

Now Available

URBAN RAIL IN INDIA 2018

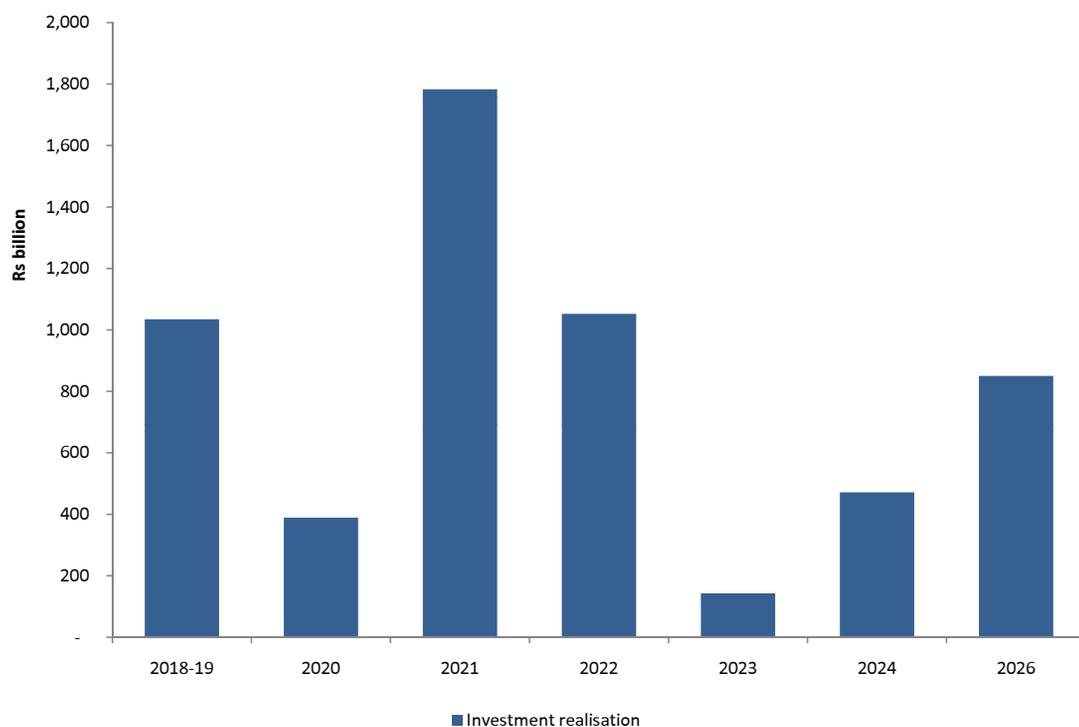
Segment Trends, Outlook and Opportunities

- ❖ Report (PDF)
- ❖ Data-set (Excel)

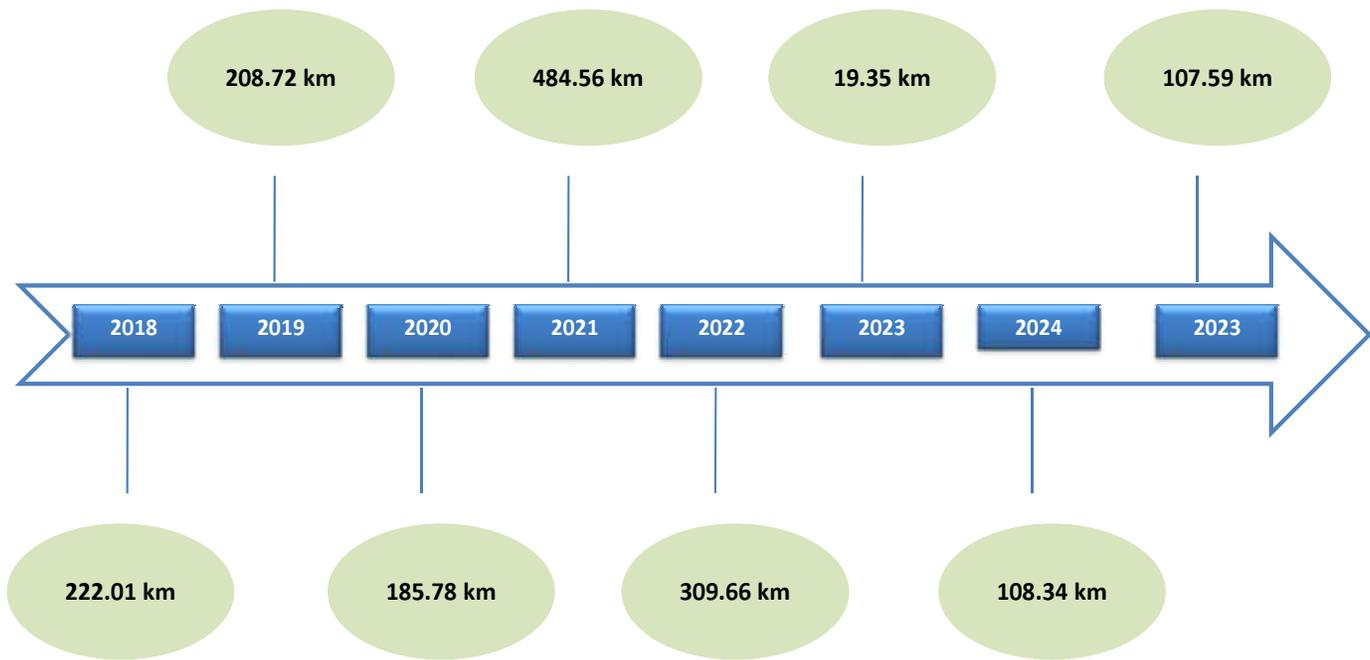
Urban Rail in India 2018

- A well-planned integrated urban transport system is of utmost relevance for Indian cities that are experiencing ever-increasing volumes of traffic congestion.
- In India, 10 cities have an operational urban rail network spanning 444 km. India's urban rail network has grown significantly over the past 10-12 years, up from about 90 km in 2006.
- In August 2017, the government approved the new Metro Rail Policy, 2017. This policy aims to facilitate innovative financing, revive private investment by making PPPs mandatory, promote transit-oriented development and provision of last-mile connectivity, and improve project appraisal procedures. In another major initiative, in April 2017, the government introduced the norms to procure at least 75% of rail cars and 25% of critical equipment locally under the Make in India initiative.
- Cities across India are also experimenting with state-of-the-art technologies to make urban rail systems more efficient, reliable and passenger-friendly given the rapidly increasing ridership. Indian metro systems are steadily moving from semi-automatic to unattended train operations/driverless train operations. Most of the upcoming systems have plans to deploy the highest grades of signalling such as communications-based train control (CBTC) systems. Several systems are also exploring the deployment of advanced fare payment systems such as open loop ticketing and bank cards.

Investment Projections for Urban Rail Segment



Expected Network Addition in Urban Rail Segment



- The segment thus offers significant opportunity to the various stakeholders. The projections indicate a realisation of an investment to the tune of about Rs 6 trillion for projects in the pipeline. According to India Infrastructure Research, there lies an opportunity of Rs 4.3 trillion for players across sectors such as construction, tunnel works, traction and E&M, rolling stock, fare collection, signalling, etc.
- However, financing continues to be a grey area. In fact, financial viability of metro projects rests on a lot of volatile factors. Limited private sector participation and limited success of PPP projects has also choked-off an important source of funds.
- The government - central as well as state - continues to fund the majority of urban rail projects. Private sector participation in the sector, particularly in the metro rail segment, has so far been limited due to high construction costs, and long gestation and payback periods. Besides, land acquisition, securing of regulatory clearances, right of way, engineering issues, geotechnical challenges are some of the pressing concerns of the sector at present.
- Network addition too will be on the rise in the next five to six years. Based on the projects tracked by *India Infrastructure Research*, in all, the project pipeline entails a total length of about 2,066 km of urban rail stretches, of which, the maximum length will be added between 2018 and 2022.

Table of Contents

SECTION I: MARKET TRENDS AND OUTLOOK

1. Executive Summary

2. Sector Overview

- ❖ Network Size and Growth
- ❖ Trends in Ridership
- ❖ Key Sector Trends
- ❖ Impact of 'Make in India' and Focus on Indigenisation
- ❖ Budgetary Outlay for 2018-19
- ❖ Recent Developments
 - Key Government Initiatives
 - Project Completions
 - Recent Contract Awards
 - Projects Approved/Launched/Proposed
 - New Concepts and Technologies
- ❖ Investment Requirements
- ❖ Issues and Challenges
- ❖ Future Outlook

3. Metro Rail Policy 2017

- ❖ Salient Features
- ❖ Potential Benefits
- ❖ Impact on PPPs
- ❖ Scope for Private Participation in O&M
- ❖ Industry Feedback

4. Investment and Financing Experience

- ❖ Investment Experience So Far
- ❖ Funding Sources and Financing Models
- ❖ Recent Financing Trends
- ❖ Project Economics
- ❖ Cost Components
- ❖ Historical and Expected Rates of Returns
- ❖ Key Sources of Revenue
- ❖ New Revenue Streams
- ❖ Risks and Challenges

5. Prospects for PPP

- ❖ PPP Experience So Far
- ❖ Key Milestones
- ❖ Projects Completed and Under Implementation
- ❖ Case Studies of PPP Projects
- ❖ Learning Points
- ❖ Key Success Factors
- ❖ Impact of Metro Rail Policy 2017 on PPP
- ❖ Planned Projects and Investments
- ❖ Risks and Challenges

6. Project Pipeline

- ❖ By Status
 - Ongoing
 - Awarded
 - Under bidding
 - Planned

- ❖ By Mode of Implementation

- EPC
- PPP

- ❖ By Type of System

- At grade
- Elevated
- Underground

7. Investment Outlook and Opportunities

- ❖ Growth Drivers
- ❖ Expected Network Expansion by 2020 and Beyond 2020
- ❖ Investment Projections
- ❖ Upcoming Opportunities
 - Contractors/developers
 - Tunnel Construction
 - Traction and E&M
 - Rolling Stock
 - Signalling, Train Control and Telecommunication
 - Fare Collection
- ❖ Market Opportunities
- ❖ Issues and Challenges
- ❖ Sector Outlook

SECTION II: SEGMENT ANALYSIS, OUTLOOK AND OPPORTUNITIES

8. Rolling Stock

- ❖ Market Size and Growth
- ❖ Nature of Fleet and Specifications
- ❖ Recent Orders (past 15-18 months)
- ❖ Upcoming Bids and Tenders
- ❖ Market Share of Key Players
- ❖ Focus on Indigenous Production
- ❖ Outlook and Projections (till 2023-24)

9. Signalling, Train Control and Telecommunications

- ❖ Market Size and Growth
- ❖ Technologies and Systems in Use
- ❖ System Upgrades and Innovations
- ❖ Market Share of Key Players
- ❖ Recent Contracts
- ❖ Upcoming Bids and Tenders
- ❖ Recent Developments
- ❖ Outlook and Projections

10. Fare Collection Systems

- ❖ Market Size and Growth
- ❖ Specifications of Systems in Use
- ❖ System Upgrades and Innovations
- ❖ Global Scenario
- ❖ Market Share of Key Players
- ❖ Recent Contracts
- ❖ Upcoming Bids and Tenders
- ❖ Plans of Key Metro Systems
- ❖ Key Trends
- ❖ Recent Developments
- ❖ Outlook and Projections

11. Construction: Metro Tunnels

- ❖ Size and Growth
- ❖ Analysis of TBM Market
- ❖ Market Share of Key Players
- ❖ Recent Contracts (past 15-18 months)
- ❖ Upcoming Bids and Tenders
- ❖ Recent Developments
- ❖ Best Practices in Tunnel Design
- ❖ Outlook and Opportunities

12. Construction: Elevated MRTS

- ❖ Size and Growth
- ❖ Per-km Construction Cost
- ❖ Prevalent Methods and Techniques
- ❖ Market Share of Key Contractors
- ❖ Recent Contracts
- ❖ Upcoming Tenders
- ❖ Key Trends
- ❖ Outlook and Projections

13. Stations

- ❖ Size and Growth
- ❖ Innovations in Material and Design
- ❖ Key Components of Station Design
- ❖ Key Players
- ❖ Recent Contracts
- ❖ Global Best Practices
- ❖ Upcoming Tenders
- ❖ Outlook and Projections

14. Traction and E&M

- ❖ Traction Systems
- ❖ Market Size
- ❖ Specifications of Traction and E&M Systems
- ❖ Energy Consumption and Expenditure
- ❖ Energy Conservation Initiatives
- ❖ Key Players
- ❖ Recent Contracts
- ❖ Upcoming Tenders
- ❖ Outlook and Projections

SECTION III: PROJECT PROFILES**15. Operational/Under Construction Projects**

- ❖ Ahmedabad-Gandhinagar Metro Rail Project Phase I
- ❖ Bengaluru Metro Rail Project Phase I and Phase II
- ❖ Chennai Metro Rail Project Phase I
- ❖ Chennai Metro Rail Project Phase I Extension
- ❖ Delhi Metro Rail Project Phase I and II
- ❖ Delhi Metro Rail Project Phase III
- ❖ Rapid Metro Rail Project Gurgaon Phase I and II
- ❖ Hyderabad Metro Rail Project Phase I
- ❖ Jaipur Metro Rail Project Phase I
- ❖ Kochi Metro Rail Project Phase I
- ❖ Kolkata North-South Metro Rail Project
- ❖ Kolkata Metro Rail Project (East-West and Expansion projects)
- ❖ Lucknow Metro Rail Project
- ❖ Mumbai Metro Rail Project Phase I - Line 1
- ❖ Mumbai Metro Rail Project Phase I - Line 2A
- ❖ Mumbai Metro Rail Project Line 2B
- ❖ Mumbai Metro Rail Project Phase I - Line 3

- ❖ Mumbai Metro Rail Project Phase II - Line 4
- ❖ Mumbai Metro Rail Project Phase III - Line 7
- ❖ Mumbai Monorail Project Line 1
- ❖ Nagpur Metro Rail Project
- ❖ Navi Mumbai Metro Rail Project Phase 1
- ❖ Noida-Greater Noida Metro Rail Project
- ❖ Pune Metro Rail Project Phase I

16. Announced, Approved and Under Bidding Projects

- ❖ Metro Rail Projects
 - Agra Metro Rail Project
 - Bengaluru Metro Rail Project Phase 2A (KR Puram-Silk Board corridor)
 - Bengaluru Airport Metro Line Phase 2B
 - Bengaluru Metro Rail Project Phase III
 - Bhubaneswar-Cuttack Metro Rail Project
 - Chennai Metro Rail Project Phase II
 - Dehradun-Haridwar-Rishikesh Metro Rail Project
 - Delhi Metro Rail Project Phase IV
 - Greater Noida - Jewar Metro Rail Project
 - Greater Noida-IGI Airport Metro Rail Project
 - Gurgaon-Manesar-Bawal Metro Rail Project
 - Guwahati Metro Rail Project Phase I
 - Hinjewadi-Shivajinagar Metro Rail Project
 - Rapid Metro Rail Project Gurgaon Phase III
 - Jaipur Metro Rail Project Phase II
 - Kanpur Metro Rail Project Phase I
 - Kochi Metro Rail Project Phase IB
 - Meerut Metro Rail Project Phase I
 - Mumbai Metro Phase II Line 5
 - Mumbai Metro Rail Project Line 6
 - Mumbai Metro Phase III Line 10
 - Noida Sector 142 - Kalindi Kunj Metro Rail Project
 - Noida Sector 71-Knowledge Park V Metro Rail Project
 - Patna Metro Rail Project Phase I
 - Patna Metro Rail Project Phase I
 - Srinagar Metro Rail Project
 - Surat Metro Rail Project
 - Varanasi Metro Rail Project
 - Vijayawada Metro Rail Project Phase I
 - Visakhapatnam Metro Rail Project Phase I
- ❖ Light Rail Transit Projects
 - Bangalore LRT Project
 - Bhopal LRT Project
 - Indore LRT Project
 - Kozhikode LRT Project
 - Ranchi LRT Project
 - Thiruvananthapuram LRT Project
 - Vijayawada LRT project
- ❖ Monorail Projects
 - Chennai Monorail Project (First Corridor)
 - Delhi Monorail Project
 - Kolkata Monorail Project
 - Warangal Monorail Project

[Each profile covers the project scope (network length, number of stations, rolling stock, fare system, signalling and telecommunication, traction, etc.), implementing agency, project cost, key consultants, key contractors, key milestones, sources of funding, recent contracts, upcoming tenders, current status, etc.]

I would like to purchase the “Urban Rail in India 2018” report:

Format (PDF)	Price
Site Licence (Single Location)	Rs 75,000
GST @ 18%	Rs 13,500
Total	<input type="checkbox"/> Rs 88,500
<hr/>	
Enterprise Licence (Multiple Locations)	Rs 112,500
GST @ 18%	Rs 20,250
Total	<input type="checkbox"/> Rs 132,750

I am enclosing a cheque/demand draft for Rs. _____, vide cheque/demand draft no. _____ drawn on _____ dated _____ in favour of “India Infrastructure Publishing Pvt. Ltd.”

Signature

.....

Name (BLOCK LETTERS) _____

Designation _____

Company _____

Mailing Address _____

Telephone _____ Mobile _____

Fax _____

E-mail _____

Wire transfer details:

Beneficiary : India Infrastructure Publishing Pvt. Ltd.
Bank Name : The Hongkong and Shanghai Banking Corporation Ltd
Bank Address : R-47, Greater Kailash – 1, New Delhi - 110048
Account No. : 094179587002
Swift Code : HSBCINBB
IFSC Code : HSBC0110006

Contact details:

Raktima Majumdar
Senior Manager-Information Products
India Infrastructure Publishing Pvt. Ltd.
B-17, Outab Institutional Area. New Delhi - 110 016, India
Tel: +91 11 45793069, 41034600, 41034601
Mobile: +91 8826127521 Fax: +91 11 2653 1196
majumdar.raktima@indiainfrastructure.com