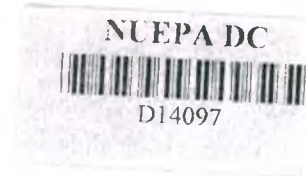




Smt. Sheila Dikshit
Chief Minister, Delhi



Foreword

The current Annual Plan 2011-12 is the Terminal Year of the 11th Five Year Plan (2007-12) of Delhi. With the implementation of a large number of projects/programme during 11th Five Year Plan, Delhi has crossed the threshold to enter into the category of Global Cities of the World and also got graded as 'Most Green Capital City of the World'.

The year 2011-12 is the centenary year for Delhi being the Capital City of the Nation. Govt. of Delhi is going to organize a number of memorable events to mark the centenary year of the National Capital.

Govt. of Delhi has initiated the process to prepare the framework of development planning for the national Capital Territory of Delhi for the 12th Five Year Plan (2012-17). Within our approach for people's participation in development process, Government has decided to invite suggestions from the Citizens of Delhi, NGOs Voluntary Organizations, Civil Society Organizations, Research Institutions, Academicians, Subject Matter experts and all stakeholders in the development process of Delhi for formulating a comprehensive and suitable Approach for 12th Five Year Plan of Delhi.

Planning Department, Govt. of NCT of Delhi, has prepared this Document "Issues & Challenges for 12th Five Year Plan (2012-17) of Delhi" as a Background Document. This Document indicates main features of Delhi's

economy, major projects/programmes implemented under 11th Five Year Plan (2007-12) and Issues & Challenges envisaged under 7 priority Sectors for 12th Five Year Plan of Delhi. This Document is available on the website of the Planning Department. The perusal of the Document will facilitate in making suggestions for suitable Approach for 12th Five Year Plan of Delhi. On receipt of the suggestions, a series of Workshops is proposed to be organized with participation of all concerned to finalize the Approach Paper.

I appeal to all of you to make available your valuable suggestions and forward them as per E-mail or Postal address given at the cover page of the Document.

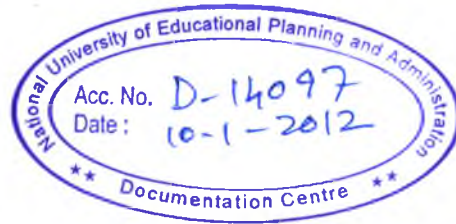
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New Delhi

September, 2011

Sheila Dikshit

Chief Minister



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1. The 11th Five Year Plan (2007-12) of Delhi was prepared taking into account the policies, strategy and outcome suggested in the Approach Paper titled "Development with Human Face and Making Delhi a Global City" released in Sept. 2006.
2. The 12th Five Year Plan (2012-17) would begin w.e.f. 1st April 2012. The Govt. of Delhi has decided that an Approach Paper indicating the broad strategy, policies and major outcomes will be prepared for 12th Five Year Plan. All Plan implementing Departments /Agencies will then prepare their Sectoral projects/programmes for 12th Five Year Plan keeping in view the strategy and outcome proposed in the Approach Paper.
3. While presenting the Budget for the year 2011-12, in March 2011, Chief Minister, Delhi invited the suggestions from the Hon'ble Members of Delhi Legislative Assembly for formulation of the 12th Five Year Plan. Some broad features for framing the 12th Five Year Plan of Delhi were also discussed in a meeting held between Chief Minister, Delhi and Dy. Chairman Planning Commission on 4th May 2011.
4. In the direction to organize a series of workshops and to invite suggestions for formulating the Approach for 12th Five Year Plan of Delhi, this Background Document has been prepared so that all concerned who may like to participate in this honorific task may have a glimpse of the status of Delhi's economy, projects/programmes implemented during 11th Five Year Plan and challenges and issues envisaged for 12th Five Year Plan.
5. 10th Five Year Plan (2002-07) and 11th Five Year Plan (2007-12) have brought the tangible impact of developmental programmes/projects implemented which is visible in the following forms in the entire Territory of the National Capital.
 - 5.1 The development process was started in 10th Five Year Plan with Power Sector Reforms w.e.f. July 2002. This reform initiative of Govt. of Delhi has been categorized as most successful by independent Analysts and agencies in view of AT&C losses brought down from 52% in 2002 to 18% in 2010.

- 5.2 The Bhagidari initiative of the Govt. contributed in people's participation in the development process and got awarded and appreciated by various forums.
- 5.3 All Road Public Transport Modes put on CNG since November 2002 contributed in air pollution control through vehicle exhausts in Delhi to a great extent inspite of massive increase in the number of vehicles each year.
- 5.4 The completion of first and second phase of Delhi Metro during 10th & 11th Five Year Plan made Multi-Model Public Transport System a ground reality and proved a most convenient and assured mode of Public Transport for more than 18 lakh commuters each day.
- 5.5 Re-structuring of DTC with addition of more than 3700 new low floor air-conditioned and non-air conditioned buses improved the quality of bus transport system in Delhi.
- 5.6 Construction of more than 50 Flyovers/ROBs/RUBs /Grade Separators contributed in better flow of traffic movement along all major roads in the city and construction of more than 60 Foot-over bridges/ Subways contributed in more safety for Pedestrians.
- 5.7 Water supply capacity of DJB could be increased from 650 MGD at the beginning of 10th Five Year Plan to 855 MGD by August 2011. Water Supply capacity could have reached to 935 MGD if Haryana Govt. could have completed construction of Munak to Haiderpur Pucca Channel in 2009, as per contract.
- 5.8 To make Delhi an Education and Knowledge hub, GGSIP University has got 106 institutions affiliated with it with enrollment of about 60000 students. Govt. established National Law University of Delhi, Ambedkar University, Delhi Technological University, Delhi Pharmaceutical Sciences & Research University, Indraprastha Institute of Information Technology. A Technical University for Women is being set up in the current financial year. Delhi Knowledge Development Foundation has started functioning. 3 new Govt. Engineering Colleges at Jaffarpur, Okhia and Geeta Colony started functioning.
- 5.9 Three new Super Speciality Hospitals for Liver, Cancer and pediatric have started functioning and two more Super Speciality Hospital Complexes are ready to make them functional.

- 5.10 To increase own generation capacity, a combined cycle gas turbine project of 1500 MW is nearing completion at Bawana. A joint sector thermal power plant is also nearing completion at Jhajjar which will make available 750 MW electricity to Delhi very soon.
- 5.11 Delhi Skill Development Mission has started functioning to make available skill upgradation opportunities to all willing persons for better employment potential and capability.
- 5.12 On the front of inclusive growth Govt. has succeeded in taking care of EWS, Vulnerable groups through a number of programmes like Monthly Pension of Rs. 1000/- to more than 4 lakh beneficiaries as senior citizens, women in distress, disabled persons, implementation of Right to Education Act, empowerment and welfare of women & children through Gender Resource Centres, Delhi Convergence Mission, Delhi Women Commission, 94 ICDS projects, Delhi State Health Mission, Delhi Child Rights Protection Commission.
- 5.13 Keeping in view poor maintenance of civic services in approved Industrial Estates being taken care of till now by different agencies now DSIIIDC has been assigned the job of improving and maintaining the civic services in all Industrial Estates in Delhi.
- 5.14 Taking into account the magnitude of Slum Improvement programme and construction of EWS houses, Delhi Govt. has replaced Slum Wing with the setting up of Delhi Urban Shelter Improvement Board (DUSIB).
- 5.15 The Regularization of unauthorized colonies as also recommended by MPD-2021, entail provision of all essential services in these colonies in addition to various statutory and administrative clearances. For providing civic services i.e. roads, drains, filling up of low lying area, water supply, sewerage, electricity, sanitation services, Govt. has made an investment of Rs.2366 Crore till March 2011 and it will be more than Rs.3000 crore by the end of March-2012.
- 5.16 Out of total area of 1483 Sq. Kms. the total Green Cover Area of Delhi was only 26 Sq. Kms upto 1996-97. For better environment in the city, massive efforts were made to increase the Green Area and to make Delhi as the best Green Capital City in the world. The result is that more than 300 Sq. Kms. Area in 2009 came under Green cover in Delhi.

- 5.17 The quality of school education in Govt. schools has been improved through better school infrastructure and a number of programmes like YUVA, Computer literacy and awareness, book banks, more subsidy for purchase of books and uniforms, higher rate of scholarships, incentives and awards to teachers, students and schools for better academic performance, etc.
6. For accelerated planned development of Delhi, Govt. managed to increase its plan investment from Rs.3800 Crore in 2001-02, the terminal year of the 9th Five Year Plan, to Rs.5200 Crore in 2006-07, the terminal year of 10th Five Year Plan and Rs.14200 Crore in 2011-12, the terminal year of the 11th Five Year Plan. More than 90% of the plan investment under each Annual Plan has been financed by Delhi Govt. from its own resources. Financial management was improved to make available resources for financing the increasing Plan expenditure in each Annual Plan which is indicated In Annexure-1.
7. Taking into account the plan expenditure of the first four years of the 11th Five Year Plan and approved plan outlay for the current year, the likely plan expenditure in 11th Five Year Plan is going to reach to about Rs.54110 Crore as compared to total plan expenditure of Rs.13465 Crore in 9th Five Year Plan and Rs.22646 Crore in 10th Five Year Plan. The Sector-wise Plan expenditure in first four Annual Plans and Approved Outlay for Annual Plan 2011-12 is given in the Statement as Annexure-2.
8. The Planned development of the city of Delhi was started with the preparation of the Master Plan for Delhi, promulgated in September 1962, covering the period upto 1981. This Master Plan was prepared by DDA with the support from Town and Country Planning Organization (TCPO) of Govt. of India and some subject matter experts from Ford Foundations. This Master Plan was prepared for projected 46 lacs population of Delhi in the year 1981. However, the Census-1981 reported 62.20 lakhs population of Delhi in 1981.
9. The Master Plan of Delhi was modified by the DDA taking into account the requirements of city development upto the year 2001. This modified Master Plan upto the year 2001 was promulgated on 1st August 1990. The MPD-2001 was prepared for projected population of 128 lacs in 2001. However, the census 2001 reported Delhi's population 138.51 lakhs.

10. The MPD 2001 has now been modified by the DDA taking into account the city's developmental requirements upto the year 2021. This modified MPD-2021 was notified by Ministry of Urban Development, Govt. of India on 7th Feb. 2007. The MPD-2021 has been prepared for projected population of 182 lakhs in 2011 and 230 lakhs in 2021. However, provisional results of the Census-2011 released by Registrar General of Census indicates population of Delhi as 168 lakhs in March 2011.
11. The MPD-2021 projected population of Delhi in 2017, the terminal year of the 12th Five Year Plan more than 200 lakhs. However, taking into account the same population growth rate for the period 2011-17, as reported by Census 2011, the population of Delhi in 2017 may be around 190 lakhs.
12. The Master Plan for Delhi-1981 pointed out that Delhi's proper development shall be planned in the Regional Context rather than for Delhi territory only. Accordingly MPD-1981 recommended simultaneous development of National Capital Region. Govt. of India enacted National Capital Region Planning Board Act-1985. NCR Planning Board is charged with the responsibility of coordinating all the efforts of the adjoining States through the instrumentality of Regional and Sub-Regional Plans. The Regional plan -2021 prepared by NCR Planning Board for the Region suggested 4 policy zones for development of the National Capital Region.
13. The future developmental scenario for National Capital Territory of Delhi may be formulated taking into account the findings and recommendations of MPD-2021 as well as Regional Plan-2021 for NCR.
14. The development strategy for 12th Five Year Plan of Delhi shall also take into account its vibrante economy. The contribution of the Primary Sector has decreased from 3.85% in 1993 to 0.62% in 2010-11. The estimates of State Domestic Product of Delhi for the year 2010-11 indicates the share of the Secondary Sector is also decreasing with the passage of time. The contribution of Tertiary Sector is continuously growing from 70.95% in 1993 to 82.27% in 2010-11. During the first four years of the 11th Five Year Plan Delhi's economy registered 10.2% average annual growth. In this background of Delhi's economy it is estimated that average annual growth of Delhi's economy may be around 10.5% during the period of 12th

Five Year Plan (2012-17). Sectoral contribution and growth in Delhi's economy may be seen in the Statement placed at Annexure-3.

15. In this Background Document projects and programmes implemented during 11th Five Year Plan under the following major Sectors have been mentioned in brief so as to have an assessment of scenario of developmental programmes/projects already going on in Delhi. These major Sectors are:-

1. Transport
2. Water Supply & Sanitation
3. Housing & Urban Development
4. Medical & Public Health
5. Education
6. Social Security & Welfare
7. Environment

16. The major issues and challenges under respective Sectors of development envisaged for 12th Five Year Plan have been incorporated with the intention that all willing citizens, NGOs, Civil Society Organizations, Research Institutions, Academicians, Subject Matter Experts and Stakeholders in the development process of Delhi may like to forward their suggestions with reference to these issues and challenges as well as any other new issue and challenge. Suggestions are also welcomed on any modification or restructuring of any ongoing scheme/programme of the Govt. of Delhi and their system of implementation.

Tax and Non Tax Revenue Receipts of GNCTD

Annexure-1

(Rs. In crore)

S. No.	Item	Receipt during the year 2006-07 to 2011-12 (BE)									
		2006-07	2007-08	Growth	2008-09	Growth	2009-10	Growth	2010-11	Growth	2011-12 (BE)
A.	Tax Revenue										
1	Stamps & Registration Fee	917.97	1318.4	43.62	788.01	-40.23	929.99	18.02	1355.77	45.78	2300
2	VAT	7365.8	8310.49	12.83	9152.09	10.13	10126.02	10.64	12068.6	19.18	14500
3	State Excise	1133.18	1301.25	14.83	1420.91	9.20	1643.56	15.67	2027.09	23.34	2300
4	Taxes on Vehicles	362.84	420.2	15.81	419.12	-0.26	462.65	10.39	707.56	52.94	800
5	Other Taxes & Duties	376.01	432.46	15.01	400.57	-7.37	285.64	-28.69	318.71	11.58	346
	Sub Total (Tax. Rev.)	10155.8	11782.8	16.02	12180.7	3.38	13447.9	10.40	16477.8	22.53	20246
B.	Non Tax Revenue	2037.8	3129.59	53.58	4171.51	33.29	7003.48	67.89	4188.95	-40.19	4454
C.	Total Revenue Receipts	12193.6	14912.4	22.30	16352.2	9.66	20451.3	25.07	20666.7	1.05	24700

Plan Outlay & Expenditure-Annual Plan 2007-08 to 2011-12

Annexure-2

(Rs. In crore)

S. No.	Name of Sectors	Annual Plan 2007-08		Annual Plan 2008-09		Annual Plan 2009-10		Annual Plan 2010-11		Approved Outlay 2011-12
		Plan Outlay	Exp.	Plan Outlay	Exp.	Plan Outlay	Exp.	Plan Outlay	Exp.	
1	Agriculture & Allied Services	21.11	20.13	23.26	13.86	4.72	4.72			
2	Cooperation	0.20	0.19	0.42	0.39					
3	Rural Development	201.53	201.17	222.06	218.66	162.83	161.38	112.74	111.54	162.22
4	Minor Irrigation & Flood Control	32.52	28.21	42.94	43.73	60.00	59.62	49.48	48.63	60.00
5	Energy	1263.13	1256.75	585.75	567.08	10.00	3.39	256.00	250.84	1576.00
6	Industries	19.70	14.12	27.39	14.49	97.00	93.25	29.30	21.25	24.89
7	Transport	2072.62	2049.96	2821.38	2787.73	4226.60	4208.14	3716.48	3453.42	3547.95
8	Science Tech. & Environment	24.35	23.07	46.95	38.79	84.00	68.29	79.00	75.32	84.50
9	Secretariat Economic Services	1.96	1.91	2.26	1.92	1.60	1.33	1.30	1.02	1.30
10	Tourism	7.35	6.77	2.00	1.70	5.25	4.93	8.50	7.29	15.50
11	Census, Surveys & Statistics	1.20	1.20	1.48	1.45					
12	Civil Supplies	4.35	3.14	5.35	4.26					
13	Weight & Measures	2.30	1.54	1.92	1.49					
14	General Education	603.70	556.56	642.76	585.85	676.40	644.69	858.70	799.57	1079.00
15	Technical Education	105.26	93.76	119.89	117.26	110.97	99.69	191.35	169.86	208.13
16	Art & Culture	18.71	16.92	24.17	21.17	29.51	27.58	47.40	33.60	31.90
17	Sports & Youth Services	81.04	78.42	218.25	209.10	322.72	275.96	172.25	140.23	21.60
18	Medical	876.64	818.73	1047.84	1015.42	1108.35	1087.78	1490.08	1381.73	1743.55
19	Public Health	50.78	42.93	64.52	60.96	44.20	43.11	143.91	93.00	77.55
20	Water Supply & Sanitation	1346.56	1345.97	1484.90	1456.90	1649.00	1648.90	1650.75	1608.07	1850.11
21	Housing	199.50	191.95	84.72	82.61	185.80	185.27	200.50	189.84	457.80
22	Urban Development	1378.98	1342.33	1475.17	1409.45	1365.01	1336.48	1004.98	853.31	1505.70
23	Welfare of SC/ST/OBC/Minorities	50.75	50.06	50.02	49.22	45.85	41.72	89.60	84.37	250.00
24	Labour & Labour Welfare	21.88	19.11	17.52	16.07	18.50	14.12	17.94	13.05	18.50
25	Social Welfare	144.62	141.35	298.50	293.72	348.50	346.14	465.40	447.54	555.40
26	Women & Child Welfare	28.45	23.66	149.80	132.29	182.26	176.63	257.00	222.51	277.55
27	Nutrition	65.62	60.70	112.80	77.93	103.74	98.09	158.90	152.25	215.00
28	Jail	26.00	26.47	69.00	68.18	70.55	68.05	57.30	55.54	105.00
29	Public Works	223.20	218.57	256.15	249.93	291.65	278.69	216.22	195.45	189.80
30	Other Administrative Services	125.98	109.67	100.83	77.71	95.00	70.19	124.92	87.23	141.05
		9000.00	8745.32	10000.00	9619.32	11300.00	11048.14	11400.00	10496.44	14200.00

GROSS STATE DOMESTIC PRODUCT BY ECONOMIC ACTIVITY

STATE : DELHI		GSDP at Current Prices & Growth(%)									Contribution				
		(Rs. in Crore)													
S. No.	INDUSTRY	2006-07	2007-08 (R)	Growth (%)	2008-09 (P)	Growth (%)	2009-10 (Q)	Growth (%)	2010-11 (A)	Growth (%)	2006-07	2007-08 (R)	2008-09 (P)	2009-10 (Q)	2010-11 (A)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
A.	PRIMARY SECTOR	1187	1238	4	1316	6	1565	19	1598	2	0.88	0.78	0.71	0.72	0.62
B.	SECONDARY SECTOR	23654	27732	17	32494	17	37993	17	44287	17	17.44	17.57	17.62	17.44	17.11
C.	TERTIARY SECTOR	110743	128977	16	150647	17	178293	18	212924	19	81.68	81.65	81.67	81.84	82.27
GROSS STATE DOMESTIC PRODUCT		135584	157947	16	184458	17	217851	18	258808	19	100	100	100	100	100

N.B.: (R)-Revised, (P)-Provisonal, (Q)-Quick Estimates (A) Advance Estimates

1. With the fast expansion of urban area in the NCT of Delhi the transportation network has also expanded with many new features. The mega cities with population of more than 10 million need to maintain their Public Transport System in view of the requirement of linkages between work place and residence, educational institutions and residence, trade and cultural centers and residence besides linkages with inter-city transportation terminals of rail, road and air.
2. A number of studies have been conducted so far by different agencies for different areas and aspect of transport planning and traffic engineering in Delhi from time to time viz DDA, NCR Planning Board, Railways, Ministry of Urban Development and Transport Department. Studies relating to traffic demand as per origin and destination were conducted by Transport Department through RITES during 1994-98 to finalize the corridors of Delhi Metro.
3. An Integrated Multi-Modal Public Transport Network comprising of 43 corridors to cater to the public transport demand upto 2021 was prepared by the Govt. of NCT of Delhi. However, database on which this network was prepared was old and traffic and travel characteristics have also gone a significant change.
4. It was decided to undertake a detailed study for developing a fresh Travel Demand Modal for culling out exact requirement of the proposed Integrated Road cum Multi-Modal Transport Network for the city. GNCTD has commissioned the group composed by RITES Ltd., MVA Asia Ltd. and TERI to carry out the study "Transport Demand Forecast Study and Development of an Integrated Road cum Multi-Modal Public Transport Network for the NCT of Delhi". This group submitted its report in October, 2010.
5. DUEIIP-21 Project also prepared a detailed project report on integrated

transport and traffic management for Delhi in February 2001. It has been used by various subsequent studies and surveys on transportation planning network for Delhi and also by MPD-2021.

6. The decision to put entire Public Road Transport System on CNG Fuel System in November 2002 brought a tangible impact in control on vehicular pollution in the NCT of Delhi. However, the fast growth of vehicles each year in Delhi is creating problem particularly with more diesel driven vehicles.

Major Programmes / Projects implemented during 11th Five Year Plan

1. The construction of 24 ROB/RUB/ Flyover/Grade-separator and widening of Calcutta Bridge during 11th Five Year Plan has improved the vehicular movement on all major roads to a great extent. However, non-completion of Western & Eastern Peripheral Express-ways by NHAI has forced to continue the congestion by inter-city vehicles on city roads along with pollution due to vehicle's exhaust.
2. Completion of second phase of Delhi Metro provided assured and convenient Public Transport System not only to the commuters of Delhi but also to the adjoining NCR towns of Gurgaon, Noida & Ghaziabad.
3. Addition of more than 3700 low floor air-conditioned and non-air conditioned buses in DTC fleet, withdrawal of blue-line buses and introduction of Corporate Sector Bus Operators System has improved the quality of bus transport system.
4. Pedestrians safety has also been given due attention along with construction of new roads and widening of existing road network in NCT of Delhi. Construction of more than 51 Foot-over Bridges has already been completed and 25 more Foot-over Bridges are under construction.
5. Parking is a major problem linked to the growing number of vehicles in the city. Some of the major parking sites are being developed under PPP approach.

6. Delhi Transport Infrastructure Development Corporation has been set up to manage Inter State Bus Terminals and Bus Queue Shelters in Delhi. Renovation of existing ISBT at Kashmere Gate is in progress. Anand Vihar and Sarai Kale Khan bus complex will be re-developed by DTIDC.
7. All Regional Offices of the Transport Department have been renovated and linked with Headquarter network so as to provide maximum services to the citizens more conveniently.
8. Work on Signature Bridge on river Yamuna near Wazirabad is in progress with the use of new technology. On its completion, it may become one of the distinct identity symbols for the city.
9. GPS System has been introduced to monitor the DTC bus Service. Taxi and Autos are also being covered with GPS network so as to provide assured and convenient services to the citizens.
10. Ring Road Bye-pass and Elevated Corridor on Barrapula drain have provided signal free flow of traffic on these roads.
11. The above mentioned quantitative and qualitative expansion & improvement in public transport network and transport infrastructure could be possible with highest plan funds investment of Rs.16048 Crore under Transport Sector during 11th Five Year Plan 2007-12 which is 29.66% of total likely Plan expenditure in 11th Five Year Plan of Delhi.

Issues and Challenges for 12th Five Year Plan (2012-17)

1. MPD-2021 mention that MPD-62 was based on a poly-nodal, poly-centric, distribution of work centers, largely based on road transport nodes. A major fall out of this has been distortion between infrastructure, transport and land use. To achieve spatial balance, development should take place according to new corridors of mass movement. This has implications in terms of land use planning along major transport corridors and mass-rapid transport/transit system. This would not only help to solve to some extent the enormous

problems of mass transportation but would also generate a dynamic potential for growth and employment. This is particularly true for the Metro Rail System. In this context, the Metro Corridors upto a certain depth would require selective Re-development and Re-densification of the existing land uses based on site conditions.

2. Different studies conducted so far on Transportation, Planning and Traffic engineering indicates that the per capita trip rate (excluding walk trips) has increased from 0.72 in 1981 to 0.87 in 2001. It is estimated that per capita trip rate may reach to 1.2 by 2021 in Delhi.
3. Delhi Intra-City Motorized persons trips are expected to increase from 117 lakh in 2007 to 174 lakh in 2021. Inter-city trips will increase from 33.4 lakh per day in 2007 to 79.6 lakh per day in 2021.
4. The total road length (km. lane) was 14316 km in 1981 which increased to 28508 km in 2001 and 31373 km in 2009 in Delhi. However, the number of vehicles increased from 5.62 lakh in 1981 to 34.57 lakh in March 2001 and 64.52 lakh in March 2010. This situation of fast increase in number of vehicles has created the problem of congestion on Delhi's roads and accordingly slowed down the vehicles movement.
5. The demand forecast and development of public transport network study prepared by RITES and others in October, 2010 recommends that total Metro length within Delhi shall be 330 km., light Metro (LRT) 40.3 km. and BRT Corridors 359 km. In 2021 so as to take care of 255.27 lakh motorized daily trips estimated to be met by Public Transport Network in Delhi in 2021. The modal share of the estimated total daily trips of motorized vehicles will be 23.3% by Car, 18.6% by Two-wheelers, 32.8% by Bus, 20.1% by Metro, 4.6% by Auto and 0.5% by Train.
6. Future transport system shall consist of a mix of rail and road base system which includes Metro Rail, Ring Rail, dedicated Rail corridors for daily commuters (IRBT/RRTS), Bus Rapid Transit System (BRTS) and Inter-

mediate passenger transport on private modes on selected corridors to be identified as per the needs from time to time.

7. Establishment of a single authority is the need of the hour for planning/development of an integrated system, implementation and enforcement of the policies which may be framed in that context. This would help to avoid a wasteful expenditure and other problems that could arise from duplication, overlap and contradictory facilities. As such a single Unified Metropolitan Transport Authority is required for Delhi.
8. In order to reduce the congestion on the existing roads, additional/alternative linkages and Express Corridors need to be identified. Alignment of such urban relief roads may be along a drain or covering by the drain or in the form of elevated road or grade separators. Identification of some such urban relief roads has been mentioned in the MPD-2021.
9. In some critical areas in the city, construction of underground roads or tube roads may also be explored. To make the intersections or major junctions signal-free, construction of grade separators may be required on identified sites.
10. Free-ways or defined as Divided Arterial High Ways for vehicular traffic with full access control may also be examined. Free-way network in the NCR area is also required so that a criss-cross movement through Delhi is reduced.
11. The integration of all public transport modes is essential to provide convenient public transport system to the commuters in the city. Bus transport need to be planned in the form of Feeder Services to the Metro Rail Stations, ISBTs, Ring Railway System. Park and Ride facilities will also have to be developed at important Sites.
12. Bus Rapid Transit System is proposed to cover the entire city on all roads with ROW greater than 30 meters with exclusive bus lanes for the BRTS. New Bus Terminals need to be planned and developed in a strategic location to make the use of BRTS and Metro Stations more convenient for all

commuters.

13. Bicycle/cycle rickshaws could be an important mode of travel particularly with reference to short and medium trip lengths.
14. The congested areas of the walled city Sadar Bazar, Karol Bagh etc. need medium capacity mass transit system comprising of BRTS and LRT.
15. Parking is going to be a major problem area in the Transport Sector of Delhi. Besides public parking required in all institutional centers, markets and trade centers, parking in residential areas in Delhi need due attention and practical solutions by land developing agencies and colonies developers. Multi-level car parking under PPP approach need to be explored.
16. The unrestricted growth in the number of vehicles will create a number of problems not only for traffic flow on the roads but also for parking and pollution due to vehicular exhaust. Higher rates of parking and congestion fee for some selected areas may also be required as an incentive for use of public transport and disincentive for use of personal vehicles.
17. MPD-2021 recommends following Modal Split Projections for 2011 and 2021 :

Mode	Modal Split (%)		
	2001 (Actual)	2011	2021
Public Transport (including Rail/ Light Rail /MRTS/IRBT/Bus/ Tram)	64.1	70.25	80.00
Personal modes (including Personal Fast Modes/ Hired Fast Modes/ Hires Slow Modes/Bicycle)	35.9	29.75	20.00

18. Transport Demand Forecast Study in 2010 by RiTES and others projected it as follows:

S. No.	Mode	Daily Trips-2021 (Intra City)	Modal Share (%)	Daily Trips - 2007	Modal share (%)
1.	Car	2983510	17.1	1806380	15.5
2.	Two Wheeler	3490954	20.0	2976832	25.5
3.	Auto	549351	3.2	518329	4.4
4.	Public Transport	10409024	59.7	6369088	54.6
	Total	17432839	100	11670629	100

19. Transport Demand Forecast Study in 2010 by RITES and Others estimated Passenger Kilometers Served by various Modes in 2021 as under:

S No.	Mode	Daily Trips-2021 (Intra & Inter City)	Modal share by Trips (%)	Avg. Trip Length (in Km)	PKM (2021)	PKM Share (%)
1.	Car	5953694	23.3	11.3	67098136	23.4
2.	Two Wheeler	4751593	18.6	7.7	36539750	12.7
3.	Auto	1184732	4.6	9.6	11408969	4.0
4.	Bus	8377185	32.8	10.7	89803420	31.3
5.	Metro	5128868	20.1	15.3	78574256	27.4
6.	Train (Intra city)	131317	0.5	27.8	3651912	1.3
	Total	25527388	100		287076443	100

20. MPD-2021 projected Modal Split for 2011 and 2021 indicated in para-17 on the basis of projected population of 180 lakhs in 2011 and 230 lakhs in 2021. RITES has projected Intracity Trips in 2021 as indicated in para 18 and PKM

served by various modes in 2021 based on projected population of 182 lakhs in 2011 and 243 lakhs in 2021. RITES has then distributed projected population in 360 Transport Zones covering entire NCT in 2011 and 2021 to work out Modal Split and PKM projections.

21. In order to further increase the Modal Split in favour of public transport, some additional measures such as restriction on car ownership, increase in fuel cost, congestion pricing etc. may need to be thought at a time when all the areas in Delhi are provided with an adequate and convenient Integrated public transport and thus alternative to car use is available.
22. An integrated passenger information system covering all modes through publication of common route guides, time-table and information boards at all-terminals for providing up-to-date information for the system users is also important. Introduction of common ticketing and their availability at convenient places will also be necessary.
23. To serve increasing traffic demand between Delhi and other NCR towns such as Panipat, Sonapat, Rewari, Alwar, Meerut, Hapur, Bulandshar, Palwal etc. dedicated commuter rail service should be provided in order to reduce traffic loads on Delhi roads.
24. Carriageway of major roads should be kept free of encroachments. A city-wide parking plan should also be prepared indicating where parking will be permitted and where not. Quality and enhanced capacity of footpaths need to be provided throughout the city.
25. Street lights, street signages, design of Central verge may need improvement not only from aesthetic point of view but also commuters convenience and maintenance point of view.
26. Storm water drain's maintenance and frequent road cutting are major problems in maintenance of roads in Delhi. Some viable solutions are required.

1. Delhi Jal Board is responsible for procurement of allocated raw water to Delhi. Delhi Jal Board manages bulk supply of treated potable water to Delhi Cantonment Board and NDMC for distribution by these two local bodies in their areas of jurisdiction respectively. In the area of Municipal Corporation of Delhi, Delhi Jal Board is responsible for supply of drinking water with its own trunk, peripheral and distribution network.
2. Raw water is being made available to Delhi from Ganga River (240 MGD), Yamuna River (310 MGD), Bhakhra Beas Management Board (140 MGD). About 115 MGD of ground water is being explored through Rainy Wells and Tube Wells of Delhi Jal Board.
3. The geographical locations of available raw water resources have tempted to plan for construction of all Water Treatment Plants in the North-West and North-East parts of the National Capital till now. The water treatment plants constructed till now are Chandrawal near Metcalf house, Wazirabad, Bhagirathi opposite Yamuna Vihar, Haiderpur 1st & 2nd near Rohini Jail on Outer Ring Road, Sonia Vihar opposite Bhajanpura on Wazirabad Road and Nangloi.
4. As per Yamuna Water Sharing Agreement signed in 1994 among the Northern Region States of Himachal Pradesh, Haryana, Uttar Pradesh, Rajasthan and Delhi, 0.724 BCM Yamuna water was allocated to Delhi. Uttrakhand was part of the Uttar Pradesh at that time. This share is divided into 3 blocks period of the year i.e. July to October, November to February and March to June. Delhi may get its full share of 0.724 BCM (808 Cusecs consumptive) only after construction of 3 new reservoirs in the upper Yamuna Basin Area. These 3 new proposed reservoirs are : Renuka Dam on River Giri, a tributary of Yamuna in Sirmaur District of Himachal Pradesh, Kishau Dam on river Tons, also a tributary of Yamuna river in Uttrakhand and Lakhwar-Vyasi Dam on river Yamuna near Lakhwar village in District Dehradun of Uttrakhand.

5. Govt. of Delhi has released an amount of Rs.215 Cr. to the HP Govt. for land acquisition for Renuka Reservoir. The DPR of the project has already been prepared and approved. Entire cost of the construction of Renuka Reservoir was to be financed by Delhi Govt. Now Renuka Reservoir project has been declared as a national project and as such the Govt. of India will finance the cost of its construction. However, construction work of this project could not be started as clearance from Ministry of Environment and Forest is still awaited. About 275 MGD raw water will be made available to Delhi on construction of this reservoir.
6. The construction of Kishau Dam has been assigned to Tehri Hydro Development Corporation by Uttrakhand Govt. The construction of Lakhwar-Vyasi Dam has been assigned to National Hydro Power Corporation by Uttrakhand Govt. However, the construction work on these two projects is also yet to be started.
7. The ground water, the only resource available to fill the gap between drinking water requirement of the National Capital Territory and the raw water made available to Delhi, till now is in a very critical condition as the pace of ground water recharge is far behind the pace of ground water exploration. Delhi Jal Board is very much concern on this scenario of very fast depleting ground water level in Delhi. Delhi Govt. prepared draft Delhi Water Board (Amendment) Bill 2006 which is yet to be finally cleared and approved by Delhi Legislative Assembly.
8. On sewerage front NDMC and Delhi Cantonment Board, the two local bodies are responsible for providing sewerage facilities in their respective areas. For the area under jurisdiction of MCD, DJB is responsible for providing sewerage facilities. Since more than 95% of the total area is within the jurisdiction of DJB, the sewage treatment is being taken care of by DJB for the entire National Capital Territory of Delhi.
9. At present, the sewage treatment capacity of all 17 treatment plants is 512 MGD. However, actual treatment capacity utilization is around 300-320 MGD of sewage only. Less utilization of installed sewage treatment capacity is

attributable to : (i) Silted & settled trunk sewers (about 50 km length out of total 150 km trunk sewers), (ii) some of the sewage treatment plants not getting requisite sewage from their command area, (iii) some of the STPs facing problem in linkages to their trunk and peripheral network.

Major Programmes/Projects implemented during 11th Five Year Plan

1. Two new Water Treatment Plants are under construction at Okhla of 20 MGD and Dwarka of 40 MGD. One more 20 MGD Water Treatment Plant constructed at Bawana is also yet to be utilized due to non-availability of raw water. These two new water treatment plants under construction and Bawana water treatment plant have been planned with reference to 80 MGD of raw water to be saved from seepage and leakage from the existing Kuchha Channel with the construction of Pucca Parallel Channel from Munak to Haiderpur.
2. The construction of Pucca Parallel Channel was assigned to Irrigation Department of Haryana Govt. at a cost of Rs.314 Cr. in the year 2006. Govt. of Haryana could not complete the construction of this Pucca Parallel Channel inspite of release of Rs.339 Cr. to them. Now Govt. of Haryana has requested for release of additional amount of about Rs.160 Cr. with the plea that cost of construction of this Channel has increased.
3. Waste water recycling plants have already been made operational at Haiderpur, Wazirabad and Bhagirathi water treatment plants thereby adding 37 MGD of water available for the further treatment. The 4th waste water recycling plant at Chandrawal is nearing completion and will be made functional shortly. With its commissioning another 8 MGD water will be available for further treatment and distribution. Total 45 MGD raw water has been made available from recycling of waste water from water treatment plants which will enable DJB to enhance water supply capacity to 855 MGD.

4. Sonia Vihar Water Treatment Plant with 140 MGD capacity has already been made functional which has contributed in improving the water supply in East & South Delhi to a great extent.
5. DJB planned to construct 53 new Underground Reservoirs to improve the water distribution system in the National Capital Territory. Out of 53 UGRs, 30 have been already commissioned and 15 UGRs are targeted for completion during the current financial year and four during 2012-13. For 4 UGRs DDA is yet to allocate suitable land.
6. An important programme being implemented to reduce the water distribution losses, is laying of new water lines to replace the old water lines marked with leakages and seepage.
7. Another major programme to reduce the non-revenue water is installation of 305 modern bulk meters on all water treatment plants, water distribution mains and UGRs. 86 bulk meters have been installed on all water treatment plants so as to have correct measurement of water supply made from these treatment plants. About 193 bulk meters have also been installed on water mains and UGRs. With the installation of remaining 26 bulk meters, the entire transmission system will have correct measurement of water supply at different stages i.e. water treatment plants, water distribution mains and UGRs. Thereafter it will be much easier to have an assessment of water leakage in each command area of Water Treatment Plant, Distribution Main and UGR.
8. To reduce the non-revenue water, another programme under implementation is installation of meters on all non-metered consumer connections and replacement of all defective water meters by new water meters. DJB has already procured One lakh new domestic water meters and arranged their installation in place of defective water meters and order for purchase of 4 lakh more new water meters have also been placed.
9. To promote rain water harvesting, Govt. has initiated a number of steps. All schools and new institutional buildings are being provided with rain water harvesting system by PWD and other construction agencies of the Govt. DJB

is providing subsidy upto 50% of cost of rain water harvesting system upto Rs.1 lakh to Cooperative Group Housing Societies.

10. It has been observed that availability of raw water at Wazirabad barrage goes below the requirement level particularly during the lean period due to en-route water losses in river Yamuna. DJB has laid a dual pipeline from Haiderpur to Wazirabad barrage at a cost of Rs.273 crore. The pipeline work is going to be completed shortly. Haryana Govt. will release raw water through Pucca Parallel Channel for Wazirabad barrage. From Haiderpur this twin line will carry raw water upto Wazirabad barrage to be treated by Wazirabad and Chandrawal Water Treatment Plants.
11. On the sewerage front, DJB will complete the projects approved under Yamuna Action Plan Phase-II in this current financial year. The projects approved under YAP-II are (i) Rehabilitation of Ring Road sewer, (ii) Reconstruction of Bela Road sewer, (iii) laying of new sewer line along Wazirabad Road, (iv) construction of 30 MGD STP at Okhia and (v) Rehabilitation of Keshopur STP (72 MGD). DJB has identified the projects to be taken up under YAP-III costing about Rs.1700 crores.
12. One of the major achievement will be rehabilitation of entire settled and silted trunk sewers by this financial year. With the rehabilitation of remaining 50 km length of trunk sewer in the current financial year, the entire network of 150 km length of trunk sewer in Delhi will be fully operational and functional. It will ensure that sewage will not be discharged into the storm water drains thereafter.
13. Govt. of Delhi is very much concern about pollution in river Yamuna. A number of programmes have been taken up to control the pollution in river Yamuna. These programmes are :-
 - (i) Laying of sewers in unauthorized colonies,
 - (ii) Laying of sewers in rural villages,
 - (iii) Construction of new sewerage treatment plants of 100 MGD at Kondli-Gharoli (45), Yamuna Vihar (25) & Okhla (30).

- (iv) Renovation and rehabilitation of some of the existing STPs.
- (v) Laying of interceptor sewers along major drains falling in river Yamuna.

Issues and Challenges for 12th Five Year Plan (2012-17)

1. MPD-2021 mention projected water demand as 1840 MGD @ 80 GPCD estimated by DDA for a projected population of 230 lakhs in Delhi by 2021. DJB projected water demand as 1380 MGD @ 60 GPCD.
2. The DDA norms of 80 GPCD includes 50 GPCD for domestic requirement and 30 GPCD for non-domestic purposes. The domestic water requirement of 50 GPCD comprises of 30 GPCD for potable needs and 20 GPCD for non-potable water.
3. DJB projected to increase their water supply capacity from 650 MGD in 2001 to 940 MGD by 2011. It includes addition in water supply capacity through commissioning of 140 MGD Sonia Vihar water treatment plant, 80 MGD by saving from seepage losses with the construction of Pucca Parallel Channel from Munak to Haiderpur and its utilization through water treatment plants at Dwarka (40 MGD), Okhia (20 MGD), Bawana (20 MGD), 45 MGD by recycling of waste water at water treatment plants and remaining by ground water.
4. DJB proposed to continue this level of water supply capacity of 940 MGD in 2011 also upto 2021. Except the saving from seepage losses with the construction of Pucca Parallel Channel from Munak to Haiderpur, the other two projects have already been completed and accordingly the water supply capacity could be increased from 650 MGD to 855 MGD at present.
5. The projected demand for water supply indicated in MPD-2021 is 1140 MGD for a population of 190 lakhs in 2011 by DJB and 1520 MGD by DDA. However, the provisional census results of 2011 released by RGI indicates that Delhi's population is 167.53 lakhs in 2011, less than the projected population of 190 lakhs.
6. Thus going by the norms of 60 GPCD suggested by DJB the water supply requirement for the present population of Delhi in 2011 will be 1020 MGD.

Taking into account the present water supply capacity of 855 MGD there is a shortfall of 165 MGD at present.

7. Assuming the same population growth recorded in 2011 census to continue for the next decade, the projected population of Delhi by the end of the 12th Five Year Plan i.e. by March 2017 may be around 190 lakhs. Going by DJB norms of 60 GPCD the water supply requirement in March 2017 for the projected population of 190 lakhs in Delhi may be around 1140 MGD.
8. In view of the present status of the proposed new reservoirs in Yamuna river Basin for Renuka, Keshau and Lakhwar-Vyasi, there seems to be no possibility of completion of any of these proposed reservoirs by the end of the 12th Five Year Plan. In this situation of non-availability of raw water from these proposed reservoirs, another source of raw water may be by developing a system of tube wells in the following Regions of the NCR:-
 - i) Yamuna Flood Plains of NCR - the area falls in Panipat & Sonapat District of Haryana and Baghpat District of Uttar Pradesh located from Karena in North to Palla in South.
 - ii) The area along Upper Ganga Canal - the area extends from Jani on Baghpat-Meerut Road in the North upto Murad Nagar in the South.
 - iii) The Ganga Flood Plains in NCR - this area known as Khadar Zone on the Western side of the Ganga river extends upto 15 km from Parichat Garh in the North to Syana in South of the Ghaziabad Distt. of Uttar Pradesh. The area is bounded by Madhya Ganga Canal in the West and the Ganga River in the East.
 - iv) Central Ground Water Board has earmarked the above mentioned areas as one of the best and most potential for development of ground water to be supplied to NCT of Delhi.
9. Central Ground Water Board has also earmarked potential area for 10 MGD from flood plains of river Yamuna in NCT of Delhi along with Okhla Barrage - Kalindi Kunj through a battery of 25 Tube wells and flood plains of river Yamuna along Akshardham Mandir and Nizammudin Bridge through a

battery of 25 Tube wells.

10. Next measure may be economical and judicious use of available water by laying of Dual Pipe System in limited way for flushing purpose only in all Group Housing Societies and new colonies to be developed in the new urban extension areas by the DDA. Waste water from bathrooms will be collected in a storage tank and pumped to a separate overhead storage tank at the roof and then connected the same with the Cisterns in the toilets for flushing purposes.
11. Another area of attention and action may be rain water harvesting and ground water recharge to the extent of maximum potential available in the National Capital Territory, if we wish to continue to make use of the ground water.
12. Regulation and control of underground water need a complete action plan so as to control ground water exploration by matching it to the extent of rain water harvesting and ground water recharge made during the period. The states like Andhra Pradesh, Goa, Tamil Nadu, Kerala and Union Territory of Lakshadweep and Puducherry have already enacted and implemented Ground Water Legislation. Delhi Water Board (Amendment) Bill, 2006 may be resubmitted to the Assembly.
13. Planning Commission appreciated the Power Sector Reforms initiated by Govt. of Delhi in 2002 which could brought down AT&C losses from 52% in 2002 to 18% in 2010. Planning Commission has advised Delhi Govt. that Water Sector Reforms may be given same priority and attention in the 12th Five Year Plan of Delhi.
14. The present status of non-revenue water of around 54% in Delhi may not be allowed to continue both from the citizen's point of view as well as DJB's point of view. With such high level of non-revenue water, DJB may not find enough resources to meet the cost of water and sewerage infrastructure required for growing population of the NCT of Delhi on the one hand and its present financial position may not be allowed to continue further.
15. Taking into account the suggestion of the Planning Commission to assign top

priority to Water Sector Reforms in 12th Five Year Plan and also the present status of non-revenue water as well as financial position of DJB, the present organizational set up of the DJB may need total structural reforms. There may be several options and best one is to be selected.

16. Water distribution losses in the form of leakage, seepage, theft and poor revenue collection may be attributed to lack of efficiency as well as incentives for performance as normally observed in Public Sector organizations. Involvement of private sector may add efficiency and managerial capacity in the water distribution system to a great extent for which PPP approach may be explored.
17. With the expansion of urbanization process along with expansion of urban infrastructure, the water requirement of construction industry in Delhi is increasing. It is estimated that maximum unauthorized exploration of ground water is made by construction industry. Supply of treated waste water at reasonable rate to the construction industry in Delhi may prove as a better check on unauthorized exploration of the ground water.
18. Although Revised Building By-laws in Delhi stipulate that all the buildings having a discharge of 10,000 liters or above per day shall incorporate Waste Water Recycling System but its implementation need to be monitored through an efficient enforcement system.
19. On the sewerage front more than 45% population is residing in non-sewered areas. Although projects for laying of sewerage system have been started in unauthorized colonies and rural villages of Delhi, huge investment is required for providing sewerage system in all non-planned areas.
20. Taking into account gravitational and other locational aspects of various habitats, mini sewage treatment plants may be required for a number of habitats. However, commissioning of such mini STPs and laying of sewer lines in their command areas also need allotment of suitable sites for STPs and cooperation and support from the residents as well as elected public representatives for laying of sewer lines in unplanned habitats.

21. Govt. has started the project for laying of interceptor sewers along 3 major drains i.e. Najafgarh drain, Supplementary drain and Shahdara drain which contributed for 70% of pollutants in Yamuna river. Subsequently on the success of this first phase, interceptor sewers may be laid along with remaining 15 major drains falling in river Yamuna. Implementation of this project may ensure discharge of only treated waste water in the Yamuna River and thus may contribute in control of pollution in Yamuna River.
22. Minimum flow of fresh water in Yamuna River downstream of the Wazirabad is also equally essential for rejuvenation of river Yamuna in the NCT of Delhi. This minimum flow of fresh water may be ensured in the Yamuna River only with the construction of proposed 3 new reservoirs in the upper Basin of the Yamuna River.
23. Reclamation of sewage water on the lines of North-East Water of Singapore using ultra-filtration, reverse osmosis and UV treatment processes may be taken up through a Pilot Project. If found it economically feasible, the large scale reclamation of sewage water can be taken up at Rithala Sewage Treatment Plant.
24. Water bodies in the NCT of Delhi have been affected with the rapid urbanization process. The contribution of water bodies in recharge of ground water and rain water harvesting may be availed to check the fast depleting water level.
25. Storage of flood water in Yamuna river Basin through construction of a Barrage near Palla may also be a source of raw water supply to Delhi during the lean period.
26. Govt. of India may be requested to increase the allocation for NCT of Delhi in Yamuna water during the lean period.

1. Housing and Urban Development is one of the priority Sectors in the Development Planning Process of Delhi. Land, land development and Public Housing are the functions allotted to Delhi Development Authority. Delhi Govt. has not been given any role in this vital component of City Development Process.
2. With the introduction of the JNNURM, Delhi Govt. entered into the segment of construction of EWS houses. However, in view of the magnitude of the EWS housing requirement in Delhi, timely allotment of suitable and sufficient land by DDA is a crucial issue. Construction of staff quarters for Delhi Govt. employees, construction of new Night Shelters and management of existing permanent and temporary Night Shelters by Delhi Urban Shelter Improvement Board (DUSIB) are other Programmes under Housing Sector.
3. MPD-2021 projected construction of 24 lakh new dwelling units in Delhi by 2021 taking into account the housing shortage of 4 lakh units in 2001 and requirement of 20 lakh new dwelling units for additional population based on projected population of 230 lakh by 2021.
4. MPD-2021 recommends that 54% of the total new dwelling units to be added upto 2021 shall be for EWS and LIG category and remaining 46% of the new housing stock for other categories. 40% i.e. 9.6 lakh dwelling units out of proposed additional housing stock of 24 lakh to be constructed through re-development/upgradation of the existing areas and 60% i.e. 14.4 lakh new dwelling units to be constructed in new urban extension areas.
5. About 702 sq.km. of area was estimated to have been built-up accommodating about 138 lakh population in 2001 in Delhi. To accommodate the projected population of 230 lakh by 2021, it is estimated that 920 sq.km. will be urbanized area in Delhi which means about 20-22,000 Hectare of land will required to be developed within the new urban extension area.

Programmes / Projects implemented during 11th Five Year Plan (2007-12)

1. Shelter for Shelter-less

- 1.1 DUSIB is providing shelter to shelterless in Delhi through permanent Night Shelters and temporary shelters in tents.
- 1.2 Dy. Commissioner Offices are also providing Night Shelter facilities to these people with temporary shelters in tents in different parts of the city.
- 1.3 NGOs/VO/CSO are also providing shelter to shelter-less persons.

2. J.J. Clusters

- 2.1 The schemes for providing basic services in J.J. Clusters being implemented by DUSIB provides roads, brick pavements, road- side drains, street lights, Sishu Vatika, Basti Vikas Kendra/Community Centers, Community Toilets/Bath.
- 2.2 DJB is providing water supply through hand pumps, tankers.
- 2.3 MCD is arranging garbage collection and daily cleaning of roads/streets.
- 2.4 DHS is providing primary health care services through Health Centers, Mobile Dispensaries and Health Education through ASHA Workers.
- 2.5 The survey conducted in 1990 reported there were 929 J.J. Clusters with 2.59 lakh households residing therein.
- 2.6 DUSIB has formulated a project under Rajiv Awas Yojana to count, identify and issue them a Identity Card with UID Number, so as to have the correct and complete record of the persons residing in J.J. Clusters in Delhi.

3. Rehabilitation of J.J. Cluster Households

- 3.1 The Slum Wing entrusted with task of providing basic services to J.J. Cluster households and their rehabilitation could not fulfill the task and as such Govt. has established "Delhi Urban Shelter Improvement Board" (DUSIB) to take care of this massive job in Delhi.

3.2 Govt. has decided to discontinue the Plan Scheme "Relocation of J.J. Squatters with allotting plots of 18 sq. mtrs. and 12.5 sq mtrs" in view of scarcity of land and management of such relocation colonies.

3.3 About 66000 J.J. Cluster households were rehabilitated under this scheme by Slum Wing. Now J.J. Clusters households' eligible for relocation from their present habitat will be allotted EWS flat being constructed under JNNURM. 11000 EWS Flats are under allotment process, 28000 EWS flats under construction and 17000 more flats will be constructed under the projects already approved under JNNURM.

4. **J.J. Resettlement Colonies**

4.1 All 44 J.J. Resettlement Colonies have been provided with facilities of piped water supply, sewerage, street lights, parks, community centers etc.

4.2 MCD is being provided plan funds for improvement of Civic Services in these colonies in each Annual Plan and Non-Plan funds for maintenance of Civic Services in these colonies each year. An amount of Rs.830 crore has been released to MCD under Plan Scheme for improving Civic Services in these colonies during 1985-2010.

5. **Slum Rehabilitation Colonies**

5.1 Sixty One Slum Rehabilitation Colonies were developed by Slum Wing under the plan scheme "Relocation of J.J. Squatters". 66175 J.J. Squatters relocated from various J.J. Clusters were rehabilitated with allotment of plot of 25 sq mtrs, 18 sq mtrs and 12.5 sq mtrs. Civic Services in these colonies need to be improved for which a new Plan scheme has been formulated by DUSIB to be implemented in the current Annual Plan 2011-12 with an outlay of Rs. 85 crores.

6. **Unauthorized-Regularized Colonies**

6.1 Govt. of India regularized 567 unauthorized colonies in Delhi in 1977. A plan scheme was started in 1979-80 to provide all Civic Services in these regularized colonies. An amount of Rs.1342 crore has been released to MCD under this plan scheme till 2010-11. In addition, DJB is also being provided

plan funds to provide water & sewerage in these colonies. Piped water supply system has been made available in 557 colonies while sewerage system has been provided in 540 colonies till March 2011.

7. Unauthorized Colonies

- 7.1 Even after regularization of 567 unauthorized colonies in 1977, the process of emergence of unauthorized colonies continued as DDA could not make available sufficient numbers of residential plots and dwelling units at affordable rates to the rapid growing population of the city. As per estimate of 1993, 1071 unauthorized colonies came up after 1977. The Regularization of these unauthorized colonies is in process and it will be declared in batches as and when entire process is completed in respect of the number of colonies in each batch.
- 7.2 As per latest estimate of 2008, there are 1639 unauthorized colonies. A plan scheme was started in 1997-98 to provide basic services in these colonies which includes roads, drains, filling up of low lying area, water supply, sanitation services, electricity and sewerage. An amount of Rs.2366 crore has been invested in providing Civic Services in these colonies upto March 2011.

8. Urbanized Villages

- 8.1 On commencement of development of Delhi as per Master Plan in 1961, 20 villages within urban area were notified as urbanized villages. With the expansion of urban area, their number continued to increase and at present there are 135 urbanized villages in Delhi.
- 8.2 These urbanized villages are being developed by improving Civic Service under a plan scheme started in 1979-80 by DDA, MCD and then DWS & SDU now DJB. The urbanized villages within the DDA Jurisdiction were transferred to MCD in 1987-88. An amount of Rs.429 crore has been invested upto March 2011 for development of these villages.
- 8.3 These urbanized villages are having concentration of a number of economic activities in the form of small scale industries, service industries, trade &

storage, workshops etc.

9. **Slum Katras**

Notified slum area of the Walled City has Slum Katras which were being taken care of by the Ministry of Rehabilitation, Govt. of India and later on transferred to Slum Wing. Now, DUSIB is assigned the job of maintenance of these Katras.

10. **Trans Yamuna Area Development Board**

Trans Yamuna Area having large number of J.J. Clusters, J.J Resettlement colonies, Unauthorized colonies, Unauthorized-Regularized colonies, required special focus in the development process for which Trans Yamuna Area Development Board, an advisory body of the elected representatives, was set up in 1994. On the recommendations of this Board, developmental works are being executed through DJB, MCD, PWD, Flood Control Deptt., DUSIB etc.. Since 1994, TYADB has recommended various developmental works involving investment of Rs.1242 crores upto March 2011.

11. **Shahjahanabad Re-development Corporation**

Keeping in view the heritage, cultural, social, historical, religious and commercial status of the Walled-City area, provision of Civic infrastructure services need to be provided with due attention to maintain its original glory, facade and facets. Shahjahanabad Re-development Corporation has been set-up with this objective.

12. **Contribution to NCR Planning Board**

Development of National Capital Region is essential for balanced development of the NCT of Delhi. Govt. of Delhi is contributing to NCR Development Fund of NCR Planning Board with the aim of accelerated development of NCR area. An amount of Rs.351 crore has been contributed by GNCTD till March 2011.

13. **JNNURM**

13.1. Govt. of india has approved 30 projects costing Rs.7878.48 crore under

Urban Infrastructure & Governance Sub-Mission upto March 2011. These projects are being implemented by PWD (13 Projects), MCD (11 Projects), DJB (3 Projects), Transport Deptt. (1 Project), DMRC (1 Project) and NDMC (1 Project).

13.2. 19 Projects costing Rs.4064.38 crore have been approved by Govt. of India under BSUP Sub-mission. These projects are being implemented by DSIIDC (11), DUSIB (7) and DDA(1).

14. **Conservancy & Sanitation Services**

14.1 MCD, NDMC and Delhi Cantonment Board are providing Conservancy & Sanitation Services in their respective areas. Since 95% of the total area of Delhi is within MCD jurisdiction, Sanitary Land fill sites are being maintained by MCD only.

14.2 Delhi Govt. is providing plan funds of about Rs. 260 crore in Annual Plan to MCD for Sanitation Services in Delhi. NDMC and Delhi Cantt. Board are maintaining sanitation services from their own resources.

14.3 Private sector has been involved in collection and transportation of solid waste to SLF sites from 8 zones by MCD.

14.4 Desilting of drains, maintenance of Public Toilets, maintenance of existing SLF sites and development of new SLF sites, use of MSW in compost making are other major activities covered under the scheme by MCD.

15. **Development of Parks, Community Centers, Approved Colonies**

15.1 MCD is being provided plan funds for improvement in existing Parks and development of new Parks in all colonies and common areas and construction of new Community Centers to provide better facilities to the citizens.

15.2 Due to financial constraints, MCD is not in a position to improve Civic Services in approved colonies from own resources. Plan funds are being provided under each Annual Plan for improvement of Civic Services in approved colonies as loan.

Issues and Challenges for 12th Five Year Plan 2012-17

1. Night Shelters set up temporarily for providing Shelter to Shelterless shall be operational during the entire year or restricted to winter season (Nov.-Feb.) in view of poor occupancy rate other than winter season.
2. Management of the shelters shall continue by DUSIB, Dy. Commissioner Offices or be transferred to NGO/VO/CSO.
3. Public Rental Housing Scheme may be taken up under PPP approach to check the growth of J.J. Clusters, unauthorized colonies and encroachment on public land.
4. Sufficient land within urban extension area will be required for construction of about 4 lakh EWS Flats under JNNURM so that all J.J. Cluster households may be rehabilitated in planned area and Delhi may achieve the target of slum free city.
5. Taking into account cost of Construction, Land and Civic Services in Delhi, Govt. of India may be requested for higher cost of EWS flats under JNNURM. Financial institutions shall come forward to provide financial support to the beneficiaries so that they may not face problem in arranging beneficiary's contribution.
6. Better Civic Services may be provided if cost of services are actually paid by the beneficiaries and reformative measures be allowed in operation and management of Civic Services by all concerned agencies. This aspect need due support from all concerned including RWAs/ NGOs/ CSOs/ elected Public representatives /Media. It is also one of the Reform Measures recommended under JNNURM.
7. When 567 unauthorized colonies were regularized in 1977, it was recommended with the condition that beneficiary households will pay developmental charges to the respective agencies. However, there was negligible collection and concerned agencies continued to provide Civic Services only by utilizing plan funds. DJB could not make repayment of any amount of loan. Regularization of present unauthorized colonies shall be

arranged with the element of assured recovery of development charges as urbanization process may not sustain on charity principles.

8. Although massive amount of plan funds is being utilized in providing and improving the Civic Services in J.J. Resettlement colonies, urbanized villages, unauthorized colonies and rural villages, MCD is not getting property tax from households of these habitats resulting in financial crunch being faced by MCD in Maintenance of Civic Services.
9. Maintenance of Slum Katras is being financed from plan funds of Delhi Govt. Rent is only notional and its recovery is very poor from the Katra dwellers. Some workable solutions are required to give ownership rights to Katra dwellers to make them accountable for maintenance of their dwelling units.
10. Public Toilets constructed in J.J. Clusters, Slum Rehabilitation colonies, common places by MCD, DUSIB are not optimally utilized due to lack of maintenance. Better solutions are required.
11. The proposal for restructuring of MCD into 3 Municipal Bodies is under the active consideration of the Govt. On its implementation, entire Trans-Yamuna Area will be one Municipal Corporation. In that event whether Trans Yamuna Area Development Board shall continue or discontinue to function, may be decided.
12. Delhi Govt. is making contribution to NCR Development Fund of NCR Planning Board. It has been suggested that all participating States shall contribute to NCR Development Fund and if other States do not come forward, Delhi Govt. shall not continue to contribute.
13. For targeted development of NCR cities and towns, development of dedicated Rail Corridors and Expressways connecting Delhi with all major cities of NCR area need to be taken up by NCR Planning Board in collaboration with Min. of Railways and Min. of Road Transport and concerned State Governments during 12th Five Year Plan.
14. About 7000 M. Tones of Municipal Solid Waste is generated each day at present in Delhi which is being disposed at 3 SLF sites at Bhalswa, Gazipur

and Okhla. These sites have reached to the saturation points. Wherever new sites are being allotted MCD is facing resistance from the people of nearby areas. Development of new SLF site at Jaitpur has been held up even after nearing its completion. Remedial solutions are required to solve these problems so that Jaitpur SLF may be completed and made functional .

15. Development of Common Sanitary Land Fill Sites for Delhi and adjoining NCR Towns has been suggested as one of the solution for better disposal of Municipal Solid Waste. NCR Planning Board shall take initiative to make such projects feasible by making tripartite agreements. Govt. of Delhi is willing to finance the cost of developing such SLF and participating state will have to make available land only.
16. For better urban infrastructure in the city, Urban Development Fund of the DDA may be utilized. Guidelines, terms & conditions for use of UDF for urban infrastructure may be re-examined and amended.
17. Some of the J.J. Cluster sites which are not required for any developmental project in near future may be developed under PPP approach so that rehabilitation of J.J. Cluster households may be possible there and their employment prospects may not be affected as also recommended in MPD-2021. Its implementation needs correct assessment of the magnitude and the requisites for the in-situ rehabilitation.
18. DDA will have to speed up the pace of development of new urban extension areas with adequate provision for EWS, Low and Middle income housing projects to check the emergence of unauthorized colonies and encroachment on Public Land.
19. Redevelopment and densification of the existing urban areas and city improvement through mixed land use, enhancement of ground coverage, increased FAR and height for all categories of residential plots, development of District and Community Shopping Centres as facility corridors along major transport networks is one of the new distinct feature of MPD-2021. Operating Plans to implement this feature of MPD-2021 may be formulated and implemented during the 12th Five Year Plan.

1. Health care infrastructure and services are being provided in the National Capital Territory of Delhi by a number of agencies i.e. Govt. of National Capital Territory of Delhi, local bodies i.e. MCD, NDMC & Delhi Cantonment Board, Ministry of Health and Family Welfare through its network of hospitals and other specialized institutions, Ministry of Railways, Ministry of Defence, Ministry of Labour and various Central Govt. Undertakings. In addition to these Govt. and Public Sector Agencies, private sector is also contributing in provision of Health Care Services in Delhi.
2. Within the private sector, Delhi has presence of Non-profit Organizations and NGOs in providing free health services or at subsidized rates to the poor. Along with these Non-profit Organizations and NGOs, Private Sector Super Speciality Hospitals are also functioning and getting patients referred from the hospitals from different parts of the country and also from other countries.
3. As on March 2009, there were 34 Allopathic, 02 Ayurvedic & Unani and 02 Homeopathic hospitals managed by Govt. of Delhi providing Secondary and tertiary health care services. There were 427 Dispensaries of allopathic, Ayurvedic & Unani and homeopathic system managed by Delhi Government for providing primary health care services.
4. Out of total no. of 807 Medical Institutions in Delhi in 2010, 676 are in private Sector and 131 institutions are in Govt./Public Sector. Total no. of hospital beds in these institutions are 40342 which includes 23120 beds in Govt./Public Sector Institutions and 17222 beds in Private Sector Institutions. With estimated population of Delhi in March 2010 on the basis of Census 2011, bed-population ratio was 2.45 beds per thousand population.
5. As per National Sample Survey (60th round) conducted in 2004 on "Morbidity, Health Care and condition of Aged Persons in Delhi", the total no. of cases of hospitalization was estimated about 2.53 lakh in 2004. The rate of

- hospitalization per lakh population was estimated as 1559 cases in rural area and 1683 cases in urban area which was much lower than national average of 2599 in rural and 3482 in urban.
6. This Sample Survey also indicated that about 46% of the hospitalization cases from rural area and 59% from urban areas were treated in Govt. hospitals as against 42% of rural and 38% of urban hospitalization cases at the national level. This Sample Survey pointed out that only 2.61% of the total hospitalization cases could get free treatment facility from the private hospitals in Delhi.
 7. This Sample Survey indicated that out of total 2.53 lakh hospitalization cases in 2004, 12.4% of the cases were relating to heart ailment, 9.7% relating to accidents, 9.5% to unknown fever and 8.3% relating to diarrhoea/dysentery. This survey pointed out that more than 90% of the children were covered under various immunization programmes.
 8. The average amount spent on treatment of each hospitalization case was Rs.8851 in urban area and Rs.5695 in rural area. The average expenditure on hospitalization treatment in Delhi was recorded as highest in the country.
 9. This Sample Survey estimated the number of Old Age persons (60 years +) as 8.3 lakh accounting for 5.49% of the total population in 2004. 53% of the old age persons were male and 47% female. 80% of the old age persons were residing in urban area and 20% in rural area of Delhi in 2004. 66% of the estimated old age persons were in the age group of 60-69 years. Out of the total 8.30 lakh old age persons, 12% were self-employed, 3.28% salaried/wage earners and 22.38% were pensioners. About 3% of the old age persons were living below poverty line.
 10. A comparative picture of some of the key Demographic Indices is given in the following table:-

S. No.	Demographic Indices	Delhi	India
1.	Decennial Population Growth Rate as per 1.1 Census-2001 1.2 Census-2011	47.02% 20.96%	21.54% 17.64%
2.	Crude Birth Rate SRS – 2008 year	18.4	22.8
3.	Crude Death Rate SRS – 2008 year	4.8	7.4
4.	Infant Mortality Rate SRS - 2009 year	33	50
5.	Sex Ratio [Census 2001] [Census 2011]	821 866	933 940
6.	Sex Ratio (0-6 years) [Census 2001] [Census 2011]	868 866	927 914
7.	Neo-natal Mortality Rate - 2008	20	35
8.	Institutional Delivery 2009	75.6	28.3
9.	Anti-natal Care – 2008 (in lakh)	3.38	232.48
10.	Immunization Coverage – 2008	83.2	43.5

Major Programmes/Projects implemented during 11th Five Year Plan

1. Govt. of Delhi is making efforts to provide primary, secondary and tertiary health care facilities to the citizens of Delhi by strengthening the health care infrastructure with the opening of new health centres, new hospitals in the areas not provided with hospital facilities, setting up of Super Speciality hospitals, new Medical Colleges of the Allopathic system, ISM and Homeopathy.
2. The commitment of the Govt. to improve the health care services may be seen from the fact that as compared to plan expenditure of Rs.862 crore under Health Sector in 2007-08, the plan outlay for the year 2011-12 has been enhanced to Rs.1821.10 crore. This outlay for Health Sector accounts for 12.8% of the total approved plan outlay for the year 2011-12.
3. To improve the primary health care services - new health centres have been established in the localities not provided so far both by Dte. of Health Services and MCD. Primary health centres are providing Allopathy, Ayurvedic, Unani and Homeopathic Diagnostic services.
4. To provide primary health care services in JJ clusters 90 Mobile Dispensaries are functioning. More new Mobile Dispensaries are being added taking into account the requirement of JJ clusters population.
5. Govt. of Delhi has decided to set up new hospitals at Dwarka, Sarita Vihar, Siraspur, Chhattarpur, Bamnaoli, Keshavpuram, Bapraola, Burari, Vikaspuri and Ambedkar Nagar. These new hospitals will be of 100 to 750 beds capacity.
6. Special programmes for prevention and early detection of the diseases like Cancer, Laprosy, Blindness, T.B. etc. are being implemented with IEC focus.
7. Services in existing hospitals are being improved and expanded with the construction of additional blocks, starting of new diagnostic and treatment services, pathology, radiology and other support facilities.

8. Hospital services are also being improved through involvement of private Sector in sanitation services, security, registration, kitchen, laundry and other indoor and outdoor services in the hospitals.
9. The Institute of Liver & Biliary Science, Chacha Nehru Children Hospital and Delhi State Cancer Institute have started OPD & IPD services in their complexes for providing Super Speciality Services to the patients. Chaudhary Brahm Prakash Ayurvedic Sansthan has also started OPD & IPD services at Khera Dabur along with an Ayurvedic Medical College.
10. Keeping in view the patient's rush at GTB Hospital, Shahdara, LN Hospital, GB Pant Hospital, Sanjay Gandhi Hospital, additional Blocks & Wards have been constructed to increase the bed capacity and improve and expand their IPD services.
11. MCD is also being provided sufficient funds for expansion of Hindu Rao Hospital, Swami Dayanand Hospital, Kasturba Hospital, Rajan Babu Hospital, ID Hospital and colony Hospitals/Maternity Homes and Centres besides their Public Health Programmes like Malaria control, development of Cremation Ground etc.
12. The Dte. of Family Welfare is taking care of all Immunization Programmes launched by the Govt. Delhi State Health Mission is also taking care of immunization, safe delivery, new born care, improved nutrition and health education programmes particularly in JJ clusters, unauthorized colonies and rural villages through its network of ASHA workers.
13. The Govt. of NCT of Delhi has decided to implement "Food Safety and Standard Act 2006" and Food Safety Rules 2011 in Delhi. This new Act provides for mandatory licensing for all Food business operators and registration for all food manufacturers including retailers, hawker, vendor or temporary stall holder or tiny food business to ensure the safety from food adulteration. This Act, has a provision of penalties, and imprisonment for serious violation of unsafe food. Drug Control is implementing the Drug Control Act in the National Capital Territory of Delhi through its network of staff and drug test laboratory.

14. To provide health insurance cover particularly to the EWS category, the schemes for Rashtriya Swasthya Bima Yojana, Aapka Swasthya Bima Yojana are being implemented.
15. For children upto the age of 14 years, a new plan scheme "Chacha Nehru Sehat Yojana" with an outlay of Rs.100 crore is going to be implemented from this Annual Plan. Under its first phase all students of Delhi Govt. and Govt. aided schools upto the age of 14 years will be covered and finally all children upto the age of 14 years studying in Delhi Govt. schools, MCD schools, NDMC and Delhi Cantonment schools will be covered under this scheme.

Issues and Challenges for 12th Five Year Plan (2012-17)

1. In spite of massive increase in Plan Outlay for Health Sector and expansion of primary, secondary and tertiary level health infrastructure in the National Capital Territory of Delhi, the bed population ratio at present is far below the norms of 5 beds per thousand population prescribed by the WHO and MPD-2021. Keeping in view the total number of hospital beds 40342 in 2010 and bed population ratio of 2.45 per thousand in 2010, 16658 more new hospital beds may need to be added during the period of 2011-17 even to achieve the bed population ratio of 3 per thousand in 2017 for the projected population of 190 lakhs of National Capital Territory of Delhi.
2. Out of total 40342 beds in 2010, 23120 beds were in Govt. and Public Sector hospitals and 17222 beds in Private Sector hospitals. The ratio between Govt. and Private Sector hospital beds was 57:43. With the same ratio of Govt. and Private Sector hospital beds, 9495 new beds are required to be added in Govt. hospitals and 7163 beds by Private Sector hospitals during 12th Five Year Plan.
3. To achieve the projected target of 16658 new beds during 12th Five Year Plan both by Govt. and Private Sector hospitals, DDA will have to allocate adequate and suitable sites both for Govt. and Private Sector hospitals, failing which it will be difficult to add the proposed number of new beds by 2017.
4. Demographic indices indicated in Para No. 10 (P-39) mention that sex ratio in

Delhi is poor as compared to National average. A number of policy and administrative measures are required to be implemented to improve the sex ratio position.

5. In spite of better health care infrastructure, role of Delhi State Health Mission, role of 94 ICDS projects, more than 120 Gender Resources Centres, the present status of only 75% of institutional deliveries in Delhi is a matter of concern. Suitable policy measures, IEC programmes, safe delivery campaigns through ASHA workers, Gender Resource Centres and Anganwadi workers, special programmes like Janani Suraksha Yojana, Matri-Shishu Suraksha Yojana, Indira Gandhi Matritva Sahayog Yojana etc. the institutional delivery should be more than 90% of the deliveries by 2017.
6. Although IMR of 33 (per thousand of live births) in 2009 in Delhi is much better than IMR at national level of 50, efforts should be made to achieve the IMR of less than 15 in Delhi by the end of 12th Five Year Plan.
7. The overall 90% immunization coverage in Delhi is better than national immunization coverage. However, being the National Capital more efforts are required to achieve the target of 100% coverage of children under immunization.
8. Maternal Mortality Rate and improved maternal health also deserve due attention by providing both pre-natal and anti-natal coverage to more than 90% of the mother and child.
9. Vector born diseases like Dengue & Malaria are the major challenges for Public Health Authorities in Delhi. Due support from all concerned agencies is required to maintain sanitary and hygienic conditions in the National Capital Territory of Delhi.
10. In spite of efforts made by the Govt., the contribution of Private Sector hospitals in providing free treatment to the EWS category patients is not upto the mark. Cooperation and support need to be improved from the Private Sector hospitals particularly in providing secondary & tertiary health care services to EWS patients.

11. In spite of Health Insurance Schemes made available to the urban poor free of cost under Rashtriya Swasthaya Bima Yojana, Aapka Swasthaya Bima Yojana, the number of beneficiaries availing health insurance facilities under these programmes of the Govt. is not upto the requisite level. Some more efforts to convince the target group to enroll themselves under these Health Insurance Schemes need to be made.
12. The number of fatal road accidents is one of the major challenges in Delhi. Adequate number of Trauma Centres with all diagnostic and treatment facilities for accident cases along with adequate number of BSL Ambulances is also the area for comprehensive action and attention in the 12th Five Year Plan.
13. With the expansion of health care Institutions, the need for trained para medical manpower has increased manifold. The adequate number of para medical training institutions specially for Radiology, Operation theatre technicians courses need to be set up during 12th Five Year Plan.
14. With the growing population of senior citizens, all public and private hospitals may set up Geriatric Clinics.
15. Food adulteration and sale of eatables in open and unhygienic conditions are also the areas which need to be taken care of with sound enforcement measures and efficient laboratory system for timely results of collected samples from the different markets. Similarly, sale of duplicate and unauthorized drugs also need to be checked in totality.
16. Prevention and IEC measures also need due attention so as to control communicable and other diseases during different seasons.
17. Private Sector participation is yet to be experimented at the requisite level in health infrastructure in Delhi. The efforts made so far by the Govt. are yet to make an impact on the health infrastructure of Delhi. As such some more efforts are required in this direction.

1. Govt. of National Capital Territory of Delhi managed to expand and improve Education Sector to match the requirement of growing population of the Territory. It could be possible with massive increase in investment in Education Sector by the Govt. for improvement of ongoing programmes both in qualitative and quantitative terms, setting up of new institutions from primary level to professional and higher education level, improvement in infrastructure of educational institutions, special programmes launched for improvement in quality of education, the programmes for incentive to performance as well as involvement of citizens, NGOs and Civil Society Organizations.
2. The literacy rate in Delhi is continuously improving which is the outcome of Education Sector improvement programmes of the Govt. The literacy rate in Delhi has increased from 61.54% in 1981 to 75.29% in 1991, 81.67% in 2001 and 86.34% in 2011.
3. In 2010 there were 5043 no. of schools in Delhi which includes 2636 pre-primary and primary schools, 583 middle schools, 1824 Secondary / Sr. Secondary schools with enrolment of 37.39 lakhs children being taught by 1.10 lakh teachers. Out of total no. of 5043 schools, 2666 were Govt. schools and 2377 private schools.
4. In the field of higher education there were 160 colleges which includes 83 Delhi University Colleges, 77 colleges affiliated with GGSIP University. Delhi University, Jawaharlal Nehru University and Jamia Milia Islamia University being the Central Universities do not have any quota or preference for Delhi students.
5. In the field of professional and technical education, Delhi has 107 degree and PG level professional and Technical Education Institutions affiliated to GGSIP University, Delhi University and other Universities. There are 21 Diploma Level Institutions which includes 12 Govt. / aided Polytechnique Institutions and 9 Private Sector Institutions. The no. of Certificate Level Institutions in

the form of ITIs and ITCs has reached to 78 in 2010 which includes 18 Govt. I.T.Is and 59 Private Sector I.T.Is.

6. The 64th round of National Sample Survey conducted in Delhi by the Dte. of Economics and Statistics collected the information relating to participation and expenditure in education during the year July 2007 - June 2008.
 7. This survey with focus on education was designed to collect the information on participation of persons aged between 5-29 years in the education system, expenditure incurred by the households on education and extent of drop out and discontinuance and its causes.
 8. The State Sample Survey conducted by DES covered 11237 persons from about 2500 households both in Urban and Rural areas of Delhi. This survey pointed-out the following features of the Education Sector in Delhi :-
- 8.1 Schools were available within the distance of 1 km. to the following no. of households:-

Primary Schools		Middle Schools		Secondary/ Senior Secondary Schools	
Rural	Urban	Rural	Urban	Rural	Urban
96%	90%	83%	81%	69%	78%

Primary schools were available for all households within 2 km. in rural area and for 99.5% households in urban area. Middle schools were available within 2 km. for 94.4% households in rural area and 98% in urban area. Secondary/Sr. Secondary schools were available within 2 kms. for 89% households in rural area and 85% in urban area.

- 8.2 About 48% of the total population was estimated in the age group of 5-29 years during July 2007 to June 2008. 52% of the estimated population in the age group of 5-29 years were attending educational institutions.
- 8.3 Out of total persons in the age group of 5-29 years attending educational institutions, 35% were in primary schools, 29% in Middle schools, 23% in

Secondary and Senior Secondary schools and 13% in the institutions of degree/diploma /higher classes.

- 8.4 Out of the total persons attending the educational institutions in Delhi, 95.3% were attending General Education Courses and 4.5% were in Technical Education courses. In vocational institutions the no. was only 0.2%.
- 8.5 Net Attendance Ratio (NAR) for class 1st to 8th was 86%.
- 8.6 Type of schools attended by the students in Delhi :-

School level	Govt. schools	Govt. aided schools	Private schools
Primary	60%	4%	36%
Middle	72%	3%	25%
Secondary/ Sr. Secondary	69%	5%	26%

- 8.7 Out of total students enrolled in 2007-08, 54% at primary level, 51% at middle level and 36% at Secondary and Senior Secondary level got free education in Delhi.
- 8.8 Out of total students enrolled at school level, 34% got free/ subsidized text books and 13% got free/subsidized stationary items. 53% of primary level and 13% of middle level students got free mid-day meal in Delhi.
- 8.9 Average annual expenditure per student incurred by households on education was as under:-
- i) Primary level –Rs. 5802/-
 - ii) Middle level –Rs. 5596/-
 - iii) Secondary and Senior Secondary level –Rs.10712/-
 - iv) Above Senior Secondary level –Rs.10773/-
 - v) Overall average in general education –Rs. 7355/-

vi) Technical education – Rs.51845/-

vii) Vocational education – Rs.28922/-

8.10 Major components of household expenditure in education per student includes 49% on tuition fee, 7% examination and other fees, 12% on books and stationary, 5% on uniform, 10% on transportation, 14% on tuition and coaching, 3% on other charges.

8.11 Proportion of persons in the age group of 5-29 years who were never enrolled in any educational institution :-

i) Upto 5 years – 28%

ii) Upto 6-10 years – 5%

iii) Upto 11-13 years – 2%

iv) Upto 14-17 years – 3%

v) Upto 18-24 years – 7%

vi) Upto 25-29 years – 10%

8.12 This Sample Survey estimated that about 6% of population in the age group of 5-29 years had not ever enrolled themselves in any educational institution and 42% of the persons were ever enrolled but currently not attending any educational institution. It includes 9% of the drop outs and 33% discontinued after completion of certain Level of Education. The major reason for discontinuance was “Child not interested in studies” accounting for 24.3% of not attending the educational institution population in this age group. The second major reason given for discontinuance was “completed their desired level/class of education” by 21% of the persons. The third major reason was reported as “financial constraints” by 11% of the persons.

8.13 The level of education discontinued by the persons not attending educational institution in the age group :-

i) Below Primary – 8%

ii) Primary – 19%

- iii) Middle –21%
- iv) Secondary/Sr. Secondary –30%

Major Programmes/Projects implemented during 11th Five Year Plan (2007-12)

1. Plan expenditure under Education Sector has been enhanced during 11th Five Year Plan by the Govt. so as to provide educational facilities to all school age children in Delhi. Plan expenditure on Education Sector was Rs.479 crore during Annual Plan 2006-07, the terminal year of the 10th Five Year Plan in Delhi. It has been enhanced to Rs.1341 crore approved plan outlay in Annual Plan 2011-12, the terminal year of 11th Five Year Plan. Taking into account the non-plan provision of Rs.4551 crore in 2011-12 for Education Sector, the total investment in 2011-12 will be of Rs.5851 crore by Govt. of Delhi. The massive increase in investment on Education Sector has resulted in higher per capita expenditure on education in Delhi as compared to all States. The per capita expenditure on education in Delhi has increased from Rs.2077 in 2007-08 to Rs.3492 in 2011-12.

2. Opening of new schools

The Dte. of Education and MCD has started new schools, upgraded and bifurcated existing schools during the 11th Five Year Plan as indicated below :-

Department	Year	New Schools started	Schools Upgraded	Schools Bifurcated
Dte. of Education	2007-08	5	25	2
	2008-09	6	17	1
	2009-10	1	59	4
	2010-11	9	17	8
	2011-12	30 (target)		
	Sub-total (DE)	51	118	15

Department	Year	New Schools started	Schools Upgraded	Schools Bifurcated
MCD	Total no. of new schools started during 2007-11	35		
	Proposed to be opened in 2011-12	20		
	Total [MCD]	55		

3. Sarva Shiksha Abhiyaan

Sarva Shiksha Abhiyaan is taking care of the children not attending schools and drop outs by arranging special classes, appointing additional teachers and construction of additional class rooms. Under Sarva Shiksha Abhiyaan schools are being provided with special grants to take care of the drop out and non-school going children. Community leaders are being involved so as to cover all non-school going children from the respective localities/areas.

4. Free supply of Text Books in all Delhi Govt. and Govt. aided Schools

The students of class 1st to class 8th are provided a set of all Text Books. The students of class 9th to class 10th are being given cash subsidy of Rs.600 per annum and students of Class 11th and Class 12th Rs.800 per annum for purchase of Text Books. The students admitted in private schools under free-ship quota are also benefitted under this scheme of free supply of Text Books.

5. Uniform Subsidy

Uniform subsidy is being given to all students from pre primary class to class 12th of Delhi Govt. schools, Govt. aided schools and free ship quota students admitted in private schools. The rate of uniform subsidy is Rs.500 per annum for primary classes students, Rs.700 per annum for class 6th to 8th students and Rs.900 per annum for students of class 9th to 12th.

6. Free transport facility is being provided to the girl students in rural areas where schools are not available within their own village and they have to go to the school in another localities/ villages.

7. **Pratibha Vikas Vidyalaya**

Govt. of Delhi started three Pratibha Vikas Vidyalaya in 1998-99 with a view to provide better school infrastructure and ambiance to the better performing students of Govt. schools. At present there are 19 Pratibha Vikas Vidyalaya in which admissions is allowed on the basis of admission test. The performance of these Pratibha Vikas Vidyalaya has been most successful and exemplary as their results at Secondary and Sr. Secondary level has been 100% for so many years.

8. **Patrachar Vidyalaya**

The Dte. of Education has revived this institution from 2009-10 affiliated to CBSE with the objective to cater to the educational needs of drop outs and others who wish to continue their studies along with their present job.

9. **Vocational education in schools**

At present 16 vocational courses are available based on engineering and technology, Business and Commerce, Home Science, Health & Para Medical, Computer and other streams at Sr. Secondary level in selected schools of Delhi Govt. More than 4400 students are enrolled in various vocational courses in 82 Govt. schools at present.

10. **Computer Education Programme**

Under ICT Scheme of the Ministry of HRD, Govt. of India, it is proposed to set up new Computer Labs in all Delhi Govt. schools for Computer Education at Sr. Secondary level and Computer literacy programme for other students. This programme is being jointly funded by Govt. of India and Govt. of Delhi in the ratio of 75-25.

11. **Construction of new School Buildings**

During the first four Annual Plans i.e. 2007-11 of the 11th Five Year Plan, the Dte. of Education have got constructed 17 new school buildings and 2256 new additional class rooms. During the year 2011-12, construction of 30 new school buildings is proposed to be taken up by the Dte. of Education. MCD has also constructed 35 new school buildings, 3684 new class rooms during the first four Annual plans of 11th Five Year Plan. MCD will construct 20 new school buildings and 800 additional class rooms during 2011-12.

12. **Awards/Incentives to best schools, students and teachers**

This programme was started by the Dte. of Education known as "Indira Gandhi Award to best schools, best teachers and best students at Zonal level, District level and State level". At State level best performing school is awarded Rs. 1 lakh, at District level Rs. 50,000/- and at Zonal level Rs.21,000/- along with a Memento for best performance during the year.

13. Similarly, best teachers from each Zone, District and State are also awarded Rs.11000/- and a Memento. Best performing students from each stream i.e. Science, Commerce, Humanities and Vocational are also given award at each Zone, District and State level. The 10 topper students from Delhi at Senior Secondary and Secondary level CBSE Board Exam are awarded Rs.5000/- each.

14. **Welfare of Educationally backward Minority Students**

Under this scheme all Muslim and Neo-Buddhist students whose parental income does not exceed Rs. 2 lakh per annum are given stipend of Rs.300/- for primary, Rs.400/- for middle, Rs.500/- for secondary and Rs.600 for Sr. Secondary class during the year.

15. **Examination Reforms & Coaching facilities**

Under this programme Question Paper Banks are prepared for Unit Tests and Term-wise Tests and provide Answer-sheets to the students for these tests so

as to improve their performance for the Annual exams. Further Special Coaching classes and Study Camps are also being organized for the students whose performance need more attention.

16. **Lal Bahadur Shastri Scholarship to meritorious students**

Students of class 7th to 12th in Govt. schools who secured above 80% marks in their annual examinations and whose parental income is not more than Rs. 2 lakh per annum are being given Lal Bahadur Shastri Scholarship @ Rs.1000/- per annum for class 7th & 8th, Rs.1500 per annum for class 9th & 10th, Rs.2000/- per annum for class 11th & 12th.

17. **YUVA**

The objective of the programme is to make school education more interesting, attractive and joyful by making participation of all students in local tours, outstation tours, celebration of annual day in each school, publication of school magazine and organization of YUVA club for arranging extra-curricular activities like Debates, Quiz, Dance, Painting Competitions etc.

18. **Right to Education Act**

Govt. of Delhi has taken all necessary steps for implementation of Right to Education Act in Delhi which includes creation of additional posts of teachers to maintain the prescribed norms of teacher-pupil ratio in all Govt. schools, provide educational facilities to all school age children by opening new schools & additional sections, free-ship quota for EWS category students by private schools etc. The private schools which have not been allocated land at concessional rates will be reimbursed the cost of free-ship EWS category students admitted by such schools.

19. **Personal hygiene for adolescent girl students**

Delhi Govt. has decided to distribute sanitary napkins to all girl students of class 6th to 12th in Govt. and Govt. aided schools for which an outlay of Rs.7 crore is approved in Annual Plan 2011-12. About 7 lakh girl students are going

to be benefitted with this new scheme.

20. GGSIP University has started functioning from its own complex at Dwarka. Another complex in Trans Yamuna area is also being constructed at Surajmal Vihar. Delhi University colleges funded by Delhi Govt. are being given grant and also funds for construction of their own buildings.
21. Dte. of Training & Technical Education is managing 12 diploma level polytechniques. Plan funds are being provided for their functioning including construction of their building. Delhi Technological University, NSIT, Delhi College of Art, Delhi College of Pharmacy and 3 Engineering colleges at Jaffarpur, Okhla and Geeta Colony are taking care of the requirement of technical education at Degree and Post Graduate level.
22. National Law University of Delhi, IIT and Ambedkar University are also being provided plan funds for their functioning and construction of their complexes.
23. Sahitya Kala Parishad, Hindi, Sanskrit, Punjabi, Urdu, Sindhi and Maithily Academies are being provided plan funds for promotion of Art, Culture and these languages in Delhi. The Department of Archeology is taking care of monuments listed in the State list of historical monuments.
24. The Sports infrastructure created by Delhi Govt. for Commonwealth Games is being utilized for promotion of sports activities by the Sports Branch of the Dte. of Education and also for organizing the various sports events of national level. Sports infrastructure at school level and zonal level is also being expanded and promoted.

Issues and Challenges for 12th Five Year Plan (2012-17)

1. Govt. of Delhi has decided to make National Capital Territory of Delhi 'an Educational Hub'. Setting up of GGSIP University, Ambedkar University, National Law University, Indraprastha Institute of Information Technology, Delhi Technological University, Delhi Pharmaceutical Science & Research University, Delhi Instt. of Tool Engineering, Instt. of Heritage Management &

Research have contributed to a great extent in the proposed direction. A new University i.e. Technical University for Women is proposed to be set up in the current financial year.

2. Even with 8 Universities and 12 Deemed Universities, the students of Delhi have to face problem in seeking admissions in various courses of Delhi University and Jawaharlal Nehru University being Central Universities. Some of the colleges of Delhi University prescribed 97 to 100% cut off marks for admission to some of the popular general courses at U.G. level in this academic session. As such more colleges/universities of Delhi University ranking are required to be established in Delhi so that Delhi's students may get admissions in all those courses within Delhi.
3. MPD-2021 recommends one Sr. Secondary school for every 10,000 population. For primary school plotted area of 0.2 to 0.4 Ha. and for Sr. Secondary schools plotted area of 0.6 to 0.8 Ha. is recommended. In view of total no. of 1350 Sr. Sec. Schools in Delhi in 2010, 550 new Sr. Sec. schools are required to be set up during 12th Five Year Plan for the projected population of 190 lakh by 2017.
4. In view of the requirement of new schools during 12th Five Year Plan, massive investment is required both in the form of school infrastructure as well as for recruitment of teachers and other supporting staff. This magnitude of investment required in Education Sector may be shared by the private sector if allotment of land is allowed by DDA to the private sector for setting up of new schools at concessional rates with the condition to allocate 25% of the total intake capacity of the schools under free-ship quota to EWS students.
5. During the year 2009-10 about 30 lakh children in the age group of 6-14 years were enrolled in elementary classes in Delhi. The estimated population in the age group of 6-14 years in 2009-10 was 31.15 lakh. As such 96% children were enrolled at elementary education level. In view of the Right to Education Act every child in the age group of 6-14 years is to be provided school

education. The implication of the RTE Act clearly touch upon the group of the children not attending the schools or drop outs at elementary level. As such all local bodies and Govt. of Delhi will have to prepare an action plan clearly indicating the requirement of new primary and middle schools for each year with reference to estimated population in the age group of 6-14 years during the period 2012-17 of 12th Five Year Plan.

6. At the same time, the Dte. of Education will have to gear up its machinery for detailed assessment of all private schools who have got land allotted at concessional rates in Delhi and to make an account of their free-ship quota students admitted each year. At the same time the private schools who have got their own land they will have to be reimbursed the cost of the free-ship quota students admitted by such schools.
7. On the lines of Sarva Shiksha Abhlyaan, Madhyamik Shiksha Abhiyaan have been started by the Govt., which envisage universalization of the secondary education.
8. Govt. of Delhi has started a no. of programmes to improve the quality of education in Govt. schools. Its impact is also visible from the results of Secondary and Sr. Secondary CBSE Exams. Still there is further scope for improvement. The difference in performance of Pratibha Vikas Vidyalaya and other Govt. schools may be an indicator. Although it may be very difficult task to bring quality of education in all Govt. schools at par with Pratibha Vikas Vidyalaya, the efforts may be made to the possible extent.
9. Inspite of good literacy rate in Delhi the gender gaps in literacy is a matter to be resolved. The literacy gap between male and female was of about 13% in 2001 and it continued with 10% in 2011. Coordinated and integrated efforts through plan schemes like Ladli, Personal Hygiene for girl students, free transport facilities to girl students in rural areas, the programme for empowerment of women through Gender Resource Centres and ICDS projects may contribute in reducing gender literacy gap in Delhi.

10. Knowledge Commission of India and Studies conducted by various institutions have pointed out time and again about the poor employment potential of the education system. Some efforts have been made to make education more employable but much more is required to be done. This peculiar problem may be seen with reference to increasing no. of pass outs from Schools, Colleges and Technical Educational Institutions but Industry and Service Sector continued to face the problem of non-availability of skilled and trained manpower. The Skill Development Council under the Chairmanship of Prime Minister has formulated the approach and programmes for skill upgradation in the country. Delhi Skill Development Mission has been constituted in view of the guidelines from the Ministry of Labour, Govt. of India. A no. of ITIs have been re-organized as Centre of Excellence in various fields like electrical, auto-mobile, mechanical, construction, hospitality etc. involving the Private Sector in management of these ITIs. Introduction of more skill oriented and professional courses is required to be made not only in Technical Education Institutions but also in schools and colleges of general education.
11. Govt. of Delhi has started implementation of ICT programme which envisages setting up of new Computer Labs In all Govt. schools. The proto-type of these labs has been prepared by the Govt. of India and being followed by the Dte. of Education. However, the type of appointment of teachers for Computer Education in Govt. schools require a comprehensive analysis. The Dte. of Education proposed creation of regular posts of teachers for Computer Education in Govt. schools. There is another opinion that such teachers may be outsourced rather than their regular appointment. This issue need to be resolved by taking all relevant aspects into account for better computer education in Delhi Govt. schools.
12. The measurement of the performance of the teachers also require more inputs for the assessment. There are some Govt. schools where the students

as well as their parents do not pay due attention to the school education. Teachers posted in such schools take plea of this fact in assessment of their performance. As such the criteria need to be re-considered and re-examined.

13. Delhi Govt. and MCD have been facing problem in timely allotment of suitable sites for opening of new schools. Such delays in allotment of suitable sites compel to start new schools with tents and semi-pucca buildings. To resolve such issues, a proper land allotment policy is required to be implemented so that allotment of the new sites may be made 5-6 years in advance and school buildings may be constructed in time. In this way all new schools may be started in their school buildings rather than Tents, Semi-pucca accommodation.
14. MPD-2021 recommends second shift in schools in Delhi in view of problem of land and space. Private schools may be allowed second shift in their school complexes if they fulfill all requirements prescribed by the Dte. of Education.
15. Time to time the issue of large number of vacancies of teachers in Govt. schools has been attributed as one of the major cause in maintaining the quality of education. The system of recruitment of teachers along with teaching ability test need to be planned in advance taking into account time required through DSSSB and UPSC. Recruitment for estimated no. of vacancies for next 2-3 years may be easily made in advance so that this problem may not affect the quality of education.
16. To give quality education, the schools need to be more responsive to quality and results, through institutional and administrative reforms; to implement assessment and standards. Methods of monitoring of quality teaching in schools.
17. Improving the quality of teachers through continuous training programmes in association with private sector.
18. Revision of school curriculum by integrating environmental, moral and sex Education in the existing curriculum and the level of schooling from which it

needs to be started.

19. Need to upkeep and maintain school buildings, playgrounds and other infrastructure through private sector participation.
20. Personality development including emphasizing English language teaching and communication skills since Class – 1 (which is one of the important recommendations of National Knowledge Commission) to be integrated in the overall teaching.
21. Cost of higher education is a big issue. Necessity for subsidizing higher education for the targeted low income group.
22. Need to encourage exclusive science research programmes by creating world class research Institute to attract best young talents and to create quality Ph.Ds. Necessity to encourage govt. funded research projects with ownership and patent rights of govt. over the invention or outcome of the research.
23. Revitalizing Polytechnics & Engineering Colleges through industry linkage.
24. Increasing intake capacity of general & technical colleges in Government Institutions.
25. Existing technical institutes may take up more and more innovative research projects for nurturing young talents on revenue sharing between the Institute and the team of faculty and students and also to generate internal resources.

1. The Approach Paper prepared for the 11th Five Year Plan (2007-12) of Delhi was titled "Development with a human face". All possible measures have been taken for implementation of this approach during 11th Five Year Plan with expansion and improvement in the scope of coverage and operating system of various ongoing welfare programmes and with the implementation of various new programmes.
2. These programmes are for economically weaker sections, SC/ST/OBC/Minorities, empowerment of women, welfare and educational upliftment of the children, financial and other supports like health care, insurance, night shelter, food etc. to various categories of the persons i.e. senior citizens, women in distress, shelter-less persons, street children, persons with disabilities, beggars who need care and special attention.
3. To achieve the objective of the inclusive growth in a democratic set up, Government adopted a strategy by formulation and implementation of a no. of welfare programmes so that the benefits and outcome of the economic growth and development reach the needy ones in right earnest.

Programmes implemented during 11th Five Year Plan

1. Improved Living Conditions for EWS Sections

The first major programme implemented is for providing all basic civic amenities in unauthorized colonies, rural villages, urbanised villages, JJ clusters, JJ re-settlement colonies and SC Basties to improve their living conditions, first goal and objective of urban development planning for this mega city. A major chunk of total plan investment under Urban Development and other Sectors is utilized in providing civic services in these habitats where majority of EWS households are residing.

2. Empowerment of Women

Another priority programme of inclusive growth is empowerment of women through better health care, educational upliftment, self-employment and job

opportunities for economic upliftment, legal support and guidance for their security etc. These aspects of empowerment of women are being taken care of through the implementation of following plan programmes :-

- i) 94 ICDS projects with 10378 Aanganwadi Centres covering about 8.81 lakh women and children.
- ii) Stree Shakti - an innovative initiative for empowerment of women through a network of 121 Gender Resource Centres by the Mission Convergence which is commonly known as Samajik Suvidha Sangam [SSS].
- iii) Delhi State Commission for women.
- iv) Working Women Hostels.
- v) Financial assistance of Rs.1000/- per month to women in distress.
- vi) Financial assistance to widows for performing marriage of their daughter.
- vii) Implementation of Protection of Women from Domestic Violence Act, 2005.
- viii) Janani Suraksha Yojana.
- ix) MatriAvam Shishu Suraksha Yojana.
- x) Financial assistance to lactating mothers.

3. Child Welfare

- 3.1 Children, the future prospects of the society, are the focal point of various welfare programmes being implemented under various Sectors. With the implementation of Janani Suraksha Yojana, Matri Avam Shishu Suraksha Yojana, Health education programmes through the network of ASHA by Delhi State Health Mission, ICDS projects through the network of 10378 Aanganwadi centres, immunization programmes by the Dte. of Family Welfare, the new born children and their proper growth is being taken care of.
- 3.2 The next stage of development of children is to provide them school education. Govt. of Delhi is providing all possible facilities and support for coverage of

school education to all children in the age group of 6-14 years. It includes various types of scholarships and stipends, free supply of text books, subsidy for purchase of school uniforms, mid-day meal, Sports and YUVA activities, Sarva Shiksha Abhiyaan for drop-outs and non-school attending children, Chacha Nehru Sehat Yojana for comprehensive health check-up of all students in Govt. and Govt. aided schools including free treatment of any disease, coaching and special preparation for entrance exams to various professional courses and the LADLI scheme to promote and ensure school education upto Secondary/Senior Secondary level for girls.

4. Senior Citizens

The senior citizens of 60 years age and above who have no regular income to take care of their livelihood are being given financial assistance of Rs.1000/- per month. At present about 3.50 lakh senior citizens are being benefitted with this programme. Special Geriatric Clinics are functioning in Delhi Govt. hospitals to take care of their health problems. 72 Recreation Centres are functioning for senior citizens in different parts of the National Capital Territory of Delhi. The senior citizens who have nobody to take care of them are being provided Old Age Home facilities free of cost.

5. Persons with Disabilities

Financial assistance of Rs.1000 per month is being provided to about 26000 persons with disabilities. Special Campaigns are being organized in all parts of the NCT of Delhi to provide artificial Limbs and other appliances to the persons with disability. Five Govt. schools are functioning for Deaf & Dumb, blinds and mentally retarded children. Commissioner for Disability has been appointed to take care of the rights of PWD and redressal of cases under Section 61 & 62 of PWD Act.

6. Welfare of SC/ST/OBC/Minorities

6.1 Educational upliftment is considered as the first and major target for the welfare of SC/ST/OBC/Minorities. Govt. has started a new programme to provide stipend of Rs.1000/- per annum to all students of SC/ST and minorities

studying in class-1st to class-8th in Govt. and Govt. aided schools, MCD, NDMC and DCB schools.

- 6.2 In addition to this new programme covering all students of these groups, a no. of other scholarships are also provided both for Pre-Matric and Post-Matric classes to the students of these groups. Subsidy is being provided for purchase of stationary items to the students of these groups in Govt. and Govt. aided schools and also the students admitted in private schools under free-ship quota besides free supply of Text books, subsidy for uniforms, Mid-day meals, etc. Special coaching facility is being provided to SC students for qualifying the competitions for recruitments to various grades of posts and civil services.
- 6.3 Govt. has decided to provide financial assistance to the SC/ST category of persons found eligible for allotment of EWS flats under JNNURM programme.
- 6.4 For economic upliftment of these groups, financial support in the form of loan at subsidized rates of interest or with interest subsidy is also being provided for purchase of commercial vehicles, setting up of industrial units and other enterprises by these groups.

7. Labour Welfare

- 7.1 The Bombay Labour Welfare Fund Act has been extended to Delhi in 1998. Building and other Construction Workers (Regulation of Employment and Conditions of Services) Act, 1996 is also being implemented in Delhi. The two separate Boards have been constituted for implementation of these two labour welfare acts in Delhi.
- 7.2 The labourers registered under Building and Construction Workers Act, are being provided medical assistance, financial assistance on marriage of their children, maternity benefits, stipend to their children studying in schools, pension after the age of 60, family pension in case of death, pension in case of injury and permanent disability etc. Similarly, a no. of facilities and benefits are being given under the Bombay Labour Welfare Fund Act extended to Delhi to the workers employed in shops and establishments and industrial units.

Issues and Challenges for 12th Five Year Plan (2012-17)

1. In spite of a no. of programmes like scholarships and stipends, free supply of Text Books, uniform subsidy, subsidy for purchase of stationary items, mid-day meal etc. the rate of drop-outs among SC/ST students is much higher than other category students. The impact of new scheme providing stipend of Rs.1000/- to all SC/ST/Minority students studying in Govt. and Govt. aided schools from Class-1st to Class-8th started in the current financial year need to be assessed in reducing the no. of drop-outs among SC/ST/Minority students during next 3-4 years.
2. In spite of a no. of programmes to ensure all school age children get admitted in the schools and complete their elementary education, the literacy rate gap between male and females particularly among SC/ST and Minorities require special attention to cover this gap.
3. Social Audit of various welfare schemes may be undertaken from time to time so as to ensure that only eligible persons get the benefit of the respective schemes and non-eligible persons are not allowed.
4. Conditional Cash Transfer Programme proposed by Delhi Convergence Mission in collaboration with UNDP need further and more detailed scrutiny on the basis of feedback from the target groups before its implementation.
5. The inmates admitted in the Juvenile Homes are reported facing problem as the children below the age of 10 years get traumatized through the rough and tough behavior of inmate of age group of 10 plus & upto 18 years, who are in conflict with law and get housed in the same Home. In Regional Consultations Workshop held in May 2011 for Northern Region States, it was suggested that Juvenile Homes may be bifurcated for the inmates below 10 years age and separate Juvenile Homes for the inmates above the age of 10 years who are in conflict with law.
6. Senior citizens belonging to such families who reside in a small house of one or two bedrooms need suitable space in the form of recreation centres for utilizing their leisure time. The recreation centres for senior citizens, therefore, provide

a needfelt to senior citizens to spend time in secured and good company of same age group. However, in view of increase in life expectancy and resultant change in demographic profile, there is need of setting of more such recreational centres in Delhi. Suitable actions and programmes need to be taken up with the involvement of RWAs, NGOs and other citizens groups.

7. Aanganwadi centres taking care of pregnant and lactating mothers and children of 0-6 years are reported to be facing problem of adequate and suitable space for their proper functioning. The present ceiling of rent of Rs.750/- per month is too meager to get adequate and suitable space on rent for Aanganwadi Centres in Delhi. The rental ceiling need to be suitably enhanced.
8. A no. of health and life insurance programmes are being implemented for EWS and poor households in Delhi. These are Rashtriya Swasthaya Bima Yojana, Janshree Bima Yojana, Aam Admi Bima Yojana, Aapka Swasthaya Bima Yojana etc. However, sufficient no. of households/persons are not getting enrolled/registered under these insurance programmes. Some special efforts are required to get the maximum no. of target group of households/persons registered under these insurance schemes. The findings of studies conducted on implementation of RSBY also need to be taken care of.
9. Swarn Jayanti Shehri Rojgar Yojana, Prime Minister Rojgar Yojana and also the Self-Help groups being allowed under other programmes of the Govt. like Stree Shakti are not getting financial support from the Public Sector Banks to the requisite extent. Some of the procedural bottlenecks in approval of these employment promotion programmes need to be re-examined and re-settled so as to cover the maximum no. of unemployed poor persons to be benefitted under these programmes.
10. The increasing no. of beggars in the city is a peculiar problem. Their rehabilitation by the Govt. of Delhi as well as by the concerned State Governments may be take care of with a very pragmatic and efficient action plan.

11. Provision of shelter and rehabilitation of mentally retarded persons is a major problem in the Social Welfare Sector of Delhi. Involvement of dedicated NGOs and Civil Society Organizations may be explored for effective solution with reference to the magnitude of the problem.
12. MCD & NDMC are also implementing the programmes like old age pension, widow's pension, financial assistance to widows on marriage of their daughter, financial assistance to persons with disability, the programmes being implemented by the Govt. of Delhi for all target groups. The implementation of these programmes by the local bodies may create the problem of availing the benefits by the same beneficiary both from Delhi Govt. as well as local bodies' programmes. To avoid such duplication, local bodies may be requested to refer such cases to the Govt. of Delhi rather than providing financial assistance at their own level.
13. With reference to a large number of working women in the city migrated from other parts of the country, the requirement of more new working women hostels may be solved with the involvement of private sector as well as NGOs and VOs working in the field of empowerment and welfare of women.
14. With the increasing no. of persons in the category of senior citizens and also the changed social and family set ups, the need for setting up of more Old Age Homes may be taken care of.
15. Delhi Skill Development Mission need to expand its programmes so as to provide skill upgradation facilities to the unemployed persons particularly from EWS households residing in unplanned areas to make available them more opportunities for self-employment or job employment.
16. The no. of widows being provided financial assistance of Rs.1000/- per month is increasing each year. These widows are within the age group of 18 to 59 years and may be rehabilitated suitably so that they may have a dignified life. Delhi Skill Development Mission may start suitable training and skill upgradation programmes for these widows so that they may have better employment potential both in the form of self-employment or job employment.

17. Delhi Child Rights Protection Commission, Juvenile Boards, Juvenile Homes, Children Homes are taking care of the children brought within the ambit of functioning of these institutions and the Women & Child Development Department. The increasing no. of missing children in Delhi is a very painful situation. More coordinated actions and effective programmes need to be implemented by all concerned agencies to check and control the situation.
18. The Environment Department has started a programme to educate the rag pickers in safe handling of the Municipal solid waste. However, in view of the large number of rag pickers in Delhi, the role of local bodies in providing social security, training and necessary appliances to the rag pickers may be promoted as ultimately they contribute in recycling and reuse of municipal solid waste.
19. The drug addicts loitering around some of the places in the city need to be rehabilitated.
20. As majority of the building and construction workers belongs to economical weaker sections, the Building And Construction Workers Act, 1996 may be amended to allow the utilization of accumulated Cess of more than Rs.700 crore available with Delhi Labour Welfare Board for construction of EWS flats for building and construction workers in Delhi.

1. Creation of a sustainable physical and social environment for improving the quality of life is one of the fundamental objectives of development planning. MPD-2021 mentions that unprecedented scale and speed of urbanization in Delhi has resulted in enormous pressure on the physical environment of the city with a severe adverse affect in term of pollution.
2. The city's environment can essentially be described in terms of Urban Management and the Services Management. The Urban Management pertains to natural features and resources including the elements of air, noise, water and land with reference to open spaces, green area and other surface and sub-surface conditions. The Services Management relates to built environment which includes the environmental infrastructure in the form of water supply, sewerage, solid-waste disposal and transportation network.
3. Delhi's main natural features are the river Yamuna and the Aravali hills. The length of river Yamuna in the National Capital Territory of Delhi is about 48 km. River Yamuna enters in Delhi Territory at Palla in the North and terminate its route in Delhi at Okhia in the South before entering into territories of Haryana & UP. The total Yamuna river flood plain area is of around 97 sq. km. which is about 7% of the total area of Delhi.
4. Aravali Hills range are the tail end of Aravali Hills spread over Rajasthan, Haryana and Delhi. Aravali Hills in Delhi are known as Ridge starting from Delhi University Campus in the North to NCT border in the South. Part of this Ridge area has now been declared as Reserved Forest. The Ridge area is divided in 4 parts i.e. Northern Ridge (87 Ha.), Central Ridge (864 Ha.) South Central Ridge (633 Ha.) and Southern Ridge (6200 Ha.) making a total of about 7784 Ha.
5. Delhi has about 300 sq. km. of green area as per Forest Survey of India Report for 2009. It accounts for 20% of the total area of 1483 sq. km. of Delhi.

- The green area includes forest area, area under District Parks, City Parks, Community Parks, neighbor-hood parks and the open area covered under plantation in the residential as well as the large complexes like President's Estate, JNU, IARI, Delhi University Complex and plantation along open spaces and drains. Two bio-diversity parks are also under development.
6. Within the Ridge area the Asola-Bhatti Sanctuary has been developed in an area of about 6874 acres. The development of this Sanctuary succeeded in re-generating a no. of species of Original flora and fauna of Aravali Hills range.
 7. The rapid pace of urbanization adversely affected the water bodies in Delhi. The Central Ground Water Board assessed that total ground water potential in Delhi has reduced from 428 Million cubic meters (Mcm) in 1983 to 292 Mcm in 2003. It indicates an overdraft and reduction of around 136 Mcm during the period of 20 years between 1983 to 2003.
 8. Average annual rainfall in Delhi is 611 mm. The annual rain water harvesting potential has been assessed at 900 billion liters or about 2500 million liter per day. Owing to massive urbanization the run-off water get diverted into storm water drains and sewers which conveyed the rain water into the river Yamuna. If even 25% of the annual rain water harvesting potential could be harvested, it is estimated that it may make available 625 million liters per day and may meet the existing gap in the availability of raw water resources and water requirement.
 9. The air quality in the city, in terms of pollution level is a matter of concern and responsible for a no. of respiratory diseases, heart ailments, eye-irritation, Asthma etc. The main sources of air pollution in Delhi are vehicle emission (around 70%), industrial emission (around 20%) and remaining from other sources like Diesel generators and domestic cooking etc.

Major Programmes/Projects implemented during

11th Five Year Plan

1. Taking into account the fact that 70% air pollution is caused by vehicular emission in Delhi and at the same time the no. of vehicles is continuously increasing each year, Govt. has decided to improve the quality of Public Transport System in Delhi through construction of Delhi Metro, purchase of new low-floor air-conditioned and non air-conditioned convenient buses, replacing the blue-line bus system by private corporate sector system and introduction of Euro-3 and Euro-4 norms.
2. Besides Air Monitoring Stations of Central Pollution Control Board, Delhi Pollution Control Committee has been directed to set up its own Air Monitoring Quality Stations. Six new Air Quality Monitoring Stations have already been set up by DPCC.
3. The use of plastic bags is a major environment hazard for a Mega City like Delhi. Govt. has banned the production, storage and sale of all types of plastic bags.
4. Keeping in view the role of water bodies in ground water recharge as well as rain water harvesting, a massive programme for preservation and development of all water bodies is being implemented.
5. For promotion of rain water harvesting, Govt. is providing subsidy up to Rs.1 lakh to the Cooperative Group Housing Societies. Special programme is being implemented to construct rain water harvesting system in all Govt. schools and colleges complexes.
6. To control the water pollution from industrial waste 13 CETPs have already been constructed and 11 CETPs have already been handed over to the societies of the respective Industrial Area Associations for their operation and management.
7. All projects approved under Yamuna Action Plan Phase-II are going to be

completed by DJB in this financial year and the projects proposed to be taken up under Yamuna Action Plan Phase-III have been selected.

8. The projects for laying of interceptor sewer along major drains falling in river Yamuna is being taken up for implementation on 3 major drains i.e. Najafgarh drain, Supplementary drain and Shahdara drain.
9. The entire 150 km. Trunk Sewer Network of DJB will be made fully functional during this year with the completion of the project for rehabilitation of silted and settled trunk sewers of balance 50 km. length.
10. The projects for laying of sewers in non-sewered areas i.e. unauthorized colonies and rural villages have been started and are in progress.
11. To increase the green cover area in Delhi, massive plantation is being undertaken during each year with the involvement of all Govt. agencies, NGOs, RWAs, children and students through eco-clubs in schools/colleges. The target for plantation for the current year is 1 million. Plants are being made available free of costs to the citizens willing to participate in Plantation drives.
12. Govt. of Delhi is continuously pursuing for early completion of the construction of Eastern and Western Peripheral Express Ways so that all Inter-State vehicles passing through Delhi roads may use these Express Ways and do not enter Delhi's roads so as to reduce the traffic congestion as well as vehicular exhaust. Govt. of Delhi has already released Rs. 653.50 crore for these two projects to NHAI.
13. All vehicular air pollution under control certificate service providing centres have been connected with the Headquarter network of the Transport Department so as to monitor the no. of vehicles issued Air Pollution under control Certificates and the no. of vehicles not issued. Special Campaigns for checking of vehicles plying without air pollution under control Certificates are being organized.

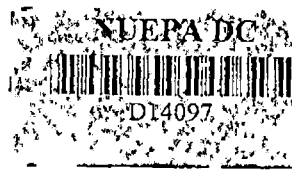
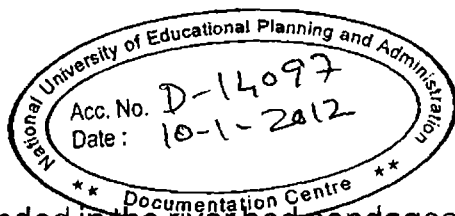
14. I.P. Thermal Power Station has been closed and Rajghat Thermal Power Station will be closed during this year. The closer of these thermal power stations will contribute in control of air pollution to a great extent.
15. To improve the Solid Waste Management Services, MCD is being provided sufficient funds under each Annual Plan. For collection and transportation of solid waste, MCD has engaged Private Sector in 8 Municipal Zones.
16. The Gazipur Sanitary landfill site is being re-developed by recycling the dumped solid waste with the involvement of private sector.
17. The solid waste is being utilized for making compost at Okhia and Bhalswa Sanitary Landfill sites. Solid waste is also proposed to be used for generation of electricity at Gazipur and Okhla Sanitary landfill sites through private sector participation.

Issues and Challenges for 12th Five Year Plan (2012-17)

1. The no. of vehicles is increasing in Delhi at a very high rate but the increase in length of roads kilometer lane is not commensurate to the growing no. of vehicles. Even though a large number of personal vehicles have also converted to CNG fuel, the increasing no. of diesel operated vehicles in Delhi is continuously aggravating the vehicular exhaust pollution.
2. Although Delhi Metro has contributed in attracting more than 18 lakh commuters each day and resulted in diverting the vehicles from roads, much more is required to reduce the no. of vehicles on Delhi's roads with a mix of incentives and dis-incentives.
3. Incentives for shifting of commuters from personal vehicles to Public Transport Modes may be in the form of assured, convenient and integrated multi-modal Public Transport System with common ticketing and linkages between different modes.
4. Dis-incentives for use of personal vehicles may be in the form of congestion charges for entry into certain areas, higher parking charges, efficient

enforcement network for inspection of vehicles plying without pollution under control service, insurance, fitness and prescribed Euro norms etc.

5. Air and water pollution control measures, expansion of green coverage, control in exploration of ground water and management of municipal solid waste need to be planned for Delhi in the perspective of entire National Capital Region for targeted impact. NCR Planning Board may play catalytic role through promotion of joint sector projects.
6. The project for laying of interceptor sewer along major drains is projected to control pollution in river Yamuna. The projects for laying of sewerage system in non-sewered areas of rural villages, unauthorized colonies and even some of the urbanized villages and regularized unauthorized colonies which could not be provided sewerage system till now will also contribute in control of pollution in the river Yamuna.
7. However, the minimum flow of fresh water in river Yamuna downstream of Wazirabad is equally essential for rejuvenation of the river in Delhi territory. The required minimum flow of fresh water in the river Yamuna may be possible only on construction of identified reservoirs at Renuka, Keshau and Lakhwar-Vyasi in the upper basin of the Yamuna river.
8. The re-use of treated waste water also need to be expanded at least for some of the industrial uses like requirement of power plants, to meet the requirement of construction industry, automobile workshops and DTC depots for cleaning of vehicles and to the full extent of requirement of horticulture, parks and irrigation in cultivable land. The maximum re-use of treated waste water will contribute in controlled exploration of ground water.
9. Programmes need to be formulated for collection of entire run of water and its use in recharging of ground water level as well as filling up of all water bodies in Delhi.
10. Excess water available in the river Yamuna during monsoon need to be



impounded in the river bed pondages. It will contribute in charging of the river bed area and may also be available to meet the gap of raw water during summer and winter seasons in Delhi.

11. The Ground Water recharge has been affected to a great extent with concretization of the open spaces and footpaths. Some policy and planning system need to be evolved to check the present trend of concretizing the available open space and also the open space along foot paths and drains.
12. Rain water harvesting programme need to be promoted by providing incentives and involvement of all citizens, NGOs, CSOs with effective IEC programmes.
13. Arrangements will have to be made to ensure that no sewage is discharged into storm water drains. Entire sewer network system needs to be maintained so as to achieve the said target.
14. Hazardous waste, bio-medical waste and electronic waste disposal system need comprehensive planning for disposal of the estimated quantum in future.
15. The concept of green buildings need to be promoted for conservation of water, reduction in generation of waste water & solid waste and saving in consumption of electricity etc.
16. The final disposal of solid waste to be minimized through maximum recycling and re-use of the waste in view of technological advancement and potential available.
17. The Yamuna river bed including flood plain area need to be developed in view of its geographical, aesthetic, river bed recharge, flood control, green cover potential requirements and also to check any encroachment and prohibited use.
18. An Action Plan is required to be prepared for increasing Green Cover Area in Delhi from 20% in 2009 to 30% by the end of 12th Five Year Plan.

1. This document is available on website of the Planning Department i.e.

www.delhiplanning.nic.in

2. Suggestions may be sent by e-mail at our E-mail address i.e.

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