

CHAPTER-6
CONCLUSION



Chapter 6 Conclusion

Delhi Mass Rapid Transit System implemented by DMRC is a landmark step in the sphere of mass urban transportation in India and revolutionised the mass transportation sector across the Country. Delhi Mass Rapid Transit System Project Phase-I covering 65 km was conceptualised (September 1996) and completed (November 2006) by DMRC. This was followed by Phase-II (124.93 km during 2006-2011), Phase-III (160.74 km during 2011-2019) and Phase-IV covering 103.93 km which is under implementation and scheduled to be completed by December 2024.

Performance Audit of Delhi Mass Rapid Transit System Phase-III was taken up during November 2018 to March 2020 with the objective to examine whether (i) planning was done in a rational manner to ensure economic viability of corridors and selection of the most appropriate technology; (ii) implementation in terms of project execution and contract management was done with due care, economy, and in a timely and transparent manner; (iii) an adequate mechanism was in existence to monitor the project, and (iv) the operation and maintenance were efficient, and the planned benefits were achieved after commercial operation of Phase-III.

Audit observed that there were inconsistencies in recommending and approval of corridors as the benchmark of eight *per cent* of Financial Internal Rate of Return was not adhered to. The Detailed Project Reports of three corridors were prepared in contravention to recommendations of Working Group on Urban Transport & RITES Study in terms of the mode of selection of transport. After sanctioning of Phase-III projects for Lines 7 & 8 and its extensions, the train operation was changed from nine cars to six cars, thus eliminating the possibility of catering to the increased ridership in future. Further, in case of selection of technology, rails of relatively low value of hardness, as compared to standards, were procured, which may result in increased maintenance cost. Traction Transformers and Auxiliary Main Transformer of higher capacity were procured due to estimation of higher projected demand and size of stations, respectively. Also, half height Platform Screen Doors were installed instead of full height Platform Screen Doors resulting in installation of higher capacity electrical equipment and consequent higher energy cost.

With regard to project execution and contract management, Audit observed that the cost of projects was not estimated in a scientific manner; they were estimated on the basis of the last accepted rate. In case of Line-7 (Mukundpur-Maujpur corridor), the Social Impact Assessment study was deficient to the extent of identification of project affected persons at Trilokpuri, which led to more than five year's delay in operationalisation of the entire section. In case of Line-8 (Janak Puri West-Kalindi Kunj corridor), Sadar Bazar & Shankar Vihar stations and additional subway from Terminal 1C to Terminal 1D were constructed, without any provisions in DPR and without approval of GoI and GNCTD. Additionally, the design of Hauz Khas interchange station was flawed, resulting in inconvenience to the commuters. Besides, DMRC did not adhere to various environment requirements including obtaining environmental clearances, conducting water audit and maintaining records of water extracted/ consumed.


Audit noticed delays ranging from 2 months to 46 months in completing the corridors as per the scheduled dates. The Board Sub Committee on Project Management did not meet at regular intervals to monitor the progress of projects and suggest measures for expediting the same. Besides, the Quality Management Plans were prepared by the executing agencies without uniformity across the projects. Real time performance of Rolling Stock Heating, Ventilation and Air Conditioning systems including the energy being consumed has not been analysed in the real conditions, which could help in introducing energy saving strategies.

DMRC did not prepare line-wise operational profit/ loss statements as per the sanction letters. Due to this, DMRC is unable to claim the loss, if any, from the respective State Governments. The actual daily ridership of different corridors was 15.12 *per cent* to 87.63 *per cent* lower than the projections. DMRC not only failed to provide last mile connectivity services, but also did not adhere to the guidelines relating to Multi Modal Integration facilities. There was shortfall of ₹1,847.87 crore in earning from Property Development and ₹1,841.19 crore from Property Business, against the projections for Phase-III.

Thus, Performance Audit of Implementation of Phase-III Delhi Mass Rapid Transit System by DMRC indicated execution of unviable corridors without exploring the other modes of transport, lower ridership and short realisation of Non-Fare Box Revenue than projected which may lead to operational loss for DMRC and extra burden on the Government exchequer even after incurring an expenditure of ₹45,468.89 crore.

Based on the shortcomings and the implications of such deficiencies, 22 Audit recommendations have been proposed for further improvement of the performance of the DMRC.

New Delhi
Dated: 29 October 2021


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Countersigned

New Delhi
Dated: 2 November 2021


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