

Delhi Metro Rail Project: Story of India's first of its kind urban infrastructure megaproject

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How it began?

Focussed on the first few phases of its construction, we attempt to highlight:

- How upholding high process standards enabled successful project execution.
- Streamlining contentious process of land acquisitions.
- Facilitating inclusion of vulnerable groups and non-title holders in R&R (resettlement and rehabilitation) process.
- Inculcating a sense of responsibility, work ethic, and converge of efforts.

Evidence from early construction stage: Linear vision and clarity of process

- Registered as a joint venture between the Ministry of Urban Affairs and the Government of NCT of Delhi in May 1995.
- DMRC begin its operation with an 8 kilometre line in December 2002
- Before the construction phase, a detailed Environmental Impact Assessment (EIA) was carried out to gauge and minimize negative environmental impacts of the project during the construction stage.
- DMRC became the first metro in the world to receive 14001 certification at construction stage and only second in the world overall after New York Metro
- The DMRC has also been awarded OHSAS 18001 (Occupational Health and Safety Assessment sequence 18001) by Registro Italiano Navale India Pvt. Ltd. (RINA), Genova.

Streamlined land appropriation mechanisms

- DMRC acquires land from Government agencies such as Delhi Development Authority (DDA), Municipal Corporation of Delhi (MCD) and Ministry of Urban Development (MoUD) etc. on a lease basis. Private land is acquired by DMRC under Land Acquisition Act, 1894, through Land Acquisition Collector, Government of National Capital Territory of Delhi (GNCTD).
- A legal framework gave the DMRC unencumbered right to acquire land it deems necessary for metro operations – [Delhi Metro Railway Operation and Maintenance Act, 2002](#).
- According to policy provisions:
 - DDA will rehabilitate the PAFs (Project Affected Families) occupying residential dwelling units.
 - DMRC will rehabilitate PAPs (Project Affected Persons) occupying commercial unit/shop by providing constructed shop in the shopping complex.
- The compensation payable to the land owner includes not only the cost of land but also the cost of structures existing on the acquired land.

Inclusion of non-title holders for compensation and rehabilitation

- The framework adopted for rehabilitation, and compensation entitled a variety of PAPs and PAFs including non-title holders (squatters), tenants, kiosk owners, etc. The list of PAPs entitled to compensation is:
 - (i) PAPs losing land and other assets with legal title/traditional land rights will be compensated, and PAPs will be rehabilitated
 - (ii) Tenants in case of shops
 - (iii) Owners of buildings, or other objects attached to the land
 - (iv) PAPs losing business, income, and salaries
 - (v) Assistance to the non-title holders (squatters, etc).
- The mitigation measure of the adverse impacts included the following:
 - (i) To assist the PAPs (Project Affected Persons) in resettling them at the suitable place.
 - (ii) To provide monetary assistance in the form of shifting allowance and transitional allowance, etc.
 - (iii) To provide house for loss of house at resettlement site by Delhi Development Authority (DDA).

Convergence & Commitment

- From the beginning of the project, making funding available for the project's four phases was key to its success.
- The DMRC enjoyed the freedom to be able to take technical decisions independently and relied on the government principally for arranging funding and land acquisition.
- Japanese International Cooperation Agency (JICA) was tasked with infusing Japanese work ethic and technical specs for selection of contractors.
- A sense of urgency is inculcated by compressing time frame set from 10 years to 7 years.
- As a constant reminder, clocks counting down the seconds until the project was set to be inaugurated were given to each employee and displayed at many work sites.
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- Cooperation with other governmental agencies and utilities was given utmost importance, and DMRC took up work where necessary to make sure the hurdles are crossed on time.

Conclusion

- The story of Delhi metro demonstrates how building a favourable image that combines tangible elements with intangible symbolic meanings may galvanise public support and draw clients to a public transportation system
- Delhi Metro received strong support due to:
 - DMRC's ability to persuade people of metro's benefits
 - Engaging in active and open media relations

The efficient operational aspects of the Delhi MRT projects alongside a well-planned and executed public relation strategy makes it a success story.