



Public Transport for All

DATE: 15th November, 2019

By: Dr. Brijesh Dixit Managing Director Maharashtra Metro Rail Corp. Ltd.

Agenda





CITY PROFILE

Nagpur Profile

Third-largest city of Maharashtra after Mumbai & Pune

Major commercial and political center of the Vidarbha region of Maharashtra

16.2 lakhs

(1991)



Nagpur Profile



Total Population: 34.3 lakhs

Total Trips : **51.2 lakhs**

Per capita Trip Rate: 1.49

Motorized Trip Rate: 1.20

Average Trip Length: 8.2 Km

Average Household Income (Rs.) – 26,945

Average Household Size **4.3**

Expenditure on Transport – 7-8 % of the average household income

- High Share of Two Wheelers
- Diminishing share of public transport
- Need to strengthen public transport system for overall sustainability

Nagpur Profile – Major Concerns

Type of	2015-16			2016-17			2017-18		
Accidents	Accidents	Fatalities	Injured	Accidents	Fatalities	Injured	Accidents	Fatalities	Injured
Total	1149	281	1094	1254	260	1203	1373	291	1033

Source: Ministry of Road Transport & Highways Statistics, Govt of India

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- 45% (92 pedestrians & 21 cyclists out of 291 deaths in 2016)
- Pedestrians, Cyclists & Twowheelers account for 49% deaths in Asia
- Compromised pedestrian and nonmotorized facilities in the city
- Maha Metro wishes to have a dedicated and segregated NMT facilities covering pedestrians and cycle track









> 12 lacs

> 1.63 lacs



Total **14.7 lacs**

> 15 Thousand



More than 250 Fatalities /Annum



METRO RAIL NETWORK

Nagpur Metro

38 STATIONS, 38.215 KM VIADUCT



Project Funding Pattern

Sr. N O	Funding Agency	Amount
1.	Government of India (Equity +SD)	₹15.55 Billion USD 222 Million
2	Government of Maharashtra (Equity +SD)	₹ 15.55 Billion USD 222 Million
3.	Bilateral Loan from external funding agencies	₹ 45.21 Billion USD 646 Million
4.	Grant Contribution (ULB)	₹ 8.68 Billion USD 124 Million
5.	Land Cost and State Taxes- GoM (SD for ST)	₹ 1.81 Billion USD 26 Million
	Total Project Cost	₹ 86.80 Billion USD 1240 Million



PUBLIC TRANSPORT FOR ALL

How Maha Metro is ensuring Public Transport For All

- Dedicated ramps at station entrance for differently abled
- Every Station has dedicated drop off for specially abled nearest to Elevator
- Dedicated ramps from drop off bays to reach entry exit elevator point
- Tactile paving continuously along footpath
- Feeder services for seamless connectivity
- Off-street as well as on-street parking facilities





Various Feeder Modes for all commuters







NMT & FEEDER INITIATIVES

Why Multimodal Integration



Multimodal Integration

Seamless integration between Metro Station and other transport modes like walking, bicycling, public transport, feeder services and IPT and private transport



Access Friendly Multimodal Drop Off Planning

Mode	Access Length (m) *	* Varies with respect to site and Major PT Mode
NMT Access	< 50 M	
PT Stop	< 100 M	
Autorickshaw	< 150 M	
Personalized Parking	< 250 M	-



Feeder Routes



38 **Metro Feeder Routes** • **System** 20 Feeder Routes on E-W Corridor & 8 Feeder Routes on N-**S** Corridor • 210.17 km **Feeder Route** Network

193

Electronic Fare Collection

Smart Card

Mobile App



- **GPS Based Automated** Vehicle Location System
- **Passenger Information** System (PIS) – On Board and **Off Board**

Feeder Options











NAGPUR METRO

@NagpurMetro

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MAHA METRO - ONE CARD & ONE APP



MUNICIPAL CORPORATION SUPPORTED FEEDER AT TERMINAL STATION - KHAPRI



NMC Feeder Bus Service at Khapri Metro Station



NMC Feeder Bus Service at Lupin



NMC Feeder Bus Service at Administrative



NMC Feeder Bus Service at GIF Technologies and Infocept



NMC Feeder Bus Service at HCL



NMC Feeder Bus Service at MRO

Sr. No	Operator's Name	Proposed Services	
1	Wicked Ride Adventure Services Pvt Ltd (Bounce)	Bicycle, E-bicycle, E- scooter	
2	Kinetic Green Energy Power solutions Ltd.	E-Rickshaw	WICKEDRIDE
			VOGO
3	E V Rental Ventures LLP (Bajoria Motors)	E-Rickshaw	
4	Twarit Mobility	E-Rickshaw, Elite E- Rickshaw	
5	Vogo Automotive Pvt. Ltd	E-scooter	P
6	Ride E Transport Pvt. Ltd.	E-scooter	
7	Nikhil Furnitures	E-Rickshaw	
8	Bharat Vikas Parishad	LPG Rickshaws	



REGIONAL CONNECTIVITY

Suburban Railway as Feeder



S.No	Section	Length	No. of Stations
1	Nagpur-Katol	60.4 km	8
2	Nagpur/Itwari - Ramtek	41.6 km	5
3	Nagpur/Itwari – Bhandara	62 km	11
4	Nagpur - Wardha	80.7 km	12



- Maha Metro proposes to replace existing passengers trains with modern AC coaches
- Provision of better facilities like automatic doors, CCTV cameras etc.



MULTIMODAL INTEGRATION PLANS

Multimodal Design Features



Multimodal Design Features



Multimodal Design Features



Multimodal Design Features – Sitabuldi Interchange Station



Multimodal Design Features – Sitabuldi Interchange Station





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Munje Chowk to Yashwant Stadium

- Public seating facilities, recreational and landscaping areas
- Pedestrian friendly facilities of wide footpath, guard rails, bollards

Multimodal Design Features – Airport



- Maha Metro in coordination with NMC will strive to achieve over 50% of Public Transport share in next 20 years as per Mobility objectives. Current share is under 20%.
- Surrounding areas of city will be connected to Nagpur through BG metro initiatives.
- Movement of Nagpur towards green and sustainable mobility through various initiatives.





