

INDIA: PROJECT PERFORMANCE EVALUATION¹ DELHI-GHAZIABAD-MEERUT REGIONAL RAPID TRANSIT SYSTEM PROJECT

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The Delhi–Ghaziabad–Meerut Regional Rapid Transit System (RRTS) project aims to develop India’s first high-speed regional rail corridor, linking the National Capital Territory of Delhi with Ghaziabad and Meerut in the state of Uttar Pradesh. By 2028, the project aims to have an operational 82.15 km rapid rail corridor, serve an average of 740,000 passengers daily, reduce travel time by up to 75%, and avoid nearly 258,035 tonnes of CO₂ emissions annually.

PROJECT DESIGN

The project was approved by NDB’s Board of Directors on 29 September 2020 and is being implemented under a co-financing arrangement with the Asian Development Bank (ADB) and the Asian Infrastructure and Investment Bank (AIIB). The project also received a USD 3 million grant from the Japan Fund for Poverty Reduction (JFPR), administered by ADB, as well as counterpart funding from the Government of India. The borrower of the NDB loan for this project is the Government of India, with the Ministry of Housing and Urban Affairs (MoHUA) acting as the executing agency and the National Capital Region Transport Corporation (NCRTC) as the implementing agency.



Delhi-Ghaziabad-Meerut Regional Rapid Transit System Project, India

WHAT WORKED WELL...

By 2025, 55 km of the corridor was operational, carrying around 41,000 passengers daily and thereby contributing to an estimated reduction of 24,000–32,000 tonnes of CO₂ emissions through modal shift from road-based transport. Travel time across the operational sections had fallen from about two hours to 42 minutes, a 63–70% reduction. In addition, about 4.7 MWp of rooftop solar capacity had been commissioned across stations and depots, generating approximately 5.3 GWh annually and avoiding about 4,900 tonnes of CO₂ per year, based on current grid emission factors.

The project also generated more than 1,800 jobs, trained over 500 women as mobility service providers, and helped women account for more than one-third of RRTS operations staff. It further supported the training of 184 girls in self-defence. Land values within a 2 km radius of RRTS stations in Ghaziabad and Meerut increased by 30–67% since 2023, suggesting a stronger local investment stimulus. In addition, it introduced advanced rail technologies, including a design speed of 180 km/h, signalling and telecommunications systems based on the European Train Control System (ETCS) Level 2, and an interoperable design that enables seamless RRTS–Metro operations in Meerut.

NDB loan approval date:

29 September 2020

NDB loan effectiveness date:

22 December 2020

NDB loan closing date:

31 August 2027

Total project cost at appraisal:

USD 3,759 million

NDB loan:

USD 500 million*

Co-financing:

USD 1,549 million (ADB, AIIB)

Grant:

USD 3 million (JFPR)

Counterpart funds:

USD 1,707 million

NDB’s outputs:

rolling stock; signalling, train control and telecommunication (S&T) system; civil works for the construction of multi-storied staff quarters and associated facilities.

* Since reduced to USD 418 million after partial cancellation of USD 82 million

¹ This evaluation was conducted in 2025, and its findings, conclusions and recommendations are based on the data, project status and evidence available at the time of the evaluation.

NDB demonstrated agility and responsiveness through swift loan processing during the COVID-19 pandemic and timely supervision, including the completion of a structured mid-term review with concrete recommendations and follow-up actions. By supporting domestic production and technology localisation, NDB contributed to the Make in India initiative.² In addition, its borrower-friendly commitment fee structure and planned knowledge-sharing initiatives with NCRTC reflect a constructive and forward-looking approach to implementation support and sectoral learning.

... AND WHAT COULD HAVE WORKED BETTER

Ridership targets for 2025 were not fully met. This reflects slower-than-anticipated progress in operationalising multimodal integration, fare and ticketing interoperability, and first- and last-mile connectivity. As economic, financial and environmental projections are closely linked to ridership growth, continued attention to demand-side performance will be important to fully realise the project's expected benefits by 2028.

Weaknesses in the project's design and monitoring framework, including the lack of a clear theory of change, also reduced evaluability and monitoring quality. NDB's late entry into the implementation process limited its ability to influence project design and add strategic value. NDB's broader additionality was further constrained by limited use of technical assistance, less competitive financing terms, the absence of local or alternative currency options, limited coordination among co-financiers during implementation, and the partial loan cancellation of USD 82 million, which reduced overall efficiency in resource utilisation.

² <https://www.makeinindia.com/about>

Want to find out more?



Evaluation Lens' provides a short summary of evaluations conducted by IEO. The full evaluation report and related documentation may be accessed through the IEO web pages.

◀ Scan to access the full report.

RECOMMENDATIONS

Immediate Actions

- Strengthen multimodal integration and feeder connectivity to enhance ridership performance.
- Actively facilitate fare and ticketing interoperability through structured inter-agency engagement.
- Phase and prioritise non-fare revenue activation to support early operational cost recovery.

Forward Looking Considerations

- Mandate an explicit theory of change in project design reports to strengthen project evaluability.
- Enhance financial competitiveness through local currency financing and flexible product design.
- Enhance the NDB's technical and institutional support during implementation to strengthen developmental additionality, leveraging the project preparation fund where appropriate.
- Strengthen knowledge management and visibility to capture and disseminate lessons from flagship operations.
- Strengthen institutional coordination mechanisms and promote safeguards harmonisation and shared assurance in multi-financier transport projects.
- Strengthen upstream and adaptive risk management, including financing flexibility, in complex transport mega-projects.

THE INDEPENDENT EVALUATION OFFICE

The NDB Independent Evaluation Office was established in April 2022. The Director General of IEO reports directly and exclusively to the NDB Board of Directors. The main objective of IEO is to promote accountability and learning for enhancing the Bank's performance.

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