# CHAPTER 12

# TRANSPORT

**1.** Ever growing population of Delhi is exerting tremendous pressure on the existing infrastructure facilities and services, especially, in the field of power, water and transportation as these facilities may not grow at the rate of population growth mainly due to unplanned settlements being created by migrants. Thus, there is a imbalance between the demand & supply of various services. Transportation system is one of the areas of concern wherein lot of efforts have been made by the Government to correct the situation. This chapter is an attempt to analyze the demand, infrastructure facilities and efforts put in by government to improve the system.

## 2. VEHICULAR GROWTH:

**Statement -1**

| S.No. | Category | No. of Vehicles registered ( In lac) | | Decenial growth rate % (1993-94 to 2003-04) | Annual Compound Growth rate % |
|---|---|---|---|---|---|
| | | 1993-94 | 2003-04 | | |
| A. | **Private Vehicles** | | | | |
| i. | Four wheelers (Cars, Jeeps / St.Wagon) | 5.22 | 12.68 | 142.92 | 9.27 |
| ii. | Two wheelers (Scooter, Motorcycle) | 14.92 | 26.50 | 77.61 | 5.91 |
| | **Sub-Total** | 20.14 | 39.18 | 94.54 | 6.64 |
| B. | **Commercial Vehicles** | | | | |
| iii. | Auto-Rickshaw | 0.72 | 0.75 | 4.17 | 0.38 |
| iv. | Taxis | 0.12 | 0.16 | 33.33 | 3.09 |
| v. | *Buses | 0.24 | 0.39 | 62.50 | 4.84 |
| vi. | Goods Vehicle | 1.17 | 1.36 | 16.24 | 1.55 |
| | **Sub- Total** | 2.25 | 2.66 | 18.22 | 1.69 |
| | Total | 22.39 | 41.84 | 86.87 | 6.45 |

*Including Light Passenger Vehicle and Medium Passenger Vehicles

2.1 The statement-1 shows that there has been an exponential growth in the number of vehicles, which increased from 22.39 lac in 1993-94 to 41.84 lac in 2003-04 at an annual compound growth rate of 6.45%. Decenial growth rate is substantially higher in case of private vehicles (94.54%) as compared to commercial vehicles (18.22%). In the category of private vehicles, Cars & Jeeps have registered a decenial growth rate of 142.92% which is highest among all the categories of vehicle followed by two wheelers (i.e. scooter, motorcycle & moped) with 77.61%. In the commercial category of vehicle, Buses including Light, Medium & Heavy Passengers vehicle have registered highest decenial growth rate (62.5%) followed by Taxies (33.33%) and goods vehicles (16.24%). The same trend has been observed if data is compared according to compound annual rate of growth. Further, year wise vehicles population & its growth trend may be seen in table 12.1 & 12.2

2.2 The percentage distribution of categories of motor vehicles in Delhi (Table- 12.3) shows that there has been a rapid proliferation in the number of cars/jeeps during the decade, while there has been a decline in the relative share of motorcycle & scooters, auto rickshaws, taxies and goods vehicles. The annual growth rate of total motor vehicles (Registration) in Delhi showed a declining trend during 1997-98 to 2001-02 but the trend reversed since 2002-03. The percentage share of cars/jeeps to the total number of vehicles in Delhi has increased from 21.98% in 1991 to 30.30% 2003-04.

2.3 There is controversy about the actual number of vehicles plying on Delhi's roads. A large number of vehicles registered in Delhi can be seen plying on NCR town roads. Similarly, vehicles registered outside Delhi but plying on Delhi roads are of two categories (a) plying on Delhi roads while crossing Delhi territory to reach a destination outside Delhi; and, (b) now shifted to Delhi on temporary or permanent basis. Transport Department is making efforts to estimate 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.

## 3. MODES OF TRANSPORT

3.1 Delhi was predominantly dependent on road transport, with the railways catering to only about 1% of the local traffic till 2003. The ring rail network in Delhi is grossly

underutilized. With Commencement of first corridor i.e. Shahadara - Rithala by Delhi Metro, public transport in Delhi has witnessed changing scenario as more than 1 lac passenger trips are being covered by Metro. Delhi Metro will change public transport scenario to laudable extent on commencement of all its three corridors of Metro by September 2005. Till 2003, buses constituted about 1% of the total number of vehicles, but catered to 60% of the total traffic load, while personalised vehicles account for 93.64% of the total vehicles but cater to only 30% of the total traffic load. Among personalized vehicles, motor cycles and scooters comprise about 63.35% of the total number of vehicles in Delhi, while cars and jeeps account for 30.30% of the total vehicles. (Table 12.3).

3.2 It is difficult to obtain complete data about man and animal-driven vehicles as there is no proper mechanism to register them. Moreover, the number of unauthorized vehicles are estimated to be more than those registered with the local bodies. Registered man and animal-driven vehicles constitute about 4% of the total vehicle population in Delhi out of which about 60% are cycle rickshaws. Since registration of cycle rickshaws has been discontinued, the exact number of cycle rickshaws in the city may not be known.

## 4. ROAD NETWORK

4.1 The road network in Delhi is being developed and maintained by NHAI, PWD, MCD, NDMC, Delhi Cantonment Board and DDA. The road network in Delhi was 28508 kms (including 388 kms of National Highways with PWD and excluding highway of NHAI) in March, 2001. The growth of the road network in Delhi is shown in Table 12.6.

4.2 Delhi had 1749 km of road length per 100 sq. km area in 1995-96 as compared to national average of 73 km per 100 sq. km area (1995-96). The road network has increased from 8380 km in 1971-72 to 28508 km in 2000-01 (three times), while the number of vehicles has increased from 2.14 lakh in 1971-72 to 34.56 lakh in 2000- 01 (sixteen times). The imbalance between growth of vehicles and road network in Delhi emerged in heavy traffic congestion and reduced vehicle speed which may be seen from Table 12.6 & 12.7

## RING ROAD

4.3 The Ring Road, Outer Ring Road and the radial roads constitute a distinct feature of the road network in Delhi. Ring Road has a length of 48 km, of which 16km is common with Outer Ring Road and NH-1. The 6-lane carriage way of the existing Ring Road had reached the saturation capacity of 110000 vehicles per day. Traffic is projected to reach between 1.5- 4 lakh PCUs by 2011, which will require expansion of the Ring Road to 18-24 lanes (Source: NCRPB).

## NATIONAL HIGHWAYS

4.4 Delhi has the distinction of having 5 National Highways passing through its territory. These are NH-1, NH-2, NH-8, NH-10 and NH-24 connecting National Capital Region of Delhi to rest of the country. These highways contribute significantly to the character of Delhi as a major trading and distribution center.

## PERIPHERAL EXPRESSWAY

4.5 Delhi has emerged as a major wholesale trade center for North India. It is estimated that 78% of vegetables and fruits, 49% of fuel, 44% of iron and steel and 47% of food grains traded in Delhi are destined for other States. The five national highways also bring interstate goods vehicles into the territory. This situation aggravates the traffic congestion, particularly on Ring Road, Outer Ring Road and other major roads of the city. As a solution to this problem, a peripheral expressway (94 km length) is proposed to be constructed along the western boundary of Delhi and through parts of Haryana by the National Highway Authority of India (NHAI) as a National Highway project. Delhi Government may acquire land along 74 km length in Delhi Territory of proposed site for this project and hand it over to NHAI.

## GURGAON EXPRESS WAY

4.6 NHAI has decided to convert the road connecting Delhi to Gurgaon into an eight lane Toll Expressway. This Expressway is of 28 km length (18 Kms in Haryrana + 10 Kms in

Delhi). After completion of the project it will take about 25 minutes only to reach Gurgaon from Delhi. The project is being constructed on a BOT basis by NHAI.

## 5. FLYOVER AND BRIDGES

**5.1** The expansion of the road network and the growth in vehicular traffic in Delhi resulted in installation of traffic signals almost at every intersection within short distances. This has led to excessive time and fuel consumption for all vehicular trips. To overcome this problem by providing uninterrupted movement of traffic, a special programme to construct flyovers was started in 1998-99. During the 9th Five Year Plan, 11 flyovers/ ROB/Grade-Separators were constructed in Delhi by various agencies (PWD, DDA,DTTDC & MCD). This programme of construction of flyovers has been continuing in the 10$^{th}$ Five Year Plan with the same vigor. During the Annual Plan 2002-03 and 2003-2004, 10 Flyovers were constructed by the concerned agencies. Further, 12 flyovers are under construction at various locations in Delhi. Besides the above, following major bridges /Road projects were taken up during 2003-04.

**5.2 Geeta Colony Bridge:-**

To ease out traffic load on other bridges over river Yamuna connecting east Delhi, Construction of a new bridge connecting Shantivan on western side and Geeta Colony on eastern side was approved by the EFC on 25-07-03 at an estimated cost of Rs. 117.61 crore. Foundation stone for this bridge Project was laid on 04.09.03. Consultant has been appointed . Tenders are being invited from the prequalified agencies .The length of this bridge will be 560 M (14 spans of 40 M each) and width conceived is 24 M (4 lane with cycle track-cum- footpath) on either side.

**5.3 Road over Disused canal:-**

As per Master Plan-2001, a road with 30M right of way over the exiting disused canal is to be constructed for easing out the traffic load of Vikas Marg and effective traffic dispersal from the poposed bridge over river Yamuna at Geeta Colony. This road will connect Marginal Bund Pusta Road with Karkari Mode at Vikas Marg. The scheme envisages construction of permanent RCC box drain over which four lane dual carriage way shall be constructed. EFC approved this proposal on 13-6-2003 at an estimated cost of Rs. 86.97 crore. Foundation stone was laid on 4.9.2003.

### 5.4 NH2 By pass from Kalindi Colony, Ring Road to Haryana Border

A 14 Km. long by pass conneting Kalindi Colony to Badarpur Border is being constructed in two phases. Phase-I will be from Kalindi Colony Ring Road to Kalindi Kunj Road No. 13(A) and Phase-II will be constructed from Kalindi Kunj Road No 13(A) to Haryana Border. The Bypass will have 6 lane divided carriage way with footpath on both sides. The phases-I Kalindi Bypass was approved by EFC on 23-3-02 at an estimated cost of Rs.100.15 crore. Work has already been awarded. Target date of completion is January, 05.

### 5.5 C/o parallel bridge over river Yamuna near Wazirabad:-

This bridge is proposed to be constructed over river Yamuna at Wazirabad , parallel to existing bridge. The existing bridge at Wazirabad is inadequate to cater to the needs of the growing population of Trans Yamuna area especially, people residing in Yamuna Vihar, Gokulpuri, Khajoori and other areas. This proposal has already been approved by Govt. of Delhi. The work will be executed through DTTDC as 'deposit work'. Preparation of DPR and appointment of consultant is under process.

### 5.6 Elevated Road Corridors.

Current traffic on the Ring Road is in excess of its capacity (75,000 PCUs per day) and is projected to reach 4 lac PCUs by 2011. Growth of this magnitude will require expansion of the Ring Road from 6 lanes to 18-24 lanes. Since ROW of the road is limited, it may not be possible to widen the road upto desired level. As such, other viable alternatives are required to be explored. Elevated Road corridor on the entire length of 48 KM of inner Ring Road is one of them. The estimated cost of the project would be roughly Rs 2635 crore at June, 2003 prices. Pre-feasibility study of the project will be under taken shortly.

## 6. INTERSTATE BUS TERMINALS (ISBT)

MPD- 2001 suggested five ISBTs for Delhi in 2001. With the development of two new ISBTs at Sarai Kale Khan and Anand Vihar, three ISBTs are functioning at present. These three ISBTs cater to an average 3.70-lakh passengers and 5235 buses/trips per day. Two more ISBTs are proposed to be constructed during the 10th Five Year Plan at Dwarka and Narela on BOT basis. M/S RITES Ltd. has been appointed as Project

Management Consultant for these two ISBTs. Pre-feasibility study reports on ISBT Dwarka is under examination of Transports Deptt. The ISBT at Sarai Kale Khan is proposed to be developed as modern ISBT by PWD at an estimated cost of about Rs. 97 crore.

## 7. RAIL NETWORK

7.1 Delhi is a major junction on the rail map of India linked with all the major metropolitan cities directly. There are four main railway stations at New Delhi, Old Delhi, Hazrat Nizamuddin and Sarai Rohila, besides Container Depots at Patparganj and Tuglakabad. There are 8 rail corridors in the National Capital Territory, which bring in more than 350 passenger trains and 40 goods trains every day.

### MASS RAPID TRANSIT SYSTEM

### 7.2 MRTS PHASE-I

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. The first phase of the project, originally estimated to cost Rs. 4,860 crore (April 1996 prices) was approved in September 1996 and was to be completed by March, 2005. It is now expected to be completed by September, 2005 at an estimated cost of Rs. 10571 crore. Of the total cost, 56% was to be funded by JBIC, 30% through equity support (15% each to be contributed by Government of Delhi and Central Government), 8% through interest free subordinate debt (4% each to be contributed by Government of Delhi and the Central Government) and 6% through property development.

**Revised funding plan :-**

| | | | |
|---|---|---|---|
| (i) | JBIC Loan | : | 64% |
| (ii) | Equity Support (14% each to be contributed by Govt. of Delhi and Govt. of India) | : | 28% |
| (iii) | Subordinate debt (2.5% each to be contributed by Govt. of Delhi and Govt. of India) | : | 5% |
| (iv) | Property Development | : | 3% |

Government of NCT of Delhi has already contributed Rs. 1127.11 crore as share capital, Rs. 252 crore as subordinate debt for land acquisition and Rs. 61.39 crore as Sales Tax on Works Contract Act up to March, 2004.

The first phase envisaged the following revised plan of three corridors: -

**Statement -2**

| SN | Particular | Length (Km) |
|---|---|---|
| 1 | Delhi University - Central Sectt. ( Metro/Underground Corridor) | 11 |
| 2 | Shahdara- Barwala (Rail/surface/elevated Corridor) | 28 |
| 3 | Barakamba Road -Connaught Place- Dwarka (Underground /elevated corridor) | 22.8 |
| | Total | 62.8 |

## 7.3 SUBSTITUTION/EXTENSION OF CORRIDORS:

There is a proposal to substitute Rithala - Barwala section of line I (6 km) with Barakhamba - Indraprastha section (2.8 km) and further, extension of Barakhamba road-Dwarka corridor to Dwarka sub-city (6.5 km). This proposal is under submission for the approval of Govt. of India.

7.4 The target dates of commissioning of different sections of Rail and Metro corridors are as follows: -

**Statement -3**

| Segment Rail Corridor(RC) | Name of the section | Targets date of commissioning | Commissioned on |
|---|---|---|---|
| RC Seg.1 | Shahdara-TisHazari | 31st December, 02 | 24.12.2002 |
| RC Seg. 2A | Tis Hazari-Tri Nagar | 30th September, 03 | 3.10.2003 |
| RC Seg.2B | Tri Nagar-Rithala | 31st March, 04 | 31.3.2004 |
| RC Seg 2C | Rithala-Barwala | 31st December, 04 | Kept on hold |
| RC Seg 3 | Barakhamba Road-Connaught Place-Dwarka | 30th September, 05 | In progress |
| **Metro corridor MC)** | | | |
| MC1A | Vishwa Vidhyalaya-ISBT | 31st December, 04 | In progress |
| MC 1B | ISBT-Central Secretariat | 30th September ,05 | In progress |

## OVERALL PROGRESS AND EXPENDITURE INCURRED

7.5 The Shahdra -Tis hazari -Trinagar-Rithala corridor has already been made operational in March,2004. Civil works on Vishwa Vidyalaya -ISBT and Central Secretariat Corridor have been completed to the extent of 67% and 62% respectively upto May, 2004. Further, Barakhamba Road-Dwarka corridor civil work is also in progress. Both these corridors are planned to be made operational by September, 2005. Total expenditure incurred on the project upto March, 2004 is Rs. 5886.87 crore. The Draft Loan Agreement for the 4th tranche of JBIC loan for 34012 Million Japanese Yen has been signed in March, 2003.

## 7.6 MRTS PHASE -II:

After completion of MRTS phase-I by September, 05, MRTS Phase- II is proposed to be taken up which envisages the following three corridors:-

1. Vishwa Vidayalaya-Sanjay Gandhi Transport Nagar (8.6 km)
2. Central Secretariat - Vasant Kunj (18.2 km)
3. Indraprastha - Noida (12.5 km)

The total length of MRTS phase-II would be 39.3 km at an estimated completion cost of Rs. 8500 crore at current price. Phase-II is expected to be completed by 2010. Feasibility Study has already been assigned to M/S RITES Ltd.

## INTEGRATION WITH OTHER MODES OF PUBLIC TRANSPORT

7.7 At present, the public transport system of Delhi is almost road based. With the coming of MRTS, particularly in influence areas of MRTS corridors, the bus system should act as a feeder so that both systems can complement each other. In other areas, the bus system will continue to be the primary mode of public transport. In this direction, DMRC has got a study done to plan the feeder system to MRTS and restructuring of existing bus routes. Some of the sections of MRTS Phase-I have already been commissioned on different dates and others are likely to be commissioned by September 2005. For feeder system and restructuring, phase planning has been done. For implementation of these recommendations, a task force comprising DMRC, DTC and GNCTD officials was constituted who have finalised routes for the restructuring. For integration, DMRC is

providing bus bays at different stations. For park and ride trips, it is providing parking facility at various stations wherever feasible and required.

## 7.8 REGIONAL RAIL NETWORK

Present urban transport infrastructure including MRTS in NCT of Delhi is not sufficient to cater to the needs of the people who commute from DMA and NCR towns to Delhi for work. The road transport network is required to be integrated with the rail network. A dedicated rail network is required for daily commuters from NCR towns to Delhi. Accordingly it has been decided to strengthen the Regional Rail Network in the NCR area with the construction of the following dedicated railway corridors based on revised MOU and cost.

**Statement -4**

| S.No. | Corridors | Length | Cost (At April, 2002 price) |
|---|---|---|---|
| 1. | Shahdara- Shaibabad- Ghaziabad | 14.92 Km | Rs. 667.00 crore |
| 2. | Sahibabad- Tilak- Bridge- Shivaji Bridge | 17.36Km | Rs. 618.00 crore |
| 3. | Trinagar (Daya Basti)- Bijwasan- Gurgaon | 30.10 Km. | Rs. 954.00 crore |
| | **Total** | **62.38 Km.** | **Rs. 2239 Crore** |

The project is to be implemented by Special Purpose Vehicles (SPVs). The SPVs will finance the project through a debt equity of 1:1. While SPV will raise the debt from the market, financial institutions and others sources, the equity contribution of Rs. 1119 crore will be made by the stake holders to the respective SPVs in the following proposition:-

1. Contribution of MOUD 33.33%
2. Contribution of Railways (MOR) 33.33%
3. Contribution of all State Govt./U.T. 33.33%

The inter-se contribution between the State Govt. will be in the ratio of the length of the commuter rails systems in the respective states. The equity share of each of the stake holders is projected to be as follows: -

**Statement -5**

| Stake Holder | Shahadara-Ghaziabad | Sahibabad-Shivaji Bridge | Tri-Nagar-Gurgaon | Total Equity share |
|---|---|---|---|---|
| MOUD | 111 | 103 | 159 | 373 |
| MOR | 111 | 103 | 159 | 373 |
| GNCTD | 30 | 74 | 109 | 213 |
| GOH | - | - | 50 | 50 |
| GOUP | 81 | 29 | - | 110 |
| TOAL | 333 | 309 | 477 | 1119 |

## 8. DELHI TRANSPORT CORPORATION:

8.1 DTC is responsible for providing efficient public transport services to the people of Delhi at affordable prices. DTC was taken over by the Government of NCT of Delhi from the Government of India in August, 1996. The performance of DTC in 1996-97 (at the time of take over ) and 2003-04 may be seen at a glance in the following statement:-

## Statement-6

## PERFORMANCE OF DTC AT A GLANCE

| S.N. | Item | Unit | 1996-97 | 2003-04 |
|---|---|---|---|---|
| 1 | Total Fleet | Nos. | 2682 | 3656 |
| 2 | Average feet | NO. | 2665 | 3398 |
| 3 | Avg. No of busses on road | NO. | 1648 | 2905 |
| 4 | Fleet utilization | % | 61.84 | 85.49 |
| 5 | Trips operated daily | Nos. | 14104 | 20271 |
| 6 | Kms. operated daily | Lakh | 4.41 | 6.49 |
| 7 | K.M. Efficiency | % | 66.64 | 83.27 |
| 8 | Earning per Bus daily | Rs. | 2269 | 3240 |
| 9 | Passengers carried daily | Lakh | 15.02 | 26.33 |
| 10 | Passengers per bus daily | Nos | 911 | 906 |

## REFORM PLAN FOR RESTRUCTURING OF DTC

**8.2** Despite the best efforts made by Govt. of Delhi to improve the deteriorating financial position of DTC, it could not be made self-sustainable. To overcome the various problems being faced by DTC in the form of growing financial deficit, surplus staff, stiff competition from the private bus operators etc,. Government appointed M/s Tata Constancy Service (TCS) to undertake a financial and operational review of DTC and to propose a Reform Plan for Restructuring of DTC . TCS submitted the final study reports in the month of September, 2003. This is under examination of the Govt. and a final strategy is being chalked out. The above table shows that fleet utilization has increased to 85.49 % in 2003-04 as compared to 61.84% in 1996-97. K.M. efficiency has also increased from 66.64% to 83.27%.

**8.3** In an effort to augment the existing fleet by providing non-polluting buses, DTC has already purchased 3084 new CNG buses up to March, 2004. Presently DTC has 2250 Bus Queue Shelters including 710 constructed during 2002-03 and 08 during 2003-04. 1200 more Bus Queue shelters will be constructed during 2004-05. Some of the new projects

of DTC under process/ planning stage are Automatic Fare Collection Systems, Automatic Vehicle Tracking System through GPS and Computerised Call Center for route enquiry.

## 9. HIGH CAPACITY BUS SYSTEM/ ELECTRIC TROLLEY BUSES

9.1 The need for High Capacity Bus Systems /Electric Trolley Buses (HCBS / ETB) as an alternative mode of comfortable bus transport systems for Delhi has been felt for long due to phenomenal increase in private vehicles, especially personalized vehicles on Delhi roads. To introduce this mode of Transport in Delhi, 7 corridors,(5 for HCBS and 2 for ETB) have been identified. These corridors are as under: -

**HCBS**:-

i) Nangloi- Shivaji Terminal
ii) Azadpur - Nehru Place
iii) Jehangirpuri- Old Delhi Rly Station
iv) Dr. Ambedkar Nagar-ISBT
v) Anand Vihar- Shivaji Terminal

**ETB**

i) Hari Nagar Clock Tower- Central Secretariat
ii) Badarpur- Pragati Maidan

**9.2** Out of these 7 corridors, two pilot/priority corridors one each of HCBS & ETB have been selected as under:-

i) Ambedkar Nagar-ISBT (HCBS)
ii) Hari Nagar Clock Tower-Central Secretariat. (ETB)

Feasibility study for Ambedkar Nagar- ISBT priority corridor (length 18 km) has been got conducted through M/S RITES & TRIPP IIT, Delhi. Proposal for corridors improvement for Part-I Ambedkar Nagar to Mool Chand (length 6 KM) at an estimated cost of Rs. 32.89 crore requires EFC approval.

**9.3** First High Capacity Low Floor Bus has already been put on trial since 12/3/04. Purchase order for procurement of six HCLF buses has already been placed & delivery is expected within 6-8 months. Besides, these high capacity buses are handicapped friendly and highly comfortable. Feasibility study for introduction Electric Trolly Buses has been

assigned to M/s RITES Ltd. They have submitted part of the report which is under examination of the Transport Deptt.

Light Rail Transit Systems (LRT) is proposed for the walled city area for which feasibility study will be got conduced during 2004-05.

## 10. INTEGRATED FREIGHT COMPLEXES

MPD- 2001 envisaged the construction of 4 integrated freight complexes in Delhi at Madanpur Khadar (NH-2), Patparganj (NH-24), G.T. Road (NH-1) and Bhartal (NH-8). These 4 integrated freight complexes will consist of wholesale markets, warehousing, road (truck) and rail transport terminals so as to curtail the movement of heavy vehicles within the city area. The freight complexes are conceived to shift wholesale trade, decongest the walled city and also cater to regional goods traffic flowing through Delhi. DDA is implementing this project.

## 11. TRAVEL DEMAND BY 2021

Based on the existing situation and trends, the transport scenario for 2021 appears to be quite alarming.

The various indicators for assessment of travel demand are shown as under:

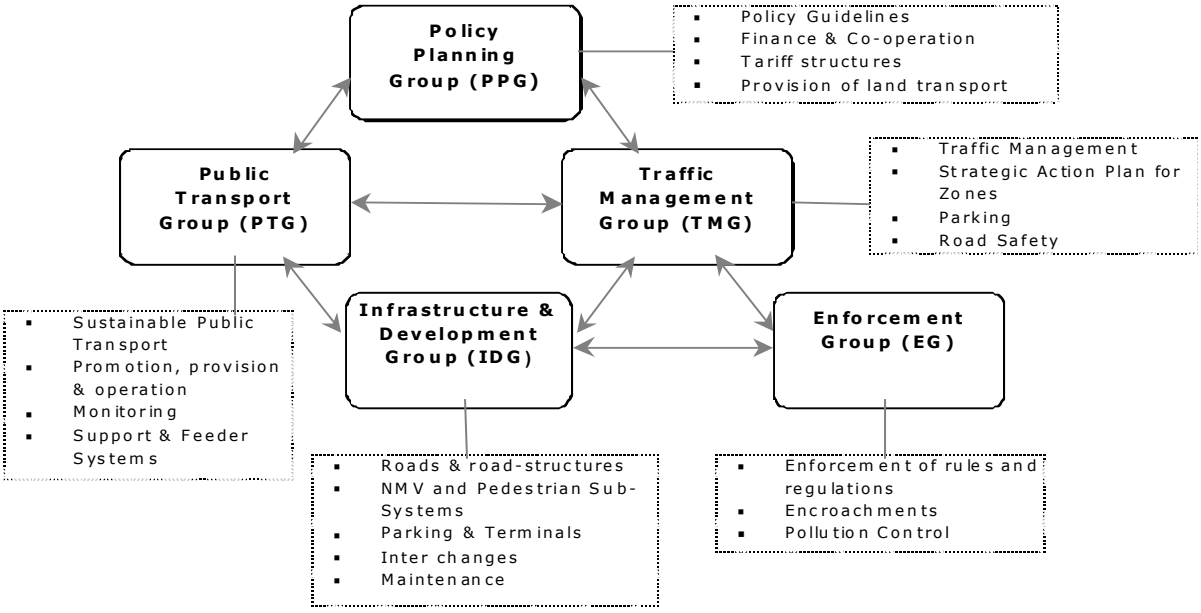
| | |
|---|---|
| Population (Census -2001) | 13.78 Million in 2001 |
| Projected | 22 Million in 2021 |
| Vehicles | 3.46 Million in 2001<br>Over 8 Million in 2021 |
| Per Capita Trip Rate (Mechanical Modes) | 0.79 in 1993 and 1.2 in 2021 |
| Average Trip Length (Km) | Car 11.28 in 1993 &17.74 in 2021,<br>Bus 10.66 in 1993 & 14.58 in 2021 |

**Source :** DUEIIP -2021

## 12. DELHI UNIFIED METROPOLITAN TRANSPORT AUTHORITY (DUMTA)

12.1 There is a multiplicity of authorities handling different functions of the urban transport system with a resultant lack of coordination. The Delhi Urban Environment & Infrastructure Improvement Project-2021 recommended the setting up of a Delhi Unified Metropolitan Transport Authority as under:

**PROPOSED UNIFYING TRANSPORT MECHANISM**




12.2 The functions of the Authority (DUMTA) would be as under:

- Preparation of Transport Plan for NCTD
- Preparation of Transport management plans for critical areas
- Resource mobilization
- Approval of corporate plans and transport service plans by other agencies
- Facilitation of private enterprise and private resources for development
- Formulation of integrated fare policy
- Co-ordination of transport facilities and services
- Protection of interest of users
- Monitoring the quality and standards
- Design and maintenance of Delhi Transport Information System
- Prescribing norms and standards for facilities and services.

Till the formation of DUMTA, Transport Planning Group constituted under the chairpersionship of Chief Minister will take care of all those issues to be taken up later on by DUMTA.

## 13. ROAD SAFETY

13.1 Safety is a major component of traffic management. The phenomenal increase in the number of motor vehicles in the city coupled with limited road space, inadequate facilities for pedestrians and cyclists, irresponsible driving and violation of traffic rules has resulted in a significant number of road accidents. Though the number of accidents has shown a decreasing trend in the last three years due to continuing efforts of all concerned agencies, there is need and scope for vast improvement in traffic management and regulation.

13.2 The total number of accidents in Delhi are showing a declining trend due to various measures taken by Govt. 9909 accidents cases were reported in Delhi in 1999 and 9282 in 2001. 8711 accidents were reported in 2002 involving 7906 cases of simple injuries and 1753 fatal cases. One of the most vulnerable groups to accidents is school children. The shortage, of educated manpower and infrastructure facilities, the task of accident handling is quite difficult in terms of timely hospitalisation of the accident victims.

13.3 During 2003-04, Transport Deptt. engaged 26 NGOs for Road Safety campaigns. Financial aid is provided to NGOs for creating Road Safety Awareness in public, especially, among school children. Further, 92 Road Safety Clubs have also been set up in various Public/ Pvt. Schools in Delhi and an amount of Rs. 4000/- is paid to each Safety Club .

## 14. PARKING.

Increasing parking demand with availability of limited parking space and absence of a parking policy proved an impediment to the smooth flow of traffic, especially in and around major commercial areas/activity centers. With the objective of reducing the parking demand (especially for personalised vehicles), paid parking is accepted as a major tool. Further, provision of 'Park and Ride' facilities, additional parking space in

critical areas with optimal private sector participation, employers' participation in transport demand management and stringent controls are some of the key issues. MCD and NDMC have been requested for development of more parking sites including multi-level car parking in their respective areas. In this direction a study / survey of 16 important commercial places will be conducted by Transport Department through CRRI & DMRC. It is proposed to introduce 'Parks & Ride' facility on two corridors covering Chandani Chowk/ Old Delhi Railway station stretches on pilots project basis.