

## JAPAN FUND FOR POVERTY REDUCTION GRANT

### I. INTRODUCTION

1. The proposed 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 country's National Capital Region (NCR). The Delhi–Meerut RRTS will pass through the densely populated sections of the NCR, connecting Delhi to Meerut via Ghaziabad with safe, reliable, and high-capacity commuter transit services. With a design speed of 180 kilometers (km) per hour and high-frequency operations of every 5–10 minutes, this 82-km corridor is expected to substantially reduce journey times by approximately 2–3 hours. The investment project will finance rail tracks, signaling, station buildings, and maintenance facilities. It 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 project across the NCR.<sup>1</sup>

2. The investment project is aligned with the following impact: urban mobility in the NCR improved.<sup>2</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.

3. The proposed grant to be provided by the Japan Fund for Poverty Reduction aims to ensure that the improved mobility and economic opportunities resulting from the RRTS will benefit women and differently abled groups in the urban areas of Uttar Pradesh along the corridor.

### II. THE GRANT

#### A. Rationale

4. **Uttar Pradesh.** The proposed RRTS will operate across two states—the National Capital Territory of Delhi and Uttar Pradesh, comprising four major districts (East Delhi, Ghaziabad, Meerut, and South Delhi). Out of the 24 proposed RRTS stations, 21 will be in Uttar Pradesh—among the few states in India which has a substantively higher proportion of urban poverty (37%) than in rural areas (29%).<sup>3</sup> The incidence of unemployment among female graduates in the state (14.7%) is double the national average (7.3%). Ghaziabad station, located in Uttar Pradesh, will be a multimodal station along the RRTS, with connection to the Delhi Metro line 7 and a major bus terminal. However, as per the 2011 census, 20% of Ghaziabad city's population resides in informal settlements, with 153,000 women. The main challenges of Uttar Pradesh in addressing poverty and achieving inclusive growth are expanding economic opportunities for employment and ensuring that poor and marginalized groups have equal access to these opportunities.<sup>4</sup>

5. **Women's travel.** While there are limited data currently available on women's travel patterns and perceptions along the future RRTS corridors, focus group discussions conducted with women revealed that autorickshaws are crowded, and women face harassment from male passengers and drivers. The women participants preferred e-rickshaws over other modes of

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

<sup>2</sup> Government of India, Ministry of Housing and Urban Affairs. 2006. *National Urban Transport Policy*. New Delhi.

<sup>3</sup> Eight RRTS stations in Uttar Pradesh will share the infrastructure with the Meerut Metro, allowing passengers seamless transfer between the RRTS and the Meerut Metro.

<sup>4</sup> Mamgain, R.P., and Verick, S. 2017. *The State of Employment in Uttar Pradesh: Unleashing the potential of inclusive growth*. Geneva: International Labour Organization.

transport as they are porous vehicles with limited scope for overcrowding. The discussions also highlighted the importance of first- and last-mile connectivity to the RRTS stations as a key concern for using the system. This was also iterated in interviews with women's groups and development organizations, suggesting an opportunity for increasing women's representation in the transport sector to provide safer commuting for women.

6. **Public toilets.** The lack of adequate facilities such as hygienic public toilets also restricts the movement and productivity of women and girls, and affects their ability to participate in public life. A study conducted by ActionAid India in 2017 showed that 35% of 229 surveyed public toilets in Delhi did not have a separate section for women, an additional 53% of women's toilets did not have running water, and 45% of toilets did not have a mechanism to lock the door from the inside.<sup>5</sup> Women with disabilities face additional disadvantages as most toilets do not ensure accessibility, safety, privacy, or accommodate other special needs. Transgender people, although a relatively smaller group, remain marginalized and outside mainstream development, and often face verbal abuse and physical and sexual assault because of the lack of gender-neutral toilets.<sup>6</sup>

7. **Differently abled travelers.** About 3.3% of the urban population in Ghaziabad and 1.9% of the urban population in Meerut are differently abled, compared to the national average of 2.2%.<sup>7</sup> The World Bank estimates the national figure to be 40–80 million.<sup>8</sup> People with hearing, visual, and mobility impairments constitute 65% of all the differently abled people in the urban areas of Ghaziabad, and 56% in Meerut. According to the World Health Organization, only 10% of differently abled people have access to assistive aids, thereby limiting their mobility.<sup>9</sup>

8. Interviews with nongovernment organizations like the Equal Opportunity Cell at Delhi University, Samarthyam, and Vaani School revealed that in addition to inaccessible streets and transport vehicles, the behavior of transport service providers is one of the biggest obstacles in accessing public transport.<sup>10</sup> The commute could be more comfortable with empathetic service providers. Encouraging women to be mobility service providers not only improves their employment prospects but also improves the perception and experience of safer transportation options. Providing gender equality and social inclusion (GESI) training to public transport providers could also help improve urban mobility for women and differently abled people.

9. **Initiatives by the Government of India.** The Government of India is continuing its efforts to reduce poverty through various programs and policies of employment generation, education, and infrastructure development, including railways and regional connectivity corridors. Poverty reduction is the key focus of the government's Three-Year Action Agenda, 2017–18 to 2019–20 with a target to reduce poverty incidence by 10%. Apart from this, the government has introduced

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<sup>5</sup> Actionaid India. 2017. *Public Toilets in Delhi: A Status Report*. New Delhi.

<sup>6</sup> ADB. 2018. *Country Assistance Program Evaluation: ADB support for gender equality in India*. New Delhi. 28% of the 0.48 million transgender people in India are in Uttar Pradesh.

<sup>7</sup> Government of India, Office of the Registrar General and Census Commissioner. 2011. *Census: Population Enumeration Data*. New Delhi.

<sup>8</sup> World Bank. 20017. *People with disabilities in India: From Commitments to Outcomes*. World Bank South Asia Region.

<sup>9</sup> World Health Organization. 2018. *Improving access to assistive technology: Report by the Director-General*. Seventy-first World Health Assembly, Geneva, 21–26 May 2018. Provisional agenda item 12.5. Geneva: World Health Organization; 2018 (A71/21; [http://apps.who.int/gb/ebwha/pdf\\_files/WHA71/A71\\_21-en.pdf](http://apps.who.int/gb/ebwha/pdf_files/WHA71/A71_21-en.pdf), accessed 25 June 2019).

<sup>10</sup> The Equal Opportunity Cell at Delhi University offers comprehensive services support to students with disabilities. Samarthyam: National Center for Accessible Environments is a civil society and research organization whose goal is to promote the understanding and implementation of accessibility of the sustainable built, social, and virtual environments. Vaani School is a registered school for differently abled students in Uttar Pradesh.

various schemes, policies, and acts to improve sanitation and promote safe mobility for women, girls, and differently abled people. These include the Swachh Bharat Mission; Nirbhaya Fund; National Policy for Persons with Disabilities, 2006; the Rights of Persons with Disabilities Act, 2016; and the Pradhan Mantri Kaushal Vikas Yojana. The proposed grant will build on the existing programs with a targeted focus toward vulnerable groups along the RRTS corridor.

10. **Strategic fit.** The grant supports the Sustainable Development Goal 11.2, which focuses on “providing access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, differently abled and older persons.” The grant is in line with the country partnership strategy, 2018–2022 of the Asian Development Bank (ADB) for India and its emphasis on supporting gender equality and women’s empowerment across sectors, and is included in ADB’s country operations business plan, 2020–2022 for India.<sup>11</sup>

11. **Lessons.** ADB has supported the urban transport subsector in India by promoting policy and strategy aspects that are in line with India’s National Urban Transport Policy. ADB has assisted two urban transport projects in India—the Jaipur Metro Rail Line 1 Phase B Project and the Mumbai Metro Rail Systems Project.<sup>12</sup> In both projects, various features for ensuring safe travel for women and differently abled people were incorporated into the project design, such as reserved seats and/or coaches for women, closed-circuit television cameras (CCTV), and public announcement systems. These projects are envisaged to provide safer, more reliable, and socially inclusive urban transport options compared to the existing unorganized transportation modes in the project area.

## B. Outputs and Key Activities

12. The investment project will result in safer, more efficient, socially inclusive, and environmentally sustainable transport in the Delhi–Meerut RRTS corridor. The grant provides targeted support for output 3 of the multitranche financing facility (MFF) by enhancing the mobility of women and differently abled people in the urban areas of Ghaziabad and Meerut districts along the RRTS corridor.

13. **Output 1: Safe mobility for elderly, women, children, and differently abled provided.** This output will include the following activities:

- (i) Conduct sex-disaggregated travel surveys and focus group discussions with elderly, women, children, and differently abled people along the corridor in the urban areas of East Delhi, Ghaziabad, Meerut, and South Delhi districts to address the lack of data available on women’s mobility, and a prefeasibility assessment of stalls operated by women at the RRTS stations.
- (ii) Conduct a rapid assessment at the outset to scope out each activity, establish performance indicators, and create a project performance monitoring system.
- (iii) Encourage entrepreneurship and enable 150 women in informal settlements in Ghaziabad city to provide safe and environmentally sustainable transport services (e-rickshaws).<sup>13</sup> This will include (a) awareness building, mobilizing, and providing

<sup>11</sup> ADB. 2017. *Country Partnership Strategy: India, 2018–2020—Accelerating Inclusive Economic Transformation*. Manila; ADB. 2017. *Country Operations Business Plan: India, 2020–2022*. Manila.

<sup>12</sup> ADB. 2013. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to India for the Jaipur Metro Rail Line 1-Phase Project*. Manila; ADB. 2019. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to India for the Mumbai Metro Rail Systems Project*. Manila.

<sup>13</sup> The beneficiaries will be selected based on the following criteria: (i) resides in an informal settlement in Ghaziabad city, (ii) does not own an e-rickshaw, and (iii) has not received prior skills development training in the transport sector.

training on driving and maintaining e-rickshaws, gender equality and rights, self-defense, and behaving sensitively with the elderly and differently abled; (b) encouraging entrepreneurship by enabling financial links and loans to buy e-rickshaws and to create assets; and (c) creating a peer group for sharing experiences and providing mutual support. Financial support in the form of a 20% down payment on the loan for the purchase of the e-rickshaws will be provided to the beneficiaries. The balance will be paid by the beneficiary over 24–36 months.<sup>14</sup>

- (iv) Provide smartphones to e-rickshaw drivers and install CCTV in the vehicles. The smartphone will have an emergency button, which will be connected to a police station. The driver can alert the police if there is a harassment incident.
- (v) Provide mobility, visual, and hearing assistive aids to 1,000 differently abled people in the urban areas of Ghaziabad, Meerut, and Modinagar districts,<sup>15</sup> with 100 beneficiaries receiving improved employment or entrepreneurial skills.<sup>16</sup>
- (vi) Provide training to 350 women in informal settlements in Ghaziabad city to increase their employability in the transport sector, specifically as professional taxi drivers.<sup>17</sup>
- (vii) Conduct biannual, 1-day GESI sensitization trainings with 200 drivers and conductors of feeder buses to the RRTS. This will entail creating a training module and videos on what constitutes sexual harassment, the role of public transport service providers in addressing these, as well as behaving empathetically with differently abled people. Stickers communicating a zero-tolerance approach to sexual harassment will be placed in the feeder buses.

**14. Output 2: Awareness on safe mobility and self-defense increased, and employability skills improved for 900 female students in selected institutes along the regional rapid transit system corridor.** This output aims to increase the mobility and employability of final-year female students in public institutes along the corridor in the urban areas of Ghaziabad and Meerut districts.<sup>18</sup> This will be done by increasing awareness on the RRTS and its potential benefits; providing self-defense trainings, career guidance, and employability and gender-responsive life skills training; and providing placement support. A rapid assessment will be conducted at the outset to scope out the activity and to create an implementation plan.

15. Partnerships with local businesses, governments, and the National Skills Development Corporation will be explored for placement. Post-placement and psychosocial support will be provided, and a peer group will be created to enable sharing and learning from each other's experiences. Awareness programs with families, where required, will also be conducted to address gender stereotypes and restricted mobility for girls.

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<sup>14</sup> The estimated down payment is \$500. A commercial vehicle loan at an interest rate of 25% will be sought from a bank by the beneficiary. This pilot builds on the successful implementation of another pilot initiative led by a corporate foundation in a similar project area—the Vahini initiative, funded by the Shell Foundation—in western Uttar Pradesh, where women in low-resource contexts are being enabled to participate in nontraditional livelihoods, such as purchasing and operating e-rickshaws. <https://shellfoundation.org/portfolio/smv-green-solutions/>.

<sup>15</sup> The beneficiaries will be selected based on the following criteria: the person must (i) have a 40% disability as certified by the relevant state and/or central medical board; (ii) be a resident of the state; (iii) have not received assistance from the government, local bodies, and/or nongovernment organizations in the last 3 years for the same purpose; and (iv) be at least 18 years of age.

<sup>16</sup> The beneficiaries will be selected based on the following criteria: they must have (i) received an assistive aid through this program, (ii) completed secondary education, and (iii) not received any prior skills development training.

<sup>17</sup> The beneficiaries will be selected based on the following criteria: they must (i) reside in an informal settlement in Ghaziabad city, (ii) not own a permanent driving license, and (iii) have not received prior skills development training in the transport sector.

<sup>18</sup> The students will be selected based on the following criteria: they must (i) be enrolled in a government or government-aided institute along the RRTS corridor, (ii) be in the final year of the degree or diploma course, and (iii) have not received prior skills development training.

16. **Output 3: Gender- and socially inclusive public toilets around regional rapid transit system stations provided.** Public toilet blocks will be constructed around five multimodal RRTS stations to complement the mobility of all passengers, including women and differently abled people. In the design of the infrastructure, urinals and/or wash spaces for children will be considered. Japanese technology will be leveraged to explore the potential to recycle wastewater and use solar panels. The contractor will be responsible for maintaining and operating the public toilets, based on a service agreement with the NCRTC. The NCRTC will provide the land at nominal rates and monitor the maintenance of the public toilets regularly.

### C. Cost Estimates and Financing Plan

17. The grant outputs are estimated to cost \$3.0 million (Table 1), to be administered by ADB. The financing plan is in Table 2.

**Table 1: Cost Estimates**

Item	Amount (\$ million) <sup>a</sup>	Share of Total (%)
<b>A. Base Cost<sup>b</sup></b>		
1. Output 1: Safe mobility for elderly, women, children, and differently abled provided	1.78	59.4
2. Output 2: Awareness on safe mobility and self-defense increased, and employability skills improved for 900 female students in selected institutes along the RRTS corridor	0.37	12.4
3. Output 3: Gender- and socially inclusive public toilets around RRTS stations provided	0.28	9.4
4. PIU within NCRTC	0.24	8.0
5. Project management <sup>c</sup>	0.05	1.7
<b>Subtotal (A)</b>	<b>2.73</b>	<b>90.9</b>
<b>B. Contingencies<sup>d</sup></b>	<b>0.27</b>	<b>9.1</b>
<b>Total (A+B)</b>	<b>3.00</b>	<b>100.0</b>

NCRTC = National Capital Region Transport Corporation, PIU = project implementation unit, RRTS = regional rapid transit system.

Note: Numbers may not sum precisely due to rounding.

<sup>a</sup> Includes taxes on goods and civil works up to \$100,000.

<sup>b</sup> In mid-2019 prices as of 2 January 2020.

<sup>c</sup> Includes the grant implementation officer within the Asian Development Bank and an external auditor.

<sup>d</sup> Maximum of 10% of the subtotal cost.

Source: Asian Development Bank.

**Table 2: Financing Plan**

Source	Amount (\$ million)	Share of Total (%)
Japan Fund for Poverty Reduction <sup>a</sup>	3.0	100.0
<b>Total</b>	<b>3.0</b>	<b>100.0</b>

<sup>a</sup> Administered by the Asian Development Bank.

Source: Asian Development Bank.

### D. Implementation Arrangements

18. The proposed grant will be implemented over 4.5 years. The project implementation unit in the NCRTC will oversee the implementation of the grant. This will consist of the gender focal point in the NCRTC, a full-time GESI expert, and a part-time finance expert. A dedicated project coordinator, senior associate, senior communications associate (part-time), and an administrative

accounts associate will be responsible for managing the implementation of the activities under the grant. ADB will review project progress on a quarterly basis.

19. Procurement and disbursement will be conducted in accordance with ADB's Procurement Policy (2017, as amended from time to time) and Procurement Regulations for ADB Borrowers (2017, as amended from time to time). Procurement of equipment and civil works will be undertaken by the NCRTC. The financial reporting, annual audits, and disclosure requirements will be performed in accordance with ADB's policies.<sup>19</sup>

20. The implementation arrangements are summarized in Table 3 and described in detail in the facility administration manual (FAM).

**Table 3: Implementation Arrangements**

Aspects	Arrangements		
Implementation period	February 2021–August 2025		
Estimated completion date	30 August 2025		
Management			
(i) Oversight body	To be determined at the onset of the project		
(ii) Executing agency	MOHUA through NCRTC		
(iii) Key implementing agency	Not applicable		
(iv) Implementation unit	Gender focal point in the NCRTC, GESI expert (full-time), <sup>a</sup> finance expert (part-time), <sup>b</sup> project coordinator, senior associate, senior communications associate (part-time), administrative associate <sup>c</sup>		
Procurement (\$ million)	154 e-rickshaws, <sup>d</sup> service tools for e-rickshaws, four taxis, electronic equipment (500 mobile phones, 150 CCTV cameras, 4 tablets, 1 camera, and biometric, etc.) and 700 uniforms	1 contract	0.189
	1,000 assistive aids	1 contract	0.387
	Civil works for the construction of public toilets	Output 3: 1 contract	0.310
Consulting services (\$ million)	Quality- and cost-based selection (national)	Output 1: 1 contract	1.384
		Output 2: 1 contract	0.409
	Individual consultant selection for the PIU within the NCRTC	Project coordinator	0.075
		Senior associate	0.059
		Senior communications associate	0.027
Direct interventions (\$ million)	Administrative/accounts associate	0.046	
	Grant implementation officer <sup>e</sup>	0.054	
	External auditor	0.002	
Retroactive financing and/or advance contracting	Advance contracting may be requested for civil works, equipment, and consultant packages.		
Disbursement	The grant proceeds will be disbursed in accordance with ADB's <i>Loan Disbursement Handbook</i> (2017, as amended from time to time) and detailed arrangements agreed upon between the government and ADB.		

ADB = Asian Development Bank, CCTV = closed-circuit television, GESI = gender equality and social inclusion, MOHUA = Ministry of Housing and Urban Affairs, NCRTC = National Capital Regional Transport Corporation, PIU = project implementation unit, QCBS = quality- and cost-based selection.

Note: Costs include contingencies up to 10%.

<sup>a</sup> To be financed through the loan.

<sup>b</sup> Existing within the NCRTC's Finance Department.

<sup>c</sup> To be financed through the Japan Fund for Poverty Reduction grant.

<sup>d</sup> Includes payment for four e-rickshaws for training and the down payment for 150 e-rickshaws.

<sup>19</sup> ADB. 2015. Project Financial Reporting and Auditing. *Operations Manual*. OM J7. Manila; and ADB. 2018. Financial Reporting and Auditing of Loan- and Grant-Financed Projects. *Project Administration Instructions*. PAI 5.07. Manila.

<sup>e</sup> Within ADB.

Source: Asian Development Bank.

### III. DUE DILIGENCE

#### A. Technical

21. All the outputs proposed under the grant are based on (i) a review of socioeconomic data related to gender and social inclusion in the project area; (ii) semi-structured interviews with gender, universal access, and transport experts; and (iii) focus group discussions with women.

#### B. Economic and Other Impacts, Financial Viability, and Sustainability

22. **Economic impacts.** The investment project is expected to deliver significant positive economic impacts to society through savings in vehicle operating costs and travel time for both public transport and road users. The grant activities will maximize benefits from the RRTS services for women and differently abled people by conducting gender sensitization trainings, providing skills useful for taking advantage of the increased mobility because of the RRTS, helping women take a lead role in providing last-mile connectivity, and distributing assistive aids in Uttar Pradesh, among others. In addition to these direct benefits, the access to labor markets and credit, ownership of economic assets, and increased awareness on gender rights can increase women's control over their income at the household level and their contribution to family resources in the longer term. This has the potential to increase their stature within the community and bargaining power within the household.

23. **Financial viability.** Financial analysis was conducted for the investment project, which assessed the costs and earnings that would accrue because of the investment project over the project life, comprising 6 years for construction and 30 years of operations. The base value of the financial internal rate of return (FIRR) is found to be 2.5%, which is higher than the weighted average cost of capital of 2.4%. However, the FIRR is highly sensitive to project cost, ridership, and fare revenue assumptions. Any adverse change of around 10% in these assumptions will result in an FIRR that is lower than the weighted average cost of capital. Further analysis reveals that the investment project is expected to service its operations and maintenance obligations on its own each year from 2025 to 2054, but will require a subsidy of about \$38 million to meet debt obligations to ADB and the Asian Infrastructure Investment Bank (interest) during the first year of operation. In case the NCRTC is not able to service debt and operation and maintenance obligations of the project, these will be borne by the governments of Delhi and Uttar Pradesh in the ratio of route-kilometer falling in their respective states, as per the Government of India sanction order and related memoranda of understanding.<sup>20</sup>

#### C. Governance

24. The financial management assessment conducted for the NCRTC found it (i) has sound financial and accounting systems; (ii) adheres to procedures, manuals, policies, guidelines, and reporting framework prescribed by the Comptroller and Auditor General of India; and (iii) has a robust internal control system. Key risks identified include (i) the need for training NCRTC staff on ADB financial management requirements since the NCRTC is implementing an ADB-financed project for the first time, and (ii) appropriate budgetary allocations and timely release of funds for contributions to be made by participating state governments. The overall financial management

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<sup>20</sup> Government of India, Ministry of Housing and Urban Affairs. Sanction Order of the President for Implementation of the Delhi–Meerut Regional Rapid Transit System. Unpublished. (available upon request).

assessment risk is *moderate*, with appropriate risk mitigation measures in place. For the proposed grant, a part-time financial management expert will be engaged (supported with an administrative and accounts associate) to monitor and report to the management of the NCRTC financial activities arising from the grant implementation.

25. ADB's Anticorruption Policy (1998, as amended to date) was explained to and discussed with the government and the NCRTC. The specific policy requirements and supplementary measures are described in the FAM. The procurement of goods will be undertaken by the NCRTC, and a financial audit will be conducted as per ADB project administration instructions.

#### **D. Poverty and Social Impacts**

26. The investment project will improve women's safe mobility and access to entrepreneurial and employment opportunities along the corridor and, specifically, in major urban centers. The reduced travel time will alleviate disparity among urban, peri-urban, and rural areas of India's NCR. The grant will complement the impact by providing targeted support to women and differently abled people in the project area, thereby increasing their chances of advancing economic opportunities through the RRTS. This will be achieved through providing life skills, employability, and self-defense training to women, as well as assistive aids to differently abled people, in the project site.

#### **E. Participatory Approach**

27. The project design is based on key findings from consultations with different groups of women in Meerut, women and differently abled groups, and transport experts in the National Capital Territory of Delhi. These various groups include Azad Foundation, Chirag Junior School, Equal Opportunity Cell in the University of Delhi, Jagori, Kalyanam Karoti, National Skills Development Corporation, Samarthyam, Shell Foundation, SMV Group, UN Women, Vaani School, and World Resources Institute.

#### **F. Development Coordination**

28. The proposed grant has been discussed with JICA and the Embassy of Japan in Delhi. Fully automated, self-composting toilets, and projects implemented by JICA, such as the Tafgard Technology for Environment Friendly Toilets, will serve as good practice case studies for the design and construction of public toilets around the RRTS stations. ADB will coordinate closely with development partners to support the implementation of the grant.

#### **G. Safeguards**

29. In compliance with ADB's Safeguard Policy Statement (2009) (SPS), the safeguard categories of the MFF investments are as follows.<sup>21</sup> The grant activities will not be affected by safeguards categorization.

30. **Environment (category A).** Most of the alignment will be built along the center of an existing busy highway. Given the large scale of construction works involving the use of heavy equipment, health and safety risks are anticipated for the construction workers as well as existing road users and residents living near the alignment. Other anticipated environmental issues include removal of trees; disturbance from construction-related noise and vibration; generation of

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<sup>21</sup> ADB. Safeguard Categories. <https://www.adb.org/site/safeguards/safeguard-categories>.

large quantities of waste including excavated material; risks of health and communicable diseases from large numbers of workers; and generation of dust, air, and water pollution. While most risks are expected to be short term and limited to the construction stage, the key long-term risk are noise and vibration impacts on residents and structures located along the project alignment. The NCRTC prepared an environmental impact assessment, including an environmental management plan in accordance with ADB's SPS. In addition to the EMP, the contractors are also required to follow safety, health, and environment guidelines for metro projects in India. Mitigation measures for all environmental risks identified for the project have been addressed through design measures and inclusion of appropriate actions in the EMP and the safety, health, and environment guidelines. The NCRTC held consultations with key project stakeholders throughout the environmental impact assessment preparation and these will be continued during project implementation. A grievance redress mechanism will be implemented under the project to address complaints and grievances. To comply with the SPS requirement for MFF investments, the NCRTC has prepared an environmental assessment and review framework.

31. **Involuntary resettlement (category A).** The project minimizes involuntary resettlement impacts by using elevated tracks on the carriageway of existing roads. Nevertheless, about 138 hectares of private land and 32 hectares of government land will be required for 17 stations and two depots. It is estimated that 813 households (5,453 people) will be affected by physical displacement (81 households) and economic displacement (732 households) because of land acquisition or restrictions on land use. Out of the total project-affected households, 571 households (3,997 people) will experience significant impacts. The NCRTC has drafted a resettlement plan and consulted affected communities on proposed mitigation measures to address involuntary resettlement impacts on titled and nontitled households. The resettlement plan has been prepared for the entire Delhi–Meerut corridor based on resettlement surveys, social assessments, and consultations. The resettlement plan is in accordance with the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act (2013); the direct purchase policies of the Delhi Development Authority (2014) and Uttar Pradesh (2015); and the ADB SPS. The NCRTC has also prepared a resettlement framework to guide the assessment and mitigation of unanticipated involuntary resettlement impacts of the MFF.

32. **Indigenous peoples (category C).** The 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 SPS.

33. **Prohibited activities.** Pursuant to ADB's SPS, ADB funds may not be applied to the activities described on the ADB Prohibited Investment Activities List. All project activities will comply with applicable national laws and regulations.

## H. Risks and Mitigating Measures

34. The identified risks and their mitigating measures are summarized in Table 4.

**Table 4: Summary of Risks and Mitigating Measures**

<b>Risks</b>	<b>Description</b>	<b>Mitigating Measures</b>
<i>Moderate:</i> Limited experience of the NCRTC in gender and social inclusion	The NCRTC was incorporated in 2013 and has limited expertise in gender and social inclusion	The PIU within the NCRTC will include a full-time GESI expert and a project coordinator with prior experience in improving employability of women and livelihood skills for women.

Risks	Description	Mitigating Measures
	required for the grant implementation.	
<i>Moderate:</i> Mobilization of target beneficiaries takes longer	There may be social perceptions in the project area that restrict women's mobility.	Adequate time will be allocated to account for mobilization of women. The skills development training will also be provided free of cost to encourage greater participation.
<i>Moderate:</i> Possibly limited uptake for purchasing and operating e-rickshaws	Women in informal settlements may be hesitant to purchase e-rickshaws for financial and perception reasons.	In-depth focus group discussions with prospective implementation partners and collection of information on similar ongoing projects in Uttar Pradesh suggest that the risk of limited uptake is moderate.  The down payment for the purchase of the e-rickshaws will be provided through the grant and will enable women drivers and/or operators to apply for loans for the remaining amount. Biannual events are also proposed to help the female e-rickshaw drivers to be role models, increase visibility, and encourage other women.

GESI = gender equality and social inclusion, NCRTC = National Capital Region Transport Corporation, PIU = project implementation unit.

Source: Asian Development Bank.

#### IV. ASSURANCE

35. The Government of India and the National Capital Region Transport Corporation have assured ADB that implementation of the Japan Fund for Poverty Reduction grant shall conform to all applicable ADB policies, including those concerning anticorruption measures, safeguards, gender, procurement, consulting services, and disbursement as described in the facility administration manual and the grant agreement.<sup>22</sup>

36. No withdrawals shall be made from the grant account until the executing agency engages a finance expert, meeting the requirements as described in the FAM, to be responsible for the project's accounting and financial management.

#### Supplementary Documents

1. Design and Monitoring Framework
2. Project Map
3. Detailed Cost Estimates of the Investment Project by Financier
4. Japanese Visibility
5. Specific Coordination Details with the Local Embassy of Japan and Japan International Cooperation Agency

<sup>22</sup> Legal document to be signed by the government and ADB.

## DESIGN AND MONITORING FRAMEWORK FOR THE GRANT

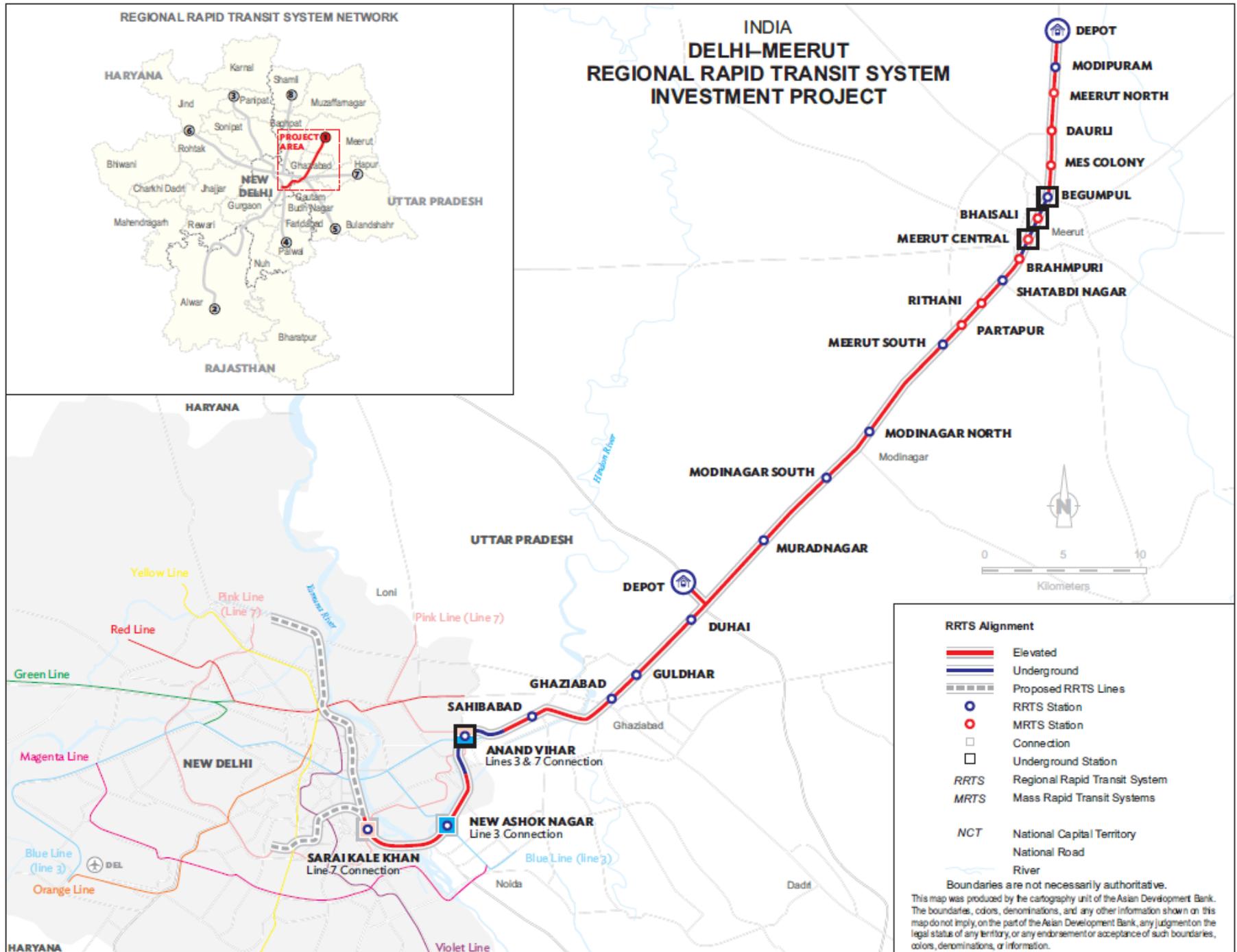
<b>Impact the Grant is aligned with:</b> Urban mobility in the National Capital Region improved (National Urban Transport Policy, 2006)			
<b>Results Chain</b>	<b>Performance Indicators with Targets and Baselines</b>	<b>Data Sources and Reporting</b>	<b>Risk</b>
<b>Outcome</b> Efficiency, safety, social inclusiveness, and environmental sustainability of transport in the Delhi–Meerut RRTS corridor Improved	By 2025: a. At least 1,400 women received training for employment and/or entrepreneurial opportunities arising from improved RRTS corridors (2020 baseline: 0)  b. At least 1,000 differently abled persons received hearing, visual, and/or physical mobility assistive aids (2020 baseline: 0)	a. Certificates issued upon completion of the trainings  b. Certificates issued upon distribution of assistive aids	Mobilization of target beneficiaries takes longer due to social behavior and perceptions
<b>Outputs<sup>a</sup></b> 1. Safe mobility for elderly, women, children, and differently abled provided	By 2025: 1a. 150 vulnerable women in Ghaziabad city supported to become e-rickshaw drivers (2020 baseline: 0)  1b. 1,000 differently abled received hearing, visual, and physical mobility assistive aids (2020 baseline: 0)  1c. 350 vulnerable women in Ghaziabad city received light motor vehicle driving licenses (2020 baseline: 0)  1d. 200 drivers and conductors of feeder buses to the RRTS sensitized on gender and social inclusion (2020 baseline: not applicable)	1a. Registration details of e-rickshaws  1b. Certificates confirming the distribution of assistive aids  1c. Number of light motor vehicle driving licenses issued  1d. Number of GESI trainings and participants	
2. Awareness on safe mobility and self-defense increased, and employability skills improved for 900 female students in selected institutes along the RRTS corridor	By 2025: 2. 900 female students in government or government-aided institutes along the RRTS corridor sensitized on safe mobility and self-defense strategies, and acquire improved employability and/or entrepreneurship skills (2020 baseline: 0)	2. Certificates issued upon completion of the trainings	
3. Gender-inclusive and socially inclusive public toilets around RRTS stations provided	By 2025: 3. Gender-inclusive and socially inclusive public toilet block constructed around five major RRTS stations (2020 baseline: 0)	3. Quarterly reports submitted to ADB by the NCRTC	
<b>Key Activities with Milestones</b> <b>1. Safe mobility for elderly, women, children, and differently abled provided</b> 1.1 National consulting organizations contract awarded (Q1 2021) 1.2 Assistive aids distributed (Q3 2022) 1.3 Four trainings conducted with drivers and conductors of feeder buses (Q1 2025)			

<p><b>2. Awareness on safe mobility and self-defense increased, and employability skills improved for 900 female students in selected institutes along the RRTS corridor</b></p> <p>2.1 National consulting organizations contract awarded (Q2 2021)</p> <p>2.2 400 female students provided with improved employability skills (Q1 2023)</p> <p>2.3 500 additional female students provided with improved employability skills (Q1 2025)</p> <p><b>3. Gender inclusive and socially inclusive public toilets around RRTS stations provided</b></p> <p>3.1 Public toilet blocks constructed around 5 major RRTS stations (Q1 2025)</p>
<p><b>Input</b></p> <p>JFPR: \$3,000,000 (grant)</p>
<p><b>Assumptions for Partner Financing</b></p> <p>Not applicable</p>

ADB = Asian Development Bank, GESI = gender equality and social inclusion, JFPR = Japan Fund for Poverty Reduction, NCRTC = National Capital Region Transport Corporation, Q = quarter, RRTS = regional rapid transit system.

<sup>a</sup> Contributing to output 3 of the investment project.

Source: Asian Development Bank.



**DETAILED COST ESTIMATES OF THE INVESTMENT PROJECT 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, NCRTC = National Capital Region Transport Corporation.

Notes:

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

## JAPANESE VISIBILITY

1. A senior communications associate is proposed to be assigned within the project implementation unit of the National Capital Region Transport Corporation (NCRTC) to ensure consistent branding of the Government of Japan and the Trust Fund, and to share all event updates and media coverage with the Embassy of Japan, the Japan International Cooperation Agency (JICA), and the Asian Development Bank (ADB) office in India on a regular basis.
2. To ensure Japanese visibility, in accordance with the Trust Fund guidelines, the project implementation team will ensure that the Trust Fund and the Government of Japan logos will be prominently and systematically featured in Trust Fund-supported (i) training events, seminars, and workshops; (ii) civil works such as the public toilet blocks; (iii) assistive aids; (iv) e-rickshaws and taxis; (v) publications and films; (vi) project website; and (vii) other key documents.
3. For all outputs, all publications and written materials, training programs and workshops, banners at training venues, and press releases dealing with the grant project will bear the Trust Fund logo and state that funding is being provided by the Government of Japan.
4. The executing agency will be requested to ensure that the Trust Fund-financed activities are well covered by local print and electronic and social media, and that all related publicity materials, official notices, reports, and publications explicitly acknowledge Japan as the source of funding received.
5. The executing agency and project implementing units will also collect and maintain a database of high-resolution photographs of the project activities, for use in project communication activities and for provision to the ADB office in India, ADB's Partner Funds Division (SDPF), JICA, Government of India, and the Embassy of Japan in New Delhi.
6. During implementation, the team will also consult regularly with the JICA office in India for exchanging best practices.
7. Visibility of Japanese aid and technology will also be ensured through the (i) attendance of a representative from the Embassy of Japan and JICA at every major event of the grant supported by the Trust Fund with press coverage, such as during the distribution of assistive aids, felicitation of female e-rickshaw drivers and taxi drivers, and inauguration of the public toilet blocks; (ii) systematic use of Trust Fund logos on grant-related correspondence, workshop materials and banners, and any media publication; (iii) clear reference to the financial contribution of the Government of Japan during major project activities and for major outputs (publications, press releases, and speeches); and (iv) exploration of the use of Japanese technologies such as fully automated, self-composting toilets, and projects implemented by JICA in India. For example, the Tafgard Technology for Environment Friendly Toilets will serve as good practice case studies for the design and construction of public toilets around the regional rapid transit system stations.

## **SPECIFIC COORDINATION DETAILS WITH THE LOCAL EMBASSY OF JAPAN AND JAPAN INTERNATIONAL COOPERATION AGENCY**

1. The initial title and description form of the Japan Fund for Poverty Reduction (JFPR) grant was shared ahead of scheduled meetings in Delhi with the Japan International Cooperation Agency (JICA) on 16 September 2019 and the Embassy of Japan on 17 September 2019. The following are key takeaways:

- (i) The rationale for the selection of e-rickshaws should be clearly justified, among other options (e.g., auto-rickshaw, e-rickshaw, Tempo and Vikram auto-rickshaw), as a safer and preferred mode of transport for men and women in the project area.
- (ii) The Embassy of Japan supported the construction of (model) toilets that exemplify and reflect Japanese and other global practices related to universal accessibility and sustainable use of resources such as water and energy. These will be referred to as good practice case studies in the design of the public toilets around the regional rapid transit system (RRTS) stations.

2. The grant proposal was shared with JICA and the Embassy of Japan in Delhi on 10 February 2020. JICA supports the project and believes the concept of the proposed Delhi–Meerut Regional Rapid Transit System Investment Project responds proactively in an implementable and appropriate manner and rightly captures the challenges that women and/or girls, transgender, and differently abled groups have been facing—safe mobility, safe and comfortable toilets, and employment opportunities in the formal sector. JICA requested the team to set realistic targets, with particular attention to output 2 (awareness on safe mobility and self-defense increased, and employability skills improved for 900 females students in selected institutes along the RRTS corridor). The team confirmed that extensive consultations were conducted in this respect, and that targets are assumed to be achievable. The Embassy of Japan also conveyed their support. They appreciate that the team commits on efforts to utilize Japanese technologies and experiences in this project. Overall, the grant proposal is well-designed and has good potential to be a gender-responsive practice in the transport sector.