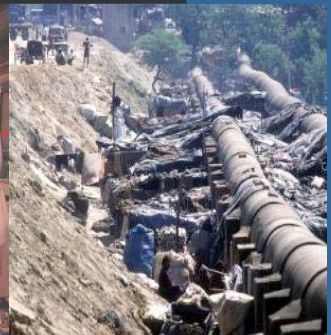
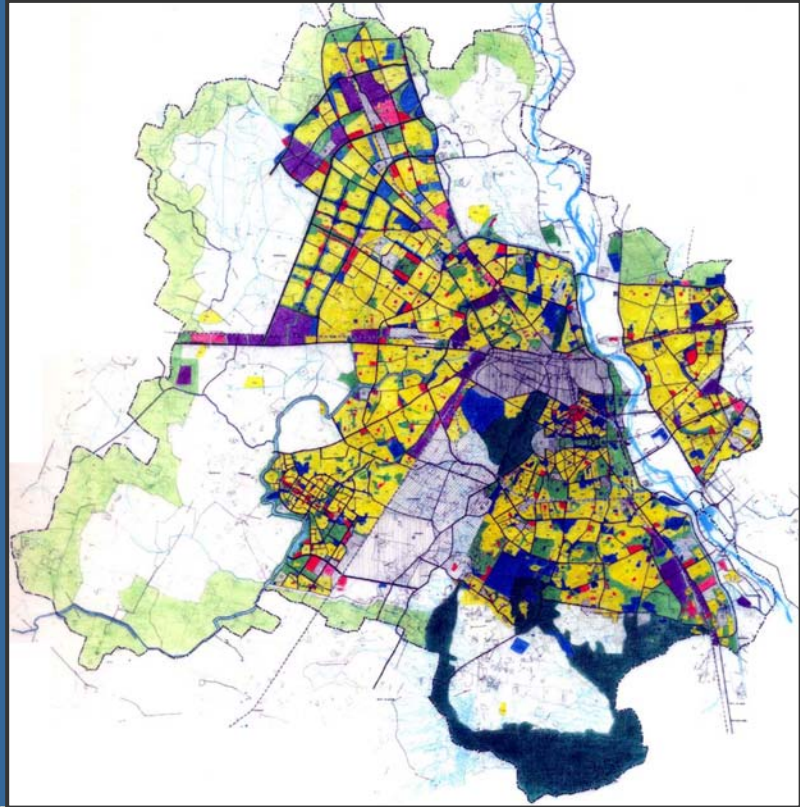


# CITY DEVELOPMENT PLAN DELHI



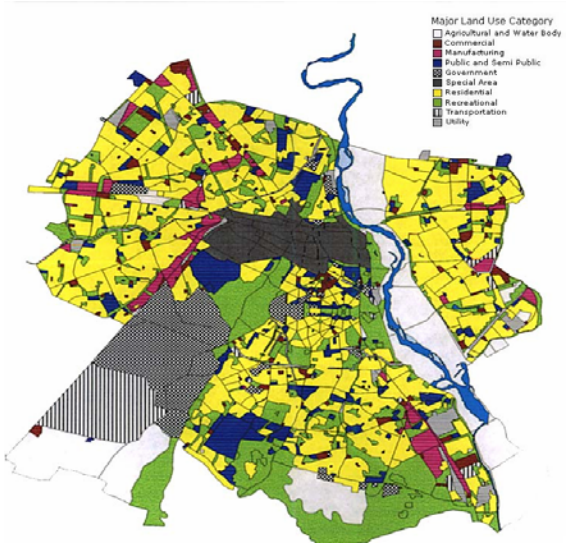
October, 2006

Department of Urban Development  
Government of Delhi



IL&FS Ecosmart Limited, New Delhi

In **nur**m



## Executive Summary



**CDP-Delhi**

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# EXECUTIVE SUMMARY

**J**awaharlal Nehru National Urban Renewal Mission (JNNURM) focuses on (i) improving and augmenting the economic and social infrastructure of cities; (ii) ensuring basic services to the urban poor including security of tenure at affordable prices; (iii) initiating wide-ranging urban sector reforms whose primary aim is to eliminate legal, institutional and financial constraints that have impeded management of, and investment in, urban infrastructure and services; and (iv) strengthening municipal governments and their functioning in accordance with the provisions of the 74<sup>th</sup> Constitution Amendment Act, 1992.

JNNURM comprises of two sub-missions, namely

(i) *Sub-Mission for Urban Infrastructure and Governance*, including water supply, sewerage and sanitation, solid waste management, urban transport, redevelopment of core areas, development of heritage, and environment.

(ii) *Sub-Mission for Basic Services to the Urban Poor*, including shelter, infrastructure services and related civic amenities

The Government of India has proposed substantial assistance through the JNNURM to the selected Mission cities. All mission cities are expected to formulate a City Development Plan (CDP). The CDP is based on an assessment of the existing situation, and outlines a vision for development, strategies for achieving this; indicative investment requirements and financial operating plans, indicating how investments made are to be sustained. The CDP will facilitate identification of projects. The ULBs/ parastatal agencies will be required to prepare DPR for the projects. The current status of sectors covered under JNNURM for Delhi are presented below

## E.1 City Assessment: Urban Infrastructure and Governance

The National Capital Territory, Delhi (NCTD) area consists of the following three municipal areas-

- **New Delhi Municipal Corporation (NDMC)** area at the core, spread over an area of 42.74 km<sup>2</sup>
- **Municipal Corporation of Delhi (MCD)** area, occupying 1,397 sq. kms, or 94 % of the area of the city.
- **Delhi Cantonment Board (DCB)** area between the Airport and the NDMC area, spread over an area of 42.97 km<sup>2</sup>

In 1999, the urban area of Delhi was 701.62 sq. kms (47.3 % of NCTD area). This is proposed to be increased to 977.91 sq. kms, or 66 % of the total area, by 2021. The CDP addresses the urban area of the NCTD as a whole. Detailed assessments for the NDMC and DCB areas may be taken up at a later date, and incorporated into the document.

### E.1.1 Land and Urban Growth Management

The DDA is responsible for guiding planned development in Delhi, through successive Master Plans (1962, 1982 and 2001). It is also the sole agency mandated to develop and dispose of land in the city.

The growth of the city over the years has been on a ring and radial pattern, with reliance on road based transport. The development envisaged by previous Master Plans was poly-nodal with a hierarchy of commercial centres located on either ring or radial roads. The DDA, however, has been unable to meet forecasted demands for housing, commercial and industrial space, resulting in large scale unauthorized development, and areas with non-conforming land uses. Only an estimated 30 % of the city's population lives in planned areas. The poor have borne the brunt of the shortage. In

## **EXECUTIVE SUMMARY**

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spite of growing pressure on land resources, there are large tracts of underused land within the central city. A majority of these are government lands bearing low density (2 storey structures) and old housing. Only 30-35% of government employees have been accommodated within these areas.

The lack of formal access to appropriate housing has led to the genesis of unauthorized colonies in Delhi. Currently, there are around 1432 unauthorized colonies providing shelter to around 30 lakh people. Unauthorized colonies have been regularized twice in Delhi: in 1961 when over 100 colonies were regularized and in 1977 when around 600 colonies were regularized.

165 urban villages and 52 census towns form part of the National Capital Territory of Delhi (NCTD). These urban villages have undergone significant physical and functional transformation related to their specific location. Key Issues in growth management are listed below:

- Increasing gap between demand and supply of appropriate housing and infrastructure
- Encroachments in urban villages
- Exploitation of agricultural land for unauthorized development
- Inadequate supply of appropriate commercial and industrial space, resulting in non-conforming land uses.
- Lack of Linkage between Physical Planning Strategy and Financial Planning

### **E.1.2 Water Supply**

DJB is the agency of the Govt. of NCT of Delhi responsible for procurement, treatment, transportation and distribution of water in the MCD areas. It also supplies bulk water to the NDMC, and Delhi Cantonment Board. Water requirements for an estimated population of 16.5 million in 2006 is 990 MGD. At present DJB, is equipped to produce 735 MGD of water from 11 Water Treatment Plants (WTPs) and ground water abstraction from 446 tube wells & ranney wells. The per capita availability of water is one of the highest among urban areas. In spite of this, water is supplied for only a few hours in the day. Moreover, norms of supply to different zones vary, and areas at the end of the distribution system receive little water. About 20 per cent of the city's population is not covered by piped water supply. In the absence of piped water supply from DJB, there has been extensive abstraction of ground water. The issues related to the status of water supply summarized below:

- Unaccounted for water losses are estimated at 42% (16% in transmission and 24% in distribution)
- There are wide variations in supply, both within and between supply zones
- Lack of adequate management systems.

### **E.1.3 Sewerage and Sanitation**

The DJB is also responsible for the management of the sewer system in MCD areas; and collection, transportation, treatment and disposal of sewage from MCD areas, NDMC & DCB areas. The length of sewers in the city is 7000 kms. The sewage generation in Delhi has been estimated at 800 MGD against the present installed treatment capacity of 512.6 MGD. Thus there is a gap of almost 300 MGD in treatment of waste water<sup>1</sup>. There are 18 sewage treatment plants (STP's) in the city, varying from 3-45 years in age. This has resulted in a loss of treatment efficiency. The issues related to the status of Sewerage are presented below:

- An estimated 530 MGD of untreated sewage is discharged into the river Yamuna.
- Due to network deficiencies, there is an overflow from sewers into storm water drains.
- Trunk sewers are considerably silted, requiring desilting & repair to restore their capacity in a time bound manner.
- The city's STPs and Sewage Pumping Stations are several years old - leading to reduced efficiency.
- Upgrading conveyance system needs to be undertaken, for full capacity utilization of Common Effluent Treatment Plants.

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<sup>1</sup> Waste water generation being estimated at 80% of piped water supply; and estimated ground water extraction.

### E.1.4 Solid Waste Management

The conservancy and sanitation department of MCD is responsible for the collection, transportation and disposal of solid waste in the city. The total quantum of solid waste generated per day in Delhi is estimated to be 7,700 MT. Of this, an estimated 6000MT are collected and disposed. Currently, different types of waste streams in the city, including municipal waste, bio-medical waste, construction debris, industrial waste slaughter house waste, electronic waste...etc are all mixed. Waste from different parts of the city is transported to three landfill sites, located at Gazipur, Balaswa and Okhla. The issues related to the status of Solid Waste in city are summarized below:

- The existing landfills (dump-sites) are almost full. They need to be closed immediately in a scientific manner, and new sanitary landfills (SLF) need to be developed and commissioned at the earliest possible.
- Treatment of wastes is almost non-existent. Treatment facilities dedicated to different waste streams, to the extent possible, need to be developed
- Open 'dhalao' (masonry bin) is still the major receptacle for MSW in Delhi. These lead to exposure of the waste to the environment and multiple handling (from depositing of waste to its loading into the collection vehicle)

### E.1.5 Traffic and Transportation

The PWD, MCD, DDA, DTTDC and MUD are responsible for the construction and maintenance of roads in the city; whereas urban transport is managed by Transport department.

The road network length in Delhi was 28,500 km in March 2001 up three times increase from 8,380 km in 1971-72. The road network comprising of ring and radial pattern has C.P. as focal point with Mathura road, Lal Bhadur Shastri Marg, Aurobindo Marg, Rao Tula Ram Marg, Gurgaon Road (NH 8) Patel road, Shankar road, Rohtak Road, G.T.Road (NH-1), Loni road, Shahadra road, NH 24 bypass forming the radials; and Mahatma Gandhi Road (Ring Road), Outer Ring road, Noida road- Bund road forming the prominent rings. These radial and ring roads serve as major arterials carrying bulk of the traffic in the city. During morning and evening peak hours 55-60 per cent of the major arterials have travel speeds less than 30 kmph, while even in off peak hours 40-45 per cent of major arterials have travel speeds less than 30 kmph. While the large number of signalized intersections in the city has led to excessive travel time and fuel consumption, the construction of fly-overs has only shifted the location of congestion.

Urban Delhi is predominantly dependant on road based transport systems as railways caters to only about 1% of local traffic demand (excluding the Metro). The overall capture of public transport services in the city is only 60 per cent of total trips. Of this, the metro currently accounts for 15 per cent. The widespread distribution of employment centers all over the urban space of Delhi has contained the growth in length of trips. Over 33 per cent of total trips are short trips (less than 15 mins duration)

The percentage distribution of categories of motor vehicles in Delhi shows that there has been a rapid increase in the number of cars during 1990-2000; while there has been a decline in the other category of vehicles. About two third of motor vehicles are two wheelers, though a decreasing trend in that share has been observed since 1990. On the other hand, due to arrival of low priced small cars and easy financing mechanisms, there is an indication of a shift from two wheelers to cars. The share of cars has increased from 22% in 1991 to 31% in 2005. The issues related to traffic and transportation management in the city are presented below:

- The high growth rate of vehicular traffic volumes on roads causing congestion, delay, safety issues, pollution.
- The low capture of public transport systems, due to lack of integration of various modes.
- The need to ensure the safety of pedestrians, who accounting for 55%, of total casualties in accidents (1999).
- Inadequate parking, leading to congestion and delays on major arterial network.

### **E.1.6 Storm Water Drainage**

The DJB, MCD and PWD are jointly responsible for the construction and maintenance of drains in the city. Storm water drainage in Delhi is a complex situation, owing to the combination of a number of natural and man-made drainage systems - five drainage basins; large natural drains; storm water drains along roads; and combined sewer-cum-storm water drains (sometimes as a bypass arrangement for blocked sewer lines). Most of the water collected through different drainage systems finally gets discharged into the river Yamuna. The length of natural drains in the city is 350 km carrying discharge of 1000 m<sup>3</sup>, whereas the total length of drains is 1700 kms spread over 12 municipal zones.

The BOD levels of waters in 90 % of city drains indicate that the discharge is comparable to a range of weak to strong domestic sewage. The main issues related to the sector are

- Storm water drains carry considerable quantities of raw and untreated effluents
- Lack of maintenance, leading to choked drains.
- Lack of coordination in planning and construction of roads and drains

### **E.1.7 City Heritage**

The ASI, State Dept. of Archaeology, the DDA, MCD, INTACH and DUAC jointly manage the city's heritage areas. Delhi encompasses a vast range of heritage typologies, including archaeological sites; civic buildings and complexes; religious structures and complexes; historic gardens; hunting lodges; living settlements such as the historic Walled City; the planned city of New Delhi as well as traditional networks associated with systems of water harvesting and management. These heritage resources continue to be of great significance and relevance to any sustainable development planning vision for Delhi.

However, heritage in the city suffers from a lack of integration with the planning process and contemporary requirements, as a result of which, it is gradually being degraded and lost. In 1913, there were 411 identified heritage buildings in Zone A, whereas these have reduced to 231 in 2000. This, and other issues related to urban heritage are outlined below:

- Lack of integration with development processes in the city
- Heritage resources are threatened by over-densification, uncontrolled and inappropriate construction due to the non-enforcement of guidelines for development in their vicinity
- Multiplicity of organizations and lack of effective, coordinated action.

### **E.1.8 City Environment**

The DPCC, CPCB, CGWB, MCD and DJB are responsible for regulating and monitoring the state of the city's environment. Delhi's unprecedented rate and scale of urbanization over the last few decades has placed enormous stress on the natural resources of the city. In comparison to the urbanization rate in the last 50 years, the rate of environmental degradation has grown at a much higher rate. This includes the loss of green cover, loss of biodiversity and aesthetics; increasing air pollution, surface and ground water pollution; loss of water bodies, receding water table, high incidence of diseases and mortality. The transport, domestic and industrial sectors are the major contributors to the rise in ambient air pollution levels (although certain background sources such as desert dust also contribute). Most of the 916 lakes, ponds and reservoirs reported to have existed in city have been depleted. Rejuvenation is being taken for a few (Sanjay Lake, Hauz Khas). The most pressing environmental concern is the continued degradation of the river Yamuna, due to the dumping of untreated effluents into its waters. Issues related to the status of city environment are presented below:

- Unsustainable extraction of ground water
- Weak management of natural resources, leading to degradation of the ridge, the river and surface water bodies

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- Air, ground water and noise pollution

### E.1.9 Urban Governance

The institutional framework for urban management in Delhi consists of a multiplicity of agencies, at both central and state levels, responsible for various aspects of planning, land management, urban infrastructure and its management. The institutions/agencies involved in performing city level functions include Central Government Agencies and State Government Agencies. The issues related to city institutional set up are discussed in Table below

Issues	Status
National Functions versus local functions	<ul style="list-style-type: none"><li>▪ Delhi, being the National capital, has to serve certain functions directly under the jurisdiction of Central Government. These clashes with the establishment of an effective local government incorporating citizen's participation.</li></ul>
Implementation of 74 <sup>th</sup> CAA	<p>Government of National Capital Territory of Delhi has not been able to implement the 74<sup>th</sup> Amendment to the Constitution.</p> <ul style="list-style-type: none"><li>▪ Major decisions in planning and implementing the Master Plan are still taken by a Central Government Agency, that is, DDA.</li><li>▪ MCD has been trying to introduce the new system of Local Area Plans (LAP), through amendments to Unified Building Byelaws of Delhi. As things stand today, LAP violates the Delhi Development Act 1957 as well as Delhi Municipal Corporation Act.</li><li>▪ Since legislation is not enacted by the GNCTD, necessary institutional mechanisms such as the DMPC are not in place.</li></ul>
Overlapping of jurisdiction	<ul style="list-style-type: none"><li>▪ There is a lack of clarity over departmental responsibilities for land use planning, development, maintenance and enforcement. The geographical boundary of the State Government and MCD are co-terminus, and their functions are almost the same. In other cases, administrative and functional sub-divisions do not match. This has resulted in ineffective and uncoordinated decision making and actions. For eg., the boundaries of the revenue districts and the MCD zones do not match.</li></ul>
Overlapping of functions	<ul style="list-style-type: none"><li>▪ Delhi Development Authority (DDA) has failed to identify and coordinate with the State Government.</li></ul>
Other Infrastructure Sectors	<ul style="list-style-type: none"><li>▪ Multiplicity of Organizations</li><li>▪ Lack of coordination and no common data base for management</li><li>▪ Conflicting and overlapping jurisdictions eg.: three different agencies are responsible for storm water drainage in the city</li></ul>

## E.2 City Assessment: Basic Services to Urban Poor

### E.2.1 Urban Poor and Slums

In Delhi, as in other urban areas of the country, slums and urban poverty, they are a pressing issue. The percentage of people below poverty line (BPL) stood at 49.61% for Delhi in 1973-74. This figure has declined steadily and stood at 10.02% in 2001. It is reported that 85% of the poor are squatters, and are vulnerable to frequent eviction. 6% of the poor live in rented accommodation and have to pay a substantial portion of their income for rent.

Slums in Delhi are classified as (a) *Notified Slums in Old Walled City area*: There are 319 katras in the Walled City area with about 3,000 buildings or properties. Out of these, 365 properties have been identified as dangerous and therefore require resettlement of inhabitants. (b) *JJ Clusters or Squatter settlements*: These are scattered all over the city. In Delhi, over 80 percent of lands occupied by slums belong to the DDA. (c) *Resettlement Colonies*: Under the schemes for resettlement of JJ clusters, 44 resettlement colonies were developed during 1961-77. Around 2.0 Lakh plots were developed accommodating about 2.4 lakh households. These resettlement colonies have degenerated due to intense population pressures and unorganized development. (c) *Relocated JJ Clusters*: There are around 11 relocation sites such as Bawana, Holambi Kalan, Papan kalan, Rohini, Narela, Savdar Ghevada etc. The most recent relocation, of slums from central, south and east Delhi, has been made to four principal sites - Dwarka (Papan Kalan), Rohini, Narela and Savda Ghevada. Issues related to the urban poor and slums summarized below:

- There is no clear legal framework (Act), or policy to guide interventions in this area

## EXECUTIVE SUMMARY

- Their legal security of tenure is diminishing in official rehabilitation programmes over the years
- There is a low rate of in-situ up-gradation of existing JJ clusters, although this is recommended as the first course of action
- Over 80% of residents do not have access to infrastructure and public services at relocation sites. In addition, these are far removed from work centers, and lack connectivity

### E.3 SWOT Analysis

On the basis of the above assessment, an analysis of the strengths, weaknesses, opportunities and threats to the city was undertaken, which informed the vision and strategies for development that were formulated thereafter.

#### E.3.1 Strengths

SECTORS	STRENGTHS
<b>Location &amp; Regional Linkages:</b>	Delhi is located strategically and connected with key economic nodes in the country.
	<ul style="list-style-type: none"> <li>• Seat of all political and administrative power of country.</li> <li>• At 95%, highest level of urbanization in the country.</li> <li>• It is easily accessible from other mega-cities of the country and other areas of Northern and Western India. The NHDP project, cities connectivity from Western and Eastern Gateways of the country has increased.</li> <li>• Delhi acts as nodal point for collection and distribution of passenger and cargo traffic in Northern India.</li> </ul>
<b>City Economy:</b>	The city's economy is enjoying a period of high growth
	<ul style="list-style-type: none"> <li>• GSDP is growing at a high growth rate of around 15% (CAGR at current prices-2002-03), with the service/tertiary sector contributing more than 76 per cent towards the economy of the state;</li> <li>• High per capita income at Rs 47,477 (current prices, 2002-03)</li> <li>• High spending capacity / tendency</li> </ul>
<b>Trade and Commerce:</b>	The city has 8 major wholesale and specialized markets of regional importance. Fruit & Vegetable Market, Azadpur and Fish & Meat Market, Gazipur are some of the major distributions centers for commodities in the Northern and North west region of the country.
	<ul style="list-style-type: none"> <li>• The city is well connected to regional supply chains</li> <li>• The city is gaining in importance as a centre of retail trade</li> </ul>
<b>Tourism</b>	<ul style="list-style-type: none"> <li>• World famous tourist destination</li> <li>• Attracts both domestic as well as international tourists.</li> <li>• Gateway to the tourist destination in the northern region such as Jaipur, Ajmer, Agra, Varanasi... etc</li> </ul>
<b>Heritage</b>	<ul style="list-style-type: none"> <li>• It is famous for its heritage and culture, both built and unbuilt</li> <li>• Walled City of Delhi has 1000 heritage structure and 25 historical monuments.</li> </ul>
<b>Administrative Reforms:</b>	State Government is undertaking various institutional and legislative reforms.
	<ul style="list-style-type: none"> <li>• Pro active government</li> <li>• State on a reform path with initiatives such as Bhagidari.</li> </ul>

#### E.3.2 Weaknesses

SECTORS	WEAKNESSES
<b>Infrastructure:</b>	Inadequacies in the water supply, sewerage, solid waste, drainage and transport infrastructure

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SECTORS	WEAKNESSES
	<ul style="list-style-type: none"> <li>• Lack of solid waste management facilities (for treatment and disposal) in the city leading to indiscriminate dumping of garbage and land pollution.</li> <li>• Existing dumping sites are saturated and no new ones have been developed</li> <li>• Lack of drainage and sewerage network especially in the newly developed areas.</li> <li>• The surface drains are used for carriage of 25-30% sewerage, leading to environment hazards</li> <li>• Lack of infrastructure facilities like water supply, sewerage, road and drainage in the unauthorized colonies; urban villages and colonies developed by private developers.</li> <li>• Inadequate capture public transport system, due to inherent weaknesses, leading to skewed traffic composition on the road network of the city.</li> <li>• Lack of parking space in the city.</li> <li>• Lack of tourism infrastructure facilities</li> <li>• Inadequate public conveniences.</li> <li>• Disposal of untreated industrial wastes and sewage in Yamuna River.</li> </ul>
<b>Urban Growth and Land Management</b>	
	<ul style="list-style-type: none"> <li>• Haphazard growth of the city due to lack of provision of developed land and infrastructure. Areas include urban villages; resettlement colonies and unauthorized colonies</li> <li>• High population density within the walled city &amp; Extension and East Delhi planning Division. Moreover low density development in RK Puram; Motibagh; Vinay Nagar..etc</li> <li>• Rate of Unauthorized developments and illegal land subdivisions are increasing in urban periphery and village settlements.</li> <li>• Lack of parks and open spaces.</li> <li>• Violation of rules, byelaws by the public and residents of walled city- leading to the loss of heritage in the walled city.</li> <li>• Overcrowding of businesses and people in the walled city.</li> </ul>
<b>Conservation</b>	
	<ul style="list-style-type: none"> <li>• Lack of integration of heritage concerns with planning process</li> <li>• Lack of proper database management in each sector especially in the Heritage and Infrastructure development.</li> <li>• Absence of clear-cut guidelines and responsibilities of various organizations.</li> <li>• Lack of awareness among in the city people towards heritage conservation.</li> <li>• Ineffective maintenance of heritage sites like Red Fort, Qutab Minar... etc as well as buildings in the walled city and Extension areas.</li> </ul>
<b>Urban Environment</b>	
	<ul style="list-style-type: none"> <li>• Degradation of River Yamuna</li> <li>• Loss of traditional water systems.</li> <li>• Extreme Depletion of ground water.</li> <li>• Degraded air quality.</li> <li>• Congestion of major arterial roads and commercial area of the city.</li> <li>• Contamination of piped water with sewerage.</li> <li>• Chocked drains</li> </ul>
<b>Slums and JJ Clusters</b>	<ul style="list-style-type: none"> <li>• increasing population (&amp; densities) in existing JJ clusters</li> <li>• Lack of mechanism for on-going creation of housing for the urban poor (lack of inclusion of urban poor in city development process)</li> <li>• Poor infrastructure facilities in both JJ clusters and resettlement colonies and relocation sites;</li> </ul>
<b>Institutional coordination</b>	<ul style="list-style-type: none"> <li>• Lack of coordination between central and state government</li> <li>• Lack of coordination among various departments like MCD, DDA, PWD, DJB, DUAC etc.</li> <li>• Non implementation of 74th CAA in spirit-MCD does not have financial/taxation powers, budget to be approved from Department of Local Self Government.</li> <li>• Overlapping jurisdictions between DDA, MCD and NDMC; DDA exercise control over major parts of MCD Area.</li> <li>• Overlapping of functions between line departments.</li> </ul>

### E.3.3 Opportunities

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SECTORS	OPPORTUNITIES
Economic competitiveness	<ul style="list-style-type: none"> <li>• With the availability of good connectivity, it can develop as nodal centre linked with other economically vibrant cities. Has potential to attract private developers and FDI in the housing and infrastructure sectors</li> <li>• The city has a highly entrepreneurial population</li> <li>• High literacy rates</li> <li>• High growth areas such as NOIDA and Gurgaon are located in the vicinity</li> <li>• Capacity to attract many tourists because of its rich heritage and culture.</li> <li>• Can emerge as an "events capital" particularly after the commonwealth games 2010</li> </ul>
Proposed Projects	<ul style="list-style-type: none"> <li>• Commonwealth games-2010 is likely catalyze investment to the tune of Rs 2000 Crore on development of civic infrastructure in the city.</li> <li>• Development of Metro Rail and its extension to other DMA towns will resolve issues on inter and intra city connectivity</li> </ul>
State urban reforms	<ul style="list-style-type: none"> <li>• City is initiating reforms in urban governance through implementation of various governance models such Bhagidari Scheme; E-governance; Repeal of ULCR, PPP models for project implementation etc.</li> <li>• Institutional reforms being considered for MCD</li> <li>• Heightened focus on key issues-urban slums and improvement of basic infrastructure</li> </ul>
Urban Heritage	<ul style="list-style-type: none"> <li>• Rich heritage can attract the tourists.</li> <li>• The local crafts from across the nation can be show-cased for attracting business and shoppers during events such as Trade Fair and other events organized in city.</li> </ul>

### E.3.4 Threats

SECTORS	THREATS
Economic	<ul style="list-style-type: none"> <li>• Wholesale trade is concentrated in core walled city area, which attracts workers and traders to the central location-leading to deterioration of the city environment</li> <li>• Lack of adequate infrastructure to capitalize on economic opportunities (roads, freight handling facilities ... etc)</li> </ul>
Infrastructure	<ul style="list-style-type: none"> <li>• High population growth can lead to further pressure on the infrastructure sector in the future. Augmentation of trunk services is crucial.</li> <li>• Lack of sewerage system, solid waste management, poor distribution of water can lead to health problems and epidemics in the city.</li> <li>• Poor infrastructure in new areas -- especially in urban extensions and urban villages -- are a threat to quality of life.</li> <li>• Infrastructure provision in the slums is inadequate resulting in very poor living conditions.</li> </ul>
Institutional and fiscal reforms	<ul style="list-style-type: none"> <li>• Capacity building of all the government organizations if inadequate would result in non implementation of several reforms.</li> <li>• Fiscal reforms are a key for carrying out projects and provision of infrastructure in a sustainable manner.</li> <li>• Urban Development in the city is the responsibility of Central government; and MCD is under both Central and State Government. These overlapping roles of state and central government have led to a non functional executive system of the city.</li> </ul>
Conservation	<ul style="list-style-type: none"> <li>• Lack of repair and maintenance of heritage buildings can lead to rapid deterioration of built fabric in the walled city.</li> <li>• Continued negligence of heritage areas can also lead to loss in tourism revenues</li> <li>• Walled city and Extension faces threat in the event of disasters both natural as well as man-made.</li> </ul>

### E.3.5 Vision & Strategies for Development

Delhi's Vision is defined as follows: **To become a highly livable city that offers a superior quality of life through a robust, employment generating economy; that is safe and inclusive, environmentally and socially sustainable; and is based on reliable infrastructure and offers a transparent, responsive system of governance dedicated to the city's felt needs.** The CDP outlines Strategies across sectors to achieve the above vision. These are elaborated further below.

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**Strategy for Economic Development:** The city needs to make the best use of its resources, foremost among which is the high level of entrepreneurial ability of its people. In order to unleash the city's true economic potential, the govt. needs to encourage and nurture these abilities through forward looking policies and interventions. The following strategies are recommended for sustaining the growth of the city well into the future:

- *Encourage high value-add services;*
- *Organizing Low End Services;*
- *Enhancing Quality;*

The key areas identified as having most potential for driving the economic growth of the city are: (i) IT & ITES Sector; (ii) Life Style Sector; (iii) Logistics Sector; (iv) Heritage & Tourism Sector; (v) Education Sector.

### **Strategies for Civic Infrastructure Development:**

Strategies identified to improve water supply system and enhance consumer satisfaction are (i) *minimize water losses in transmission and distribution and enhance overall management of distribution;* (ii) *Augmentation of water supply and* (iii) *Promotion of efficiency in service delivery and strengthening of cost recovery mechanisms.*

Strategies for sewerage include (i) *Extension and up-gradation of sewage network to intercept sewage (abatement of pollution);* (ii) *Provision of Sewer Network in un-sewered area;* (iii) *Augmentation of Sewage Treatment Capacity.*

The strategies for mitigating key issues in solid waste management are (i) *Maximizing effective treatment processes for different waste streams, in order to minimize land required for land fill sites;* (ii) *Safeguarding the environment by ensuring well developed and sufficient land fill sites for disposal, and increasing efficiency of service delivery.* These broad strategies have to be complemented by initiatives at resource-use reduction, waste minimization and pollution prevention.

The strategies suggested for improvement of drainage system in the city are (i) *Creation of an appropriate, integrated authority to deal with the sewer drains, the storm water drains and the natural drainage basins of the NCT area;* (ii) *Short-term repair and de-silting of all the drains on emergency basis;* (iii) *After monitoring the functioning of the South Delhi Greenway Project for Barapulla drain, initiating the same in the medium term for Najafgarh drain, which is by far the largest contributor in terms of discharge into river Yamuna (51.75%).*

The strategies suggested for improvement of road network and transport system in the city are (i) *Provision of safe and efficient public transport system;* (ii) *Encouraging the use of non-motorized modes of passenger transport in select localities;* (iii) *Ensuring equitable use of space on road and priority to pedestrians;* (iv) *Efficient use of existing infrastructure - removal of impediments - including enhancement of road infrastructure and provision of efficient parking facilities;* (v) *Redevelopment of Connaught Place and Walled City as special areas;* (vi) *Development of goods and passenger terminals on the basis of directional needs;* (vii) *Enhancement of road infrastructure and* (viii) *Awareness and enforcement drives.*

Four main strategies have been identified, for management of urban heritage. These strategies are (i) *Capacity Building & Provision of Technical Support for Conservation & Heritage Management;* (ii) *Heritage Resource Information Management System for integration of heritage concerns within the development plans - Master Plan, Zonal, Sub-Zonal, Area Level;* (iii) *Area Level Conservation, revitalization and Regeneration strategies which include supportive and linked sub-strategies for adaptive reuse;* (iv) *heritage sensitive infrastructure up-gradation, provision of essential community facilities, commercial areas, guidelines for new development in historic areas, strengthening of linkages with surrounding contemporary development; Strategies for heritage tourism, enhanced visitor experience and revenue generation, and awareness generation*

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The main strategies, under which projects pertaining to the environment have been proposed, relate to (i) *Outreach and capacity building*; (ii) *Enhancement of forests and green cover*; (iii) *Mitigation of air, water and noise pollution*.

### **Strategies for Slums and the Urban Poor**

Strategies for urban poor and slums are derived from the established fact that the poor are not a homogenous group, and vary widely in their requirements of shelter. This takes into account factors such as extent of consolidation in the city, location sensitivity, physical requirement, ability to pay as well as tenure security. Shelter options may vary from a single bed and locker in a dormitory for the male migrant, to an independent unit. The ability to exercise choice, with a variety of options, is thus, important, in the success of any programme to provide shelter for all categories of the poor. In addition, pricing, location, tenure conditions, and financing are critical considerations in catering to this segment. Strategies to reach housing for the poor include (i) *In-situ rehabilitation at existing slum and JJ cluster sites, with units offered on a long term lease hold basis (with option for purchase), through a cooperative, trust, NGO etc.* (ii) *Development of serviced plots, to be upgraded incrementally, at out-lying locations, for outright purchase -- connectivity to work centers to be assured.* (iii) *Development of night shelters in the city as well as at outlying locations single beds, single rooms with shared facilities for long term stay managed by trusts, or NGO's with government support* (iv) *Infrastructure up-gradation in 44 resettlement colonies* (v) *Provision of housing for the urban poor on an on-going basis* (vi) *Reconstruction of government owned Katras in the walled city*

### **Recommendations on Urban Governance**

The status of reform initiatives at the ULB level and State Government level to successfully implement and operate the JnNURM projects has been reviewed. The broad agenda for further institutional reforms are

- To clearly institute a political and administrative nodal agency, which could provide effective governance to the NCT;
- To ensure that the function and powers of this agency and its constituents, match their responsibilities and make them fully accountable.
- To enable clarity of jurisdiction of various agencies coming into contact with the people and entrusted with various responsibilities

Recommendations to achieve the above include (i) *Defining and delimiting areas of the city required to perform the functions of a National Capital* (ii) *to allow the State Government a say in land and municipal management in the balance areas* (iii) *subdividing the MCD to create Zonal Councils, the elected representatives of which will report to the Chief Minister* (iv) *to rationalize planning divisions to match Zonal Council demarcations* (v) *to constitute a Metropolitan Planning Committee to undertake planning for the entire city* (vi) *to constitute an Urban Renewal Corporation to undertake renewal of select areas in the city* (v) *to constitute a Slum Housing Corporation to tackle the issue of housing for the poor.*

These institutional reforms will provide a basis for the state government to implement the projects identified under JNNURM in more effective and sustainable manner.

## **E.4 PROJECT AND CAPITAL INVESTMENT PLAN**

The project identification and capital investment plan have been prepared for sectors as per the sub-missions of JNNURM. **Sub-Mission-1: Urban Infrastructure and Governance; Sub-Mission-2: Basic Services to Urban Poor**

The shares of major sectors as shown the table below are water supply (7%); sewerage (11.5%); road network & transportation (56%); and urban poor and slums (18%) respectively.

**Funding Pattern:** The projects for investment support in Delhi are eligible for Central assistance under the following conditions:

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- In case any JNNURM project is also approved as externally aided project (EAP), the EAP funds can be passed through as Accelerated Central Assistance to the State Government as funds contributed by States, ULBs, FIs; and JNNURM funds can be used as GoI contribution.
- If necessary, internal resources of implementing agencies, MP or MLA Local Area Development (LAD) Funds and MLA LAD funds may be substituted for institutional finance or State share.

### a. Projects under Appraisal by Sub-Mission Directorate for Urban Infrastructure and Governance

Strategy/Project	Rs Crore	2007-08	2008-09	2009-10	2010-11	2011-12	CG <sup>2</sup>	SG <sup>3</sup>	ULB/FI <sup>4</sup>
							35	15	50
RS (Crore)									
<b>SUB-MISSION-1: URBAN INFRASTRUCTURE AND GOVERNANCE</b>									
Water Supply	1632	535	500	330	167	100	571	245	816
Sewerage	2755	605	675	605	495	375	964	413	1378
Road Network and Transportation System	13487	2886	3534	3986	1610	1471	4720	2023	6743
Storm Water Drainage	231	96	101	26	8	0	81	35	116
Solid Waste Management	593	222	181	101	51	38	208	89	297
Heritage and Conservation	582	74	154	272	46	35	204	87	291
City Environment	431	137	166	78	50		151	65	215
Urban Governance	9	4	4	1	0	0	3	1	5
Other Projects	20	5	7	8	0	0	7	3	10
Street Lighting	25	5	5	5	5	5	9	4	13
<b>SUB-TOTAL</b>	<b>19740</b>	<b>4563</b>	<b>5322</b>	<b>5407</b>	<b>2427</b>	<b>2019</b>	<b>6909</b>	<b>2961</b>	<b>9870</b>

### b. Projects under Appraisal by the Sub-Mission Directorate for Basic Services to the Urban Poor

Under the guidelines, housing is not be provided free to the beneficiaries by the State Government. A minimum of 12% beneficiary contribution (10 per cent in case of SC/ST/BC/OBC/PH and other weaker sections) is stipulated.

Strategy/Project	Project Cost	2007-08	2008-09	2009-10	2010-11	2011-12	CG	SG	ULB/FI
							35	15	50
RS (Crore)									
<b>SUB-MISSION-2: BASIC SERVICES AND POOR</b>									

<sup>2</sup> Central Government

<sup>3</sup> State Government

<sup>4</sup> Urban Local Body / Financial Institution.

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Urban Poor, Slum and Housing	4400	1230	1208	1023	556	383	2200	-	2200
<b>SUB-TOTAL</b>	<b>4400</b>	<b>1230</b>	<b>1208</b>	<b>1023</b>	<b>556</b>	<b>383</b>	<b>2200</b>	<b>0</b>	<b>2200</b>
<b>TOTAL</b>	<b>24140</b>	<b>5793</b>	<b>6530</b>	<b>6430</b>	<b>2983</b>	<b>2402</b>	<b>9109</b>	<b>2961</b>	<b>12070</b>

### E.5 FINANCIAL SUSTENANCE PLAN

The investment sustaining capacity of MCD, NDMC and DJB, the municipal fiscal situation has been simulated, based on a Financial Operating Plan (FOP). The FOP is essentially a multi-year forecast of municipal finances for a term of 15 years. It has been used to forecast the revenue income and operating expenditures for the period between FY 2005-06 and FY 2019-20. The department wise capital investments are presented in the table below. At least 5% of the investment requirements of ULB's (minimum) is proposed to be mobilized through the private sector. Beneficiary contributions will also account for a part (small) of this investment requirement.

Department wise Investment	Rs Crore	2007-08	2008-09	2009-10	2010-11	2011-12
Central Government Contribution	9109	2212.05	2466.7	2403.95	1127.45	898.15
State Government Contribution	2961	684.45	798.3	811.05	364.05	302.85
ULB / FI Share (Break-up)						
MCD	1390	365	409.5	367.5	135.5	113
NDMC	44	6.5	9	11	10	7.5
DJB	2194	569.5	587	467.5	331	237.5
DDA	600	156	192.5	125	71.5	54.5
DIMTS	3253	652.5	650	925	512.5	512.5
DSIDC	293	97.5	110.5	52.5	33	0
Forest Department	4	2	1.5	0.5	0	0
PWD	2495	638	841.5	767.5	148.75	98.75
Revenue Dept.	2.5	1.25	1.25	0	0	0
Slum Department	1055	222.5	225	299	167.5	141.5
STA	7	1	1	1.5	1.5	1.5
TRAFFIC POLICE	1.5	0.5	0.5	0.5	0	0
UDD	12	3.25	4.25	4.5	0	0
INTACH	2	0.25	0.25	0.5	0.5	0.5
GNCTD - State Archaeology	117	11	32	60	5	9
DTTDC	43	3.5	15.5	17.5	6.5	0
ASI	22	11.75	8.25	1.4	0.35	0.25
Private Investment (min.)	535	155.5	172.5	113.5	68.75	24.75
<b>Total (ULB's / FI's share)</b>	<b>12070</b>	<b>2898.5</b>	<b>3264</b>	<b>3215</b>	<b>1492</b>	<b>1201</b>

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GRAND TOTAL	24140	5795	6529	6430	2984	2402
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The cumulative O&M cost (over 5years - 2007 - 2012) of various projects is Rs 4974 Crore (refer table below). In order to meet the O&M cost, due to new investments, it has been proposed to revise the unit area value, water tax (normal revision of water tax as per DJB norms are proposed), sewerage tax and other revenue sources.

Strategy/Project	Total Cost	O & M - Government	O & M - Private	O & M - Beneficiary	Total O&M
	Rs in Crore				
<b>SUB-MISSION-1: URBAN INFRASTRUCTURE AND GOVERNANCE</b>					
Water Supply	1632.0	446.7	0.0	0.0	446.7
Sewerage	2755	615	0.0	0.0	615
Road Network and Transportation System	13487	1954.7	1218.5	0.0	3173.2
Storm Water Drainage	231	37.6	0.0	0.0	37.6
Solid Waste Management	593	0	50.8	0.0	50.8
Heritage and Conservation	582	32	19	0.2	51.2
City Environment	431	5.6	34	0.0	39.6
Urban Governance	9	0.2	0.0	0.0	0.2
Other Projects	20	0.6	0.0	0.0	1
<b>SUB-TOTAL</b>	<b>19740</b>	<b>3092.4</b>	<b>1322.3</b>	<b>0.2</b>	<b>4415.3</b>
<b>SUB-MISSION-2: BASIC SERVICES AND POOR</b>					
Urban Poor, Slum and Housing	4400	228.7	67.3	262.4	558.4
<b>SUB-TOTAL</b>	<b>4400</b>	<b>228.7</b>	<b>67.3</b>	<b>262.4</b>	<b>558.4</b>
<b>TOTAL</b>	<b>24140</b>	<b>3321.1</b>	<b>1389.6</b>	<b>262.6</b>	<b>4973.7</b>

By instituting prudent fiscal measures and reforms, the MCD will be able to enhance its revenue from the current level (2005-06) of Rs. 2019 Crore to Rs. 5,098.7 Crore in 2011-12. A large part of this is anticipated to accrue from property tax revenues. The ULB is undertaking reform measures in this area, including instituting on-line filing of taxes from 01-04-2007; and digitization and computerization of property tax records, which is due to be completed by 2008-09. This will enable efficiencies to be enhanced in both coverage and collection.