CHAPTER 12

TRANSPORT

1. The population of Delhi has been growing speedily and has increased from 9.4 million in 1990-1991 to 16.9 million in 2007-08. The total area of Delhi is 1483 sq. km with an urban area of about 925 sq. km with high growth in transport demand over the years, congestion on roads has been increasing due to phenomenal rise in private transport. Concerted efforts have been made by the Government to increase transport mobility alongwith offering a better transport infrastructure. However Government is equally conscious of the fact that a lot more needs to be done, to have a pro-public transport system in place so that dependence on private mode of transportation gets reduced. Efforts would be made to ensure that mobility of people at large both through mechanized vehicles (Private & Public) and also through non-mechanized vehicles get increased alongwith creating space for pedestrians and pedestrianation of some of the public places. In this chapter, demand, infrastructure facilities and efforts put in by government to improve the transport system have been analyzed.

2. Transport Planning

2.1 Transport is a priority sector in Eleventh Five Year Plan [2007-12] of Delhi for which an allocation of Rs.15251.70 crore is proposed. Out of total proposed plan outlay of Rs.45000 crore. It accounts for 33.86% of the total Plan Outlay for Eleventh Five Year Plan of Delhi.

2.2 A single mode of public transport continued till 2002, when first corridor of Delhi Metro was started. Govt. of Delhi has planned to provide best multi modal public transport system to the citizens of Delhi which is based on a number of studies conducted so far.

2.3 Transport Planning is intrinsically linked to land use planning and both need to be developed together in a manner that serves the entire population of Delhi and yet minimize travel needs. In short, an integrated Master Plan is needed to be able to internalize the features of sustainable transport system.

3. VEHICULAR GROWTH

STATEMENT 1

S.N.	Category	No. of Vehicles (In Lakh)		Decennial growth rate % [1997-98 to 2007-08]	Annual Compound Growth Rate%
		1997-98	2007-08		
A	**Private Vehicles**				
i.	Four Wheelers [Cars, Jeeps/St. Wagon]	7.65	17.30	126.14	8.73
ii.	Two Wheelers [Scooter, Motorcycle]	19.92	35.78	79.62	6.03
	Sub Total	**27.57**	**53.08**	**92.53**	**6.84**
B.	**Commercial Vehicles**				
iii.	Auto Rickshaw	0.80	0.75	(-) 6.25	(-)1.15
iv.	Taxis	0.17	0.31	82.35	6.24
v.	* Buses	0.32	0.46	43.75	4.33
vi.	Goods Vehicle + Tractor	1.47	1.61	9.52	0.02
	Sub Total	**2.76**	**3.13**	**13.41**	**0.81**
	Total	**30.33**	**56.27****	**85.53**	**6.42**

*** Including Light Passenger Vehicle and Medium Passenger Vehicles**

**** Including ambulances and other unidentified vehicles - (6863)**

3.1 The statement-1 shows that there has been an exponential growth in the number of vehicles, which increased from 30.33 lac in 1997-98 to 56.27 lakh in 2007-08 at an annual compound growth rate of 6.42%. Decennial growth rate is substantially higher in case of private vehicles (92.53%) as compared to commercial vehicles (13.41%). In the category of private vehicles, Cars & Jeeps have registered a decennial growth rate of 126.14%, which is highest among all the categories of vehicles followed by two wheelers (i.e. scooter, motorcycle & moped) with 79.62%. In the commercial category of vehicles, Taxies, have registered highest decennial growth rate (82.35%) followed by Buses including Light, Medium & Heavy Passengers vehicle (43.75%). Auto Rickshaws have registered a negative decennial growth rate of (-) 6.25%. The same trend has been observed if data is compared to compound annual rate of growth. Further, year wise vehicles population & its growth trend may be seen in table 12.1 & 12.2

3.2 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, and goods vehicles. The declining trend of annual growth rate of total motor vehicles registration in Delhi during 1994-95 to 2005-06 has reversed and has shown increasing trend during 2006-07 and 2007-08. The declining trend during 1994-95 to 2005-06. The percentage share of cars/jeeps to the total number of vehicles in Delhi has increased from 21.98% in 1990-91 to 30.747% in 2007-08.

3.3 The Society of India Automobile Manufacture (SIAM) date which compares the total number of vehicles registered till 2004 with the population for the same year in the 25 biggest Indian cities and towns, tracks the geographical spread and demography of Indian automobile market indicates that Delhi has 85 private cars per 1000 population. Overall, car penetration in India, however, continues to remain low at 8 cars per 1000 population. Car density in Delhi is more than 10 times of national average (sources newspaper report).

3.4 There is a dispute 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.

4. MODES OF TRANSPORT

4.1 Delhi is predominantly dependent on road transport, with the railways catering to only about 1% of the local traffic. The ring rail network in Delhi is grossly underutilized. With Commencement of all three corridors of MRTS –Phase I i.e. Shahadara – Rithala, Vishwavidyalaya-Central Secretariat and Barakhambha Road- Dwarka, having a total length of 65.05 Km and 2 streche of phase-II i.e. Shahdara - Dilshad Garden (3.09 km) and vishwa Vidhyalaya-Jahangir Puri having a total length of 9.45 km, public transport in Delhi has witnessed perceptible change as more than 5.9 lakh passenger trips are being covered by Metro. Till 2003, buses constituted about 1% of the total number of vehicles, but catered to 60% of the total traffic load, while personalized vehicles accounted for 93.73% of the total vehicles but catered to only

30% of the total traffic load. The number of buses is going down steadily since 2003. This calls for a rethinking on transport policy both form the angle of putting a pro public transport system in place and reducing number of private vehicles on roads and resultant reduction in congestion. Among personalized vehicles, motorcycles and scooters comprise about 63.58% of the total number of vehicles in Delhi, while cars and jeeps account for 30.74% of the total vehicles. (Table 12.3).

4.2 It is difficult to obtain complete data about non-motorized vehicles and animal-driven vehicles as there is no proper mechanism to register them. Moreover, the number of unregistered vehicles are estimated to be more than those registered with the local bodies. Registered non-motorized vehicles and animal-driven vehicles constitute about 1.87% of the total vehicle population in Delhi out of which about 99.31% are cycle rickshaws. Since registration of cycle rickshaws has been discontinued, the exact number of cycle rickshaws in the city may not be known.

5. ROAD NETWORK

5.1 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 30985 kms (including 182 kms of National Highways with PWD and excluding highway of NHAI) in March, 2008. The growth of the road network in Delhi is shown in Table 12.6.

5.2 Delhi had 1922.32 km of road length per 100 sq. km area in 2001-02 as compared to national average of 74.73 km per 100 sq. km area (2001-02). (Source- Chapter 10 Infrastructure of Economics Review 2007 of Govt. of Kerala). The road network has increased from 8380 km in 1971-72 to 30985 km in 2007-08 (3.7 times), while the number of vehicles has increased from 2.14 lakh in 1971-72 to 56.27 lakh in 2007-08 (26.29 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

5.3 RING ROAD

The Ring Road, Outer Ring Road and other radial roads constitute a distinct feature of the road network in Delhi. Ring Road has a length of about 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. Work of widening of Ring Road from 6 lanes to 8 lanes is already in progress in some stretches like Rajghat to Metcalf house, Raja Garden to Punjabi Bagh, Safdarjang to

Dhaula Kuan, Azadpur Jn to Britannia chowk, Rajghat to Ashram Chowk. Traffic is projected to reach between 1.5- 4 lakh PCUs by 2011, this will require expansion of the Ring Road to 18- 24 lanes, which is not a practical solution. Hence require a pro public transport system in place of encouraging personal vehicals.

5.4 NATIONAL HIGHWAYS

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.

5.5 PERIPHERAL EXPRESSWAYS

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, Western Peripheral Expressway and Eastern Peripheral Expressway project are being constructed. The total cost of land acquisition from these two expressways is Rs. 1307 crore. GNCT of Delhi provided Rs.653.50 crore, Govt. of U.P. also released its full share by 2006-07. On completion of W.P.Expressway and E.P.Expressway, Delhi is expected to get relief from those interstate vehicles which are passing through Delhi at present although not destined for Delhi. Present Status of these projects as under:-

5.5.1 Western Peripheral Expressway(WPE) Projects:- the total length of the road is 135.65 km. It is being executed as single packeage on BOT basis and awarded to KPM expressway Ltd. on 14.11.2005 with 2000 grant for a concession period of 23 years and 9 months (including 5 years of construction). The project is being implemented the target date of completion of project is 30.7.2009. The project is lagging behind the schedule. However, concessionaire is confident to complete the project by target date.

5.5.2. Eastern Peripheral Expressway (EPE) Projects:- The total length of 135 km. Starts at Kundli NH-1 and terminate at Palwal on NH-2 Via passing eastern peripheral of Delhi in Baghpat, Gaziabad, Gauttam Budh Nagar & Faridabad Districts. The most of EPE falls in UP State and it is being implemented by NHAI. The estimated cost of the project is Rs. 1885 crore excluding cost of land, shifting of utility services. PPPAC has approved the project the concession period is considered is 20 years (including construction period of 3 years). The project is yet to start which is targeted to completed by June 2012.

5.6 GURGAON EXPRESS WAY

NHAI has converted the road connecting Delhi to Gurgaon into an eight lane Toll Expressway. This Expressway is of 28 km length (18 Kms in Haryana + 10 Kms in Delhi). The project has been constructed on BOT basis by NHAI and opened to traffic in January, 2008.

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

A 14 Km. long bypass connecting Kalindi Colony to Badarpur Border is being constructed in two phases. Phase-I from Kalindi Colony Ring Road to Kalindi Kunj Road No. 13(A) and Phase-II from Kalindi Kunj Road No 13(A) to Haryana Border. The work could not progress as per schedule due to land problem which is yet to be resolved with U.P. Government. The matter is pending before the High Court.

5.8 Road over Disused canal: -

Construction of permanent RCC box drain with four lane dual carriage way (with 30M right of way) over the exiting disused canal has been completed 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 is connecting Marginal Bund Pusta Road with Karkari Mode at Vikas Marg.

6. FLYOVERS AND BRIDGES

6.1 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. However various studies/reports have pointed out that in many cases, the flyovers have been successful in shifting the traffic jam/ bottlenecking to next crossing or so. Thus there is a need to have each case of flyover construction studied to have a complete traffic solution not only on the crossing but in the vicinity also. Along with this, The need of linking pedestrian facilities at the time of planning of flyover construction has been reorganized.

6.2 During the 9th Five Year Plan, 11 flyovers/ ROB/Grade-Separators were constructed in Delhi by various agencies (PWD, DDA, DTTDC & MCD). During 10th five year plan, 22 Flyovers and 2 underpass and 2 RUB were constructed by the concerned agencies. During 2008-09 flyover at Mukarba Chowk and Mangolpuri ROB on road No. 63 and Geeta Colony Bridge have been completed. Besides the above, following major projects have been taken up.

6.3 Parallel bridge over river Yamuna near Wazirabad (Signature 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, Nand Nagri and other areas. The project was to be completed by June 2009. The estimated cost has been revised to Rs. 887.29 crore from Rs. 464 crore. The project is being implemented by DTTDC.

6.4 New Flyovers / RUB / Under Pass

Keeping in view the new urban extension area, development of new commercial, institutional and public places and Commonwealth Games– 2010, Govt. has decided to construct a number of flyovers , RUB, Under pass, Corridors for better traffic flow. Some of the new flyovers / RUB / Under pass proposed to be constructed by 2010 are given below in the Statement 2. Flyover and Bridge works which are in progress are given in the Statement 3.

STATEMENT 2

New Flyovers / RUB / Under pass / Corridors proposed to be constructed by 2010

S.N.	Name of Project
1	Construction of Link Road connecting National Highway 24 to Lodhi Road
2	Elevated West-East Corridor which will connect Connaught Place to East Delhi
3	Flyover at Apsara Border
4	Clover leaves on U.P.Link Road
5	Road over Bridge on G.T.Road near Shyamlal College
6	Flyover on Bahadurshah Zafar Marg
7	Road over Bridge on level crossing on Road No.68
8	6 lane road over Barapullah Nalah
9	Road over Najafgarh Drain from Meera Bagh to Wazirabad
10	East-West corridor from Rajghat to Punjabi Bagh
11	North-South Corridor from Majnu-ka-Tilla to Dhaula Kuan
12	Outer Ring Road link from Okhla to Wazirabad
13	Corridor between Wazirabad and Mukundpur Chowk
14	Corridor connecting NH-8 to District Centre, Janakpuri
15	Underpass on Vikas Marg near ITO Chungi Crossing
16	Mukarba Chowk Flyover
17	Flyover at Azadpur Intersection
18	Flyover on Ring Road at Naraina
19	Fly over at Nangloi NH-10 crossing
20	Flyover on Outer Ring Road at Mangol Puri Crossing
21	Flyover at Ghazipur Crossing
22	Corridor improvement of Road No.56
23	Ring Road Bypass from Salim Garh Fort to Velodrome

STATEMENT 3

Flyover & Bridges Works in progress

S.No.	Name of Flyovers	Date		Completed
		Start	Target	
1.	Geeta Colony Bridge	Feb., 05	April, 08	Oct., 08
2.	ROB 63	Jan., 06	Jan., 08	Sept., 08
3.	Mukerba Chowk	Sept., 06	Nov., 08	Feb., 08
4.	Neela Hauz	Sept., 06	Mar., 10	
5.	ITO Chungi	Nov., 06	June, 09	
6.	RUB on Road No. 58-64	Dec., 06	Sep., 09	
7.	Naraina	Oct., 07	Nov., 09	
8.	Bhera Enclave Underpass	Aug., 07	Mar., 09	
9	Mangolpuri	Feb., 07	Aug., 08	Aug., 08
10	R.R. Kohil Marg	Feb./Apr., 07	Jun., 09	
11	Shastri Nagar Pustha	Feb./Apr., 07	Dec., 08/ May., 09	
12	Azadpur	Apr., 07	Oct., 09	
13 -15	3 flyover IIT to NH 8	Mar./May, 07	June, 09	
16	Nangloi, NH-10	Apr., 07	June, 09	
17	Shyam Lal College	May/Aug., 07	Sept., 09	
18	Gazipur Crossing	May, 08	June, 10	
19	Elevated corridor over Barapullah Nallah	Oct., 08	June, 10	
20	Apsara Border	Sept., 08	Mar., 10	
21	Corridor Improvement of Road No.56	Nov.,08	June,10	
22	U.P. Link Road	Oct., 08	May, 10	
23.	Ring Road bypass from Salimgarh Fort to Velodrome	Jan.,09	July,10	
24	ROB on Road No. 68 (by DTTDC)	Feb., 09	Sept.,10	

6.5 17 ROB /RUB at Railway crossing

In view of Commonwealth games-2010, Government of Delhi decided to finance the 50% share of MCD in construction of 17 ROB/RUB at a cost of Rs 428 crore. Remaning 50% cost is borne by Ministry of Railway, construction of RUB at Vivek Vihar Railway crossing has already been stated. RUB/ROB are indicated in the statement 4.

STATEMENT 4

List of 17 Locations of Railway Level Crossing

S. No.	Location	Cost Estimate (in crore)
1.	Adjacent to Roshanara Garden near Under Bridge Shakti Nagar (on Delhi-Ambala line)	40
2.	G.T. Road Industrial Area approaching towards Sawan Park (on Delhi – Ambala line)	15
3.	Near Badli at the Back of Sanjay Gandhi Transport Nagar (on Delhi – Ambala Line)	10
4.	Auchandi Road connecting G.T. Road to Badli Industrial Area (on Delhi – Ambala Line)	30
5.	Nithari Road crossing on Narela - Lampur Road (on Delhi - Ambala Line)	15
6	Connecting Lodi Colony with Kotla/Prem Nagar near Sewa Nagar (on Ring Rail Line in Delhi Area)	30
7.	Kirti Nagar (KRTR) – Prem Nagar (on Ring Rail line in Delhi Area)	15
8	Between Vill. Sarai Kale Khan &Nizamuddin Colony (on Ring Rail line in Delhi Area)	09
9.	Najafgarh Bijwasan Road (on Delhi – Rewari Line)	58
10	Very near to Rohtak Road & near to Zakhira (on Delhi - Bhatinda Line)	40
11.	On Rampura Road approaching towards Rohtak Road (on Delhi - Bhatinda Line)	09
12.	Approach Road from Ring Road upto inter - section leading to Railway side Shakurbasti (on Delhi – Bhatinda Line)	08
13.	On Road connecting Mangolpuri to Rohtak Road (on Delhi - Bhatinda Line)	15
14.	Sultanpuri Railway Crossing between Sultanpuri & Nangloi (on Delhi – Bhatinda Line)	64
15.	Mundka Railway crossing (on Delhi – Bhatinda Line)	15
16.	Near Vivek Vihar Railway Station (on Delhi – Gaziabad Line)	40
17.	Level crossing at Kirari	15
	Total Cost	**428**

6.6 Pedestrian Facilities - Foot Over Bridges & Traffic Signals

Traffic regulation and road construction in Delhi have consistently ignored cyclists and pedestrians including bus commuters. On main arterial roads, there are very few pedestrian crossing and only a few over bridges or subways. However, things have slowly started moving in right direction. In recent time, 29 nos. subways/ FOBs have been completed at various places including 11 FOBs (Near Supreme Court, between AIIMS & Safdarjung Hospital, Majnu Ka Tila) 8 FOBs with Escalators at Maharani Bagh, ITO, ISBT Kashmere Gate, Satya Niketan, Nanakpura Gurudwara, Raja Garden, Mangal Bazar & Ratia Marg. These measures towards construction of FOBs, however are not adequate to meet the actual requirement on the ground. There is therefore a strong need to immediately provide for adequate number of safe road crossings by way of traffic signals at appropriate places like T-points, Road junctions and major Bus Stands for cyclists, pedestrians and bus commuters alongwith construction of foot over bridges with escalators. In this way, public transport would get promoted and road safety can be enforced.

7. 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. Due to change in FAR in MPD 2021, there is a re-thinking to take advantage of increased FAR and accordingly design and other parameters for construction of ISBTs are getting revised. Both the new ISBTs and work of development of ISBT Sarai Kale Khan and Anand Vihar as modern ISBT would be completed before CWG-2010.

8. RAIL NETWORK

8.1 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. A new Railway Station is being developed by Northern Railway near Anand Vihar ISBT, which will help in decongestion at New and Old Delhi Railway Stations. The work has been started. 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

8.2 MRTS PHASE- I (65.05 kM.)

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. Later on it was revised to be completed by March 2006 at an estimated cost of Rs.10571 crore.

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

Statement -5

SN	Particular	Length (Km)
1	Delhi University - Central Sectt. (Metro/Underground Corridor)	11
2	Shahdara- Rithala (Rail/surface/elevated Corridor)	22.06
3	Indraprastha-Barakhambha Road, Dwarka (Underground /elevated corridor)	25.65
4	Dwarka sub-city (Dwarka- Dwarka Sector VI)	6.50
	Total	**65.05**

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

Statement –6

Segment Rail Corridor (RC)	Name of the Section	Commissioned on
RC Seg.1	Shahdara-TisHazari	24.12.2002
RC Seg. 2A	Tis Hazari-Tri Nagar	3.10.2003
RC Seg.2B	Tri Nagar-Rithala	31.3.2004
RC Seg 3	Barakhamba Road-Connaught Place-Dwarka	31.12.2005
R.C.	Brakhambha- Indraprastha	Nov. 2006
Dwarka Subcity	Kakrola- Dwarka	31-03-2006
Metro corridor (MC)		
MC1A	Vishwa Vidhyalaya-ISBT	20-12-04
MC 1B	ISBT-Central Secretariat	02-7-2005

Delhi Metro has been graded as a world class metro. Trains are available to public for six minutes frequency. The expected rider-ship is 21.82 lac passengers per day for MRTS phase-I network.

8.4 MRTS PHASE -II:

After completion of MRTS phase-I, Phase-II has been taken up which envisages the following six corridors:

	Corridors	Length	Target Date	Revised Target	Compl. date
1.	Vishwa Vidayalaya–Jahangir Puri	6.36 Km	Oct., 08	Oct., 09	03.02.09
2.	CentralSecretariat-QutabMinar	10.87 Km	Dec., 09	June, 10	
3.	Indraprastha–New Ashok Nagar	8.07 Km	June, 08	June, 09	
4.	Shahdara-Dilshad Garden	3.09 Km	Dec., 07	Dec., 08	04.06.08
5.	Yamuna Bank – Anand Vihar	6.16 Km	Sept., 08	Dec., 09	
6.	Mundka – Inderlok	18.47 Km	Jan., 09	Mar., 10	
	Total	**53.02 Km**			
Following corridors have also been included in MRTS, Phase-II:-					
7.	Qutab Minar-Sushant Lok (Delhi Portion)	15.93 Km	Jan., 10		
8.	Central Secretariat-Badar Pur	19.55 Km	Sep., 10		
9.	New Ashok Nagar-Noida Sector-32	7.05 Km	Jan., 10		
10.	Airport Express Link (New Delhi-IGI)	9.20 Km	Aug., 10		
11.	Extension of Airport Express Link to Sector 21 Dwarka	3.50 Km	Sept., 10		
	Total	**64.23 Km**			

The completion cost of MRTS phase-II is estimated at Rs.8118 crore. Phase-II is expected to be completed by 2010. Construction work of Phase-II is in progress. The EIRR is expected to be 23.63% and FIRR is expected to be 8.18%

The estimated cost does not include Taxes and duties amounting to Rs.119 crore. This also does not include interest during construction (IDC) of Rs.70 crore, but include cost of land.

Government of NCT of Delhi has already released Rs. 2339.25 crore toward phase II as per details given below:-

Year	Equity	Subordinate debt.	Total
2005-06	346.66	58	404.66
2006-07	307.60	58	365.60
2007-08	456.49	225	681.49
2008-09	731.50	156	887.50
Total	**1842.25**	**497**	**2339.25**

8.5 INTEGRATION WITH OTHER MODES OF PUBLIC TRANSPORT

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.

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. Feasibility study for inter change efficiency at Metro Stations has been awarded during 2006-07.

9. DELHI URBAN TRANSPORT FUND TRUST

Government of Delhi has decided to establish a trust in the name of Delhi Urban Transport Fund Trust. The Trust has been created with the objectives of providing funding support to cause Development, Implementation, Operation for Urban Transport Infrastructure and funding of the expenses associated with Transport Planning, Project Development Expenses for specific projects, Capital Expenditure support for specific projects and operations and maintenance expenditure for providing sustainable public services and to meet the expenses for development of external infrastructure for all ISBTs.

10. DELHI TRANSPORT CORPORATION:

10.1 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 2007-08 may be seen, at a glance, in the statement No. 7

Statement-7

PERFORMANCE OF DTC AT A GLANCE

SN	Item	Unit	1996-97	2007-08
1	Total Fleet on last date	Nos.	2682	3537
2	Average fleet	NO.	2665	3439
3	Avg. No of busses on road	NO.	1648	2836
4	Fleet utilization	%	61.84	82.47
5	Trips operated daily	Nos.	14104	17070
6	Kms. operated daily	Lakh	4.41	5.01
7	K.M. Efficiency	%	66.64	68.22
8	Earning per Bus daily	Rs.	2669	3417
9	Passengers carried daily	Lakh	15.02	24.04
10	Passengers per bus daily	Nos	911	848

10.2 Commonwealth Games

Purchase orders have been placed in September 2008 for procurement of 1500 Non-AC and 1000 AC Low floor CNG propelled city buses for Commonwealth Games 2010.

10.3 JNNURM

Government of India has approved procurement of 1500 Low floor CNG propelled City bused costing Rs. 765.00 crore under JNNURM. GOI's contribution is Rs. 267.75 crore in the form of 33% ceritra share, out of which Rs. 115.52 crore have been released during 2008-09.

11. Integrated Multi-Modal Public Transport Network

11.1 For implementation of new modes of Public Transport (BRT, LRT Monorail) in a targeted and efficient manner, an independent SPV called Delhi Integrated Multi-Modal Transit System (DIMMTS) has been set up under Companies Act.

11.2 HCBS/BRT CORRIDOR:

Pilot project from Dr. Ambedkar nagar to Moolchand has been completed. The next phase from Moolchand to Delhi gate is under construction.

12. ROAD SAFETY

12.1 Due to tremendous increase in Vehicular population in Delhi, the number of accidents including fatal accidents has been increasing which is attributed to several reasons. 9282 accident cases were reported in Delhi in 2001 and 8620 in 2007 including 6539 cases of simple injuries and 2081 fatal cases.

13. PARKING

The total vehicle population of Delhi exceeds the combined vehicle population of Mumbai, Chennai and Kolkata. The subject of parking has become a matter of serious concern and requires a carefully considered policy and planned measurers to alleviate the problem to the maximum feasible extent in existing areas and for adequate provisioning with reference to future developments. Various suggestions have been made in this regard by different agencies/ studies in their reports like M.P.D. 2001, MPD-2021, DUEIIP-2021.

MCD and NDMC have identified some new parking sites/multi level parking sites at busy commercial/public places to be developed with PPP approach. The sites of NDMC are (i) Baba Kharak Singh Marg (ii) Hindustan Times Building, Kasturba Gandhi Marg (iii) Sarojini Nagar.