  Progress update on scope of work of PMSSU consultants to be included in quarterly progress reports to be submitted to ADB,	NCRTC  NCRTC	Q4 2020 (completed)  Quarterly basis starting from hiring of PMSSU consultants



<b>Key Risks</b>	<b>Agreed Actions</b>	<b>Responsible</b>	<b>Agreed Completion Date</b>
	including but not limited to updates on (i) development of project dashboard; (ii) development of organization roadmap; (iii) development of business strategy (including comprehensive financial road map); (iv) development of technology roadmap; (v) identification and leveraging of innovative funding sources; and (vi) development of financial sustainability strategy		
Delays in ERP implementation	Hiring of consultants completed for design and implementation of ERP	NCRTC	Q1 2022
	Workplan submitted by consultants for ERP implementation	NCRTC	Q1 2022
	Progress update on scope of work of ERP consultants included in quarterly progress reports to be submitted to ADB	NCRTC	Quarterly basis starting from hiring of ERP consultants
Lack of experience on ADB policies and procedures	Training to be imparted on ADB policies and procedure for finance and accounting staff	ADB	Within 6 months of project start date
Timeliness and quality of APFS and AEFS may not be appropriate	Timely submission of APFS and resolution of audit findings to be ensured	NCRTC	Within 6 months after fiscal year end
	Timely submission of AEFS to be ensured	NCRTC	Within 1 month from approval by the Board, but not later than 1 year from end of fiscal year
Internal audit may not be conducted for the investment project	Internal audit of project by chartered accountant firm on quarterly basis and submission of reports to audit committee of the NCRTC	NCRTC	Quarterly basis throughout the project period
Progress reports may not be submitted on timely basis	Submission of quarterly progress reports with physical and financial progress with variance analysis and disbursement reports to ADB	NCRTC	Throughout entire duration of the project

ADB = Asian Development Bank, AEFS = audited entity financial statement, APFS = audited project financial statement, ERP = enterprise resource planning, GNCT = Government of National Capital Territory of Delhi, GOUP = Government of Uttar Pradesh, MOHUA = Ministry of Housing and Urban Affairs, NCRTC = National Capital Region Transport

Corporation, PMSSU = project monitoring and strategic support unit, RRTS = regional rapid transit system, TOR = terms of reference.

Sources: Asian Development Bank and National Capital Region Transport Corporation.

## B. Disbursement

### 1. Disbursement Arrangements for ADB Funds and ADB-administered AIIB and JFPR Funds

26. The ADB loan proceeds including ADB-administered cofinanced funds will be disbursed in accordance with ADB's *Loan Disbursement Handbook* (2017, as amended from time to time), and detailed arrangements agreed upon between the government and ADB.<sup>14</sup> Online training for project staff on disbursement policies and procedures is available.<sup>15</sup> The NCRTC project staff are encouraged to avail of this training to help ensure efficient disbursement and fiduciary control.

27. ADB's reimbursement procedure will be adopted in the disbursement of loan proceeds. The NCRTC is responsible for collecting and retaining supporting documents, and preparing and sending withdrawal applications to ADB. For the JFPR grant, the reimbursement procedure similar to the loan will be applied.

28. **Statement of expenditure procedure.** The SOE procedure will be used for reimbursement of eligible expenditures.<sup>16</sup> Supporting documents and records for the expenditures claimed under the SOE should be maintained and made readily available for review by ADB's disbursement and review missions, upon ADB's request for submission of supporting documents on a sampling basis, and for independent audit.

29. **Commitment procedure.** ADB, at the borrower's request, may provide an irrevocable undertaking to reimburse a commercial bank for payments made or to be made to a supplier against a letter of credit financed from the loan account.<sup>17</sup> The procedure is normally applicable for large importation costs, the amount of which is not less than the minimum value of withdrawal applications may not be used for cofinancier's funds held by the cofinancier.

30. Under the individual projects, before the submission of the first withdrawal application, the borrower under each project should submit to ADB sufficient evidence of the authority of the person(s) who will sign the withdrawal applications on behalf of the government, together with the authenticated specimen signatures of each authorized person. The minimum value per withdrawal application is stipulated in ADB's *Loan Disbursement Handbook* (2017, as amended from time to time). Individual payments below such amount should be paid by the executing agency and subsequently claimed to ADB through reimbursement, unless otherwise accepted by ADB. Withdrawal applications and supporting documents will demonstrate, among other things, that the goods and/or services are eligible for ADB financing. The borrower should ensure sufficient category and contract balances before requesting disbursements. Use of ADB's Client Portal for

<sup>14</sup> The handbook is available electronically from the ADB website (<https://www.adb.org/sites/default/files/adb-loan-disbursement-handbook-2017.pdf>).

<sup>15</sup> Disbursement eLearning. <https://elearn.adb.org/enrol/index.php?id=235>.

<sup>16</sup> SOE forms are available in Appendix 7B and 7D of ADB's *Loan Disbursement Handbook* (2017, as amended from time to time) and may also be downloaded from <https://lfis.adb.org/gfis/headerServlet?action=download>.

<sup>17</sup> The application, other forms, and narrative procedures related to the issuance of a commitment letter are available in Chapter 10 and Appendix 10 of ADB's *Loan Disbursement Handbook* (2017, as amended from time to time) and may also be downloaded from <https://lfis.adb.org/gfis/headerServlet?action=download>.

Disbursements system is mandatory for submission of withdrawal applications to ADB for the ADB loan and the fully administered grant.<sup>18</sup>

31. The borrower shall submit the original withdrawal application and copies of supporting documents to ADB, and concurrently one identical copy of such withdrawal applications and copies of supporting documents to the AIIB. ADB shall review each withdrawal application, in accordance with ADB disbursement procedures and guidelines and advise AIIB to make the necessary payment, if any, subject to approval by the AIIB. The AIIB's approval shall be made in accordance with the AIIB loan agreement and other applicable guidelines and procedures. The AIIB will promptly inform ADB once payment has been made. In case the AIIB rejects the payment requested in the withdrawal application, it shall promptly inform ADB and the borrower in writing of its decision and the basis of such decision. ADB shall not be held liable for any decision made by the AIIB with respect to payments requested in withdrawal applications or any delay in disbursement outside of ADB's control.

## **2. Disbursement Arrangements for Counterpart Funds**

32. All disbursements of government counterpart financing will be carried out on a timely basis in accordance with the regulations of the Government of India and accounting principles acceptable to ADB.

### **C. Accounting**

33. The NCRTC will maintain, or cause to be maintained, separate books and records by funding source for all expenditures incurred on the individual projects under the investment project following accrual-based double entry accounting system and guidelines issued by the Institute of Chartered Accountants of India, it being a government company formed under the Companies Act, 1956. The NCRTC will prepare project financial statements following the government's accounting laws and regulations, which are consistent with international accounting principles and practices and acceptable to ADB.

### **D. Auditing and Public Disclosure**

34. The NCRTC will cause the detailed project financial statements prepared separately for each tranche, for all sources of financing, to be audited following the government's audit regulations by an independent auditor appointed on behalf of the Comptroller and Auditor General of India (CAG) and acceptable to ADB. The audited project financial statements, together with the auditor's opinion, will be presented in the English language to ADB within 6 months from the end of the fiscal year by the NCRTC. The annual project financial statements should include the withdrawal application-wise reconciliation between amounts reported in the project financial statements and disbursed amounts appearing in the loan financial information services (LFIS) website of ADB. The LFIS can be accessed online and ADB will provide LFIS access to project staff on request.

35. The audited entity financial statements, together with the auditor's report and management letter, if any, will be submitted in the English language to ADB within 1 month after their approval by the relevant authority.

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<sup>18</sup> The CPD facilitates online submission of withdrawal applications to ADB, resulting in faster disbursement. The forms to be completed by the borrower are available online at <https://www.adb.org/documents/client-portal-disbursements-guide>.

36. The audit report for the project financial statements will include a management letter (or a written confirmation from auditors that no management letter was issued) and auditor's opinions, which cover whether the (i) project financial statements give a true and fair view or are presented fairly, in all material respects, in accordance with the applicable financial reporting standards; and (ii) proceeds of the loan(s) and grant were used only for the purpose(s) of the related project. The NCRTC shall prepare the computations demonstrating compliance with the financial ratios as defined in the legal agreements (where applicable) every year, as part of its entity financial reporting. The auditors will provide an additional opinion on achievement of the financial ratios (where applicable) under relevant auditing standards as applicable in India.

37. Compliance with financial reporting and auditing requirements will be monitored by review missions and during normal MFF supervision, and followed up regularly with all concerned, including the external auditor.

38. The government and the executing agency have been made aware of ADB's approach to delayed submission, and the requirements for satisfactory and acceptable quality of the audited project financial statements.<sup>19</sup> ADB reserves the right to require an additional auditor or change in auditor (in a manner consistent with the constitution of the borrower), or for supplemental support to be provided to the auditor, if the audits required are not conducted in a manner satisfactory to ADB, or if the audits are substantially delayed. ADB reserves the right to verify the individual project's financial accounts to confirm that ADB's financing is used following ADB's policies and procedures.

39. Public disclosure of the audited project financial statements, including the auditor's opinion on the project financial statements, will be guided by ADB's Access to Information Policy.<sup>20</sup> After the review, ADB will disclose the audited project financial statements and the opinion of the auditors on the project financial statements no later than 14 days of ADB's confirmation of their acceptability by posting them on ADB's website. The management letter, if any, additional auditor's opinions, and audited entity financial statements will not be disclosed.<sup>21</sup>

## VI. PROCUREMENT AND CONSULTING SERVICES

### A. Advance Contracting and Retroactive Financing

40. All advance contracting and retroactive financing will be undertaken in conformity with ADB's Procurement Policy (2017, as amended from time to time) and ADB's Procurement

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<sup>19</sup> ADB's approach and procedures regarding delayed submission of audited project financial statements:

- (i) When audited project financial statements are not received by the due date, ADB will write to the executing agency advising that (a) the audit documents are overdue; and (b) if they are not received within the next 6 months, requests for new contract awards and disbursement such as new replenishment of advance accounts, processing of new reimbursement, and issuance of new commitment letters will not be processed.
- (ii) When audited project financial statements are not received within 6 months after the due date, ADB will withhold processing of requests for new contract awards and disbursement such as new replenishment of advance accounts, processing of new reimbursement, and issuance of new commitment letters. ADB will (a) inform the executing agency of ADB's actions; and (b) advise that the loan may be suspended if the audit documents are not received within the next 6 months.
- (iii) When audited project financial statements are not received within 12 months after the due date, ADB may suspend the loan.

<sup>20</sup> ADB. 2018. [Access to Information Policy](#). Manila.

<sup>21</sup> This type of information would generally fall under exceptions to disclosure of the Access to Information Policy (paras. 16 and/or 17).

Regulations (2017, as amended from time to time). The issuance of invitations to bids under advance contracting and retroactive financing will be subject to ADB approval. However, application of the post-review procedure may be considered for suitable contract packages. The borrower and executing agency have been advised that approval of advance contracting and retroactive financing does not commit ADB to finance the projects under the investment project.

41. **Advance contracting.** The executing agency has requested advance action to expedite procurement of works and goods. Activities to be concluded in advance include (i) preparation of bidding documents for item-rate and design–build civil works contract packages, and goods contract packages; (ii) tendering; (iii) bid evaluation; and (iv) contract award.

42. **Retroactive financing.** The executing agency has requested approval for retroactive financing. If approved by the Board, the reimbursement of eligible expenditures under the investment project up to a maximum equivalent of 20% of the related ADB loan amount under individual projects may be made before loan effectiveness but not more than 12 months before the signing of the related loan agreement.

## **B. Procurement of Goods, Works, and Consulting Services**

43. All procurement of goods and works to be financed by ADB and ADB-administered cofinancier funds will be undertaken following ADB's Procurement Policy (2017, as amended from time to time) and ADB's Procurement Regulations (2017, as amended from time to time).<sup>22</sup> Open competitive bidding for goods, works, and plant supply and installations will be used.

44. **Value for money.** Optimizing value for money is explored through the active implementation of strategic procurement planning, and incorporating various risk mitigation measures: (i) cofinancing; (ii) universal procurement; (iii) e-procurement; (iv) executing agency's capacity building on strategic procurement planning and contract management; (v) strategic packaging of works, goods, and services contracts considering robust market analysis and applying fit-for-purpose contract forms including ADB's goods contracts, International Federation of Consulting Engineers (FIDIC) MDB Harmonised Construction Contract 2010, and FIDIC Conditions of Contract for Plant and Design–Build (Yellow Book 2017); (vi) prior review of major contract packages; (vii) due attention to advance actions for site acquisitions, utility relocations, and statutory clearances and/or permits; and (viii) provision of prompt cash flow mechanism in the contract during contract execution, etc.

45. Before the start of any procurement under open competitive bidding with national advertisement, ADB and the government will review the public procurement laws of the central and state governments to ensure consistency with ADB's Procurement Regulations (2017, as amended from time to time).

46. All consultants will be recruited according to the ADB Procurement Policy (2017, as amended from time to time) and the Procurement Regulations for ADB Borrowers (2017, as amended from time to time).

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<sup>22</sup> Checklists for actions required to contract consultants by method available in e-Handbook on Project Implementation at <https://www.adb.org/documents/handbook-project-implementation>.

### **C. Procurement Plan**

47. An 18-month procurement plan indicating thresholds and review procedures, goods and works, and consulting contract packages for the investment project is in Appendix B.

### **D. Consultant's Terms of Reference**

48. The terms of reference (TOR) of the consultants to be engaged under the investment project are provided in the following appendices:

- (i) Appendix E: TOR for GESI Project Implementation Unit
- (ii) Appendix F: TOR for National Organization for Output 1 of the Grant
- (iii) Appendix G: TOR for National Organization for Output 2 of the Grant
- (iv) Appendix H: TOR for Grant Implementation Officer
- (v) Appendix I: TOR for External Monitor
- (vi) Appendix J: TOR for Public–Private Partnership Consultant

## **VII. SAFEGUARDS**

49. The NCRTC will have a social and environmental management unit (SEMU) for the overall management of social and environmental safeguards under the investment project. At the site level, there are four NCRTC project management offices (PMO) headed by a chief project manager (CPM) to manage different sections of the rail alignment. The CPM will be supported by deputy CPMs who will serve as the social and environmental focal persons on-site. The general consultants that will be responsible for supervision and monitoring of construction works will include environmental specialists, social safeguard specialists, and health and safety experts. These experts will periodically monitor activities at the project site. External monitoring experts for environment and resettlement will be recruited by the NCRTC to (i) conduct third party monitoring, (ii) verify the reports submitted by the general consultants, and (iii) advise on safeguard compliance issues and corrective measures. These resources required to implement the actions identified in the relevant safeguard plans are discussed in detail below.

### **A. Environmental Safeguards**

50. **Environmental safeguards (category A).** An environmental impact assessment (EIA), including an environmental management plan (EMP) to mitigate the environmental risks identified, has been prepared following ADB's Safeguard Policy Statement (SPS). Since the investment project will be financed through an MFF, an environmental assessment and review framework (EARF) has also been prepared to comply with environmental safeguard requirements for MFFs.

51. **Environmental management plan.** The MOHUA through the NCRTC will ensure that all environmental safeguard requirements under the investment project will be implemented as required by the EIA, EMP, and the safety, health, and environmental (SHE) guidelines. The EMP with detailed budget estimates is given in the EIA report. The EMP is a plan for mitigating all anticipated environmental impacts during project construction and operation and will thus apply to all tranches under the investment project. Specific mitigation measures with details on location, time, and responsible agency for implementation are given in the EMP. Mitigation measures for implementation during construction are implemented by the contractor, and during operation by the NCRTC. The EMP also includes an environmental monitoring plan (EMOP) on testing the quality of air, water, noise, and vibration through laboratory tests and physical monitoring of problems of soil erosion, tree plantations, occupational health and safety issues, and damage to

structures. Quality testing of air, water, noise, and vibration may be outsourced by the contractor to recognized and approved laboratories, while physical monitoring activities will be carried out by the general consultants and external monitor.

52. The SHE manual includes a set of requirements and guidelines on occupational health and safety, including human resource requirements, on-site safety protocols, awareness, and training requirements. The NCRTC with the support of the general consultants will ensure that both the EMP and SHE guidelines are included in (i) the bidding documents for each contract package before starting the bidding process, and (ii) the final contract agreement with the contractor.

53. **Implementation of environmental safeguards.** Environmental safeguard requirements will be implemented by various stakeholders under the project as per the following.

- (i) **The executing agency.** The MOHUA, acting through the NCRTC, will be responsible for overall compliance of the investment project with national or state-level environmental policies and ADB's SPS. They will be responsible for making key decisions on the investment project including on environmental safeguard matters. The NCRTC through their SEMU will be responsible for ensuring that all environmental safeguard requirements under the investment project are complied with following ADB's SPS and national environmental regulations and the related EIA as agreed. If any new components are added in the investment project during implementation, the NCRTC will ensure that environmental assessment will be carried out for those new components as required by the EARF. The SEMU and PMOs will be responsible for timely processing of all national or local-level clearances and permits for the project such as tree-cutting permits, etc. They will monitor construction activities on-site on a regular basis and facilitate resolution of complaints through the project GRM). The SEMU will review all periodic monitoring reports submitted by the general consultants and contractors, including semiannual environmental monitoring reports that will be submitted to ADB for disclosure on the ADB website. The NCRTC will be responsible for recruiting an external monitor to conduct third-party monitoring of environmental safeguards and managing and reviewing the monitor's inputs and outputs for individual projects throughout the duration of the facility. During preparation of follow-on tranches, the NCRTC will ensure that environmental due diligence of ongoing tranches will be conducted. In case any new components are added to the investment project in later tranches, the SEMU will ensure that the new components will be appraised for environmental safeguards following the requirements of the EARF.
- (ii) **General consultants.** The general consultant, engaged by the NCRTC using counterpart funds, is the design and supervision authority that will conduct day-to-day supervision and monitoring of construction activities and coordination between the executing agency and the contractors. They will support the NCRTC to secure relevant environmental safeguard-related clearances and permits prior to commencement of civil works of the respective contract package. They will conduct regular on-site monitoring and ensure that the contractor is implementing the EMP, EMOP, and SHE plan as required and provide technical guidance and training to the contractor as needed. They will prepare regular progress and monitoring reports, including quarterly and semiannual environmental monitoring reports for submission to the NCRTC. During preparation of the follow-on tranches,

they will conduct environmental due diligence of ongoing tranches. They will guide the contractor on the type of monitoring checklists and reports to be maintained. They will review and approve all environmental safeguard-related subplans (muck disposal plan, traffic management plan, emergency response plan, etc.) to be prepared by the contractor and ensure that subplans are prepared on a timely basis. In case of unanticipated environmental impacts or change in detailed designs, they will immediately provide recommendations on whether the EIA and EMP need to be updated, and accordingly advise the NCRTC for further confirmation and coordination with ADB. In case new components are added during investment project implementation, the general consultants will support the NCRTC in conducting environmental assessments for the new components following the requirements of the EARF. They will facilitate the conduct of regular consultations with project stakeholders, including communities affected by the relevant project, and enable smooth resolution of complaints through the project GRM as provided in the EIA.

- (iii) **Contractors.** The project contractors will be responsible for implementing the EMP and EMOP and abiding by the SHE plan. Based on the EMP, EMOP, and SHE plan included in their contract agreement, they will prepare a site-specific EMP, EMOP, and SHE plan. They will undertake project-specific preconstruction studies such as building condition and/or stability surveys and others as included in the contract agreement. They will prepare subplans such as traffic management plan, muck disposal plan, emergency response plan, construction camp layout, etc., on a timely basis for the review and approval by the general consultants and the NCRTC. They will recruit an environmental officer and a health and safety officer, and ensure that they are available on-site on a full-time basis for every construction site. They will maintain proper records of all environmental safeguard measures on-site such as incidents of injuries, accidents, health issues, issuance of health and safety items, quantities of domestic and/or construction waste generated, etc. They will prepare monthly and/or quarterly progress reports on the implementation of environmental safeguards and submit these to the general consultants for their approval.
- (iv) **External monitor.** The external monitor is responsible for third-party monitoring of environmental safeguards implementation for all projects under the MFF. They will review the progress and environmental monitoring reports prepared by the contractors and general consultants, and verify whether the contents of the reports are consistent with project site conditions. They will visit the project sites at least once a quarter and prepare semiannual external monitoring reports. They will provide technical guidance and advise the NCRTC on ways to improve implementation of environmental safeguards under the project.

54. **Climate change.** The climate change impact to the project is categorized *medium*. Climate risk vulnerability assessment (CRVA) has been conducted and the results of the CRVA have been incorporated into the project design. In addition, the projects under the facility contribute to climate mitigation by shifting people from carbon-intensive modes of transport to a low-carbon railway system. The climate adaptation is from using various protective measures to prevent flooding in tunnels and underground sections. Details are in the CRVA and climate change assessment.



## B. Social Safeguards

55. **Involuntary resettlement (category A).** The investment project minimizes involuntary resettlement impacts by using elevated tracks on the carriageway of existing roads. Nevertheless, about 138 hectares (ha) of private land and 32 ha of government land will be required for the 17 stations and two depots along the Delhi–Meerut section. It is estimated that 813 households (5,453 persons) will be affected by physical displacement (81 households) and economic displacement (732 households) due to land acquisition or restrictions on land use. Out of the total affected households, 571 households (3,997 persons) will experience significant impacts in the form of loss of residential and commercial structure, and agricultural land. The NCRTC had prepared and is implementing a resettlement plan for the entire project in line with ADB and the AIB involuntary resettlement safeguards requirements and standards. It conducts meaningful consultation with affected communities throughout the resettlement plan implementation process. A grievance redress mechanism, resettlement implementation support agency (RISA),<sup>23</sup> and external monitor are in place to support the NCRTC.

56. **Implementation of involuntary resettlement.** Involuntary resettlement safeguard requirements will be implemented by various stakeholders under the project as per the following.

57. **Project implementation unit.** The NCRTC manages overall project implementation at its headquarters headed by the group general manager (project) who has the responsibility to supervise the resettlement plan implementation. The group general manager (project) is supported by the general consultants, the designated environmental and social (E&S) officer (with the rank of deputy general manager), the PMO, and RISA.

58. **Project management office.** The chief project managers appointed for the Delhi–Meerut RRTS project head the PMOs. A PMO-level E&S officer with the rank of deputy project manager is appointed or designated to manage the resettlement activities on-site and to coordinate with the E&S officer, general consultants, and RISA.

59. The NCRTC is responsible for overall coordination, planning, implementation, and for ensuring that adequate finances for costs related to land acquisition and resettlement for the investment project are allocated on time. The general consultants support the executing agency and ensure timely and effective implementation of the resettlement plan. A qualified and experienced RISA in the form of a consulting firm or nongovernment organization has been engaged by the NCRTC. The NCRTC ensures that adequate resources are allocated to the RISA for effective implementation of resettlement and rehabilitation (R&R) activities.

60. The specific functions of the PMO on resettlement management include the following:

- (i) overall responsibility of implementation and monitoring of R&R activities in the investment project;
- (ii) ensuring availability of budget for R&R activities;
- (iii) liaising with line agencies for support of land acquisition and resettlement plan implementation;
- (iv) selection and appointment of the RISA;
- (v) coordinating with line departments, PIU, RISA, and general consultants;
- (vi) monitoring the physical and financial progress on land acquisition and R&R activities;

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<sup>23</sup> The Center for Market Research and Social Development Pvt. Ltd. in New Delhi acts as the RISA.

- (vii) participating in regular meetings in the grievance redress committee (GRC);
- (viii) organizing monthly meetings with RISA to review the progress on R&R; and
- (ix) preparing the semiannual social monitoring report.

61. **Resettlement implementation support agency.** A RISA has been engaged to assist the PMO in the implementation of the resettlement plan. The RISA acts as the facilitator and works as a link between the PMO and the affected communities. The RISA assists displaced persons in income restoration by (i) preparing a micro plan, and (ii) guiding access into various ongoing government development schemes and agencies providing financial assistance and loans.

62. **External monitor.** An independent external monitor or consultant not involved in the day-to-day supervision of the project will undertake the external monitoring of the resettlement plan. The main objectives are to (i) supervise overall monitoring of the project; (ii) submit a semiannual report to determine whether resettlement goals have been achieved, more importantly whether livelihoods and living standards have been restored and/or enhanced; and (iii) suggest suitable recommendations for improvement. The external monitoring consultant has been mobilized and monitoring is carried out intermittently during the resettlement plan implementation. The external monitor assesses (i) resettlement outcomes, (ii) their impacts on the standards of living of displaced persons, and (iii) whether the objectives of the resettlement plan have been achieved by considering the baseline conditions and the results of resettlement monitoring. The external monitor will undertake a post-resettlement evaluation of the effectiveness of resettlement plan implementation with comparison to baseline information.

63. **Indigenous peoples (category C).** The investment project alignment is generally in urban and peri-urban areas where scheduled tribes do not have cultural attachment to land, customary territories, and distinct livelihood systems. Hence, it will not affect indigenous peoples' communities within the meaning of the ADB Safeguard Policy Statement (2009).

### C. Grievance Redress Mechanisms

64. **Environment.** A GRM has been proposed for the procedures to address grievances at three levels: (i) first at the PMO, (ii) second at the executing agency, and (iii) third at the GRC. The most serious complaints that cannot be addressed at the executing agency level will be forwarded to the GRC. The GRC will comprise members from the executing agency, contractor/s, and representatives from the local community. Environmental complaints will be received through the grievance focal point who will be the designated personnel from within the community and appointed by the community. The contractor will record the complaint in the on-site environmental complaints register in the presence of the grievance focal point for further resolution.

65. **Resettlement.** A two-tier GRC is established at the NCRTC headquarters and at the PMOs with the primary objective of providing a mechanism to mediate and resolve conflicts on-site and to avoid adverse litigation that is disruptive and time-consuming. The GRC provides affected people, who might have objections or concerns about the project, a public forum to raise their objections and, through conflict resolution, address these issues adequately and efficiently. The GRC at the NCRTC headquarters is headed by the group general manager (project), or the designated representative; it will be headed by the CPM at the PMO. The GRCs consist of representatives from the (i) NCRTC; (ii) displaced persons, including vulnerable displaced persons; (iii) local government representative; and (iv) other interest groups, as necessary. The RISA supports the GRCs in grievance redress. The proposed procedure for grievance redress is detailed in the resettlement plan. Under the proposed procedure, grievances will be redressed

within 2 to 4 weeks from the date of lodging of complaints, depending on the severity of the problem. However, an aggrieved person will have a choice to access the country's judiciary.

66. **Prohibited investment activities.** Pursuant to ADB's Safeguard Policy Statement (2009), ADB funds may not be applied to the activities described on the ADB Prohibited Investment Activities List set forth at Appendix 5 of the Safeguard Policy Statement (2009).

### VIII. GENDER AND SOCIAL DIMENSIONS

67. The investment project is classified *effective gender mainstreaming*. The gender equality and social inclusion (GESI) action plan prepared in this regard includes the following key measures: (i) collect sex-disaggregated data and ensure effective consultation of women and differently abled groups during investment project design and implementation; (ii) integrate gender-responsive and universal accessibility features in the design of coaches and RRTS stations; (iii) address gender-related aspects of last-mile connectivity; (iv) strengthen capacity for gender mainstreaming within the NCRTC; and (v) pilot-test modalities for improved urban mobility of vulnerable women and differently abled women, and gender-related behavior change among public transport providers. The GESI action plan is in Appendix I.

68. The investment project will improve women's safe mobility and access to entrepreneurial and employment opportunities along the RRTS corridor and, specifically, in major urban centers. By 2027, it is estimated that 20% women commuters will travel along the Delhi–Meerut corridor, compared to an estimated 17% (2019 baseline). The reduced travel times will alleviate disparity among urban, peri-urban, and rural areas of India's national capital region. The explicit emphasis of the investment project on promoting physical and economic mobility of vulnerable women and differently abled persons along the RRTS corridor will help address discriminations faced by these excluded groups.

69. **HIV/AIDS and human trafficking.** HIV infection and human trafficking are risks in the investment project area. The influx of workers in the investment project area during construction could create additional HIV transmission risks. The investment project will mitigate these risks by providing HIV awareness and prevention programs to construction workers as set out in the EMP that will form part of the contractor's obligations. Livelihood disruptions resulting from land acquisition and relocation will create additional human trafficking risks, which will be addressed by a detailed livelihood restoration and improvement program set out in the resettlement plan.

### IX. PERFORMANCE MONITORING, EVALUATION, REPORTING, AND COMMUNICATION

#### A. Investment Project Design and Monitoring Framework

70. The design and monitoring framework is in Appendix A.

#### B. Monitoring

71. **Investment project performance monitoring.** The achievement of the investment project performance targets will be assessed following the design and monitoring framework. The executing agency will establish an investment project performance monitoring system, in form and substance, which is acceptable to ADB for use throughout the life of the investment project.

72. **Compliance monitoring.** Compliance with covenants will be monitored through ADB's (i) investment project administration missions, including the inception missions, to discuss and confirm the timetable for compliance with the loan covenants; (ii) review missions to examine the borrower's and executing agency's compliance with particular loan covenants; and, where there is any noncompliance or delay, to discuss proposed remedial measures with the borrower and the executing agency; and (iii) the midterm review, if necessary, to review covenants to assess whether they are still relevant or need to be changed or waived due to changing circumstances.

73. **Environmental safeguards monitoring.** Monthly and quarterly environmental monitoring reports will be submitted by the contractor to the general consultants for their review and approval. Based on the reports prepared by the contractor and regular site inspections, the general consultant will prepare semiannual environmental monitoring reports for submission to the NCRTC and further submission to ADB for disclosure on the ADB website. An external monitor will (i) conduct third-party monitoring of implementation and monitoring of the environmental safeguards by the contractor and general consultant, and (ii) submit semiannual monitoring reports to the NCRTC and ADB on a semiannual basis. The preliminary estimated cost of the EMP for the Delhi–Ghaziabad–Meerut RRTS, including implementation and monitoring, is \$4.4 million (₹306.7 million). This cost estimate is exclusive of land acquisition and resettlement.

74. **Social safeguards monitoring.** The NCRTC conducts internal monitoring with the support of the RISA. Due to the project's significant resettlement impacts, the monitoring mechanism includes both internal monitoring by the PMO and external monitoring by an independent external monitoring agency and/or consultant. The PMO responsible for supervision and implementation of the resettlement plan will prepare monthly progress reports on resettlement activities and submit these to the CPM. The CPM submits semiannual resettlement plan monitoring reports to ADB. The external monitoring expert responsible for monitoring of the resettlement plan implementation submits semiannual review reports to the executing agency and ADB to determine whether resettlement goals have been achieved, more importantly whether livelihoods and living standards have been restored and/or enhanced, and suggests suitable recommendations for improvement, if any.

75. **Gender and social dimensions monitoring.** A gender focal point (GFP) will be appointed by the NCRTC to facilitate the implementation of the GESI action plan. The GFP will be supported by a full-time GESI consultant (84 person-months). Additionally, organizations (consulting firms or nongovernment organizations) will be recruited under ADB's Procurement Policy to implement activities under output 3. Progress in the achievement of the indicators set out in the GESI action plan will be reflected in the quarterly progress reports to be submitted to ADB by the NCRTC, using the GESI action plan reporting template provided in Appendix J.

## **C. Evaluation**

76. The investment project inception mission will be fielded by ADB soon after the MFF is approved by ADB. Regular reviews will follow at least annually. As necessary, special loan administration missions and a midterm review mission will be fielded, under which any changes in scope or implementation arrangement may be required to ensure the achievement of investment project objectives. The NCRTC will monitor the MFF and tranche implementation according to the schedule and timebound milestones, and keep ADB informed of any significant deviations that may result in the milestones not being met. A facility completion report will be submitted by the NCRTC within 6 months of physical completion of the MFF and projects thereunder, providing detailed evaluation of the progress of implementation, costs, social and economic impacts, and other details requested by ADB.

## D. Reporting

77. The executing agency will provide ADB with (i) quarterly progress reports in a format consistent with ADB's project performance reporting system, no later than 45 days after the end of each quarter, and should include the (a) financial and disbursement report, (b) variance analysis of physical and financial progress, (c) details of utilization of funds, and (d) reconciliation with ADB's LFIS; (ii) consolidated annual reports including (a) progress achieved by output as measured through the indicator's performance targets, (b) key implementation issues and solutions, (c) updated procurement plan, and (d) updated implementation plan for the next 12 months; and (iii) a facility completion report within 6 months of physical completion of the projects and the facility. To ensure that individual projects will continue to be both viable and sustainable, project accounts and the executing agency audited financial statement, together with the associated auditor's report, should be adequately and regularly reviewed with ADB.

## E. Stakeholder Communication Strategy

78. The investment project will follow ADB's standard consultation and disclosure requirements and provide relevant information, including information from the above documents, in a timely manner, in an accessible place, and in a form and languages understandable to all affected people and other stakeholders. Other appropriate communication methods shall be used, such as direct verbal communication through one-on-one or other meetings, and grievance redress meetings.

79. Salient information regarding the investment project, including scope, general progress status, beneficiaries, invitations for bid, and consultant recruitment notices, will be provided to the public. The information will be made available and updated through the NCRTC's website (<https://ncrtc.in/>). The safeguards documents, including EIA reports, due diligence reports, and corrective action plan, if any, will be posted on the ADB website.

## X. ANTICORRUPTION POLICY

80. The Government of India, MOHUA, and the NCRTC are advised of ADB's Anticorruption Policy (1998, as amended from time to time).<sup>24</sup> Consistent with its commitment to good governance, accountability, and transparency, the implementation of the investment project shall adhere to this policy. ADB reserves the right to review and examine, directly or through its agents, any alleged corrupt, fraudulent, collusive, or coercive practices relating to the individual projects under the facility. In this regard, investigation of government officials, if any, would be requested by ADB to be undertaken by the government.

81. To support these efforts, relevant provisions of ADB's Anticorruption Policy are included in the loan agreement, regulations, and the bidding documents for the related projects under the facility. Individuals and/or entities on ADB's anticorruption debarment list are ineligible to participate in ADB-financed activity and may not be awarded any contracts under the individual projects under the facility.<sup>25</sup> ADB's Anticorruption Policy designates the Office of Anticorruption and Integrity (OAI) as the point of contact to report allegations of fraud or corruption among ADB-financed projects or its staff. The OAI is responsible for all matters related to allegations of fraud and corruption. For a more detailed explanation, refer to the Anticorruption Policy and Procedures. Anyone coming across evidence of corruption associated with the projects and the facility may

<sup>24</sup> Anticorruption Policy: <https://www.adb.org/documents/anticorruption-policy>.

<sup>25</sup> ADB's Integrity Office website: <https://www.adb.org/integrity>.

contact the OAI by telephone, facsimile, mail or email at the following numbers and/ or addresses:

- By email at [integrity@adb.org](mailto:integrity@adb.org) or [anticorruption@adb.org](mailto:anticorruption@adb.org)
- By phone at +63 2 8632 5004
- By fax to +63 2 8636 2152
- By mail at the following address (**please mark correspondence Strictly Confidential**)  
Office of Anticorruption and Integrity  
Asian Development Bank  
6 ADB Avenue  
Mandaluyong City 1550  
Metro Manila, Philippines

82. The website of the NCRTC will provide updated and detailed information on the implementation of the investment project. For example, it will include procurement-related information such as ongoing tenders, lists of participating bidders, names of winning bidders, basic details on bidding procedures adopted, amount of contracts awarded, and the list of goods and/or services procured.

## XI. ACCOUNTABILITY MECHANISM

83. People who are, or may in the future be, adversely affected by the project(s) under the facility may submit complaints to ADB's Accountability Mechanism. The Accountability Mechanism provides an independent forum and process whereby people adversely affected by ADB-assisted projects can voice and seek a resolution of their problems, as well as report alleged violations of ADB's operational policies and procedures. Before submitting a complaint to the Accountability Mechanism, affected people should make an effort in good faith to solve their problems by working with the concerned ADB operations department. Only after doing that, and if they are still dissatisfied, should they approach the Accountability Mechanism.<sup>26</sup>

## XII. RECORD OF CHANGES TO THE FACILITY ADMINISTRATION MANUAL

84. All revisions and/or updates during implementation are retained in this section to provide a chronological history of changes to implementation arrangements recorded in the FAM, including revision to contract awards and disbursement s-curves.

**Table 23: Revisions to the Facility Administration Manual**

No.	Revision Date	FAM Section Revised	Description of Revision
1	31 August 2021	Various	Incorporation of Tranche 2 aspects for procedural approval

FAM = facility administration manual.

<sup>26</sup> Accountability Mechanism: <https://www.adb.org/who-we-are/accountability-mechanism/main>.

## DESIGN AND MONITORING FRAMEWORK FOR THE INVESTMENT PROJECT

<b>Impact the Project is Aligned with</b> Urban mobility in the National Capital Region improved (National Urban Transport Policy, 2006) <sup>a</sup>			
<b>Results Chain</b>	<b>Performance Indicators with Targets and Baselines</b>	<b>Data Sources and Reporting Mechanisms</b>	<b>Risks</b>
<b>Outcome</b> Efficiency, safety, social inclusiveness, and environmental sustainability of transport in the Delhi–Meerut RRTS corridor improved	By 2028: a. Travel time between Delhi and Meerut by train reduced to 1 hour (2020 baseline: 3–4 hours) (OP 2.4.1) b. 258,035 tons of CO <sub>2</sub> reduced per annum (2020 baseline: 0) (OP 3.1, OP 3.1.3) c. At least 70% of riders, including EWCD, perceive the RRTS to be accessible, safe, and reliable <sup>b</sup> (2020 baseline: Not applicable) (OP 2.1.4)	a.–b. NCRTC statistics  c. RRTS user survey by NCRTC	Feeder connectivity issues impact ridership.
<b>Outputs</b> 1. Delhi–Meerut RRTS corridor commissioned	By 2027: 1a. 82 route-km of standard gauge electrified rail track installed, with systems and signaling (2020 baseline: 0) (OP 1.3.1, OP 3.2.5, OP 4.1.2) 1b. 24 EWCD-friendly stations with climate- and disaster-resilient features constructed and operational (2020 baseline: 0) (OP 1.3.1, OP 3.2.5, OP 4.1.2) 1c. At least five RRTS stations developed as major multimodal hubs <sup>c</sup> (2020 baseline: 0) (OP 1.3.1, OP 3.2.5, OP 4.1.2) 1d. At least one carriage in every RRTS train reserved for women only (2020 baseline: Not applicable) (OP 2.2.3) 1e. CCTV cameras installed in all stations to monitor coaches, pick-up, drop-off, and in all public areas (2020 baseline: Not applicable) (OP 2.2.3, OP 2.4.1, OP 4.1.2)	1a.–e. Progress reports	Unpredicted ground conditions, such as mixed strata, may delay tunnel boring works in the underground sections.
2. Institutional capacity of the NCRTC strengthened <sup>d</sup>	By 2026: 2a. Recommendations and action plan on TOD, VCF instruments, and PPP initiatives finalized and approved by NCRTC (2020 baseline: Not applicable) 2b. A smart-technology-based platform (BIM) established and adopted for project design, implementation, and management (2020 baseline: Not applicable) 2c. Gender-friendly workplace policy developed and institutionalized within the NCRTC (2020 baseline: Not applicable) (OP 2.3.2)	2a.–c. Progress reports	

Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting Mechanisms	Risks
	2d. At least 50 NCRTC staff reported increased knowledge in project and contract management, financial management, procurement, and safeguards (2020 baseline: Not applicable) (OP 6.1.1)	2d. Post-training program reports and surveys of NCRTC staff	
3. Mobility and economic opportunities of women and differently abled improved <sup>f</sup>	By 2024: 3a. At least 600 women received training for employment and/or entrepreneurial opportunities arising from improved RRTS corridors (2021 baseline: 0) (OP 2.1.1)  3b. At least 500 differently abled persons received hearing, visual, and/or physical mobility assistive aids (2021 baseline: 0) (OP 1.3)	3a.–3b. Progress and completion reports submitted to ADB and NCRTC by the contracted organization, including certificates issued on completion of training and/or receipt of assistive aids	Mobilization of target beneficiaries takes longer because of social behavior and perceptions.
<p><b>Key Activities with Milestones</b></p> <p><b>1. Delhi–Meerut RRTS corridor commissioned</b></p> <p>1.1 Award contracts by Q4 2021.<sup>9</sup></p> <p><b>2. Institutional capacity of the NCRTC strengthened</b></p> <p>2.1 Award BIM platform support consultants by Q4 2021.</p> <p>2.2 Establish BIM platform for project design, implementation, and management by Q2 2022.</p> <p>2.3 Establish institutional capacity for project implementation and management using smart technologies by Q3 2022.</p> <p>2.4 Develop gender-friendly workplace policy by Q3 2022.</p> <p><b>3. Mobility and economic opportunities of women and the differently abled improved</b></p> <p>3.1 Establish the GESI implementation unit by Q4 2021.</p> <p>3.2 Award and mobilize national (nongovernment or consulting) organizations by Q2 2022.</p>			
<p><b>Inputs</b></p> <p>ADB: \$1,049,000,000 (loan)</p> <p>Government: \$1,897,700,000</p> <p>AIIB: \$500,000,000 (loan)</p> <p>JFPR: \$3,000,000 (grant)</p>			
<p><b>Assumptions for Partner Financing</b></p> <p>Outputs not administered by ADB that are necessary to reach the outcome include the following: Part of rolling stock, S&amp;T systems, construction of multistoried staff quarters, and connectivity from Mathura road to Jangpura stabling yard complex (NDB: \$500,000,000)</p>			

ADB = Asian Development Bank; AIIB = Asian Infrastructure Investment Bank; BIM = building information modeling; CCTV = closed-circuit television; CO<sub>2</sub> = carbon dioxide; EWCD = elderly, women, children, differently abled; GESI = gender equality and social inclusion; JFPR = Japan Fund for Poverty Reduction; km = kilometer; NCRTC = National Capital Region Transport Corporation; NDB = New Development Bank; OP = operational priority; PPP = public–private partnership; Q = quarter; RFI = results framework indicator; RRTS = regional rapid transit system; S&T = signaling train control and telecommunication; TOD = transit-oriented development; VCF = value capture financing.

<sup>a</sup> Government of India, Ministry of Housing and Urban Affairs. 2006. *National Urban Transport Policy*. New Delhi.

<sup>b</sup> The indicator follows the approach of another (and only) recently approved project from India, the Mumbai Metro Rail Systems Project, where the target is 60%. The target is based on extensive discussions with the NCRTC and reflects ADB's experience in the design of the Mumbai Metro Rail Systems Project.

<sup>c</sup> Major multimodal hubs are RRTS stations that will include easy interchange to rail, metro, and bus stations for passengers.



- <sup>d</sup> Output 2 to be supported by technical assistance funded by the Urban Climate Change Resilience Trust Fund. ADB. 2019. [Technical Assistance to India for Strengthening Climate Change Resilience in Urban India Subproject 3: Strengthening Smart Urban Mass Rapid Transit and Climate Change Resilience in the National Capital Region, Manila.](#)
- <sup>e</sup> Output 3 to be supported by the attached grant funded by the Japan Fund for Poverty Reduction.

**Contribution to Strategy 2030 Operational Priorities**

The expected values and methodological details for all OP indicators to which this operation will contribute results are detailed in Contribution to Strategy 2030 Operational Priorities (accessible from the list of linked documents in Appendix 2 of the Report and Recommendation of the President to the Board of Directors).

Source: Asian Development Bank.

## DESIGN AND MONITORING FRAMEWORK FOR PROJECT 1

<b>Impact the Project is Aligned with:</b> Urban mobility in the National Capital Region improved (National Urban Transport Policy, 2006) <sup>a</sup>			
<b>Results Chain</b>	<b>Performance Indicators with Targets and Baselines</b>	<b>Data Sources and Reporting</b>	<b>Risks</b>
<p><b>Outcome</b> Efficiency, safety, social inclusiveness and environmental sustainability of transport in the Delhi–Meerut RRTS corridor improved</p>	<p>By 2028:</p> <p>a. Travel time between Delhi–Meerut by train reduced to 1 hour (2020 baseline: 3–4 hours) (OP 2.4.1)</p> <p>b. 258,035 tons of CO<sub>2</sub> reduced per annum (2020 baseline: 0) (OP 3.1, OP 3.1.3)</p> <p>c. At least 70% of riders, including EWCD, perceive the RRTS to be accessible, safe, and reliable<sup>b</sup> (2020 baseline: not applicable) (OP 2.1.4)</p>	<p>a.–b. NCRTC statistics</p> <p>c. RRTS user survey by NCRTC</p>	<p>Feeder connectivity issues impact ridership.</p>
<p><b>Outputs</b> 1. Delhi–Meerut RRTS corridor commissioned</p>	<p>By 2023:</p> <p>1a. 32% progress towards 82 route-km of standard gauge electrified rail track installed, with systems and signaling (2020 baseline: 0) (OP 1.3.1, OP 3.2.5, OP 4.1.2)</p> <p>1b. 32% progress towards 24 EWCD-friendly stations with climate- and disaster-resilient features constructed and operational (2020 baseline: 0) (OP 1.3.1, OP 3.2.5, OP 4.1.2)</p> <p>1c. 32% progress towards at least five RRTS stations developed as major multimodal hubs<sup>c</sup> (2020 baseline: 0) (OP 1.3.1, OP 3.2.5, OP 4.1.2)</p>	<p>1a.–c. Progress reports</p>	<p>Unpredicted ground conditions such as mixed strata may delay tunnel boring works in the underground sections.</p>
<p>2. Institutional capacity of the NCRTC strengthened<sup>d</sup></p>	<p>By 2023:</p> <p>2a. Draft action plan on TOD, VCF instruments, and PPP initiatives completed by NCRTC (2020 baseline: not applicable)</p> <p>2b. Smart technology-based platform (BIM) installed in NCRTC (2020 baseline: 0)</p> <p>2c. Gender-friendly workplace policy developed and institutionalized within the NCRTC (2020 baseline: not applicable) (OP 2.3.2)</p> <p>2d. At least 50 NCRTC staff reported increased knowledge in project and contract management, financial management, procurement, and safeguards (2020 baseline: not applicable) (OP 6.1.1)</p>	<p>2a.–c. Progress reports</p> <p>2d. Post-training program reports and surveys of NCRTC staff</p>	
<p>3. Mobility and economic opportunities of women and the</p>	<p>By 2023:</p> <p>3a. At least 200 women received training for employment and/or entrepreneurial</p>	<p>3a.–3b. Progress and completion reports submitted to</p>	<p>Mobilization of target beneficiaries</p>

Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting	Risks
differently abled improved <sup>e</sup>	opportunities arising from improved RRTS corridors (2020 baseline: 0) (OP 2.1.1)  3b. At least 200 differently-abled persons received hearing, visual, and/or physical mobility assistive aids (2020 baseline: 0) (OP 1.3)	ADB and NCRTC by the contracted organization, including certificates issued upon completion of trainings and/or receipt of assistive aids	takes longer due to social behavior and perceptions.
<p><b>Key Activities with Milestones</b></p> <p><b>1. Delhi–Meerut RRTS corridor commissioned</b></p> <p>1.1 Award and mobilize general consultants and detailed design consultants by Q2 2019. 1.2 Commence advance contracting by Q3 2019. 1.3 Award contracts by Q4 2020.</p> <p><b>2. Institutional capacity of the NCRTC strengthened</b></p> <p>2.1 Complete initial capacity building plan and structuring by Q4 2020. 2.2 Award BIM platform support consultants by Q4 2020. 2.3 Award and mobilize consultants for TOD and VCF by Q4 2020. 2.4 Establish BIM platform for the project design, implementation, and management by Q2 2021. 2.5 Develop gender-friendly workplace policy by Q2 2021. 2.6 Establish institutional capacity for project implementation and management using smart technologies by Q3 2021. 2.7 Award training and capacity building contracts by Q2 2022.</p> <p><b>3. Mobility and economic opportunities of women and the differently abled improved</b></p> <p>3.1 Establish GESI implementation unit by Q4 2020. 3.2 Award and mobilize national (nongovernment or consulting) organizations by Q1 2021.</p>			
<p><b>Inputs</b></p> <p>ADB: \$500,000,000 (loan) Government: \$799,600,000 JFPR: \$3,000,000 (grant)</p>			
<p><b>Assumptions for Partner Financing</b></p> <p>Not applicable</p>			

ADB = Asian Development Bank; BIM = building information modelling; CO<sub>2</sub> = carbon dioxide; EWCD = elderly, women, children, differently abled; GESI = gender equality and social inclusion; JFPR = Japan Fund for Poverty Reduction; km = kilometer; NCRTC = National Capital Region Transport Corporation; OP = operational priority; PPP = public–private partnership; Q = quarter; RRTS = regional rapid transit system; TOD = transit- oriented development; VCF = value capture financing.

<sup>a</sup> Government of India, Ministry of Housing and Urban Affairs. 2006. *National Urban Transport Policy*. New Delhi.

<sup>b</sup> The indicator follows the approach of another (and only) recently approved project from India, the Mumbai Metro Rail Systems Project, where target is 60%. The target is based on extensive discussions with the NCRTC and reflects ADB experience in the design of the Mumbai Metro Rail Systems Project.

<sup>c</sup> Major multimodal hubs are RRTS stations that will include easy interchange to rail, metro, and bus stations for passengers.

<sup>d</sup> Output 2 to be supported by technical assistance funded by the Urban Climate Change Resilience Trust Fund. ADB. 2019. [Technical Assistance to India for Strengthening Climate Change Resilience in Urban India Subproject 3: Strengthening Smart Urban Mass Rapid Transit and Climate Change Resilience in the National Capital Region](#). Manila.

<sup>e</sup> Output 3 to be supported by attached grant funded by the Japan Fund for Poverty Reduction.

#### Contribution to Strategy 2030 Operational Priorities

The expected values and methodological details for all OP indicators to which this operation will contribute results are detailed in Contribution to Strategy 2030 Operational Priorities (accessible from the list of linked documents in Appendix 2 of the Report and Recommendation of the President to the Board of Directors).

Source: Asian Development Bank.

## DESIGN AND MONITORING FRAMEWORK FOR PROJECT 2

<b>Impact the Project is Aligned with</b> Urban mobility in the National Capital Region improved (National Urban Transport Policy, 2006) <sup>a</sup>			
<b>Results Chain</b>	<b>Performance Indicators with Targets and Baselines</b>	<b>Data Sources and Reporting Mechanisms</b>	<b>Risks</b>
<b>Outcome</b> Efficiency, safety, social inclusiveness, and environmental sustainability of transport in the Delhi–Meerut RRTS corridor improved	By 2028: a. Travel time between Delhi and Meerut by train reduced to 1 hour (2021 baseline: 3–4 hours) (OP 2.4.1) b. 258,035 tons of CO <sub>2</sub> reduced per annum (2021 baseline: 0) (OP 3.1, OP 3.1.3) c. At least 70% of riders, including EWCD, perceive the RRTS to be accessible, safe, and reliable <sup>b</sup> (2021 baseline: Not applicable) (OP 2.1.4)	a.–b. NCRTC statistics  c. RRTS user survey by NCRTC	Feeder connectivity issues impact ridership.
<b>Outputs</b> 1. Delhi–Meerut RRTS corridor commissioned	By 2024: 1a. 40% progress toward 82 route-km of standard gauge electrified rail track installed, with systems and signaling (2021 baseline: 0) (OP 1.3.1, OP 3.2.5, OP 4.1.2) 1b. 40% progress toward 24 EWCD-friendly stations with climate- and disaster-resilient features constructed and operational <sup>c</sup> (2021 baseline: 0) (OP 1.3.1, OP 3.2.5, OP 4.1.2) 1c. 40% progress toward at least five RRTS stations developed as major multimodal hubs <sup>d</sup> (2021 baseline: 0) (OP 1.3.1, OP 3.2.5, OP 4.1.2)	1a.–c. Progress reports	Unpredicted ground conditions, such as mixed strata, may delay tunnel boring works in the underground sections.
2. Institutional capacity of the NCRTC strengthened <sup>e</sup>	By 2024: 2a. Draft action plan on TOD, VCF instruments, and PPP initiatives approved by NCRTC (2021 baseline: Not applicable) 2b. A smart-technology-based platform (BIM) established and adopted for project design, implementation, and management (2021 baseline: Not applicable) 2c. Gender-friendly workplace policy developed and institutionalized within the NCRTC (2021 baseline: Not applicable) (OP 2.3.2) 2d. At least 50 NCRTC staff, including 80% of eligible women staff, reported increased knowledge in project and contract management, financial management, procurement, and safeguards (2021 baseline: Not applicable) (OP 6.1.1)	2a.–c. Progress reports  2d. Post-training program reports and surveys of NCRTC staff	

Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting Mechanisms	Risks
3. Mobility and economic opportunities of women and differently abled improved <sup>f</sup>	By 2024: 3a. At least 600 women received training for employment and/or entrepreneurial opportunities arising from improved RRTS corridors (2021 baseline: 0) (OP 2.1.1)  3b. At least 500 differently abled persons received hearing, visual, and/or physical mobility assistive aids (2021 baseline: 0) (OP 1.3)	3a.–3b. Progress and completion reports submitted to ADB and NCRTC by the contracted organization, including certificates issued on completion of training and/or receipt of assistive aids	Mobilization of target beneficiaries takes longer because of social behavior and perceptions.

### Key Activities with Milestones

#### 1. Delhi–Meerut RRTS corridor commissioned

1.1 Award contracts by Q4 2021.<sup>g</sup>

#### 2. Institutional capacity of the NCRTC strengthened

2.1 Award BIM platform support consultants by Q4 2021.

2.2 Establish BIM platform for the project design, implementation, and management by Q2 2022.

2.3 Establish institutional capacity for project implementation and management using smart technologies by Q3 2022.

2.4 Develop gender-friendly workplace policy by Q3 2022.

#### 3. Mobility and economic opportunities of women and the differently abled improved

3.1 Establish GESI implementation unit by Q4 2021.

3.2 Award and mobilize national (nongovernment or consulting) organizations by Q2 2022.

### Inputs

ADB: \$0

Government: \$799,600,000

AIIB: \$500,000,000 (loan)

JFPR: \$3,000,000 (grant)<sup>f</sup>

ADB = Asian Development Bank; AIIB = Asian Infrastructure Investment Bank; BIM = building information modelling; CO<sub>2</sub> = carbon dioxide; EWCD = elderly, women, children, differently abled; GESI = gender equality and social inclusion; JFPR = Japan Fund for Poverty Reduction; km = kilometer; NCRTC = National Capital Region Transport Corporation; OP = operational priority; PPP = public–private partnership; Q = quarter; RRTS = regional rapid transit system; TOD = transit-oriented development; VCF = value capture financing.

<sup>a</sup> Government of India, Ministry of Housing and Urban Affairs. 2006. *National Urban Transport Policy*. New Delhi.

<sup>b</sup> The indicator follows the approach of another (and only) recently approved project from India, the Mumbai Metro Rail Systems Project, where the target is 60%. The target is based on extensive discussions with the NCRTC and reflects ADB's experience in the design of the Mumbai Metro Rail Systems Project.

<sup>c</sup> Features of EWCD-friendly stations are indicated in footnote c of the GESI Action Plan.

<sup>d</sup> Major multimodal hubs are RRTS stations that will include easy interchange to rail, metro, and bus stations for passengers.

<sup>e</sup> Output 2 is supported by technical assistance funded by the Urban Climate Change Resilience Trust Fund. ADB. 2019. [Technical Assistance to India for Strengthening Climate Change Resilience in Urban India Subproject 3: Strengthening Smart Urban Mass Rapid Transit and Climate Change Resilience in the National Capital Region](#). Manila.

<sup>f</sup> Output 3 for projects 1 and 2 is supported by the grant funded by the Japan Fund for Poverty Reduction approved in August 2020.

<sup>g</sup> Contracts are time sliced and will be partially funded by AIIB financing in Tranche 2.

### Contribution to Strategy 2030 Operational Priorities

Expected values and methodological details for all OP indicators to which this operation will contribute results are detailed in Contribution to Strategy 2030 Operational Priorities (Appendix 3 of the Periodic Financing Request Report of Project 2).

Source: Asian Development Bank.

## PROCUREMENT PLAN

### Basic Data

<b>Project Name:</b> Delhi–Meerut Regional Rapid Transit System Project	
<b>Project Number:</b> 51073-003	<b>Approval Number:</b>
<b>Country:</b> India	<b>Executing Agency:</b> Ministry of Housing and Urban Affairs
<b>Project Procurement Risk:</b> High	<b>Implementing Agency:</b>
<b>Project Procurement Risk:</b> High	National Capital Region Transport Corporation
<b>Project Financing Amount:</b> \$3,842,190,000	<b>Project Closing Date:</b> June 2027
<b>ADB Financing:</b> \$1,049,000,000	
<b>AIIB Joint Co-financing:</b> \$500,000,000	
<b>NDB financing:</b> \$500,000,000	
<b>Non-ADB Financing (Government):</b> \$1,790,190,000	
<b>Additional JFPR Grant:</b> \$3,000,000	
<b>Date of First Procurement Plan:</b> 5 December 2018	<b>Date of this Procurement Plan:</b> 23 August 2021 (Rev 7.0)
<b>Procurement Plan Duration (in months):</b> 18	<b>Advance Contracting:</b> Yes
	<b>e-GP:</b> Yes <a href="https://etenders.gov.in/eprocure/app">https://etenders.gov.in/eprocure/app</a>

### A. Methods, Review, and Procurement Plan

1. Except as the Asian Development Bank (ADB) may otherwise agree, the following methods shall apply to procurement of goods, works, and consulting services.

Procurement of Goods and Works	
Method	Comments
Open Competitive Bidding (OCB) with international advertisement for goods	International Advertisement is considered for increased competitiveness.
Open Competitive Bidding (OCB) with international bidding for works	

Procurement of Consulting Services	
Method	Comments
Open Competitive Bidding (OCB) with international advertisement for quality and cost-based selection for consulting services	International advertisement is considered for increased competitiveness except for small-valued contracts.

### B. Lists of Active Procurement Packages (Contracts)

2. The following table lists goods, works, and consulting services contracts for which the procurement activity is either ongoing or expected to commence within the procurement plan duration.

<b>Goods and Works</b>							
<b>S. No.</b>	<b>General Description</b>	<b>Estimated Value (\$)</b>	<b>Procurement Method</b>	<b>Review</b>	<b>Bidding Procedure</b>	<b>Advertisement Date (quarter/year)</b>	<b>Comments</b>
01	P5B: Construction of Modipuram Depot and 1 at grade station including finishes, pre-engineered building (PEB) and electrical and mechanical (E&M) systems	33,760,000.00	OCB	Post	1S2E	Q4 / 2021	Advertising: International  No. of Contracts: 1  Prequalification of Bidders: No  Domestic Preference Applicable: No  Advance Contracting: Yes  Bidding Document: Standard Bidding Documents (SBD) Large Works  e-GP: Yes  Comments: FIDIC MDB June 2010  Universal Procurement is applied
02	P18: Rail grinding machine	8,450,000.00	OCB	Post	1S2E	Q2/2022	Advertising Type: International  No. of Contracts: 1  Prequalification of Bidders: No  Domestic Preference Applicable: No  Bidding Document: SBD Procurement of Goods  e-GP: Yes  Comments: GCC as adopted by ADB in SBD Procurement of Goods  Universal Procurement is applied

<b>Goods and Works</b>							
<b>S. No.</b>	<b>General Description</b>	<b>Estimated Value (\$)</b>	<b>Procurement Method</b>	<b>Review</b>	<b>Bidding Procedure</b>	<b>Advertisement Date (quarter/year)</b>	<b>Comments</b>
03	Other Minor Works  M1: Supply of Mobile Wheel Lathe	35,670,000.00  1,720,000.00	OCB	Post	1S2E	Discharged	Advertising Type: International  No. of Contracts: 1  Prequalification of Bidders: No  Domestic Preference Applicable: No  Bidding Document: SBD Procurement of Goods  e-GP: Yes  Comments: GCC as adopted by ADB in SBD Procurement of goods  Universal Procurement is applied
	M2: Supply of Catenary Maintenance Vehicle	10,220,000.00		Post		Discharged, Re-invited on 06-Jul-21	Advertising Type: International  No. of Contracts: 1  Prequalification of Bidders: No  Domestic Preference Applicable: No  Bidding Document: SBD Procurement of Goods  e-GP: Yes  Comments: GCC as adopted by ADB in SBD Procurement of goods Universal Procurement is applied



<b>Goods and Works</b>							
<b>S. No.</b>	<b>General Description</b>	<b>Estimated Value (\$)</b>	<b>Procurement Method</b>	<b>Review</b>	<b>Bidding Procedure</b>	<b>Advertisement Date (quarter/year)</b>	<b>Comments</b>
	M3: Supply of Shunting Locomotives	820,000.00		Post		12-Jun-21	Advertising Type: International  No. of Contracts: 1  Prequalification of Bidders: No  Domestic Preference Applicable: No  Bidding Document: SBD Procurement of Goods  e-GP: Yes  Comments: GCC as adopted by ADB in SBD Procurement of goods  Universal Procurement is applied
	M4: Procurement of Under Floor Wheel Lathe Machine for Delhi-Ghaziabad-Meerut RRTS Corridor	670,000.00		Post		24-Apr-21	Advertising Type: International  No. of Contracts: 1  Prequalification of Bidders: No  Domestic Preference Applicable: No  Bidding Document: SBD Procurement of Goods  e-GP: Yes  Comments: GCC as adopted by ADB in SBD Procurement of goods

<b>Goods and Works</b>							
<b>S. No.</b>	<b>General Description</b>	<b>Estimated Value (\$)</b>	<b>Procurement Method</b>	<b>Review</b>	<b>Bidding Procedure</b>	<b>Advertisement Date (quarter/year)</b>	<b>Comments</b>
							Universal Procurement is applied
	M5: Manufacture, supply, installation, testing and commissioning of signage and graphics for 9 elevated stations (Sahibabad, Ghaziabad, Guldhar, Duhai, Murad Nagar, Modi Nagar South, Modi Nagar North, Meerut South & Shatabdi Nagar), 1 at grade station (Duhai Depot Station), 1 depot (Duhai Depot) and housing complex at Jungpura of Delhi–Ghaziabad–Meerut RRTS Corridor	460,000.00		Post		28-Jul-21	Advertising Type: International  No. of Contracts: 1  Prequalification of Bidders: No  Domestic Preference Applicable: No  Bidding Document: SBD Large Works  e-GP: Yes  Comments: GCC MDB 2010  Universal Procurement is applied
	M6: Manufacture, supply, installation, testing, and commissioning of signage and graphics for 9 elevated stations (Sarai Kale Khan, New Ashok Nagar, Partapur, Riithani, Brahmपुरi, MES Colony, Daurli, Meerut North, Modipuram), 1 at grade station (Modipuram Depot Station), 1 depot (Modipuram Depot) of Delhi–Ghaziabad–Meerut RRTS Corridor	430,000.00		Post		Q2/2022	Advertising Type: International  No. of Contracts: 1  Prequalification of Bidders: No  Domestic Preference Applicable: No  Bidding Document: SBD Large Works  e-GP: Yes  Comments: GCC MDB 2010  Universal Procurement is applied

Goods and Works							
S. No.	General Description	Estimated Value (\$)	Procurement Method	Review	Bidding Procedure	Advertisement Date (quarter/year)	Comments
	M7: Design, fabrication, supply, and erection of emergency evacuation staircase from track level to road level at various locations from Delhi (Sarai Kale Khan) to Meerut Bypass (Meerut South) along the alignment of Delhi–Ghaziabad–Meerut RRTS Corridor	4,570,000.00		Post		Q4/2021	Advertising Type: International  No. of Contracts: 1  Prequalification of Bidders: No  Domestic Preference Applicable: No  Bidding Document: SBD Large Works  e-GP: Yes  Comments: GCC MDB 2010  Universal Procurement is applied
	M8: Other Minor Works	16,780,000.00		To be decided		Q1/2022	To be decided

3. **Post-review (sampling) methodology.** For the packages that are subject to post-review (sampling), the post-review will be done to (i) about 30%–50% of total post-review contract value, and (ii) about 20% of the total number of contracts identified for post-review (sampling). To the extent possible, all types of contracts will be included in the sample.

Consulting Services							
Package Number	General Description	Estimated Value (\$)	Selection Method	Review	Type of Proposal	Advertisement Date (quarter/year)	Comments
None							

### C. List of Indicative Packages (Contracts) Required Under the Project

4. The following table lists goods, works, and consulting services contracts for which procurement activity is expected to commence beyond the procurement plan duration and over the life of the project (i.e., those expected beyond the current procurement plan duration).

<b>Goods and Works</b>						
<b>S. No.</b>	<b>General Description</b>	<b>Estimated Value (\$)</b>	<b>Procurement Method</b>	<b>Review</b>	<b>Bidding Procedure</b>	<b>Comments</b>
1	Feeder System Enhancement / Last-mile connectivity	11,180,000.00	OCB	Prior	1S2E	Advertising Type: International  Advertisement: Q4 / 2022  Universal Procurement is applied
2	Civil works for the construction of public toilets	220,000.00	-	-	-	Through Variation in the existing ADB Packages
3	Procurement of equipment's (e-rickshaw, assistive aids, etc.)	470,000.00	OCB	Prior	1S2E	Advertising Type: International  Advertisement: Q1 / 2022  Comment: JFPR Grant

<b>Consulting Services</b>						
<b>S. No.</b>	<b>General Description</b>	<b>Estimated Value (\$)</b>	<b>Selection Method</b>	<b>Review</b>	<b>Type of Proposal</b>	<b>Comments</b>
4	Training consultancy for capacity building	450,000.00	QCBS (70:30)	Prior		Advertising Type: National  Advertisement: Q4 / 2021
5	Training consultancy for operations	1,350,000.00	QCBS (70:30)	Prior		Advertising Type: International  Advertisement: Q2 / 2022  Universal Procurement is applied
6	Training consultancy for asset management	900,000.00	QCBS (70:30)	Prior		Advertising Type: International  Advertisement: Q3 / 2022  Universal Procurement is applied
7	Consultancy services for safe mobility for women, elderly, differently abled provided in Ghaziabad, Modinagar, and Meerut	1,280,000.00	QCBS (90:10)	Prior		Advertising Type: International  Advertisement: Q4 / 2021  Comment: JFPR Grant
8	Consultancy services for Increased awareness on safe mobility, self-defense, and improved employability skills for 900 female students in selected technical institutes along the RRTS corridor	440,000.00	QCBS (90:10)	Prior		Advertising Type: International  Advertisement: Q4 / 2021  Comment: JFPR Grant

## D. List of Awarded Completed Contracts

5. The following table lists the awarded and completed contracts for goods, works, and non-consulting and consulting services.

Goods and Works					
Package Number	General Description	Estimated Value (\$)	Date of ADB Approval of Contract Award	Date of Completion	Comments
Pkg-3	P3 - Construction of elevated viaducts including stations, excluding finishes and pre-engineered buildings (PEB)	243,100,000.00	18-Mar-2020	-	Awarded to M/s Larsen & Toubro Limited  LOA Date: 19-Mar-2020
	P3 Lot 1: Construction of elevated viaduct including 2 stations from Duhai (Eastern Peripheral Expressway – EPE) to start of Modi Nagar North, excluding finishes and PEB	106,310,000.00			
	P3 Lot 2: Construction of elevated viaduct including 5 stations from Modi Nagar North to Shatabdi Nagar, excluding finishes and PEB	136,800,000.00			
Pkg-4	P4: Design and construction of tunnels by TBM from New Ashok Nagar Ramp to Sahibabad Ramp including finishes, E&M and 1 underground (UG) station	153,570,000.00	09-Dec-2020		Awarded to M/s Shanghai Tunnel Engineering Co. Ltd.  LOA Date: 09-Dec-2020
Pkg-5A	P5A: Construction of Duhai depot and 1 at grade station including finishes, PEB and E&M (including training center)	33,960,000.00	22-Sep-2020		Awarded to M/s VNC-KEC (JV)  LOA Date: 04-Nov-2020
Pkg-6	P6: Construction of elevated viaduct from Sarai Khale Khan (SKK) to New Ashok Nagar including 2 stations, including PEB and excluding finishes	144,690,000.00	09-Oct-2020	-	Awarded to M/s Afcons Infrastructure Limited  LOA Date: 15-Oct-2020
Pkg-7	P7: Construction of elevated viaduct from Shatabdi Nagar Station to Brahmpuri down ramp and Begumpul up ramp to Modipuram including 5 stations (Brahmpuri, MES Colony, Daurli, Meerut North, and	98,570,000.00	29-Oct-2020		Awarded to M/s Larsen & Toubro Limited  LOA Date: 04-Nov-2020

<b>Goods and Works</b>					
<b>Package Number</b>	<b>General Description</b>	<b>Estimated Value (\$)</b>	<b>Date of ADB Approval of Contract Award</b>	<b>Date of Completion</b>	<b>Comments</b>
	Modipuram), excluding PEB and finishes				
Pkg-8	P8: Design and construction of tunnels by tunnel boring machine (TBM) from Brahmipuri down ramp to Begumpul up ramp including finishes, E&M and 3 Underground (UG) stations at Meerut Central, Bhaisali, and Begumpul.	208,380,000.00	19-Nov-2020		Awarded to M/s Afcons Infrastructure Limited  LOA Date: 26-Nov-2020
Pkg-10	P10: Architectural finishes for 7 elevated stations (Sahibabad, Ghaziabad, Guldhar, Duhai, Partapur, Rithani, Shatabdi Nagar) and E&M systems	16,260,000.00	20-Jan-2021		Awarded to M/s Canon Fasteners  LOA Date: 23-Jan-2021
Pkg-11	P11: Architectural finishes for elevated stations and E&M systems  P11 Lot 1: Architectural finishes for 2 elevated stations from Sarai Kale Khan (SKK) to New Ashok Nagar station and E&M systems  P11 Lot 2: Architectural finishes for 9 elevated stations (Murad Nagar, Modi Nagar South, Modi Nagar North, Meerut South Stations, Brahmipuri, MES Colony, Daurli, Meerut North, Modipuram) and E&M systems	26,020,000.00  7,710,000.00  18,310,000.00	Post Review		Awarded to M/s METCON-CP (JV)  LOA Date: 15-Apr-2021  Awarded to M/s URC Construction (P) Ltd.  LOA Date: 15-Apr-2021
Pkg-12A	P12A: PEB works for 4 elevated stations – Sahibabad, Ghaziabad, Guldhar, and Duhai	9,320,000.00	27-Oct-2020		Awarded to M/s SAM (India) Builtwell Pvt Ltd  LOA Date: 29-Oct-2020
Pkg-12B	P12B: PEB works for elevated stations  P12B Lot 1: PEB works for 6 elevated stations – Murad Nagar, Modi Nagar	10,300,000.00  5,650,000.00	Post Review		Awarded to M/s URC Construction (P) Ltd  LOA Date: 01-Jan-2021

<b>Goods and Works</b>					
<b>Package Number</b>	<b>General Description</b>	<b>Estimated Value (\$)</b>	<b>Date of ADB Approval of Contract Award</b>	<b>Date of Completion</b>	<b>Comments</b>
	South, Modi Nagar North, Meerut South, MES Colony, and Daurli  P12B Lot 2: PEB works for 6 elevated stations – Partapur, Rithani, Shatabdi Nagar, Brahmpuri, Meerut North, and Modipuram	4,650,000.00			
Pkg-13	P13: Supply of head hardened rails	19,730,000.00	10-Aug-2020	-	Awarded to M/s ArcelorMittal Espana, S.A.  LOA Date: 11-Aug-2020
Pkg-14	P14: Supply of fastening systems for ballastless track	12,930,000.00	14-Oct-2020	-	Awarded to M/s SCHWIHAG AG  LOA Date: 14-Oct-2020
Pkg-15	P15: Supply of turnout and scissor cross over	9,980,000.00	08-Jan-2021		Awarded to M/s Voestalpine VAE VKN India Pvt Ltd  LOA Date: 09-Jan-2021
Pkg-17	P17: Trackwork Installation from Sarai Kale Khan (SKK) to Modipuram including Duhai depot, Modipuram depot, and Jangpura stabling yard	88,370,000.00	14-Oct-2020	-	Awarded to M/s Larsen & Toubro Limited  LOA Date: 16-Oct-2020
Pkg-19	P19: Design, supply, installation, testing, and commissioning of receiving substations (RSS) and traction overhead equipment (OHE) for Delhi–Meerut Corridor  P19 Lot-1: Design, supply, installation, testing, and commissioning of receiving substations (RSS) and traction overhead equipment (OHE) from SKK to Duhai (EPE) including Jangpura Yard and Duhai Depot  P19 Lot-2: Design, supply, installation, testing, and commissioning of receiving substations (RSS) from Duhai (EPE) to Modipuram including Modipuram Depot	98,500,000.00  43,310,000.00  55,190,000.00	17-Nov-2020		Awarded to M/s Ircan International Limited  LOA Date: 20-Nov-2020

<b>Goods and Works</b>					
<b>Package Number</b>	<b>General Description</b>	<b>Estimated Value (\$)</b>	<b>Date of ADB Approval of Contract Award</b>	<b>Date of Completion</b>	<b>Comments</b>
Pkg-21	P21: Design, supply, installation, testing, and commissioning of escalators	13,220,000.00	25-Nov-2020		Awarded to M/s Schindler India Private Limited  LOA Date: 02-Dec-2020
Pkg-22	P22: Design, supply, installation, testing, and commissioning of elevators	4,420,000.00	23-Dec-2020		Awarded to M/s Otis Elevator  LOA Date: 28-Dec-2020
Pkg-23	P23: Design, supply, installation, testing, and commissioning of tunnel ventilation system (TVS) and ECS (environment control system) for 4 UG stations	22,830,000.00	28-Jan-2021		Awarded to M/s STRABAG International GmbH  LOA Date: 01-Feb-2021
Pkg-29	P29: Supply of bearings	9,670,000.00			
	P29 Lot-1: Design, manufacture, supply, and supervision of installation of spherical bearings for elevated viaduct from Sarai Kale Khan (SKK) to Sahibabad and Shatabdi Nagar to Modipuram	4,290,000.00	06-Jan-2021		Awarded to M/s Sanfield (India) Limited  LOA Date: 08-Jan-2021
	P29 Lot-21: Design, manufacture, supply, and supervision of installation of spherical bearings for elevated viaduct from Duhai to Shatabdi Nagar	5,390,000.00	22-Jan-2021		Awarded to M/s Mageba Bridge Products Pvt. Ltd.  LOA Date: 29-Jan-2021

<b>Consulting Services</b>					
<b>Package Number</b>	<b>General Description</b>	<b>Estimated Value (\$)</b>	<b>Date of ADB Approval of Contract Award</b>	<b>Date of Completion</b>	<b>Comments</b>
None					

## E. Non-ADB Financing

6. The following table lists goods, works, non-consulting, and consulting services contracts over the life of the project, financed by non-ADB sources. (greater than USD 0.3Mn)

<b>Goods, Works, and Non-Consulting Services</b>			
<b>S. No.</b>	<b>General Description</b>	<b>Value (\$)</b>	<b>Comments</b>
<b>Active Contracts (Already awarded)</b>			
1	DM/C/RW-1/2017 Widening of Roads from Chainage (Ch.) 23700 to 29000	1,010,000.00	<b>Award Date:</b> 18 April 2018 Procurement Method: OCB (National)
2	DM/C/RW-2/2017-18 Widening of Roads from Ch.29000 to 33000	910,000.00	<b>Award Date:</b> 18 April 2018 Procurement Method: OCB (National)



<b>Goods, Works, and Non-Consulting Services</b>			
<b>S. No.</b>	<b>General Description</b>	<b>Value (\$)</b>	<b>Comments</b>
3	DM/E/UD-01/2018 Shifting of electric lines of UPPTCL (Ch. 15000–23000 m)	480,000.00	<b>Award Date:</b> 15 May 2018 Procurement Method: OCB (National)
4	DM/CE/COR-OF/029 Carrying out initial pile load test on piles for viaduct in the section from Vaishali to Duhai section of Delhi–Meerut RRTS Corridor	460,000.00	<b>Award Date:</b> 18 December 2018 Procurement Method: OCB (National)
5	DM/CE/CPM-DL/033 Calling of tender for construction of office complex near SKK, New Delhi	430,000.00	<b>Award Date:</b> 7 March 2019 Procurement Method: OCB (National)
6	DM/UD/COR-OF/021 Expenditure on shifting/modification of electrical utilities of 33/11 KV LT lines, transformers, etc. of PVVNL infringing Duhai to Murad Nagar section Ch: 33000 to 40200	1,130,000.00	<b>Award Date:</b> 7 March 2019 Procurement Method: OCB (National)
7	DM/M/01 Miscellaneous works from Sahibabad to Duhai.	1,030,000.00	<b>Award Date:</b> 8 March 2019 Procurement Method: OCB (National)
8	DM/CN/COR-OF/027 P-2-Construction of Elevated Viaduct including 2 stations from end of Ghaziabad RRTS station to EPE Crossing excluding finishes and PEB	82,520,000.00	<b>Award Date:</b> 26 April 2019 Procurement Method: OCB (International)
9	DM/UD/COR-OF/028 Expenditure on shifting/modification of electrical utilities of 33/11 KV LT lines, transformers, etc. of PVVNL infringing Murad Nagar to Modinagar section Ch. 40200 to 540000	1,170,000.00	<b>Award Date:</b> 24 May 2019 Procurement Method: OCB (National)
10	DM/IT/COR-OF/039 Implementation of cloud-based common data environment (CDE) supporting building information modeling (BIM) for NCRTC projects	490,000.00	<b>Award Date:</b> 24 May 2019 Procurement Method: OCB (International)
11	DM/MS/COR-OF/023 Road widening from Duhai to Meerut bypass, Ch. 33100 to 49300 m	3,250,000.00	<b>Award Date:</b> 27 May 2019 Procurement Method: OCB (National)
12	DM/MS/COR-OF/024 Road widening from Modinagar to Meerut bypass, Ch. 49300 58300 m	2,020,000.00	<b>Award Date:</b> 18 June 2019 Procurement Method: OCB (National)
13	DM/MS/CPM-DL/040 Miscellaneous works in the section from Sarai Kale Khan to Sahibabad	490,000.00	<b>Award Date:</b> 8 July 2019 Procurement Method: OCB (National)
14	DM/CN/COR-OF/049 P1-Construction of elevated viaduct including 2 stations from start of elevated ramp near Sahibabad RRTS station to end of Ghaziabad RRTS station excluding finishes and PEB	79,010,000.00	<b>Award Date:</b> 8 August 2019 Procurement Method: OCB (International)
15	DM/MS/COR-OF/041 Widening of Delhi–Meerut Road from Meerut Bypass to Shatabdi Nagar (Ch. 59050 to 63600 m)	1,130,000.00	<b>Award Date:</b> 6 September 2019 Procurement Method: OCB (National)
16	DM/E/UD-02/2018 Shifting of electric lines of UPPTCL (Ch. 23000 – 33000 m)	490,000.00	<b>Award Date:</b> 27 April 2018 Procurement Method: OCB (National)
17	DM/MS/COR-OF/034 Procurement of bearings for elevated corridor for Delhi–Ghaziabad–Meerut RRTS Corridor of NCRTC	2,270,000.00	<b>Award Date:</b> 14 September 2019 Procurement Method: OCB (International)
18	DM/CN/COR-OF/066 Construction of buildings/structures for CPRI, SVPUAT, and IIFSR in Meerut for implementation of Delhi–Ghaziabad–Meerut RRTS Corridor	1,240,000.00	<b>Award Date:</b> 20 January 2020 Procurement Method: OCB (National)
19	DM/MS/COR-OF/083 Construction of foot-over bridge (FOB) at various locations from Ghaziabad (Meerut Tiraha) to Meerut Bypass along the alignment of Delhi–Ghaziabad–Meerut RRTS Corridor	990,000.00	<b>Award Date:</b> 24 January 2020 Procurement Method: OCB (National)
20	DM/CN/COR-OF/067 Carrying out initial pile load test in the section from Sarai Kale Khan to Anand Vihar and connecting line from Sarai Kale Khan to stabling yard at Jungpura for Delhi–Ghaziabad–Meerut RRTS Corridor	870,000.00	<b>Award Date:</b> 12 February 2020 Procurement Method: OCB (National)
21	DM/MS/COR-OF/084	1,030,000.00	<b>Award Date:</b> 27 February 2020 <b>Procurement Method:</b> OCB (National)

<b>Goods, Works, and Non-Consulting Services</b>			
<b>S. No.</b>	<b>General Description</b>	<b>Value (\$)</b>	<b>Comments</b>
	Execution of enabling works (civil and E&M) from end of EPE to end of Shatabdi Nagar Station (Ch. 33100 to 63450 m) section of Delhi–Ghaziabad–Meerut RRTS Corridor		
22	DM/CN/COR-OF/075 Initial pile load testing work in Shatabdi Nagar–Modipuram section of Delhi–Meerut RRTS Corridor	780,000.00	<b>Award Date:</b> 24 December 2019 <b>Procurement Method:</b> OCB (National)
23	DM/MS/COR-OF/045 Execution of civil & electrical works required at pre-construction stage along RRTS alignment from Shatabdi Nagar Ramp (Ch. 64100) to Modipuram (including depot (Ch. 82500) for Delhi–Meerut RRTS Corridor	670,000.00	<b>Award Date:</b> 28 October 2019 <b>Procurement Method:</b> OCB (National)
24	DM/RS/COR-OF/69 Design, manufacture, supply, testing, commissioning, and comprehensive maintenance of RRTS and MRTS trainsets, depot M&Ps for Delhi–Meerut Corridor	351,170,000.00	<b>Award Date:</b> 05 May 2020 Procurement Method: OCB (International) Under NDB financing
25	DM/UD/COR-OF/076 Shifting/modification of electrical utilities of 33kV, 11kV, LT lines, transformers, etc. of PVVNL, infringing Delhi–Ghaziabad–Meerut RRTS Corridor of NCRTC (Chainage 54000 to 64500) Mohiuddinpur (Modinagar)–Shatabdi Nagar	1,460,000.00	<b>Award Date:</b> 21 January 2020 Procurement Method: OCB (National)
26	DM/UD/COR-OF/077 Shifting/modification of electrical utilities of 33kV, 11kV, LT lines, transformers, etc. of PVVNL, infringing Delhi–Ghaziabad–Meerut RRTS Corridor of NCRTC (Chainage 75700 to 82800) Meerut bypass (near Modipuram flyover) to Modipuram Depot	1,290,000.00	<b>Award Date:</b> 21 January 2020 Procurement Method: OCB (National)
27	DM/UD/COR-OF/071 Shifting/modification of electrical utilities of 33kV, 11kV, LT lines, transformers, etc. of PVVNL & MES, infringing Delhi–Ghaziabad–Meerut RRTS Corridor of NCRTC (Chainage 64500 – 75700) [Shatabdi Nagar to Modipuram flyover, Meerut]	1,830,000.00	<b>Award Date:</b> 01 January 2020 Procurement Method: OCB (National)
28	DM/CN/COR-OF/082 Carrying out initial pile load test on piles for viaduct in the section from EPE to Shatabdi Nagar for Delhi–Ghaziabad–Meerut RRTS Corridor	1,790,000.00	<b>Award Date:</b> 02 January 2020 Procurement Method: OCB (National)
29	DM/MS/COR-OF/052 Setting up C&D waste recycling plant along the Delhi–Meerut RRTS corridor for a period of 5 years	980,000.00	<b>Award Date:</b> 07 January 2020 Procurement Method: OCB (National)
30	DM/CN/COR-OF/080 Construction of buildings and sheds for UPSRTC Regional Workshop in Meerut for implementation of Delhi–Ghaziabad–Meerut RRTS Corridor	1,030,000.00	<b>Award Date:</b> 18 May 2020 Procurement Method: OCB (National)
31	DM/CN/COR-OF/070 Shifting of electrical utilities of 33kV, 11 kV, LT lines, transformers, etc. of PVVNL infringing Delhi–Meerut Corridor at Chainage 15200–16909 m from BEL, Link road to Euro Park on Madan Mohan Malviya Marg, Ghaziabad	1,020,000.00	<b>Award Date:</b> 01 January 2020 Procurement Method: OCB (National)
32	DM/EL/COR-OF/073 Design, manufacture, supply, installation, including integrated testing and commissioning of heavy-duty machine room less elevator provided at foot-over bridges at various locations on the alignment of Delhi–Ghaziabad–Meerut RRTS corridor of NCRTC	360,000.00	<b>Award Date:</b> 01 June 2020 Procurement Method: OCB (National)
33	DM/MS/COR-OF/088 Road widening work from New Ashok Nagar to Kondli Bridge for Delhi–Ghaziabad–Meerut RRTS Corridor	430,000.00	<b>Award Date:</b> 30 June 2020 Procurement Method: OCB (National)
34	DM/CN/COR-OF/097 Construction of RCC storm water drain and laying of cross drainage pipe from EPE to Shatabdi Nagar Ch. 33100m to 64100 m, section of Delhi–Ghaziabad–Meerut RRTS Corridor	600,000.00	<b>Award Date:</b> 04 July 2020 Procurement Method: OCB (National)

<b>Goods, Works, and Non-Consulting Services</b>			
<b>S. No.</b>	<b>General Description</b>	<b>Value (\$)</b>	<b>Comments</b>
35	DM/UD/COR-OF/114 Shifting/modification work of 220KV double circuit, EHT transmission line of Delhi Transco Limited including supply, erection, testing, and commissioning near Sarai Kale Khan infringing Delhi–Ghaziabad–Meerut RRTS Corridor	1,770,000.00	<b>Award Date:</b> 01 August 2020 Procurement Method: OCB (National)
36	DM/UD/COR-OF/063 Shifting/modification work of supply, laying, jointing, testing, and commissioning of 220KV D/C, 1x1200 & 1x1000 sq. mm underground cable of Delhi Transco Limited between Maharani Bagh and Indraprastha Park at Sarai Kale Khan infringing Delhi–Ghaziabad–Meerut RRTS Corridor of NCRTC (Chainage 0 to 2000)	4,190,000.00	<b>Award Date:</b> 11 August 2020 Procurement Method: OCB (National)
37	DM/CN/COR-OF/111 P9A: Construction of multistoried staff quarters (including architectural finishing, E&M, external development, and related facilities) and connectivity from Mathura Road to Jangpura stabling yard complex	32,960,000.00	<b>Award Date:</b> 09 October 2020  Procurement Method: OCB (International) Under NDB financing
38	P24: Design, supply, installation, testing, and commissioning of signaling and train control, platform screen doors, and telecommunication systems for Delhi–Ghaziabad–Meerut RRTS Corridor of NCRTC	124,080,000.00	<b>Award Date:</b> 10 December 2020 Procurement Method: OCB (International)  Under NDB financing
39	P16: Lot 1- Manufacture, supply, transportation, and delivery of 2000 MT of UIC 60/60E-1/60 KG 1080 grade head hardened rails Class A confirming to IRS T-12-2009 (latest amendment) for depot and depot connecting line of Delhi–Ghaziabad–Meerut  P16: Lot 2- Manufacture, supply, transportation, and delivery of 4000 MT of 60 kg 880 Grade Rail Class A confirming to IRS T-12-2009 (latest amendment) for depot and depot connecting line of Delhi–Ghaziabad–Meerut RRTS Corridor	1,760,000.00  3,400,000.00	<b>Award Date:</b> 13 January 2021 Procurement Method: OCB (International)
40	P20: Design, engineering, supply, installation, testing, commissioning, and comprehensive operation, maintenance of rooftop solar PV project and associated support structure works on RESCO Model for a period of 25 years in Delhi GZB MRT RRTS Corridor of NCRTC	--	<b>Contract Type:</b> RESCO <b>Award Date:</b> 19 August 2021 Procurement Method: OCB (International)
<b>Active Contracts (Already advertised)</b>			
41	DM/IT/COR-OF/140 Integrated design, supply, installation, testing, integration, commissioning, and support of integrated and real-time enterprise asset management system (iDREAMS) for RRTS	8,280,000.00	<b>Advertisement Date:</b> 05 May 2021 Procurement Method: OCB (International)
42	P26A: Design, supply, installation, testing, and commissioning and comprehensive annual maintenance contract of EMV-based open loop automatic fare collection (AFC) system for Delhi–Ghaziabad–Meerut RRTS Corridor of NCRTC	280,000.00	<b>Contract Type:</b> PPP <b>Advertisement Date:</b> 26 May 2021 Procurement Method: OCB (International)
<b>Indicative Tenders (to be advertised)</b>			
43	P9B: Construction of Jangpura stabling yard, Operation Control Centre (OCC) and associated buildings including finishes, PEB and E&M (including training center)	66,910,000.00	<b>Advertisement Date:</b> Q4/2021 Procurement Method: OCB (International)  Under NDB financing
44	P26B: Selection of financial institution (FI) for issuance of open loop National Common Mobility Card (NCMC) and acquiring services for Delhi–Ghaziabad–Meerut RRTS Corridor of NCRTC	-	<b>Advertisement Date:</b> - Q4/2021 Procurement Method: OCB (International)

<b>Consulting Services</b>			
<b>S. No.</b>	<b>General Description</b>	<b>Estimated Value (\$)</b>	<b>Comments</b>
<b>Active Contracts (Already Awarded)</b>			
1	NCRTC/DMRC/Consultancy/05 Provision of expert consultancy services for the implementation of regional rapid transit system in NCR	960,000.00	<b>Award Date:</b> 23 November 2016 <b>Agency:</b> M/s Delhi Metro Rail Corporation Limited Procurement Method: OCB (National)
2	NCRTC/D-M-01-IDDC/EGIS/01 Provision of interim DDC services for a part of Delhi–Ghaziabad–Meerut Regional Rapid Transit System (RRTS) in NCR	970,000.00	<b>Award Date:</b> 3 August 2017 <b>Agency:</b> Consortium of M/s Egis Rail, SA, M/s Ingenieria Y Economica Del Transport SA (INECO), M/s Egis India Consulting Engineers Private Limited  Procurement Method: OCB (International)
3	NCRTC/DMRC/CONSULTANCY/5-A/RS Technical advisory for procurement of rolling stock of Delhi–Ghaziabad–Meerut Regional Rapid Transit System (RRTS)	620,000.00	<b>Award Date:</b> 17 October 2018 <b>Agency:</b> M/s Delhi Metro Rail Corporation Limited Procurement Method: OCB (National)
4	DM-09-DDC Engagement of DDC for detailed design and drawings of four numbers of elevated RRTS stations (Sahibabad, Ghaziabad, Guldhar, and Duhai) in the section from Sahibabad Ramp to EPE Crossing and Maintenance Depots at Duhai and Modipuram for Delhi–Meerut RRTS corridor	1,070,000.00	<b>Award Date:</b> 27 February 2019 <b>Agency:</b> M/s Ayesa India Private Limited Procurement Method: OCB (International)
5	DM-C-DD-12 Engagement of DDC for civil, architectural, and E&M works for the design of five elevated RRTS stations [Murad Nagar and Modi Nagar (south), Modi Nagar (north), Meerut south, Shatabdi Nagar] and two MRTS station [Partapur and Rithani] and elevated viaduct after Duhai station to Shatabdi Nagar (km 32.84 to km 64.08) including elevated viaduct from Duhai station to Duhai Depot for Delhi–Meerut RRTS Corridor	2,580,000.00	<b>Award Date:</b> 5 March 2019 <b>Agency:</b> M/s Systra MVA Consulting (India) Pvt. Ltd. in Consortium with Systra Procurement Method: OCB (International)
6	DM/G/01 Engagement of General Consultant (GC) for Delhi Ghaziabad Meerut RRTS Corridor	41,010,000.00	<b>Award Date:</b> 25 April 2019 <b>Agency:</b> Consortium of M/s Ayesa Ingenieria, ITALFERR Procurement Method: OCB (International)
7	DM/DD/COR-OF/022 Engagement of Detailed Design Consultant for design of track structure	540,000.00	<b>Award Date:</b> 7 May 2019 <b>Agency:</b> JV of M/s Korea Railroad Technical Corporation & M/s Primeraail Procurement Method: OCB (International)
8	DM/DD/COR-OF/020 Engagement of DDC for detailed design of two numbers of RRTS elevated stations (i.e., Sarai Kale Khan and New Ashok Nagar including multimodal integration scheme, approximately 11 km elevated viaduct (from Sarai Kale Khan up to elevated RRTS ramp near Khichripur and Sarai Kale Khan to Jangpura stabling yard), stabling yard and Detailed Master Plan of approximately 12 hectares land parcel at Jangpura	2,280,000.00	<b>Award Date:</b> 8 July 2019 <b>Agency:</b> M/s Tandon consultants Pvt. Ltd. Fountainhead-JV Procurement Method: OCB (International)
9	DM/GC/COR-OF/038 Provision of consultancy services for assistance in planning and implementation of RRTS in NCR	400,000.00	<b>Award Date:</b> 17 July 2019 <b>Agency:</b> M/s EY - M/s Ernst & Young LLP Procurement Method: OCB (International)
10	DM-C-DD-12 (Variation Order) Engagement of DDC for civil, architectural and E&M works for the design of 1 RRTS station (Modipuram) and 4 MRTS stations (Brahmpuri, MES Colony, Daurli and Meerut North) and approximately 9.76 km viaduct after Shatabdi Nagar to Modipuram Depot	650,000.00	<b>Award Date:</b> 19 November 2019 <b>Agency:</b> M/s Systra MVA Consulting (India) Pvt Ltd in Consortium with Systra Procurement Method: OCB (International)

<b>Consulting Services</b>			
<b>S. No.</b>	<b>General Description</b>	<b>Estimated Value (\$)</b>	<b>Comments</b>
11	DM/DW/COR-OF/065 Engagement of track system provider	8,260,000.00	<b>Award Date:</b> 12 December 2019 <b>Agency:</b> M/s PORR Bau GmbH Procurement Method: OCB (International)
12	DM/GC/COR-OF/101 Independent safety assessment for systems of NCRTC for Delhi–Meerut RRTS Corridor	1,670,000.00	<b>Award Date:</b> 12 October 2020 <b>Agency:</b> M/s CERTIFER S.A. Procurement Method: Open Limited Tender
13	DM/GC/COR-OF/081 Consultancy services for establishment of Project Monitoring and Strategic Support Unit (PMSSU) for implementation of Regional Rapid Transit System in National Capital Region	2,620,000.00	<b>Award Date:</b> 15 October 2020 <b>Agency:</b> M/s Boston Consulting Group (India) Pvt. Ltd. Procurement Method: OCB (International)
<b>Active Contracts (Already advertised)</b>			
	DM/OM/COR-OF/144 Operation and maintenance of the Delhi–Ghaziabad–Meerut Regional Rapid Transit System (RRTS)	-	<b>Advertisement Date:</b> 26 May 2021 Procurement Method: OCB (International)
<b>Indicative Tenders (to be advertised)</b>			
	DM/GC/COR-OF/081 Engagement of consultant to provide integrated consultancy services including preparation of proposal for "design and build basis of state-of-the-art, Grade A commercial building consisting of multistoried office towers integrated with stabling yard, warehouse and a RRTS station at Jangpura Stabling Yard Delhi" for Delhi–Meerut RRTS Corridor	-	<b>Advertisement Date:</b> Q4/2021  Procurement Method: OCB (International)

## TERMS OF REFERENCE FOR THE GENDER EQUALITY AND SOCIAL INCLUSION PROJECT IMPLEMENTATION UNIT

### A. Background

1. A project implementation unit (PIU) will be set up within the National Capital Region Transport Corporation (NCRTC) to coordinate the implementation of activities under the proposed grant. Procurement (including consulting services) will follow the Asian Development Bank (ADB) Procurement Policy (2017, as amended from time to time) and Procurement Regulations for ADB Borrowers (2017, as amended from time to time). The core members of the PIU will be hired as individual consultants.

### B. Scope of Work

2. The scope of work and qualifications of the core members of the PIU is described in this section.<sup>1</sup> The Gender Equality and Social Inclusion (GESI) Expert will prepare a progress report on the implementation of the GESI action plan. The other members of the PIU will work under the guidance of the Project Coordinator and submit a combined report.

**Table 1: Scope of Work of the Gender Equality and Social Inclusion Expert**

<b>Estimated Assignment Period</b>	Up to 84 person-months
<b>Financing Sources</b>	Through ADB loan
<b>Detailed Tasks</b>	<p>The scope of services will include but not be limited to the following:</p> <ul style="list-style-type: none"> <li>(i) <b>GESI action plan implementation.</b> Responsible for overall implementation of GESI action plan activities, annual planning with timelines and deliverables to be endorsed by the PIU, and coordination with different stakeholders for effective implementation.</li> <li>(ii) <b>GESI action plan monitoring and reporting.</b> Collate and maintain monthly progress reports across each GESI action plan indicator, finalize biannual GESI action plan reports as per the prescribed format, identify and maintain requisite means for data verification and triangulation.</li> <li>(iii) <b>GESI action plan guidelines, checklists, and manuals.</b> These will involve the following: <ul style="list-style-type: none"> <li>(a) Produce a manual on pEWCD-responsive emergency planning, complaints reporting system, and standard operating procedures in consultation with the NCRTC and the Delhi and Uttar Pradesh Police.</li> <li>(b) Conduct research and maintain a database on national and international good practices within the transport sector.</li> </ul> </li> <li>(iv) <b>GFWP preparation.</b> Prepare a GFWP in consultation with the NCRTC and provide support for NCRTC Board approval.</li> <li>(v) <b>Support to the GESI-C.</b> Apprise the GESI-C, provide support to organize the GESI-C meetings, and prepare progress reports, agenda, and minutes of meetings.</li> <li>(vi) <b>Capacity development.</b> Prepare and deliver GESI sensitization training modules. Prepare and administer pre- and post-questionnaires to assess the effectiveness of the trainings. Prepare and share training reports and maintain sex-disaggregated database for each training.</li> <li>(vii) <b>Coordination of grant activities.</b> Support the NCRTC and coordinate with multiple stakeholders to facilitate implementation of the grant activities, and review quarterly progress reports.</li> </ul>
<b>Output and/or Report Requirements</b>	<p>The required outputs and/or reports will be as follows:</p> <ul style="list-style-type: none"> <li>(i) Inception report with work plan</li> <li>(ii) Quarterly progress reports and time sheets with biannual updates on the GESI action plan</li> </ul>

<sup>1</sup> Excluding the financial expert.

	(iii) Draft final report and final report
<b>Qualifications</b>	The consultant must possess the following: (i) Master's degree in social sciences, social work, gender and development, development studies, or related field (ii) Minimum relevant professional experience of 8 years (iii) Excellent oral and written English and Hindi communication skills and ability to write clear and concise reports in English (iv) Prior project experience in working with multilateral development banks is desirable.

ADB = Asian Development Bank, EWCD = elderly, women, children, differently abled, GESI = gender equality and social inclusion, GESI-C = Gender Equality and Social Inclusion Committee, GFWP = gender-friendly workplace policy, NCRTC = National Capital Region Transport Corporation, PIU = project implementation unit.

Source: Asian Development Bank.

**Table 2: Scope of Work of the Project Coordinator**

<b>Estimated Assignment Period</b>	54 person-months
<b>Financing Sources</b>	Through grant
<b>Detailed Tasks</b>	The scope of services will include but not be limited to the following: (i) <b>Project coordination.</b> Responsible for coordinating with the NCRTC and multiple stakeholders for overall implementation of the grant activities, and annual planning with timelines and deliverables. (ii) <b>Project monitoring and reporting.</b> Collate and maintain quarterly progress reports for each output and activity, finalize biannual reports, and identify and maintain requisite means for data verification and triangulation. (iii) <b>Procurement of goods.</b> Support the NCRTC in the selection and procurement of goods for different outputs. (iv) <b>Communications and outreach.</b> Oversee preparation of communication materials and ensure that the grant activities are publicized in appropriate formats and in events as per ADB norms and guidelines.
<b>Output and/or Report Requirements</b>	The required outputs and/or reports will be as follows: (i) Project monitoring framework and formats, milestones, and timelines (ii) Quarterly progress reports and time sheets with biannual updates (iii) Communications and outreach plan and outputs (iv) Draft final report and final report
<b>Qualifications</b>	The Project Coordinator must possess the following: (i) Master's degree in social sciences, social work, gender and development, development studies, or related field (ii) Minimum relevant professional experience of 8 years (iii) Prior experience in managing projects funded by multilateral development banks (iv) Excellent oral and written English communication skills and ability to write clear and concise reports in English

ADB = Asian Development Bank, NCRTC = National Capital Region Transport Corporation.

Source: Asian Development Bank.

**Table 3: Scope of Work of the Senior Associate**

<b>Estimated Assignment Period</b>	54 person-months
<b>Financing Sources</b>	Through grant
<b>Detailed Tasks</b>	The scope of services will include supporting the Project Coordinator in the following activities: (i) Prepare and update quarterly and annual progress reports and timesheets, and update annual plans, milestones, and deliverables. (ii) Update the project monitoring framework and formats, milestones, and timelines. (iii) Collect and maintain means of data verification and triangulation to monitor progress. (iv) Coordinate with national consulting organizations on a regular basis to facilitate implementation of grant activities.

	<ul style="list-style-type: none"> <li>(v) Conduct market research and due diligence to ensure quality and value for money in the procurement of goods.</li> <li>(vi) Perform any other task assigned by the Project Coordinator.</li> </ul>
<b>Output and/or Report Requirements</b>	<p>The required outputs and/or reports will be as follows:</p> <ul style="list-style-type: none"> <li>(i) Project monitoring framework and formats</li> <li>(ii) Quarterly and annual progress reports</li> <li>(iii) Draft final report and final report</li> </ul>
<b>Qualifications</b>	<p>The Senior Associate must possess the following:</p> <ul style="list-style-type: none"> <li>(i) Master's degree in social sciences, social work, gender and development, development studies, or related field</li> <li>(ii) Minimum relevant professional experience of 5 years</li> <li>(iii) Excellent oral and written English communication skills and ability to write clear and concise reports in English</li> <li>(iv) Prior experience in managing projects funded by multilateral agencies is a plus.</li> </ul>

ADB = Asian Development Bank.  
Source: Asian Development Bank.

**Table 4: Scope of Work of the Senior Communications Associate**

<b>Estimated Assignment Period</b>	27 person-months
<b>Financing Sources</b>	Through grant
<b>Detailed Tasks</b>	<p>The scope of services will include supporting the Project Coordinator in the following activities:</p> <ul style="list-style-type: none"> <li>(i) <b>Communications and outreach plan.</b> Create a communications and outreach plan and format, and ensure consistent branding in all outputs by the PIU and consulting organizations as per ADB guidelines and norms.</li> <li>(ii) <b>Documentation and outreach.</b> Ensure that each event is documented with photographs, and any other relevant media such as blog posts, articles, and/or videos to ensure adequate coverage of grant activities and outputs.</li> <li>(iii) <b>Outreach impact.</b> Maintain and update the reporting format on the impact of the outreach activities.</li> <li>(iv) Perform any other task assigned by the Project Coordinator.</li> </ul>
<b>Output and/or Report Requirements</b>	<p>The required outputs and/or reports will be as follows:</p> <ul style="list-style-type: none"> <li>(v) Communications and outreach plan</li> <li>(vi) Communication and outreach updates in the quarterly and biannual progress reports</li> <li>(vii) Draft final report and final report</li> </ul>
<b>Qualifications</b>	<p>The senior communications associate must possess the following:</p> <ul style="list-style-type: none"> <li>(i) Master's degree in communications, media studies, journalism, or related field.</li> <li>(ii) Minimum relevant professional experience of 5 years</li> <li>(iii) Excellent oral and written English communication skills and ability to write clear and concise reports in English</li> <li>(iv) Knowledge of graphic design software such as Adobe Creative Suite, digital outreach platforms, and ability to shoot and record photos and videos including their editing</li> <li>(v) Prior experience in supporting communications for projects funded by multilateral agencies is a plus.</li> </ul>

ADB = Asian Development Bank, PIU = Project Implementation Unit.  
Source: Asian Development Bank.



## TERMS OF REFERENCE FOR NATIONAL ORGANIZATION FOR OUTPUT 1 OF THE GRANT

### A. Introduction

1. A national organization (consulting firm or nongovernment organization) will be recruited to support the implementation of activities under output 1 over a period of 4.5 years. The national organization shall implement the activities as per the Asian Development Bank (ADB) Procurement Policy (2017, as amended from time to time) and Procurement Regulations for ADB Borrowers (2017, as amended from time to time).

### B. Approach and Methodology

2. The project proposal shall include the approach, methodology for the implementation of output 1, and phasing of each pilot (based on the milestones from the contract signing), and also highlight innovative coordination strategies and demonstrate value for money.

3. **Output 1: Safe mobility for women, elderly, and differently abled provided in Ghaziabad, Meerut, and Modinagar.** Key activities are indicated in Table 1 with the deliverables from contract signing.

**Table 1: Key Activities with Milestones**

No.	Main	Key Activities and Deliverables
1	Overall	(i) Inception report with the rapid baseline assessment, methodology, implementation plan, and financial plan for each pilot and its activities submitted within 3 months of mobilization (ii) Sex-segregated travel surveys conducted along the RRTS corridor within 9 months of mobilization
2	Pilot 1	(i) At least 50 women learn how to drive e-rickshaws and apply for loans to purchase e-rickshaws within 21 months (ii) At least 150 women learn how to drive e-rickshaws and apply for loans to purchase e-rickshaws within 40 months
3	Pilot 2	(i) 1,000 differently abled persons receive assistive aids in Ghaziabad, Meerut, and Modinagar within 19 months (ii) 100 differently abled persons receive employability training within 53 months
4	Pilot 3	(i) At least 130 women receive light motor vehicle driving licenses within 22 months (ii) At least 350 women receive light motor vehicle driving licenses within 53 months
5	Pilot 4	(i) Two training videos on sexual harassment in public transport and prevention created (ii) 200 bus drivers and conductors of feeder buses to RRTS stations receive four gender-related behavior change trainings
6	Progress Reporting	(i) Quarterly, biannual, and annual interim reports on the pilot activities and milestones (ii) Final project completion report by August 2025

RRTS = regional rapid transit system.

Source: Asian Development Bank.

### C. Qualifications, Roles, and Responsibilities

4. The qualifications of the core team and their roles and responsibilities are in Table 2.

**Table 2: Suggested Key Team Members**

<b>Designation</b>	<b>Education</b>	<b>Professional Experience</b>	<b>Experience with Multilateral Development Banks</b>	<b>Key Responsibilities</b>	<b>Identity</b>	<b>Time (Person-Months)</b>
1. Project coordinator	Post-graduate degree in gender, social development, social work, social sciences, or development studies	At least 8 years of experience in coordinating projects on gender, skills development and training, and social inclusion for the differently abled	Required	(i) Create output performance indicators and monitoring system. (ii) Coordinate with partners for effective implementation. (iii) Create quarterly progress reports and apprise the NCRTC and ADB.	National	Up to 54
2. Financial expert	Graduate degree in business management, finance, or accounting	At least 8 years of experience in financial management and accounting for projects funded by multilateral development banks	Required	Manage finances and procurement of services as per ADB norms and guidelines.	National	Up to 6

ADB = Asian Development Bank, NCRTC = National Capital Region Transport Corporation.  
Source: Asian Development Bank.

## TERMS OF REFERENCE FOR NATIONAL ORGANIZATION FOR OUTPUT 2 OF THE GRANT

### A. Introduction

1. A national organization (consulting firm or nongovernment organization) will be recruited to support the implementation of activities under output 2 over 4.5 years as per the Asian Development Bank (ADB) Procurement Policy (2017, as amended from time to time) and Procurement Regulations for ADB Borrowers (2017, as amended from time to time).

### B. Approach and Methodology

2. The project proposal shall include the approach, methodology, and phasing of activities (based on the milestones below), highlight innovative coordination strategies, and demonstrate value for money.

3. **Output 2: Increased awareness on safe mobility, self-defense, and improved employability skills for 900 female students in selected technical institutes along the regional rapid transit system (RRTS) corridor.** Key activities and milestones are indicated below, with the deliverables from contract signing:

- (i) Inception report including a rapid baseline assessment, implementation plan, and financial plan submitted within 1 month of mobilization
- (ii) At least 400 female students in government or government-aided colleges along the corridor sensitized on safe mobility and self-defense strategies, and acquire improved employability and/or entrepreneurship skills within 21 months
- (iii) At least 900 female students in government or government-aided colleges along the corridor sensitized on safe mobility and self-defense strategies, and acquire improved employability and/or entrepreneurship skills within 45 months

4. Progress reports will include the following:

- (i) Quarterly, biannual, and annual interim reports and the milestones
- (ii) Final project completion report by August 2025

### C. Qualifications, Roles, and Responsibilities

5. The qualifications of the key team members and their roles and responsibilities are in Table 2.

**Table 2: Suggested Key Team Members**

Designation	Education	Professional Experience	Experience with Multilateral Development Banks	Key Responsibilities	Identity	Time (Person-Months)
1. Project coordinator	Post-graduate degree in gender, social development, social work, social	At least 8 years of experience in coordinating projects on skills development and training	Required	(i) Create output performance indicators, and monitoring system. (ii) Coordinate with partners	National	Up to 47

<b>Designation</b>	<b>Education</b>	<b>Professional Experience</b>	<b>Experience with Multilateral Development Banks</b>	<b>Key Responsibilities</b>	<b>Identity</b>	<b>Time (Person-Months)</b>
	sciences, or development studies			for effective implementation. (iii) Create quarterly progress reports and apprise NCRTC and ADB.		
2. Financial expert	Graduate degree in business management, finance, accounting	At least 8 years of experience in financial management and accounting for projects funded by multilateral development banks	Required	Manage finances and procurement of services as per ADB norms and guidelines.	National	Up to 5

ADB = Asian Development Bank, NCRTC = National Capital Region Transport Corporation.

Source: Asian Development Bank.

## TERMS OF REFERENCE FOR GRANT IMPLEMENTATION OFFICER

### A. Background

1. A grant implementation officer within the Asian Development Bank (ADB) will oversee the implementation of activities and facilitate coordination between the project implementation unit in the National Capital Region Transport Corporation (NCRTC), consulting organizations, and ADB. Procurement (including consulting services) will follow the ADB Procurement Policy (2017, as amended from time to time) and Procurement Regulations for ADB Borrowers (2017, as amended from time to time).

### B. Scope of Work

2. The scope of work and qualifications of the grant implementation officer are described below.

#### Scope of Work of Grant Implementation Officer

<b>Estimated Assignment Period</b>	Up to 54 person-months
<b>Financing Sources</b>	Through grant
<b>Detailed Tasks</b>	The scope of services will include but not be limited to the following: (i) <b>Project review, monitoring, and reporting.</b> Review the progress reports submitted by consulting organizations and verify implementation of grant activities, time sheets by consultants, and identify and rectify bottlenecks in consultation with the supervisor in ADB. (ii) <b>Coordination of grant activities.</b> Coordinate with the PIU within the NCRTC, consulting organizations, Embassy of Japan, and ADB to ensure timely implementation of grant activities.
<b>Output and/or Report Requirements</b>	The required outputs and/or reports will be as follows: (i) Review of quarterly progress reports and time sheets with biannual updates (ii) Draft final report and final report
<b>Qualifications</b>	The consultant must possess the following: (i) Master's degree in project management, business administration, and relevant fields (ii) Minimum relevant professional experience of 5 years (iii) Excellent oral and written English and Hindi communication skills and ability to write clear and concise reports in English (iv) Prior project experience in working with multilateral agencies is required.

ADB = Asian Development Bank, NCRTC = National Capital Region Transport Corporation, PIU = project implementation unit.

Source: Asian Development Bank.

## TERMS OF REFERENCE FOR EXTERNAL MONITOR

### A. Introduction

1. Monitoring and evaluation will include but will not be limited to (i) the progress and effectiveness of the implementation of the resettlement plan; and (ii) the evaluation of income restoration and post-resettlement conditions of the displaced persons and affected communities, including host communities.

### B. Objectives and Requirements of Monitoring and Evaluation

2. The objectives of monitoring and evaluation are to assess whether the land acquisition and resettlement plan (LARP) is implemented on schedule and within budget and whether the goals and principles of the LARP are achieved. Specifically, monitoring and evaluation will focus on the following aspects of the displaced persons' situation and the resettlement process:

- (i) Social and economic situation prior to and after land acquisition and/or resettlement
- (ii) Timely disbursement of funds
- (iii) Functioning of the grievance redress mechanism
- (iv) Environmental conditions
- (v) Social adaptability after resettlement
- (vi) Rehabilitation of vulnerable groups
- (vii) Special items related to the vulnerable groups
- (viii) Condition and quality of land temporarily acquired when it is returned to the original land users
- (ix) Measures taken to restore affected livelihoods
- (x) Living conditions and economic status of displaced persons following resettlement in comparison to the "without project" scenario

3. Monitoring and evaluation will include (i) verification or establishment of a socioeconomic baseline of the displaced persons prior to actual land acquisition, physical displacement and/or relocation, loss of assets, or disruption of businesses (as relevant); (ii) verification of internal monitoring data and reports; (iii) regular monitoring of their resettlement, displacement, and/or relocation (as relevant) and adjustment during project implementation; and (iv) evaluation of their situation for 1 or 2 years after land acquisition, displacement, or relocation (as relevant). In addition, qualitative and quantitative evaluation will be made on the sustainability of living conditions of displaced persons. Investigation will include consultations and observations with displaced persons, implementing agencies, local officials, village leaders, as well as a quantitative sample survey of at least 20% of displaced households. Focus group discussions will be conducted with male and female displaced persons, and vulnerable groups.

4. If the findings of the external monitor indicate significant compliance gaps, the external monitor will work with the executing agency and project implementation unit to prepare a separate corrective action plan in cooperation with the relevant stakeholders to address pending or new land acquisition and resettlement impacts. The external monitor will monitor and report on the implementation of the corrective action plan.

### C. Monitoring Indicators

5. Monitoring will include process, output, and outcome indicators. The monitoring framework and formats stipulated in the resettlement framework and resettlement plan will be adopted. The following general indicators will be covered:

- (i) **Disbursement of entitlements to displaced persons, enterprises, and/or businesses.** This covers compensation, relocation, housing, cultivated farmland, and employment as specified in the LARP.
- (ii) **Provision of relocation options.** The affected persons must move into the chosen resettlement or housing option at least 1 month before physical displacement or relocation. For those opting for self-construction, payment of compensation and provision of housing sites should be completed at least 3 months before physical displacement or relocation. The compensation for construction of houses should be equivalent to the replacement cost. The displaced persons must receive their entitlements and allowances on time.
- (iii) **Development of economic productivity.** This covers reallocation of cultivated land, land restoration, job opportunities available to displaced persons, number of displaced persons employed or unemployed.
- (iv) **Standard of living.** Throughout the implementation process, the trends in standards of living will be observed and the potential problems in the way of restoration of standards of living will be identified and reported. The external monitor will carry out a comprehensive socioeconomic survey after the completion of resettlement implementation to document the standards of living and the conditions of the displaced persons after resettlement. The survey will be updated annually.
- (v) **Restoration of civic infrastructure.** All necessary infrastructure should be restored at the resettlement sites at least up to a standard equal to that at the original location. The compensation for all infrastructure should be sufficient to reconstruct it to the same quality.
- (vi) **Effectiveness of resettlement planning.** This covers adequacy of assets measurement, entitlements, sufficiency of budget, and timeliness of mitigation measures.
- (vii) **Level of satisfaction of displaced persons.** This covers the level of satisfaction of displaced persons with various aspects of the resettlement program. The operation of the mechanisms for grievance redress will be reviewed and the speed and results of grievance redress measures will be monitored.
- (viii) **Social adaptability and cohesion.** This covers impacts on children, indigenous peoples and/or ethnic minorities and other vulnerable groups, public participation, displaced persons' attitudes and reaction to post resettlement situation, number of complaints and appeal procedures, implementation of preferential policies, income restoration measures, and improvements in women's status in villages.
- (ix) **Other impacts.** The external monitor will verify if there are unintended environmental impacts and impacts on employment and incomes.

### D. Special Considerations

6. Special attention will be paid to women, indigenous peoples, ethnic minorities and/or groups, as well as the poor and vulnerable groups during monitoring. These special considerations include the following:

- (i) **Status and roles of women.** Closely monitor any change in women's status, function, and situations. At least 40% of displaced persons surveyed will be women.
- (ii) **Differential impacts on indigenous peoples and/or ethnic minority groups.** Closely monitor the socioeconomic status of indigenous peoples to ensure that they have not been further marginalized. Monitoring indicators should, to the extent possible, be disaggregated by gender and ethnicity.
- (iii) **Care and attention to vulnerable groups.** Closely monitor living conditions of the poor, elderly, handicapped, female-headed households, and other vulnerable groups after resettlement to ensure that their livelihood is improved.
- (iv) **Monitoring and evaluation.** Information will be provided on the utilization and adequacy of resettlement funds.



**TERMS OF REFERENCE FOR PUBLIC–PRIVATE PARTNERSHIP CONSULTANT**

1. The scope of work of the consultant shall include the following:
  - (i) Review all existing studies, reports, designs, and other materials relevant to the regional rapid transit system (RRTS).
  - (ii) Prepare and conduct market sounding and/or market study with all relevant, qualified, and experienced international rail operators to sufficiently create awareness and interest in the RRTS; identify such market players' concerns with regard to participation in the procurement process for rail operations for the RRTS; and advise the Asian Development Bank (ADB) and the National Capital Region Transport Corporation (NCRTC) in evaluating how to address identified concerns to realize optimal value and risk allocation for the NCRTC and an optimal level of competition.
  - (iii) At the request of the NCRTC, help deliver road shows at no more than two international locations for the train operations contract.
  - (iv) Develop and recommend various options for rail operations, including whether it should be exclusively rail operations or include other elements of the RRTS such as station maintenance; track and system maintenance; and any other aspect of the RRTS operations, except the long-term maintenance of the rolling stock.
  - (v) Identify all key interface risks in train operations, rolling stock operations, and maintenance of the entire system; and develop a robust risk management plan (reflected in a risk matrix). The risk matrix should be sufficiently detailed to enable the drafting of the contract for rail operations.
  - (vi) Assist the NCRTC in the development of a strategic approach and appropriate structuring of the rail operations contract for the RRTS, taking into consideration the RRTS's distinct infrastructure and operational features and requirements, and drawing from all relevant and applicable international best practices, and commercially accepted terms.
  - (vii) Develop the overall procurement strategy for rail operations, including elements of what should go into the request for prequalification documents and the request for proposal document; and deliver an outline heads of terms for the rail operations contract.
  - (viii) Develop the outline performance standards for the operations of the RRTS in close consultation with the NCRTC, which shall provide the necessary technical inputs for the performance standards.
  - (ix) Develop the overall payment mechanism as well as abatement structure in line with the performance standards developed.
  - (x) Assist the NCRTC in the following aspects related to the rolling stock procurement cum maintenance contract based on best global practices:
    - (a) performance monitoring of rolling stock maintenance based on availability, reliability, maintainability, etc.;
    - (b) interface management between rolling stock maintainer and operations and maintenance contractor; and
    - (c) transition management in the event of default or termination.

## GENDER EQUALITY AND SOCIAL INCLUSION ACTION PLAN

Activity	Indicator and/or Targets	Responsibility	Timeline (Year)
<b>OUTPUT 1: DELHI-MEERUT RRTS CORRIDOR COMMISSIONED</b>			
1.1 Incorporate international standards, EWCD-friendly, and gender-specific safety and public health features in the design of the RRTS corridor.	1. Survey conducted with at least 45% women respondents, and at least four consultations held (two with women's groups, one with young adults, and one with the elderly and differently abled) in each of the urban areas of East Delhi, Ghaziabad, Meerut, and South Delhi districts	NCRTC GFP and GESI expert	1-2
	2. Guidelines on EWCD-responsive planning, design, operations, maintenance and checklist for stations, multimodal integration, and last-mile connectivity developed by the NCRTC <sup>a</sup>		1-2
	3. Manual on EWCD-responsive emergency, complaints reporting system, and standard operating procedures developed by the NCRTC, in consultation with the Delhi and Uttar Pradesh police <sup>b</sup>		1-2
	4. Dedicated coach and four seats in each coach reserved for women, with additional seats reserved for pregnant women, caregivers, elderly, differently abled, and indicated with signage <sup>c</sup>		1-7
	5. Stations, pick-up, and drop-off areas are lit, and with tactile paving <sup>d</sup>		
	6. CCTV cameras installed to monitor coaches and public areas of all stations, pick-up, and drop-off areas		
	7. Information on helpline numbers, emergency button, intercom in each coach, and gender-specific audio, video, and/or visual bilingual messages disseminated in all coaches and stations		
	8. At least one access route and one emergency route step-free for a person on a wheelchair to travel from the road to each station, concourse, platform, and train		
	9. Separate toilets for men, women, and differently abled in all stations and one nursing room in three multimodal stations constructed		
	10. 48 security personnel patrol the concourse, platform, pick-up and drop-off areas of all operational stations under the NCRTC's jurisdiction		
	11. All NCRTC-operated feeder buses have reserved seats for women, elderly, and differently abled; EWCD-responsive service standards; emergency and complaints reporting; and standard operating procedures developed in consultation with the Delhi and Uttar Pradesh Police <sup>e</sup>		
	12. Feasibility study conducted on opportunities for women to operate stalls at RRTS stations as concessionaires <sup>f</sup>		1-2
<b>OUTPUT 2: INSTITUTIONAL CAPACITY OF THE NCRTC IMPROVED</b>			
2.1 Develop the NCRTC as a gender- and socially inclusive agency.	13. Senior advisor or staff nominated as the GFP, with one full-time GESI expert in the NCRTC <sup>g</sup>	Director, NCRTC PIU	1-2
	14. Terms of reference for the GESI Committee created and GESI Committee established <sup>h</sup>	NCRTC GFP, GESI expert	1-2
	15. Gender-friendly workplace policy developed and approved by the NCRTC Board		1-2

Activity	Indicator and/or Targets	Responsibility	Timeline (Year)
	16. At least 4% of NCRTC and operations and maintenance personnel in the RRTS are differently abled, as per Rights of Persons with Disabilities Act, 2016 (sex-disaggregated data collected and reported)		1–7
2.2 Develop and implement GESI training modules. <sup>i</sup>	17. Annual gender sensitization trainings (seven) conducted for at least 50% of NCRTC staff <sup>l</sup> (sex-disaggregated data collected and reported)		1–7
	18. Annual training conducted (Year 3 onward) for frontline personnel of the RRTS on EWCD sensitization, complaint redressal system, standard operating processes <sup>k</sup> (Target: 75% eligible frontline personnel. Sex-disaggregated data collected and reported)		3–7
	19. Technical capacity development trainings conducted (Year 1 onward) for technical personnel in the NCRTC and consultants on EWCD mainstreaming in planning, operations and maintenance of the RRTS, multimodal integration, and last-mile connectivity <sup>l</sup> (Target: 75% eligible technical personnel and consultants. Sex-disaggregated data collected and reported)	NCRTC GFP, GESI expert and consultant	1–3
<b>OUTPUT 3: MOBILITY AND ECONOMIC OPPORTUNITIES OF WOMEN AND DIFFERENTLY ABLED IMPROVED<sup>m</sup></b>			
3.1 Pilot-test gender- and socially inclusive elements in the project area.	20. 1,400 women receive training for employability and/or entrepreneurship opportunities	NCRTC GFP GESI expert and national organization	1–5
	21. 200 drivers receive training for gender equality and social inclusion sensitization		
	22. 1,000 differently abled persons receive hearing, visual, and physical mobility assistive aids		
	23. Gender- and socially inclusive public toilet blocks constructed around at least five major RRTS stations		

CCTV = closed-circuit television, EWCD = elderly, women, children, and differently abled, GESI = gender equality and social inclusion, GFP = gender focal point, NCRTC = National Capital Region Transport Corporation, PIU = project implementation unit, RRTS = regional rapid transit system.

<sup>a</sup> The goal of creating these guidelines is to ensure that infrastructure and services considered important for women, children, elderly, and persons with disabilities (differently abled) are reflected in the design, operations, and maintenance of the RRTS system. This will be used as a technical capacity development (Indicator 19) and monitoring tool.

<sup>b</sup> The manual will provide guidance on recording, analyzing, and addressing complaints specific to elderly, women, children, and persons with disabilities. This will include but not be limited to sexual harassment, violence, and microaggressions. It will be used to build capacity among the staff at the stations.

<sup>c</sup> Excluding the business class coach and the reserved coach for ladies.

<sup>d</sup> EWCD-friendly stations include but are not limited to the following facilities: (i) one-step free, universally accessible route from the exit of the station to the platform; (ii) universally accessible male, female, and gender neutral public toilets; (iii) free drinking water stations; (iv) publicly accessible areas of the stations are well-lit, without blind spots, and monitored by CCTV cameras (except toilets and nursing spaces); (v) at least one nursing space and one waiting room for male and female staff; and (vi) adequate seating on the concourse and platform, with an intercom near the ladies coach.

<sup>e</sup> The service standards will include the design and maintenance of the buses and behavior of the bus drivers and conductors. The bus design shall consider (i) reserved seats for EWCD and pregnant women; (ii) sufficient aisle widths for at least one person to stand and others to pass by; (iii) low-floor buses (where feasible) with access ramps or lifts; (iv) handles catering to women's height; (v) functioning lights in the buses; and (vi) route information and helpline numbers are clearly displayed along with tactile, audio-visual information for persons with disabilities. The behavior of bus drivers and conductors will include assisting and addressing complaints by elderly, women, children, and persons with disabilities, ensuring enforcement of reserved seats.

<sup>f</sup> The number of stalls will be based on an assessment of women entrepreneurs and self-help groups in the districts of East Delhi, Ghaziabad, Meerut, and South Delhi.

- <sup>g</sup> Strategies may be initiated to explore the transition of the unit into a social development and gender cell within the NCRTC.
  - <sup>h</sup> The GESI Committee will oversee the implementation of the GESI Action Plan. The GESI Committee will include representatives from the NCRTC, GESI experts, women's groups, academic institutes, and organizations for the differently abled. It is recommended that the GESI Committee meets at least biannually.
  - <sup>i</sup> To be decided in consultation with the GESI expert.
  - <sup>j</sup> As part of the annual training plan.
  - <sup>k</sup> EWCD-responsive emergency, complaints reporting system serves to assist EWCD in overcoming any problems during their commute. For example, women commuters can inform the RRTS 24/7 helpline number in case of any misbehavior or unauthorized entry into ladies coaches by male passengers.
  - <sup>l</sup> EWCD mainstreaming in planning, operations, and maintenance of the RRTS means that all designs and operations of the RRTS will take into account the needs and requirements of the EWCD. A series of design features have been planned and included to facilitate the travel of EWCD and these will be mainstreamed into the operations by sensitizing and training all operational staff.
  - <sup>m</sup> This output is financed through a grant by the Japan Fund for Poverty Reduction and implemented over a period of 4.5 years.
  - <sup>n</sup> Sex disaggregated data will be collected for all human related parameters, including trainings, and capacity building activities.
- Source: Asian Development Bank.

## GENDER EQUALITY AND SOCIAL INCLUSION ACTION PLAN REPORTING TEMPLATE

Activity	Indicator and/or Targets	Progress for the Reporting Period (MM/YYYY to MM/YYYY) (This should include information on progress for the current quarter—qualitative and quantitative updates, including sex-disaggregated data)	Cumulative Progress (MM/YYYY to MM/YYYY) (This should include information on progress—qualitative and quantitative updates, including sex-disaggregated data, from the start of the implementation of the GESI action plan to the previous quarter's progress report.)	Issues and Challenges (Please include reasons why an activity was not fully implemented, or if targets fall short, or reasons for delay, etc.)
<b>OUTPUT 1: DELHI-MEERUT RRTS CORRIDOR COMMISSIONED</b>				
1.1 Incorporate international standards, EWCD-friendly, and gender-specific safety and public health features in the design of the RRTS corridor.	1. Survey conducted with at least 45% women respondents, and at least four consultations held (two with women's groups, one with young adults, and one with the elderly and differently abled) in each of the urban areas of East Delhi, Ghaziabad, Meerut, and South Delhi districts			
	2. Guidelines on EWCD-responsive planning, design, operations, maintenance and checklist for stations, multimodal integration, and last-mile connectivity developed by the NCRTC <sup>a</sup>			
	3. Manual on EWCD-responsive emergency, complaints reporting system, and standard operating procedures developed by the NCRTC, in consultation with the Delhi and Uttar Pradesh police <sup>b</sup>			
	4. Dedicated coach and four seats in each coach reserved for women, with additional seats reserved for pregnant women, caregivers, elderly, differently abled, and indicated with signage <sup>c</sup>			
	5. Stations, pick-up and drop-off areas are lit, and with tactile paving <sup>d</sup>			
	6. CCTV cameras installed to monitor coaches and public areas of all			

<b>Activity</b>	<b>Indicator and/or Targets</b>	<b>Progress for the Reporting Period (MM/YYYY to MM/YYYY)</b> (This should include information on progress for the current quarter—qualitative and quantitative updates, including sex-disaggregated data)	<b>Cumulative Progress (MM/YYYY to MM/YYYY)</b> (This should include information on progress—qualitative and quantitative updates, including sex-disaggregated data, from the start of the implementation of the GESI action plan to the previous quarter’s progress report.)	<b>Issues and Challenges</b> (Please include reasons why an activity was not fully implemented, or if targets fall short, or reasons for delay, etc.)
	stations, pick-up and drop-off areas			
	7. Information on helpline numbers, emergency button, intercom in each coach, and gender-specific audio, video, and/or visual bilingual messages disseminated in all coaches and stations			
	8. At least one access route and one emergency route step-free for a person on a wheelchair to travel from the road to each station, concourse, platform, and train			
	9. Separate toilets for men, women, and differently abled in all stations and one nursing room in three multimodal stations constructed			
	10. 48 security personnel patrol the concourse, platform, pick-up and drop-off areas of all operational stations under the NCRTC’s jurisdiction			
	11. All NCRTC-operated feeder buses have reserved seats for women, elderly, and differently abled; EWCD-responsive service standards; emergency and complaints reporting; and standard operating procedures developed in consultation with the Delhi and Uttar Pradesh Police <sup>e</sup>			
	12. Feasibility study conducted on opportunities for women to operate stalls at RRTS stations as concessionaires <sup>f</sup>			

Activity	Indicator and/or Targets	Progress for the Reporting Period (MM/YYYY to MM/YYYY) (This should include information on progress for the current quarter—qualitative and quantitative updates, including sex-disaggregated data)	Cumulative Progress (MM/YYYY to MM/YYYY) (This should include information on progress—qualitative and quantitative updates, including sex-disaggregated data, from the start of the implementation of the GESI action plan to the previous quarter's progress report.)	Issues and Challenges (Please include reasons why an activity was not fully implemented, or if targets fall short, or reasons for delay, etc.)
<b>OUTPUT 2: INSTITUTIONAL CAPACITY OF THE NCRTC IMPROVED</b>				
3.1 Develop the NCRTC as a gender- and socially inclusive agency.	13. Senior advisor or staff nominated as the GFP, with one full-time GESI expert in the NCRTC <sup>g</sup>			
	14. Terms of reference for the GESI Committee created and GESI Committee established <sup>h</sup>			
	15. Gender-friendly workplace policy developed and approved by the NCRTC Board			
	16. At least 4% of NCRTC and operations and maintenance personnel in the RRTS are differently abled, as per Rights of Persons with Disabilities Act, 2016 (sex-disaggregated data collected and reported)			
2.2 Develop and implement GESI training modules <sup>i</sup>	17. Annual gender sensitization trainings (seven) conducted for at least 50% of NCRTC staff <sup>j</sup> (sex-disaggregated data collected and reported)			
	18. Annual training conducted (Year 3 onward) for frontline personnel of the RRTS on EWCD sensitization, complaints redressal system, standard operating processes <sup>k</sup> (Target: 75% eligible frontline personnel. Sex-disaggregated data collected and reported)			
	19. Technical capacity development trainings conducted (Year 1 onward) for technical personnel in the NCRTC and consultants on EWCD mainstreaming in planning,			

Activity	Indicator and/or Targets	Progress for the Reporting Period (MM/YYYY to MM/YYYY) (This should include information on progress for the current quarter—qualitative and quantitative updates, including sex-disaggregated data)	Cumulative Progress (MM/YYYY to MM/YYYY) (This should include information on progress—qualitative and quantitative updates, including sex-disaggregated data, from the start of the implementation of the GESI action plan to the previous quarter’s progress report.)	Issues and Challenges (Please include reasons why an activity was not fully implemented, or if targets fall short, or reasons for delay, etc.)
	operations and maintenance of the RRTS, multimodal integration, and last-mile connectivity <sup>l</sup> (Target: 75% eligible technical personnel and consultants. Sex-disaggregated data collected and reported)			
<b>OUTPUT 3: MOBILITY AND ECONOMIC OPPORTUNITIES OF WOMEN AND DIFFERENTLY ABLED IMPROVED<sup>m</sup></b>				
3.1 Pilot-test gender- and socially inclusive elements in the project area.	20. 1,400 women receive training for employability and/or entrepreneurship opportunities			
	21. 200 drivers receive training for gender equality and social inclusion sensitization			
	22. 1,000 differently abled persons receive hearing, visual, and physical mobility assistive aids			
	23. Gender- and socially inclusive public toilet blocks constructed around at least five major RRTS stations			

CCTV = closed-circuit television, EWCD = elderly, women, children, and differently abled, GESI = gender equality and social inclusion, GFP = gender focal point, NCRTC = National Capital Region Transport Corporation, PIU = project implementation unit, RRTS = regional rapid transit system.

Note: Sex-disaggregated data will be collected for all human related parameters, including trainings, and capacity building activities.

- <sup>a</sup> The goal of creating these guidelines is to ensure that infrastructure and services considered important for women, children, elderly, and persons with disabilities (differently abled) are reflected in the design, operations, and maintenance of the RRTS system. This will be used as a technical capacity development (Indicator 19) and monitoring tool.
- <sup>b</sup> The manual will provide guidance on recording, analyzing, and addressing complaints specific to elderly, women, children, and persons with disabilities. This will include but not be limited to sexual harassment, violence, and microaggressions. It will be used to build capacity among the staff at the stations.
- <sup>c</sup> Excluding the business class coach and the reserved coach for ladies.
- <sup>d</sup> EWCD-friendly stations include but are not limited to the following facilities: (i) one-step free, universally accessible route from the exit of the station to the platform; (ii) universally accessible male, female, and gender neutral public toilets; (iii) free drinking water stations; (iv) publicly accessible areas of the stations are well-lit, without blind spots, and monitored by CCTV cameras (except toilets and nursing spaces); (v) at least one nursing space and one waiting room for male and female staff; and (vi) adequate seating on the concourse and platform, with an intercom near the ladies coach.
- <sup>e</sup> The service standards will include the design and maintenance of the buses and behavior of the bus drivers and conductors. The bus design shall consider (i) reserved seats for EWCD and pregnant women; (ii) sufficient aisle widths for at least one person to stand and others to pass by; (iii) low-floor buses (where



feasible) with access ramps or lifts; (iv) handles catering to women's height; (v) functioning lights in the buses; and (vi) route information and helpline numbers are clearly displayed along with tactile, audio-visual information for persons with disabilities. The behavior of bus drivers and conductors will include assisting and addressing complaints by elderly, women, children, and persons with disabilities, ensuring enforcement of reserved seats.

<sup>f</sup> The number of stalls will be based on an assessment of women entrepreneurs and self-help groups in the districts of East Delhi, Ghaziabad, Meerut, and South Delhi.

<sup>g</sup> Strategies may be initiated to explore the transition of the unit into a social development and gender cell within the NCRTC.

<sup>h</sup> The GESI Committee will oversee the implementation of the GESI Action Plan. The GESI Committee will include representatives from the NCRTC, GESI experts, women's groups, academic institutes, and organizations for the differently abled. It is recommended that the GESI Committee meets at least biannually.

<sup>i</sup> To be decided in consultation with the GESI expert.

<sup>j</sup> As part of the annual training plan.

<sup>k</sup> EWCD-responsive emergency, complaints reporting system serves to assist EWCD in overcoming any problems during their commute. For example, women commuters can inform the RRTS 24/7 helpline number in case of any misbehavior or unauthorized entry into ladies coaches by male passengers.

<sup>l</sup> EWCD mainstreaming in planning, operations, and maintenance of the RRTS means that all designs and operations of the RRTS will take into account the needs and requirements of the EWCD. A series of design features have been planned and included to facilitate the travel of EWCD and these will be mainstreamed into the operations by sensitizing and training all operational staff.

<sup>m</sup> This output is financed through a grant by the Japan Fund for Poverty Reduction and implemented over a period of 4.5 years.

Source: Asian Development Bank.

## GENDER EQUALITY AND SOCIAL INCLUSION ACTION PLAN PROGRESS REPORT

Activity	Indicator and/or Targets	Progress for the Reporting Period (Nov 2020 to Aug 2021)
1.1 Incorporate international standards, EWCD-friendly, and gender-specific safety and public health features in the design of the RRTS corridor.	1. Survey conducted with at least 45% women respondents, and at least four consultations held (two with women's groups, one with young adults, and one with the elderly and differently abled) in each of the urban areas of East Delhi, Ghaziabad, Meerut, and South Delhi districts	Will be done post GESI expert onboarding
	2. Guidelines on EWCD-responsive planning, design, operations, maintenance and checklist for stations, multimodal integration, and last-mile connectivity developed by the NCRTC <sup>a</sup>	Will be done post GESI expert onboarding
	3. Manual on EWCD-responsive emergency, complaints reporting system, and standard operating procedures developed by the NCRTC, in consultation with the Delhi and Uttar Pradesh police <sup>b</sup>	Will be part of the O&M implementation process
	4. Dedicated coach and four seats in each coach reserved for women, with additional seats reserved for pregnant women, caregivers, elderly, differently abled, and indicated with signage <sup>c</sup>	Will be done
	5. Stations, pick-up and drop-off areas are lit, and with tactile paving <sup>d</sup>	Will be done
	6. CCTV cameras installed to monitor coaches and public areas of all stations, pick-up and drop-off areas	Will be done
	7. Information on helpline numbers, emergency button, intercom in each coach, and gender-specific audio, video, and/or visual bilingual messages disseminated in all coaches and stations	(i) A helpline number will be displayed at stations and inside the train. (ii) Emergency buttons will be available inside trains
	8. At least one access route and one emergency route step-free for a person on a wheelchair to travel from the road to each station, concourse, platform, and train	(i) Nominated space/ arrangement for wheelchair in each driving car with easily accessible passenger emergency alarm switch (ii) Wide doors and gangways for free movement of wheelchairs
	9. Separate toilets for men, women, and differently abled in all stations and one nursing room in three multimodal stations constructed	Provision of separate toilet at station is being done. Nursing stations will be made at 3 stations.
	10. 48 security personnel patrol the concourse, platform, pick-up and drop-off areas of all operational stations under the NCRTC's jurisdiction	Will be decided as per requirements when operations start
	11. All NCRTC-operated feeder buses have reserved seats for women, elderly, and differently abled; EWCD-responsive service standards; emergency and complaints reporting; and standard operating procedures developed in consultation with the Delhi and Uttar Pradesh Police <sup>e</sup>	Issues related to last-mile connectivity will be firmed up prior to start of operations survey
	12. Feasibility study conducted on opportunities for women to operate stalls at RRTS stations as concessionaires <sup>f</sup>	Survey will be done post GESI expert onboarding

Activity	Indicator and/or Targets	Progress for the Reporting Period (Nov 2020 to Aug 2021)
2.1 Develop the NCRTC as a gender- and socially inclusive agency.	13. Senior advisor or staff nominated as the GFP, with one full-time GESI expert in the NCRTC <sup>g</sup>	Work in progress
	14. Terms of reference for the GESI Committee created and GESI Committee established <sup>h</sup>	Post onboarding of GESI expert
	15. Gender-friendly workplace policy developed and approved by the NCRTC Board	Flexi timing Implemented POSH (draft in approval process) Child Care Leave (work in progress)
	16. At least 4% of NCRTC and operations and maintenance personnel in the RRTS are differently abled, as per Rights of Persons with Disabilities Act, 2016 (sex-disaggregated data collected and reported)	Hiring as per roaster. Will be complied upon hiring from open market
2.2 Develop and implement GESI training modules <sup>i</sup>	17. Annual gender sensitization trainings (seven) conducted for at least 50% of NCRTC staff <sup>j</sup> (sex- disaggregated data collected and reported)	POSH & Gender Sensitization Training part of induction process. Over 100 employees covered via various modes of training
	18. Annual training conducted (Year 3 onward) for frontline personnel of the RRTS on EWCD sensitization, complaints redressal system, standard operating processes <sup>k</sup> (Target: 75% eligible frontline personnel. Sex- disaggregated data collected and reported)	Will be complied with
	19. Technical capacity development trainings conducted (Year 1 onward) for technical personnel in the NCRTC and consultants on EWCD mainstreaming in planning, operations, and maintenance of the RRTS, multimodal integration, and last-mile connectivity <sup>l</sup> (Target: 75% eligible technical personnel and consultants. Sex-disaggregated data collected and reported)	Will be complied with
3.1 Pilot-test gender- and socially inclusive elements in the project area.	20. 1,400 women receive training for employability and/or entrepreneurship opportunities	Will be imparted based on baseline survey by NGO (to be appointed in consultation with ADB)
	21. 200 drivers receive training for gender equality and social inclusion sensitization	Will be imparted based on baseline survey by NGO (to be appointed in consultation with ADB)
	22. 1,000 differently abled persons receive hearing, visual, and physical mobility assistive aids	Will be distributed based on baseline survey by NGO (to be appointed in consultation with ADB)
	23. Gender- and socially inclusive public toilet blocks constructed around at least five major RRTS stations	Proposal already sent to ADB for no objection to carry out work under variation in the ADB-funded packages

CCTV = closed-circuit television, EWCD = elderly, women, children, and differently abled, GESI = gender equality and social inclusion, GFP = gender focal point, NCRTC = National Capital Region Transport Corporation, RRTS = regional rapid transit system.

<sup>a</sup> The goal of creating these guidelines is to ensure that infrastructure and services considered important for women, children, elderly and persons with disabilities (differently abled) are reflected in the design, operations, and maintenance of the RRTS system. This will be used as a technical capacity development (Indicator 19) and monitoring tool.

<sup>b</sup> The manual will provide guidance on recording, analyzing, and addressing complaints specific to elderly, women, children, and persons with disabilities. This will include but not limited to sexual harassment, violence, and microaggressions. It will be used to build capacity among the staff at the stations.

<sup>c</sup> Excluding the business class coach and the reserved coach for ladies.

<sup>d</sup> EWCD-friendly stations include but are not limited to the following facilities: (i) one-step free, universally accessible route from the exit of the station to the platform; (ii) universally accessible male, female, and gender neutral public toilets; (iii) free drinking water stations; (iv) publicly accessible areas of the stations are well-lit,

- without blind spots, and monitored by CCTV cameras (except toilets and nursing spaces); (v) at least one nursing space and one waiting room for male and female staff; and (vi) adequate seating on the concourse and platform, with an intercom near the ladies coach.
- e The service standards will include the design and maintenance of the buses and behavior of the bus drivers and conductors. The bus design shall consider (i) reserved seats for EWCD and pregnant women; (ii) sufficient aisle widths for at least one person to stand and others to pass by; (iii) low-floor buses (where feasible) with access ramps or lifts; (iv) handles catering to women's height; (v) functioning lights in the buses; and (vi) route information and helpline numbers are clearly displayed along with tactile, audio-visual information for persons with disabilities. The behavior of bus drivers and conductors will include assisting and addressing complaints by elderly, women, children, and persons with disabilities, ensuring enforcement of reserved seats.
  - f The number of stalls will be based on an assessment of women entrepreneurs and self-help groups in the districts of East Delhi, Ghaziabad, Meerut, and South Delhi.
  - g Strategies may be initiated to explore the transition of the unit into a social development and gender cell within the NCRTC.
  - h The GESI Committee will oversee the implementation of the GESI Action Plan. The GESI Committee will include representatives from the NCRTC, GESI experts, women's groups, academic institutes, and organizations for the differently abled. It is recommended that the GESI Committee meets at least biannually.
  - i To be decided in consultation with the GESI expert.
  - j As part of the annual training plan.
  - k EWCD-responsive emergency, complaints reporting system serves to assist EWCD in overcoming any problems during their commute. For example, women commuters can inform the RRTS 24/7 helpline number in case of any misbehavior or unauthorized entry into ladies coaches by male passengers.
  - l EWCD mainstreaming in planning, operations, and maintenance of the RRTS means that all designs and operations of the RRTS will take into account the needs and requirements of the EWCD. A series of design features have been planned and included to facilitate the travel of EWCD and these will be mainstreamed into the operations by sensitizing and training all operational staff.
  - m This output is financed through a grant by the Japan Fund for Poverty Reduction and implemented over a period of 4.5 years.
  - n Sex-disaggregated data will be collected for all human related parameters, including trainings, and capacity building activities.

Source: Asian Development Bank.

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