

CHAPTER 12

TRANSPORT

Introduction

The transportation sector is growing exponentially in India. Particularly in Delhi, there is a huge pressure on this sector. Hence, it has become utmost important task of planners to take overview of all-inclusive set of indicators for an integrated and sustainable urban transport system. In any city like Delhi having unplanned urbanization and unparalleled growth in motorization, there is need of increased focus on sustainable use of mass transit systems like metro rails and bus transportation. An integrated transportation strategy is most needed so that various modes of transport are integrated efficiently to facilitate the sustainable transportation. The vision of planners is to ensure easy access, safe, affordable, quick, comfortable, reliable and sustainable mobility for all sections of the society in our cities. For transportation to be sustainable, It is equally important to understand the social, economic and environmental sustainability of each of these sub-systems.

- 1.1 Due to lack of last mile connectivity in the most of the part of Delhi, lack of proper integration, socio economic diversity in Delhi, large portion of population is still not using Public Transport. As a result, growing uses of personal Cars & two wheelers has lead to tremendous decline in air quality and traffic safety. In many urban areas of city road/street congestion have increased a lot, and Delhi is already amongst the India's largest producer of greenhouse gas (GHG) emissions. Hence, promoting uses and improving efficiency and effectiveness of Public transport is most desirable in Delhi.
- 1.2 To achieve sustainable public transport in the cities, following factors are crucial:
 - Public transportation is enabled as a priority for mass mobility,
 - A multi-modal and integrated transit systems comprising of pedestrians, bicycles, buses, metro, and rail is to be created
 - Adopting more economical, sustainable and environment friendly technologies/fuels to mitigate air quality problems (CNG vehicles, hybrids, electric vehicles, etc.).

2. Transport Infrastructure

2.1. Road Network

The road network in Delhi is being developed and maintained by Public Works Department (PWD), Municipal Corporations of Delhi, New Delhi Municipal

Council (NDMC), Delhi Cantonment Board (DCB), National Highway Authority of India (NHAI), Delhi Development Authority (DDA) and Delhi State Industrial and Infrastructure Development Corporation (DSIIDC). Road network length maintained by different agencies in NCT of Delhi is presented in Statement 12.1.

STATEMENT 12.1

STATUS OF ROAD NETWORK IN DELHI-AGENCY-WISE

(As on 31st March 2023 in Lane KM)

S. No.	Agency	Road Length
1.	Municipal Corporation of Delhi	12703.95
2.	New Delhi Municipal Council	1290
3.	DSIIDC	2428
4.	I&FC	357.39
5.	DDA	435*
6.	Public Works Department (Delhi Government)	
a.	National Highway	35
b.	Other Roads	1345

Source: Delhi Statistical Hand Book 2023

* As on 31st March 2019

2.2. Road Infrastructure

2.2.1. Pedestrian Facilities- Foot Over Bridges (FOBs):

Delhi is one of the fastest growing cities in the World both in terms of population and vehicular density. With increasing urban population, there are corresponding increases in the pedestrian movement as well as vehicle density on the roads leading to higher demand for appropriate infrastructure and facilitation in terms of walkways for smooth flow of traffic both along as well as across the roads. In Delhi, a large number of FOBs have been constructed to avoid conflict between movements of vehicles and pedestrian, and facilitate accident-free movement of vehicles and pedestrians without interruptions.

Following FOBs are under construction and likely to be completed by 31.03.2024:-

- Sri Aurobindo Marg at Adchini Village
- Hauzkhas Enclave (near Padmini Enclave)
- Sri Aurobindo Marg at PTS Bus Stop
- Construction of Foot Over Bridge at between newly constructed court building and Tis Hazari Court Complex, Boulevard Road

- Construction of Foot over bridge with Staircase & lifts for Pedestrians across road at Ganesh Chowk ROB-36 Road

2.2.2. Flyover & Bridges / Corridors

Flyover & Bridge / Corridor bridges are often used / constructed where there is heavy traffic congestion or where roads intersect at different levels. They can help reduce traffic congestion by allowing vehicles to move more quickly and efficiently through an area. They can also improve safety by reducing the risk of collisions at intersections.

A number of road infrastructure projects (i.e. Flyovers, Bridges, Corridors, underpass etc.) are given below:

- **Elevated Corridor Barapulla Phase-III:** - The stretch from Sarai Kale Khan to Mayur Vihar Phase-III was sanctioned for ₹1260.63 Crore (Tender Cost ₹964 Crore). An expenditure of ₹880.11 Crore has been incurred till October, 2023. The work is in progress and balance land acquisition of 9341 sqm is in final stage. 82% work has been completed till October, 2023. The work is likely to be completed tentatively by 31.12.2024.
- **Corridor improvement of outer Ring Road from IIT to NH-.8 Part A-Flyover on portal structure linking existing Munirka Flyover in the east to the point beyond Army RR Hospital in the west. Part B – Underpass at junction of BJ Marg and inner road:** The project of Construction of (Part-A) Flyover on portal structure linking existing Munirka Flyover in the east to the point beyond Army RR Hospital in the west on the Outer Ring Road and (Part-B) Underpass at junction of BJ Marg and Inner Ring Road has been approved at the cost of ₹364.87 Crore. An amount of ₹345.20 Crore has been incurred till October, 2023. The Project is completed and opened to traffic.
- **Construction of Underpass at Ashram Chowk along Mathura Road:** The estimated cost of this project is ₹77.92 Crore along with shifting of services. An expenditure of ₹75.60 Crore has been incurred till October; 2023. The project is completed and opened to traffic.
- **Construction of Bridges on (i) NH-10 at Rampura, (ii) Tri Nagar/Inderlok and (iii) Karampura, Delhi:** With the construction of bridge on Najafgarh drain at Tri-Nagar / Inderlok, Karampura and Rampura, Delhi will cover complete ROW excluding area of already constructed bridge along with road improvement on either side of bridge including making of drainage scheme, footpath etc. It was approved at the estimated cost of ₹85.90 Crore. An expenditure of ₹70.46 Crore has been incurred till October, 2023. The work has been completed and opened to public.

- **Extension of Flyover from Ashram Flyover to DND Flyover. SH: FOB's, ramps, footpath, road work including road, signage, street lights, drainage and allied works:** The estimated cost of this project is ₹164.84 Crore. An expenditure of ₹161.91 Crore has been incurred till October, 2023. The work has been completed and opened to traffic.
- **Integrated Transit Corridor Development and Street Network between Punjabi Bagh Flyover & Raja Garden Flyover:** The estimated cost of this project is ₹352.32 Crore. An expenditure of ₹174.31 Crore has been incurred till October, 2023. The work is likely to be completed by 28.02.2024.
- **C/o Grade separator/Flyover at Road No. 56 from Anand Vihar ROB to Apsara Border ROB Delhi:** The estimated cost of this project is ₹372.04 Crore. An expenditure of ₹201.27 Crore has been incurred till Oct, 2023. The work is likely to be completed by 31.03.2024.
- **Construction of underpass by Jack pushing Pre-cast RCC box at ORR new Mukarba Chowk:** The estimated cost of this project is ₹59.50 Crore. An expenditure of ₹9.54 Crore has been incurred till October; 2023. The work is likely to be completed by 30.06.2024.
- **C/o Half Underpass on ORR at Gopalpur Red Light-Jagatpur Bridge:** The estimated cost of this project is ₹38.17 Crore. An expenditure of ₹36.10 Crore. has been incurred till October, 2023. The work has been completed and opened to traffic.
- **Widening of bridge on Najafgarh drains at Basai Darapur to cover the complete ROW:** The estimated cost of this project is ₹48.60 Crore. The work has been completed and is in use by public. An expenditure of ₹46.06 Crore has been incurred till October, 2023. The work has been completed and opened to traffic.
- **Widening of Bridges on Najafgarh Drain at NH-10 at Nangloi:** The estimated cost of this project is ₹42.21 Crore. An expenditure of ₹37.82 Crore has been incurred till October, 2023. Work has been completed and opened to traffic.
- **Providing Slip Road Bridge (on Kondli Bridge) over Ghazipur drain Hindon Canal from Ghazipur Drain to Shamshan Ghat, Ghazipur Dairy Farm Road, Delhi -** Project cost is ₹25.43 Crore 80% Work has been completed. An expenditure of ₹24.70 Crore has been incurred till October, 2023. Target date of completion is 31.03.2024.
- **Construction of Additional Half Flyover at Sarai Kale Khan, for traffic from ITO to Ashram -** Sanction of work amounting to ₹66.55 Crore are given on 27.04.2022. The Flyover has been completed and opened for traffic. An expenditure of ₹40.51 Crore has been incurred till October, 2023.
- **Construction of Flyover at Nand Nagri & Gagan Cinema junction and Underpass at Loni Chowk of Mangal Pandey Marg i/c Road Signages, Electrical Works, Drainage, RWH and allied works etc. -** Sanction amount

of this project is ₹341.20 Crore. An expenditure of ₹53.35 Crore has been incurred till October; 2023. The work is likely to be completed by 31.07.2024.

2.2.3. Bus Terminals and Depots

The objective of the project is to create and develop infrastructure for the benefit of the bus commuters. There are 40 DTC and 23 cluster bus depots in operation and one DTC depot namely Sawada Ghevra is under construction. Total 11 bus depots (DTC-8, Cluster-3) are electrified. There are 17 numbers of bus terminals in which 16 are operation.

2.2.4 Inter State Bus Terminals (ISBTs)

At present, three Inter State Bus Terminals (ISBTs) are functioning in GNCTD at Kashmere Gate, Sarai Kale Khan & Anand Vihar. The Kashmere Gate ISBT has been renovated and made operational with state of the art facilities. Sarai Kale Khan & Anand Vihar ISBTs project will be redeveloped by PWD for their integration with RRTS projects.

2.2.5 Rail Network

Delhi is a major junction on the rail map of India linked with the entire major metropolitan cities directly. There are five main railway stations viz. at New Delhi, Old Delhi, Hazrat Nizamuddin, Sarai Rohila and Anand Vihar, besides Container Depots at Patparganj and Tuglakabad. Delhi division handles 496 passenger trains and 210 freight trains every day (Source: Northern Railways <https://nr.indianrailways.gov.in/>).

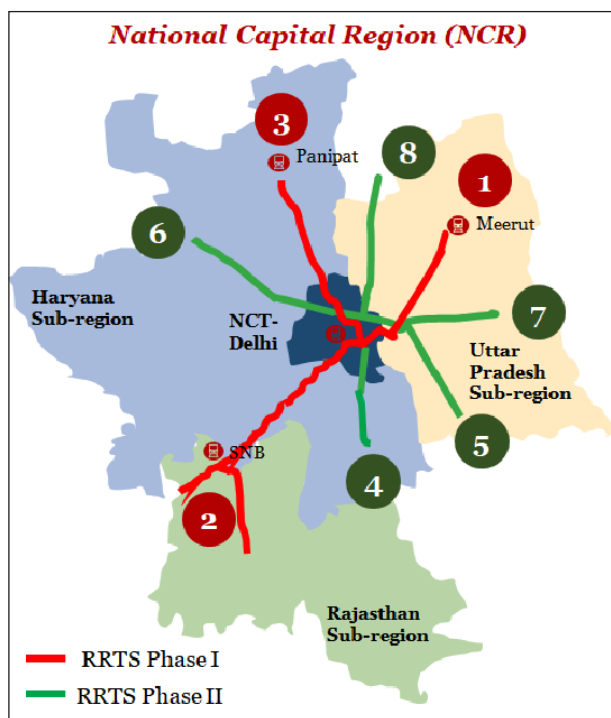
2.3. Regional Rapid Transit System (RRTS)

To address the issues, meet organic future demand as well as the mobility demand for unlocking economic potential of the NCR, National Capital Region Planning Board (NCRPB) had recommended development of multi-modal transport system with special emphasis on rail based high-speed, high-frequency Regional Rapid Transit System (RRTS) for connecting major regional centres in Functional Plan on Transport for National Capital Region-2032.

RRTS will provide an integrated mobility solution for National Capital Region (NCR) supported by multimodal integration. It will bring in significant direct/indirect economic benefits, such as savings due to reduction in pollution, travel time, vehicle-operating costs, road stress and accidents by reducing congestion (increasing the modal share of public transport), agglomeration benefits, improved productivity output of labour and industries, indirect and induced employment and increase in GDP of the entire NCR.

Once completed, length of Delhi's Mass transit system including DMRC and RRTS network phase-I will be 748Km which is more than the length of London Cross rail, Hong Kong MTR and Paris RER.

The three prioritized RRTS corridors are planned to originate from a common elevated terminus station Sarai Kale Khan in Delhi. Such a common terminus station will facilitate inter-connectivity/inter-operability among three corridors.



- Delhi-Meerut RRTS Corridor: The Delhi-Meerut RRTS corridor is 82.15 km long corridor with 15 RRTS stations. Delhi portion of this corridor has 13 km (approx) with 03 RRTS stations. The total project cost is ₹30,274 Crore and contribution of GNCTD is ₹1260 Crore which has already been released to NCRTC. Project got sanctioned and approved by Gol in Mar,2019.

STATEMENT 12.2
YEAR-WISE FUND RELEASED FOR DELHI- MEERUT
RRTS CORRIDOR BY GNCTD

(₹ In Crore)

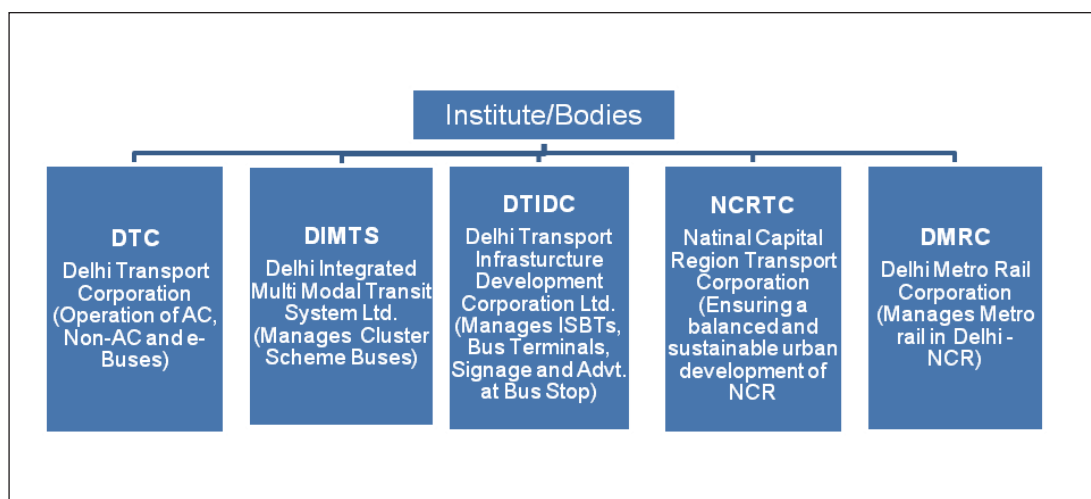
S. No.	Particulars	Fund Released in 2018-19	Fund Released in 2023-24	Total
1.	Grant in Lieu of Equity	86	179	265
2.	Subordinate Debt in Lieu of Equity	172	358	530
3.	Subordinate Debt (Central Tax)	3	137	140
4.	Subordinate Debt (State Tax)	4	226	230
5.	Subordinate Debt (Govt. Land)	0	95	95
	Total	265	995	1260*

*Out of ₹1260 Crore, ₹765 Crore is released from ECC fund.

This corridor will connect city centres of Delhi, Ghaziabad, Guldhar, Duhai, Muradnagar, Modinagar and Meerut, thereby significantly reducing travel time and providing travelling comfort to the commuters. RRTS Priority Section (17 Km) from Sahibabad (UP) to Duhai Depot (UP) has become Operational on 20th October 2023. The commercial operation of complete Delhi-Meerut corridor is scheduled to be operational by June-2025. The physical progress of the Delhi-Meerut RRTS Corridor is 67.3% and the Financial Progress is 59.99% upto Oct, 2023.

- Delhi-Gurgaon-Rewari-Alwar corridor:** RRTS Corridor will be implemented in three stages (Stage-1: Delhi-Gurugram-SNB (Shahjahanpur-Neemarna-Behror) Urban Complex, Stage-2: SNB Urban Complex-Sotanala RIICO Industrial area and Stage-3: SNB Urban Complex-Alwar). Delhi-Gurugram-SNB corridor is being implemented in Stage-I of Delhi-Alwar corridor. This corridor will be around 107 km long and will have 16 RRTS stations. Delhi portion of this corridor has 22.23 km (underground 22 km and elevated 0.23 km) with 03 RRTS stations (in addition to Sarai Kale Khan) at INA, Munirka & Aerocity. The project completion cost is estimated as ₹37,987 Crore and contribution of GNCTD is ₹3,261 Crore GNCTD has released ₹100 Crore in FY 2023-24 for this corridor. It will connect cities and investment regions of Delhi, Gurugram, Manesar, Dharuhera, Bhiwadi, Rewari and Shahajahanabad, Neemrana, Behror (SNB) region thereby significantly reducing travel time, providing travelling comfort to the commuters and accelerating economic growth.
- Delhi-Panipat RRTS Corridor:** The total route length of the RRTS alignment is 103.02 kms with 17 RRTS stations. Delhi portion of this corridor has 36.2 km long (underground 6.5 km and elevated 29.7 km) and five RRTS stations (in addition to Sarai Kale Khan) at Indraprastha, Kashmere Gate, Burari Crossing, Mukarba Chowk & Alipur. The proposed alignment passes through dense development of Delhi, Gannaur, Samalkha and Panipat regions. The total project cost is ₹29,389 Crore including GNCTD's share ₹2,443 Crore. GNCTD has released ₹50 Crore in FY 2023-24 for this corridor.

3. Institutes and Bodies engaged in public Transport System



3.1. Mass Rapid Transit System (MRTS)

The Mass Rapid Transit System (MRTS) is an ambitious project that is providing a non-polluting and efficient rail-based transport system, properly integrated with the road transport system.

Delhi Metro Rail Corporation Limited (DMRC) was registered on 3rd May 1995 under the Companies Act, 1956 with equal equity participation of the Government of the National Capital Territory of Delhi (GNCTD) and the Govt. of India. The work of PHASE I to III has been completed and PHASE IV is in progress. Presently, Delhi Metro network consists of 350.12 Km including 58.5 Km of NCR, 22.91 kms of Airport Line and 2km of Extension of Airport Express Line. After completion of Phase-IV, the total length of metro lines including NCR lines will be about 463 kms. Phase wise details are as under:-

DMRC – PHASE I

- The construction of Phase-I of DMRC was started in the year 2002 and completed in the year 2006 with a total project cost of ₹10,571 Crore including GNCTD share of ₹1,777 Crore.
- The total length of Phase I is 64.75 Km with 59 stations.

DMRC – PHASE II

- Construction of Phase-II of DMRC started in the year 2005 and completed in the year 2012 with a total project cost of ₹19,231 Crore including GNCTD share is ₹4,691 Cr.
- Total length of Phase-II is 123.3 Km which includes 22.91 Km High Speed Airport Metro Express Line and 16.32 Kms of NCR lines with 86 stations (of which 13 are on NCR Line).

DMRC – PHASE III

- Construction of Phase-III of DMRC started in the year 2012 and completed in the year 2021 with a total project cost of ₹39,785 Crore including GNCTD share of ₹8,407 Crore.
- Total length of Phase-III is 162.07 Km (including 42.18 kms of NCR & 2 kms of Extension of Airport Express Line length) and has 110 stations (including 30 stations of NCR & one station of Extension of Airport Express Line).

STATEMENT 12.3
DETAILS OF DMRC – PHASE III

S. No.	Line	Name of the Corridor	Length (Kms)	No. of Stations
1.	Line 2	Ext.: Jahangirpuri-Badli	4.373	3
2.	Line 5	Extn.:Mundka-Tikri Border	6.308	4
3.	Line 6	Ext: Central Sectt.-Kashmere Gate	9.272	7
4.	Line-7	Majlis Park- Shiv Vihar	59.242	38
5.	Line-8	Janakpuri West-Kalindikunj	33.499	23
6.	Line-9	Dwarka-Najafgarh	4.303	3
7.	Line-9	Extension to Dhansa Bus Stand	0.891	1
		Sub Total (Delhi)	117.89	79
		In NCR		
1.	Line 6	Extn: Badarpur-Faridabad	13.56	9
2.	Line 5	Extn.:Tikri Border- Bahadurgarh	4.88	3
3.	Line 6	Escorts Mujesar - Ballabhgarh	3.35	2
4.	Line 8	KalindiKunj – Botanical Garden	3.96	2
5.	Line 1	Dilshad Garden to New Bus Adda Ghaziabad	9.64	8
6.	Line 3	Noida City Centre to Noida Electronic City	6.80	6
		Sub Total (NCR)	42.18	30
		Total	160.07	109
7.	Extension of Airport Express Line	Dwarka Sec-21 to Dwarka Sec-25	2.008	1

DMRC – PHASE IV

- Phase-IV has two part of 3 Corridors each. In first part, construction of 03 priority corridors started in the year 2020-21 with total project cost ₹24,949 Cr. The share of GNCTD is ₹5,887 Crore which includes cost of additional 244 cars. As on Nov, 2023 Physical Progress of Phase-IV 03 priority corridors is 43.75%.
- DMRC has submitted modified DPR for remaining 3-corridors of Delhi Metro Phase-IV with total project cost of ₹13011.26 Crore wherein GNCTD share is ₹3082.89 cr.
- Separate DPR for Rithala – Narela corridor considering extension of the existing Broad-Gauge Line further upto Kundali (Haryana) has been submitted.

STATEMENT 12.4
DETAILS OF DMRC – PHASE IV

S. No.	Name of the Corridor	Length (Kms)	No. of Stations
Phase – IV (First 3 priority corridor)			
1.	Majlis Park – Burari - Maujpur	12.32	8
2.	R.K. Ashram - Janakpuri (West)	29.26	22
3.	Aerocity - Saket - Tughlakabad	23.62	15
	Sub Total	65.20	45
Phase – IV (Other 3 corridors)			
1.	Lajpat Nagar - Saket G Block	12.38	10
2.	Inderlok - Indraprastha	8.39	8
3.	Rithala - Bawana – Narela	26.46	21
	Sub Total	47.23	39
	Total	112.43	84

STATEMENT 12.5
YEAR-WISE FUND RELEASED FOR MRTS PHASE-IV
(3 PRIORITY CORRIDOR) BY GNCTD

(₹ in Crore)

S. No	Year	Equity	SD for Land	SD for State Taxes	SD for Central Taxes	Total
	GNCTD share	2664.9	1223.6	1243.31	755.14	5886.95
Fund Released						
1	2018-19	50.000	100.00	-	50.00	200.00
2	2019-20	150.005	1,123.6	-	50.00	1,323.61
3	2020-21	500.00	0	125.00	125.00	750.00
4.	2021-22	800.00	0	200.00	150.00	1150.00
5.	2022-23	797.50	0	50.00	50.00	897.50
6.	2023-24 (Upto Oct,2023)	165.00	0.00	50.00	50.00	265.00
7.	Total Released	2462.51	1,223.6	425	475.00	4,586.11
8.	Unspent funds transferred back by DMRC in FY 2022-23	454.69	312.96	200	200	1167.65
9.	Net Released	2007.82	910.64	225	275	3418.46

- The average daily passenger journey recorded during 2022-23 is about 46 lakh. In Delhi, the Metro Trains run from 6:00 AM in the morning till about 11:00 PM in the night. The train frequency varies from 2 minutes 44 seconds in peak time up to 10 minutes in non-peaks hours. The details regarding year-wise Average Daily Ridership/ Passenger Journey is presented in Statement 12.6.

STATEMENT 12.6

AVERAGE DAILY RIDERSHIP/ PASSENGER JOURNEY AND ROLLING STOCK (WITH AIRPORT LINE AND RAPID METRO)

Year	Ridership	Operational Route (Km)	Rolling Stock (No. of Cars)
2013-14*	22,04,908	188.05	1,282
2014-15*	24,02,850	191.12	1,306
2015-16*	26,15,050	209.97	1,392
2016-17*	28,00,792	209.97	1,468
2017-18*	25,87,271	249.46	1,888
2018-19*	25,93,090	342.07	2188
2019-20**	27,80,000***	359.23	2,242
2020-21** (07.09.2020 – 31.03.2021)	8,78,000***	359.23	2,280
2021-22	25,16,068***	360.98	2,282
2022-23	46,26,592***	362.27	2,304

Source : Transport Deptt., GNCTD

* Including Airport Line. DMRC has taken over the operation from the close of business operating hours of 30.06.2013.

** Including Rapid Metro. DMRC has taken over the operation on 22.10.2019

*** Passenger Journey (Passenger Journey calculates a Metro journey in terms of the number of corridors used by a passenger.)

3.2. Delhi Transport Corporation (DTC)

GNCTD release equity capital for procurement of buses and for development of infrastructural facilities to DTC. As on Nov, 23, DTC had existing infrastructure of 40 depots as on December, 2023. DTC has fleet size of 4,346 buses, comprising 1,231 AC CNG low floor buses and 1,960 Non-AC CNG low floor buses and 1,155 AC low-floor (Electric) buses. DTC is the largest public transport entity in the NCR transporting about 25.02 lakh passengers and covers 6.43 lakh km per day in 2022-23. DTC operates 34,455 (average) trips per day on about 489 city routes and 08 NCR routes. DTC is also operating International Bus Service on Delhi–Kathmandu. The performance of DTC is presented in Statement 12.7 and activity wise status of DTC is presented in Statement 12.8.

STATEMENT 12.7**PERFORMANCE OF DELHI TRANSPORT CORPORATION (DTC)**

S. No.	Years	Fleet (In No's)	Fleet Utilization (In %)	Vehicle Utilization (Km/Bus/Day)	Load Factor (In %)	Passenger Carried per bus daily (In No's)	Daily Average Passengers (In Lakh)
1.	2017-18	3,951	85.69	191	83.83	878	29.86
2.	2018-19	3,849	84.62	195	81.34	915	30.15
3.	2019-20	3,762	85.04	193	86.17	1,033	33.31
4.	2020-21	3,760	76.95	180	69.50	423	12.24
5.	2021-22	3,762	85.27	201	64.94	487	15.62
6.	2022-23	3,937	83.42	194	81.67	756	25.02

Source : Transport Deptt., GNCTD & Operational Statistics of DTC

STATEMENT 12.8**ACTIVITIES OF DELHI TRANSPORT CORPORATION: 2017-18 TO 2021-22**

S. No	Details	Types	2018-19	2019-20	2020-21	2021-22	2022-23
1.	Total Buses in the Fleet (At the end)	Non- AC	2,506	2,505	2,504	2,504	2381
		AC	1,275	1,257	1,256	1,256	1256
		Standard	68	-	-	-	-
		Electric AC	-	-	-	2	300
		Total	3849	3,762	3,760	3,762	3937
2.	Buses on Road (Daily Average)	Non- AC	2,197	2,149	1,963	2,113	2057
		AC	1,071	1,073	931	1,093	1051
		Standard	27	-	-	-	-
		Electric AC	-	-	-	-	202
		Total	3,295	3,222	2,894	3,206	3310
3.	Passengers (in Crore)	Non- AC	84.96	85.66	31.41	39.51	60.64
		AC	24.35	36.16	13.27	17.51	25.98
		Standard	0.74	-	-	-	-
		Electric AC	-	-	-	-	4.71
		Total	110.15	121.82	44.68	57.02	91.33
4.	Daily Average Passengers (in Lakh)	Non- AC	23.28	23.4	8.6	10.82	16.61
		AC	6.67	9.88	3.64	4.8	7.12
		Standard	0.2	-	-	-	-
		Electric AC	-	-	-	-	1.29
		Total	30.15	33.29	12.24	15.62	25.02

S. No	Details	Types	2018-19	2019-20	2020-21	2021-22	2022-23
5.	Kilometer operated (in Crore)	Non- AC	15.68	14.96	12.3	15.19	14.43
		AC	7.57	7.76	6.69	8.36	7.58
		Standard	0.15	-	-	-	-
		Electric AC	-	-	-	-	1.45
		Total	23.4	22.72	18.99	23.55	23.46
6.	Kilometer operated Daily Average (in lakh)	Non- AC	4.3	4.09	3.37	4.16	3.95
		AC	2.07	2.12	1.83	2.29	2.08
		Standard	0.04	-	-	-	-
		Electric AC	-	-	-	-	0.40
		Total	6.41	6.21	5.2	6.45	6.43
7.	Break-down per 10000 buses	Non- AC	710	806	472	766	1270
		AC	898	1029	627	885	1447
		Standard	735	-	-	-	-
		Electric AC	-	-	-	-	166
		Total	781	880	522	807	1259
8.	Accidents	Non- AC	79	83	55	65	75
		AC	45	35	12	30	41
		Standard	1	-	-	-	-
		Electric AC	-	-	-	-	2
		Total	125	118	67	95	118
9.	Inter-State Bus Route Service	-	8	7	7	7	8
10.	D.T.C. Work Shops	-	2	2	1	1	-
11.	D.T.C. Depots	-	39	35	35	36	37

Source : Transport Deptt., GNCTD

GNCTD is providing concession bus passes to various categories of passengers like students, senior citizens, disabled, freedom fighters etc for DTC and Cluster Buses. The concession amount is reimbursed by GNCTD. Further, travel for female commuters of all group/age is free (in DTC and Cluster Buses) in Delhi. A total of ₹224.80 Crore is reimbursed by GNCTD in 2022-23 (DTC concessional passes - ₹24.80 Crore & for pink passes - ₹200 Crore).

3.3. Delhi Integrated Multi-modal Transit System Ltd (DIMTS):

GNCTD initiated the Scheme in 2011-12 for Corporatization of Private Stage Carriage Service to substitute the Blue line private stage carriage system under Public Private Partnership (PPP) model. The Cluster Scheme is based on gross-cost model (OPEX MODEL) where fleet owners are remunerated on the basis of operational parameters irrespective of the fare box inflow. Under this scheme, 657 stage carriage bus routes of Delhi have been divided into 14 distinct clusters.

As on Dec, 2023, 2,841 cluster buses (AC CNG- 750, Non-AC CNG – 1,997 and 94 e-buses) are in operation under 14 clusters in the GNCTD. Electronic Ticketing Machine (ETMs) based automatic fare collection system (AFCS) in Cluster Buses has been fully implemented. The performance data of the cluster buses are given under:

STATEMENT 12.9
PERFORMANCE OF CLUSTER BUSES

S. No.	Years	Fleet (No)	Fleet Utilization (In %)	Vehicle Utilization (Km/Bus/Day)	Load Factor* (In %)	Passenger Carried per bus daily	Daily Average Passengers (In Lakh)
1.	2017-18	1744	97.16	205.15	81	753	11.65
2.	2018-19	1,803	98.66	211.02	88	760	12.24
3.	2019-20	2,910	96.48	202.10	89	841	17.71
4.	2020-21	3,191	98.88	214.05	67	308	8.51
5.	2021-22	3310	99.01	217.10	68	351	9.87
6.	2022-23	3293	97.18	204.82	81	513	16.39

* LF is calculated using Central Institute of Road Transport (CIRT) Formula,
Source : Transport Deptt., GNCTD & DIMTS Ltd.

- **Feeder Bus Service-** The operation of feeder bus service has been taken over by Transport Department, GNCTD from DMRC since 1st April, 2023 and DIMTS has been appointed as an Integrated Mechanism (IM) for the monitoring of operation of feeder bus service. 94 feeder bus services are in operation from 02 Clusters.
- **Installation of CCTV Cameras in DTC and Cluster Buses:-**

Hardware installation (3 IP CCTV Cameras, 7” screen, 10 Panic Buttons, Hooter & Strobe, two-way communication for driver and conductor seat, mNVR with GPS device in each bus) completed in all DTC & Cluster buses.
- **Augmentation of DTC Night bus service (11PM – 5AM):** Gender Sensitization Program for bus crew undertaken by DTC is also being conducted on a regular basis for safety of women passengers. 88 buses are running on 27 routes. 30 Ladies Special Buses are also being plied during peak hours on 30 routes. 25% seats have been reserved for women in stage carriage buses (i.e. Low floor buses – 10 seats, & standard floor buses – 12 seats. Comparative detail for the years 2020-21 to 2022-23 is presented in Statement 12.10.

STATEMENT 12.10
PERFORMANCE OF DTC BUSES

Details	2020-21	2021-22	2022-23
Number of Buses in Night Bus Service	88	88	88
Number of routes of Night Bus Service	27	27	27
Number of Civil Defense Marshals & Home guards	9,286	8968	8628*
Number of Ladies Special bus routes	30	30	30
Percentage of seats reserved for ladies	25	25	25

Source : Transport Deptt., GNCTD

* Includes 3527 homeguard and 101 ESM.

- **Deployment of Marshals in Buses:**

GNCTD has decided to depute “Marshals” in all DTC & Cluster buses in both shifts from 29.10.2019. As on 31.10.2023, 2752 Marshals were deployed in Cluster Buses & 8628 Marshals & Home Guards in DTC were deployed for women safety and security.

3.4. **Delhi Transport Infrastructure Development Corporation Limited (DTIDC):**

This Corporation has been created with the objectives of development, implementation, operation and maintenance of urban transport infrastructure. At present, three existing operational ISBTs situated at Kashmere Gate, Anand Vihar and Sarai Kale Khan are controlled by DTIDC. 1,993 numbers of Bus Queue Shelters (BQS) are also being maintained by DTIDC. All the depots under Transport Department and other civil and electrical infrastructure are being maintained by DTIDC.

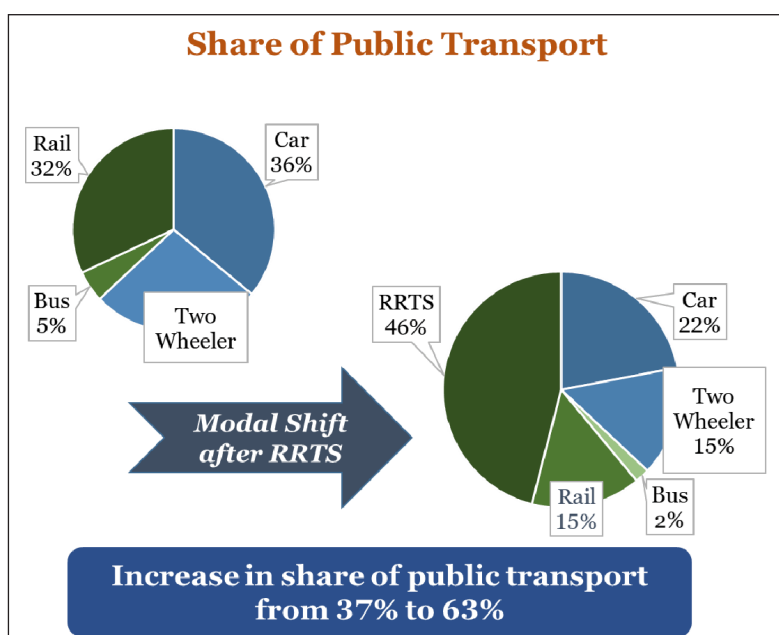
3.5. **National Capital Region Transport Corporation (NCRTC):**

A Memorandum of Understanding (MoU) was signed in 2011 between Government of India, and State Governments of National Capital Territory of Delhi, Haryana, Rajasthan and Uttar Pradesh (UP) for implementation of RRTS in NCR. Unlike metro rail projects, which are promoted by the respective State Governments, RRTS is a socially oriented, multi-state, central sector project being implemented in partnership with the State Governments for the balanced and sustainable urban development through better connectivity and access.

4. Achievement/ Progress of Major leading indicators

- **Motor Vehicles:**

The total number of motor vehicles on road in NCT of Delhi on 31st Mar, 2023 was 79.45 lakh, showing the increase by 0.34% from 2021-22. GNCTD has banned Diesel Vehicles of more than 10 year old and Petrol Vehicles of more than 15 year old hence deregistered 62,59,214 vehicles till 2022-23. The category-wise growth of motor vehicles in Delhi is presented in statement 12.11.



STATEMENT 12.11

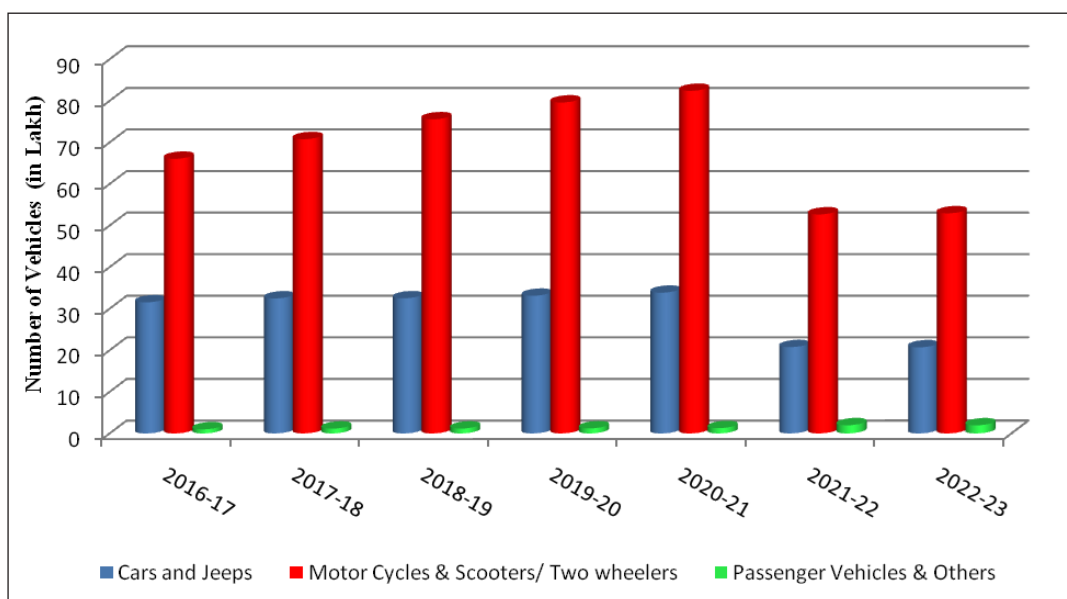
YEAR WISE GROWTH OF VEHICLE POPULATION

S. No.	Details	Number of Vehicles						
		2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
1.	Cars and Jeeps	31,52,710	32,46,637	32,49,670	33,11,579	33,84,736	20,76,113	20,71,115
2.	Motor Cycles & Scooters/ Two wheelers	66,07,879	70,78,428	75,56,002	79,59,753	82,39,550	52,68,685	52,94,900
3.	Ambulances	3,059	3,220	2,358	2,287	2,289	1,145	1,172
4.	Auto Rickshaws (Passenger)	1,05,399	1,13,074	1,13,240	1,14,891	1,14,869	93,578	93,654
5.	Taxis	1,18,308	1,18,060	1,09,780	1,22,476	1,12,401	85,033	83,278
6.	Buses	35,206	35,285	32,218	33,302	33,294	17,522	17,232
7.	Other Passenger Vehicles	59,759	76,231	81,422	85,477	91,887	1,14,504	1,18,506
8.	Tractors, Goods Vehicles (All Type) & Others	3,00,437	3,15,080	2,46,861	2,63,112	2,74,324	2,61,318	2,65,739
	Total	1,03,82,757	1,09,86,015	1,13,91,551	1,18,92,877	1,22,53,350	79,17,898	79,45,596*

Source : Transport Deptt., GNCTD

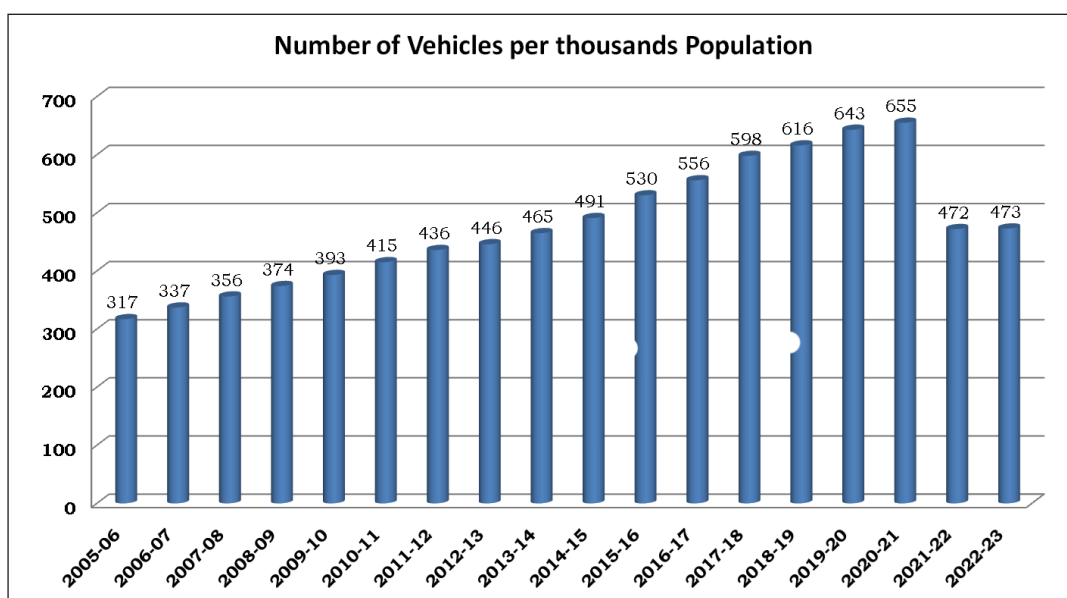
*Delhi government has banned Diesel Vehicles of more than 10 year old and Petrol Vehicles of more than 15 year old hence GNCTD has deregistered 62,59,214 vehicles till 2022-23.

CHART 12.1
VEHICULAR GROWTH IN DELHI



- During the period of 2022-23, the number of vehicles per thousand population is 473 (As per Census 2011) which is not much affected from 2021-22 (472). The details regarding annual growth rate is presented in chart 12.2.

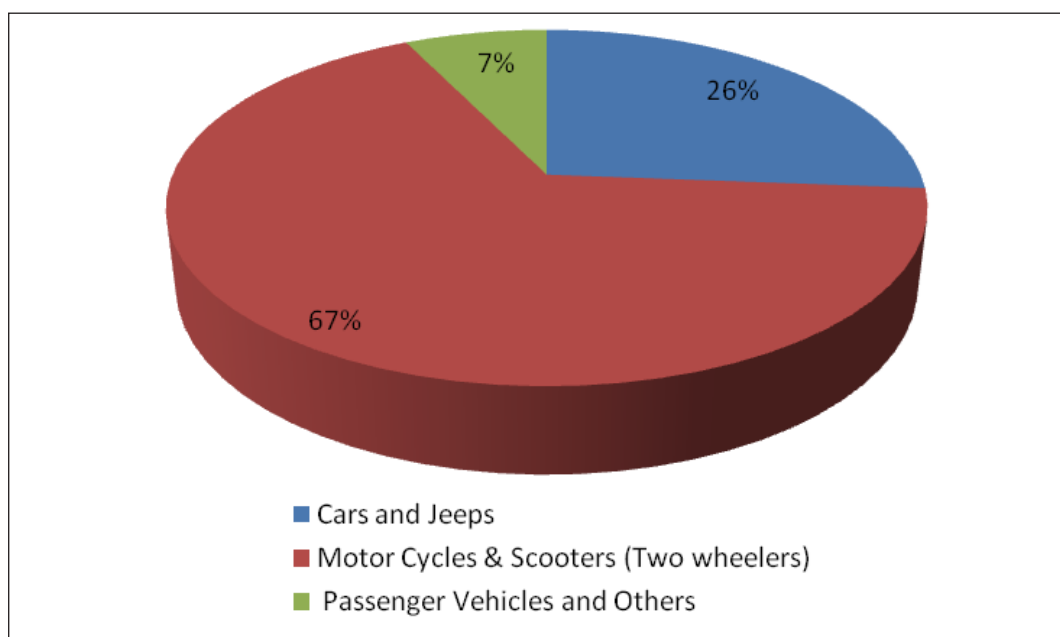
CHART 12.2
TRANSPORT TRENDS



- Delhi is a hub for personal motorized vehicles in India. Total motorized vehicles in Delhi are 79.45 lakh. Car and jeeps accounted for around 26% of the total registered motorized vehicles, whereas two wheelers are about 66.64% of total registered vehicles. Percentage of vehicles in Delhi during 2022- 23 is depicted in Chart 12.3.

CHART 12.3

PERCENTAGE OF VEHICLES POPULATION 2022-23



- The actual number of vehicles plying on Delhi's road may not be same as the number of vehicles registered in Delhi due to the fact that vehicle registered in Delhi are plying in NCR areas and vice-versa.
- Transport Department is making efforts to estimates the actual number of vehicles in Delhi by taking into account vehicles that have outlived their life due to any account, transferred to and from other states etc.

5. Ongoing schemes and new Initiatives:

5.1. Electric Vehicle Policy:

The policy aims to encourage the rapid adoption of Electric Vehicles in Delhi and establishing a necessary charging infrastructure for electric vehicles at an accelerated pace through implementation of purchase incentives, Scrapping incentives, Interest subvention on loans, Waiver of road tax and registration fees and Establishment of network of charging & swappable batteries stations. Software has been launched for disbursal of purchase incentive & scrapping incentive.

The policy also seeks to put in place measures to support the creation of jobs in driving, selling, financing, servicing and charging of Electric Vehicles.

5.2. **Sales of EVs:** As on Sept. 2023, 1,44,405 e-Vehicle have been registered (w.e.f. 07/08/2020).

5.3. **Subsidy to e-rickshaw:** E-rickshaw subsidy is also made fully online for the e-rickshaws registered w.e.f. 07.08.2020 and subsidy is being disbursed to the beneficiaries for improving first & last mile connectivity in Delhi.

5.4. Following initiatives have been taken to foster the adoption of EV Charging and Swapping Infrastructure in the NCT of Delhi

- Department of Transport, GNCTD has prepared a comprehensive EV Charging & Swapping Infrastructure Action Plan for the deployment of 18,000 Public EV charging points across Delhi within 3 years.
- One Delhi' Mobile App facility has been provided to the consumers to locate public EV charging stations and battery swapping stations.
- Department of Transport, GNCTD has set in place an open, publicly owned database as per the mandate of the policy.

5.5. Status on Charging Infrastructure

- As on September, 2023, Total of 4793 nos. of charging points and 318 battery swapping stations are operational in Delhi.

5.6. Electric Buses:

- Department of Heavy Industry, GoI formulated a Scheme viz. Faster Adoption and Manufacturing of (Hybrid & Electric) Vehicles in India (FAME India) Scheme in the year 2015 to promote manufacturing of electric and hybrid vehicle technology and to ensure sustainable growth of the same. GNCTD has decided to engage pure electric buses in Delhi which will go a long way to reduce overall vehicular emissions in Delhi.
- 1500 electric buses (921 FAME II scheme & 579 Non FAME II) were proposed through Grand Challenge scheme of Convergence Energy Services Ltd-CESL. Subsequently, 996 e-buses have been inducted so far (Dec,2023) and these are being operated from 08 DTC electric depots and 03 Cluster electric depots.
- Apart from these, 1040 numbers of 9 meter Low Floor (400mm) AC Electric – buses on Wet Lease, 2400 numbers of 12 meter Low Floor (400mm) AC Electric buses on Dry Lease are proposed to be inducted.

6. Free Travel for Women:

The free travel facility for women in DTC/ Cluster buses has been given by GNCTD from 29.10.2019. A single journey based pass of ₹10/- for both AC and Non-AC buses is being issued in the form a similar size of ticket currently being distributed in the colour "Pink". DTC is printing these passes and issues to DIMTS for cluster buses and proper accounting of these tickets is being maintained by both the DTC & DIMTS. During 2022-23, 22 Crore women passengers traveled free in DTC and 23.41 Crore women passengers in Cluster buses.

7. Reform Package of Transport Services:

The Transport Department has taken up a major initiative to provide all public services in faceless manner. The applicants will be required to have physical visit only for the purpose of taking a driving test or fitness of vehicle. It has resulted in minimizing the department's manual interface with public.

- 7.1. **Faceless Services:** Currently, 47 services (12 RC services, 17 Permit & Fitness Services, 16 DL related services in First Phase) with 2 services, i.e (a) Issuance of Lol for replacement of Vehicle (b) No dues certificate for PSV replacement, are under process in Second Phase, have been completely switched to faceless delivery mode and more than 30 lakh applicants have been benefitted from this programme till Oct, 2023. The remaining 2 services shall also be made available in faceless manner very soon. It has resulted in minimizing the department's manual interface with public.
- 7.2. **Online learner license test** and issuance of e-learner license is done on the spot after clearing the on-line test. Dealers of Private Vehicles (2 wheelers and 4 wheelers) have been empowered as registering authorities which results in getting the registration certificate instantly from the Dealers while taking delivery of the new vehicle by the vehicle owner. Further all the Registration Certificates and Driving Licenses have been made available in electronic form in mParivhan mobile app and in DigiLocker.
- 7.3. **Induction of Women drivers:** Transport Department is providing free training for Heavy Motor Vehicles for induction into DTC and Cluster bus fleet and many women drivers have been inducted into DTC. Similarly, sanctions have been accorded for providing free LMV training to women for induction as driver in Cab aggregators like Blusmart, Ola, Uber etc.
- 7.4. **Automated Driving Test Tracks:** ADTTs have been established for taking Driving Skill Tests of the DL applicants which are fully equipped with CCTVs, Sensors etc. There is no human intervention in these Driving Skill Testes. 13 Nos. of driving test tracks in Delhi have already gone automatic located at Shakur

Basti, Raja Garden, Mayur Vihar, Rohini Sector 28, Hari Nagar, two centres at Burari, Loni Road, Dwarka Sector 22, Jharoda Kalan, Vishwas Nagar and Sarai Kale Khan, Lado Sarai centre.

CHAPTER AT A GLANCE

➤	There are 40 DTC and 23 cluster bus depots in operation and one DTC depot namely Sawada Ghevra is under construction. Total 11 bus depots (DTC-8, Cluster-3) are electrified.
➤	Delhi is a major junction on the rail map of India linked with the entire major metropolitan cities directly. There are five main railway stations viz. at New Delhi, Old Delhi, Hazrat Nizamuddin, Sarai Rohila and Anand Vihar, besides Container Depots at Patparganj and Tuglakabad.
➤	The Mass Rapid Transit System (MRTS) is an ambitious project that is providing a non-polluting and efficient rail-based transport system, properly integrated with the road transport system. Presently, Delhi Metro network consists of 350.12 Km including 58.5 Km of NCR, 22.91 kms of Airport Line and 2km of Extension of Airport Express Line.
➤	The Mass Rapid Transit System (MRTS) is an ambitious project that aims at providing a non-polluting and efficient rail-based transport system, properly integrated with the road transport system.
➤	Delhi is a hub for personal motorized vehicles in India. Total motorized vehicles in Delhi are 79.45 lakh. Car and jeeps accounted for around 26% of the total registered motorized vehicles, whereas two wheelers are about 66.64% of total registered vehicles.
➤	1,44,405 e-Vehicle have been registered (w.e.f. 07.08.2020) in Delhi as on Sept. 2023. 'One Delhi' Mobile App facility has been provided to the consumers to locate public EV charging stations and battery swapping stations. As on September 2023, total of 4793 nos. of charging points and 318 battery swapping stations are operational in Delhi.
➤	1500 electric buses (921 FAME II scheme & 579 Non FAME II) were proposed through Grand Challenge scheme of Convergence Energy Services Ltd- CESL. Subsequently, 996 e-buses have been inducted so far (Dec,2023) and these are being operated from 08 DTC electric depots and 03 Cluster electric depots. Apart from these, 1040 numbers of 9 meter Low Floor (400mm) AC Electric buses on Wet Lease, 2400 numbers of 12-meter Low Floor (400mm) AC Electric buses on Dry Lease are proposed to be inducted.
➤	During 2022-23, 22 Crore women passengers travelled free in DTC and 23.41 Crore in Cluster buses.
➤	Currently, 47 services (12 RC services, 17 Permit & Fitness Services, 16 DL related services in First Phase) with 2 services, i.e (a) Issuance of Lol for replacement of Vehicle (b) No dues certificate for PSV replacement, are under process in Second Phase, have been completely switched to faceless delivery mode and more than 30 lakh applicants have been benefitted from this programme till Oct, 2023.
➤	Sanctions have been accorded for providing free LMV training to women for induction as driver in Cab aggregators like Blusmart, Ola, Uber etc.