

CHAPTER I

Introduction

1.1 Need for Mass Rapid Transit System in Delhi

1.1.1 In order to mitigate the growing traffic and transport problems in Delhi, the Government of National Capital Territory of Delhi (GNCTD) [formerly known as the Delhi Administration] commissioned RITES Limited in 1988-89 to study the feasibility of introducing an Integrated Multi-modal Mass Rapid Transit System for Delhi. In 1990, RITES recommended a Mass Rapid Transit System (MRTS) comprising Rail corridor, Metro corridor and dedicated Busway for a total network of 198.50 Kilometres (Kms).

1.1.2 The Central Cabinet in July 1994 gave go-ahead in principle for the MRTS for Delhi as per the RITES Feasibility Report and directed the GNCTD to take up the preparation of a Detailed Project Report (DPR) for the MRTS. DPR for construction of a 55.30 Kms MRTS comprising rail and metro corridors was finalised by RITES in May 1995, which was envisaged to be completed in March 2005.

1.1.3 Till 1995, more than 70 metropolitan rail systems existed in the world and Kolkata Metro, India's first and Asia's fifth, was commissioned on 24 October 1984. Though the construction of Kolkata Metro was marred by inordinate delays and caused considerable public inconvenience, it provided many valuable inputs for planning and execution of the Delhi MRTS.

1.2 Approval of MRTS Phase I

1.2.1 The Union Cabinet sanctioned implementation of the Delhi MRTS Phase I (Project) of 55.30 Kms in September 1996 at a total cost of Rs. 4859.74 crore (April 1996 prices). As per the Cabinet sanction, three lines as shown in Table-1 were planned to be constructed.

Table 1

Planned Routes and Corridor of Delhi MRTS Phase I

Line No.	Route	Corridor Type	Length (Kms)
1	Shahdara- Nangloi	Elevated (17.70 km) At grade (7.30 km)	25.00
2	Vishwavidyalaya- Central Secretariat	Underground	11.00
3	Subzi Mandi- Holombi Kalan	Elevated (4.45 km) At grade (14.85 km)	19.30
Total			55.30

1.2.2 The Project as actually constructed, however, comprised routes and types of corridors as shown in Table 2 below:

Table 2

Constructed Routes and Corridor of Delhi MRTS Phase I

Line No.	Route	Corridor Type	Length (Kms)
1	Shahdara-Rithala	Elevated (17.50 km) At grade (4.50 km)	22.00
2	Vishwavidyalaya-Central Secretariat	Underground	11.00
3	Dwarka subcity-Indraprastha	Elevated (29.93 km) Underground (2.17 km)	32.10
Total			65.10

1.2.3 The first section of Line 1 was commissioned in December 2002, while the last section on Line 3 became operational in November 2006. The map indicating the routes as envisaged in the original approved DPRs vis-à-vis actually constructed is shown in *Annexure I*. The revised approved cost of the Project was Rs. 10571 crore (September 2005).

1.2.4 The supervisory levels for the implementation of the Project as approved by the Cabinet in July 1994 were as under:

- A Group of Ministers* was constituted to take policy decisions and to review the progress of the Project from time to time. The Lieutenant Governor of Delhi was made a permanent invitee to the Committee. This Group of Ministers was to be chaired by the Prime Minister or such Minister as he might nominate.
- The Empowered Committee constituted under the Chairmanship of the Cabinet Secretary with six[▼] Secretaries, Chairman Railway Board, Chief Secretary GNCTD and representative from the Prime Minister's Office. This Committee was empowered to consider various issues arising from time to time with reference to funding and implementation of the Project.
- Incorporation of the Delhi Metro Rail Corporation Limited as a company under the Companies Act 1956 to execute and operate the Project.

1.2.5 The financing plan for the Project stipulated a debt equity ratio of 2:1. Annual contributions towards equity were to be made by the Government of India (GOI) and the GNCTD at the rate of Rs. 103.60 crore *per annum* each; the long term loan was to be raised on suitable terms from Japan Bank for International Cooperation (JBIC), formerly known as the Overseas Economic Co-operation Fund (OECF) at an interest rate not exceeding three *per cent per annum*; and the balance of the project cost over and above

* *Ministers for Finance, Home Affairs, Railways, Urban Development, Surface Transport and Environment & Forests, and Deputy Chairman, Planning Commission*

▼ *Finance, Home Affairs, Planning Commission, Urban Development, Surface Transport and Environment & Forests*

the equity and debt finance was to be raised from property development, which was estimated at six *per cent* of the revised project cost (April 1996 prices).

1.3 Delhi Metro Rail Corporation Limited

1.3.1 Delhi Metro Rail Corporation Limited (the company) was registered (May 1995) under the Companies Act, 1956. The Managing Director (MD) and two Functional Directors joined in November 1997 and June 1998, respectively. The total paid up capital for the Project, contributed equally by the GOI and the GNCTD, was Rs. 2928 crore as on 31 March 2008.

1.3.2 Secretary, Ministry of Urban Development (GOI) is the part-time Chairman of the company and five part-time Directors each, representing the GOI and the GNCTD are also on the Board of Directors (BOD) of the company. As on 31 March 2008 the Board of Directors had a membership of 16 including six functional Directors.

1.4 Concessions provided to the company

As the Project was not considered commercially viable, the GOI provided the following concessions to it:

- Land belonging to various Government agencies was provided at inter-departmental transfer rates. The cost of land amounting to Rs. 504 crore was shared equally by the GOI and the GNCTD. It would be recovered as interest-free debt after repayment of loan raised from the JBIC.
- The long-term debt required for the Project was raised by the GOI through a loan agreement executed (February 1997) with the JBIC at concessional rate of interest and transferred to the company. The JBIC committed a loan of Rs 6359 crore to the Project which is to be repaid by the company in 30 years with a moratorium of 10 years with effect from February 1997.
- Exchange rate fluctuation risk for the period of repayment of foreign loan was to be shared between the GOI and the GNCTD, equally.
- Exemption from property tax and electricity tax.
- Exemption from import duty, excise duty, sales tax and works contract tax.
- No dividend to be paid on Government equity till the JBIC loan is fully repaid by the end of 30th year.

1.5 Audit objectives

Audit objectives were to assess that:

- selection of corridors and routes, and modifications in routes were carried out keeping in view economic viability and effectiveness of the Project;
- proper analysis of the prevailing technologies relating to various segments of the Project was carried out to obtain best possible option;
- the contract management was done with due care and economy, works were awarded in a transparent manner and at competitive cost, execution and supervision of works was carried out efficiently and the services and goods were procured timely, efficiently and economically; and

- an adequate mechanism was in existence to monitor the Project, to ensure timely completion of works and conformity of works executed with laid down specifications.

1.6 Scope of audit

The performance audit covered various activities relating to the implementation of the MRTS (Phase I). Significant issues relating to the above audit objectives were examined in 28 contracts valuing Rs. 6540.03 crore out of 100 high value contracts (for more than Rs. five crore) valuing Rs. 8900.57 crore.

1.7 Audit criteria

Audit criteria identified for the purpose of the performance audit for different activities of the MRTS (Phase I) were:

- Detailed Project Reports.
- Memorandum and Articles of Association of the company.
- Delegation of Powers.
- Provisions stipulated in the Contract Agreements.
- The JBIC guidelines in case of the JBIC funded works.
- Decisions of Cabinet, Group of Ministers and Empowered Committee.
- Agenda papers and minutes of meetings of the BOD.
- Guidelines and instructions issued by the Department of Public Enterprises and the Department of Economic Affairs.

1.8 Audit methodology

The performance audit was carried out in accordance with the CAG's Auditing Standards and Performance Audit Guidelines. The performance audit started with an entry conference with the management in March 2007. The draft Audit Report was issued to the management in February 2008. The audit findings and recommendations were presented in a meeting of the Audit Board held in May 2008 with the representatives that included all the functional Directors of the management. Replies from the management have been received and suitably incorporated in the Audit Report. The draft Audit Report was issued to the Secretary (Urban Development), the GOI and the Chief Secretary, GNCTD in July 2008; their replies have not been received as of September 2008.

A team from the Indian Institute of Technology Delhi (IIT) was engaged as technical consultants to assist in the examination of certain technical matters relating to this performance audit. The IIT examined the issues of contract management, selection of technologies and selection of routes and corridors. The results of audit together with the findings of the IIT are mentioned in Chapters II to VI of this Audit Report.

1.9 Acknowledgement

Audit acknowledges the cooperation and assistance provided by the management at all levels at various stages of the audit.