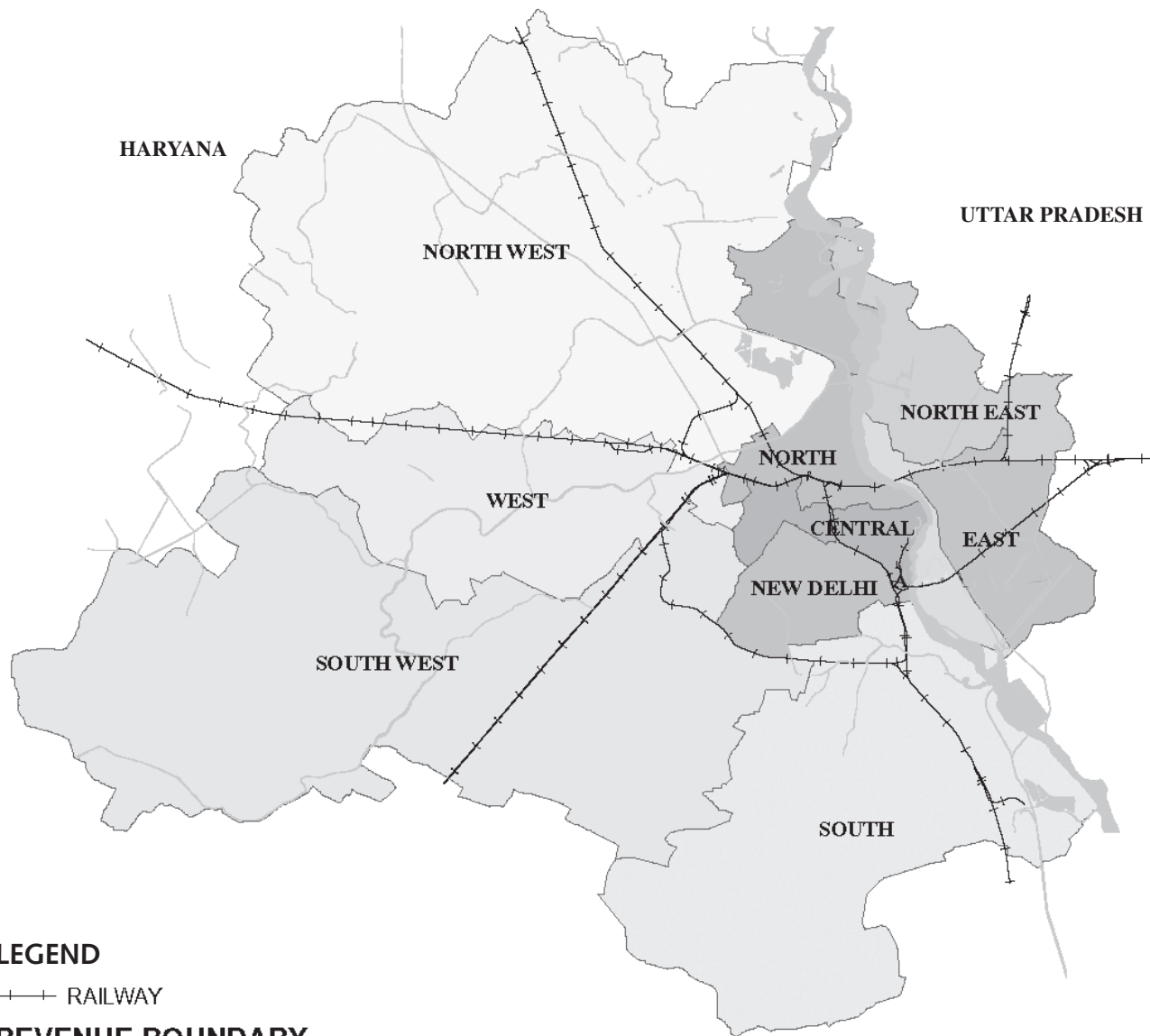DELHI HUMAN DEVELOPMENT REPORT 2006

MAP OF DELHI

HARYANA

UTTAR PRADESH

NORTH WEST

NORTH EAST

NORTH

WEST

CENTRAL

EAST

NEW DELHI

SOUTH WEST

SOUTH

LEGEND

—+—+— RAILWAY

REVENUE BOUNDARY

NAME

- CENTRAL
- EAST
- NEW DELHI
- NORTH
- NORTH EAST
- NORTH WEST
- SOUTH
- SOUTH WEST
- WEST

1:325,000

DELHI HUMAN DEVELOPMENT REPORT 2006

Partnerships for Progress

Government of NCT of Delhi

OXFORD
UNIVERSITY PRESS

TEAM FOR THE PREPARATION OF
Delhi Human Development Report 2006

Human Development Report Cell

Coordinator and Head
Ramesh Chandra

Officer on Special Duty
R.K. Verma

Former Additional Secretaries (Planning)
Sanjeev Khirwar and Sanjay Kumar Saxena
Director (Planning)
B.K. Sharma
Joint Directors
L.N. Meena and B.L. Pathak
Deputy Directors
Deepak Sengupta and B.S. Rawat
Statistical Officer
V. Ramaswamy
Research Officers
B.K. Kakkar and P.K. Khanna
Support Staff
Ranjan Kumar, Jitesh Minocha, A.P.S. Rawat,
Jeet Singh and Veda Sunder

Panel of Consultants

Lead author and editor
A.K. Shiva Kumar

Principal Contributors
Rukmini Banerjee, P.C. Bhatnagar, Somnath Bhattacharjee,
Sachin Bhowmick, Vasudha Dhagamwar, Saurabh Jauhari,
Niraja Jayal, Amitabh Kundu, O.P. Mathur,
Preet Rustagi, Alakh N. Sharma, Palak Sikri and
Kapila Vatsyayan.

Key partners
Action Aid India, Centre for Women's Development Studies,
Centre for Science and Environment, Childhood
Enhancement through Training and Action (CHETNA),
Child Rights and You (CRY), India Habitat Centre,
Institute for Human Development, Jagori, MARG,
PRATHAM, United Nations Development Programme
(UNDP), UNICEF, Voluntary Health Association of India
and Winrock India.

MESSAGE

We congratulate the Government of Delhi for preparing the first Human Development Report for Delhi.

Delhi is a melting pot where diverse Indian cultures intermingle. This Report aptly captures this kaleidoscopic City-State tracing its rich heritage and its emergence as a modern national capital.

Being the first State Human Development Report in India for an urban City-State, this Report is of interest to a wide range of urban planners, policy makers and opinion leaders. The challenges and opportunities of globalization, especially in the urban context, require greater understanding of livelihood and human development issues for the urban poor and disadvantaged sections, especially women and those employed in the informal sector.

We are very pleased that the Delhi Human Development Report has a strong focus on gender issues and ensuring that the fruits of economic growth are shared equitably. We are confident that the Delhi Human Development Report and its dissemination would further strengthen the dialogue on human development in Delhi and catalyse focused public action by government, civil society and the private sector.

We once again felicitate the Government of Delhi for the preparation of its first Human Development Report.

R. Bandyopadhyay
Adviser (RD/SP-S), Planning Commission
Government of India

Maxine Olson
UNDP Resident Representative &
UN Resident Coordinator

GOVT. OF NATIONAL CAPITAL TERRITORY OF DELHI
DELHI SECRETARIAT, I.P. ESTATE, NEW DELHI-110002

SHEILA DIKSHIT
CHIEF MINISTER

FOREWORD

I see this first Human Development Report prepared for Delhi as a milestone in our continuing efforts to make the city-state a safer and more secure place for all residents. This vision can be realised only when every woman, man and child living in Delhi can enjoy the best quality of life this country can offer. And it can happen only when residents and the Government join hands and contribute towards making Delhi truly emblematic of India.

This Report contains important messages for all of us. First, the problem facing Delhi in almost every sphere—be it wealth, water or power—is not one of overall shortages, but of distributional inequities. Delhi reports among the highest per capita incomes in the country, but remains a city-state of many inequalities. To anyone coming to Delhi, most striking are the disparities in lifestyles of the opulent and the poor. While some children enjoy unlimited luxuries and comforts, many still clamour for safe spaces to walk and sleep. Only with significant improvements in the lives of the poor will Delhi become a better and safer place for all. This has to be our collective priority.

The second useful contribution of this Human Development Report is to present a first-of-its-kind assessment of achievements and progress by the people who make up this city-state. The survey of over 14,000 households has a welcome human development bias; it seeks the opinions of a majority of the poor and disadvantaged whose voices are often muted in any society. The survey highlights areas where people see considerable progress. These include the dramatic improvements in air quality, public transportation, schooling and so on. But to me what mattes more are areas of immediate concern to people. Delhi's residents have identified five such critical areas: addressing the water crisis, solving the housing problem for the poor, addressing the power shortage, improving public safety and making Delhi a child-friendly city. These are concerns that cut across all sections of society. We pledge to act on them with a sense of urgency.

The third important contribution of this Report is to show the way to move forward. A clear set of Delhi Development Goals have been spelt out. And the Report argues that only through partnerships and sharing of responsibilities between Government and citizens can the creative potential of Delhi be mobilised for the attainment of these goals and for the betterment of all. I fully endorse this approach. Delhi's environment, for instance, has improved only as a result of strong public action by civil society groups working in partnership with Government.

Governing Delhi, as this Report highlights, is not simple. Being home to both the Central Government as well as the State Government, there are many unresolved issues of overlapping jurisdictions, multiple authorities and diffused accountability. These have traditionally been held up as excuses for non-performance and they will perhaps remain unresolved for some time to come. We have, however, found a way out of this impasse—through the Bhagidari approach to governance. For the first time, Delhi's residents have an institutional mechanism to participate in and shape development outcomes. In this Report, you will find the many ways in which residents and the Government of Delhi have been working together under Bhagidari to find solutions to problems that affect the daily lives of people. I firmly believe that sustainable solutions to many of the problems can be found only by

further strengthening such partnerships and by evolving effective forums for people's participation and interaction with Government. In the next phase, our effort will be to extend Bhagidari—to areas where the poor live, where Resident Welfare Associations are not present, and where the need for collective public action is most needed.

It will be my Government's undertaking to ensure that Delhi continues to build on the progress it has made over the last seven years. I welcome the many practical suggestions contained in this Report for promoting partnerships to address the deficiencies in human development. And it will be my personal endeavour as a resident, and the endeavour of the Government of Delhi to join hands with citizens' groups to do everything we collectively can to make Delhi a grand multicultural, pluralistic society encapsulating the very idea of India.

July 2006
Delhi

[Sheila Dikshit]
Chief Minister, Delhi

ACKNOWLEDGEMENTS

INSTITUTIONS

ABBREVIATIONS

CAW	Crimes against Women	JJ	Jhuggi Jhopdi
CETP	Combined Effluent Treatment Plants	L&DO	Land and Development Officer
		LPG	Liquefied Petroleum Gas
CNG	Compressed Natural Gas	MCD	Municipal Corporation of Delhi
CPCB	Central Pollution Control Board	MDGs	Millennium Development Goals
DCB	Delhi Cantonment Board	MRTS	Mass Rapid Transit System
DCW	Delhi State Commission for Women	MTNL	Mahanagar Telephone Nigam Limited
DDA	Delhi Development Authority	NCAER	National Council of Applied Economic Research
DDGs	Delhi Development Goals		
DISCOM	Distribution Companies	NCRB	National Crime Records Bureau
DJB	Delhi Jal Board	NCTD	National Capital Territory of Delhi
DPCC	Delhi Pollution Control Committee	NCW	National Commission for Women
DTC	Delhi Transport Corporation	NDMC	New Delhi Municipal Council
DVB	Delhi Vidyut Board	NGO	Non Government Organization
DWCD	Department of Women and Child Development	NPC	National Productivity Council
		PCR	Police Control Room
GDP	Gross Domestic Product	PGC	Public Grievances Commission
GNCTD	Government of National Capital Territory of Delhi	PWD	Public Works Department
		RTI	Right to Information
HDI	Human Development Index	RWA	Resident Welfare Association
IPC	Indian Penal Code	VKS	Vidyalaya Kalyan Samiti

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OVERVIEW: PARTNERSHIPS FOR PROGRESS

The real wealth of a nation is its people. And the purpose of human development is to create an enabling environment for people to enjoy long, healthy, creative, and secure lives. Human development is a concern with expanding capabilities, widening choices, assuring human rights, and promoting security in the lives of people. Progress in the human development framework is judged not by the expanding affluence of the rich, but by how well the poor and socially disadvantaged are faring in society. Implicit in this perspective is not only a strong concern for equity and social justice but also a strong conviction that improvements in the well-being of the poor are fundamental to ensuring a better life not just for them—but for all.

This is the first *Human Development Report* prepared for Delhi. It begins with a stock-taking of the many achievements and shortcomings of this unique city-state. Also included in this *Report* are the findings of an extensive household survey intended to capture people's perceptions and their assessment of progress.

The *Report* examines Delhi's complex administrative structures. And it describes the major breakthrough in governance that Delhi has achieved through the *Bhagidari* approach—a new initiative to promote partnerships between Government and citizens.

Three disturbing findings. Despite recording one of the highest per capita incomes, Delhi is characterized by many inequalities in living standards. Also, the nation's capital has much ground to cover in terms of addressing some fundamental problems—of power and water supply, public health and public safety. And despite the expanding opportunities, the city-state has largely neglected street and working children, the homeless, the disabled and the concerns of girls and women.

The *Report* concludes that Delhi's unparalleled economic expansion has to go hand-in-hand with a concerted effort to improve the security and quality of life for the less fortunate residents. It spells out a set of *Delhi Development Goals*—similar to the Millennium Development Goals. These goals and targets, if attained by 2015 or sooner, will make Delhi worthy of being the nation's capital and a far more secure and safer place for all. And the only way to achieve this, the *Report* argues, is by fostering even stronger partnerships between Government, civil society organizations and residents of Delhi.

Delhi, in many respects, is different from other Indian states and Union Territories.

Footprints of history and heritage mark every corner of this ancient city. Delhi's society is highly multicultural and pluralistic. It is home to the President of India and houses the Central Government. At the same time, Delhi has an elected State government headed by the Chief Minister. The city is overwhelmingly urban—with less than 7 per cent of its 14 million people living in rural areas. It attracts hundreds of migrants every day who make Delhi their home.

Delhi as the nation's capital offers a unique diversity of cultural and social experiences. People living in the remotest part of the country dream of coming to Delhi to see the many historical monuments and museums. It is a hub of cultural activity where people can enjoy a variety of music performances, shows, dances, plays, foods, textiles, and crafts from all over

Implicit in the pursuit of human development is a firm conviction that improvements in the well-being of the poor are fundamental to ensuring a better life, not just for them, but for all.

An effective way to accelerate human progress is by fostering strong partnerships between Government, civil society organizations, and citizens.

India. Major national and international conferences, seminars, and cultural events provide a rich platform for intellectual discussions and exchanges. With many foreigners and people from all over India residing in Delhi, the city-state is truly a modern and vibrant megapolis.

Delhi's improved economic performance over the past ten years has enabled it to emerge as one of the richest Indian states in terms of per capita income.

Delhi's per capita income today is more than two-and-a-half times the national average. Delhi along with West Bengal, Karnataka, and Tamil Nadu recorded the maximum growth rates in per capita income over the past ten years. Between 1981–90, Delhi's real per capita income increased by 32 per cent. And between 1991–2000, it increased even more—by 60 per cent.

Delhi has capitalized effectively on the new growth opportunities that arose after 1990. Today, 78 per cent of Delhi's State Domestic Product (SDP) comes from a strong and growing service sector comprising of trade, hotels and restaurants, transport, communications, financial and insurance services, real estate, public administration, and other business services. Of these, banking and finance, real estate, and insurance account for almost 30 per cent of Delhi's SDP. In contrast, however, to the expanding service sector, both the primary and secondary sectors have been shrinking over the past decade—partly the outcome of stricter enforcement of environmental pollution standards on industrial and commercial enterprises.

Delhi has recorded impressive gains in lowering the levels of environmental pollution and increasing tree and forest coverage.

Delhi has witnessed a distinct improvement in the quality of its environment—an achievement that few cities in the world can match. Until just a few years ago, vehicular emissions were a major source of air pollution in Delhi. Even today, there are over 450,000 registered vehicles in Delhi—more than the sum total of vehicles registered in Kolkata, Mumbai, and Chennai. The contribution to pollution

from the vehicular sector increased from 23 per cent in the year 1970–1 to as much as 72 per cent in 2001. In addition, haphazard industrial growth and waste disposal have also been major contributors to rising ambient air and water pollution levels.

Taking note of the serious situation, Government of Delhi has worked in partnership with NGOs to formulate, adopt, and implement a strategy for use of cleaner fuel, reduction in fuel consumption, efficient maintenance of engines and installation of pollution control devices. Results are clearly visible.

Delhi has been particularly successful in controlling vehicular pollution. Conversion of public transport and commercial vehicles (buses, auto rickshaws, taxis and other commercial vehicles) to Compressed Natural Gas (CNG) has resulted in reduction of air pollution substantially. The phasing out of lead in gasoline from 2000 has further reduced lead emissions. Levels of pollutants and the concentration of sulfur dioxide, nitrous oxide, and carbon monoxide in the ambient air have declined significantly.

Another impressive feature of Delhi's progress is the significant increase in tree and forest coverage—from 16 square kilometres in 1990–1 to 268 square kilometres in 2003–04.

Delhi's residents acknowledge and appreciate the many improvements in the city over the past three years.

The results of an extensive Public Perception Survey carried out across 14,000 households in different localities reveal the following:

- An overwhelming majority (82 per cent) want to continue living in Delhi.
- Nearly two-thirds—62 per cent—of respondents rate Delhi's quality of environment as acceptable. Half the respondents feel that the quality of environment has improved over the past three years.
- Around 55 per cent of respondents rate DTC bus service as 'good' or 'very good'.
- Around 39 per cent of respondents feel that the provisioning of public transport facilities has improved in Delhi over the past three years.
- Almost 80 per cent of respondents are satisfied with the condition of roads.

Delhi has recorded significant improvements in the quality of life over the past four years by enhancing incomes, lowering air pollution, improving transport facilities, reducing traffic congestion, and increasing tree and forest cover substantially.

However, nearly four out of ten (38 per cent) of respondents rate roads in their locality to be 'poor' or 'very poor'.

- Almost 70 per cent of respondents feel that the extent of traffic jams has decreased after the construction of flyovers.
- Almost 44 per cent of respondents rate private health care services as 'good' or 'very good' as against 21 per cent who feel similarly about government health services.
- Nearly 64 per cent of parents of private school-going children said that infrastructure facilities were 'good' or 'very good' as against 41 per cent of parents of government school-going students.

These results need to be seen assessed against the continuing and increasing migration of people into Delhi.

Possibility of finding jobs in Delhi has continued to attract a large number of migrants into the city every year. Two categories of employment make Delhi attractive to migrants.

Delhi's *organized sector* offers several job opportunities both in government as well as in the private sector, especially for those who are educated and formally qualified. Close to 75 per cent of Delhi's organized labour force is employed by Central, State, or quasi-governments, and local bodies. Women account for around 15 per cent of the workforce in government. Private sector employment has been growing in recent years especially with new job opportunities expanding in multinational companies, information technology companies and commercial complexes within and on the outskirts of Delhi.

Between 3.5–4.3 million workers are employed in Delhi's *unorganized sector*. Trade, hotels, and restaurants account for one-third of Delhi's unorganized sector employment. Another 27 per cent are employed in the manufacturing sector. Sizeable casual employment is also provided by the construction sector. Most of these workers are illiterate migrants employed on a casual basis without adequate job security or benefits. Many women in particular become home-based workers producing food items, paper products, footwear, handicrafts, and other products. And others, particularly migrant women, find jobs as domestic servants.

Delhi is witnessing a positive, though gradual, change in the attitude of parents and society towards encouraging young women to seek employment outside the home. An increasingly large number of women are finding new jobs in the service sector—in journalism, retailing, tourism, and hi-tech information technology companies. The largest increase in women's employment—both in absolute terms and in percentage terms—has occurred in Delhi's manufacturing sector where employment grew annually by 16 per cent in the 1990s.

The high levels of migration into Delhi have resulted in an increasing informalization of Delhi's labour force.

Delhi follows Mumbai in terms of attracting the largest numbers of in-migrants, a majority of whom find employment in the unorganized sector. Certain features of migration into Delhi are striking. First, there has been a sharp increase in the number of in-migrants into Delhi during the decade of the 1990s. Close to 2.22 million in-migrants entered Delhi between 1991–2001—substantially higher than the 1.64 million who had come in between 1981–91. Second, in-migration to Delhi remains highly male dominated. Fewer women than men migrated to Delhi during the 1990s. As a result, the female-to-male ratio of in-migrants to Delhi dropped to 772 between 1991–2001. Third, 46 per cent of in-migrants during 1991–2001 came from Uttar Pradesh and Uttaranchal; and another 23 per cent from Bihar. Fourth, there has been a particularly large influx of in-migrants from Bihar during the 1990s. The share of in-migrants from Bihar rose from 11 per cent during 1981–91 to 23 per cent during 1991–2001. Fifth, close to 63 per cent of men migrated to Delhi in search of jobs. On the other hand, 57 per cent of women moved to Delhi because their families moved. Another 31 per cent of women to Delhi on account of their marriage; and only 5 per cent moved in search of employment.

There is strong evidence to suggest the increasing informalization of Delhi's economy as well. The surge in in-migrants especially from Bihar is made up largely of unskilled workers

A relatively higher standard of living, benefits of a modern city, and the possibilities of finding jobs continue to attract several poor migrants to Delhi every year.

who come in search of jobs. Also, unorganized sector employment in Delhi has been increasing since the 1990s. In 1993–4, unorganized sector workers accounted for 76 per cent of employment in Delhi. By 1999–2000, the proportion had risen to 81 per cent. The sharpest increase in employment opportunities for men in the unorganized sector was in the services sectors with large visible increases occurring in trade, hotels, and restaurants. The greater informalization of the workforce combined with the high in-migration into the city have led to a perpetuation of inequities in living standards.

Despite the pressure of migration, Delhi has done well to reduce income poverty. Only 8 per cent of its population lives below the poverty line.

In 1999–2000, an estimated 1.15 million people—8 per cent of Delhi's population—lived below the income poverty line—considerably lower than the national average of 26 per cent. Less than half per cent of Delhi's rural population lived below the poverty line as against 9.4 per cent of urban residents.

Delhi's record in reducing levels of income poverty has been impressive. Between 1973–4 and 1999–2000, Delhi registered an 82 per cent decline in urban poverty—the largest reduction among Indian states. Findings of a study on consumption patterns corroborate the relatively better-off economic status of Delhi's residents:

- Delhi reports a monthly per capita expenditure of Rs 1408—the highest among Indian states and Union Territories.
- Residents of Delhi spend the lowest proportion of their monthly expenditures on food and the highest proportion on non-food items compared to those living in other States and Union Territories.
- Delhi's citizens spend the highest proportion of monthly expenditures on entertainment, education, and conveyance.

The low levels of income poverty, however, do not capture the plight of slum-dwellers and others living in Delhi's unauthorized colonies. These residents, as discussed below, lack access to even the most basic of public amenities needed for decent living.

Delhi's low levels of income poverty fail to capture the unsatisfactory living conditions of a large proportion of slum dwellers and the poor.

Delhi is faced with a severe housing shortage which manifests itself in many forms: a high proportion of households without access to basic amenities, large numbers living in slums, and homelessness.

Housing shortages in Delhi have risen exponentially over the years. From an absolute shortage of about 45,000 units in 1977, the shortages rose to 257,000 units in 1991. The shortage, without counting those living in slums, is currently estimated at about 300,000 units. Also, a large proportion—38 per cent—of households consists of single-room units reflecting the severe housing shortage in the nation's capital.

Affordability of housing is a serious issue especially for the poor. An estimated 45 per cent of Delhi's population resides in slums that include informal settlements—squatter settlements and illegal sub-divisions as also unauthorized colonies. In 2001, there were 1087 *jhuggi* and *jhopdi* clusters with an estimated population of over 3 million—up from 20,000 in 1977. In most slums, housing and living conditions are appallingly poor.

A large proportion of Delhi's houses lack basic amenities. In 2001, nearly 25 per cent of houses in Delhi had no access to piped water supply and depended on either handpumps, tubewells, or other sources. Between 1991–2001, there was no progress in the proportion of households with access to piped water supply. The numbers of households *without* toilet facilities jumped from 1.18 million in 1991 to 1.99 million in 2001.

Residents also experience a severe shortage of power supply. According to the Public Perception Survey 2005, only 25 per cent of Delhi's residents felt that the power situation in the city is good. Nevertheless, a majority of respondents—46 per cent—felt that there had been significant improvements in power availability over the past three years.

A tragic feature of Delhi's housing shortage is the presence of many homeless people who have nowhere to sleep at night. Recent estimates suggest that there could be 50–100,000 of them in Delhi. Of these, a significant proportion—close to 50 per cent—is estimated to be children. Homeless women in particular face many insecurities. The few night shelters available

in Delhi are inadequate; they also lack basic facilities.

Addressing Delhi's housing shortage requires radical thinking beyond the conventional approaches to building housing units and shelters, and even beyond the now-popular three-pronged strategy of regularizing slums, construction of pay and use *jansuvidha* complexes (community toilets and bathrooms), and establishment of housing development corporations. It calls for an integrated land and housing policy with mechanisms of coordination that would bring together the highly fragmented institutional arrangements that exist in Delhi.

Millions of Delhi's residents as well as outsiders have benefited significantly from the city's impressive network of medical facilities. Yet large numbers of poor still lack access to basic health services.

Delhi offers among the most sophisticated medical care with latest state-of-the-art technology for treatment and the best-qualified doctors in the country. In addition to well-reputed Government hospitals, Delhi has a flourishing private sector in health. It is therefore not surprising that close to one-third of those seeking health care as in-patients in Delhi's medical institutions come from outside the city-state.

Delhi's health network has enabled the city to record significant achievements. For example:

- Delhi reports a life expectancy at birth of 69.6 years—nearly six years higher than the national average.
- Delhi's death rate of 5 per 1000 population is among the lowest in India
- Delhi's infant mortality rate has fallen steadily from 43 per 1000 live births in 1990 to 28 in 2003.
- Delhi reports a Total Fertility Rate of 1.6—well below the replacement rate and lower than Kerala's 1.8.
- Delhi is classified as a low prevalence state for HIV/AIDS.

Public health expenditure by the Government of Delhi, over the past twenty years, has consistently remained over 6 per cent of the total plan budget. During the Tenth Five-Year Plan period (2002–07), Delhi allocated 35 per cent of its plan outlay to health—the highest by any state government in the country. Delhi's per capita expenditure on health today is more than three times the national average.

Nevertheless, Delhi's health achievements fall short on many counts.

- Delhi's Infant Mortality Rate (IMR) is almost three times higher than Kerala's IMR of 11 per 1000 live births.
- The bed-population ratio has remained unchanged at 2.2 for over past twenty years.
- Efforts to reduce communicable diseases have been inadequate. According to recent estimates, almost 21 per cent of outdoor patients and 26 per cent of indoor admissions in hospitals are treated for communicable diseases.
- Dengue and malaria remain two vector borne diseases adversely affecting many lives.

Many of the communicable diseases can be traced to the deteriorating quality of water, increasing problems of poor sanitation, inadequate drainage, and high levels of environmental pollution.

Unequal access and low quality characterize the public provisioning of basic health and education in Delhi.

The presence of many educational institutes of excellence and national reputation masks the disturbingly low levels of learning achievements among Delhi's school-going children.

Close to 82 per cent of Delhi's population is literate—higher than the national average of 65 per cent. In 2001, 75 per cent of girls and women in Delhi above 7 years of age could read. The proportion varies from 70 per cent in the North-East District to 79 per cent in the East District.

Delhi has established one of the largest school systems in the world. In 2004–05, close to 93,000 teachers were teaching more than 3 million children enrolled in over 2500 schools in classes 1–12. In 2003–04, Delhi government spent Rs 927 per child on education as against the national average of Rs 749. It is estimated that almost 75 per cent of all children in the primary school age attend government schools. And half of the children in secondary and higher secondary levels attend private schools.

Schooling is, however, not yet universal. There are an estimated 103,643 out-of-school children (6.4 per cent) in the 6–10 years age group. Of these, 49.5 per cent are girls. Similarly, there are an estimated 83,971 out-of-school children (7 per cent) in the 11–14 years age group. Of these, 48 per cent are girls.

How much are Delhi's children learning? Not adequately or satisfactorily, according to an independent community based 'dipstick' survey of learning outcomes conducted for this Report by *Pratham*, a non-government organization. The survey reveals that 37 per cent of children 7–10 years in government schools are not able to read simple words. Even in private schools, 16 per cent of children could only recognize alphabets or not read at all. Similarly, among children 11–14 years, 15 per cent in government schools and 5 per cent in private schools could only recognize numbers and were not able to perform any arithmetic operations.

It is clear that while access to all levels of schooling has risen in Delhi, the quality of education needs substantial improvement.

A disturbing feature of Delhi's progress is the decline in the female-to-male ratio among children in the age group 0–6 years.

A disturbing feature of Delhi's progress is the persistently strong discrimination against girls and women—most noticeable in the worsening female-to-male ratio among children in the age group 0–6 years.

Women living in Delhi have distinctly gained by way of greater freedoms, mobility, and access to skill enhancement opportunities. A conspicuous change in the social landscape of Delhi is also the increase in the number of single women—women who are educated, independent, confident, and professionally well placed. This has been made possible by several initiatives launched by both government as well as non-government organizations to expand opportunities and address concerns of gender justice, domestic violence and abuse.

Nevertheless, women and girls in Delhi face strong discrimination and anti-female biases. This is most strikingly reflected in the adverse and deteriorating female-to-male ratio. In 1951, there were 768 women for every 1000 men in Delhi's population. The ratio improved to 827 in 1991. But in 2001, the ratio deteriorated to 821. Equally disturbing is the sharp decline in Delhi's sex ratio among children 0–6 years from 915 in 1991 to 865 in 2001.

A closer look at the declining trend in sex ratios among children reveals an alarming fall in the proportion of girls to boys born in Delhi. In 2000, there were only 820 female births for every 1000 male births—a significant fall from 867 in 1991. The most recent estimate shows a marginal improvement to 823 in 2004. This low and adverse sex ratio among newborn children is largely attributable to sex-selective abortion and female foeticide that are reported to be widely practiced in Delhi.

Social sector expenditures constitute a significant component of Delhi's development spending. The focus now has to shift to ensuring effective outcomes.

Social sector spending as a proportion of development expenditures has varied from 54 to 74 per cent between 1994–5 and 2003–04—rising every year since 2001–02. Education, health and urban development account for more than 85 per cent of the total social expenditures.

At the same time, Government expenditure as a percentage of Delhi's State Gross Domestic Product has steadily increased from 9 per cent in 1994–5 to about 14 per cent in 2002–03. And the capital-revenue expenditure ratio has gone up from 0.68 in 1994–5 to 0.74 in 1998–9 and to 1.22 in 2002–03.

The high proportion of spending on social sectors is partly accounted for by distinct features of Delhi's fiscal governance:
- Expenditure responsibilities of Delhi do not include spending on law and order, police, and land.
- The state, instead of getting its share in central taxes, receives central government support in the form of grant in-aid.
- Delhi's fiscal position is inextricably interwoven to the financial performance of its public utilities such as Delhi Transport Corporation (DTC) and Delhi Jal Board (DJB), and local bodies such as Municipal Corporation of Delhi (MCD) and New Delhi Municipal Council (NDMC).

While maintaining these levels, and increasing social sector expenditures wherever

necessary, the Government must focus on results—and ensuring better outcomes for all.

Delhi's neglect of basic public health— access to safe drinking water, proper sanitation, garbage disposal and solid waste management—is a serious concern of all residents.

Delhi faces an unparalleled water crisis. Nearly five out six residents (84 per cent) felt that the availability of water supply was inadequate in their locality. At the same time, there is a growing demand for the city-state's water resources as a result of growing population, pressure from increasing population densities, rapid urbanization, rapid commercialization and a general lack of pollution control facilities.

Aggregate per capita daily water supply of around 255 litres is one of the highest for any city in the country. The real problem, however, is one of distributional equity and disregard for water as a precious resource.

Delhi's water crisis manifests itself in many forms. First, incomplete coverage. Close to 25 per cent of households are not linked to any formal water utility network and depend on informal water markets. Second, short supply. According to a recent survey, 27 per cent of households receive water for less than three hours a day, and 55 per cent of households, water for only 3 to 6 hours a day. Third, unequal access. Some areas receive quantities far in excess of norms while 10 per cent of the population has no access to piped water supply. And almost 30 per cent has grossly inadequate access to safe drinking water. Fourth, over-exploitation of groundwater sources. This has led to a sharp fall in water tables across Delhi. Fifth, deteriorating water quality. This is the result of a combination of factors including draining of sewage and industrial and urban effluents into water sources and saline intrusion. Sixth, the absence of adequate sewerage facilities. This is a major source of water quality deterioration. Around 45 per cent of Delhi's population has no sewerage services. At the same time, absence of adequate solid waste management facilities is rapidly emerging as a major cause for concern in Delhi. Not only is it contaminating water

supply, but it is also seriously affecting the health of Delhi's residents.

Increasing use of plastics particularly polythene bags has imposed additional burden and complexity to solid waste management. Equally worrisome is the environmental pollution caused, in particular, by the large amounts of fly ash generated by Delhi's coal based power plants and the improper handling of biomedical wastes.

Garbage disposal services in Delhi received the lowest rating across all localities. Nearly 57 per cent of respondents rated garbage disposal facility in their locality as 'poor' or 'very poor'. More than half the households (52 per cent) had not observed any improvement in the situation.

Public safety has emerged as a major concern of Delhi's residents.

Delhi has emerged as quite an unsafe place in many respects. The Public Perception Survey 2005 reveals that:
- Only 19 per cent of the people feel that the city is safe.
- One-third of the respondents rate levels of personal safety as poor.
- Half the respondents feel that the city is not safe for women.
- Only 6 per cent of respondents feel that the workplace is highly secure for women employees.
- Nearly 90 per cent of respondents feel that public transport is not safe for women commuters.
- Only 24 per cent felt that Delhi Police is doing good or very good work.

Crime statistics for Delhi also point to the unusually high incidence of crime in the city. Delhi leads the four metropolitan cities of India in crimes against women. For every 100,000 persons, there are fourteen crimes against women in Delhi. In Chennai, it is 7, and in Mumbai and Kolkata, it is 4.

There is little danger of these crimes being over reported. On the contrary, they are often under reported and reported as of lesser seriousness.

The greatest deterrent to crime reportage, especially in cases of crimes against women, stems from deficiencies in the delivery of

Issues of basic public health— access to safe drinking water, proper sanitation, garbage disposal, and solid waste management— require urgent attention.

High levels of crime have made Delhi unsafe for all. Women in particular are most insecure everywhere and at all times—in the workplace, in their homes, in buses, and in public places.

justice, delays in police and court proceedings and low conviction rates.

Progress has bypassed, to a large extent, three categories of people in Delhi: the aged, disadvantaged working and street children, and the disabled.

The elderly and the aged constitute an extremely vulnerable group of people in Delhi. Growing every year in numbers, 'senior citizens' constitute around 5 per cent of Delhi's population. They are increasingly confronted by financial insecurity, loneliness, physical insecurity and absence of effective support structures.

Another disturbing feature of Delhi is the large number of children who work as domestic servants, in *dhabas* (roadside cafes), in shops and other occupations. Many are migrants with or without their families, often forcibly brought to Delhi. While some may have a roof of sorts over their heads, most are typically at the mercy of their employers. Instances of exploitation and abuse are commonly reported. Many live off the streets with little protection from exploiters. Most at disadvantage among working children are girls. Apart from sibling care, the older girls are forced to help out with harsh household chores: cleaning, washing, fetching water, cooking, and rag picking.

An equally neglected group is people with disabilities of various kinds. According to a recent survey, there are around 102,000 disabled persons in Delhi. Of these, nearly one-third— 36 per cent—are women. Several disability-related concerns remain insufficiently addressed including ease of physical access in public spaces, inclusion in educational facilities, opportunities for employment and self-employment, and eliminating social stigma associated with certain kinds of disabilities.

Accounting for Delhi's uneven human development are two features of governance: complex administrative structures and the limited opportunities that people have enjoyed until very recently to participate in shaping public decisions affecting their lives.

Delhi's governance is complicated by the presence of the Union or Central Government as well as the State Government. Critical aspects of Delhi's governance are not in the hands of the State Government, but under the control of the Union Government. Notably, these include Delhi Police, the Delhi Development Authority, the Municipal Corporation of Delhi, and the New Delhi Municipal Council.

The Legislative Assembly of Delhi, which has seventy members directly elected from single-member territorial constituencies, is empowered to legislate on all other subjects in the State List of the Constitution. This however excludes land, police, and law and order. Despite the devolution of authority on these other subjects, in reality the Delhi Government frequently finds itself hamstrung, as when duly enacted laws conflict with other laws in existence.

Delhi has only fitfully enjoyed the benefits of an elected legislature and popular government. From 1950 onwards, Delhi has had an elected Assembly only between 1952 and 1956, and again since 1993. As a result, citizens of Delhi have been able to elect their government for barely seventeen out of a total of fifty-six years since the enactment of the Constitution. The democratic principle has rarely been a feature of the governance of Delhi.

Delhi's governance is characterized by overlapping jurisdictions as well as legal and structural anomalies.

The governance challenge of Delhi, as can be surmized, is to cope with multiple authorities and competing jurisdictions. For instance, there are six types of schools in Delhi: schools run by the Delhi Government; schools aided by the Delhi Government; schools run by the Municipal Corporation of Delhi; schools run by the NDMC; schools operated by the Delhi Cantonment Board; and private unaided schools. Similar overlaps can be found in health and several other areas of public administration.

Most of the legal anomalies that characterize the governance of Delhi relate to the overweening role of the Central Government. For example, while the Constitutional provision regarding entry 5 of the State List in the Indian Constitution gives the Government of Delhi control over local self-government, the

MCD, the agency that gives effect to the idea of local self-government is governed by a law that gives overriding authority in a number of areas to the Central Government, rather than to the State Government. Similarly, the DDA is responsible only to the Government of India, and there is no scope for citizen's participation in the determination of policies of land use or land development.

The distribution of powers across different agencies leads to the diffusion of responsibility and frequent public inaction.

Even though the gridlock in governance structures has not yet been resolved, the introduction of the *Bhagidari* approach has brought in a definite air of optimism and a refreshing sense of positive movement.

Bhagidari is a good governance initiative of the Government of Delhi that recognizes the importance of collaboration between citizens and the Government for addressing fundamental quality of life issues. *Bhagidari* in Hindi literally means partnership.

The *Bhagidari* scheme of 'Citizen-Government Partnership' effects a change in public administration by bringing citizens into the centre of governance. It is designed to provide a democratic framework for citizen's groups to interact and partner with government functionaries for resolving simple, day-to-day civic issues. The process encourages citizen volunteerism and sharing of responsibilities between the government and people. It facilitates public scrutiny of government functioning and encourages people's active participation in the betterment of civil society. It utilizes the principles of multi-stakeholders' collaboration through 'Large Group Dynamics' for developing joint-ownership of the change process.

The *Bhagidari* initiative has grown from twenty citizen's groups in 2000 to more than 1700 groups today covering over 3 million people.

Bhagidari has helped create many loose networks of local associations such as Resident Welfare Associations, Rural Groups, Market & Traders Associations, Industrial Associations, and NGOs. These new 'collective actors' and associations discuss problems hampering effective delivery of civic services with officials of the Municipal Corporation of Delhi, Delhi Development Authority, New Delhi Municipal Council, Power Distribution Companies, Delhi Police, Environment & Forests, and Education and other Departments of Government of Delhi in an effort to evolve joint workable solutions.

Some of the key areas of joint action include community participation in water management, rainwater harvesting by residents, spreading awareness about water and energy conservation, augmentation of infrastructure in distribution of electricity, facilitating collection of house tax revenues, maintenance of community parks, halls and public places, and segregation and management of waste through community participation.

Partnership efforts are also underway in the greening of Delhi, controlling air pollution and other environmental hazards, community involvement in crime prevention, protection of senior citizens, women's empowerment, participation of children and youth in environment awareness campaigns, community participation in school management, and promoting the Right to Information.

Discussions with citizens' groups show that they greatly value the opportunity to participate in the governance of the city. Potential exists for extending the reach of Bhagidari, improving implementation capacity and eliciting greater cooperation from government officials.

Government of Delhi has further improved governance by introducing an additional set of reforms to promote greater transparency in administration.

Three significant initiatives of the Government of Delhi are highlighted below:

Right to Information—The Right to Information (RTI) Act, which came into effect on 2 October 2001, is an extremely important initiative that brings 119 departments of the Government of Delhi under its purview. This Act provides that a citizen can approach any of these departments to seek information and make copies of documents.

Bhagidari, a good governance initiative of the Government of Delhi, implemented in partnership with citizens groups, has been instrumental in finding solutions to many fundamental problems confronting Delhi's residents.

The citizens of Delhi have put the RTI Act to good use across a variety of fields. For instance, they have succeeded in getting new electricity connections, replacing faulty electricity meters, and getting incorrect bills rectified. Similarly, citizens have found in the RTI Act a powerful instrument for combating the rent-seeking propensities of bureaucracy. Thus, ration cards have been issued and old age pensions restored without having to pay the customary bribes.

Public Grievances Redressal—The Government of Delhi has put in place two independent bodies for grievance redressal: the Public Grievances Commission and the Delhi Lokayukta (ombudsman). Unlike the Right to Information Act, the Public Grievances Commission has jurisdiction over the Delhi Police. It has one full-time member who has been of the status of a Director-General of Police. The Delhi Development Authority and the BSES (electricity distribution company), however, remain outside the purview of the PGC.

Transparency through e-Governance—Processes have been evolved by the Government of Delhi in which tenders notified by government agencies are uploaded on the web *before* being published in the newspapers. The MCD has launched an initiative for e-governance, by setting up Citizen Service Bureaux in the Town Hall and in each of its twelve zones. Each of these bureaux, which function round the clock, is equipped with ten computers, telephones, and other electronic devices. These are intended, for instance, to facilitate the registration of births and deaths, accept applications for all kinds of licenses, book parks for public functions, and register and track complaints. The Delhi Development Authority has recently launched an ambitious initiative to convert into electronic format all the important information relating to a particular client or file.

Delhi's residents value and cherish many more things than merely higher incomes, improved roads, faster traffic, and new townships. They have identified four priority areas for accelerating human development. The first action needed is to improve public safety.

Residents have identified as two urgent priorities the immediate need to improve public safety and to make Delhi a child-friendly city.

Delhi has become very unsafe for its residents. However, many of the factors that make Delhi particularly unsafe for women, are common to other cities as well.

- A poor urban environment—dark or badly lighted streets, derelict parks and empty lots, badly maintained public spaces, inadequate signage, lack of public toilets.
- Empty streets at night because of early closing of shops and businesses or lack of a tradition of street life.
- Poor public transport and rude, unhelpful and abusive behaviour of bus drivers and conductors.
- Insufficient presence, unresponsive and aggressive attitudes of police and civic authorities.
- Isolation from neighbours and lack of community life.
- Traditional notions of privacy and refusal of neighbours and police to intervene in situations of domestic violence.
- Ideas and beliefs about appropriate behaviour, leading to reluctance to protest in cases of public violence.
- A 'macho' culture and a lack of respect for women and women's rights, leading to cases of violence being ignored or trivialized by the general public as well as those in positions of authority.

Government of Delhi in collaboration with Jagori and Centre for Women's Development Studies, New Delhi organized a meeting to discuss the issue of women's safety. Emerging from the consultations were a number of specific recommendations for improving public safety covering infrastructure, services for women facing violence, strengthening community action, and the role of the media and police.

The second action needed is to make Delhi a child-friendly city.

Government in partnership with non-governmental organizations needs to initiate a movement for making Delhi child-friendly. This would require a pledge and commitment to:

- ensure universal immunization coverage
- establish universal ICDS coverage especially in slums
- ensure access to safe drinking water and sanitation facilities

- ensure that children live in unpolluted environments
- ensure all children up to the age of 14 years attend school
- ensure effective learning in school
- ensure safe transport to school and public transport
- prevent and eliminate crime against children
- ensure safe streets for children by building sidewalks, playgrounds, and parks
- ensure effective protection against child labour and exploitation
- encourage participation in social events

The third action needed is to solve the drinking water and power crisis.

In finding solutions to Delhi's water crisis, the Report identifies four areas for public action.

First, Delhi will have to plug its water losses. Second, Delhi needs to do careful and strategic planning to reduce the need of water in homes and factories. This will require national legislation for protecting and nurturing the use of water. Third, Delhi needs to examine the waste economies of our cities to invest in reuse. And finally, residents need a change in mindset. A massive programme of public education is needed to inculcate in people the urgent need to conserve water. This is an area where the Bhagidari approach can yield positive results.

Closely linked to the water crisis is the growing problem of garbage disposal in Delhi. The city has taken several steps to manage the solid waste disposal. Waste segregation in industrial establishments and households has been established through awareness camps. In order to commercialize the operations, Government of Delhi is adopting the polluters-pay principle by making those who generate waste to take care of their own waste or pay full cost of the service. Many more such initiatives through the Bhagidari modality need to be introduced immediately.

Similarly, Government of Delhi needs to improve power supply and availability in Delhi. Despite the fact that Delhi's per capita consumption of electricity at 1,228 units is significantly higher than the all India average of 338 units, many residents continue to experience a severe shortage of power. The situation is particularly stressful in the summers.

Several steps have been taken by the Government of NCT of Delhi to improve the power situation; and as noted earlier, these have been appreciated by people. But more needs to be done to improve access to power supply as a priority. In addition, Government needs to regulate power distribution and respond more effectively to public pressures for ensuring better functioning of the power supply companies in Delhi.

The fourth action needed is to focus on planning for people, their lives and livelihoods—not just for land.

The primary human development challenge facing Delhi is to plan for its 14 million people—and also address simultaneously the issue of migration. Planning for residents is one thing, dealing with the large influx of migrants is another. Migration into Delhi can be checked only if there is a marked expansion of economic activities in surrounding regions.

In planning for people, the Government ought to distinguish between towns in the Delhi Metropolitan Area that may be regarded as satellite or dormitory towns and towns in the wider region that must be become self-contained. Delhi also needs to evolve a clear industrial location policy and a job location policy that guide the establishment of new offices, trade and institutional activities in Delhi. Finally, it is important for Delhi to articulate a clear policy towards *jhuggi-jhopdi* clusters and unserved settlements. Delays in addressing this issue only contribute to increasing the daily misery, uncertainty, and suffering of thousands of poor residents.

Establishing a well-defined set of development goals is a useful and important starting point to accelerate human development. At the same time, it is critical to put in place effective mechanisms for improving and monitoring performance.

This Report presents what citizens have articulated as a set of nine Delhi Development Goals (DDGs) to be realized by or before 2015. Adopting the Delhi Development Goals (DDGs)—a set similar to the Millennium Development Goals—is a necessary step towards making Delhi an ideal city.

Two additional priorities for Delhi are to solve the drinking water and power crises and to plan for using Delhi's land to promote employment and livelihoods.

Gearing up to attain the **Delhi Development Goals (DDGs)** *should be the first step towards making Delhi a modern and vibrant megapolis.*

Delhi has the resources and the capacity to deliver on the DDGs. Meeting the goals and targets is imminently possible. The State must evolve appropriate strategies and mechanisms of implementation, monitoring, and reporting to attain the DDGs by 2015. There is enough creative energy to develop new and innovative ways of addressing people's priorities. This will however require strong partnership and close cooperation between citizens and Government of Delhi. It will call for stronger public vigilance and participation. It will mean developing further trust and taking people into confidence. This is what the Bhagidari approach advocates. And in Bhagidari, partnerships between citizens and Government, lies the potential for making Delhi a truly modern and vibrant megapolis.

DELHI DEVELOPMENT GOALS AND TARGETS

The release of the first Human Development Report for Delhi offers a good opportunity to announce the Delhi Development Goals (DDGs) that the city-state will realize over the next 10 years, that is, by 2015. The MDGs have been adapted for Delhi.

Delhi Development Goals

GOAL 1: Eradicate extreme poverty and hunger
   Target 1: Halve, between 2000 and 2015, the proportion of population living below the poverty line
   Target 2: Halve, between 2000 and 2015, the proportion of people who suffer from hunger

GOAL 2: Achieve universal elementary education
   Target 3: Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of 8 years of elementary schooling

GOAL 3: Promote gender equality and empower women
   Target 4: Eliminate gender disparity in elementary schooling
   Target 5: Arrest the decline in child sex ratio by 2011

GOAL 4: Reduce child mortality
   Target 6: Reduce by two-thirds between 2000 and 2015, Delhi's infant mortality rate

GOAL 5: Improve maternal health
   Target 7: Ensure universal access to reproductive health services

GOAL 6: Combat HIV/AIDS, malaria and other diseases
   Target 8: Halt by 2015 and begin to reverse, the spread of HIV/AIDS
   Target 9: Halt by 2015, and begin to reverse, the incidence of malaria, dengue, and tuberculosis

GOAL 7: Ensure environmental sustainability
   Target 10: Ensure adequate green cover
   Target 11: Ensure universal access to safe drinking water
   Target 12: Ensure universal access to improved sanitation

GOAL 8: Strengthen Bhagidari
   Target 13: Develop further avenues for participation in governance
   Target 14: Extend application of Bhagidari to new areas

GOAL 9: Improve public safety
   Target 15: Reduce crime against women, children, and the elderly
   Target 16: Improve conditions for the disabled
   Target 17: Make Delhi a child-friendly city

1
THE STATE OF HUMAN DEVELOPMENT

'…who wants to leave the lanes of Delhi, even for paradise.'

Zauq

'Thy changing kings and kingdoms pass away
The gorgeous legends of bygone day.
But thou dost still immutably remain
Unbroken symbol of proud histories,
Unageing priestess of old mysteries
Before whose shrine the spells of Death are vain.'

Sarojini Naidu

Delhi exudes an irresistible charm. Footprints of history and heritage mark every street and every corner of the city-state. In many ways, Delhi captures the mystique and the contradictions of India. The co-existence of the past and present, the rich and the poor, so strikingly visible, make the ancient, medieval, and colourful Delhi a singularly distinct and pluralistic society.

Human development is about enhancing people's capabilities. It is a concern with expanding people's choices and assuring them the rights to lead a life of dignity. A report on human development presents an assessment of how caring society is—and the state is—towards its people. It is people who constitute the soul of a society. To that extent, this Human Development Report does not focus on Delhi's abounding wealth and historic significance; it is not about tantalizing monuments and tasty foods; and it is not about bustling malls and expanding business. This Report is about how these valuable features contribute to the safety and security of ordinary residents. It assesses people's access to good and affordable healthcare; and it evaluates how much Delhi's children learn in their schools. It comments on how safe Delhi is for women; and discusses how clean Delhi's air is for children to breathe. This Report presents people's opinions about Delhi's progress and the extent to which the city-state has been able to fulfil their expectations. The focus is on improving the living conditions of people, especially the less fortunate to whom Delhi remains the city of eternal hope.

DIMENSIONS OF HUMAN DEVELOPMENT

Delhi as a city-state occupies a unique geopolitical place within India. It is both the capital city of the country as well as one of India's states. It is home to the President of India, and it houses the nationally elected Parliament and the Central Government headed by the Prime Minister. It is simultaneously home to the State Legislative Assembly and the State Government headed by the Chief Minister.

With an estimated population of 13.8 million in 2001, Delhi was the third most populous metropolitan Indian city after Mumbai and Kolkata and ranked 10th among the most populous cities of the world. Between 1991–2001, the city's population grew by 4.1 per cent making it the fastest growing city in India. Predictions are, that over the next ten years, Delhi is likely to witness a 50 per cent increase in its population. Delhi's population is expected to reach 19 million by 2010 and 22 million by 2015.

Delhi's overwhelmingly urban population—93 per cent—is spread over 9 districts. The North-West District spread over 440 square kilometres with close to 2.9 million residents is the largest; and New Delhi covering a mere 35 square kilometres with around 179,000 residents is the smallest district. The North-East District is the most densely

Human development is concerned with expanding people's capabilities and assuring, particularly the poor, the right to lead a life of dignity.

TABLE 1.1: Demographic features of Delhi's districts

District	Area in sq km	Population in '000s	% Urban	Population density persons per sq km
National Capital Territory of Delhi	1483.00	13,850	93	9340
New Delhi Municipal Council	42.74	302		7074
Delhi Cantonment	42.97	125		2907
Municipal Corporation of Delhi	1397.29	13,423		9607
North-West	440.00	2861	91	6502
North	60.00	782	94	13,025
North-East	60.00	1768	92	29,438
East	64.00	1464	99	22,897
New Delhi	35.00	179	100	5117
Central	25.00	646	100	25,949
West	129.00	2129	96	16,501
South-West	420.00	1755	87	4179
South	250.00	2267	93	9067

Source: Census of India 2001.

Delhi caters not only to its residents but also to an unusually large number of outsiders from neighbouring states and migrants from within the country.

TABLE 1.2: Population density and urbanization in four metropolitan cities of India

Indicators	Delhi	Mumbai	Kolkata	Chennai
Area (sq km)	1483	157	185	174
Density	9340	21,190	24,760	24,231
Urbanization	93	100	100	100

Source: Census of India, 2001.

populated (29,468 persons per square kilometre) and South-West the least (4179 persons per square kilometre).

Of the four major Indian metropolitan cities (Chennai, Kolkata, and Mumbai being the other three), Delhi is the least densely populated, least urbanized and covers the largest geographical area.

Delhi, unlike many cities, caters not only to its residents, but to an unusually large number of outsiders as well. The city like many growing urban centres attracts a large inflow of migrants from all over India, especially from Bihar, Haryana, Rajasthan, and Uttar Pradesh. An interesting yet unusual feature of Delhi is the large floating population of millions of visitors every year. These short-term visitors are drawn to the city for a variety of reasons including for work and business, for accessing healthcare, for sightseeing and studying and to visit friends.

Delhi has experienced significant gains along different dimensions of human development. It has recorded an expansion in economic opportunities, growth in employment and improved access to health and education.

Nevertheless, as discussed in the following sections, there are still large gaps especially in housing and the provisioning of basic amenities.

Income

Income, within the human development framework, is valued not for its own sake, but for its usefulness in enabling families to establish command over goods and services needed for a decent living. Delhi reports one of the highest per capita incomes among Indian states. In 2002–03, per capita income, estimated in current prices at Rs 47,441, was nearly two-and-a-half times the all-India average of Rs 18,912.

Over the years, Delhi has emerged as a major trading, commercial, banking, insurance, retail and entertainment centre of India. It has capitalized well on the new economic opportunities that arose after 1990. Between 1993–4 and 2002–03, Delhi along with West Bengal, Karnataka and Tamil Nadu recorded the maximum growth rates in per capita income (Table 1.3).

Box 1.1
Delhi: A Historic City

Delhi is one of the oldest cities in the world. The city of Indraprastha—Delhi as it was once known—finds mention in Mahabharata, the great Indian epic. Evidence that early man lived in Delhi can be found in stone tools belonging to early Stone Age discovered in the Aravalli tracts in and around Anangpur, the Jawaharlal Nehru University Campus, the northern ridge and elsewhere. Excavations of the ancient mound of Indraprastha located within the 16th Century Purana Qila have revealed evidence of continuous habitation of the site for almost 2500 years. The Ashokan edict engraved on a rock in East of Kailash as well as other remains point to a flourishing city during the Mauryan Empire in 3rd century BC. Excavations at Mandoli and Bhorgarh in east and northwest Delhi have revealed remains of chalcolithic period dating back to 2nd and 1st century BC.

The Delhi we live in today is regarded as the eighth city. The first city—Lal Kot—was founded by the Tomar ruler Anangpal in the 11th century. Qutbuddin Aibak who became Delhi's first Sultan in 1206 laid the foundations of the Qutb Minar in the first city. Lal Kot continued to be the capital until 1303 and was the seat of power for the Khaljis, Tughluqs, Sayyids and Lodis. The second city in the Siri area was built by Alaud-Din Khalji (1296–1316). The third city, Tughlaqabad, was built over four years by Ghiysud-Din Tughlug (1321–51) but had to be deserted soon due to a severe scarcity of water. The fourth city was built by Sultan Mohammad-bin-Tughlak close to the Qutb Minar. The fifth city, Ferozabad, was established by Firuz Shah Tughluq (1351–88) in the vicinity of Feroz Shah Kotla. Humayun laid the foundations of Delhi's sixth city—Dinpanah—around 1533 and constructed the Purana Qila. Shah Jehan (1628–58) built the seventh city, Shahjahanabad or old Delhi as it is now called between 1638–49. This city contains the famous Lal Qila (Red Fort), Jama Masjid and many other fine examples of Mughal architecture.

The eighth city, New Delhi, was built when the British in 1911 shifted the capital of India from Kolkata (then Calcutta) to Delhi. Two British architects, Sir Edwin Lutyens and Sir Herbert Baker were commissioned to design the new city. New Delhi, the capital of India, is sprawled over the west bank of the river Yamuna. It is surrounded on three sides by Haryana state and to the east, across the river Yamuna by the state of Uttar Pradesh.

Source: http://www.indiatourism.com/delhi-history

TABLE 1.3: Growth in real per capita Net State Domestic Product in major states: 1993–4 to 2001–02

State	Per capita Net State Domestic Product		Average annual rate of growth (%)
	1993–4	2001–02	
	(Rupees) at constant 1993–4 prices		
1 West Bengal	6756	10,375	5.5
2 Karnataka	7838	11,516	4.9
3 Tamil Nadu	8955	13,108	4.9
4 Delhi	18,166	26,306	4.7
5 Andhra Pradesh	7416	10,590	4.6
6 Rajasthan	6182	8819	4.5
INDIA	7690	10,754	4.3
7 Gujarat	9796	13,684	4.3
8 Kerala	7938	11,046	4.2
9 Haryana	11,079	14,250	3.2
10 Orissa	4896	6105	2.8
11 Maharashtra	12,183	14,892	2.5
12 Punjab	12,710	15,255	2.3
13 Bihar	3037	3554	2.0
14 Madhya Pradesh	6584	7699	2.0
15 Uttar Pradesh	5066	5885	1.9

Source: Government of NCT of Delhi (2005e).

Delhi's per capita income is among the highest in the country.

Box 1.2
A Human Development Index for Delhi: How relevant?

The Human Development Index (HDI) is a summary measure of human development. It measures the average achievements in a country in three basic dimensions of well being:

- a long and healthy life, as measured by life expectancy at birth;
- knowledge, as measured by the adult literacy rate (with two-thirds weight) and the combined primary, secondary and tertiary gross enrolment ratio (with one-third weight);
- a decent standard of living, as measured by GDP per capita (PPP US$).

The Planning Commission has computed the HDI for Delhi.

Indicators	Delhi	India
Life expectancy at birth (years)	69.6	62.9
Adult literacy rate (% 15 years and above)	86.0	56.5
Combined gross enrolment ratio (%)	73.7	56.0
Human Development Index	0.737	0.571

Source: Planning Commission (2002).

A comparison between Delhi and the all-India average reveals that Delhi's HDI value exceeds that of India's by almost 30 per cent.

It is, however, not a useful exercise to compare Delhi's HDI with any other Indian state. The reasons are obvious. Delhi is a highly urbanized city-state whereas other Indian states have a more dispersed population spread predominantly in rural areas. Also, and more significantly, the HDI for Delhi will not be able to capture fully capabilities of the residents of Delhi alone. Delhi caters not just to its residents but to thousands more who come in for search of work, for sight-seeing, and to avail of the relatively better health and educational facilities that the city offers. This is a real challenge of public provisioning for the Government of Delhi.

Between 1981–90, Delhi's real per capita income grew by 32 per cent. In the decade of the 1990s, between 1991–2000, per capita income rose even more rapidly and went up by 61 per cent. This is a significant achieve-

FIGURE 1.1: Richest Indian states with incomes higher than the all-India average

Source: Government of NCT of Delhi (2005e).

ment considering that Delhi's population has grown considerably over the years with a large influx of poor migrants coming to the city in search of employment.

Delhi's economy rests on a strong and growing service (or tertiary) sector comprising of trade, hotels and restaurants, transport, communications, financial and insurance services, real estate, public administration and other business services. Between 1993–4 and 2003–04, the share of the service sector in Delhi's Gross State Domestic Product (GSDP) went up from 71 to 78 per cent. Banking and finance, real estate, and insurance account for almost 29 per cent of Delhi's GDP. Trade, hotels, and restaurants account for close to 21 per cent of GDP. Another 13 per cent of GDP is accounted for by public administration and other community and social services.

In contrast to the expanding service sector, share of both the primary and secondary sectors have been shrinking over the past decade. Between 1993–4 and 2003–04, the share of the secondary sector (manufacturing, electricity, gas, water supply, and construc-

tion) fell from 25 to 21 per cent of the state GDP. Enforcement of environmental regulations leading to either the closure or relocation of industrial units has contributed to this decline in the secondary sector. The share of primary sector (comprising agriculture, livestock, forestry, fishing, mining, and quarrying) also declined from around 4 per cent of state GDP to 1 per cent. Principal factors that have reduced the contribution of the primary sector to Delhi's economy are rapid urbanization, the consequent shrinking of agricultural and allied activities and the ban imposed by the Delhi High Court (between 1994–6) on slaughtering of animals in slaughterhouses of the Municipal Corporation of Delhi.

Poverty

Income poverty in Delhi is not statistically significant. In 1999–2000, an estimated 1.15 million people—8 per cent of Delhi's population—lived below the income poverty line—considerably lower than the all-India proportion of 26 per cent. This places Delhi along with Goa, Haryana, Himachal Pradesh, Jammu & Kashmir, Punjab, Chandigarh, Daman and Diu, among the eight states and Union Territories of India that report less than 10 per cent of the population living below the poverty line.

The incidence of urban poverty in Delhi, however, exceeds that of rural poverty. In 1999–2000, only 0.4 per cent of Delhi's rural population lived below the poverty line. The corresponding proportion for urban areas was 9.42 per cent.

There has been a steady decline in the proportion of people living below the poverty line in Delhi. In 1973–4, nearly half of Delhi's population lived below the poverty line. By 2000, this proportion had fallen to 8 per cent. As a result, despite the increase in Delhi's population, the number of people living below the poverty line has fallen sharply over the past thirty years—from over 2.2 million in 1973–4 to 1.15 million in 2000. Delhi's record in reducing levels of urban poverty has been impressive. Between 1973–4 and 1999–2000, Delhi registered an 82 per cent decline in urban poverty—the highest in the country and well above the national average of 52 per cent.

Patterns of consumption expenditure corroborate the low levels of income poverty
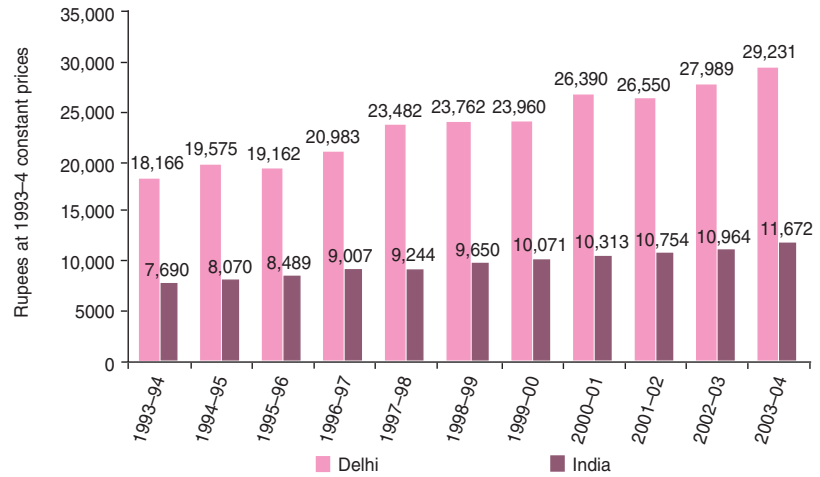
FIGURE 1.2: Per capita income: Delhi and India

Source: Planning Department, Government of Delhi.
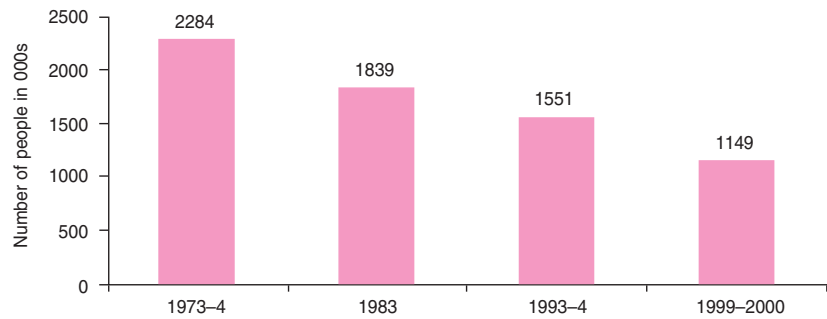
FIGURE 1.3: Number of people living below the poverty line in Delhi

Source: Planning Comission, Government of India.
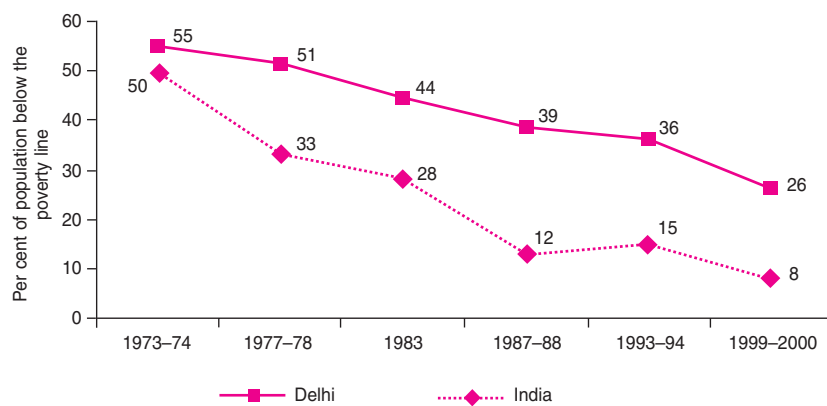
FIGURE 1.4: Proportion of population below the poverty line: Delhi and India

Source: Planning Commission, Government of India.

TABLE 1.4: Progress in reducing urban poverty in major Indian states: 1973–4 to 1999–2000

	Urban population 2001 (%)	Urban poverty ratio		Per cent reduction in urban poverty
		1973–4 (%)	1999–2000 (%)	
1 Delhi	93	53	9	82
2 Punjab	34	28	6	79
3 Haryana	29	40	10	75
4 Gujarat	37	53	16	70
5 Kerala	26	63	20	68
6 Rajasthan	23	52	20	62
7 West Bengal	28	35	15	57
8 Tamil Nadu	44	49	22	55
9 Karnataka	34	53	25	52
INDIA	28	49	24	52
10 Uttar Pradesh	21	60	31	49
11 Andhra Pradesh	27	51	27	47
12 Maharashtra	42	44	27	39
13 Bihar	10	53	33	38
14 Madhya Pradesh	27	58	38	33
15 Orissa	15	56	43	23

Source: Computed from poverty estimates of the Planning Commission.

That only 8 per cent of Delhi's population lives below the poverty line masks many other forms of deprivations in the lives of the poor.

in Delhi. According to the 57th Round of the National Sample Survey covering the period 2001–02:

- Delhi reported a monthly per capita expenditure of Rs 1408—the highest among Indian states and Union Territories, both in rural and urban areas.
- Residents of Delhi spent the lowest proportion of their monthly expenditures on food and the highest proportion on non-food items compared to those living in other states and Union Territories.

More than 72 per cent of Delhi's population incurred a monthly per capita expenditure of Rs 775 and above, 27 per cent spent between Rs 300–775 and only 3 per cent spend less than Rs 300 per month. Delhi is also unique in that its citizens spent the highest proportion of monthly expenditures on entertainment, education and conveyance. Residents of Delhi spend 6.53 per cent of their monthly expenditures on entertainment alone unlike the residents of all other states who spend between 0.58–1.61 per cent (Table 1.6).

Delhi's reportedly low levels of income poverty do not however capture the plight and poor living conditions of slum-dwellers and those living in unauthorized colonies. These residents, as discussed below, lack access to even the most basic of public amenities needed for decent living.

Access to health care

Enjoying good health is an essential constituent of human development. Overcoming avoidable illnesses and leading a long and healthy life are features of good living that all people cherish. Ensuring people access to good quality healthcare in Delhi calls for much more than just catering to the needs of nearly 14 million residents of the city. The city-state has to additionally satisfy the health requirements of many thousands who come from outside as tourists, daily visitors and specifically in search of specialized medical care.

Delhi offers among the most sophisticated medical care with the latest state-of-the-art technology for treatment and the best qualified doctors in the country. It is therefore not surprising that, according to recent estimates, almost one-third of patients in major hospitals of Delhi come from neighbouring states.

The city has one of the most extensive healthcare systems in the country comprising

TABLE 1.5: Monthly per capita expenditure in urban areas

| | Rupees 2001–02 | Proportion of monthly expenditure incurred on | |
		Food items	Non-food items
Top 5 states			
1 Delhi	1,453	36.9	63.1
2 Kerala	1,240	40.1	59.9
3 Maharashtra	1,209	39.7	60.3
4 Himachal Pradesh	1,195	44.3	55.7
5 Jammu & Kashmir	1,087	47.8	52.2
Bottom 5 states			
16 Madhya Pradesh	737	42.2	57.8
17 Orissa	735	48.8	51.2
18 Uttar Pradesh	729	45.7	54.3
19 Chhattisgarh	723	46.4	53.6
20 Bihar	625	49.8	50.2

Source: Government of NCT of Delhi (2004c).

TABLE 1.6: Spending on select non-food items

| State | Per cent of monthly per capita urban expenditure (2001–02) on | | |
	Conveyance	Education	Entertainment
1 Delhi	9.98	7.55	6.53
2 Rajasthan	6.67	4.55	0.63
3 Maharashtra	6.48	4.57	1.70
4 Kerala	6.44	4.82	1.13
5 Gujarat	6.35	6.16	1.61
6 Punjab	6.33	6.92	1.11
7 Himachal Pradesh	6.28	5.30	1.03
8 Jammu & Kashmir	5.94	6.68	0.73
9 Madhya Pradesh	5.80	5.25	1.04
10 Karnataka	5.71	5.60	1.53
11 Andhra Pradesh	5.53	6.03	1.66
12 Assam	5.24	4.42	0.79
13 Uttar Pradesh	5.17	7.14	0.67
14 Jharkhand	5.15	8.47	0.62
15 Tamil Nadu	4.83	6.98	1.84
16 Haryana	4.69	8.30	1.26
17 West Bengal	4.56	6.50	1.20
18 Orissa	3.93	5.42	0.59
19 Chandigarh	3.40	5.25	0.96
20 Chhattisgarh	3.40	5.25	0.96
21 Bihar	2.75	7.50	0.58

Source: Government of NCT of Delhi (2004c).
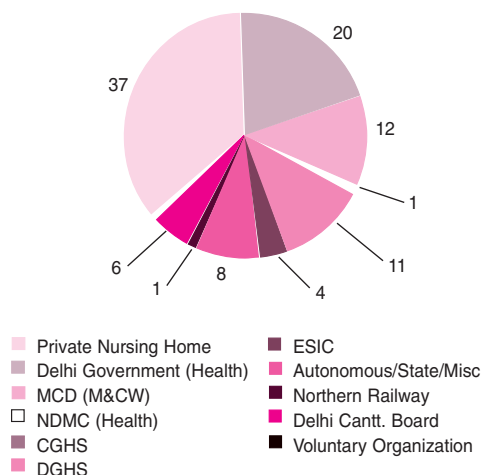
FIGURE 1.5: Agency-wise distribution of hospital beds (%)

Source: Department of Health Services, Government of Delhi.
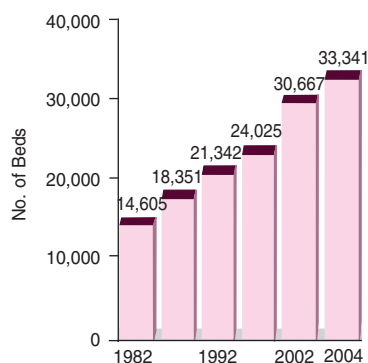
FIGURE 1.6: Growth of beds

Source: Department of Health Services, Government of Delhi.
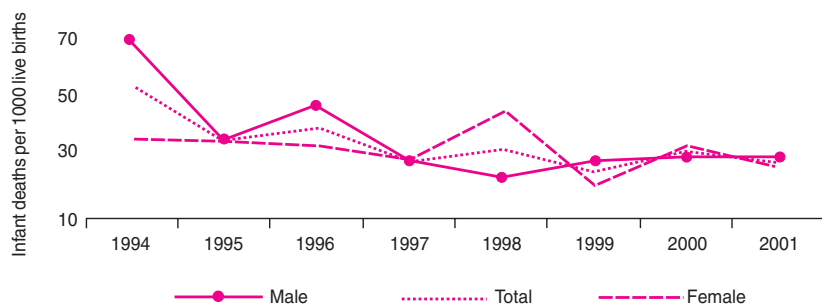
FIGURE 1.7: Infant mortality rate by sex

Source: Department of Family Welfare, Government of Delhi.

of 646 hospitals, 993 dispensaries, seven primary health centres, forty-eight sub-centres, and over 250 maternity homes and clinics. Delhi Government's Health and Family Welfare Department is the major provider of healthcare through its network of thirty-two hospitals including three hospitals under ISM&H (Indian System of Medicine and Homoeopathy), 175 allopathic dispensaries, seventy mobile van dispensaries, seventeen Ayurvedic dispensaries, fifty-seven Homoeopathic dispensaries and seven Unani dispensaries. Others providing health services include the Municipal Corporation of Delhi (MCD), New Delhi Municipal Council (NDMC), Government of India and different statutory organizations. Apart from well-reputed government hospitals, Delhi also has a flourishing private sector in health. Services offered range from individual medical practice and small nursing homes to large charitable and corporate hospitals. In 2004, there were nearly 564 registered private nursing homes and hospitals with over 12,000 hospital beds. Within the private sector, Delhi has a strong presence of non-profit institutions run by charitable organizations and NGOs that provide free or subsidized health services to the poor. According to a recent survey by the Voluntary Health Association of India:

• Twenty-nine per cent of households use public medical facilities and 71 per cent use private medical facilities.

• Fifty-three per cent of households in Delhi go to a private doctor.

• Thirty-three per cent of households with a 'low' standard of living use the public medical facilities.

Between 1982–2004, over a 22-year period, Delhi added 18,736 new hospital beds. As a result, Delhi's bed-population ratio of 2.2 per 1000 is significantly higher than the national average of 0.7 beds per 1000 persons.

Delhi's health network established over the years has enabled the city-state to record many significant achievements. According to most recent estimates, for instance:

• Delhi reports a life expectancy at birth of 69.6 years—almost seven years higher than the national average of 62.9 years.

• Delhi's death rate of 5 per 1000 population is among the lowest in India.

TABLE 1.7: Infant mortality rate across Indian states

States with population exceeding 10 million	Infant Mortality Rate 2003
1 Kerala	11
2 Delhi	28
3 Maharashtra	42
4 Tamil Nadu	43
5 Jammu & Kashmir	44
6 West Bengal	46
7 Punjab	49
8 Jharkhand	51
9 Karnataka	52
10 Gujarat	57
11 Andhra Pradesh	59
12 Haryana	59
INDIA	60
13 Bihar	60
14 Assam	67
15 Chhattisgarh	70
16 Rajasthan	75
17 Uttar Pradesh	76
18 Madhya Pradesh	82
19 Orissa	83

Source: Registrar General India (2005b).

TABLE 1.8: Per capita expenditure on health

Year	Per capita Expenditure (Rupees)	
	Delhi	India
2001–02	409.19	137.51
2002–03	459.27	150.19
2003–04	492.20	159.46

Source: Planning Department, Government of Delhi.

- Delhi's infant mortality rate has fallen steadily from 43 per 1000 live births in 1990 to 28 in 2003.
- Delhi reports a Total Fertility Rate of 1.6—well below the national replacement rate and lower than Kerala's 1.8.

Also, according to the National Family Health Survey-2 of 1998–9:

- Eighty-four per cent of mothers received at least one antenatal check-up, and 73.1 per cent received three antenatal check-ups.
- Seventy-eight per cent of mothers received iron and folic acid supplementation.
- Fifty-nine per cent of births were delivered in a medical institution and 66 per cent were assisted by a health professional.

Delhi is classified as a low prevalence state for HIV/AIDS. The sentinel data from antenatal clinics shows that HIV infection is still less than 1 per cent in Delhi. Government of Delhi has launched a special drive for prevention of HIV transmission from an infected mother to the foetus. Ten centres have been set up under the Prevention of Parent to Child Transmission Programme along with antenatal check-up clinics in various hospitals. Seventeen Voluntary Counselling and Testing Centres have been established. Seven regional and ten Zonal Blood Testing Centres, three Community Care Centres, and telecounselling services have also been started.

Public health expenditure undertaken by the Government of Delhi, over the past twenty years, has consistently remained over 6 per cent of the total plan budget. During the Tenth Five-Year Plan, Delhi allocated 10.35 per cent of its plan outlay for health—the highest by any state government in the country. Utilization rates have been consistently over 80 per cent of allocations for health. As a result, Delhi's per capita expenditure on health is more than three times the national per capita expenditure on health.

Despite these investments in health, several gaps persist. While the IMR in Delhi (28) is less than half the national IMR (60), it is still significantly higher than Kerala's IMR of 11. Despite the increase in the number of hospital beds, the bed-population ratio has remained unchanged over the past twenty years. Efforts to reduce communicable diseases have been inadequate. In 2003, an analysis of hospital data revealed that almost 21 per cent of outdoor patients and 26 per cent of indoor admissions were treated for communicable diseases.

Though the incidence of many of the diseases such as dengue and malaria has dropped appreciably, they still remain a potent threat for many vulnerable people reflecting the neglect of basic public health in Delhi. The city-state continues to have many sites where mosquitoes breed easily especially in slums, around open drains and in construction sites.

Delhi offers the best of health facilities and yet many thousands, particularly women and children, are denied access to even basic health care.

The first outbreak of Dengue Haemorrhagic Fever (DHF) was reported in 1988 with 33 per cent mortality among children admitted in hospitals. Another outbreak of dengue fever swept Delhi in 1996 when more than 10,000 cases and 423 deaths were recorded in various parts of Delhi. In 2002–3, 2882 cases and thirty-five deaths from DHF were reported in the city.

Many of the communicable diseases are traceable to deteriorating quality of water, increasing problems of poor sanitation, inadequate drainage, and increasing environmental pollution.

Education

Close to 82 per cent of Delhi's population is literate—higher than the national average of 65 per cent. In 2001, 75 per cent of girls and women in Delhi above 7 years of age could read and write. The proportion varied from 69 per cent in the North-East District to 79 per cent in the East District. The shortfalls in female literacy however become more pronounced at the tehsil level where the spread is larger—66 per cent in Kotwali to 83 per cent in Karol Bagh.

Over the years, Delhi has established an extensive network of educational institutions offering among the finest education within India. Delhi has five reputed universities, and another five deemed universities, two educational institutions of national importance, and 144 colleges. In addition, it has nearly 100 technical education institutions offering degree-level courses, diplomas, certificates and apprenticeship training programmes. Nevertheless, there is a severe shortage of institutions offering good quality higher education as is evident from the serious difficulties that students face in obtaining college admissions.

Basic education assumes the greatest significance from a human development perspective. Receiving good quality elementary education is particularly important as it often distinguishes the poor from the non-poor. For instance, recent data for Delhi reveal that nearly 50 per cent of those above the poverty line had completed secondary school or higher levels of education. And another 27 per cent had studied till Class 8. In contrast, a third of Delhi's population below the poverty line had

Delhi has set up one of the largest school systems in the world—with over 93,000 teachers and close to 3 million children enrolled in Classes 1–12.

TABLE 1.9: Female literacy in Delhi

	(in per cent)
Ranking by Districts	
1 East	79.26
2 West	77.99
3 South-West	75.55
4 Central	76.05
NCT of Delhi	74.71
5 South	73.94
6 New Delhi	76.33
7 North	74.52
8 North-West	73.08
9 North-East	68.94
Ranking by Tehsils	
1 Karol Bagh	83.33
2 Gandhi Nagar	83.19
3 Vivek Vihar	83.22
4 Parliament Street	81.06
5 Rajouri Garden	79.19
6 Defence Colony	79.40
7 Patel Nagar	79.08
8 Vasant Vihar	77.65
9 Preet Vihar	76.57
10 Civil Lines	76.57
11 Delhi Cantonment	74.73
NCT of Delhi	74.71
12 Najafgarh	74.35
13 Saraswati Vihar	74.32
14 Paharganj	74.09
15 Haus Khas	73.67
16 Punjabi Bagh	75.05
17 Shahdara	74.43
18 Sadar Bazar	74.15
19 Darya Ganj	73.82
20 Model Town	72.67
21 Connaught Place	72.43
22 Kalkaji	68.56
23 Narela	73.08
24 Chanakyapuri	74.68
25 Seema Puri	67.95
26 Seelam Pur	67.52
27 Kotwali	65.57

Source: Planning Department, Government of Delhi.

not finished primary schooling and another third had just completed Class 5.

Delhi has established one of the largest school systems in the world. In 2004–05, close to 93,000 teachers were teaching over 3 million children enrolled in Classes 1–12. The major responsibility for primary schooling rests with the Municipal Corporation of Delhi that operates 1,840 primary schools. Government of Delhi is responsible for Class 6 upwards but also operates around 350 composite and Sarvodaya schools which have classes from 1–12. New Delhi Municipal Council (NDMC) and Delhi Cantonment Board are the local authorities responsible for primary schools in their respective areas.

Despite the expansion in primary and upper primary schooling, the student-teacher ratio remains high. In 2003, there were, on average, 430 children enrolled in a primary school—ranging from 252 in Central Delhi to 502 in West Delhi. The average student-teacher ratio was 41—varying from 22 in New Delhi to 44 in North-East Delhi. Out of the 1840 MCD primary schools, nearly one-fourth of them have student-teacher ratios greater than 60.

In some zones, the situation is worse and more than a third of schools have student-teacher ratios greater than 60.

Upper primary schools (Class 6–8) had, on average, an enrollment level of 341 children— ranging from 239 in Central Delhi to 635 in New Delhi. The student-teacher ratio was, on average, 28, varying from 24 in New Delhi to 35 in North-East Delhi.

The private sector plays an important role in providing educational opportunities and choices for Delhi's children. Detailed data on private schools (recognized, not recognized, aided and unaided) are not easily available. However, it is estimated that almost 75 per cent of all children in the primary school age attend government schools. It is believed that private sector provisioning in terms of enrollment is substantial at the secondary and higher secondary levels of schooling. By the high school stage, it is estimated that more than half of all enrolled children are in private schools. One reason for higher levels of schooling being dominated by private providers is the inadequacies in provisioning of middle and secondary education by the government.

Nearly 75 per cent of children attend government primary schools. A substantial proportion belongs to families where there is little learning support at home.

TABLE 1.10: Number of MCD primary schools zone-wise with range of student-teacher ratios

Zones	Number of MCD Primary schools	Number of schools with S-T ratio <40	Number of schools with S-T ratio 40 to 50	Number of schools with S-T ratio 50 to 60	Number of schools with S-T ratio >60
Shahdara South	205	39	51	45	70
Shahdara North	198	33	87	37	41
Civil Lines	169	28	41	32	68
Rohini	155	58	61	20	16
Narela	119	77	29	6	7
Najafgarh	255	65	57	47	65
West	164	72	61	21	10
South	145	76	15	12	51
Central	170	51	48	27	44
City	87	48	14	11	14
Sadar Paharganj	86	34	27	12	13
Karol Bagh	87	24	26	19	18
Total	1840	605	517	289	417

Note: S-T = Student to Teacher
Source: Department of Education, Government of Delhi.

The burden of this under-provisioning falls unduly on the poor for whom paying tuition fees in private schools is a strain. Also, girls in particular are discouraged from completing even eight years of schooling.

Reliable data on school retention and survival are not easily available. However, according to an extensive door-to-door survey conducted in 2003 by the Government of Delhi, there were an estimated 103,643 out-of-school children (6.4 per cent) in the 6–10 years age group. Of these, 49.5 per cent were girls. Similarly, there were an estimated 83,971 out-of-school children (7 per cent) in the 11–14 years age group. Of these, 48 per cent were girls.

The Government of Delhi has compiled a detailed disaggregated habitation based database of educational statistics by conducting door-to-door household surveys in 1823 different 'kshetras'. A 'kshetra' is defined as a geographical unit that roughly corresponds to the catchment area of a municipal primary school. Kshetra-wise household survey data collected reveal areas of high concentration of out-of-school children.

Desegregation of kshetra-level data reveals 55 'very difficult' pockets around Delhi where more than 25 per cent of children are out-of-school. South district has a particularly high concentration of out-of-school children.

How much are Delhi's children learning? Not adequately or satisfactorily, according to an independent community based 'dipstick'

> *An estimated 6–7 per cent of Delhi's children 6–14 years are out-of-school—and sadly a majority of them cannot even read and write.*

survey of learning outcomes conducted by Pratham, a non-governmental organization. A random sample of 3021 children 7–14 years was selected from across the districts of Delhi and administered a simple test, not in schools but in the community and in their homes.

The survey was intended to find out how much children learn in school. For learning languages, the dipstick assessment by Pratham sought to find answers to the following questions:

- Can an elementary school age child in Delhi read a simple story?
- If not, can the child at least read a simple paragraph of four lines?
- If not, can the child read simple words or at least recognize letters?

For math, a similar framework was used. Several basic tasks were formulated:

- Can children recognize numbers between 1 and 100? Several numbers are pointed out and children are asked to identify them.
- Can children do simple two digit subtraction problems with borrowing? This is a skill that Class 2 children are expected to have. We know from prior testing experience that children who can do a borrowing subtraction problem can easily do an addition problem with carryover.
- Finally, can children divide a three-digit number with a one-digit number? This is a skill that children are expected to have

TABLE 1.11: Distribution of out-of-school children kshetra-wise, Delhi 2003

District name	Total kshetras	Number of kshetras with out-of-school children <5 %	Number of kshetras with out-of-school children >5 % and <10 %	Number of kshetras with out-of-school children >10 %
East	121	69	45	7
North-East	112	42	41	29
North	152	58	74	20
North-West	386	133	192	61
West	280	74	177	29
South-West	271	104	147	20
South	344	114	135	95
New Delhi	87	43	37	7
Central	70	26	30	14
Total	1823	663	878	282

Source: Government of Delhi household survey 2003.

TABLE 1.12: Characteristics of sampled children

District	Children tested	Per cent	Sample	Children	Per cent
East	387	12.8	Male	1674	55.4
North-East	453	15.0	Female	1347	44.6
North	342	11.3	Total	3021	100.0
North-West	597	19.7			
West	533	17.6	Out of school	234	7.7
South-West	347	11.5	Govt. & MCD	1759	58.2
South	277	9.2	Private	1028	34.0
Central	85	2.8	Total	3021	100.0
Total	3021	100.0			
Primary	1898	62.8	Std 6 & higher	889	29.4
			Out of school	234	7.7
			Total	3021	100.0

Source: Pratham (2005).

by Class 3. We know from prior testing experience that most children who can do this division task can also do multiplication tasks using 3 digits and 1 digit quite easily.

The results reveal that a vast majority of out-of-school children (7 to 10 years) can neither read, nor do even the simplest arithmetic tasks. Among older children (11 to 14 years), close to half of all out- of-school children cannot recognize numbers or even read letters. Box 1.3 highlights the main findings of the survey conducted by Pratham.

Performance of children in Class 10 and Class 12 examinations is often regarded as a measure of children's hard work, aptitude and intelligence and is also considered as a yardstick for the effectiveness of the secondary school system in delivering state-mandated standards of education. The Delhi School board examination results particularly for the Class 10 exam are far from satisfactory. While increasing numbers of children are taking the exam every year, the average pass percentage has hovered around 50 per cent. In other words, more than half of the 200,000 children who sit for the exam are unable to attain the high school degree. Around 70 per cent of the relatively lower number of children (130,734 in 2002) appearing for the Class 12 examination graduate out of school.

On reviewing the state of schooling in Delhi, it is clear that
- While access to all levels of schooling has risen in Delhi, the quality of education needs substantial improvement.
- By and large, private schools perform better than government schools. Children who go to private schools also come from homes that are more supportive of education and learning. Again, these families have the ability to pay fees. On the supply side, private schools are able to emphasize selection of students on merit and in the primary stage, they often are more stringent with making children repeat a year if learning levels are not satisfactory.
- A substantial number of children enrolled in municipal schools are from families where there is little learning support. Municipal schools do not select by merit and it is mandatory for them to accommodate all children of primary school age in the neighbourhood. Once children begin to fall behind academically (and this can happen as early as Class 1) there is no remedial support structure to help these children. The foundation for learning is weak and no scaffolding is provided in school or at home. Eventually, this may compel the child to drop out of school.

In 2003–04, Government of Delhi spent Rs 927 per child on education—almost 24 per cent higher than the national average of Rs 749. At the same time, however, the share of education in total plan expenditure of the Government of Delhi has gone down from 13 per cent in the Sixth Plan (1980–5) to 8.53 per cent during the Ninth plan (1997–2002). A marginally higher allocation—9.65 per cent

Private sector provisioning of schooling is substantial at the middle and higher secondary levels of schooling.

Box 1.3
How much do Delhi's school children learn?

Pratham administered a simple 'dipstick' test to over 3000 children to find out how much they were learning in school. The results of the survey reveal serious gaps in learning achievements of children. The main findings of the survey are presented below.

Reading

7–10 years
- Thirty-seven per cent of children in government schools cannot even read words.
- Forty-six per cent of children can read at least four simple lines (i.e., easy paragraphs)—classified by the study as 'readers'.
- Even in private schools, 16 per cent of children can read only letters or nothing at all.
- Sixty-nine per cent of children in private schools can be classified as 'readers'.

11–14 years
- Close to 90 per cent of children in government and private schools can read.
- Seventy-one per cent of government school children and 85 per cent of private school children are fluent readers, that is, they can read a 'story'.
- Thirty per cent children who should be in Standard 6 or above in government schools are unable to fluently read a simple Class 2 level story.

Arithmetic

- Fifty-two per cent of children between 7–10 years attending government and municipal schools cannot do anything or are only able to recognize numbers but not do any further operations. The proportion is lower, around 30 per cent, for private school children.
- Among children between 11–14 years, 60 per cent of government school children and 80 per cent of private school children can solve division sums. This suggests that there are 40 per cent of children in government schools and 20 per cent in private schools who are unable to do a Standard 3 level arithmetic operation.
- Even more alarming is the fact that there are 15 per cent children between 11–14 years in government schools and 5 per cent in private schools who cannot do anything or can only recognize numbers but are not able to do any operations.

of total plan expenditures was earmarked for education during the Tenth Five-Year Plan period (2002–07).

TABLE 1.13: Per capita expenditure on education

(Rs)

Year	Delhi	India
2001–02	855	592
2002–03	891	627
2003–04	927	749

Source: Planning Department, Government of Delhi.

Despite the relatively high levels of public spending on education, levels of learning achievements among schoolchildren are low.

The female disadvantage

A disturbing feature of Delhi is the persistently strong discrimination against girls and women. The anti-female bias is most strikingly visible in the adverse sex (female-to-male) ratio in Delhi's population. Out of the four major metropolitan cities, Delhi reports the lowest child sex ratio and the largest male-female gap in literacy.

Between 1951 and 1981, Delhi's sex ratio improved from 768 women per 1000 men to 827. However during the decade 1991 to 2001, Delhi's sex ratio fell to 821. Disaggregated data reveal that except for two districts, i.e., North and North-East, the remaining seven districts in Delhi registered a decrease in sex ratios during the last decade.

Equally disturbing and pointing to the strong anti-female bias in Delhi is the sharp decline in Delhi's sex ratio among children aged 0–6 years from 915 in 1991 to 865 in 2001.

A closer look at the declining trend in sex ratios among 0–6 years reveals an alarming fall in the proportion of girls to boys born in Delhi. The sex ratio at birth continues to be pernicious. In 2000, there were 820 female births for every 1000 male births—a significant fall from 899 in 1998. Further analysis of the declining sex ratios among children in this age group reveals that there is a high and certain possibility of sex-selective abortion and female foeticide being practiced. Though the law prohibits pre-natal testing, clandestine sex determination tests are widely undertaken in

Delhi. Until recently, amniocentesis was openly propagated through demeaning advertisements that proclaimed, 'Pay Rs 500 now or Rs 5 lakh later as dowry'. The reasons for female foeticide are many and complex. Practitioners sometimes see the birth of a son as a status symbol and regard him as an agent who will carry on the family name. For a large proportion of Hindus, fear of dowry and even the security of sons performing funeral rites leave the birth of a female child unwelcome.

Despite the anti-female biases inherent in Delhi's society, women have distinctly gained in a number of spheres by virtue of living in this city. They have found greater freedom, mobility, and access to skill enhancement opportunities. It is impressive to see many more young women working, entering the corporate world, excelling in business, driving cars and owning assets. Government of India's Department of Women and Child Development (DWCD), the National Commission for Women (NCW), Delhi Commission for Women (DCW), Ministry of Social Justice and Empowerment, and the Delhi Social Advisory Board are among the many agencies supporting and empowering women living in Delhi.

The Delhi Commission for Women (DCW) was set up in 1994 and started functioning from 1996. Since then, it has played a constructive role in promoting security, development, and well-being of women. The priority areas of its focus include security, education and literacy, employment, economic empowerment of women and legislative reforms. Government of Delhi's Social Welfare Department supports welfare programmes for women in need and distress, social security cover for the aged and destitute and offers care and protection to children through a network of residential care homes and non-institutional services. Twenty five work centres with fifty students each have been set up to provide vocational training to poor women. The Nari Niketan Scheme, introduced in 1979 and run by the Department of Social Welfare, Government of Delhi under the Immoral Traffic Prevention Act (ITPA), provides free boarding, lodging, medical care, maintenance, protection, education and vocational training to women and girls who are rescued from

TABLE 1.14: Sex ratios and literacy rates in four metropolitan cities of India

Indicators	Delhi	Mumbai	Kolkata	Chennai
Sex ratio (Total population)	821	774	828	951
Child Sex ratio (0–6 years)	865	898	923	968
Sex ratio (population age seven and above)	813	762	820	949
Female literacy rate (%)	75	83	78	75
Gender gap in literacy (percentage points)	12	7	6	10

Source: Census of India 2001.
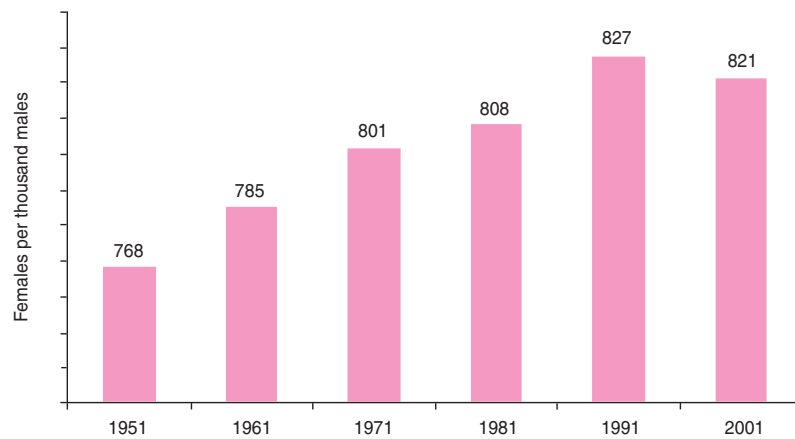
FIGURE 1.8: Delhi's female-to-male sex ratio, 1951–2001

Source: Census of India 2001.
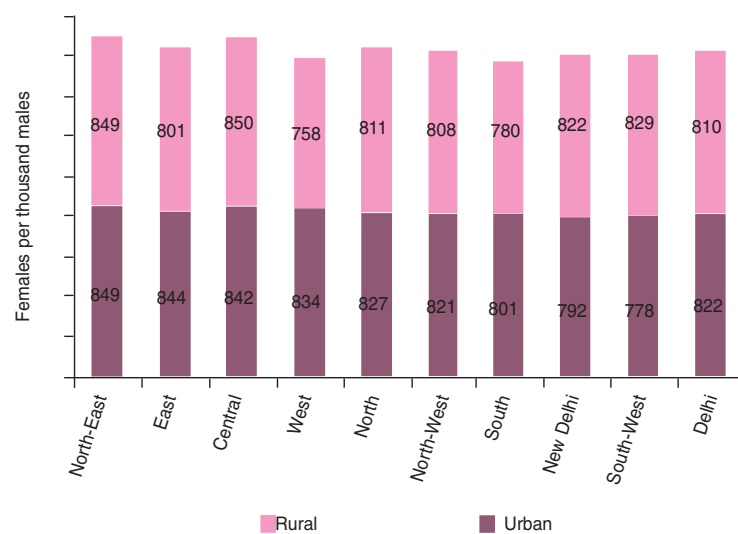
FIGURE 1.9: Sex ratio in Delhi by districts, 2001

Source: Census of India 2001.
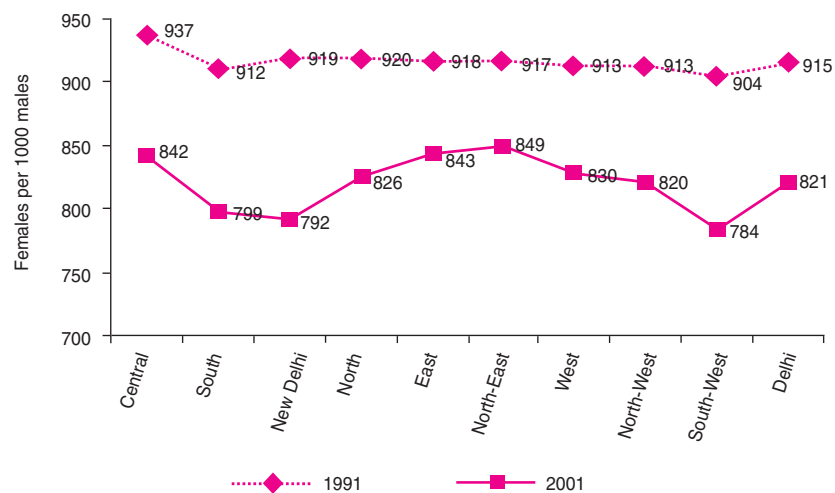
FIGURE 1.10: Sex ratio (0–6 years) in Delhi

Source: Census of India 2001.

TABLE 1.15: Sex ratio at birth

Year	No. of female births per thousand male births (Delhi)
1991	867
1992	862
1993	856
1994	840
1995	744
1996	839
1997	852
1998	899
1999	837
2000	820
2001	809
2004	823

Source: Annual Reports of Registrar of Births and Deaths

brothels and to unmarried mothers, victims of rape and women who face harassment in their own families. The Department of Social Welfare also operates a short stay home for women and girls.

The Sahyogini programme of family counselling run by the Delhi Commission for Women (DCW) with a panel of experts and legal advisers has helped resolve sensitive family issues. Cases attended to by the Commission cover matrimonial disputes, divorce, child custody, rape, dowry related issues, dowry deaths, suicides, maintenance and property feuds, sexual harassment at the work place, harassment by neighbours, extramarital relations, and abductions. In 2004–05, the Sahyogini cell received 393 cases, out of which 253 cases have been settled. Harassment by husbands for dowry before and after marriage accounted for the highest number of cases received.

The DCW has promoted the setting up of Mahila Panchayats, an innovative collective approach for dispute redressal. Twenty Mahila Panchayat members have been trained in legal issues relevant to crimes against women, marriage disputes, property, custody, and other matters. The training equips these women to handle cases and resolve them at the community level. The Commission started the Mahila Panchayat Project in September 2004 with the involvement of NGOs. A network

The declining trend in sex ratios among children 0–6 years symbolizing the persistence of strong anti-female biases is seriously worrisome.

of 39 Mahila Panchayats has so far been set up. Fifteen NGOs are associated with this programme. Cases taken up relate to marital maladjustment, dowry harassment, domestic violence, ill-treatment by husband and in-laws, property disputes, desertion by husband, extra marital affairs, harassment of aged women by sons and daughters-in-law and sexual harassment. This initiative has given voice and visibility to women. It has underscored the importance of the role of women as decision-makers and peacemakers in local communities, improved their confidence levels, and added to their bargaining, counselling and negotiating skills. It has also helped check violence against women within families and communities.

A conspicuous change in the landscape of Delhi is an increase in the number of single women. These women are educated, independent, confident, and professionally well placed. However, such single women arouse considerable curiosity and face several hardships. It is, for instance, extremely difficult for single working women to find appropriate housing accommodation in the city. Even when single women find accommodation, strict vigilance is kept over their movements and they find themselves subject to rules limiting their mobility and choice of guests. Unfortunately, safe institutional accommodation for working women or those pursuing

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Box 1.4
Emerging employment opportunities for women in Delhi:
Some recent breakthroughs

- Meenakshi Sharma, Vibha Kumari and Angali Minz became the first women to drive any mode of public transport in the capital when in December 2002 the first Delhi Metro Rail Corporation train glided out of Shahadara.
- A batch of 271 women was recruited as constables into the Delhi Police in October 2003 following a decision of the Government in 2002 to suitably increase the number of women police personnel in Delhi Police in a phased manner.
- Women personnel of the traffic police have started being deployed on Delhi roads from 2 January 2004. Earlier, their deployment was restricted to zonal officer's duties and traffic education tasks in the road safety cell. Now they have been assigned an active role in traffic regulation and enforcement.
- Delhi's first all-woman petrol pump was opened in March 2002 providing employment to over twenty women.
- A driving license to Delhi's first woman autorickshaw driver was issued in 2003 by the Department of Transport. Since then, the Department has issued licenses to eight women for driving mini buses.

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higher education is grossly inadequate in Delhi. There are just around eighteen working women's hostels in Delhi run by government and NGOs that can accommodate barely 1500 to 1600 women. Most single women find paying-guest accommodation that is often safe and economical. But this practice is also quite new to Delhi and many homeowners are reluctant to take in single women. Absence of affordable hostel accommodation is becoming a serious impediment to girls wanting to increasingly pursue professional courses in Delhi (see box 1.5).

Neglected communities

Four segments of Delhi's population remain largely neglected and denied of adequate opportunities to lead a decent life. These are the elderly, working and street children, the homeless, and the disabled.

Elderly

A vulnerable and rising share of Delhi's population are the elderly and the aged. As a proportion, population above the age of 60 years—the elderly—has hovered around 4 per cent since 1961. Between 1961–91, however, the number of people over sixty years more than quadrupled. According to the Census of India 1991, there were 202,000 women and 237,000 men over 60 years in Delhi.

Although, the aged constitute a small proportion of the entire population, their needs and problems are not any less important. As a matter of fact, they constitute an extremely vulnerable segment of population. Women in the higher age groups are particularly more vulnerable as male mortality rates tend to be higher than female mortality rates in the age group 60 years and above.

The elderly in Delhi face many forms of insecurities. Foremost is emotional insecurity and absence of appropriate family support. As a result of changing lifestyles and family structures, an increasing proportion of the elderly find themselves living alone without necessarily being in the close proximity of their children or relatives. They experience loneliness and find themselves neglected and inadequately cared for. Many are left to fend for themselves. Some are forced to move into government or NGO-aided old age homes. Financial insecurity is another area of growing concern. With increases in life expectancy, many of the elderly find that they have not planned effectively for old age. Even in the middle class, pensions and retirement benefits often are inadequate to lead decent lives. For women in particular, this is a serious problem, as most do not have any property or a source of steady financial income. A third major cause for concern is physical insecurity especially for those who choose to live in their own homes. Crime against the elderly is becoming increasingly common in Delhi. Older women in particular are considered easier targets. The elderly live in constant fear of physical attacks. The absence of support structures and effective security adds to their plight and vulnerability.

There is a noticeable increase in the proportion of single young women in Delhi who are educated, financially independent and professionally well-placed.

Box 1.5
Working Women's Hostels

There continues to be a serious shortage of working women's hostels in Delhi despite government recognizing in various plan documents the importance of providing dignified and proper shelter for working women. In 1992–3, the Department of Social Welfare acquired land measuring 2546 square metres from DDA in Vishwas Nagar Institutional Area for establishing a working women hostel that would provide accommodation with all the basic facilities for 100 women. Today, the situation is much better. There are eleven Working Women Hostels run by NGOs in South, South-West, Central and New Delhi districts. NDMC runs three hostels in Mandir Marg, Laxmi Bai Nagar and at Bhagwan Das Lane in New Delhi district. However, Delhi's North, North-West, West and North-East districts are devoid of hostel facilities for working women.

Measures are being taken to address the shortfall in hostel accommodation for both working women as well as those pursuing higher education. The Government proposes to set up hostels in all districts of Delhi to augment available facilities provided by NGOs and government. Jawaharlal Nehru University proposes to construct a women's hostel on their campus. The Indian Council of Social Welfare, a non-governmental organization, is building another such hostel in Ramakrishnapuram.

Under a Government of India scheme, college students from outside Delhi pursuing education can be accommodated in working women's hostels. Such an option should be available to women from Delhi as well. Government of India proposes to construct thirteen new working women's hostels in areas where there are no such provisions. DDA has identified nine sites and allotted land at Dheerpur, Najafgarh, Basant Village, Ranibagh, Tuglakhabad, Dilshad Garden, Narela, Bawana, and Dwarka.

Table 1.16: Delhi's ageing population

Year	Total Population	Population 60+	Per cent
1961	2.66 million	109,977	4.14
1971	4.06 million	174,338	4.29
1981	6.22 million	278,862	4.48
1991	9.42 million	439,520	4.67

Source: Registrar General India (1999).

Working and street children

An unfortunate feature of Delhi, the nation's capital, is the large number of children who work as domestic servants, in roadside hotels (*dhabas*), in shops, and other occupations. Many children are migrants with or without families. They are often forcibly brought to Delhi. While some may have a roof of sorts over their heads, many are typically at the mercy of their employers. Instances of exploitation and abuse are commonly reported. Street children are the most vulnerable of them all. On the streets, they have no rights and no protection from exploiters. They are denied recognition and they find it difficult to access any government agency, except a few NGOs, for help when they are in distress.

The indifference to this problem is most starkly reflected in the absence of reliable data on working children in Delhi. While every-one knows the problem exists, little effort has been made to acknowledge, track, monitor and eliminate the scourge of child labour from Delhi. Among working children, girls are found to be at a greater disadvantage. Government of Delhi has very few crèches for nearly 2 million children in the age group of 0–6 years. The severe shortage of crèches frequently imposes an unfair burden of childcare on older girls in poor families. More often than not, it is the elder daughter who shoulders the responsibility of the siblings. These girls are themselves young and deprived of the joys of childhood. Apart from sibling care, older girls are often forced to help out with harsh household chores like cleaning, washing, fetching water, cooking, and rag picking. Many are forced to work as domestic servants in the homes of middle class families and even the more affluent.

The elderly in Delhi face many forms of increasing insecurity—physical, financial, and emotional.

The homeless

Another tragic feature in Delhi is the presence of several thousands of homeless people. Many of them hire a space on the footpath, rent cots and bedding in winter and pay rent to a shopkeeper to store their few belongings. Homeless children and women in particular face many insecurities. Government of Delhi has provided only one night shelter for women. The lack of personal space leads to exploitation, sexual abuse and abets criminalization of homeless persons. A person with no fixed address is by definition a suspect in the eyes of the police. As a result, the homeless are at times trapped under the anti-beggary laws. They find themselves at the mercy of not only criminals but also policemen. Even children are not spared. Most of them have no ration card, no steady job, and cannot get into schools. Sexual exploitation is rampant.

Once again, reliable estimates of their numbers are not available. A survey conducted in 2001 by a Delhi-based NGO, Ashray Adhikar Abhiyan, counted 52,765 homeless men, women and children. Assuming conservatively that half as many people working at night would have been missed by the head count, the survey placed the number of homeless in Delhi at around 100,000. Mumbai in contrast reports less than a third. Of these, a significant proportion—close to 50 per cent—are estimated to be children. Another recent study by the Delhi State Aids Control Society found 35,000 children living on the streets of Delhi and validates the earlier estimate. The Survey reported that most of the homeless were engaged in a variety of manual work ranging from rickshaw pulling (29 per cent) and casual work (26 per cent) to unspecified tasks (22 per cent) and rag picking, mostly by children (4 per cent). Casual labour and other work typically involved lifting heavy weights all day long in the food grain and vegetable *mandis* (markets) or wholesale markets. The Survey also reported that 20 per cent of the homeless earned less than the poverty-line daily wage and 30 per cent earned less than the minimum wage of Rs 96 per day for Delhi. Over half— 56 per cent—had received no education and 4 per cent said they had no work.

In 1996, there were only nineteen night shelters operating in Delhi. And they all lacked basic facilities. According to a survey, all the nineteen shelters refused entry to women and nine did not allow children. Eight shelters had no drinking water and three had no toilet or bathing facilities. Interviews with men using the night shelters revealed that the cost of spending a night at Rs 6 was too high for many. Children were allowed entry, but they had to often share the space with adult men. This put them at high risk of sexual exploitation. To that extent, not permitting children helps reduce the risks of sexual abuse. Many shelters also face the threat of closing down on account of having to accommodate other priorities— metro railway, a musical fountain and for security reasons.

Progress has been made in provisioning of night shelters over the past ten years. By 2005, the number of shelters had increased to forty-one with accommodation for around 4800 persons. Twelve of these are permanent night shelters—ten operated by the Slum and *Jhuggi-Jhopdi* Department and two by Aashray Adhikar Abhiyan (AAA). Another ten temporary night shelters are run by AAA and one by Great India Dream Foundation. In addition, five *pucca* structures have been provided to AAA and Kiran Deep, another non-governmental organization, for running temporary night shelters during winters. And fourteen open spaces have been made available by the Divisional Commissioner, Government of Delhi for starting night shelters.

Disabled

Progress in any society needs to be judged by the manner in which the State and its citizens provide and care for the disabled. As a nation, India has not paid much attention to this aspect of development. Several disability-related concerns remain insufficiently addressed including ease of physical access to public spaces, inclusion in educational facilities, opportunities for employment and self-employment and elimination of social discrimination associated with certain kinds of disabilities.

Specialized data on different aspects of disability are difficult to obtain. Some information

Unfortunately, a large number of children, particularly girls, are forced to work instead of attending school and enjoying their childhood.

is available about mentally and physically challenged persons in Delhi from the 58th Round of the National Sample Survey conducted between July and December 2002. In this survey, a person with restriction or lack of abilities to perform an activity in the manner or within the range considered normal for a human being was treated as having disability. It excluded illness or injury of recent origin resulting in temporary loss of ability to see, hear, speak or move. According to this survey, there were around 102,000 disabled persons in Delhi. Of such persons, over a third—36 per cent—were girls and women. Again, more than two-thirds—68 per cent—fell in the category of locomotor disability and another 13 per cent were classified as mentally challenged. The visually disabled constituted around 7 per cent and 5 per cent fell under the category of communication disability.

The Survey revealed the following features of Delhi's disabled population:

- More than half of the disabled persons are less than thirty years of age.
- Twenty-six per cent belong to Scheduled Castes and 12 per cent to Other Backward Castes.
- Only 63 per cent are literate.
- Fifty-nine per cent of the disabled persons can take care of themselves without any aid or appliance and another 18 per cent with the help of an aid or appliance. But

Large homes, posh colonies, government houses, and middle class housing colonies hide the reality that several thousands in Delhi are homeless.

19 per cent are not able to take care of themselves on their own.
- Only 29 per cent of the disabled are part of the workforce.
- Eighty-nine per cent of the disabled persons have not received any assistance from government agencies and less than 2 per cent have received assistance from non-governmental organizations.

There has been a growing awareness and recognition of the problems of the disabled. However, Delhi needs to urgently adopt a much more pro-active stance towards expanding opportunities for the disabled and making development far more inclusive.

Environment

Many significant changes have occurred in Delhi's environment. The city-state's land use has been undergoing several changes in recent years. Land put to non-agricultural uses such as built-up area, housing and roads has grown from 742 sq km (50 per cent of the geographical area of NCT of Delhi) in 1990–1 to 897 sq km (60.5 per cent of the geographical area) in 2000–01—an increase of 21 per cent in the urban area. Urban expansion is mainly occurring at the expense of agricultural land in the rural-use zones. Also, areas such as parks, open spaces, and green areas are being earmarked for recreational purposes. By 2000–01, agricultural land had fallen to 32 per cent of the total area while non-agricultural land had risen to 68 per cent of the total area.

In recent years, the forest cover in NCT of Delhi has shown an increasing trend. From 16 sq km in 1990–1, it increased to 88 sq km in 1998. Of the 88 sq km, dense forest accounted for 35 sq km and open forests for 53 sq km. Today, out of the total geographical area of 1483 sq km, forests and tree covers account for around 151 sq km. Of this, 111-sq km have been classified as forest cover and the rest as tree cover outside the forest area. The forest cover in NCT of Delhi has increased due to various initiatives taken by the government and remains an impressive achievement in afforestation.

The Delhi Ridge, an extension of the Aravalli range, serves as the green lungs for NCT of Delhi. There are four ridge forests in
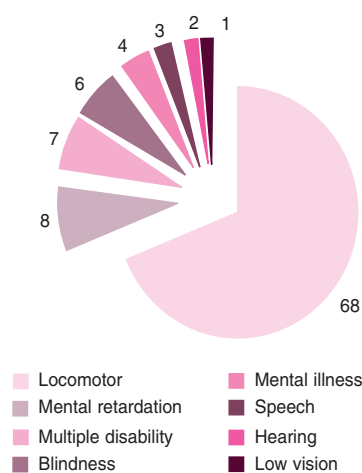
FIGURE 1.11: Distribution of disabled persons in Delhi, 2002 (%)

Source: Government of NCT of Delhi (2004d).

TABLE 1.17: Changing pattern of land use in NCT of Delhi

Land use	Area (sq km)	
	1990–1	2003–04
Total area	1,483	1,483
Rural area (rounded off)	798	558
Urban area (rounded off)	685	925
Forest cover	16	170
Built-up area (as per IRS IC LISS III Satellite data)	488	702
Non-agricultural land (including built-up area)	48	597
Other uncultivable land	129	111
Fallow Land	128	190
Cropped area	762	415

Source: Planning Department, Government of Delhi.

Delhi: the southern ridge, northern ridge, central ridge, and south-central ridge. The main native tree species of the ridge forests include Anogeissus pendula, Ziziphus mauritana, Ehretia laevis and Balanites aegyptiaca. The fauna species found in Delhi ridge are neelgai (blue bull), mongoose, porcupine, monkeys, monitor lizards, and jackals. Around 250 species of birds can still be spotted. However, the ridge areas have always been under pressure due to ever-increasing urbanization and development activities. Government of Delhi has set up a Ridge Management Board headed by the Chief Secretary to address the issue of increasing pressure and protect the environment from environmental deterioration.

A man-made sanctuary, the Asola Wildlife Sanctuary was set up on the Southern Ridge in 1991, covering an area of 27.5 sq km. This sanctuary serves as the green lungs and carbon sinks and also improves the local water regime, conserves indigenous flora and fauna and obstructs the advancing desert aridity.

Crime and safety

Public safety is an essential constituent of decent living. Crime statistics for Delhi point to an unusually high incidence of crime in the city (see Box 1.6). The perpetration of crime against women is indeed alarming. In 2001, for instance, Delhi recorded 381 cases of rape—more than one every day. In addition, the city registered 113 dowry deaths, 502 cases of molestation and 90 cases of eve teasing. Delhi leads the four metropolitan cities of India in crimes against women. For every 100,000

TABLE 1.18: Tree and forest cover in Delhi

Area	Area (sq kms)	Per cent of total geographical area
Geographical area	1,483	100
Forest cover	170	11.5
Tree cover	98	6.6
Forest & Tree cover	268	18.1

Source: Ministry of Environment and Forests (2005).

Forest and tree cover in Delhi has increased substantially from 16 sq km in 1991 to 268 sq km in 2003–04.

persons, there are fourteen crimes against women in Delhi. In Chennai, this figure is seven, while in Mumbai and Kolkata, it is four. There is only a small chance of these crimes being over reported. On the contrary, they are often under-reported or reported as being of lesser seriousness. This is particularly so with rape and incest. Rape, for instance, is frequently reported as attempt to rape. Incestuous rape is later denied altogether and the police are usually blamed for registering a false case. Eve teasing goes consistently unreported.

The safety of women cannot be adequately represented merely by statistics on crimes as a large magnitude of insecurities and violence that women face remains outside the purview of such reports. There are innumerable cases that go unreported due to social stigma. Women's groups have often highlighted the travails women go through in being able to register a complaint in a police station.

Box 1.6
Crime in Delhi

According to most recent statistics available on crime:
• Delhi ranks first among thirty-five cities for crimes against children and 6th in the whole country.
• Delhi contributes to
  – 24.4 per cent of all-India crimes; the contribution of Mumbai is 8.8 per cent
  – 24.4 per cent rapes
  – 33.7 per cent kidnappings
  – 17.6 per cent dowry deaths
  – 13.3 per cent molestations.
• Delhi accounts for 4.8 per cent of crimes against children—as against the national average of 1 per cent.
• The national average for child rape is 0.2 per cent. But in Delhi it is 1 per cent.
• Delhi accounts for 9.2 per cent of all kidnapping. The average for 35 cities is only 2.1 per cent.
• Delhi reports the highest abduction rate among women—6.2 per cent—in the country.
• Delhi has the highest number of cases pending against policemen—22.2 per cent.

TABLE 1.19: Crime incidence in Delhi: 2004

District	Crimes against women	Total crimes	Per cent Crime against women
North	165	3418	4.82
North-West	775	9840	7.87
Central	169	3335	5.06
New Delhi	80	2651	3.01
East	500	5528	9.04
North-East	401	3896	10.24
South	641	9672	6.62
South-West	356	5932	6.00
West	431	7343	5.86
Delhi	3543	53,623	6.60

Source: Delhi Police.

TABLE 1.20: Types of crimes committed against women is Delhi: 2004

(No. of cases)

Districts of Delhi	Rape	Kidnapping/ Abduction of women & girls	Dowry deaths	Molestation	Sexual harassment	Cruelty at home	Crime against women
North	23	55	06	21	05	55	165
North-West	124	203	29	129	23	267	775
Central	27	41	01	44	12	44	169
New Delhi	08	11	01	34	15	11	80
East	62	125	13	82	06	212	500
North-East	67	120	18	46	06	144	401
South	96	175	21	130	40	179	641
South-West	79	68	11	59	13	126	356
West	58	79	24	46	09	215	431
Delhi	551	881	126	601	130	1254	3543

Source: Delhi Police.

However, efforts to increase awareness levels among women, sensitization of police personnel, involvement of other agencies in the procedural processes for better handling of cases and increasing the number of women in the police force have begun to yield positive results. It is therefore difficult to interpret crime statistics as a rising incidence could reflect better reporting and not necessarily increasing crime.

It is important to note however, that the greatest deterrent to crime reporting, especially in cases of crimes against women, stems from deficiencies in the delivery of justice, delays in police and court proceedings and low conviction rates. The pendency rate for disposal of cases by police is 46 per cent and conviction rate 54 per cent; the rates for disposal by courts are 81 per cent and 50 per cent respectively.

Table 1.23 reveals that the conviction rate for rape cases is among the lowest in the six categories of crime against women—next only to kidnapping and abduction of women and girls. The chances of rapists going unpunished and victims further being victimized in the course of the justice proceedings deter women from reporting cases of crimes committed against them. A better conviction rate for dowry deaths and cruelty by husband and his relatives is reflects in the higher reporting cases under Section 498A.

Crime in Delhi, particularly against women, is unusually and unacceptably high.

TABLE 1.21: Disposal of Indian Penal Code (IPC) cases by Delhi Police: 2004

Total no. of cases for investigation (including pending cases)	102,959
Charge found false/mistake of fact, etc.	642
Among cases where investigation was completed: Total	49,761
– Final report true submitted	20,663
– Charge sheets were submitted	28,456
No. of cases pending investigation at the end of year	52,979
Pendency (percentage)	51.5
Conviction rate (%)	49.7

Source: Delhi Police.

TABLE 1.22: Disposal of IPC cases by Delhi Courts: 2004

Total No. of cases for trials (including pending cases)	165,167
No. of cases in which trials were completed:	11,295
Of which convicted cases	5618
Acquitted or discharged	5677
Pending trial cases at the end of year	153,872
Pendency (percentage)	93.2
Conviction rate (%)	49.7

Source: Delhi Police.

TABLE 1.23: Conviction rate of IPC crimes against women: 2004

	(%)
Rape	16.41
Kidnapping/abduction of women and girls	10.23
Dowry deaths	40.27
Molestation	44.80
Sexual harassment	44.44
Cruelty by husband and relatives	40.54

Source: Delhi Police.

Delays and deficiencies in legal proceedings are major deterrents to the reporting of crime by women.

SUMMING UP

Delhi's balance sheet of human development highlights many achievements and several shortcomings. Delhi is one of the richest Indian states in terms of per capita incomes. And only 8 per cent of its population lives below the poverty line. Women in particular have experienced an expansion in their job opportunities. The city-state can boast of excellent health and medical institutions. Conditions of health and schooling are better than in many other states. There has been an impressive expansion in forest cover and a dramatic reduction in levels of air pollution following the switch over to CNG.

Despite the recent progress, Delhi displays many shortfalls in human development. These are, for instance, in the areas of provisioning of basic services and amenities to people, safety, gender discrimination, and access to good quality health care for the poor. Another striking feature of Delhi is the inequities in the patterns of development. Two such inequities that differentiate the more fortunate from the less are to be found in employment opportunities and in the living conditions enjoyed by people across Delhi. The chapter that follows discusses these inequities.

2 LIVELIHOODS AND LIVING STANDARDS

Stark inequities characterize livelihood patterns as well as the living conditions of Delhi's residents. The well-educated continue to enjoy increasing benefits of Delhi's growing economic prosperity. The poor, on the other hand, continue to lead extremely vulnerable and insecure lives with limited and even shrinking job opportunities. The affluent as well as government employees living in nice colonies and posh localities enjoy wide roads, large green spaces, clean air, and comfortable access to basic amenities. On the other hand, the very poor live in slums amidst appalling conditions. Most adversely affected are the many migrants who come to Delhi in search of a better life for themselves—and for their children. Even the middle class continues to face many hardships in terms of access to water and power. This chapter focuses on the differentials in employment opportunities and on other vital aspects of living conditions.

THREE FEATURES

Three features of Delhi's development are important to note while understanding the inequities in livelihood opportunities as well as in living conditions.

Pattern of industrial expansion

Given the highly urbanized character of Delhi, industry, trade, and manufacturing offer the maximum employment opportunities for people, not agriculture. Delhi has witnessed a phenomenal growth of small-scale industries over the past three decades. In 1951, there were 8160 such industrial units in Delhi. By 1971, the number of small-scale industrial units had increased to 26,000. And by 2001, there were close to 129,000 such industrial units operating in Delhi. The first Master Plan of Delhi (1962–80) sought to decongest the national capital by removing large and 'nuisance' industries and to relocate slum settlements from the core to peripheral regions mostly outside urban limits. The Plan designated seven major industrial zones spread over 5753 acres for new industrial enterprises to move out of residential colonies. During the national emergency, 1975–7, Delhi witnessed a large-scale eviction of slums and informal activities from out of Delhi's core regions to the periphery. Despite the Government of Delhi providing sheds to entrepreneurs whose units were dislocated or those seeking to establish new units, the occupancy rate was low. No serious attempt was made to ensure compliance with the Master Plan provisions or shift and relocate non-conforming industries from the city to designated areas. Gradually, there was a proliferation of noxious, polluting, even hazardous units within residential and commercial areas. Between 1971–81, 16,000 new industrial units came up in Delhi. A few medium scale units came up in the periphery but that did not push up the income levels of local residents. Professionals and skilled workers, coming from the central areas of the city, took up most of the high valued jobs here. Employment available for the local rural population was mostly for short duration and part time in nature and carried low wage rates. As a consequence, the poor in the periphery often preferred to commute to the central city for better livelihood.

Many efforts to address Delhi's development were subsequently made. In 1982, the Government of Delhi drew up an industrial policy document for promoting economic growth by encouraging small-scale (with investment in fixed assets not exceeding Rs 10 million) modern, non-polluting and non-hazardous industries. In 1984, a 'Mini Master Plan' was developed for an integrated

Delhi exhibits striking disparities in living standards and livelihood opportunities.
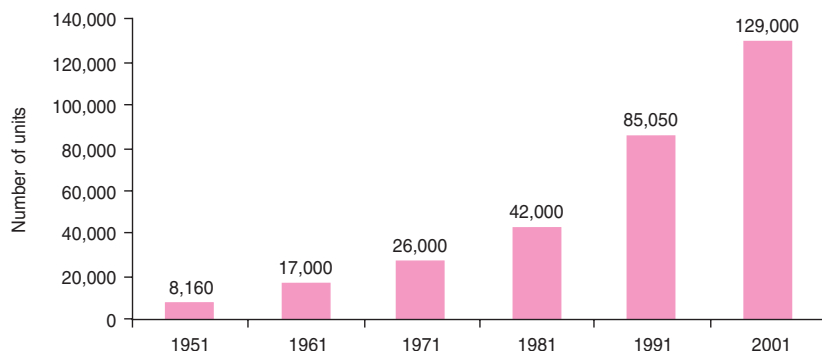
FIGURE 2.1: Expansion of small-scale industrial units in Delhi

Source: Economic Survey 2003–04 Government of NCT of Delhi (2004a).

Industrial expansion in Delhi, though impressive, has been haphazard and has not always conformed to environmental norms specified by government.

development of peripheral regions of Delhi. The Working Group drafting the Mini Plan recommended building of shopping centres, group housing colonies and improving the level of basic amenities and connectivity in the peripheral areas. The Master Plan (1980–2000) also contained proposals to decongest the central city by taking industrial activities to the distant areas within the Delhi Metropolitan Area and the National Capital Region.

All three plans have met only with limited success. Between 1986–96, Delhi witnessed a rapid growth of small-scale and unorganized manufacturing units—several of them in central areas. By 1991, there were over 85,000 industrial units. Between 1981–91, 43,050 new industrial units came up in Delhi and another 43,950 small-scale industrial units were set up between 1991–2001. This led to a spurt in employment—largely informal that continued to attract migrants into the city-state.

The rapid growth of industrial activities, contrary to the professed objectives, was partly due to the Master Plan of Delhi 2001 failing to shift the focus of the development from the city to metropolitan region. At the same time, the guidelines of the Industrial Policy Document, government proposals for balanced regional development and the stipulations of the new Master Plan were not observed even while issuing licenses to industrial and commercial units. In the absence of any specific controls and political will, industries came up in a big way in select pockets within the city as well as its immediate hinterland. Restrictions envisaged for regulating employment and growth of these industries became totally

ineffective. Attempts to deal with the negative consequences of this unintended industrial growth and improve the quality of life in these areas did not make a dent on the situation. A large number of informal units, both in manufacturing as in the trading sector, came up within the city, mostly in residential areas, that absorbed sizeable number of poor and migrant workers.

A survey conducted in 1996 by the Delhi Pollution Control Committee (DPCC) found that of the 137,000 units operating in Delhi, only around 25,000 were located in twenty-eight industrial areas or estates. The remaining were in residential and non-conforming areas. The presence of these industries drew attention of the Supreme Court of India in 1996. The Court (in civil writ petition no. 4677/85) passed a directive for immediate closure of these industries and shifting of permissible small-scale units from non-conforming to conforming areas. In pursuance of this order, no small-scale industry henceforth is to be registered in non-conforming areas. Even in case of conforming areas, the units must get clearance from DPCC. Accordingly, the Union Ministry for Urban Development, gave a firm directive for shifting the industries in non-conforming zones to industrial estates and to towns outside the National Capital Territory (NCT). There were already twenty-eight industrial estates within NCT of Delhi. However, for accommodating the dislocated industrial units in the non-conforming zones, the Government of Delhi acquired 1300 acres of additional land at Bawana and Holambi Kalan and set up new industrial estates. Besides, 378 flatted factories were constructed at Jhilmil Industrial Area under the relocation scheme. Also, by the end of the 1990s, a large number of units shifted to the industrial estates in the states of Uttar Pradesh, Haryana, and Rajasthan.

Unfortunately, the move to shift industrial units was not backed by appropriate provisioning of infrastructural facilities and a system of environmental monitoring, in the rural fringe within and beyond the NCT. Furthermore, people in the villages and small towns in the periphery were less vocal and less effective in stalling the location of hazardous industries near human habitations. The local bodies, here, are financially weak to provide

the necessary infrastructure support for attracting modern non-pollutant industries or control the production processes of the hazardous units. The industries also found these settlements as convenient locations because the legislation linked to physical planning was not implemented strictly and the environmental lobby was almost nonexistent. They could thereby cut down on costs of land, labour and environmental protection and, at the same time, enjoy the benefits of being close to a metropolitan city. The small towns and villages around the metropolitan city thus, emerged as convenient locations for industrial units despite serious infrastructural deficiencies.

Besides creating the industrial estates, Delhi Development Authority (DDA) acquired agricultural land within the urbanizable limits for new colonies to rehabilitate slum dwellers. DDA often left some land vacant in rural settlements to enable the village community to start alternate economic activities. This indeed has facilitated a few landowners to start a business or build an additional apartment or room for renting purposes, using the money received as compensation for their land. Typically, a builder or house-owner in a village is not required to get the building plan formally cleared as is the requirement within the urban limits. The landless class in rural areas has, however, been forced to seek employment outside their traditional economy but unfortunately only a small number has succeeded. The unemployment problem has got accentuated with the liquidation of most of the traditional household industries due to the penetration of the city market. It is in these settlements and surrounding vacant lands that a large majority of migrants, who seek employment in central Delhi, have been absorbed, contributing to worsening of the employment situation in the fringe. The unsatisfactory territorial expansion of Delhi has also created tensions between the locals and the immigrants. The local residents lost their traditional jobs but were not able to take advantage of the newly created job opportunities.

Nature of employment

Employment opportunities have steadily increased in Delhi over the years. According to Census of India 2001, Delhi's workforce went up from 49 per cent in 1991 to 53 per cent in 2001. The industrial sector that contributes to 10 per cent of the Delhi's income provides employment to over 1.4 million workers.

Two categories of employment make Delhi attractive.

Organized sector employment—Delhi offers several opportunities for employment in the organized sector—both in government as well as in the private sector, especially for those who are educated and formally qualified. Within the organized sector, government remains the largest employer. Close to 75 per cent of Delhi's organized labour force is employed by central, state or quasi-governments and local bodies. The public sector is the major source of organized employment for women. Women account for around 15 per cent of the workforce in government. A majority of women are, however, employed in the lower Class 3 and 4 categories. A recent positive development, however, has been a rise in the share of female employees in the Class 1 categories.

The private sector employs around 25 per cent of Delhi's organized labour force. And large private establishments hire almost 75 per cent of these workers. Private sector employment has been growing in recent years especially with new employment opportunities being offered in multinational companies, information technology companies and commercial complexes within and on the outskirts of Delhi. Between 1992–3 and 1999–2000, the proportion of Delhi's urban working women went up from 135 per 1000 population to 152. Nearly 78 per cent of women are salaried and only 16 per cent are self-employed. A sizeable proportion of working women (nearly 34 per cent) is between 20–4 years. Sectors where women find employment are manufacturing, agriculture, and services. The largest increase in women's employment—both in absolute terms and in percentage terms—has occurred in Delhi's manufacturing sector where employment grew annually by 16 per cent in the 1990s. An increasingly large number of women are finding employment in the new and upcoming areas (apart from the traditional occupations of teachers, bankers, clerks, and manual workers) in the services sector—such as journalism, tourisms, and hi-tech information

Residents in Delhi's villages and in the periphery were less organized and less vocal and hence less effective in stalling the location of hazardous industries near human settlements.
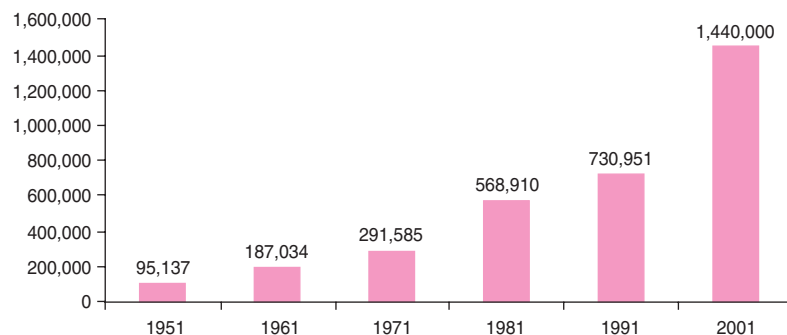
FIGURE 2.2: Growth of employment in Delhi's industrial sector

Source: Economic Survey 2003–04, Government of NCT of Delhi (2004a).

TABLE 2.1: Organized sector employment in Delhi

	Employment ('000s) as on 31 March 2004		
	Total	Women	% share
Public sector			
Central government	212.3	26.8	12.62
State government	120.5	22.7	18.84
Quasi-government (Central)	158.6	25.9	16.33
Quasi-government (State)	35.3	1.3	3.68
Local bodies	93.1	15.6	16.76
Total	619.8	92.3	14.89
Private sector			
Large establishments	160.0	29.6	18.50
Small establishments	59.2	3.3	5.57
Total	219.2	32.9	15.01
Delhi grand total	839.0	125.3	14.93

Source: Planning Department, Government of Delhi.

The public sector employs around 75 per cent of Delhi's organized labour force.

technology companies. The fact that women are beginning to access such new opportunities indicates a marked shift in the attitude of society towards women's employment. Working as journalists or as call centre employees requires adherence to very different work timings and schedules that were previously considered as inappropriate for women. This shifting attitude is a positive and welcome change that reflects rising freedom for women in Delhi. Nevertheless, barely 10 per cent of women in Delhi are formally employed in the labour force. Part of the low women's work participation rates can be attributed to under-reporting and improper recognition of women's work. But it is also true that the overwhelming concentration of women in their familial, domestic roles of caregivers and home managers prevents them from becoming a part of the labour force.

Unorganized sector employment—Between 3.5–4.3 million workers are employed in Delhi's unorganized sector.

Trade, hotels, and restaurants account for one-third of Delhi's unorganized sector employment. Another 27 per cent are employed in the manufacturing sector. Sizeable casual employment is also provided by the construction sector. Most of these workers are employed on a casual basis. The majority of these workers belong to migrant families that are illiterate and economically weak. Employment in construction is also interspersed with periods of unemployment of varying duration mainly due to fluctuating requirements of labour force on each worksite. Unstable employment and shifting of workplaces thereby constitute the usual working conditions. With safety norms generally violated, working conditions are often hazardous. Further the workers are not entitled to any benefits such as adequate medical compensation if injured at work or even holidays. Though skilled workers are often hired directly by employers, unskilled workers by and large are engaged through intermediaries who introduce the workers to contractors on a commission basis. The payment of wages is routed through the intermediaries who usually enroll workers by offering loans. These loans are then recovered by manipulating the wages of the workers. As a result the worker finds it very difficult to get out of the clutches of the intermediaries.

Conditions of employment for most workers in the unorganized sector are marked by irregular and low earnings. These workers are typically not covered by existing social security laws like Employees State Insurance Act, Employees Provident Fund and Miscellaneous Provisions Act, Payment of Gratuity Act, and Maternity Benefit Act. Women engaged in construction work are worse off. They are often involved in extremely arduous tasks such as breaking stones, digging mud, mortar mixing, or carrying loads. They remain casual workers and are treated as supplementary earners to be employed as a residual category when there is a shortage of male workers.

TABLE 2.2: Estimated number of unorganized sector workers in Delhi: 1993–4 and 1999–2000

| Industry | Estimated number of unorganized workers in Delhi (in '000s) | | | |
| | 1993–4 | | 1999–2000 | |
	Total	%	Total	%
Agriculture, Forestry, and Fishing	83	3	122	3
Mining and Quarrying	4	0	1	0
Manufacturing	859	31	947	27
Electricity, Gas, and Water Supply*	0	0	0	0
Construction	304	11	245	7
Trade, Hotels, and Restaurants	703	26	1200	34
Transport, Storage, and Communications	91	3	153	4
Finance, Real Estate, and Business	100	4	123	4
Community, Social, and Personal Services	599	22	719	20
Total	2744	100	3509	100

Source: Institute for Human Development (2005a).
Note: *Figures are rounded. Electricity, Gas and Water is assumed to be completely in the organized sector; and estimates for women in the sub-sector transport, storage, and communications for unorganized sector based on residual method are not reliable and hence treated as nil. However, an alternative estimate from the informal non-agricultural enterprises survey of NSS (55th round) shows that 2 per cent of women unorganized sector workers are employed in this sub-sector.

Surveys reveal that women workers are not often paid even the minimum wages. Frequent changes in their work and instability deprive them and their children of primary facilities like health, water, sanitary facilities, education, and ration cards. The temporary residential sheds put up by contractors lack even minimum facilities such as separate cooking space, lavatories, bathing, and washing spaces. Crèche facilities are seldom provided.

Migrant workers with some skills end up as workers in small informal enterprises. Many women in particular become home-based workers producing food items, manufacturing paper products, footwear, handicrafts, and other products. And others, particularly migrant women, find jobs as domestic servants. These women face several hardships. Usually without their husbands as employment opportunities for illiterate and unskilled men are limited, most of these women are unable to find enough work to earn a decent living. Few are paid the minimum wage and most do not get any regular leave or medical assistance. Apart from earning extremely low wages, they are often subject to various forms of ex-

ploitation and threats and with many of these women quite young, they run the risk of sexual harassment.

Migration and informalization

Migration into Delhi remains high even to this day. Increasing prospects of finding a job has attracted a large number of migrants into the city, with a majority of such workers finding employment in the unorganized service sector. The following features of migration into Delhi are striking.

First, there has been a sharp increase in the number of in-migrants into Delhi during the decade of the 1990s. According to the Census of India 2001, 2.22 million in-migrants entered Delhi between 1991–2001—substantially higher than the 1.64 million who had come in between 1981–91.

Second, despite the higher numbers of in-migrants, net addition to Delhi's population as a result of migration has declined from 14.4 per cent during the 1980s to 12.7 per cent during the 1990s.

Third, in-migration to Delhi remains highly male dominated. During the decade of the

Close to a third of Delhi's unorganized sector workers are employed in trade, hotels, and restaurants.

TABLE 2.3: Migration in Delhi: 1991–2001

	Number of migrants during 1991–2001			Number of migrants during 1981–91		
	Person	Male	Female	Person	Male	Female
Total population	13,850,507	7,607,234	6,243,273	9,420,644	5,155,512	4,265,132
Total in-migrants	2,222,041	1,253,996	968,045	1,637,871	888,305	749,566
Total out-migrants	457,919	199,397	258,522	281,946	122,771	159,175
Net migrants	1,764,122	1,054,599	709,523	1,355,925	765,534	590,391
	Migration Rates (%)					
In-migration rate	16.04	16.48	15.51	17.39	17.23	17.57
Out-migration rate	3.31	2.62	4.14	2.99	2.38	3.73
Net migration rate	12.74	13.86	11.36	14.39	14.85	13.84

Source: Institute for Human Development (2005a).
Note: The duration of migration refers to all those who have moved within last ten years.
The migration rate has been calculated as a proportion of the terminal year population.

TABLE 2.4: Prominent states of origin of in-migrants to Delhi over the last two decades

(Per cent)

	1991–2001			1981–91		
State	Person	Male	Female	Person	Male	Female
Uttar Pradesh	46.18*	45.35*	47.25*	49.61	50.55	48.48
Bihar	22.72*	27.61*	16.42*	10.99	14.43	6.86
Haryana	8.05	5.97	10.73	11.82	9.37	14.76
Rajasthan	4.16	3.79	4.64	6.17	5.83	6.58
West Bengal	3.97	4.08	3.83	2.79	2.75	2.85
Rest of the states	14.93	13.20	17.15	18.62	17.07	20.47
Total	100.00	100.00	100.00	100.00	100.00	100.00

Source: Institute for Human Development (2005a).
Notes: The duration of migration refers to all those who have moved within last ten years.
*For 2001, Uttar Pradesh includes the newly formed state of Uttaranchal and Bihar includes Jharkhand to enable comparison with the previous decade prior to the bifurcation of these states.

Delhi continues to attract a large number of migrants every year. And an increasing proportion is absorbed into the informal unorganized sector.

1980s, the female-to-male ratio among in-migrants was 843 women per 1000 men. Fewer women than men migrated to Delhi during the 1990s. As a result, the female-to-male ratio of in-migrants to Delhi dropped to 772 between 1991–2001.

Fourth, 46 per cent of in-migrants during 1991–2001 came from Uttar Pradesh and Uttaranchal; and another 23 per cent from Bihar.

Fifth, there has been a large influx of in-migrants from Bihar during the 1990s. The share of in-migrants from Bihar rose from 11 per cent during 1981–91 to 23 per cent during 1991–2001.

Sixth, close to 63 per cent of men migrated to Delhi in search of jobs. This proportion went up from 31 per cent during 1981–91 to 37 per cent during 1991–2001. Even the share of female in-migrants to Delhi for work and employment rose from 3.7 per cent to 5.1 per cent during the same period. Another 25 per cent of male in-migrants came to Delhi because their families moved. On the other hand, 57 per cent of women moved to Delhi because their families moved. Another 31 per cent of women moved to Delhi on account of their marriage; and only 5 per cent moved in search of employment.

Seventh, Delhi follows Mumbai in terms of attracting the largest numbers of in-migrants. According to Census of India 2001, between 1991–2001, Mumbai attracted the largest number of in-migrants followed by Delhi. However, Delhi received the largest number of in-migrants from other states and

TABLE 2.5: Reported reasons for in-migration to Delhi

Reasons	1991–2001		
	Person	Male	Female
Work/employment	37.56	62.76	5.08
Business	0.54	0.83	0.17
Education	2.68	3.77	1.27
Marriage	13.80	0.23	31.30
Family moved	39.14	25.44	56.79
Other	6.28	6.97	5.38
Total	100.00	100.00	100.00

Source: Institute for Human Development (2005a).
Note: The duration of migration refers to all those who have moved within last ten years.

TABLE 2.6: Percentage share of in-migrants in Urban Agglomerates

Name of the UA	2001 Population	In-migrants			Total in-migrants	Per cent of in-migrants to total population
		From within the state	From other states	From other countries		
INDIA (Urban)	286,119,689	24,974,372	11,157,574	348,060	34,480,006	12.7
Greater Mumbai UA	16,434,386	892,706	1,571,181	25,665	2,489,552	15.1
Delhi UA	12,877,470	77,663	1,988,314	46,386	2,112,363	16.4
Chennai UA	6,560,242	334,972	94,964	5684	435,620	6.6
Kolkata UA	13,205,697	470,601	297,279	54,509	822,389	6.2
Hyderabad UA	5,742,036	407,861	88,216	2406	498,483	8.7
Bangalore UA	5,701,446	401,932	353,156	6397	761,485	13.4

Source: Census of India 2001.

TABLE 2.7: Share of unorganized workers by gender in total employment

(per cent)

Industry	1993–4			1999–2000		
	Male	Female	Person	Male	Female	Person
Agriculture, Forestry, and Fishing	97	100	98	98	100	98
Mining and Quarrying	100	0	100	100	0	100
Manufacturing	86	81	86	88	92	88
Electricity, Gas, and Water	0	0	0	0	0	0
Construction	90	91	91	90	56	89
Trade, Hotels, and Restaurants	93	92	93	96	92	96
Transport, Storage, and Communication	38	0	37	53	0	50
Finance, Real Estate, and Business	62	52	61	69	47	66
Pub Admn., Edu., Health, and Others	56	73	61	63	71	65
All Industry	75	75	76	81	78	81

Source: Institute for Human Development (2005a).
Note: Figures have been rounded. Electricity, Gas, and Water are assumed to be completely in organized sector; and estimates for women in the sub-sector transport, storage, and communications for unorganized sector based on residual method are not reliable and hence treated as nil. However, an alternative estimate from the informal non-agricultural enterprises survey of NSS (55th round) shows that 2 per cent of women unorganized sector workers are employed in this sub-sector.

Human poverty in Delhi manifests itself in a severe shortage of affordable housing especially for the poor.

ranked first in terms of the proportion of in-migrants to total population.

There is also strong evidence to suggest the increasing informalization of Delhi's economy as well. First, as discussed earlier, there has been an increase in in-migration. The surge in in-migrants especially from Bihar supports the popular belief that thousands of unskilled workers come to Delhi in search of jobs. Second, recent data suggest that unorganized sector employment in Delhi has been increasing during the 1990s. In 1993–4, unorganized sector workers accounted for 76 per cent of employment in Delhi. By 1999–2000, the proportion had risen to 81 per cent. During this period, employment for men rose annually by 5.3 per cent and for women by 3.5 per cent. The sharpest increase in employment opportunities for men in the unorganized sector was in the services sectors with the largest visible increases occurring in trade, hotels, and restaurants. The share of unorganized workers in transport, storage and communications increased from 37 per cent to 50 per cent over the 1990s.

The greater informalization of the workforce combined with the high in-migration into the city-state has led to a perpetuation of inequities in living standards.

INEQUITIES IN LIVING STANDARDS

The relatively low proportion of Delhi's population living below the poverty line—around 8 per cent in 2000—masks the considerable extent of human deprivations. Human poverty in Delhi manifests itself in many ways.

Housing

Housing shortages, rising homelessness, large number of slums comprising of *jhuggi* and *jhopdi* settlements, and unauthorized colonies where people live on undeveloped and unserviced lands without a secure tenure along with households without access to basic services characterize Delhi's housing situation especially for the poor.

Delhi's aggregate housing stock is large and varied and has grown in recent years at moderate rates. In 2001, it consisted of 3.38 million houses, having registered an increase of about 38 per cent—or 0.93 million new housing units over a ten-year period 1991–

Serious mismatches between demand and supply characterize Delhi's housing market.

2001. Much of this increase in housing stock has taken place outside the formal system, in a form that has come to be identified with unauthorized colonies and *jhuggi* and *jhopdi* settlements. A little over two-thirds of housing in Delhi is owner occupied. In 2001, the occupancy rate was reported to be 88.8 per cent of the total housing stock.

Delhi's housing stock comprises units which range from single room units—38 per cent of the total, to two room units (27 per cent), and extends to over six rooms which has a share of 4.1 per cent. A larger number of households today live in two and three room units than they did in 1991. Over 1991–2001, the housing situation in Delhi in terms of the rooms that the households occupy has shown a marginal improvement.

Delhi's housing market is complex where land—the basic input to housing—is under direct control of the Central government that has the responsibility of acquiring and developing lands, via the Delhi Development Authority (DDA) and releasing the same to housing cooperatives and other stakeholders for purposes of housing and other uses. Under this arrangement where DDA has a near monopoly over land and development, about 7500 hectares of developed land, 30–3 per cent of the total demand—have been released for housing development. Land in Delhi is managed by the DDA, Land and Development Officer (L&DO), and the Ministry of Defence. While these agencies have the power to protect the lands under their control, effectively it is only the DDA that has the manpower to protect public land. The supply–demand gap has been met largely by the unregulated private sector and by community initiatives—a response that has provided affordable housing and services to millions of households in Delhi. Unregulated initiatives are, at best, temporary building blocks, and it is necessary to move away from this model to one where partnerships can be promoted and services provided in ways that are guided by public demand.

Delhi's housing situation has historically been under severe strain which manifests itself in the following features:

- *Substantial housing shortage:* There are large housing shortages in Delhi which have risen exponentially over the years.

From an absolute shortage of about 45,000 units in 1977, the shortages rose to 257,000 units in 1991 and are currently placed at about 300,000 units. Given that the shortages of housing coexist with vacant houses shows that there is an absence of a linkage between the structure of demand and housing supply. What is demanded is not supplied, and what is supplied is not fully absorbed.

- *Large number of households without access to any shelter:* Although data on households without shelter are sparse and scattered— estimates suggest that 50,000 and 70,000 persons are homeless. With only about 4500 shelter units, the scale of homelessness in Delhi is a cause for concern. Many households in Delhi have little capacity to translate their housing needs into effective demand, and find themselves at risk of homelessness. Homelessness, as the experience in other developing countries shows, is a complex phenomenon which is explained neither in terms of households without adequate incomes nor is it a feature of specific population groups.

- *Large number of households who live in 'slums',* a term which has many connotations and meanings, but which is understood as one that refers to substandard housing and squalor. Slums include informal settlements—both squatter settlements and illegal sub-divisions as also unauthorized colonies—that have become the most visible manifestation of poverty and physical decay in cities around the world with Delhi being no exception. At the end of the Ninth Five-Year Plan (1996–2001), there were 1080 *jhuggi* and *jhopdi* clusters with population of over 3 million estimated by Slum and J.J. Department or about 22 per cent of Delhi's total population. The number of *jhuggi* clusters and the population living in them has grown from a relatively small base of 20,000 in 1977. Growth in their population saw the first upsurge during 1977 to 1981, and then subsequently between 1990 and 1994, in response partly to an extraordinarily large influx of migrants, and in part owing to collapse of public land and housing policy and the consequent confusion with
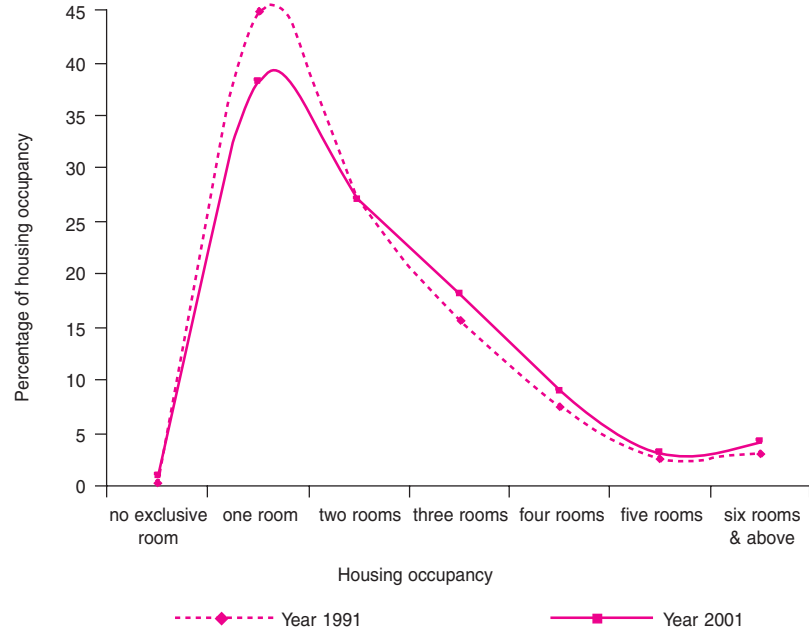
FIGURE 2.3: Housing occupancy status

Source: Census of India 2001.

TABLE 2.8: Occupancy status

Status	Year		1991–2001 % change
	Number of Households		
	1991	2001	
Owner-occupied	1,267,134	1,712,971	35.2
Rental housing	532,342	653,459	22.7
Others	61,272	187,719	206.4
Total	1,860,748	2,554,149	37.3

Source: Census of India 2001.
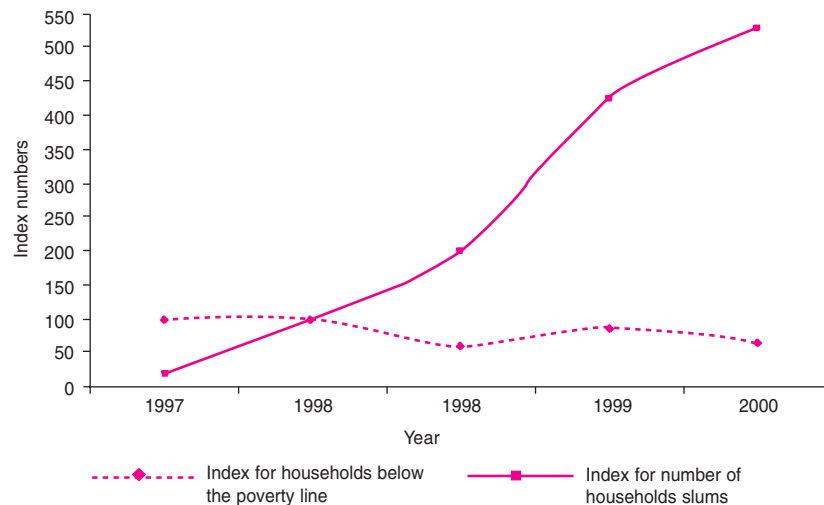
FIGURE 2.4: Declining poverty and increasing number of slums

Source: Planning Department, Government of Delhi.

Box 2.1
Slums in Delhi

Slums in Delhi are constructed on vacant land, much of which is owned by government. In Mumbai, by contrast, most slums are located on private land. With the land-owing agency being unable or unwilling to protect its own lands it is but natural that squatter colonies should proliferate on any land which appears to be vacant. At the same time the land-owning agencies want their valuable land to be vacated and, therefore, call upon the Slum Department to take suitable action in this behalf. The Slum Department here faces the problem of—(a) getting money from the land-owning agencies, which is not always forthcoming, (b) finding the land on which to resettle the oustees. So long as the Slum Department was a part of DDA the problem was easier to tackle because DDA itself is the largest land-owner in Delhi and can set aside land for slum rehabilitation. With transfer of the Slum Department to the Municipal Corporation of Delhi, availability of land for resettlement has become a real problem.

Buch Committee Report on Slum Policy

TABLE 2.9: Households without service connections

(per cent)

Year	Piped water	Toilet	Electricity
1991	24.28	36.63	20.52
2001	24.67	22.04	7.14

Source: Census of India 2001.

A sizeable proportion of Delhi's population resides in slums where living conditions are poor by any standard.

regard to institutional responsibility for managing slums or even for protecting public spaces. In most slums, housing and living conditions are appallingly poor, which threaten their health and well-being. They are characterized by: densities that are two to three times higher than most residential settlements; absence of legal recognition or tenurial right; and absence of basic services such as street lighting, sanitation, and often even road networks. With a policy not to uproot them without providing alternative shelter along with other institutional reforms that have been taken to address the housing problems of low-end households, slums, of which *jhuggi* clusters are only one part, present a formidable challenge for improving the index of Delhi's human development.

- *High proportion of houses without provision of basic services:* According to the Census of India, despite improvement in the expansion of electricity, water, and sanitation services, significant proportions of households have no access or at best partial access to them. In 2001, nearly 25 per cent of houses in Delhi had no access to piped water supply and depended on hand pumps or tubewells, or other sources. Unfortunately, the Census reports no progress in the proportion of households with access to piped water supply over the 1991–2001 period. The numbers of households with toilet facilities jumped from 1.18 million in 1991 to 1.99 million in 2001 contributing to improved environmental conditions.

- *Large proportion of households who live in one-room housing units:* The Housing Census, 2001 shows that 38 per cent of households in Delhi live in one room housing units. Although this proportion today is less than what it was in 1991, the fact that 973,520 households have access to one room shelter speaks largely of the extremely constrained housing market and also of the low level of affordability of such large numbers of people.

Addressing these problems of housing poverty and tenurial insecurity requires an approach that looks beyond the conventional approaches to building housing units and shelters, and even beyond the numerous initiatives like the three-pronged strategy for dealing with slums, construction of pay and use of *jansuvidha* (public facilities) complexes that have been undertaken in recent years. It needs an integrated land and housing policy with underlying mechanisms of coordination that would bring together the highly fragmented institutional arrangement existing in Delhi. It needs dedicated institutional innovations which are able to focus on the housing needs of the poor. It needs to be concerned

not only with strengthening of tenure, but also with developing and supporting appropriate forms of tenure. The recent decision to establish the Social Housing and Infrastructure Development Corporation is one such innovation that is geared towards addressing housing problems of the poor and low-income households.

Water and sanitation

Universal access to adequate water and sanitation services has long been recognized as the cornerstone of public health and an essential constituent of healthy living. Even though service coverage of water supply in Delhi is as high as 99 per cent, the city-state faces an unparalleled water crisis. Delhi's aggregate per capita daily water supply is around 255 litres, one of the highest for any city in the country. Delhi's real problem, however, is one of establishing distributional equity.

Delhi's water shortage manifests itself in inadequate supply to a majority of households. According to a recent survey, 27 per cent of households received water for less than three hours a day, and 55 per cent of households received water for only three to six hours a day. Almost 18 per cent of households receive less than 100 litres per capita daily (lpcd) and 31 per cent of households get over 200 lpcd. Also, of the nearly 690,000 households living in slums and squatter settlements, 16 per cent receive less than 25 lpcd and another 71 per cent receive between 25–50 lpcd.

An estimated 75 per cent of Delhi's households have access to tap water. The remaining 25 per cent of households are not linked to any formal water utility network and depend on the informal water market. Of these, around one-fifth of households depend on handpumps and tubewells.

Focusing on the demand side, the requirement of water has been steadily rising in Delhi. Between 1990–1 and 2001–02, domestic consumption of supply water more than doubled—from 401.3 to 929.6 million cubic metres (MCM). During the same period, there was an almost threefold increase in water

One out of four households in Delhi does not have a piped water connection and one out of five households does not have a toilet.

Box 2.2
Inequities in physical surroundings

The predominantly urban landscape of Delhi is characterized by many striking inequities in physical settlements. Apart from approved colonies and government housing, there are at least five types of geographical clusters of human settlements where the poor live.

- *The Walled City* area can be traced to the 17th century when Shahjahanabad was built. Once a grand settlement, it has now become an extremely over-crowded area lacking in many basic amenities.
- *Regularized-unauthorized colonies*: Government of India regularized 567 unauthorized colonies in 1977. Thereafter, a plan for formulated in 1979–80 to provide basic amenities in these colonies.
- *Jhuggi-Jhopdi (JJ) Resettlement colonies*: The scheme for the resettlement of JJ cluster households started in 1961. It began with the allotment of two-room tenements to 3560 JJ cluster households. Subsequently, plots were allotted to JJ cluster households for resettlement. The size of the plot was reduced to 40 square metres and subsequently to 25 square metres. Between 1975–7, Delhi Development Authority (DDA) undertook a massive plan for resettling close to 200,000 JJ cluster households in 26 new JJ Resettlement colonies. Of the 51,461 JJ squatters households relocated between 1990–2004, 24 per cent were relocated from DDA land, 15 per cent from L&DO and 8 per cent from PWD land. The rest were squatting on land belonging to MCD, NDMC, MTNL, AIIMS, and other land owning agencies like the Police department, Health Department, Delhi University, etc. In 1979–80, a scheme was launched to provide and improve basic amenities in all 44 Resettlement colonies in which around 240,000 households were resettled. The JJ Resettlement colonies were transferred from the DDA to the Municipal Corporation of Delhi in 1988–9.
- *Jhuggi-Jhopdi clusters*: The continuous flow of migrants combined with the absence of adequate affordable housing for the poor led to the emergence of JJ settlements even prior to Independence. Whereas some of them were accommodated in resettlement colonies, they continue to grow. In 1990, it was estimated that there were 259,000 households living in 929 JJ clusters. Estimates by the Slum Wing of the MCD places the numbers at 1100 JJ clusters with 600,000 households. According to Census of India 2001, around 1.8 million persons were residing in slums including JJ clusters in Delhi.
- *Urbanized villages*: There are close to 135 urbanized villages in Delhi. In 1979–80, Government of Delhi introduced a scheme to improve the civic services in these urbanized villages.

demand by commercial and industrial activities—from 52.7 to 164 MCM. It is estimated that raw water demand will rise over the next twenty years by over 75 per cent of current levels as Delhi's water resources are coming under increasing pressure from rising population densities, rapid urbanization, growing commercialization and a general lack of pollution control facilities.

Over-exploitation of groundwater sources has led to a sharp fall in water tables across Delhi and has become a major source of concern. Groundwater withdrawals have exceeded the rate of recharge, resulting in lowering groundwater tables and increased chemical concentration. Compared to 1960, water tables in Delhi have dropped between 2 to 30 metres. Levels in Alipur and Kanjhawala blocks have declined by 2 to 6 metres, in the Najafgarh block by 10 metres and in Mehrauli by 20 metres. In the flood plains of river Yamuna, freshwater generally exists at a depth

Delhi suffers from serious over-exploitation of groundwater sources as well as increasing contamination and deterioration in water quality.

of 35–45 metres. At the same time, the chemical quality of groundwater varies with depth and space. Brackish water at shallow depths exists, for example, in Kanjhawala and Najafgarh blocks and in some minor patches of Alipur.

Deteriorating surface (Yamuna River) and groundwater quality is one of the most serious environmental problems facing the NCT of Delhi. Water quality has been deteriorating due to a combination of factors. Draining of sewage, industrial and urban effluents into water sources and saline intrusion constitute a few of those factors. The amount of domestic wastewater generated has increased from 0.26 MCMD (million cubic metres per day) in 1961 to 1.63 MCMD in 1991 and further to 2.65 MCMD in 2001 and 2.934 MCMD in 2004, with the percentage of unaccounted water due to losses during pumping and distribution being as high as 35–40 per cent. Najafgarh drain is a major polluting drain and contributes about

TABLE 2.10: Water distribution in Delhi

Per capita water supplies (litres per capita daily [lpcd])	Number of households				
	1991		2001		
	Number (thousands)	% to total	Number (thousands)	% to total	
>200	410	33.4	465	31.9	
150–200	385	31.4	425	29.1	
100–150	236	19.2	310	21.3	
50–100	92	7.5	123	8.4	
<50	104	8.5	135	9.3	
Total	1227	100.0	1458	100.0	
	Number of slum households				
50–100	65	10.9	85	12.3	
25–50	428	71.6	495	71.7	
<25	105	17.5	110	15.9	
Total	598	100.0	690	100.0	

Source: Planning Department, Government of Delhi.

TABLE 2.11: Distribution of households by source of drinking water, 2001

	Total Number (in '000s)	Source of drinking water (%)							
		Tap	Handpump	Tubewell	Well	Tank, Pond, Lake	River, Canal	Spring	Any other
Rural	169,528	51.56	33.52	5.00	0.36	1.89	0.03	0.04	7.60
Urban	2,384,621	77.02	17.62	3.11	0.02	0.60	0.00	0.02	1.61

Source: Census of India 2001.

25 per cent of the total pollution load and 50 per cent of the total flow to the Yamuna River. Construction of the proposed 0.5712 MCMD Sewerage Treatment Plant at the mouth of Najafgarh drain is expected to reduce 10 per cent of river pollution. Although the treatment capacities have increased from 42 MGD (million gallons per day) in 1951 to 280 MGD in 1991 and to 402.4 MGD in 2000, there is current shortfall of about 276 MGD.

Another major source of water quality deterioration is the absence of adequate sewerage facilities in Delhi. Around 45 per cent of Delhi's population has no sewerage services. For many communities residing especially in unauthorized colonies and slums, human waste is disposed of using individual or communal on-site sanitation. Open defecation is quite common as well. Wastewater is disposed into the ground, into open channels or into surface water drains that ultimately discharge either into the Yamuna or get transported for irrigation. The problem is made even more serious by the poor condition of sewerage systems. Many sewers are blocked with large quantities of silt or have simply collapsed. As a result, the sewage is diverted to the surface drainage network. Many storm water drains act as surrogate sewers. This has led to extensive pollution of not only the river water but the neighbourhoods as well and has created serious environmental and public health risks for people.

Recent efforts by Government of Delhi to create awareness among people about the need for rain water harvesting to recharge the ground water tables are beginning to yield favourable results in some parts of the city-state. Nevertheless, many other problems associated with public management that contribute to the 'water crisis' continue to persist. For example, unaccounted—for—water or non-revenue water is estimated at about 45 per cent of the total water supplied. Despite the water tariff in Delhi being low and water being heavily subsidized, the poor do not get their share in subsidies, and end up paying more for water.

There is need to rationalize the water pricing structure and reduce unmetered connections. The conservative pricing of water and associated services along with non-metering of 28 per cent of the connections also discourages rational and efficient use of available resources. This also leaves the service providers with inadequate funds and insufficient resources for efficient operation and upkeep of the system.

Solid waste management

Absence of adequate solid waste management facilities is rapidly emerging as another major cause for concern in Delhi. Not only is it abetting contamination of water supply, as discussed earlier, but it is also seriously affecting the health of Delhi's residents.

Delhi currently generates around 6000 to 6500 metric tonnes of municipal solid waste—around 400–450 grams per person—every day. By 2024, this is projected to increase to about 14,300 metric tonnes—close to 650 grams per person every day.

Disposal of solid waste is presently carried out at four disposal sites in Okhla Phase-1, Crossing GT Karnal Road, Bhalswa, and Gazipur. There are several deficiencies in the solid waste management system. It is estimated that, on an average, 15 to 20 per cent of the municipal solid waste generated remains uncollected. Of the collected municipal solid waste, only 5 to 10 per cent is used for composting and the remaining is disposed at various landfills. More specifically, out of the nearly 6000 metric tonnes of municipal solid waste generated by Municipal Corporation of Delhi (MCD), with waste requiring specialized treatment and disposal centering around 15 per cent, around 4800–5100 metric tonnes per day gets collected. Another 300–600 metric tonnes per day of waste are composted in three existing composting plants and the remaining goes for land-filling. At the same time, the balance life of the disposal sites has reached a critical stage.

Increasing use of plastics particularly polyethelene bags has imposed an additional burden and complexity to solid waste management. In 1997, Delhi was estimated to generate around 300 metric tonnes of plastic wastes daily. This is projected to have increased substantially since then. According to a recent study, plastic wastes contribute around 6 per cent of the total municipal solid waste generated in NCT of Delhi. Seemingly a small

Poor solid waste management threatens the health and safety of all residents of Delhi—not just the poor.

proportion, however, the management, especially of discarded polythene bags, remains a serious challenge. A positive step has been the enactment in 2001 of the Delhi Plastic Bag (Manufacture, Sale, and Usage) and Non Biodegradable Garbage (Control) Act 2000 for plastic waste management. This Act prohibits the manufacture and sale of plastic bags of thickness less than 20 microns. Better enforcement of the law could contribute significantly to addressing the problem of plastic waste.

Industrial activities and inadequate treatment of industrial effluents (sludge generation) in the NCT of Delhi comprising of 31 approved industrial areas with about 20,000 industrial units have contributed to the accumulation of toxic chemicals. Most of the industrial units in Delhi are in the unorganized sector and much of the hazardous waste is in the form of sludge from CETPs and individual ETPs. In 2001, hazardous waste generation by some 1777 hazardous waste generating units in Delhi was around 20,000 tonnes per year. The largest waste producing enterprises are small scale pickling units, electroplating and anodizing, dyeing units and vehicle service stations. With the relocation and closure of certain categories of hazardous chemical industries, the quantum of hazardous waste is likely to decrease. Figure 2.5 shows the hazardous waste contribution of various industrial sectors.

Fly ash from coal based power plants is the main industrial non-hazardous waste in NCT of Delhi. There has been a decrease in fly ash generation over the last few years due to use of coal with lower ash content (34 per cent against 40 per cent used earlier) and partly due to the fuel switch from coal to natural gas. Nevertheless, in 1999–2000, Delhi's three power plants generated an estimated 1,677,220 metric tonnes of fly ash—amounting to almost 5000 metric tonnes of fly ash per day. Out of the total fly ash generated from these coal based thermal power plants, around 57 per cent is used mainly for landfill, road embankments and brick making. Land is now also being allotted to three brick-manufacturing units near Rajghat and Indraprastha thermal power stations for the utilization of additional fly ash from these plants. However, encouraging the

Biomedical wastes are a major source of infection and health risk especially for the thousands who handle it and live in its proximity.

use of beneficiated or washed coal can help reduce the amount of fly ash generated by thermal power plants.

Biomedical wastes constitute a major source of infection and health risk for those who handle it and live in its proximity. These include specific categories of waste produced by health care units, clinics and other medical, and research facilities. Most of the large hospitals in Delhi have incineration facilities and, in some cases, autoclaving facilities as well. However, these are close to residential areas and pose potential health and environmental hazards. Private nursing homes and small hospitals however, do not have arrangements to treat biomedical waste. At present, fifty-four incinerators, eighteen autoclaves and two microwaves are in operation. Around 10–15 per cent of the hospital waste is infectious and another 5 per cent is non-infectious but considered hazardous, while around 80–5 per cent of the waste is generally household type waste. However, if the biomedical infectious waste is mixed with general waste, the entire waste has to be treated as infectious

Legend:
- Service Stations
- Printing
- Chemical
- Heat Treatment
- Metal Finishing
- Textile Dyeing
- Casting
- Others

FIGURE 2.5: Sector-wise distribution of hazardous waste (kg/cal)

Source: NCAER, NPC, 2001.

waste. According to recent estimates, 22,446 kg per day of bio-medical waste is generated in Delhi. Much of the general biomedical waste (85 per cent), if segregated at the source of generation itself, can be disposed along with municipal waste.

Transport

Transport is an important sector of Delhi's economy. In 1991, employment in the transport sector accounted for over 40 per cent of Delhi's total work force. It generated close to 11 per cent of Delhi's Gross Domestic Product. Transport decisions are also among the most important decisions that cities can make. They are important because they affect large numbers of people and the operation of the city on a day-to-day basis, involve high levels of capital expenditure and are vital to the well-being of a city's population. As global experience suggests, transportation and cities are found to be inter-dependent, influencing each other in often complex and dynamic ways.

Delhi's transport system comprises of personalized transport which has expanded at an extraordinarily fast pace post-1990 and public transport, which mainly comprises of buses and the recently introduced metro rail. It is complemented on a commercial basis by a fleet of taxis and other means of mobility such as bicycles and rickshaws. Much of the growth stems from increase in the number of two and three wheeled vehicles. The mobility and cost advantages of such vehicles, however, are diminished by their pollution disadvantage.

In addition to around 4.5 million motorized vehicles, Delhi also has close to 160,000 man-and-animal driven vehicles. Over 95 per cent of these are made up of cycles, rickshaws and trolleys. The public bus transport system in Delhi is subject to the Road Transport Corporation Act, 1950, under which road transport corporations have been set up and entrusted with the responsibility of providing, securing, and promoting an efficient, adequate, economical, and properly coordinated system of road transport services.

Bus services in Delhi—by far the most widely used form of transport—have a chequered institutional history. While an estimate of its share in passenger traffic is difficult to establish, it is crudely placed at about 50–5 per cent of the total passenger traffic. Its importance can be assessed in view of the fact that in 2000–01, public bus transport in Delhi carried 2.1 million passengers every day. The metro rail now supplements the bus services on limited routes. The importance of public transit is poised to rise as the trips that are currently made by bicycles and walk diminish.

As Delhi has grown, bus transport, road system, and traffic management have become inadequate. Bus transport services, representing the supply side, have expanded at a much slower pace in comparison to the rising mobility requirements of the fast increasing population and have resulted in an increased use of personalized or other transport. Operated by the Delhi Transport Corporation (DTC), the supply situation is aggravated by an ageing bus fleet, shortened vehicle life due to heavy use, poor fleet maintenance, and poor roads. In response to these shortcomings of DTC, Delhi has turned to the private sector to help expand bus service. While it has increased capacity, bus services generally remain poor. A number of private bus operators operate

Delhi's public bus transport system serves over 2 million passengers every day and is most extensively used by the poor.
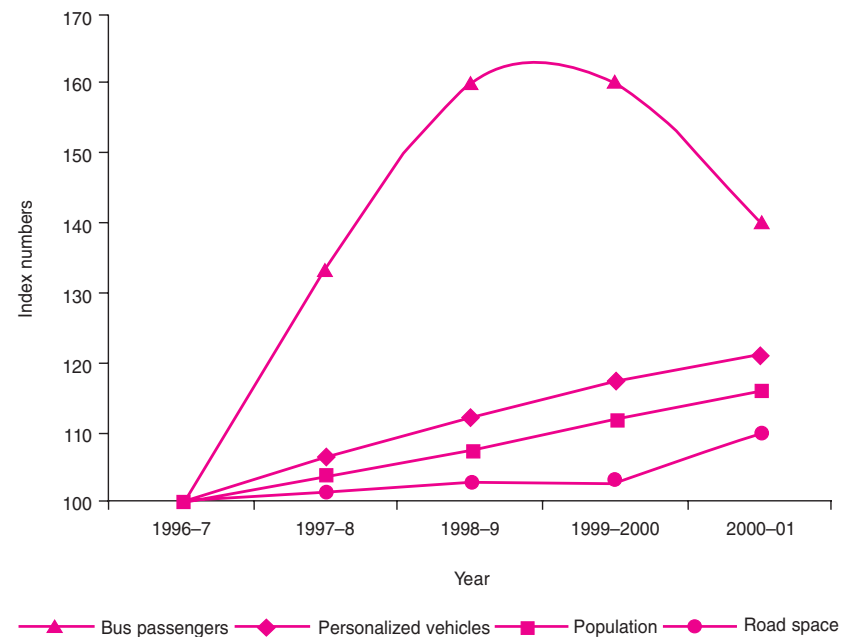
FIGURE 2.6: Load on road space

Source: Mathur (2005).

TABLE 2.12: Load on road space

Year	Road space (km)	Population (million)	Number of cars and scooters (million)	Bus passengers (million)
1996–7	25,949	11.9	2.58	1.5
1997–8	26,323	12.3	2.76	2.0
1998–9	26,698	12.8	2.92	2.4
1999–2000	26,730	13.3	3.05	2.4
2000–01	28,508	13.8	3.15	2.1

Source: Planning Department, Government of Delhi.

the service under conditions of regulated fares and lack incentive to properly maintain their vehicles for users comfort and convenience.

Over the past five years, personalized transport (cars and jeeps) has registered an increase of about 27 per cent which is far greater than what road space in Delhi can absorb. The result is traffic congestion and air pollution, which have become severe with little signs of abatement. Not only is precious time lost on account of reduced average speeds of vehicles, traffic congestion has created more air pollution in Delhi.

Increasing motorization is causing more and more traffic congestion and commuting delays.

With increasing motorization in Delhi, average commuting distance is lengthening and trips are becoming increasingly dispersed over the physical landscape. Urban planning can affect accessibility through its impact on the viability of modes of transport that are important to low-income and poor population groups—non-motorized vehicles. Rarely have debates about the effects of urban land policy on transport included an emphasis on the implications for poor, or possible synergies with urban poor housing policy. The need for infrastructure for non-motorized modes, affordable and convenient public transit service is very important from the perspective of the poor who are unable to afford even the most inexpensive motorized mode and who therefore benefit the least from motor vehicle activities but are most affected by it.

Pollution from transport accounts for 70 per cent of all air pollution and health effects of this are serious. In the 1990s, Delhi was ranked fourth among the 41 most polluted cities in the world. The suspended particular matter averaged at about 450 μ/m^3 in 1996, which was three times the ambient air quality standard. Similarly, annual average level of CO increased to 5,587 μ/m^3 against the standard of 2,000 μ/m^3 for residential areas and was associated with very high economic costs and deterioration in quality of life. The subsequent events including the directions of the Supreme Court resulting in the mandatory use of Compressed Natural Gas (CNG) have dramatically altered the ambient air quality in Delhi. The concentration of carbon monoxide has fallen by 32 per cent, sulphur dioxide levels have fallen by 39 per cent and the concentration of other pollutants like lead and benzene has registered a marked decline, contributing significantly to an improved quality of life.

Power

In Delhi, until recently, the Delhi Vidyut Board (DVB) held responsibility for provision of electricity to areas falling within the jurisdiction of the Municipal Corporation of Delhi (MCD) and supplying electricity in bulk to New Delhi Municipal Council (NDMC) and the Delhi Cantonment Board (DCB), which in turn distributed it within their own areas. In 1997/98, total electricity available for Delhi was 14,748 mkWh, which has risen, at modest growth rates, to reach 17,550 mkWh by 2000/01. Of this, only about 17–18 per cent is locally-generated, and the balance is purchased from the Central grid and other sources.

With a per capita consumption of 704 kWh, Delhi, displaying its urban predominance, claims to be the highest consumer of electricity in the country. It also displays a pattern of

TABLE 2.13: Power scenario

Year	Energy (mkWh)	Sales as per cent of total	Domestic consumption as a per cent of total sale	Load shedding (mkWh)
1997–8	14,748	51.8	36.5	302.2
1998–9	16,042	49.0	36.8	482.9
1999–2000	16,996	49.5	38.2	892.7
2000–01	17,550	52.9	40.5	544.1
2001–02	18,445	52.1	40.8	558.0
2002–03	19,686	50.1	53.8	450.0
2003–04	20,385	53.1	57.7	229.0
2004–05	20,810	60.1	50.5	176.0

Source: Power Department, Government of Delhi.

electricity consumption which is vastly different from other states where a significant percentage of consumption is accounted for by agriculture. In Delhi, the agriculture sector is an insignificant user of total electricity sold. It is, in fact, the domestic users who consume 40 per cent of the total electricity sold. Industry comes a close second and consumes around 30 per cent.

A vast majority of Delhi's population suffers from inadequate access to energy. Power breakdown and load-shedding are a common occurrence. Only 55 per cent of power is sold formally and the balance, adjusting for technical losses in transmission and distribution leaks out from the system. Leakages, theft and losses are the most disconcerting features of Delhi's power supply system. A substantial number of people in the over populated slums are forced to rely for their power needs on heavily polluting resources such as wood and coal. Public policies have only exacerbated these problems.

The demand for power is determined by the activities undertaken by households, industry, businesses, and institutions. Ensuring a minimal flow of services is considered to be of strategic and economic importance, since its disruption can be seen both as a threat and a disruption to economic production. At the same time, power is a private good. Markets work best in providing private goods or services, particularly those that are excludable. There has been a long-held view that because the unit cost of delivering an infrastructure service, for example, a kilowatt of energy,

declines as output increases, it is best produced and delivered by monopolies. To neutralize the undesirable exercise of market power, government regulates the monopoly.

Regulatory mechanisms and technological changes have made other options possible. The economies of scale in the power sector have diminished and it has been possible to unbundle activities associated with power production and distribution. Delhi has taken advantage of the technological changes by bringing in private power distribution companies in conjunction with innovative regulatory mechanisms. A regulatory commission, called the Delhi Electricity Regulatory Commission has been constituted and entrusted with the responsibility inter alia of,

- regulating operation of the power system within the National Capital Territory of Delhi;
- setting standards for electricity industry in the National Capital Territory of Delhi, including standards relating to quality, continuity, and reliability of service;
- promoting competitiveness and making avenues for participation of private sector in the electricity industry and ensuring a fair outcome for consumers.

A lot more than what has been done so far is necessary to provide Delhi's citizens a stable and environment friendly energy system. Many countries have successfully applied biomass technologies to convert waste materials into useful power. The large volumes of solid and liquid wastes contain organic material, while landfills generate methane gas. Waste

Leakages, theft, and losses are the most disconcerting features of Delhi's power supply system.

TABLE 2.14: Sectoral share of air pollution in Delhi (per cent)

Sector	1970–1	1980–1	1990–1	2000–01 (estimated)
Industry	56	40	29	20
Vehicular	23	42	63	72
Domestic	21	18	8	8

Source: Ministry of Environment and Forests (1997).

TABLE 2.15: Growth of registered vehicles in Delhi

Name of vehicle	1971	1981	1991	1994	2004–05
Cars/Jeeps	56,450	119,495	398,479	522,264	1,431,638
Motor cycles and Scooters	93,263	345,109	1,220,640	1,492,201	2,844,004
Autorickshaws	10,221	20,379	63,005	72,102	21,644
Taxis	3842	6385	10,157	11,846	26,728
Buses	3038	8044	18,858	24,211	38,332
Goods vehicles	13,620	36,599	101,828	116,379	179,900

Source: Planning Department, Government of Delhi.

to energy products have thus proliferated many parts of the developed world. Delhi offers immense opportunities of development in such spheres.

Air Pollution

Deteriorating air quality has emerged as a major concern for Delhi. The principal sources of air pollution in the city of Delhi are transport, power plants, industry, and domestic sectors. Besides those anthropogenic sources, climate and natural sources too play an important role in increasing the pollution levels. Delhi has a semi-arid climate, with an extremely hot summer, average rainfall and very cold winters. Mean monthly temperatures range from 14.3°C in January (minimum 3°C) to 34.5°C in June (maximum 47°C).

Vehicles are a major source of air pollution in Delhi. The contribution of vehicular pollution increased from 23 per cent in the year 1970–1 to an appalling 72 per cent in 2001.

Close to 4.5 million vehicles are registered in Delhi—more than the sum total of vehicles registered in three other metropolitan cities of Kolkata, Mumbai, and Chennai. As many as 500 vehicles exist for every kilometre of road stretch in Delhi whereas the figure for Mumbai and Kolkata is 350, and for Chennai, this figure is less than 100 vehicles. Around two-thirds (63 per cent) of the registered vehicles in Delhi

Despite recent improvements, the poor quality of air poses a major threat.

are two-wheelers. Cars and jeeps account for about 32 per cent of the total vehicular population while autorickshaws and buses account for 1 per cent each of the total registered vehicles. Goods carrying vehicles account for 4 per cent (Table 2.15).

The rapidly increasing number of vehicles and poor planning concerning road use has virtually squeezed out the pedestrians and cyclists from Delhi's roads.

Although the vehicular population in Delhi is still relatively low compared to several European cities and the United States of America, the travel demand, the per capita trip rate (number of trips made by an individual) and the per capita trip length (distance travelled by an individual on an average) in Delhi are one of the highest among the developing countries. Hence, vehicular pollution has become a serious problem in the urban areas. The factors which contribute to vehicular pollution include an increase in travel demand, increase in the number of vehicles, constrained road space, high number of two-stroke engines, over aged vehicles, poor quality of fuel, and poor road conditions.

Various measures have been taken to control vehicular pollution in Delhi. To provide a better public transport service, a large number of private buses (Blueline, Whiteline, etc.) have been introduced since 1993 in a phased

manner in addition to the DTC buses. Till the late 1990s, DTC and other buses contributed heavily towards air pollution as most of the buses were old and poorly maintained. However, conversion of public transport and the commercial vehicles (buses, autos, taxis, etc.) to CNG has resulted in reduction of air pollution substantially. With the phasing out of lead in gasoline from 2000, significant reduction has been achieved in lead emissions and associated health problems. To meet the complex and ever growing transportation requirements of the city, an integrated Mass Rapid Transit System (MRTS) is being executed.

Besides polluting vehicles, Delhi's environment is considerably affected by industrial pollution. Amongst the various types of industries that mushroomed in the city, the most polluting ones were stone crushers, hot mix plants, potteries, foundries, and forging units. Significant pollution is also caused by a large number of diesel generating sets, which are installed in various commercial and industrial establishments. The erratic power supply caused a phenomenal increase in the number and use of diesel generating sets resulting in increased levels of pollution. A significant number of small-scale industries has penetrated deep into residential areas in Delhi some of which are highly hazardous and noxious like plastic products, steel polishing and metal finishing. In 1996, the Supreme Court while hearing a Public Interest Litigation petition passed various orders to close down the 1328 'H' category units, such as hot mix plants, lead smelting units, stone crushers, pesticides, heavy metals and steel foundries. Subsequently, DPCC also issued closure orders for 118 industrial units, which were engaged under 'H' category. In 2000, the Supreme Court ordered the closure of polluting industrial units in non-conforming as well as in industrial areas. Based on the criteria of polluting industries, evolved by the nodal agency and Expert Committee constituted by the Government of Delhi, 5046 units have been closed down by Government of Delhi. Acting on similar lines, Delhi Pollution Control Committee has also identified 557 such industries and ordered their closure.

Energy sources used in urban households include liquified petroleum gas (LPG), kerosene, soft coke, electricity, firewood, and other biomass fuels. LPG and electricity are generally used by the higher income groups, while the lower income brackets rely on kerosene, coal and biomass fuels. The main concern in the domestic sector is the use of inefficient and highly polluting fuels in the poorer households and urban slums, resulting in deteriorating air quality and health. However, at the household level, the burning of biomass fuels in inefficient cook stoves and in the absence of chimneys and windows leads to high levels of indoor air pollution causing a variety of eye and lung diseases, especially among women and children. The carbon
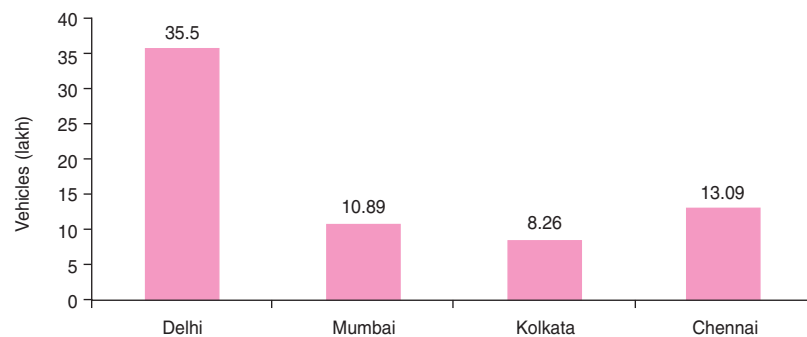
FIGURE 2.7: Vehicular population in four metropolitan cities, 2000–01

Source: CPCB, 2003b.

Box 2.3
The missing space for pedestrians

Traffic regulation and road construction in Delhi have consistently ignored cyclists and pedestrians. On main arterial roads, there are very few pedestrian crossings and only a few over bridges or subways that are virtually impossible for the physically disabled to use. Such neglect particularly violates the Persons with Disabilities (Equal Protection of Rights and Full Participation) Act 1995. The fast traffic seldom slows down for pedestrians who find footpaths and sidewalks disappearing rapidly. It is common to see unattended children crossing high traffic areas to reach their schools without the assistance of an adult or traffic warden.

monoxide (CO), carbon dioxide (CO_2), suspended particulate matter (SPM) emissions from fuel use is fairly significant and is inadequately dispersed. This results in high exposure and thereby generates serious health risk to the slum dwellers. Pollutants from slow combustion of miscellaneous combustible materials by domestic and commercial sources account for 8 per cent of the total pollution.

In addition to households and industries, emission from thermal power plants located in the heart of the city also adds to air pollution. Delhi has three major thermal power stations—Indraprastha, Rajghat, and Badarpur. The three thermal power plants have installed efficiency electrostatic precipitators in all their units to control the emissions of SPM. Consistent efforts for environmental improvement have resulted in installation of new high efficiency Electrostatic Precipitator in unit number 5 of the Indraprastha Power Station. Besides this, the Power Plants are using beneficiated coal (ash content less than 34 per cent) since 1999 to reduce pollution. DPCC has further directed these power plants to achieve a stricter stack emission norm of 50-mg/N m^3 against the standard of 150-mg/N m^3 notified earlier by the Government of India's Ministry of Environment and Forests. Also, two gas based power plants, namely the Indraprastha Gas Turbine Power Plant and Pragati Power Station, have been commissioned to augment the power generation capacity from 1087 MW to 1700 MW. Since, these plants operate on natural gas, there is no significant addition to the existing air pollution levels.

Despite the noticeable improvements in air pollution following the introduction of CNG buses, high levels of air pollution from other sources continue to pose health threats to Delhi's residents—particularly children.

SUMMING UP

The inequities seen in livelihood opportunities as well as in living conditions in Delhi point to the urgent need for addressing the deficiencies in planning for the future. Economic activities did not come up in the periphery of Delhi as envisaged in the Master Plan. Developments in New Okhla Industrial Development Authority (NOIDA) industrial complex in the east have been sluggish and there has been enormous delay in the setting up of the wholesale market in west Delhi. It is true that a large number of high and middle-income housing colonies contributed to the growth of employment opportunities in the periphery. However, there has been little compensatory growth of urban linked activities, which could have absorbed the workforce displaced in agriculture. Also, upcoming industrial units in the north and commercial activities in the south generated few parallel jobs. However, the unskilled local labour force has not benefited much from these developments. Importantly, a large percentage of the migrants have been flocking into the rural periphery within and beyond NCT, as access to land and basic services within the central areas of the city have become increasingly difficult. Appropriate urban development and housing policies are needed to correct inequalities and improve standards of living in Delhi.

3

PEOPLE'S ASSESSMENT OF PROGRESS

INTRODUCTION

Effective involvement of people in the processes of identifying priorities and evaluating outcomes is central to human development. With this in mind, Government of Delhi commissioned an independent survey of the residents of Delhi to capture their views on the state of human development. During the extensive household survey of over 14,000 households conducted in 2004, respondents were asked to provide their opinion on twelve different aspects of life in Delhi. These included education, health, water supply, power supply, sanitation, roads, transport facilities, environment, migration, livelihood, housing, women's safety and position, and overall governance. Respondents were selected from eleven types of localities: approved colonies, unauthorized colonies, regularized unauthorized colonies, *jhuggi-jhopdi* clusters, *jhuggi-jhopdi* resettlement colonies, rural and urban villages, the walled city, government housing colonies, and posh localities. The selection of households reflects a deliberate 'human development' pro-poor bias. Only 10 per cent of the respondents lived in government housing or in posh localities. Nearly four out of five (79 per cent) respondents reported a monthly household income of less than Rs 10,000. Of the total number of respondents, 42 per cent were women (Table 3.1). Respondents were asked to comment on performance and trends and also identify the most pressing problems or priorities that needed attention. Several rounds of intensive Focused Group Discussions and workshops with experts to draw out different dimensions of the identified key issues complemented the survey.

The main findings of the survey are presented in Table 3.1.

FONDNESS FOR DELHI

To a vast majority, Delhi remains a city of hope and aspirations. After living in the city-state for just a few years, many begin to call themselves *Dilliwallas*—residents of Delhi—an identification with a truly diverse and heterogeneous community.

Respondents during the survey were asked whether they would like to continue living in Delhi or move out. An overwhelming majority of 82 per cent wants to continue living in Delhi. Only 13 per cent expressed a desire of shifting to neighbouring areas around Delhi like Gurgaon, Faridabad, Noida, and Ghaziabad.

What makes Delhi so attractive to its residents? Nearly 45 per cent of respondents saw Delhi as a place for attractive work opportunities. For another 40 per cent, Delhi's attractiveness lay in its historical and political significance.

While the main attraction for people coming to Delhi remains the prospects of finding a job, the survey also brought out the difficulty people faced in finding jobs in Delhi. More than half—52 per cent of graduate covered in the survey rated the availability of employment opportunities as being 'poor' or 'very poor'. Only 16 per cent of respondents rated the availability of employment opportunities in Delhi as being 'good' or 'very good'. Prospects of finding jobs in Delhi are not good for both the less educated as well as the educated. Over two-thirds—64 per cent—of the less-educated and uneducated felt those employment opportunities were 'poor' or 'very poor' in Delhi. Similarly, nearly 52 per cent of graduates

Over 14,000 respondents from across Delhi were interviewed to give their views on the state of Delhi's human development.

That 82 per cent of residents want to continue living in Delhi reveals a high fondness for Delhi.

TABLE 3.1: Characteristics of households surveyed

Locality Type	No.	%
Approved Colony	4246	30
Unauthorized Colony	1855	13
Rural Area	1404	10
Regularized Unauthorized Colony	1439	10
Jhuggi-Jhopdi (JJ) Clusters	1223	9
Jhuggi-Jhopdi (JJ) Resettlement Colony	1281	9
Posh Locality	556	4
Urban Village	754	5
Walled City	490	4
Government Housing	765	6
Total	14,013	100
Gender	**No.**	**%**
Male	8161	58
Female	5852	42
Total	14,013	100
Social Group	**No.**	**%**
Other Caste	8387	60
Other Backward Castes	3414	24
Scheduled Caste	1712	12
Scheduled Tribe	500	4
Total	14,013	100
Religion	**No.**	**%**
Hindu	11,909	85
Muslim	1204	9
Sikh	688	5
Others	138	1
Total	14,013	100
Monthly Household Income	**No.**	**%**
Up to Rs 3000	2915	21
Rs 3,001–5000	3671	26
Rs 5,001–10,000	4454	32
Rs 10,001–20,000	2245	16
Above Rs 20,000	728	5
Total	14,013	100
Occupation	**No.**	**%**
Skilled Worker	2642	19
Shop Owner	1895	14
Unskilled Worker	1413	10
Petty Trader	1343	10
Businessmen	1137	8
Self-employed Professional	1106	8
Clerical/Salesmen	1015	7
Retired	819	6
Officers/Executives–Junior	597	4
Supervisory Level	445	3
Officers/Executives–Middle/Senior	277	2
Others	1324	9
Total	14,013	100

Source: Public Perception Survey 2005, GNCTD.

covered in the survey also rated the availability of employment opportunities in Delhi as 'poor' or 'very poor'. And over a third—34 per cent—of the respondents felt that the prospects of finding decent jobs had worsened over the last three years. Delhi does not seem to be a particularly employment-friendly city for women either. The survey revealed that 55 per cent of women respondents rated Delhi's employment opportunities as poor or very poor. Only 11 per cent of the educated women said that job opportunities in Delhi were good or very good.

The continuing influx of migrants and the growing frustration of not finding appropriate jobs are emerging as pressing problems for the city-state. In response, it is important to address the absence of sufficient livelihood opportunities in Delhi by improving people's

FIGURE 3.1: Attachment to Delhi (%)

Source: Public Perception Survey 2005, GNCTD.
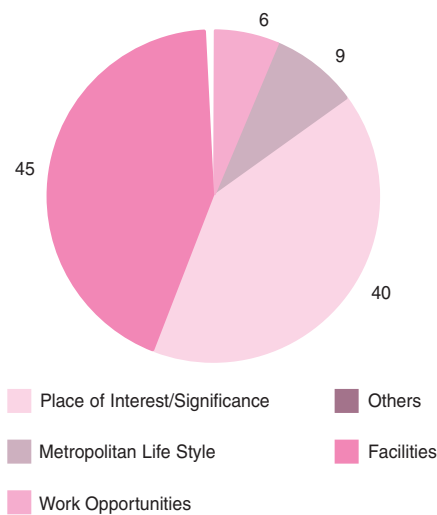
FIGURE 3.2: What makes Delhi attractive? (%)

Source: Public Perception Survey 2005, GNCTD.

FIGURE 3.3: Rating of employment opportunities in Delhi (%)

Source: Public Perception Survey 2005, GNCTD.

Good job opportunities and its political and historical significance are what make Delhi so attractive.

access to credit, markets, and technology as means to finding productive employment. At the same time, there is urgent need to develop infrastructure and tap into the employment potential in regions surrounding Delhi, and more specifically in the National Capital Region.

BASIC AMENITIES

Inadequate access to basic amenities seriously affects the quality of life in Delhi. Respondents, for instance, identified *three* major concerns related to the physical quality of life: inadequate access to safe drinking water, poor sanitation and ineffective garbage disposal, and insufficient power supply. Inadequate access to water and proper sanitation combined with poor garbage disposal facilities reflect a serious public health deficiency. The shortfalls are not merely a 'standard of living' question for the less privileged living in slums or in the *jhuggi-jhopdi* colonies. The neglect of public health has serious ramifications for all of Delhi's residents. When asked to identify the most pressing problems faced by residents:

- thirty-four per cent of respondents identified shortages in water supply;
- twenty-six per cent identified poor sanitation and garbage disposal services;
- nineteen per cent identified insufficient power supply.

Eight different aspects of basic services and amenities are discussed below: environment, public transportation, health facilities, schooling, availability of drinking water, sanitation, and garbage disposal, power supply, and housing.

Quality of the environment

Inadequate access to good quality water, poor sanitation, and garbage disposal and insufficient power are major problems for Delhi's residents.

Enjoying a clean environment deeply influences people's opinions about the quality of life in any city. As expected, residents of Delhi give considerable weight to a clean environment.

Respondents were asked to rate the overall quality of Delhi's environment keeping in mind whatever elements they perceived formed constituents of a good environment. Over one-fourth—27 per cent—of respondents felt that Delhi's quality of environment was acceptable and rated it as 'good' or 'very good'. Another 48 per cent rated Delhi's environment as 'average'. However, nearly 18 per cent of the people felt that Delhi offered only a 'poor' quality of environment—not befitting a nation's capital.

New Delhi District was rated as having a 'very good' quality of environment followed by Central, West, and South Districts of Delhi. This is not surprising as these districts contain Delhi's posh colonies and prime locations with the best of public amenities. North-East district was rated as having a 'very poor' quality of environment.

The Survey also brought out differences in the overall quality of environment across different types of residential localities. Not surprisingly, government housing, posh localities, and approved colonies topped the list followed by urban villages. The quality of the environment in JJ clusters, unauthorized colonies, and the walled city was perceived to be of 'very poor' quality. Even rural areas fared better than JJ Resettlement Colonies and Regularized Unauthorized Colonies reflecting poor planning, haphazard development of slums, and the absence of basic amenities.

Residents of Delhi notice and acknowledge a significant improvement in the quality
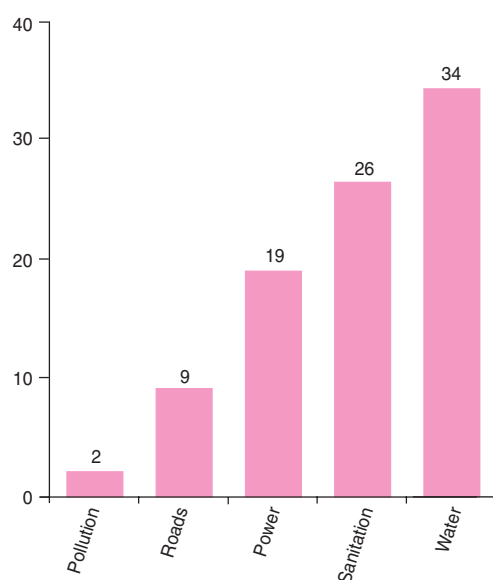
FIGURE 3.4: Physical quality of life problems identified by Delhi's residents* (%)

Source: Public Perception Survey 2005, GNCTD.
*Multiple responses.
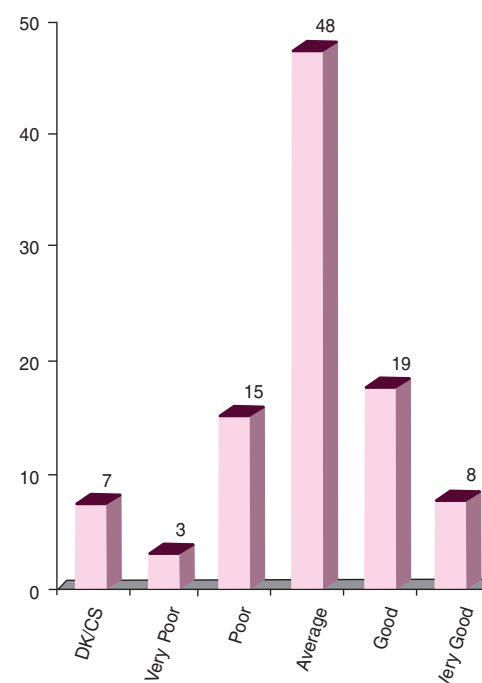
FIGURE 3.5: Rating of the quality of Delhi's environment (%)

Source: Public Perception Survey 2005, GNCTD.

of the city's environment. Half the respondents expressed the view that there was improvement when asked whether the quality of environment in Delhi had changed over the last three years. This is not surprising. In recent years, Government of Delhi has initiated several measures to improve the quality of the city's environment. There has been a marked decrease in the levels of air pollution

particularly after the introduction of Compressed Natural Gas (CNG)-run vehicles. Besides, the green cover over Delhi has increased substantially following the launch of the 'Clean and Green Delhi', a public-private initiative of the Government of Delhi. What is important to note, however, is that almost one-third felt that there had been no change and another 7 per cent felt that Delhi's overall quality of environment had, in fact, deteriorated.

Respondents were asked to comment specifically on Delhi's air quality. More than half the respondents felt that the levels of air pollution had decreased during the past three years.

Even though respondents acknowledge the improvement in Delhi's air quality, more than half the respondents felt that levels of air pollution in Delhi were still high or very high. Another 20 per cent felt that levels of air pollution were moderate. Only 16 per cent

More than half the respondents felt that the quality of Delhi's air had improved during the past three years.

Quality of Environment Score

- 57–61 (Very Good)
- 52–56 (Good)
- 48–51 (Average)
- 43–47 (Poor)
- 38–42 (Very Poor)

FIGURE 3.6: Quality of Delhi's environment across districts

Source: Public Perception Survey 2005, GNCTD.

FIGURE 3.8: Assessment of improvements in the quality of Delhi's environment (%)

Source: Public Perception Survey 2005, GNCTD.

FIGURE 3.7: Quality of environment in different residential localities of Delhi

Source: Public Perception Survey 2005, GNCTD.
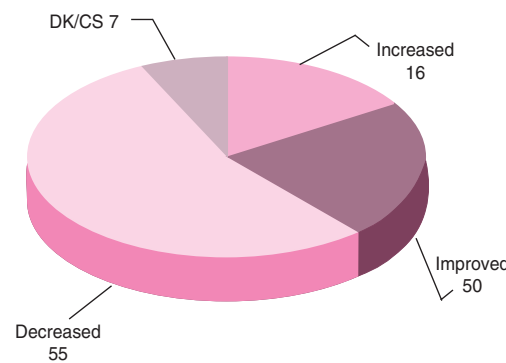
FIGURE 3.9: Assessment of improvements in levels of air pollution in Delhi (%)

Source: Public Perception Survey 2005, GNCTD.

of the respondents felt that the levels of air pollution were low.

Access to public transport

Respondents were asked about their mode of travel to work and for recreation. A majority relies on Delhi Transport Corporation (DTC). The survey revealed that almost 56 per cent of residents used DTC buses and 48 per cent relied on private buses operating under the State Transport Authority.

> *More than half the respondents— 55 per cent—rated Delhi Transport Corporation's bus services as good or very good.*

All districts rated bus services as satisfactory. New Delhi district got the highest score. All other districts received scores varying between 60 and 67 out of 100.

Given that a majority of residents depend upon the DTC, respondents were asked to rate the services offered by DTC. Around 55 per cent of respondents rated DTC service as 'good' or 'very good'. Another 37 per cent found it satisfactory. Only 8 per cent said that DTC service was 'poor' or 'very poor'.

Scores assigned to DTC showed less variance across localities. Residents of JJ clusters who use DTC buses most often to travel awarded a score of 70. DTC was also rated favourably by commuters living in urban villages (69) and by residents of Government Housing colonies (68). Not surprisingly, access to DTC buses was rated as 'poor' in JJ resettlement colonies and in rural areas. Many respondents complained of infrequent and irregular public transport services.

Respondents were further asked to assess the progress in the provisioning of public transport by DTC. Around 39 per cent of respondents felt that the provisioning of public transport facilities by DTC had improved in

FIGURE 3.10: Public rating of air pollution in Delhi (%)

Source: Public Perception Survey 2005, GNCTD.
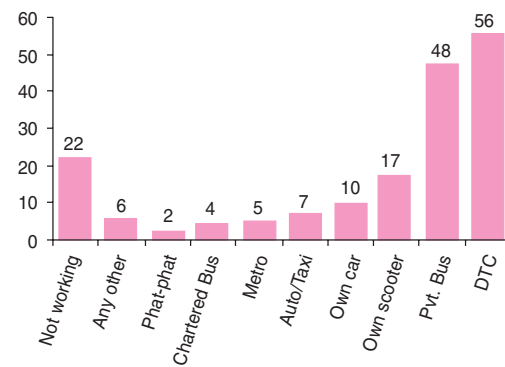
FIGURE 3.11: Modes of transport* used by people in Delhi (%)

Source: Public Perception Survey 2005, GNCTD.
*Multiple responses.

Public Transport Score

☐ 73–76 (Very Good)   ☐ 70–72 (Good)
☐ 67–69 (Average)   ☐ 64–66 (Poor)
☐ 60–63 (Very Poor)
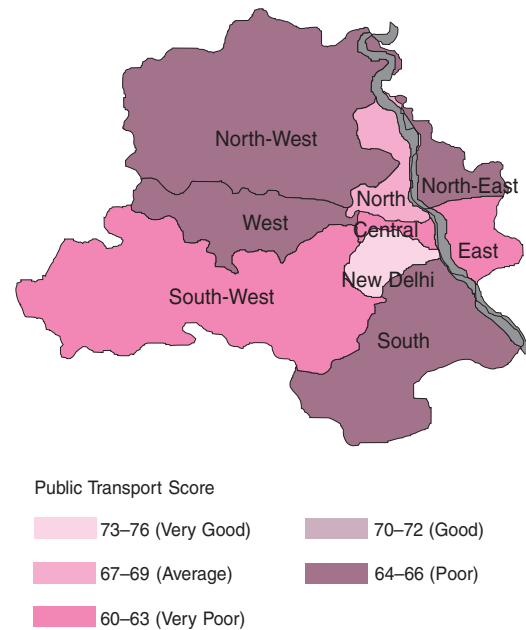
FIGURE 3.12: Rating of public transport facilities across districts

Source: Public Perception Survey 2005, GNCTD.

Delhi over the past three years. Only 13 per cent felt that DTC services had deteriorated over this period.

Respondents were also asked a set of questions concerning the condition of Delhi's roads and the extent of traffic congestion.

Almost 80 per cent of the respondents expressed satisfaction with the condition of roads. Around 17 per cent rated Delhi's roads as 'poor' or 'very poor'. Only one-tenth of respondents perceived the condition of roads to be among the leading problems of the city.

There are, however, significant differences in the condition of roads in different districts. New Delhi district was rated as having the 'best' roads whereas roads in North and North West districts of Delhi fared rather poorly. The condition of roads in the remaining six districts was more or less similar.

Respondents rated the condition of roads as 'very poor' in JJ clusters and Unauthorized Colonies. The condition in Urban Villages and Rural Areas was also rated as 'poor'. On the other hand, people in Posh Localities and Government Housing colonies rated their roads as 'very good' and well maintained.

Delhi's residents recognize and appreciate the major improvements in Delhi's roads over the past three years. More than half of the respondents—54 per cent—felt that Delhi's road conditions had improved. Only 6 per cent of respondents felt that the condition of roads had deteriorated.

Nevertheless, a large proportion of people were dissatisfied because roads in their localities were not as good as Delhi's main roads. Many felt that the smaller roads and roads within localities were poorly maintained.

- Nearly four out of ten (38 per cent) respondents rated roads in their locality to be 'poor' or 'very poor'.

Almost 80 per cent of respondents were satisfied with Delhi's roads but many were unhappy with the condition of roads in their immediate neighbourhood.

Approved Colony	Posh Locality	Government Housing
Regularized Unauthorized Colony	Unauthorized Colony	Urban Village
JJ Cluster	JJ Resettlement Colony	Rural Areas
Walled City		

68–70 (Very Good)
65–67 (Good)
63–64 (Average)   60–62 (Poor)   57–59 (Very Poor)
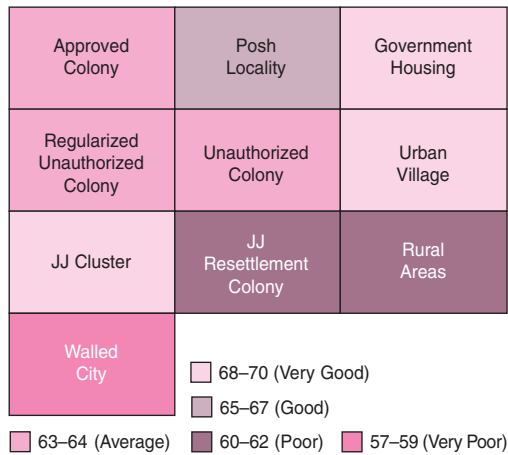
FIGURE 3.13: Rating of public transport facilities across localities in Delhi

Source: Public Perception Survey 2005, GNCTD.
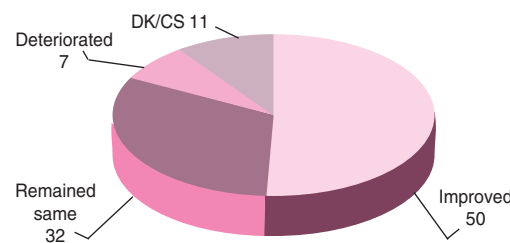

Deteriorated 13 — DK/CS 5 — Improved 39 — Remained same 43
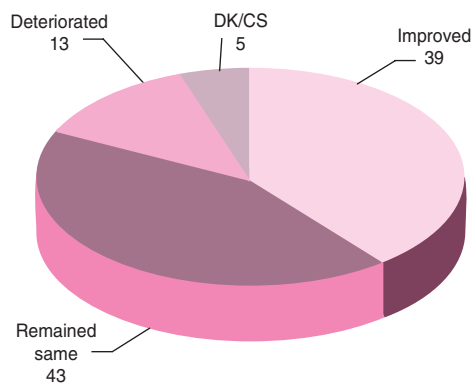
FIGURE 3.14: Assessment of improvements in DTC services (%)

Source: Public Perception Survey 2005, GNCTD.

FIGURE 3.15: Assessment of Delhi's roads (%)

Source: Public Perception Survey 2005, GNCTD.

Approved Colony	Posh Locality	Government Housing
Regularized Unauthorized Colony	Unauthorized Colony	Urban Village
JJ Cluster	JJ Resettlement Colony	Rural Areas
Walled City		

☐ 49–52 (Very Good)
☐ 46–48 (Good)
☐ 42–45 (Average)   ☐ 39–41 (Poor)   ☐ 35–38 (Very Poor)
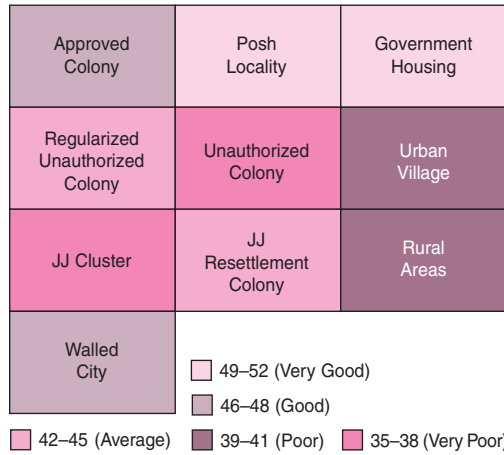
FIGURE 3.16: Assessment of roads by localities

Source: Public Perception Survey 2005, GNCTD.
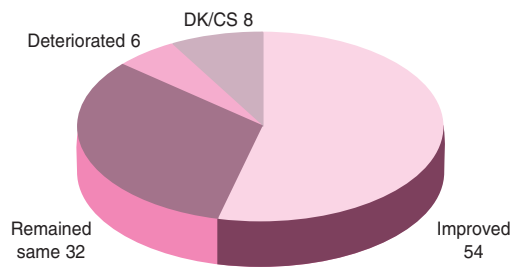
FIGURE 3.17: Assessment of improvements in quality of Delhi's roads (%)

Source: Public Perception Survey 2005, GNCTD.
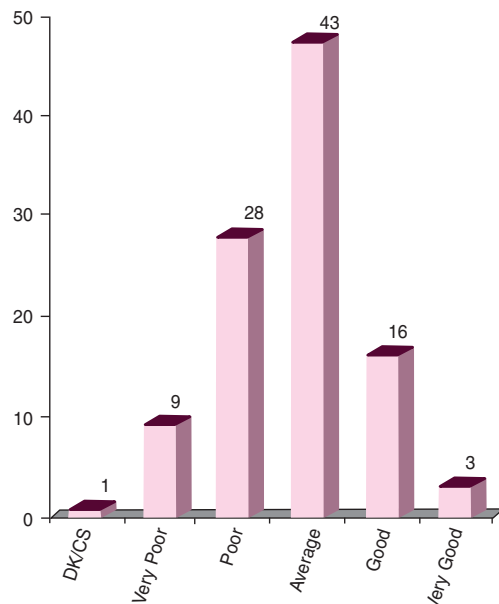
FIGURE 3.18: People's assessment of neighbourhood roads in Delhi (%)

Source: Public Perception Survey 2005, GNCTD.

- Over 40 per cent felt that the condition of roads in their locality was just about 'average'.
- Less than one-fifth (18 per cent) of people regarded roads in their localities to be either 'good' or 'very good'.

Also related to public transportation and roads is the issue of traffic congestion. Delhi's residents continue to be worried and concerned about traffic jams. Almost 84 per cent of the respondents felt that Delhi's roads were highly or very highly congested with traffic.
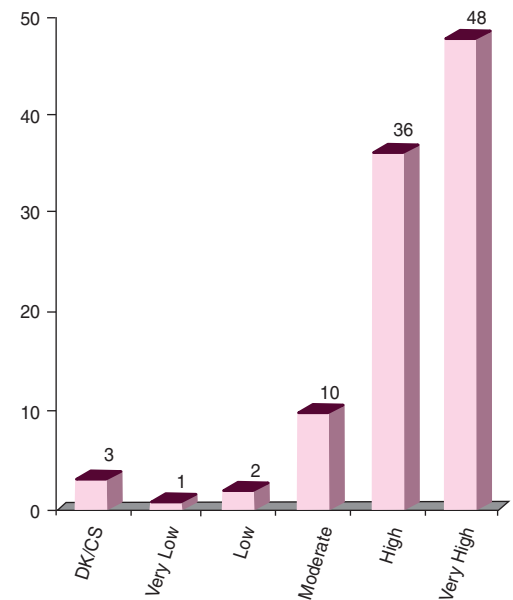
FIGURE 3.19: Assessment of traffic congestion levels in Delhi (%)

Source: Public Perception Survey 2005, GNCTD.
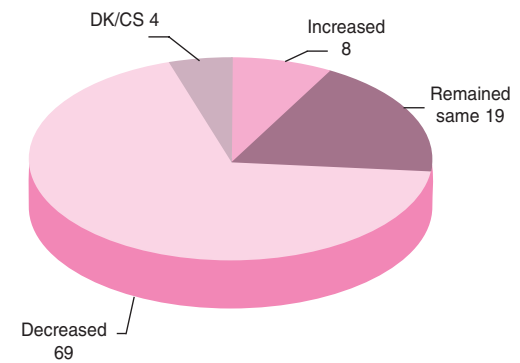
FIGURE 3.20: Assessment of reduction in traffic congestion levels in Delhi (%)

Source: Public Perception Survey 2005, GNCTD.

High levels of traffic congestion are considered a pressing problem even though almost 70 per cent of respondents acknowledged that the extent of traffic jams had decreased after the construction of flyovers. Around one-fifth felt that there had been no difference in traffic conditions as a result of the flyovers. In contrast, 8 per cent felt that the construction of the flyovers had in fact increased the extent of traffic congestion.

Health facilities

Even though only 2 per cent listed inadequate availability of health care as a major problem in Delhi, respondents expressed considerable dissatisfaction over access to health services. Three districts in particular, South-West, East and North-East, fared very poorly. Quite expectedly, respondents rated New Delhi District as the 'best' in terms of health facilities.

Residents in unauthorized colonies, regularized unauthorized colonies, JJ Resettlement colonies and the Walled city rated health services as being 'very poor'. On the other hand, residents of government housing colonies rated them most favourably. This could possibly be due to the fact that a majority of government colonies are built either in New
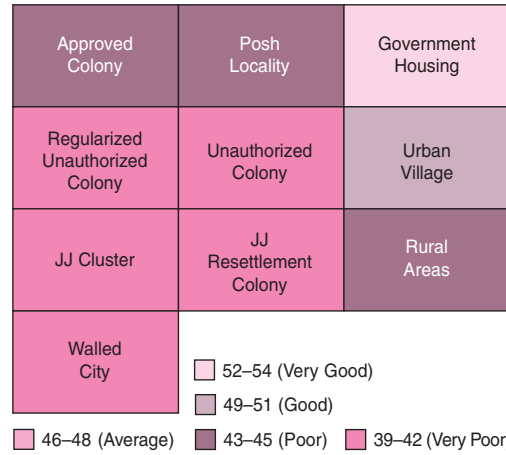
FIGURE 3.22: Rating of availability of health services across localities in Delhi

Source: Public Perception Survey 2005, GNCTD.

FIGURE 3.21: Rating of access to health services across Delhi's districts

Source: Public Perception Survey 2005, GNCTD.

Delhi or Central Delhi districts—both of which offer good healthcare services. Besides, government employees enjoy special privileges in government hospitals and through various government health schemes.

Interestingly, however, there are no significant variations in perceptions regarding availability of health services across income groups.

The survey also highlighted considerable scope for improving the reach and quality of government health services in Delhi. Only two out of ten residents rated Delhi's government health services as 'good' or 'very good', whereas three out of ten rated them as 'poor' or 'very poor'.

Residents of Delhi rate health services provided by the private sector more favourably. Almost 44 per cent of respondents rated private healthcare services as 'good' or 'very good' in contrast to the 21 per cent who felt similarly about government health services. Only 9 per cent rated health services in the private sector to be poor or very poor as against 30 per cent who felt similarly about government health services.

There was a mixed response towards assessing progress in the provisioning of health services by the government and by the private sector. Whereas 45 per cent of respondents felt that there had not been any change or improvement in health services provided by the government, close to 30 per cent felt that

private health services had improved over the past three years.

Among the respondents, 13 per cent were of the opinion that provisioning of health services by government had deteriorated over the past three years. On the other hand, only 7 per cent felt similarly about healthcare provisioning by the private sector.

Despite the availability of reasonably good quality private healthcare services, affordability of healthcare remains a serious concern. A challenge for Delhi in the coming years will be to ensure affordable and good quality healthcare especially to the poor. For instance, close to 28 per cent of respondents felt that private healthcare services were not affordable. Government of Delhi will need to revamp the government health system as well as introduce innovative ways of health financing and insurance to ensure universal access to good quality healthcare.

Access to decent health care is particularly poor for those living in unauthorized colonies, JJ resettlement colonies, and in the Walled City.
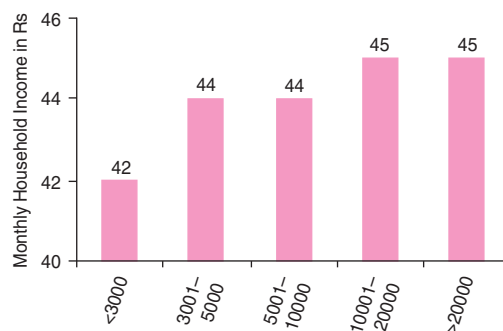
FIGURE 3.23: Rating of access to health services in Delhi: Perceptions by income groups

Source: Public Perception Survey 2005, GNCTD.

FIGURE 3.25: Assessment of private health services in Delhi (%)

Source: Public Perception Survey 2005, GNCTD.

FIGURE 3.24: Assessment of government health services in Delhi (%)
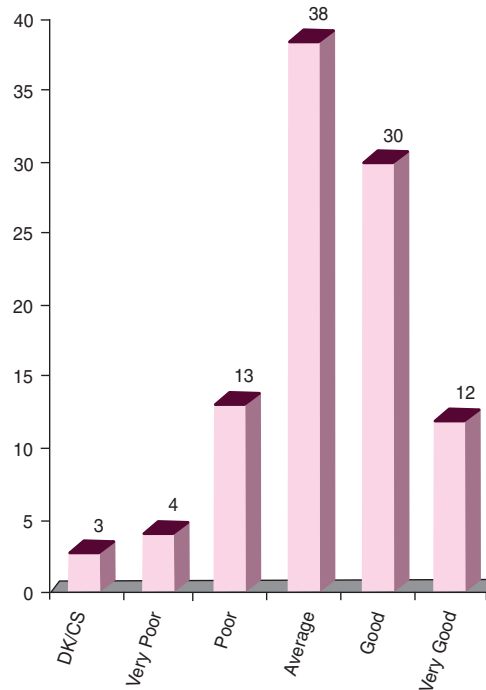
Source: Public Perception Survey 2005, GNCTD.

FIGURE 3.26: Assessment of improvements in government health services in Delhi (%)

Source: Public Perception Survey 2005, GNCTD.

FIGURE 3.27: Assessment of improvements in private health services in Delhi (%)

Source: Public Perception Survey 2005, GNCTD.

FIGURE 3.28: Affordability of private health services in Delhi (%)

Source: Public Perception Survey 2005, GNCTD.

Schooling

Parents of around 13,582 children were asked about their views on schooling in Delhi. These included parents of 10,600 children who were currently in school. Delhi's parents rated favourably the education of children received in schools. School education received an overall score of 63 in the survey. Parents of children living in posh localities of Delhi awarded a score of 66 points. Parents living in JJ resettlement colonies and in JJ clusters gave scores of 54 and 53 to government schools in their respective areas.

Nearly 64 per cent of parents of the private school-going children said that infrastructure facilities were 'good' or 'very good' against 41 per cent of the parents of government school-going students.

Parents of government school children were asked to rate government schools. New Delhi district got a maximum score of 70

followed by west and central districts (64 and 61). Delhi's south district got the lowest score of 51.

Approximately, half the parents and guardians of the students of government primary schools rated as 'average' the quality and quantity of midday meals provided by the schools. On the other hand, nearly 28 per cent of the parents said that midday meal was of 'good' or 'very good' quality. Around 21 per cent of parents rated the quality of midday meals served as 'poor' or 'very poor'.

FIGURE 3.29: Assessment of quality of Delhi's schools across localities

Source: Public Perception Survey 2005, GNCTD.
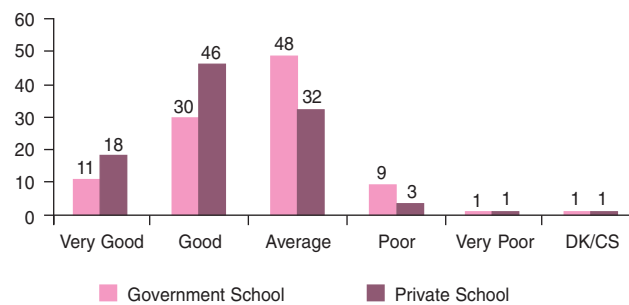
FIGURE 3.30: Rating of infrastructural facilities in Delhi's schools (%)

Source: Public Perception Survey 2005, GNCTD.

Affordability of good quality health care remains a serious concern for most residents.
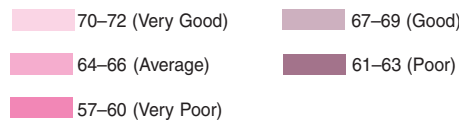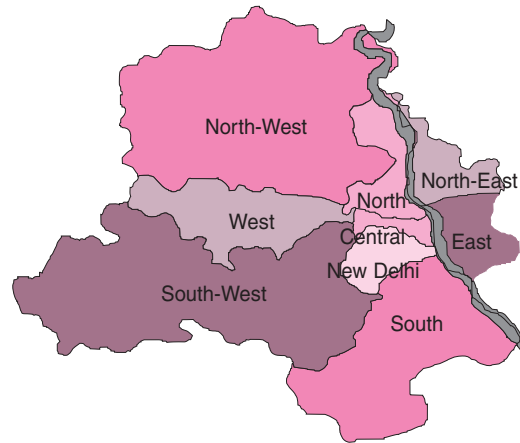
FIGURE 3.31: Rating of access to schools across Delhi's districts

Source: Public Perception Survey 2005, GNCTD.

70–72 (Very Good)   67–69 (Good)
64–66 (Average)   61–63 (Poor)
57–60 (Very Poor)

Availability of drinking water

A majority of Delhi's residents—73 per cent—depends upon the Delhi Jal Board (DJB) pipelines for water. Another 5 per cent of the households surveyed were serviced by DJB water tankers on a regular basis. Around 12 per cent of households depend on motor pumps and tubewells and another 10 per cent on handpumps.

Nearly five out of six residents (84 per cent) felt that availability was poor.

Even though water is a problem across Delhi, it is most acute in five districts—East, West, South, South-West and North. Water availability was rated very poorly almost everywhere except in posh localities, government housing, and approved colonies. People worst affected were those living in unauthorized colonies, JJ clusters and in the walled city.

Not surprisingly, these respondents gave the lowest rating to Delhi Jal Board reflecting extreme dissatisfaction with the performance of the agency entrusted with ensuring access to safe drinking water to the residents of the city.

Only 26 per cent of respondents felt that Delhi's water situation had improved over the
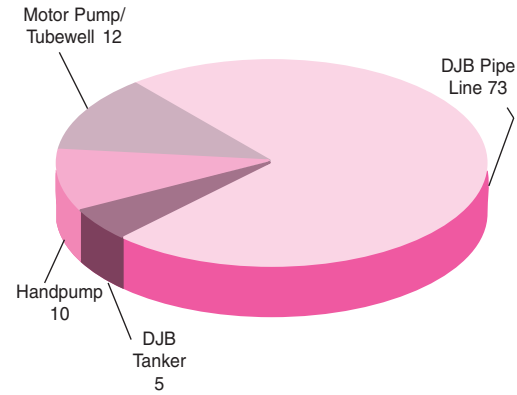
FIGURE 3.32: Sources of water supply reported by households in Delhi (%)

Source: Public Perception Survey 2005, GNCTD.
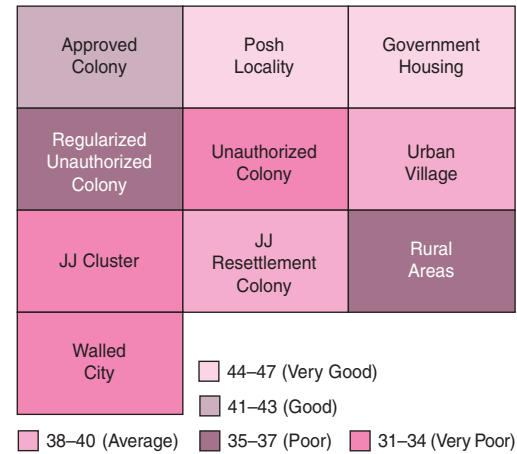
FIGURE 3.33: Rating of water supply across localities in Delhi

Source: Public Perception Survey 2005, GNCTD.
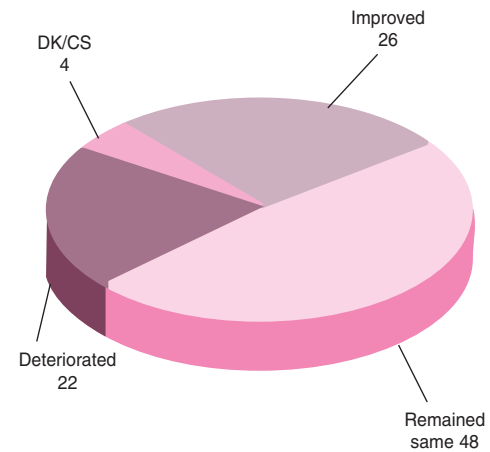
FIGURE 3.34: Assessment of improvements in Delhi's water supply (%)

Source: Public Perception Survey 2005, GNCTD.

past three years. On the other hand, almost half the respondents felt that the water supply situation had remained unchanged, and another one-fifth felt that the water situation has deteriorated over the last three years.

Sanitation and garbage disposal

Sanitation and garbage disposal services obtained the least score (33) amongst all services rated by respondents. Nearly 56 per cent of respondents, regardless of income levels, expressed their dissatisfaction with public sanitation in Delhi and rated garbage disposal facilities in their localities as being 'poor' or 'very poor'. Over half of the respondents (53 per cent) depended on private garbage collectors for disposal of their household garbage. And 26 per cent of the households threw their household garbage on to the streets, as suitable garbage disposal facilities were not available.

Sanitation was cited as the most severe problem in east Delhi. While Lutyens Delhi (New Delhi) has a weighted score of 56, six out of nine districts have been rated poor in sanitation.

Sanitation services were awarded the highest score of 45 in Government Housing colonies. Walled City received a score of 44 and surprisingly posh areas scored 43. Sanitation and garbage disposal received the worst rating in Unauthorized Colonies (22).

FIGURE 3.36: Rating of sanitation and garbage disposal services across Delhi's districts

Source: Public Perception Survey 2005, GNCTD.

People are extremely worried about the decline in the availability of water in their localities.
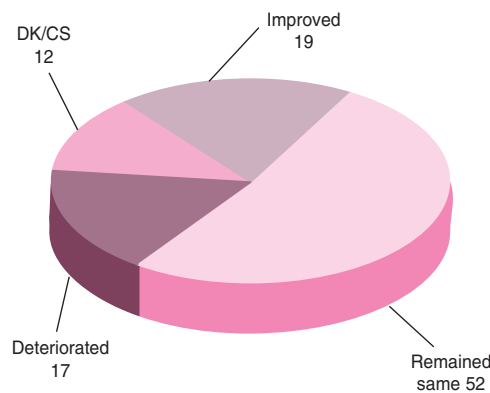
FIGURE 3.37: Assessment of improvements in garbage disposal in Delhi (%)

Source: Public Perception Survey 2005, GNCTD.

The survey further revealed that:
- more than half of the households (52 per cent) had not observed any improvement in the situation over the past three years;
- only 19 per cent had said that there was an improvement in the cleaning of drains and sewage.

Power supply

A majority of Delhi's residents complained about the serious shortage of power in Delhi.

FIGURE 3.35: Rating of sanitation and garbage disposal services across localities in Delhi

Source: Public Perception Survey 2005, GNCTD.

Only 25 per cent of Delhi's residents felt that the power situation in the city was good.

Expectedly, New Delhi district reported the best score (61) in terms of power availability. At the bottom were North and North-East districts of Delhi (score of 45) followed by East Delhi (46) and North-West Delhi (47). Similarly, people residing in Government Colonies had better power supply than those residing in posh localities. Regularized unauthorized colonies, JJ resettlement colonies, and JJ clusters received relatively low scores—below the average for Delhi.

Absence of proper sanitation was cited as the most serious problem facing East Delhi.
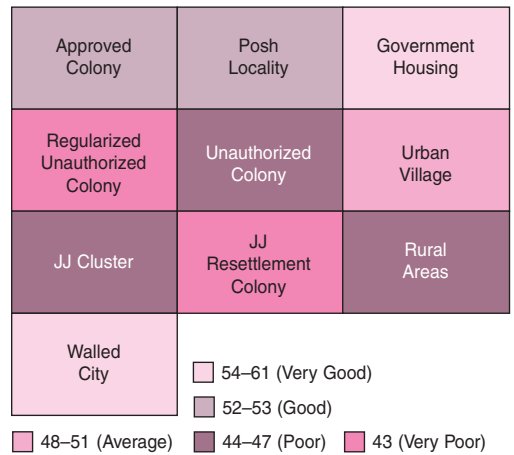
FIGURE 3.38: Rating of power supply across localities in Delhi

Source: Public Perception Survey 2005, GNCTD.
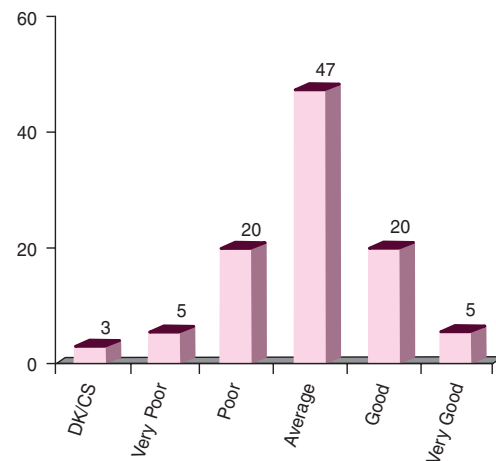
FIGURE 3.39: Rating of availability of power in Delhi (%)

Source: Public Perception Survey 2005, GNCTD.
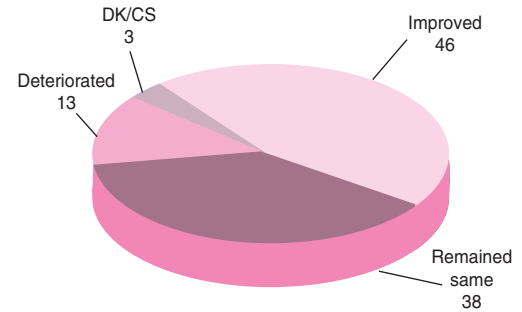
FIGURE 3.40: Assessment of improvements in power supply in Delhi (%)

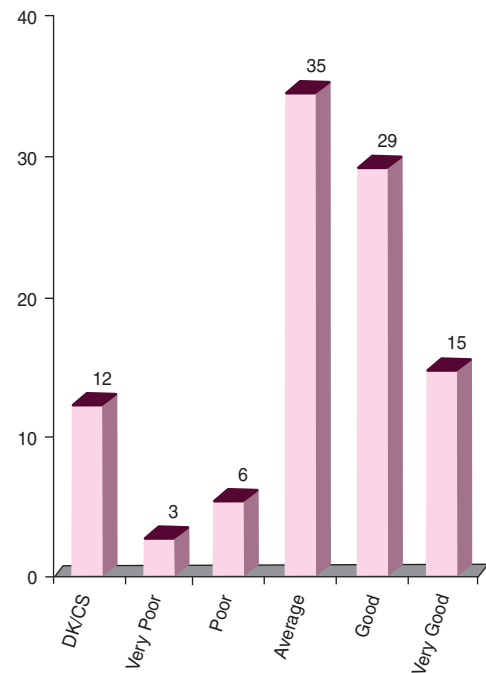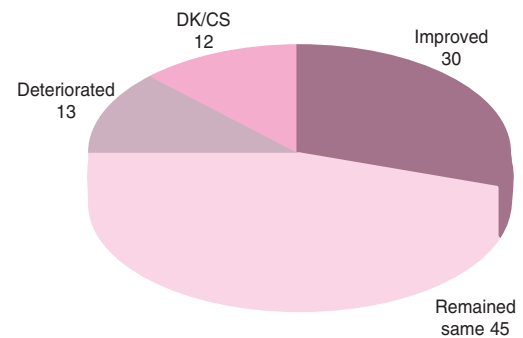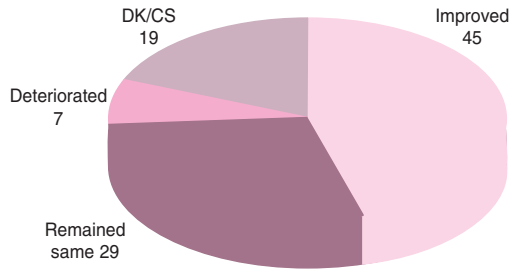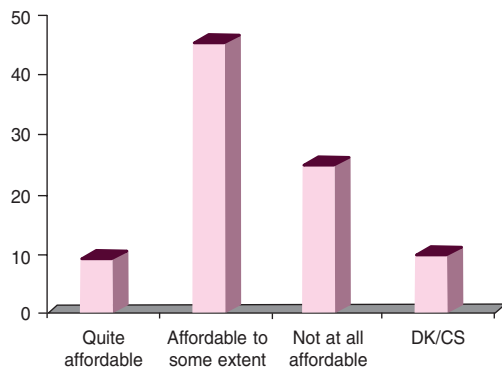*Source:* Public Perception Survey 2005, GNCTD.

Nevertheless, a majority of respondents— 46 per cent—felt that there had been significant improvements in power availability over the past three years. While 38 per cent felt that there had been no change, only 13 per cent of the population complained that the power situation had deteriorated over the past three years.

Housing

Respondents were asked to rate the overall availability of housing in Delhi. The survey revealed that the availability of housing was
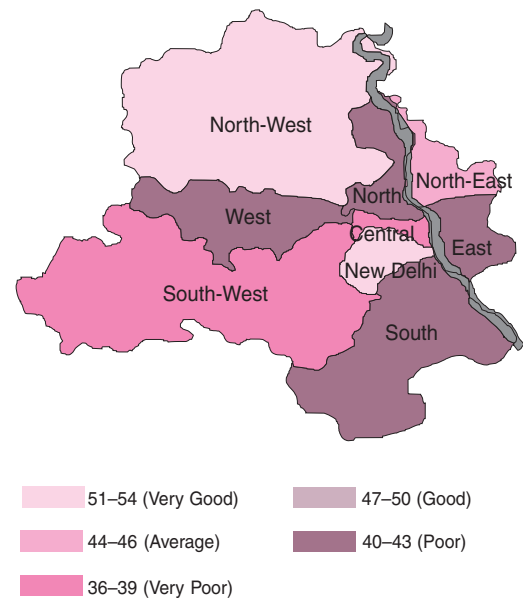
FIGURE 3.41: Rating of availability of housing in Delhi

Source: Public Perception Survey 2005, GNCTD.

Approved Colony	Posh Locality	Government Housing
Regularized Unauthorized Colony	Unauthorized Colony	Urban Village
JJ Cluster	JJ Resettlement Colony	Rural Areas
Walled City		

- 48–50 (Very Good)
- 45–47 (Good)
- 42–44 (Average)
- 39–41 (Poor)
- 35–38 (Very Poor)
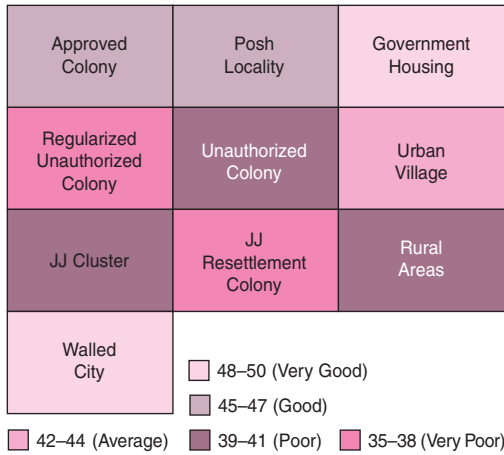
FIGURE 3.42: Rating of availability of housing across Delhi's districts

Source: Public Perception Survey 2005, GNCTD.
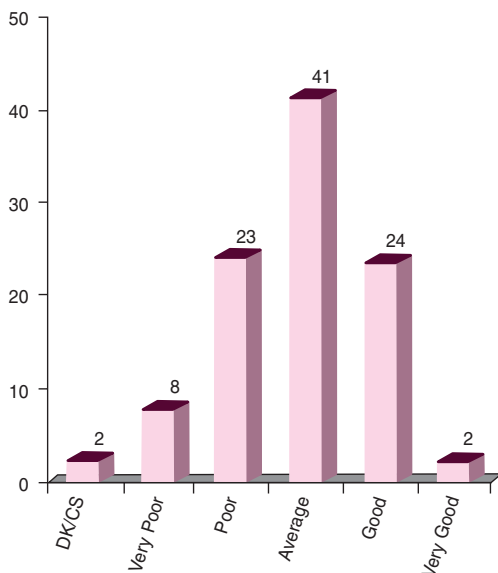
FIGURE 3.43: Availability of rental accommodation in Delhi (%)

Source: Public Perception Survey 2005, GNCTD.

relatively better in New Delhi and North-West than in other districts. The availability of houses on rent was rated 'poor' in South-West and Central Districts followed by West, South, North and East districts.

Finding houses to rent was particularly difficult for the poor in JJ clusters, JJ resettlement colonies and regularized unauthorized colonies dominated by a majority of migrants seeking housing.

PUBLIC SAFETY

Safety is one of the principal constituents of a decent quality of life. For most people, a city is often judged not by its wealth, but by its level of public safety for men, women, and children. Unfortunately, Delhi does not score well on public safety—a feature that comes out strongly in the Public Perception Survey. In every respect, Delhi is considered far less safe than other metropolitan cities in the country.

Most respondents identified the low and declining standards of personal safety in Delhi as a major cause for concern. The survey revealed that only 19 per cent of the people feel that the city was safe. And a significant proportion (33 per cent) rated levels of personal safety as 'poor'. Almost half of the respondents felt that the city was not safe for women.

Although safety levels were generally poor throughout the city, New Delhi followed by Central and South Delhi districts were still considered to be relatively safer than the other six districts. JJ resettlement colonies were rated as being 'least safe' followed by JJ clusters and rural areas. Surprisingly, urban villages were rated as the safest in the city.
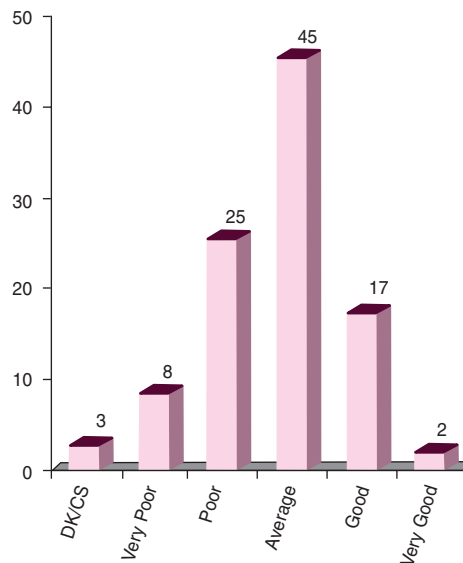
FIGURE 3.44: People's perceptions of public safety in Delhi (%)

Source: Public Perception Survey 2005, GNCTD.

The response of men was similar to that of women. Variations in responses across age and social groups were not significant suggesting that the issue of personal safety concerns all residents of Delhi.

The poor seem doubly disadvantaged when it comes to public safety. The survey revealed that the lowest income groups facing considerable economic insecurity also felt most unsafe in the city.

Also most women in Delhi do not feel safe either in their workplace or while commuting. Only 6 per cent of respondents felt that the workplace was highly secure for women employees. Around 45 per cent of respondents felt that the workplace was not at all safe for women.

Similarly, most women felt highly insecure while commuting in public transport. Almost 90 per cent of respondents felt that public transport was not safe for women commuters. In contrast only 6 per cent of people considered it safe to travel by public transport.

Delhi's residents do not also rate favourably the efforts and performance of the Delhi Police in combating crime and making Delhi a better

Both women and men in Delhi are deeply concerned about the low and declining levels of personal safety.

and safer place to live in. Only 24 per cent felt that Delhi Police was doing 'good' or 'very good' work. Almost 40 per cent felt that the performance was average. And around 31 per cent felt that the performance of the Delhi Police was 'poor' or 'very poor'.

The Public Perception Survey specifically sought to elicit the views of respondents on the performance of the Delhi Police in ensuring women's safety. Only one-fourth of the respondents felt that Delhi Police was doing

FIGURE 3.46: Public safety in Delhi: Perception across income groups

Source: Public Perception Survey 2005, GNCTD.

FIGURE 3.45: Rating of public safety across Delhi's districts

Source: Public Perception Survey 2005, GNCTD.
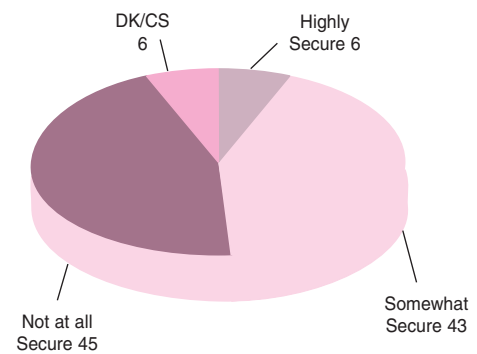
FIGURE 3.47: How safe are Delhi's women at the workplace? (%)

Source: Public Perception Survey 2005, GNCTD.
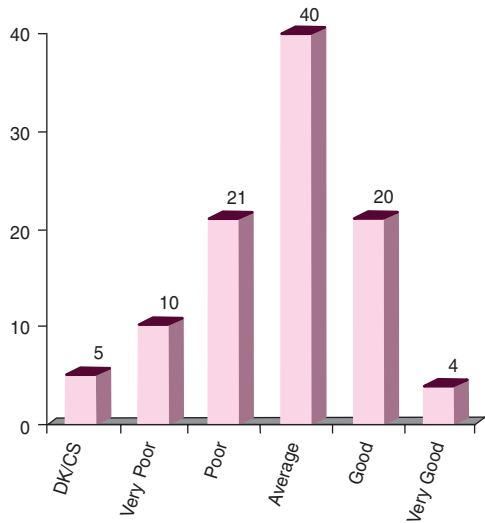
FIGURE 3.48: Rating of Police services in Delhi (%)

Source: Public Perception Survey 2005, GNCTD.
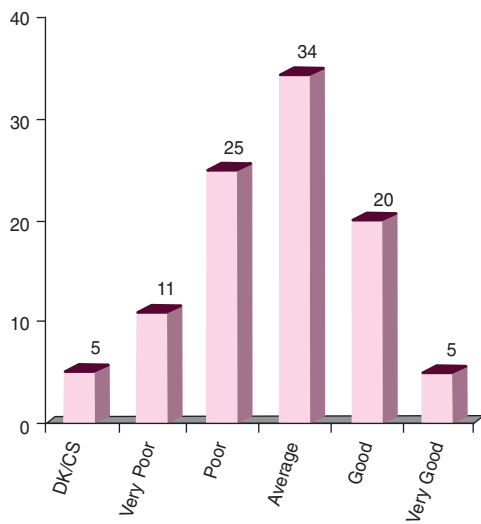
FIGURE 3.49: Assessment of Police efforts to ensure safety of women in Delhi (%)

Source: Public Perception Survey 2005, GNCTD.

good work. More than one-third felt that Delhi Police was not doing enough to protect women in the city.

SUMMING UP

Delhi's residents have been forthright in acknowledging improvements and equally critical in terms of pointing to major areas of

deficiency. For instance, a majority of respondents perceived an improvement in roads, power supply, and the quality of environment in the city-state. However, they expressed considerable dissatisfaction with respect to sanitation and job creation—two areas where the respondents felt that the situation had remained the same and worsened, respectively. Table 3.2 presents an assessment of performance and progress across Delhi's districts. Delhi's New Delhi and Central districts, which are prime locations (priority districts), have fared much better in comparison to other districts. New Delhi leads the race with an aggregate performance rating of 56 (a simple average of performance scores for all the sectors)—10 points over the state average rating of 46. Central district is a distant second with an overall rating of 48—two points above the average.

Inadequate water availability was cited as the most important problem in 6 out of 9 districts. The exceptions were North-West, North-East and East districts. In North-East and North-West districts, power supply was cited as the most important problem, while in East district, sanitation was cited as the most neglected problem. The performance rating of all the other seven districts was in a narrow range of 44 and 46, implying that these seven districts are more or less similar in respect of perceived delivery of services and quality of infrastructure.

Inter-locality variations in public perceptions seem much more pronounced than inter-district variations. Government housing tops the aggregate performance ratings with a score of 52 followed by posh colonies (51) and approved colonies (49).

JJ resettlement colonies, unauthorized colonies, JJ clusters, and rural areas register lower than state average ratings in aggregate performance ratings (42 to 44 against the average of 46).

Water supply, employment opportunities, sanitation, and garbage disposal emerge as problems in all localities. Water availability was rated poorly everywhere. Sanitation and garbage disposal received the worst rating in Unauthorized Colonies (a score of 22).

Almost 90 per cent of respondents felt that public transport was not safe for women commuters. And 45 per cent felt that the workplace was not at all safe for women.

TABLE 3.2: Rating of basic amenities across Delhi's districts

SN	Services	North-West	North	North-East	East	New Delhi	Central	West	South-West	South	All of Delhi
1.	Public Transport (DTC)	64	67	66	61	76	60	64	60	65	64
2.	Education Services	59	65	67	61	72	66	68	62	57	63
3.	Quality of Environment	51	50	38	47	61	52	54	47	52	50
4.	Power Supply	47	44	44	46	60	57	50	52	51	49
5.	Heath Services	44	43	39	42	57	46	44	40	45	44
6.	Personal Safety	43	45	44	43	52	47	42	44	47	44
7.	Housing	54	43	45	40	52	39	43	36	42	43
8.	Roads	41	39	45	44	54	45	43	44	43	43
9.	Water Supply	41	34	40	37	45	40	37	36	37	38
10.	Employment Opportunities	34	36	32	33	35	37	32	34	32	33
11.	Sanitation/Garbage Disposal	31	29	31	32	55	44	30	35	32	33
	Total	46	45	45	44	56	48	46	45	46	46

Source: Public Perception Survey 2005, GNCTD.
Note: This is a weighted score of responses with the following weights: Very Good 1.0; Good 0.75; Average 0.50; Poor 0.25; Very Poor 0.00.

TABLE 3.3: Rating of basic amenities across localities in Delhi

SN	Services	Approved Colonies	Unauthorized Colonies	Rural Areas	Regularized Unauthorized Colony	JJ Clusters	JJ Resettlement Colony	Posh Locality	Urban Village	Walled City	Govt. Housing	Total
1.	Public Transport (DTC)	63	64	61	64	70	60	65	69	57	69	64
2.	Education Services	68	62	61	64	53	57	74	65	63	69	64
3.	Quality of Environment	54	45	49	47	45	48	54	52	46	54	49
4.	Power Supply	52	46	47	43	45	43	53	51	61	58	50
5.	Housing	43	45	46	40	40	41	44	50	35	43	43
6.	Health Services	45	39	44	40	45	41	43	49	42	54	44
7.	Personal Safety	45	46	42	43	41	37	47	50	44	47	44
8.	Roads	48	35	41	44	37	42	52	40	46	50	44
9.	Water Supply	42	31	35	37	33	38	47	38	34	45	38
10.	Employment Opportunities	37	31	30	30	30	28	35	35	36	36	33
11.	Sanitation/Garbage Disposal	38	22	29	28	29	31	42	32	42	45	34
	Average locality-wise score	49	42	44	44	43	42	51	48	46	52	46

Source: Public Perception Survey 2005, GNCTD.
Note: This is a weighted score of responses with the following weights: Very Good 1.0; Good 0.75; Average 0.50; Poor 0.25; Very Poor 0.00.

TABLE 3.4: Rating of basic amenities across different income groups

(Maximum score = 100)

SN	Services	< Rs 3000	Rs 3001–5000	Rs 5001–10,000	Rs 10,001–20,000	> Rs 20,000	Total
1.	Quality of Environment	50	50	49	49	50	50
2.	Power Supply	48	50	49	50	49	50
3.	Housing	41	44	42	45	45	43
4.	Health Services	42	44	44	45	45	44
5.	Personal Safety	42	44	44	46	47	44
6.	Roads	41	44	44	45	45	43
7.	Public Transport (DTC)	64	63	64	65	64	64
8.	Water Supply	37	38	39	39	38	38
9.	Employment Opportunities	34	33	33	33	35	33
10.	Sanitation/Garbage Disposal	31	33	34	34	34	33
	Total	43	44	44	45	45	44

Source: Public Perception Survey 2005, GNCTD.
Note: This is a weighted score of responses with the following weights: Very Good 1.0, Good 0.75, Average 0.5, Poor 0.25, Very Poor 0.00.

Whereas New Delhi and Central Delhi fare well, residents in other districts continue to face serious deficiencies in living conditions.

Roads remain a major problem in unauthorized Colonies and JJ clusters.

While there are noticeable inter-locality differences, perception ratings do not vary significantly across income groups except with respect to personal safety.

To conclude, residents of Delhi have rated the city-state's performance as mixed. Their fondness stems from the historical significance of the city, prospects of finding jobs, the improved quality of environment, the continuously improving road conditions and good access to health, and educational facilities. On the other hand, they are perplexed by the water crisis, the power shortages and by the collapse of public health provisioning. Garbage disposal and sanitation remain serious concerns needing priority attention. Equally disturbing is the high levels of crime and insecurity. Delhi's women in particular feel extremely unsafe almost everywhere—at home, in the workplace, on the roads, and in public buses.

4

THE GOVERNANCE CHALLENGE

The complexity of governing Delhi offers some useful leads into the state of the city-state's human development. Mathura Road is a good metaphor for the multiple authorities and jurisdictions that coexist and sometimes clash in almost every aspect of the governance of the city. Mathura road, an imperial road, going back to Mughal times, connects the city of Delhi through the pilgrim town of Mathura to Agra in Uttar Pradesh. A segment of this road runs through Delhi, before entering the state of Haryana and then finally into Uttar Pradesh. The responsibility for the maintenance and repair of this road is, in different stretches, shared by the Public Works Department of the Government of the National Capital Territory of Delhi, the Municipal Corporation of Delhi, the New Delhi Municipal Council, and the Delhi Development Authority. Complex administrative structures and limited opportunities for people's participation are two fundamental features and roadblocks that characterize the governance of the city-state today.

Delhi has only fitfully enjoyed the benefits of an elected legislature and popular government. Examining the history of Delhi from 1950 onwards reveals that Delhi has had an elected Assembly for the years between 1952 and 1956, and again only since 1993. This means that the citizens of Delhi have been in a position to elect their government for barely seventeen years of a total of fifty-six years since the enactment of the Constitution. The democratic principle has thus only rarely been a feature of governance of Delhi.

INSTITUTIONAL ARRANGEMENTS

The governance of Delhi, for a variety of historical and political reasons, is carved up among different authorities.

Delhi's residents have elected their government for barely 17 years out of a total of 56 years since the enactment of the Constitution.

Jurisdictions: Union Government and State Government

To begin with, critical aspects of Delhi's governance are in the hands of the Union Government. Delhi Police, the Delhi Development Authority, the Municipal Corporation of Delhi, and the New Delhi Municipal Council, for instance, report to the Union Government, not to the State government. The Delhi Police is under the jurisdiction of the Union Ministry of Home Affairs, whereas the Delhi Development Authority reports to the Union Ministry of Urban Development. Similarly, the Commissioner—the top functionary—of the Municipal Corporation of Delhi (MCD) is appointed by the Central Government and so is the Chairperson of the New Delhi Municipal Council (NDMC). While MCD has the power to enact rules and bye-laws, it is the Central Government that presents them to the Parliament. The Central Government determines the number of wards, the powers and functions of ward committees, the rules regarding electoral rolls, and so on. Many of these powers have been delegated to the Lieutenant Governor, and remain outside the control of the Delhi Government.

The Legislative Assembly of Delhi, which has 70 members directly elected from single-member territorial constituencies, is empowered to legislate on all other subjects in the state list of the Constitution. This however excludes land, police, and law and order. The executive authority in Delhi rests with the Council of Ministers, headed by the Chief Minister of the Government of the National Capital Territory of Delhi. The Ministers are collectively responsible to the Legislative Assembly. In terms of functioning, however, Government of Delhi frequently finds itself hamstrung, like, when duly enacted laws conflict with other

laws in existence. The Lieutenant Governor of Delhi has the power to exercise discretion in matters, which fall outside the purview of the Legislative Assembly, but only regarding matters for which he has been delegated power by the President or for discharging any judicial or quasi-judicial functions.

Though the most frequently cited rationale for such centralized control of Delhi is the special status of it being a city-state, it is also partly a residue of history. At a time when there was neither a state legislature nor a state government, it was appropriate for the MCD to function under the control of the Central Government. Today, however, this appears to be anomalous. The argument of the unique requirements of Delhi as the nation's capital is more pertinent to the area under the New Delhi Municipal Council. This area which houses most government buildings, including official residences of the President, Union Ministers, Members of Parliament, and civil servants, symbolizes special status and perhaps justifies the control of the Union Government over it. Also, in recent years, security has become a compelling concern, which reinforces the need for Delhi Police to be under the Union Government.

There are currently four authorities in Delhi responsible strictly for municipal functions. These include, Municipal Corporation of Delhi, the New Delhi Municipal Council, the Delhi Cantonment Board, and the Delhi Development Authority.

Municipal Corporation of Delhi

The Municipal Corporation of Delhi (MCD) is the most important municipal authority in the Union Territory of Delhi. It is also the second largest municipal body in the world in terms of the area under its jurisdiction. The MCD is responsible for providing and maintaining civic services for close to 1400 sq km out of Delhi's total area of 1483 sq km. The remaining land area is divided, in almost equal proportion, between the New Delhi Municipal Council and the Delhi Cantonment Board. Of the area under the control of the MCD, approximately 558 sq km is rural, consisting of 165 villages. An estimated 97 per cent of Delhi's population resides in the MCD area. The density of population in the MCD area is 20,680 per sq

km (urban) and 1208 (rural)—as against 6897 in the NDMC and 2896 in the Delhi Cantonment area. MCD engages a permanent staff of around 147,000. This works out to 0.0105 employees per resident—significantly lower than the per capita availability of 0.06 in the NDMC area. The *safai karamcharis* (street cleaners) of the MCD alone are double the number of those in Mumbai, Kolkata, and Chennai. This works out to around thirty-six *safai karamcharis* per 10,000 persons in Delhi.

The Delhi Municipal Corporation Act of 1957, amended several times over the years and most recently in 1993, specifies the composition and functions of the MCD. As it stands, the membership of the MCD, has a tenure of five years, is not to be less than 80 and not more than 134 Councillors. In addition, there are (a) ten persons with special knowledge of or experience in municipal administration nominated by the Lieutenant Governor, but who do not have the right to vote; (b) members of the Lok Sabha who represent the constituencies falling within the Corporation area; (c) one-fifth of the members of the state legislative assembly whose constituencies fall within the Corporation area; and (d) Chairpersons of Committees, if these are chosen from among those who are not Councillors. The Corporation members annually elect a Mayor and a Deputy Mayor. One-third of the general seats are reserved for women and, within this category, one-third is reserved for Scheduled Castes.

Delhi—excluding the areas under the Cantonment and the NDMC—is divided into twelve zones. The zones in turn are divided into four to sixteen single-member wards, in which individual citizens are registered as voters. The purpose of the wards is not merely to facilitate representation, but also to effect administrative decentralization by dividing the municipal administration into more localized and therefore accessible units.

The municipal authority of the MCD is divided between a Standing Committee, a Wards Committee, and the Commissioner. While the first two are elected from among the Councillors, the Commissioner is appointed by the Central Government and is generally a senior official of the Indian Administrative Service. There are also a few other Committees, such

The Municipal Corporation of Delhi is accountable to the Union Government, not to Delhi's State Assembly.

> ## Box 4.1
> ## Responsibilities of the Municipal Corporation of Delhi
>
> The Municipal Corporation of Delhi (MCD) is the most important municipal authority in the Union Territory of Delhi. The obligatory functions of the MCD include:
> - registration of births and deaths;
> - construction and maintenance of drains, drainage works and public latrines;
> - removal and disposal of garbage;
> - regulation of places for the disposal of the dead;
> - reclamation of unhealthy localities;
> - measures for preventing the spread of dangerous diseases;
> - establishment and maintenance of dispensaries and maternity and child welfare centres;
> - maintenance and upgradation of hospitals;
> - construction of streets and bridges;
> - public vaccination and inoculation; the maintenance of municipal markets and slaughter houses; and
> - establishment and maintenance of primary schools.
>
> The MCD also has a vast range of discretionary functions, some of which are:
> - furtherance of education by means other than schools;
> - establishment and maintenance of libraries and museums;
> - establishment of stadiums and gymnasiums;
> - registration of marriages;
> - survey of buildings and land; and
> - construction of rest-houses, poor houses, infirmaries, shelters for the destitute and disabled, and asylums.

as the Rural Areas Committee and the Education Committee, whose names express their functions. The Chairman of the Standing Committee has the final authority to appoint and transfer employees—power, it is claimed, greater than that enjoyed even by the Chief Minister of Delhi.

The MCD is characterized by a separation between its deliberative and executive wings. The Commissioner heads the executive wing whereas the deliberative wing consists of the Councillors. The role of Councillors in policy-making is minimal and entails 'getting things done' through their interface with citizens on the one hand, and the executive wing of the MCD, on the other. The councillors enjoy a greater status, as they control the constituency funds and this enables them to decide which works will be undertaken and where. The Councillors also exercise some power over officials: directing them, causing transfers to be effected, and reporting accounts of corrupt practices or of insensitivity towards citizen demands. The executive wing meanwhile, is responsible for framing policy, budgets, and interpreting rules.

Several issues relating to effective function-ing of MCD have been raised and addressed over the years. In 1971, the ineffectiveness of the MCD in running what was then the Delhi Transport Undertaking was the stated ground for its takeover by the Union Ministry of Surface Transport, though it was subsequently, in 1996, placed in the care of the Government of Delhi. In 1996–8, following the recommendations of the Balakrishnan (formerly Sarkaria) Committee, two functions were removed from the purview of the MCD and transferred from MCD to Autonomous Boards under the Delhi Government. In 1996, the function of generating and distributing electricity was handed over to the Delhi Vidyut Board. More recently, the distribution of electricity was privatized and is currently governed by the Delhi Electricity Regulatory Commission. In 1998, the responsibility for providing water supply and drainage systems was transferred from the MCD to the Delhi Jal Board under the jurisdiction of the state government.

The New Delhi Municipal Council

The origins of the New Delhi Municipal Council are traced to the Raisina Municipal Committee that was established in 1916 to cater

Box 4.2
MCD's budgetary position

The MCD has an annual budget of Rs 30 billion, which is one-fourth the size of the budget of the GNCTD. A small proportion of the MCD's annual budget is financed by funds released to it by the Government of Delhi from its Plan Budget. The remaining is raised through a variety of taxes, rates, and cesses. These include the fee for sanctioning and approving building plans, taxes on vehicles, animals, theatres and cinemas, and advertisements on hoardings, tax on consumption of electricity, etc. The MCD can also levy an education cess, toll tax, local rates on land property taxes, duties on the transfer of property and raise revenue through building taxes.

MCD's tax base is considerably larger than that of the GNCTD. The Delhi government also gives MCD a proportion of the taxes collected in Delhi. Every five years, the Finance Commission (appointed by the Delhi Legislative Assembly) reviews the financial situation of the MCD and makes recommendations to the Lieutenant Governor regarding the distribution of taxes between the state government and the MCD, the taxes, duties, tolls, and fees which may be appropriated by the MCD and the grants-in-aid to the MCD from the Consolidated Fund of the NCT of Delhi. The annual salary bills of the MCD account for Rs 12.25 billion of its budget, which eats into its fairly large tax-base of Rs 10.5 billion. Other costs from technological change or environmental regulation add to the burden as well. Thus, the requirements for garbage disposal have—under the Environmental Protection Act of the Central Government—gone up dramatically, while there is no provision yet for incorporating the 'polluter pays' principle in policy. Further, policy shifts at the macro-level do not easily translate into initiatives at the local level. For instance, the encouragement from the Union Finance Ministry to borrow from the Bonds market is contrary to the provisions of the MCD Act which requires Central Government permission to borrow even Re 1. The Act also requires that all monies have to be deposited with the State Bank of India, and hence even when loans are available at lower interest rates in the market, the Corporation is compelled to borrow from the government at higher rates.

to the municipal needs of workers engaged in the construction of the new capital. In 1925, it was upgraded to the level of a 'Second Class' municipality and called the Imperial Delhi Municipal Committee. In 1932, it became a First Class Municipality and was renamed as the New Delhi Municipal Committee. Till as recently as 1994, when the New Delhi Municipal Council Act was enacted, the law governing its function remained the Punjab Municipal Act of 1911.

The area covered by the functioning of the NDMC includes the most prestigious parts of the city, like, the Rashtrapati Bhawan, the Prime Minister's office and residence, the offices of the Central Government, embassies of foreign countries, the official residences of ministers and Members of Parliament, of diplomats, and of Central Government employees. The population residing in this area of approximately 42 sq km is around 302,000 though many more pass through or work in the NDMC areas during the day. The permanent staff of the NDMC numbers around 18,000 which, in per capita terms, works out to 0.06.

The Chairperson of the Council is a senior civil servant appointed by the Central Govern-ment in consultation with the Chief Minister. The Council also includes three Members of the Legislative Assembly of Delhi whose constituencies fall within the area encom-passed by the NDMC, five nominated Central Government officers and two members nomi-nated by the Central government, in consul-tation with the Chief Minister, who may be professionals, social workers, and others representing particular interests. Of these, three must be women, and one must be a mem-ber of the Scheduled Castes. The Member of Parliament who represents the New Delhi constituency is a special invitee to Council meetings, but does not have the right to vote. Thus, it is only in the case of the Chairperson and the nominated non-official members that the Chief Minister is consulted. Substantively, these and all other appointments are made by the Central Government.

The obligatory and discretionary functions of the NDMC, as specified in the Act of 1994, broadly follow those of the Municipal Cor-poration of Delhi. Clearly, there is much less pressure in terms of the population as well as the level of maintenance required in areas where a lot of resources have already been

The Chief Minister of Delhi is consulted, but the Union Government appoints the Chairperson of the New Delhi Municipal Council.

invested towards provision of civic amenities. This may be why the NDMC has concentrated much of its effort in projects towards beautification, tree-plantation, and organization of cultural events such as concerts and art exhibitions.

Delhi Development Authority

Created in 1957, the Delhi Development Authority (DDA) is meant 'to promote and secure development of Delhi'. The Chairman of DDA is the Lieutenant Governor of Delhi, while the executive head is the Vice-Chairman, generally a senior civil servant. According to its founding charter, the DDA is in charge of the task of formulating a Master Plan for Delhi, and has 'the power to acquire, hold, manage, and dispose of land and other property, to carry out building, engineering, mining, and other operations to execute works in connection—with supply of water and electricity, disposal of sewage, and other services and amenities.' The jurisdiction of the DDA is thus fairly distinct, and all civic agencies are required to comply with the Master Plan prepared by it. The nodal ministry for DDA is the Union Ministry of Urban Development.

A large part of the DDA's activities include the acquisition of land and the development of new areas as the pressures of urbanization in Delhi increase. New areas are notified as 'development areas', in which no work can proceed without the permission of the DDA. These development areas remain under the DDA for purposes of controlling, regulating and granting permissions for building activity, including the approval of building plans and the enforcement of norms. It is only in the non-development areas that jurisdiction rests with the relevant local authority (usually the MCD), in conformity with the Master Plan. Eventually, when an area has been fully developed and no further land remains to be acquired, the development area is denotified and handed over to the relevant local authority, with DDA remaining only a lease-administering authority.

The DDA has, over the years, created nearly 1.5 million dwelling units, and has 200,000 live clients in the form of leaseholders. It continues to service these clients on all issues relating to conversion (e.g., from leasehold to freehold), mutation, sale and so forth. Difficulties encountered by citizens commonly arise as a result of delays in transferring the services to the MCD or the Delhi Jal Board. Even within the DDA itself, jurisdictional issues may and do arise between the Planning Department, responsible for building activities, and the Engineering Department, which provides services such as water. When, as is often the case, the boundaries of development areas are not clearly demarcated, this leads to a problem of absence of clarity rather than of duality of jurisdictions.

The DDA has recently launched a series of efforts to tackle such problems. It has embarked upon an ambitious plan of converting into electronic format all the important

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Box 4.3
NDMC's budgetary position

The NDMC area remains a privileged enclave within a city otherwise burdened with a huge population and creaking civic services. According to one estimate, there are 800,000 people living in Delhi's 1200 slums, 50 Resettlement Colonies and 1500 Unauthorized Colonies. Apart from the sizeable number of people living in sub-human conditions, a large number of migrants enter Delhi annually in search of work. Many of these remain homeless, living on pavements, deprived of minimum wages and even the basic rights of citizenship. Few of these are to be found in the NDMC area.

The NDMC is substantially resourced through its own revenues which are raised through taxes on property, building, licenses, electricity, and water. It is a prosperous municipality, which ended the financial year 2003–04 with a surplus of Rs 27.5 billion. Though the area under the jurisdiction of NDMC is barely a fraction (2.8 per cent) of that under MCD, the former is comparatively better resourced. The per capita expenditure on urban services by the NDMC in 1988–9 was Rs 2285 as against Rs 149 by the MCD. Thus, the per capita expenditure on civic services in the MCD area is just 6.5 per cent of what it is in the NDMC area.

information relating to a particular client or file. The DDA is also engaged in clearing the backlog of 40,000 plots and houses pending since 1979–81, and imparting transparency to the process by keeping people informed. Special camps are organized for group housing societies, where citizens can simply bring their papers and have their problems sorted out directly. Any plan for a residential building on a small plot (i.e., less than 500 sq m) is automatic, subject to self-certification. Citizens can bring grievances directly to officials at specified times in the week.

The DDA's responsibility for the overall planning of traffic and transportation in the city is supposed to be discharged with the following agencies: the Public Works Department of the Government of the National Capital Territory of Delhi, the MCD, the NDMC, the Union Ministry of Surface Transport, the Delhi Metro Rail Corporation and the National Highways Authority of India. This is a good example of how a sensible idea—that there should be synergy between patterns of land use, urban transport and the urban economy— can generate a confusing overlap between multiple agencies.

FISCAL GOVERNANCE

The Government of NCT of Delhi is uniquely placed in the federal and functional set up of the country. These features are worth noting:

- Expenditure responsibilities of Delhi do not include spending on law and order, police, and land.
- The state can borrow only from the Central Government and does not have any access to market borrowings, negotiated loans or provident fund of government employees.
- The state, instead of getting its share in central taxes, receives Central Government support in the form of grant-in-aid.
- Delhi's fiscal health is inextricably interwoven to the fiscal health of its public utilities (DTC and DJB) and local bodies (MCD and NDMC). The influence on Delhi's finances of other corporations (around 17 in number) dealing with a wide range of subjects is not very significant. Certain patterns of public spending are also striking.

- Government expenditure as a percentage of Delhi's State Gross Domestic Product (GSDP) has steadily increased from 9 per cent in 1994–5 to about 14 per cent in 2003–04.
- The capital-revenue expenditure ratio has gone up from 0.68 in 1994–5 to 0.74 in 1998–9 and further to 1.30 in 2003–04.

Delhi does not appear to have capitalized on its vast fiscal base in spite of being predominantly urbanized with a diversified economic and industrial base and being a leading trading and distribution centre as well. For instance, its own tax revenue has remained around 7 per cent of GSDP for the last ten years. Within the own tax revenue, in 2004–05, sales tax accounts for 75 per cent followed by state excise for 12 per cent, stamp duty for 7.5 per cent, and taxes on vehicles for 3 per cent.

Delhi's fiscal deficit which was 1.5 per cent of GSDP in 1994–5 rose to 2.91 per cent in 2003–04 in spite of the fact that the state has been able to maintain a surplus on revenue account. The fiscal deficit is being increasingly financed by loans from the Centre, which as a percentage of GSDP has increased from 1.97 per cent in 1994–5 to 5.56 per cent in 2002–03.

Development expenditure as a percentage of Net State Domestic Product (NSDP) has tended to rise over the period. This percentage was 5.4 in 1994–5, reached 10.8 in 2001–02, dipped to 9.4 in 2002–03 and started rising thereafter. Social expenditures constitute a significant component of development expenditure varying from 54 to 74 per cent during 1994–5 and 2003–04—rising every year since 2001–02. Education, health, and urban development account for more than 85 per cent of the total social expenditures. Per capita social expenditure has been increasing steadily from Rs 1043 in 1994–5 to Rs 2038 in 2003–04, except for the break in the year 1999–2000. Several practical steps have been prescribed for Delhi to improve its fiscal health. These include toning up the administrative efficiency, increasing compliance, and improving functioning of the tax machinery.

FOUR FEATURES

Delhi's governance is characterized by four features: overlapping jurisdictions, legal

The Chief Minister of Delhi has no jurisdiction over DDA—an agency that controls land use and has as its Chairperson the Lieutenant Governor of Delhi.

anomalies, structural anomalies, and the issue of land ownership.

Overlapping jurisdictions

The governance challenge of Delhi, as can be surmised, is to cope with multiple authorities and competing jurisdictions. For instance, there are six types of schools in Delhi. These include schools run by the Delhi Government; schools aided by the Delhi Government; schools run by the Municipal Corporation of Delhi; schools run by the NDMC; schools operated by the Delhi Cantonment Board; and private unaided schools. Also, while primary and pre-primary education is the responsibility of the local bodies, secondary and higher education are with the State Government. Likewise, medical services in Delhi are provided by numerous agencies, including the Government of India (the All India Institute of Medical Sciences and the Central Government Health Scheme), the Government of Delhi, the MCD, the NDMC, the Armed Forces, the Railways, and private hospitals.

There is thus, in the relatively small area of Delhi, a multiplicity of institutions. Multiplicity per se would not be problematic if the jurisdictions of these institutions were clearly defined and rationalized in the overall context of a responsive and efficient administration. This, however, is not the case. Of all these, the area and functioning of the Delhi Cantonment Board is clearly demarcated and hence relatively non contentious, though pressures on land have occasionally made this a subject of debate as well.

The residual effects of poor historical evolution of these multiple institutions is well illustrated in the case of the MCD and NDMC, the institutional lineage of which can be traced back to 1863 and 1916, respectively. Only one of these bodies incorporates the principle of elected representation.

Legal anomalies

Most of the legal anomalies that characterize governance of Delhi relate to the overweening role of the Central Government. Fundamentally, the constitutional provision regarding entry 5 of the state list in the In-

dian Constitution gives the Government of Delhi control over local self-government. However, the Municipal Corporation of Delhi, the agency that gives effect to the idea of local self-government is governed by a law that gives overriding authority in a number of areas to the Central Government, rather than to the State Government. Similarly, while local self-government includes improvement trusts, since 1957 Delhi has had the Delhi Development Authority, an autonomous body whose nodal ministry is the Union Ministry of Urban Development. Thus, the principle of self-government for the National Capital Territory of Delhi is enshrined in the existence of the Assembly and the Council of Ministers, while the provision of local self-government is allocated between the MCD and the DDA, neither of which is accountable to the elected government of Delhi.

Also, while the Delhi Municipal Corporation Act gives the MCD the power to make Rules, Regulations and Bye-laws on a variety of subjects, it provides that the Government of India should present these to both houses of Parliament. On some issues—e.g., the creation of wards in the city—the powers have been divided between three agencies. Thus, the power to decide the number and area of wards has been delegated to the Lieutenant Governor; the composition of the ward committees and the way in which seats would be filled is determined by the state legislature; while the powers and functions of the ward committees will be decided by the Government of India. Similarly, the power to change the name and the size of municipal zones rests with the Central Government. The State Election Commission is empowered to prepare electoral rolls, but the Central Government makes the rules in this regard.

Structural anomalies

There is an important structural anomaly in the constitution of MCD that has serious implications for administrative accountability. The 1993 Amendment to the MCD Act handed over some powers previously vested with the Central Government to the Delhi Government. However, powers under 46 sections or sub-

Multiple authorities and competing jurisdictions hamper efficient administration.

sections of the Act were retained by the Central Government, of which only 17 were delegated to the Lieutenant Governor, while the balance continued to remain with the Centre. It is the Central Government that appoints the Commissioner of MCD, whose exercise of powers and functions is to be 'under the general superintendence, direction and control of the Central Government'.

The Centre is also legally empowered to direct MCD in the proper performance of its duties, to enforce such directions, and to dissolve the Corporation for abuse of power, or in case of defaults in the performance of its duties. This is particularly interesting because the MCD is—as we have seen—resourced by the Government of Delhi, but accountable to the Centre. The annual funding to the MCD by the Government of Delhi is approximately Rs 1000 crore. However, the state government has absolutely no control over the administrative and financial functioning of the Corporation. There is a complete disjunction between the agency that pays the piper and that which calls the tune. This arguably affects the functioning of the MCD in either of two ways. First, if the administrative authority of the MCD at any given time wishes to function effectively and conscientiously, its task is rendered immeasurably difficult by the imperatives of serving two elected governments and also a large number of elected Councillors, with all the complications attendant upon different political parties enjoying control in these different agencies. Second, corrupt or lazy administrators in the MCD can very easily use these institutional anomalies to mask their own incompetence or lack of rectitude. Apart from the institutional contradictions, this also violates the basic principle of elected representation. The electorate of Delhi thus has little or no control over the functioning of the chief civic body in the city.

These anomalies are also reproduced in the relationships between the Government of Delhi and the DDA, on the one hand, and that between the MCD and the Delhi Development Authority, on the other. Central to both these sets of relationships is the issue of land.

The land issue

The DDA is, as we have seen, responsible for formulating the Master Plan for Delhi. It also has control over land use for the development of Delhi. The elected government of Delhi has no role in either of these processes. In fact, this is part of the reason why Delhi has not implemented the Constitution (74th) Amendment Act of 1992, which provides for democratic decentralization of urban local government, and the establishment of a Metropolitan Planning Committee for metropolitan areas. Delhi was exempted from the provisions of the amendment chiefly on account of the issue of land being outside the purview of the elected government.

The DDA is responsible for development and provision of services in any area chosen for development. Once it has completed this task, the now 'developed' area is supposed to be handed over to the MCD for maintenance. This transition frequently takes time and sometimes even creates a temporary period in which the area remains in limbo with citizens deprived of civic services. The DDA is responsible only to the Government of India, and there is no scope for citizen's participation in the determination of policies of land use or land development. It cannot enter into any partnerships with private corporations for infrastructure projects, as it has no powers over land. Thus, with the elected government having no role in these policies, or in the preparation of the Master Plan, the DDA is, to all intents and purposes, a parallel and extremely powerful administrative structure in Delhi.

IMPORTANT INSTITUTIONS

Sketched in Boxes 4.4, 4.5 and 4.6 are short profiles of three important institutions that play a central role in the governance of Delhi—the legislature, the judiciary, and the police. The effectiveness of institutions such as the legislature, the judiciary, and the police is difficult to measure, especially from the citizens' point of view. But some proxy indices of efficiency and effectiveness have been used to compare at least the functioning of state legislatures and judiciaries in India.

Several legal anomalies in the jurisdiction and functioning of the Union Government and Government of Delhi have left many important issues of local governance unresolved.

Box 4.4
The Legislative Assembly

How often do State Assemblies meet and for how long? Across the country, the record of State Assemblies in this matter is poor. A Report prepared in 2001 on procedural uniformity and better time management in legislatures by the Committee of Presiding Officers of Legislative Bodies, headed by Professor Narayan Pharande of the Maharashtra Legislative Council, argues that the average number of sittings of all state legislatures should be higher than it is.

Between 1993 and 1998, the average duration for which the Delhi Assembly met was twenty-six days as against twenty-four days for Punjab Assembly and twenty-eight for Rajasthan Assembly. The time allotted for transacting Government business in the Delhi Assembly is 60 per cent, placing it 10th when compared to other State Assemblies. Over the last ten years, the Delhi Assembly has legislated over 100 Acts on a wide range of subjects from urban development and the environment to education, health and social welfare.

Close to 70 per cent of Delhi's legislators are educated to the level of Bachelor of Arts, and many have additional degrees such as a Masters or a Bachelor in Law. There are also some qualified lawyers and medical practitioners apart from educationists and journalists. The standard of debate is relatively high, and the proportion of time wasted due to the disruption of legislative proceedings is relatively low. The Committee system should potentially be the greatest beneficiary of educated legislators seriously engaged in legislative business, but remains handicapped by under-staffing.

Box 4.5
The Police

Powers of policing in Delhi, as already mentioned, are vested with the Central Government. The Police Commissioner of Delhi is therefore an appointee of the Ministry of Home Affairs, Government of India. The chief rationale for retaining the policing function with the Central Government is the fact that Delhi, as the capital city, has special requirements from the viewpoint of security. Nevertheless, there are some important areas of conflict.

In 2001–02, a Parliamentary Committee recommended a Unified Traffic Management Authority in Delhi. This was referred by the Ministry of Home Affairs to the Government of Delhi, which took the view that a unified traffic management authority would not be feasible so long as the Legislative Assembly of Delhi is not empowered to legislate on police and land issues.

Of the total number of 23,409 complaints received by the police in the year 2003, close to 22 per cent (5908 complaints) were *complaints against police personnel themselves*. And 545 complaints were investigated by the Vigilance Branch of which seventy-eight were found to be substantiated. In addition, the National Human Rights Commission received another 1448 complaints of which eleven were enquired into by the Vigilance Branch; and two were found to be substantiated. Also, 207 complaints against police personnel were received in the postbox number of the police (P.O. Box 171), of which three were found to be substantiated.

The Delhi Police has therefore had to award punishments to its own personnel which, for the year 2003, included censure (1640 cases), forfeiture of service (241 cases), withholding of increment (77 cases) and dismissal, removal or termination (57 cases). It is not therefore surprising that the People's Perception Survey 2005 found that 40 per cent of the respondents rated Delhi as average in terms of ensuring personal safety, while 31 per cent rated it as 'poor' or 'very poor'.

An obvious structural anomaly is to be found in the functioning of the MCD—which is resourced by the Government of Delhi but is accountable to the Union Government.

SUMMING UP

A division of powers is generally a good recipe for a healthy system, as with the classical distinction between the legislative, executive and judicial functions of government. But when the division of powers is based on no recognizably rational principle and is characterized instead by overlapping and competing jurisdictions, effective governance is bound to be a casualty. The distribution of powers across different agencies leads to the diffusion of responsibility, which can easily translate into irresponsibility. Sometimes, agencies may be working at cross-purposes with each other, without conflict or contradiction. Even so, effectiveness in administration is unlikely to result. If, moreover, non-elected institutions get primacy over elected representative institutions, mechanisms of accountability evaporate. Dichotomy between financers and

Box 4.6
The Judiciary

Delhi is the only Union Territory to have its own High Court. The judges of the High Court are appointed by the President of India in consultation with the Chief Justice of India and the Lieutenant Governor. Like all other High Courts, the High Court of Delhi has powers of superintendence over the District and Subordinate Courts within its jurisdiction. Though judicial officers are technically appointed by the Lieutenant Governor of Delhi, it is the High Court that provides overall supervision of these courts including the recruitment and appointment of judges, the preparation of Annual Confidential Reports, decisions on giving extensions to judges and—where necessary—recommending the removal of judges on grounds of corruption. The Government of Delhi is essentially responsible for the budgeting and financial aspects of the District and Subordinate Courts.

The head of Delhi's judicial system (below the level of the High Court) is the District and Sessions Judge, who functions with the help of two Judges-in-Charge at the Patiala House and Karkardooma Courts. Below them are 136 Additional District and Sessions Judges dealing with civil as well as criminal cases. The subordinate judiciary—belonging to the Delhi Judicial Service—is headed by a Senior Civil Judge for civil matters and a Chief Metropolitan Magistrate for criminal matters.

Available statistics for December 2000, pertaining to the functioning of the courts at various levels, show that there were around 3.5 million cases pending in High Courts all over India. Delhi High Court accounted for about 5 per cent—around 178,001 cases—and ranked 7th highest among eighteen Indian states. Some 35,865 cases were pending for more than ten years in the Delhi High Court—the 4th highest among eighteen Indian states. Data available for the District and Subordinate Courts, as of December 1999, reveal that there were 463,073 cases pending in Delhi courts of which more than two-thirds (66 per cent) were criminal cases, and 3.3 per cent were pending for more than ten years.

TABLE 4.1: Cases pending for more than ten years in the subordinate courts

Courts or Tribunals in which they are to be decided	No. of cases as of 31 March 2004
Sessions Court	19,624
Metropolitan Magistrate	317,387
District Judge and Additional District Judges	31,239
Civil Judges	64,694
Rent Control Tribunals and Rent Controllers	10,205
Motor Accident Claims Tribunal	14,006
Industrial Tribunals	2025
Labour Courts	23,854
Total	483,034

Source: compiled from *www.delhidistrictcourts.nic.in.*

administrators can prevent effective governance. The governance of Delhi has unfortunately been a victim of all these inconsistencies and contradictions. There is presently no institution that can perform the function of coordination between the different agencies.

Until there is such an institutional solution to the problem—perhaps in the form of some model of statehood that irons out the overlaps and rationalizes control over, for instance, land—a sound solution will remain elusive.

5

BREAKTHROUGH WITH *BHAGIDARI*

The Bhagidari approach, a collaborative endeavour of Government of Delhi and citizens, has provided an effective forum for people to participate in and improve governance.

The intertwined governance structures in Delhi have yet to be resolved. Nevertheless, there is a definite air of change, a refreshing sense of movement and a positive sense of transformation engulfing the city. This can be largely attributed to the breakthrough in improving governance achieved with the introduction of the Bhagidari initiative. Developing the Bhagidari approach has been the government's response to arresting the deteriorating conditions of city life and improving the poor performance of public utilities.

Bhagidari in Hindi literally means partnership. It is a good governance initiative of Government of Delhi that recognizes the importance of collaboration between citizens and the Government for addressing existing and future issues affecting the quality of life in the city. At the time of its launch in 2000, Delhi was overwhelmed with many problems including overflowing sewers, public littering, poor roads, long traffic jams coupled with vehicular and industrial pollution. An over-burdened administration adopting conventional methods of problem-solving failed to make an impact or achieve desired outcomes. Government, working in selfish and self-imposed isolation, was seen as being responsible for all the chaos. Such a perception was justified, as there were virtually no mechanisms for people to engage with and participate in public decisions affecting their lives.

Bhagidari has been Government of Delhi's response to providing an effective forum for people's participation. Such participation has been encouraged in major policy formulation initiatives of the Government of Delhi including power sector reforms, house tax reforms and reforms in public transportation. The introduction of Bhagidari has generated many useful and constructive forms of partnerships between citizens, government and civil society organizations for improving the quality of life in Delhi.

THE *BHAGIDARI* WAY

Bhagidari is a programme of partnership between the government (and allied agencies) and citizens, organized through Residents Welfare Associations, Market Traders Associations, Industrial Associations, village groups, and non-governmental organizations. It is an attempt to address the deadlock in governance by involving different stakeholders as partners. Such partnerships promote citizen participation and encourage government responsiveness. Service delivery and responses are observed to become much better when solutions are worked out and implemented through organized collaborative arrangements between representatives of citizen groups, government officials, and civic authorities. They give citizens a sense of ownership in sorting out civic issues and a sense of identity with new projects being undertaken. Such a process also enables citizens, and government to discuss, negotiate, and arrive at common solutions.

In conventional administrative structures, there is little or no direct role for citizens in formulating, implementing, and evaluating policies and programmes that seek to provide basic services and amenities to people. The Bhagidari programme of 'Citizen-Government Partnership' effects a change in public administration by bringing citizens into the centre stage of governance. It is designed to provide a democratic framework for citizen groups to interact and partner with government functionaries for resolving simple, day-to-day civic issues. The process encourages citizen volunteerism and sharing of responsibilities

between the government and people. It facilitates public scrutiny of government functioning and encourages people's active participation in the betterment of civil society. It utilizes the principles of multi-stakeholders' collaboration and 'large group dynamics' for developing joint-ownership of the transformation process.

The Bhagidari process involves, on the one hand, organizing a series of large group meetings and discussions with a range of stakeholders and on the other special community partnership initiatives of particular departments like the Stree Shakti initiative of the Department of Social Welfare, the Vidyalaya Kalyan Samitis of the Department of education, the greening and Eco-Clubs of the Department of Environment and Forests and the rainwater harvesting initiative of the Delhi Jal Board. Bhagidari workshops, usually held for two or three days over weekends, are organized as part of a multi-stage process beginning with defining of an agenda and ending with finding solutions for implementation. For instance, if the chosen theme is solid waste segregation, and the chief agency involved is the Municipal Corporation of Delhi (MCD), the Bhagidari process starts off with an orientation meeting organized with various stakeholders including the MCD. Representatives of all stakeholder groups participate in this preparatory workshop to design the intermediary and final workshops identifying in detail the issues, concerns and problems to be addressed and solved. A 'large group interactive process' methodology is adopted for the workshops. Around 200–300 people representing different stakeholders are invited to the workshop. They are divided into 20–30 groups of around 8 persons. At a workshop on solid waste segregation, for instance, a typical round table of eight persons would generally include an MCD official, a representative from a citizens' group, a Residents' Welfare Association member, a housewife, teachers and children from MCD schools, a ragpicker, and so on. The age groups represented could vary from ten to seventy years. Each of the groups is asked to discuss the problem and prepare a list of responses. Suggestions and solutions to the particular problem are sequentially placed before them. The

output of discussions for each group is shared orally with other groups present. And a formal written version of recommendations is typed up at the 'office' or secretariat set up at the workshop venue for this purpose. The workshop then moves on to the next set of issues or questions. In this manner, over a period of a day or two, stakeholders discuss and arrive at a consensus on what strategies need to be adopted, how best these may be implemented, and the responsibility of the civic agencies in this regard. Box 5.1 describes the usefulness and purpose of such Bhagidari workshops.

The Bhagidari initiative has grown from twenty citizen's groups in the year 2000 when it started to over 1700 groups today representing close to 3 million people. It has helped create many loose networks of local associations such as Residents' Welfare Associations, Rural Groups, Market and Traders Associations, Industrial Associations, and non-governmental organizations. These new 'collective actors' and associations commonly discuss problems hampering effective delivery of civic services with officials of the Municipal Corporation of Delhi, Delhi Development Authority, New Delhi Municipal Council, power distribution companies, Delhi Police, and various departments of the Government of Delhi such as Education, Environment, and Forests in an effort to evolve joint workable solutions to improve the environment and quality of life.

Four Bhagidari workshops were held during the first phase between January 2000 and June 2001 where a range of issues were discussed. These included, for instance, problems relating to power failure and load shedding, unauthorized electricity connections, enforcement of measures to reduce power consumption, and increasing the collection of payment for power supply. The workshops also encouraged citizens' groups to share responsibility in matters such as implementation of water harvesting schemes, solid waste management, crime prevention and neighbourhood watch schemes, prevention of encroachments on public land, parking and traffic regulation within and through neighbourhoods, management of public sanitation facilities, garbage collection and disposal, and the maintenance of parks and green areas. In its second phase, from July 2001 to October

Different stakeholders participate in Bhagidari workshops to understand issues, explore solutions and implement them with the active support of Government.

Box 5.1
The *Bhagidari* approach

Very large public systems like huge cities are often characterized by symptoms of inertia. Typically, they are difficult to change and slow to respond. The Bhagidari approach provides a way of breaking the inertia. It adopts the principles of 'large group dynamics' in order to achieve 'large system change'. It has been developed as an outcome of extensive consultations and experimentation with various stakeholders who were keen to see a more responsive government. Large group interactive events, popularly known as 'Bhagidari workshops', have been devised to facilitate intensive and participatory dialogue with large groups of 300–400 key stakeholders. The purpose of these large group interactive workshops is to develop multi-level, multi-stakeholder 'ownership of change' and discover common grounds beneath the difference.

The processes for productively harnessing 'large group dynamics' do not exclude the benefits of tapping into 'small group dynamics'. On the contrary, 'small groups' are an essential and integral component of the large group interactive Bhagidari process. In a typical Large Group Interactive Event or 'Bhagidari' workshop, the large group is further divided into twenty-five to forty identical 'small groups'. Each small group is constituted of members from different stakeholder groups of an area or locality. Each small group works in a large group environment on specific issues identified by the stakeholders themselves and evolves consensus solutions.

During the Bhagidari workshop, Bhagidari facilitators provide suggestions, views and outputs of each group to all the small groups so as to keep everyone involved in the process. This energizes the large group as well as the small table groups, and creates a positive momentum for generating solutions and implementing change. It identifies many common concerns and common interests, and surprisingly generates common solutions across the small groups thereby generating a strong sense of common ownership of the change process. At the end of the workshop, small table groups within a large group environment are encouraged to make specific commitments for effectively implementing agreed solutions. The consultative and participative process generates a sense of ownership of the solutions among the group members.

'Action teams' are formed on the concluding day of the workshop for developing a time-bound plan of action. These action teams are given a mandate by the Large Group as well as by the 'senior leadership group' to go ahead and implement the workable solutions emerging from the Large Group Bhagidari processes. As resource material, all action teams are provided with all the solutions or outputs emerging during the workshop. These outputs become the property of all the stakeholders.

Nodal officers at various levels in the civic agencies and government departments have been appointed to act as 'nodal change agents', that is, to remove roadblocks in their respective organizations and for smoothening the implementation process. A Committee headed by the Deputy Commissioner of the particular district reviews and monitors implementation of the consensus solutions. The Deputy Commissioner conducts monthly review meetings in which feedback from the action teams are obtained for effective coordination. Corrective actions are taken if required.

Bhagidari uses newsletters, documentation reports, awards and incentive systems and forums for sharing lessons from failures and successes as instruments for generating momentum, expanding the support base, and encouraging collaboration in order to achieve and sustain the change process.

2002, the Bhagidari scheme was further strengthened and extended. Levels of citizen satisfaction and participation with the experiment have increased substantially. Some of the key areas of joint action now include community participation in water management, rainwater harvesting by residents, spreading awareness about water and energy conservation, augmentation of infrastructure in distribution of electricity, facilitating collection of house tax revenues, maintenance of community parks, halls and public places and segregation of waste, and management through community participation. Partnership efforts are also underway to make Delhi more green, control air pollution and other environmental hazards, encourage community involvement in crime prevention and detection, protect senior citizens, promote women's empowerment, increase participation of children and youth in environment awareness campaigns, extend community participation to school management, and improve and promote citizens' Right to Information. The Bhagidari initiative has helped find solutions to people's day-to-day problems. It has also provided support to public utility departments in maintaining and upgrading services. Bhagidari has been extended towards maintenance and development of industrial estates by incorporating participation from the industrial estate associations, civic agencies, and government.

Listed below are illustrative examples of areas of cooperation and partnerships along with some outcomes.

- *Solid waste management*—Residents' Welfare Associations in various colonies of Delhi have collaborated with civic agencies and NGOs to implement several projects that include segregation of garbage at source, recycling of non-biodegradable waste and composting of biodegradable garbage. These projects seek to reduce the amount of garbage generated and improve the management of garbage disposal. The community typically assumes responsibility for popularizing segregation of garbage at the household level and helps with its transportation to the municipal lifting centres. Government civic agencies on their part provide financial and technical support for creating the infrastructure, lifting of segregated waste regularly and providing common land wherever required.

- *Rainwater harvesting*—Residential colonies have mobilized community action to take up rainwater harvesting for recharging the vastly depleting underground water level. Government of Delhi and civic agencies have provided substantial financial and technical assistance for these initiatives.

- *Development of community parks*—Residents' associations have taken up the upkeep and development of more than 500 parks in different colonies giving local communities an opportunity to participate in the process. Formal agreements have been signed between the associations and civic agencies. This has generated a sense of ownership and responsibility among residents who now care for their neighbourhood parks.

- *Greening and plantation*—Government of Delhi has partnered with civil society organizations to organize campaigns in different colonies to improve the green cover of Delhi. School children in particular have been especially active in these campaigns. Member organizations of civil society are supported by government agencies to take up plantation of trees on vacant lands adjacent to their colonies.

- *Water distribution and management*— Water councils consisting of representatives from civic agencies and the community have been constituted in colonies of Delhi facing water scarcity for keeping watch over equitable water supply, its distribution and prevention against its misuse and wastage. The proactive role of the community has substantially helped in reducing conflicts over distribution of water. These groups also educate their residents and spread awareness about prevention of water leakages and promotion of water conservation.

- *Public education*—School children, youth, women, and local residents have planned, launched and participated in several successful campaigns such as 'Say No to Plastic Bags', 'Say No to Fire Crackers', 'Anti-littering', 'Save River Yamuna', and 'Clean Delhi Campaign'.

- *Improving the reach of services*—Many Residents' Welfare Associations have been partnering with government to improve the provisioning and quality of services in their localities. For instance, Delhi Police in collaboration with citizen groups has, in some areas, implemented neighbourhood watch schemes, antecedent verification of tenants and domestic workers, and better traffic regulation. Many colonies through their associations have taken up single point collection and payment of charges for water, electricity, telephone, and other services. Electricity distribution companies have been able to maintain distribution network by upgradation and enhance electricity load with the active participation of resident groups.

- *Care for senior citizens*—Many stakeholders including Senior Citizens Welfare Associations, NGOs, concerned civic agencies like Delhi Police and the Departments of Social Welfare and Education have come together and framed strategies on various issues ranging from management of recreation centres, priority and specialized treatment for senior citizens, and providing social and community support to senior citizens. Many Residents' Welfare Associations operate centres for senior citizens and special clinics through the active involvement of the community. Among the innovative measures taken are the introduction of smart identity cards

The presence of active civil society and non-governmental organizations is partly responsible for the growth of Bhagidari from 20 citizens groups in 2000 to over 1700 today.

with multiple uses, help with old age pensions and dedicated citizen groups for care of senior citizens.

- *Women's empowerment*—The Stree Shakti programme for women's empowerment was launched under Bhagidari with active participation of the community and non-governmental organizations. More than 160,000 women from the weaker sections of the society have benefited from the 183 camps organized in their locality through intervention in the areas of health, literacy, and income generation. Box 5.2 describes this initiative in greater detail.
- *Gender Resource Centres*—Government of Delhi in collaboration with NGOs has opened four Gender Resource Centres. These centres provide single window information and facilitation services for women. Some of these centres also offer women training for skill development in areas like photography, videography, information and communication technology, driving, plumbing, and other disciplines.
- *School Welfare Committees for government schools*—Members from different sections of society and from government have come together to form over 700 School Welfare Committees in order to improve the management and overall functioning of government schools. Community involvement has been enhanced and made effective with funds being directly placed at their disposal for carrying out necessary improvements. The school committees have helped to generate a strong sense of ownership of the schools by the community. Box 5.2 describes the functioning of such committees.
- *Industrial Estate Associations*—Industrial Estates Associations have been constituted for proper development and maintenance of industrial estates in Delhi. These associations are actively involved as partners of Government in the formulation and implementation of redevelopment plans.
- *Rural Citizen Groups*—The formation of Rural Citizen Groups under Bhagidari has brought visible improvements in the provisioning of basic services and amenities

to villages in Delhi's urban extension. With support from Government of Delhi, these partnerships have contributed to the maintenance of village schools, ponds, sports centres, roads, drains, and community centres.

- *Implementing the Right to Information Act*—Government of Delhi has formulated guidelines in consultation with citizen's council for the enforcement of the Right to Information Act. This is seen as an important step for improving transparency in government functioning and public spending.
- *Social audit of public services*—Under Bhagidari, independent agencies have taken up social audits to provide feedback on levels of public satisfaction with services provided by various public service agencies. The report cards seek to catalyze citizens to adopt a proactive stance by demanding more accountability, accessibility and responsiveness from service providers.

Box 5.3 describes the role of Bhagidari in nurturing Delhi's environment.

Bhagidari has been able to bring citizen's issues to the core of planning. The reclusive dictum of 'you do your job, I will do mine' is making way for 'let's work together'. The active involvement of citizens has increased accountability on the part of government and civic agencies and at the same time brought about a sense of belonging and a feeling of ownership and public responsibility. The reason for this lies in the application of democratic processes of problem solving by dialogue and consensus, where every stakeholder shares both collective responsibility and authority, and takes 'ownership' for finding and implementing solutions. This non-partisan and democratic method of problem-solving has given citizen's a more meaningful role in governance.

Focus group discussions reveal that among the significant achievements of Bhagidari is a heightening of citizens' expectations. This may be interpreted as the success of Bhagidari, which has jolted ordinary citizens out of the sense of helplessness to which they had become habituated, and created a sense of

Bhagidari has spread to solid waste management, rainwater harvesting, greening and tree plantations, water distribution and development of community parks.

Box 5.2
***Bhagidari* in Action**

Stree Shakti and Vidyalaya Kalyan Samiti (School Welfare Committees) are two initiatives under Bhagidari that have gathered in strength. They are briefly described below.

Stree Shakti

Started in 2002, the Stree Shakti programme seeks to empower poor women through initiatives in health, literacy, and income generation. At the heart of the programme is a Stree Shakti camp that is typically attended by as many as 1000 women in the course of one day. Before the camp, local NGOs, in partnership with government, identify women from households belonging to the 'Below Poverty Line' category who can benefit from attending the camp. Representatives from the NGOs and government pay house visits to explain to the women the purpose, and to invite and motivate them to come to the Stree Shakti camp.

The camp itself is usually organized in a school in the local area. Each of the classrooms, running around a central courtyard, is assigned a different purpose. A room each is assigned, for instance, to different doctors—gynaecologists, paediatricians, and general physicians—from leading hospitals. In other rooms, there would typically be facilities for pathology tests, X-rays and ECG tests, and a dispensary for basic medicines. Similarly, space is allocated to local NGOs engaged in a variety of initiatives that would include, for instance, services they provide for helping children with schooling, for school drop-outs or evening classes for children needing help. In another classroom would be a Legal Cell with lawyers from the district courts available to provide legal counseling on matrimonial and other matters. Similar booths would be set up for providing information to women on nutrition, breastfeeding practices, HIV/AIDS, family planning, and so on. In the central courtyard, community groups are encouraged and invited to perform street theatre shows with a social message.

A fair-like festive atmosphere full of music and fun is created in order to attract and encourage women to attend the camp. As women arrive, they are first issued a medical card as part of the registration process. They are then sent to appropriate rooms to discuss any medical issues they may have, administered necessary tests, and even given medicines wherever possible. Medical volunteers in the different rooms listen, understand and explain to the women the reasons for their discomfort. They are also explained the importance of follow-up visits to the hospital is impressed upon them. The Stree Shakti medical card issued at the camp entitles the women fast-track access to doctors at the hospital where a special counter has been set up for such card-holders. This is a huge bonus in a city where the tremendous pressure on the public health system translates into long waiting lines at hospitals. Recognizing that women's health is usually a low priority in the household especially when it comes to conditions such as anaemia, Stree Shakti encourages local NGOs to make follow-up visits to the women and explains to them the importance of visiting the hospital. This partnership initiative between government and NGOs has emerged as an extremely useful mechanism for making available to women various services in their local neighbourhoods itself. The scope of the Stree Shakti camps is being extended to include many other concerns relating to women including addressing issues of female discrimination, female foeticide, domestic violence, and extending security to women and young girls in local neighbourhoods.

Vidyalaya Kalyan Samiti

The Vidyalaya Kalyan Samiti (VKS)—school welfare committee—offers a mechanism for the local community to be actively involved in the governance of educational institutions run by the government. Representatives of Residents' Welfare Associations (RWAs), NGOs, and Parent-Teacher Associations are members of the VKS. They collaborate to help improve not just the academic, but also the extra-curricular and infrastructural aspects of the school in question. The Committee meets once every month, and decides on a variety of issues from the free supply of school uniforms and free transportation to girl students (especially in the rural areas) to merit scholarships and after-school coaching facilities. In all these, there is a special emphasis on students belonging to minority communities, the scheduled castes and scheduled tribes, and educationally backward classes. In its monitoring and supervisory role, the Committee offers an intermediary mechanism for the involvement of the local community, located between the Department of Education and the school administration, to improve the school's facilities and functioning. It seeks to institutionalize community participation in local schooling and provide a forum for regular community engagement with the provisioning of quality education.

Box 5.3
***Bhagidari* and nurturing the environment**

Outcomes under Bhagidari have been particularly noticeable in the filed of environment. Eco-Clubs launched in 1998 by Delhi's Department of Environment and Forests gathered further momentum under the Bhagidari initiative. They have been actively involved in many campaigns launched by the Department of Environment and Forests. These include, for instance, the campaign against 'Fire Crackers', the 'Say No to Plastic Bags' campaign, the 'Khelo Holi Naturally' campaign, the 'Say No to Shiny Wrapping Paper' campaign, and the 'Greening Delhi' initiative. Today, Eco-Clubs are active in over 1600 schools and colleges of Delhi. They have emerged as a forum for giving an opportunity to students, their parents, NGOs, and community activists to participate in making Delhi a clean and green city.

Around sixty-five schools have been selected as lead Eco-Club schools and twenty to twenty-two schools have been attached to each of the lead schools for proper co-ordination of Eco-Club activities. Eco-Club teacher training programmes are being regularly conducted. Eco-Club students and teachers interact closely with the Conservation of Education Centre set up at Asola Bhatti Wildlife Sanctuary. The 'zero-garbage' concept has been introduced in twenty-five Eco-Club Schools. In order to encourage action-oriented activities, associations of NGOs, corporate houses and Eco-Clubs operate seventeen paper recycling units.

The expansion of forest coverage in Delhi has received a big boost from the Bhagidari process. Delhi's Department of Environment and Forests has associated various stakeholders like RWAs, MTAs, Eco-Clubs in schools and colleges, corporate sector enterprises, NGOs, and citizens in protecting and nurturing the environment. The government provides free saplings and encourages community organizations under Bhagidari to help in planting the saplings and looking after them. These initiatives have contributed to significant increases in Delhi's forest cover from 26 sq km in 1998 to 268 sq km in 2004.

Bhagidari has also brought under its fold public education, care for senior citizens, women's empowerment, and the functioning of government schools.

awakening whereby public services need to be demanded and obtained through collective action and an effective interface with government. It is however quite likely that these expectations may not be met as swiftly as desired. Many of the Bhagidari initiatives are still evolving and it may be unrealistic to expect instantaneous transformation especially when the bureaucracy is slow to respond. Indeed, those dissatisfied with the Bhagidari initiative are, more often than not, citizens who have grown impatient with the pace of change. Discussions with citizens' groups reveal that while they value the overall opportunity to participate in the governance of the city, they do have mixed reactions to the process and its outcome. Some neighbourhoods are enthusiastically supportive, feeling that they receive more respect from officials and that personal interaction with officials has benefited them. Others feel that their enthusiasm has diminished due to an unresponsive bureaucracy, especially lower-level functionaries in civic agencies, who either do not participate in sufficient numbers or are not participative enough.

Even at this stage, Bhagidari has brought about an important change in governance. Citizen's groups have come to expect that they should be consulted by MCD and other agencies while taking decisions that affect their daily lives as they are acquainted with local conditions and requirements better than any external agency. They have come to believe that they have a right to participate in the decisions relating to how resources allocated to their areas should be used. They want to be a part of the process by which objectives set by the government can be achieved and they appreciate the difference between suggestions and grievances. Among the positive suggestions made by citizen's groups is the proposal that they should be authorized to check materials and specifications of public works being undertaken in their area, and that their certification should be necessary before the contractors are paid.

It is important, in summing up, to understand and further contextualize achievements under Bhagidari.

First, Delhi has experienced barely seventeen years of elected government since independence, five of which were in the immediate post-independence period, and during the last twelve years have had an uninterrupted run to present. Governance in Delhi has been made participatory through other mechanisms. This has greatly heightened expectations of citizens. People believe that they

Box 5.4
Making it work: Lessons from the *Bhagidari* initiative

It is not often easy for such large initiatives involving multiple stakeholders to function effectively. Delhi's experience with Bhagidari points to six requisites for success.

- *Ensure commitment.* A strong political commitment, a committed bureaucracy and active participation of civil society organizations are essential ingredients of success. The Government of Delhi has been firmly committed to the Bhagidari process. To begin with, the Chief Minister herself is deeply committed to the process and has attended all the workshops to show her support. Besides her, the top Bhagidari team includes the Chief Secretary, Secretary to the Chief Minister, and the Principal Secretaries of the various departments. These members of the team are fully committed to the methodology being adopted to drive the change process. They also participate actively in identifying issues that need to be addressed during the large group processes.
- *Seek the active involvement of stakeholders.* Involving all key stakeholders and ensuring ownership is fundamental to the implementation of any solution. Identification of stakeholders is an important step before taking up any major new initiative under Bhagidari. Detailed discussions are then held with the concerned top team and stakeholders to identify major issues concerning the particular sector.
- *Identify genuine and effective community representatives.* It is important to involve representatives from the community who command respect, who genuinely represent the community, and are seen as being fair and honest in their dealings.
- *Take up simple issues first.* It is useful to begin by taking up simple issues that can be more easily resolved via the large group processes. This should be done deliberately as it helps to build on initial successes.
- *Identify workable solutions.* It is important to pick only workable solutions that have a high likelihood of implementation.
- *Ensure effective coalition building.* Once the large group interactive process has been set in motion, it is important to create a broad constituency of public support—through awareness building, advocacy and open participation. The Bhagidari initiative has penetrated different segments of society. It has been extended, for instance, to more than 100 rural villages located in the urban extensions of Delhi. As part of the Bhagidari process, a major annual fair is organized at a central location where all partners in the change process including citizen groups, civic agencies and government departments participate to share experiences and showcase their achievements. Such events have galvanized the entire group of change-agents into 'Team Delhi', which spreads the message across entire communities regarding Bhagidari as an effective participatory and collaborative process for highlighting relevant issues and finding common solutions.

have an entitlement to public goods, which can be demanded and obtained through collective action and an interface with government.

Second, despite the structural and institutional limitations, the Government of Delhi has managed to draw together several other agencies that are technically not accountable to it, and made them its partners in this initiative of Bhagidari. These include among others the MCD, the DDA, and the Delhi Police.

Third, the contemporary conception of governance recognizes that governance is more than government, and encompasses other actors such as civil society and the market as well. Bhagidari and other such initiatives have facilitated the forging of ties between government and civil society. In the Stree Shakti programme, for example, a large number of NGOs work as partners with the government. In implementing the Right to Information Act, NGOs like Parivartan work to enable citizens to use the Act in the most effective way. It is also notable that the term public-private partnership has, in the Delhi context, come to mean a partnership between citizens and the government, rather than between public agencies and private corporations. Corporations in fact have expressed an interest in Bhagidari, to join hands with government not because partnership with them was solicited by the government, but rather because they have been influenced by the civic impulse that Bhagidari encapsulates.

ADDITIONAL MEASURES

In addition to Bhagidari, Government of Delhi has introduced other measures as well to improve the city-state's governance. These innovations include the enactment of a legislation guaranteeing the Right to Information, the establishment of the Public Grievances Commission for increased accountability; and

Active involvement of citizens in Bhagidari has increased accountability in government and civic authorities and instilled in citizens a sense of ownership and public responsibility.

Box 5.5
UN recognition

Bhagidari was awarded the United Nations Public Service Award 2005 in the category of 'Improving Transparency, Accountability and Responsiveness in the Public Service' from amongst 215 entries worldwide. This is the first time that an entry from South Asia has bagged the prestigious award.

BETTER MANAGEMENT—BETTER PUBLIC SERVICE

23 June 2005

United Nations Public Service Award

Improving Transparency, Accountability, and Responsiveness in the Public Service Category

This award is given in recognition of the exceptional contribution of

Bhagidari Cell, Office of the Chief Minister, Government of NCT of Delhi, India

towards improving the effectiveness, efficiency and quality of Public Service.

José Antonio Ocampo, Under-Secretary-General for Economic and Social Affairs

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initiatives for e-governance by various departments of the government, by the Municipal Corporation of Delhi and the Delhi Development Authority for promoting greater transparency in administration.

The Right to Information

Government of Delhi, apart from making governance participatory, has also made serious efforts to make it more transparent and accountable. NCT of Delhi was amongst the first in the country to enact the Right to Information Act. The Act became effective from 2 October 2001 and has brought 119 departments of the Government of Delhi under its purview. The Act entitles every citizen to approach any of these departments to seek information and make copies of documents. Submitting an application involves a fee of Rs 25, with an additional fee of Rs 5 per page

of information that is supplied. Officials are bound by law to respond and provide the information requested within fifteen to thirty days failing which they are liable to the imposition of a penalty of Rs 50 per day of delay. A fine of Rs 1000 is imposed for supplying false information. If there is no response within thirty days, the citizen can file an appeal with the Public Grievances Commission.

The citizens of Delhi have put the RTI Act to good use. They have used the Act to obtain new electricity connections, replace faulty electricity meters, and get faulty bills rectified. In other situations, citizens have found in the RTI Act a powerful instrument for combating the rent-seeking propensities of bureaucracy. Thus, ration cards have been issued and old age pensions restored without having to pay the customary bribes. Similarly, to promote meaningful involvement of citizens in public

Box 5.6
Identifying the degree of *Bhagidari*'s success

How effective has the Bhagidari approach been in solving problems? Where it has worked, and where it has not? A survey of the perceptions of the success of the Bhagidari scheme among citizen's groups revealed the following:

TABLE 5.1 Perceptions of success and failure by 240 citizen's groups

Issue/Department	Success (%)	Failure (%)
Delhi Jal Board	74	26
DVB/DISCOM	73	27
Delhi Police	73	27
NDMC	71	29
Environment	52	48
DDA	43	57
MCD	40	60

Source: Public Perception Survey, 2005, GNCTD.

Respondents attribute a higher rate of success to DJB, DVB/DISCOM, Delhi Police, and NDMC. On the other hand, groups express a much lower level of satisfaction with the DDA and the MCD. It also appears that there is a higher level of citizen satisfaction where provision of a government service to all is concerned (e.g., street lights and police patrols) and lower where citizen interface is on individual terms (e.g., meter reading and bill collection).

Much more however can be done to strengthen Bhagidari in Delhi. For example, the Public Perception Survey revealed that only 7 per cent of the respondents were aware of the Bhagidari scheme. Of those aware, 70 per cent judged its effectiveness as 'above average'. Even when responses are disaggregated by caste, income group or gender, the findings do not vary by more than one percentage point. This suggests that almost all groups in society seem to believe that the Bhagidari approach can yield good outcomes for all.

works being undertaken in their localities, the executing departments of the government are required to furnish vital information like costs of the project, quality and quantity specifications, expected date of completion, and details of the contractor and engineers to the Residents' Welfare Associations.

There are many revealing examples of the effective use of the RTI Act. Residents of Patparganj, for instance, solicited information on a contract to repair a garbage bin in their neighbourhood. Their request for a copy of the contract was enough to get the contractor to complete a job that had been left undone, but had been paid for. Whether it is the repair of school toilets or the dense carpeting of roads by the MCD, worn-out electrical wiring or street lights not functioning for years, incorrect billing harassment by officials or sewage mixed with drinking water by the Delhi Jal Board, citizens have sought

information from the government and succeeded in making government agencies accountable. Clearly, greater public awareness of this Act, as also some expertise in its use, can further strengthen its potential use. However, the inadequate devolution of powers to the Government of Delhi poses a constraint. This Act, for instance, applies to neither the Delhi Police nor the Delhi Development Authority, both of which are under the Union Government.

Another interesting application of the Right to Information Act is illustrated by the experience of a *Jan Sunwai*, or public hearing, in Sundernagari in east Delhi—one of Delhi's 134 municipal wards. This was an exercise in social audit, in the course of which government records of sixty-four developmental works, amounting to an expenditure of Rs 13 million were subjected to a people's audit. It was found that the total amount spent

was just Rs 70 lakh. More than half of the recorded expenditure did not take place and did not therefore physically exist. This clearly exposed the extent of embezzlement and misappropriation of public funds by a department of the MCD.

Public grievances redressal

The Government of Delhi has put in place two independent bodies for public grievance redressal: the Public Grievances Commission (PGC) and the Delhi Lokayukta.

The PGC is a four-member body headed by an officer of the rank of Secretary to Government of India. Unlike the Right to Information Act, the Public Grievances Commission has jurisdiction over the Delhi Police and has one full-time member with the status of a Director-General of Police. The PGC is also an appellate authority for cases under the RTI Act with the High Court of Delhi being the next appellate authority. The number of complaints settled by the PGC went up from 1186 in 2002–03 to 1276 in 2004–05. Of the 1276 cases, over 90 per cent (1082 cases) pertained to six Departments: Municipal Corporation of Delhi (36 per cent), Delhi Police (24 per cent), Education (11 per cent), Delhi Jal Board (7 per cent), Revenue (4 per cent), and Cooperative Societies (4 per cent). The Delhi Development

Delhi was amongst the first in the country to enact the Right to Information Act.

Box 5.9
Need for accelerating administrative reforms

There are several areas where better and swifter administrative reforms are needed. For instance, the Delhi Government's Fisheries Department still employs over 200 persons to prevent theft of fish from the mostly dry riverbed of the Yamuna! Recognizing the need for administrative reforms, Government of Delhi has established a Standing Committee on Administrative Reforms that undertakes a fortnightly review of departments. The Committee, in two years, has completed a review of forty-five departments. In another initiative, the task of simplifying and rationalizing twenty frequently used forms has been completed. This has led to the removal of irrelevant information that accounted for as much as 60 per cent of the earlier forms.

Authority and the DISCOMS (private sector power distribution companies), however, remain outside the purview of the PGC. The DDA has initiated its own grievance redressal system, setting aside a particular time when all officers above the level of Director are available twice a week without prior appointment. The Vice-Chairman also holds public hearings to this end.

The Lokayukta is headed by a retired Judge of the High Court and is empowered to investigate complaints of corruption, nepotism, abuse of position, and so on against elected representatives. The Lokayukta Act brings within its ambit all Ministers, including the Chief Minister, Members of Legislative Assembly, Municipal Councillors, and other important public functionaries.

Transparency through e-governance

Transparency is an important dimension of governance. Government of Delhi has evolved processes under which tenders notified by government agencies are uploaded on the web before they are published in the newspapers. In general, any supplier can register on the web site, and will be automatically e-mailed the date a tender notice in the relevant area is advertised. Several procedures are also clarified on the web, and forms for registration, licenses, certificates, and so forth have been made downloadable.

The Municipal Corporation of Delhi (MCD) has also launched an initiative for e-governance, by setting up Citizen Service Bureaus in the Town Hall and in each of its twelve zones. Each of these bureaus, which functions round the clock, is equipped with ten computers, telephones and other electronic devices. These are intended to facilitate the registration of births and deaths, accept applications for all kinds of licenses, book parks for public functions, register complaints and provide information on the status of complaints.

The Delhi Development Authority (DDA) has recently launched an ambitious initiative to convert important information relating to a particular client or file into the electronic format. Close to 6000 records have been converted so far. This information is available on-line in all departments of the DDA, rendering the movement of files back and forth between departments unnecessary. When complete, this process will facilitate better internal integration and inter-linkages between the land, engineering and planning departments, apart from being enormously convenient for users. The DDA has also developed computer applications through which draws of lots in land allotment are computerized making the process transparent.

SUMMING UP

The Bhagidari innovation is partly responsible for the marked improvement in service delivery and the change in response of the Government of Delhi to people's concerns. The Public Perception Survey has revealed that a higher proportion of respondents felt that there was improvement rather than deterioration in Delhi. Some of this perception of progress is seemingly attributable to the success of the Bhagidari initiative—and the changes that people see at the ground level.

Nevertheless, various institutional and legal frameworks, described earlier, act as severe constraints even where governance reforms have been attempted. For instance, the Right to Information Act is not available to citizens for matters concerning the DDA. And while the citizen's interface with particular

Several steps are being taken to ensure greater transparency in governance by adopting e-governance.

The Public Grievances Cell set up by Government of Delhi is proving to be of great assistance to citizens in resolving issues with civic agencies and various departments.

TABLE 5.2: Perceptions of change among Delhi's citizens

	Proportion (%) of respondents who felt that conditions over the past three years in Delhi	
	Improved	Deteriorated
Roads	54	6
Quality of the environment	51	7
Basic education	41	7
Power supply	46	13
Public transport	39	13
Public health services	30	13
Water	26	22
Sanitation	19	17

Source: Public Perception Survey 2005, GNCTD.

departments may improve, this does not necessarily reduce the multiplicity of departments that they have to deal with.

The Delhi Statehood Bill, 2003—which lapsed with the dissolution of the 13th Lok Sabha in early 2004—had provided for the creation of a new state, the state of Delhi, in which Parliament would retain power over public order and police; the state government would acquire power over land, except in the New Delhi area, where Parliament would retain power over public order, police, land and local government. The President would have executive power 'to give direction to the state of Delhi for good governance and proper development'. A fuller statehood for Delhi is indeed a plausible mechanism for rectifying the institutional and structural limitations. But equally important is the imperative to sustain and advance the achievements of participatory governance in the years to come.

Participatory governance in a state that is relatively young in terms of its democratic experience; drawing agencies outside the jurisdiction of the state government into the framework of participation and accountability; and forging partnerships with civil society are the most striking governance innovations in Delhi. The imperative for Delhi's future is to sustain and build upon these successes, and to secure the realization of their fullest potential possibly through a re-orientation of the institutional and legal framework that currently inhibits this. What Jawaharlal Nehru called the 'nursery of a new republic' is poised to set new standards in civic republicanism.

6 STRENGTHENING PARTNERSHIPS: THE WAY FORWARD

Several dimensions of life and living in Delhi have improved considerably over the past five years. Delhi has, for instance, witnessed a remarkable improvement in the quality of its environment—an achievement that few cities in the world can match. Until just a few years ago, vehicular emission, haphazard industrial growth, and waste disposal were major contributors to rising ambient air and water pollution levels. A strategy for use of cleaner fuel, reduction in fuel consumption, efficient maintenance of engines, and installation of pollution control devices was formulated and adopted by the Government of Delhi. In 1998, the introduction of CNG buses was accompanied by a complete ban on sale of unleaded petrol and restrictions on plying of goods vehicles during the daytime. Government also introduced mandatory premixing of lubricant oil in petrol and banned the sale of loose lubricant oil. In 1999, the Motor Vehicles Act was amended to bring CNG vehicles under permit and tariff jurisdiction of government. From April 2000, registration was restricted only to private vehicles conforming to Euro-II norms. Government also decided to phase out commercial vehicles older than eight years after April 2000. Stricter emission norms (Bharat Stage-II) were introduced for registration of new taxis in October 2001. By November 2002, the entire fleet of buses plying on Delhi's roads had been converted to CNG. From little over 1000 CNG vehicles in April 1998, by the first week of March 2004, Delhi had 83,334 motor vehicles including 9874 buses, 4497 RTVs and Mini buses, and 52,623 autorickshaws running on CNG. Simultaneously, government initiated special efforts to augment supplies of CNG in Delhi. In March 2000, there were only twelve CNG filling stations in Delhi. The consequence

was long queues at CNG stations. The situation has improved significantly since then. Between 2000–04, the number of filling stations has increased tenfold. The fight against air pollution in Delhi, which started in 1998 with the switching over to CNG fuel, is now showing results. The levels of various pollutant in the ambient air have declined; the concentration of sulfur dioxide, nitrous oxide and carbon monoxide in the ambient air has declined significantly.

There have also been marked improvements in traffic flows and public infrastructure. Apart from the many flyovers and new traffic regulations that have reduced congestion and travel time, the introduction of the metro rail system has dramatically transformed the quality of people's lives. Students and office-goers stand much to benefit with commuting time, for instance, from Connaught Place to Delhi University campus getting reduced to less than 15 minutes. Much more is planned in terms of improving Delhi's infrastructure. Over the next three to five years, the city-state is likely to witness massive physical improvement. Many new flyovers, bridges and infrastructure projects are planned.

From a human development perspective, however, Delhi has much ground to cover in other areas as well. An inter-state comparison of achievements along important human development indicators points to the extent of shortfalls (Table 6.1). Delhi lags behind Kerala and other states on several key indicators of human development.

These shortfalls are significant for two reasons. One, Delhi, as the nation's capital and being the seat of political authority, should lead the country in terms of setting living standards—given the extraordinary command

Delhi is poised to witness significant improvements in its physical environment over the next five years.

Box 6.1
Delhi 2010:
The physical transformation

Delhi is likely to undergo a significant physical transformation over the next five years. Expectations are that the quality of Delhi's physical infrastructure will become as good as any capital city in the developed world. Many physical infrastructure projects are planned even as the city-state prepares itself to host the Commonwealth games in 2010. Among them are the following:
- By 2010, Phase 2 of the metro rail system covering 80 per cent of Delhi and part of NCR will be completed.
- To ease further the traffic movement, government proposes to construct fifteen more flyovers in addition to the twenty-two that have been recently completed.
- Areas not connected by the metro rail system will be covered by electric trolley buses especially in the walled city and in other congested areas of Delhi.
- A high capacity bus system running on important routes of south and New Delhi will be introduced within the next three years to integrate the movement of traffic with the metro rail network.
- An elevated expressway is planned to ease traffic on Ring road.
- Multi-storey parking facilities on a use-and-pay basis are planned so that road space improves for traffic and pedestrians.
- Delhi Transport Corporation will be suitably reorganized and modernized to improve financial performance, open new feeder routes, improve connectivity to areas connected by metro rail.
- Roads will be suitably refurbished and road signage will be improved.

TABLE 6.1 Selected Human Development Indicators: Delhi vis-à-vis India and best performing Indian state

Most recent estimate	Source	India	Delhi	Best performing state
Health				
Life expectancy at birth (years): 1998–2002		62.9	70.0	73.5 (Kerala)
Infant mortality rate (deaths per 1000 live births)—2003	Sample Registration System 2005	60.0	28.0	11.0 (Kerala)
Proportion (%) of moderately and severely malnourished children below age 3, 1998–9	National Family Health Survey 1998–9	47.0	35.0	27.0 (Kerala)
Proportion of children age 6–35 months with moderate or severe anaemia 1998–9	National Family Health Survey 1998–9	74.0	69.0	44.0 (Kerala)
Proportion of children 12–23 months fully immunized 1998–9	National Family Health Survey 1998–9	42.0	70.0	89.0 (Tamil Nadu)
Education				
Literacy rate age 7+ (%) 2001	Census of India 2001	65.0	82.0	91.0 (Kerala)
Male (%)		76.0	87.0	94.0 (Kerala)
Female (%)		54.0	75.0	88.0 (Kerala)
Total Fertility Rate 1998–9	National Family Health Survey 1998–9	2.85	2.40	1.96 (Kerala)
Contraceptive prevalence rate (%)	National Family Health Survey 1998–9	43.0	56.0	61.0 (Himachal Pradesh)
Female age at marriage (years)	National Family Health Survey 1998–9	16.4	19.0	20.2 (Kerala)
Gender equality				
Female-to-male ratio in population	Census of India 2001			
Women per 1000 men		933.0	821.0	1058.0 (Kerala)
Boys to 1000 girls (0–6 years)		927.0	865.0	962.0 (Kerala)
Male-female literacy gap (percentage points)	Census of India 2001	22.0	12.0	6.0 (Kerala)

over resources that it has. Second, unlike other states, Delhi is a concentrated urban city-state and so does not face the conventional problems of rural remoteness and distance. The city-state is also home to a large educated and talented population that could potentially be motivated, attracted and mobilized to participate in Delhi's development.

The existence of such shortfalls in human development is outcome, to an extent, of the challenges of governing Delhi. As this Report identifies, Delhi's governance is characterized by extremely complex administrative structures, overlapping jurisdictions, multiple authorities and many structural and legal anomalies. While the elected Government of Delhi is responsible to the people of Delhi, it has no control over land, police, public order, civic and municipal bodies, and development agencies responsible for basic urban infrastructure and land use planning. This duality of control and dichotomy between authority and accountability has led to confusion and friction thereby hampering the state's efforts to meet people's expectations.

Breakthroughs in improving governance have come about in recent times with the opening up of opportunities for people's participation. Improvements in Delhi's environment, for instance, have been the result of strong public action by civil society groups working in partnership with government. Similarly, the many new innovations in Bhagidari show the potential that exists for forging partnerships for Delhi's development. It is by further strengthening such partnerships and evolving more forums for public interaction with government that Delhi can be transformed into a safer, more prosperous, and caring society.

HUMAN DEVELOPMENT PRIORITIES

The Public Perception Survey 2005 reveals that Delhi's residents value and cherish many more things than merely higher incomes, improved roads, faster traffic, and new townships. The survey has identified the urgent need for addressing shortcomings in five critical areas of human development: planning for people, solving the water crisis, addressing the power shortage, improving public safety, and mak-

ing Delhi a child-friendly city. The sections that follow describe the nature of public action suggested by citizens groups in Delhi to tackle these deficiencies in human development.

Planning for people

The primary human development challenge facing Delhi is to plan for its 14 million people and also address simultaneously the issue of migration. Planning for residents is one thing; dealing with the large influx of migrants is another. Both call for a humane approach that respects the dignity of human lives. There is no doubt that the continuing influx of migrants into the city-state imposes a huge burden. At the same time, it is necessary to recognize that migration is almost the last resort of the poor and the desperate. If people move to Delhi in search of jobs, it is largely because employment opportunities in surrounding areas are not expanding. This is why the concept of the National Capital Region becomes all the more important. Migration into Delhi can be checked only if there is a marked expansion of economic activities in surrounding regions. For this, it is important to develop growth centres and expand economic opportunities in the regions surrounding Delhi. The prospects of this happening are good especially with planned improvements in road and infrastructure linkages.

A failure of Delhi's past has been its focus on planning for land rather than planning for people. Both the National Capital Region (NCR) Plans prepared by the National Capital Region Planning Board (NCRPB) and the Master Plan developed by the Delhi Development Authority have had little positive influence on the lives of people. The NCR plan for Delhi could not achieve much without proper implementation mechanisms and adequate resources. Similarly, the Master Plan for NCT did not contain clear policies and implementation strategies by the agencies involved. This deficiency is, however, being addressed now and positive results from planning for people are expected.

Several factors need to be considered while planning for people in the NCTD. First, the NCRPB needs to distinguish between towns in the Delhi Metropolitan Area that are satellite

The challenge before Delhi is to significantly improve the quality of people's lives—befitting of the nation's capital.

towns and towns in the wider region that must become self-contained. Second, Delhi needs to evolve a clear industrial location policy. A majority of Delhi's industrial units, for instance, in non-conforming zones providing employment to thousands of workers face uncertainty regarding closure. Third, a proper job location policy should guide the establishment of new offices, trade and institutional activities in Delhi. Fourth, providing for proper housing and the effectiveness of the Delhi Development Authority needs to be examined. To a large extent, DDA has failed to come up with an effective solution to tackling Delhi's housing requirements. Finally, it is important for Delhi to articulate a clear policy towards *Jhuggi-Jhopdi* clusters and unserved settlements. Delays in addressing this issue will only contribute to increasing the daily misery, uncertainty and suffering of thousands of poor residents.

Delhi has planned for land, not so much for its people. This needs to be corrected.

Solving the water crisis

Delhi's residents identify the serious water shortages in their daily lives as an urgent priority that needs to be addressed immediately. Public discourse surrounding water seems to treat the problem of water shortages as political, temporary and localized. Media coverage and political debates, have tended to conceal the many realities underlying Delhi's water crisis. It is often reported in the media, for instance, that Delhi needs to wait for neighbouring states like Uttar Pradesh to release water for its new water treatment plant. Politicians from neighbouring states often invoke the water shortages in their own states to deny Delhi water. Frequently, there are reports of fights over water in neighbouring states and in Delhi's slums and colonies. Many residents seem satisfied with the explanation that with better rain, the water problem will be solved. Or that a better political climate will lead to a permanent solution. Many more citizens believe that the water problem is localized—that it is confined to certain slums, certain colonies and does not really affect all of Delhi. It is also a mistaken belief—that if the water crisis gets out of hand, engineers and scientists will find a solution. This often forms the basis for drawing up vision documents and plans for the future—where estimates of demand-supply shortfalls are projected to be met by investments in technical interventions and projects. A wrong impression has been created that by allocating money over time, the water problem will be solved. These are very often nothing more than pipe dreams intended to appease the public. Furthermore, the Public Perception Survey 2005 reveals growing discontentment among people. It is crucial therefore for Delhi to take stock of its water needs and devise strategies built on the realization that water, however plentiful in places and at times, is scarce.

Delhi's population has been growing. But water demand has been growing even faster. While planners want more and more water, very few understand the water-waste economies of cities and what can be done. Delhi, for instance, 'officially' supplies 3600 million litres of water to its people. However, according to recent estimates, only around half of it reaches households. The rest of the water surprisingly leaks out of the pipelines and is regarded as 'distribution losses'. The consequence is inequity and waste—with 70 per cent of the population getting less than 5 per cent of the water, while parts of the city (where government officials and the richest reside) gets a staggering 400–500 litres per capita of water every day.

What is not known is how much is extracted from groundwater by people, factories and others for their water needs. One way to calculate this is to work backwards from the waste that the city generates. In the case of Delhi, which generates over 3900 mld of waste water, it would still mean that the city uses 4440 mld of water daily: which would mean that the city has a per capita availability of 317 litres per day. Compare this to Singapore, which uses 165 litres per day per person. Is Delhi then water-poor? Box 6.2 points to some measures identified by citizen's groups for tackling the water crisis.

Closely linked to the water crisis is the growing problem of garbage disposal in Delhi. Together they constitute a serious public health problem for Delhi. The neglect of public health is glaring in Delhi. Illnesses

Box 6.2
Addressing Delhi's water crisis

India faces a serious water crisis. Delhi is no exception. What needs to be done to overcome the crisis? Crystallizing discussions with several citizens' groups, reflecting on technical findings and drawing on research, Delhi-based Centre for Science and Environment advocates the following lines of action for addressing the water crisis.

First, Delhi will have to plug its losses. This can only be done, if the water utilities are improved, services are paid for and most importantly, the government and citizens realize that distribution losses can best be plugged by reducing the length of the distributing pipeline itself. In other words, Delhi will be much more efficient if it can develop strategies that can collect water locally, supply it locally and take back the waste locally. This can be done, if the city-state looks at its groundwater reserves carefully and combines these with strategies that augment these reserves. It must learn to protect the lakes and ponds as the recharge zones for its water reserves. In other words, it will only draw the water that it requires from external sources, after it has optimized on its own.

Second, Delhi needs to do careful and strategic planning to reduce the need of water in homes and factories. This will require national legislation for protecting and nurturing the use of water. For instance, rich Australia, which has water problems as well, has passed a bill, which mandates the water efficiency of household equipment. But in India, flush toilets will still use more water than anywhere else in the world.

Third, Delhi needs to examine the waste economies of our cities to invest in reuse. It can be done by investing in equipment to completely clean the waste and make it potable again. Singapore does it. Or it can be done by ensuring that the waste is segregated—household waste from industrial waste—so that what is relatively less toxic can be cleaned up in primary treatment and then used to recharge groundwater or irrigate fields.

Fourth, all this will require a change in mindset. It is so common to find public taps leaking. Much water is misused in homes. Delhi's residents will need to become much more respectful of water use. A massive programme of public education is needed to inculcate in people the urgent need to conserve water. This is an area where the Bhagidari approach can yield magnified results.

from water-borne and vector-borne diseases recur every year. At the same time, increasing exposure to toxic pollutants in the environment and the increasing incidence of respiratory infections, cancer, heart ailments and lead poisoning point to an impending public health crisis in Delhi.

Inadequacies in management and disposal of solid waste are major problems. Almost 45 per cent of Delhi's population has no sewerage facility. In many localities, waste water contaminates water sources. The problem is aggravated by the poor condition of the existing sewerage system. The city has taken several steps to manage the solid waste disposal. Waste segregation in industrial establishments and households has been established through awareness camps. In order to commercialize the operations, Government of Delhi is adopting the polluters-pay principle by making those who generate waste to take care of their own waste or pay full cost of the service. Many more such initiatives through the Bhagidari modality need to be introduced immediately.

Addressing the power shortage

Despite the fact that Delhi's per capita consumption of electricity is significantly higher than the all India average, many residents experience a severe shortage of power. Several steps taken by the Government of NCT of Delhi to improve the power situation have been appreciated by people. The Public Perception Survey 2005, for instance, pointed out that almost 46 per cent of the respondent's felt that the power situation had improved over the past three years.

In the past, like in all other states, the supply and distribution was taken care of by the Government of Delhi through Delhi Vidyut Board (DVB). DVB catered to the needs of about 2.5 million consumers spread over about 1400 sq km. It had an installed capacity of 650 MW and peak load of 3000 MW. It sourced 70–80 per cent of its requirements from the Northern Grid. The DVB, however, was suffering from very high transmission and distribution losses of nearly 50 per cent and was surviving on cash support from the Government of Delhi. The annual losses of DVB

Delhi needs to plug its water losses, rationalize use of water, invest in its reuse and educate the public to conserve water.

were around Rs 14,000 million. Recognizing the gravity of the situation, Government of Delhi decided to commericalize the power sector. Most of the private investment in the power sector was generation-centric whereas Delhi realized that reform should be distribution-centric. It was distribution that generated cash flows.

In February 1999, Government of Delhi brought out a status paper on power sector reforms. This led to the unbundling of DVB and privatization of distribution from 1 July 2002. The Delhi Electricity Regulatory Commission Act was passed in 1999 in order to protect consumer interests and prevent unnecessary losses to the service provider. The Delhi Vidyut Board, a monolithic public utility was unbundled into six successor entities, i.e., holding company, Generation Company, Transmission Company and three distribution companies. The holding company holds the unserviceable liabilities and 49 per cent equity in the distribution companies and 100 per cent equity in transmission and Generation Company. DVB was divided into three distribution companies and not more, as the scale of operation would have become sub-optional otherwise. These DISCOMS were formed taking into account a number of factors including geographical location, AT&C losses, average billing rate, and the number of unauthorized colonies. The restructuring was based on a business valuation method as it was felt that assets are only as valuable as their revenue earning potential. A definitive arrangement was also worked out for treating outstanding dues.

The privatization strategy was aimed at protection of consumer interests and to make the sector self-sustaining within five years. These steps were to yield several benefits. To begin with, Government of Delhi would be able to cut its annual losses to nil within five years. In addition, it would get Rs 4800 million from disinvestments and a return of 16 per cent on its 49 per cent equity holdings. For the consumer; the benefits were to be better quality of services, regulator approved tariff increases and in case of over achievement against loss targets, possibly lower tariffs. The interests of employees of the erstwhile DVB were also protected by providing continuity of service and ensuring that terms and conditions of service would not be made adverse.

The process of handing over power distribution to private companies in Delhi has had its share of problems. Residents have complained about over-billing, possible installation of faulty metres, inadequate mechanisms for handling public complaints, and virtually no public interface with the private companies. The reluctance of private companies to set up suitable consumer grievance-handling mechanisms has also become an issue. What further aggravated public discontentment was the proposed hike of 10 per cent in power tariffs by the Government of Delhi. The opposition to the move in the wake of growing discomfort with the quality of service provided by the DISCOMS was effectively channelled through the Residents' Welfare Associations (RWAs) formed under the Bhagidari system. These Associations provided a powerful platform for Delhi's citizens to voice their grievances and be heard in the corridors of power and policymaking. The outcome has been to re-examine the power tariff hike and at the same time, initiate several steps to ensure better accountability from the DISCOMS. Delhi's recent experience points out that technical solutions can hardly be self-sustaining or satisfactory without active public support. By providing an effective interface between citizens and the Government, the Bhagidari system has demonstrated the importance of involving people in public decision making.

Improving public safety

Over the last few years, the issue of women's safety has become a major focus of public attention and concern in Delhi. A significant proportion of the respondents in the Public Perception Survey 2005 felt that the streets of Delhi were becoming more and more unsafe for women.

One does not need to look at the statistics collected by the National Crime Records Bureau to agree that women in Delhi face high levels of violence. Even a random scan of the daily newspapers is enough to support this statement. Women are unsafe on Delhi streets, running the daily risk of harassment, attack, assault, rape, and murder. At the same time,

Technical solutions aren't enough to solve Delhi's power crisis. Only with the cooperation of citizens can Delhi hope to tackle the issues of power leakage and wastage.

women in Delhi do not seem to be very safe at home either. Official statistics reveal that, in Delhi as elsewhere, most crimes against women are committed by close relatives within the four walls of the home.

On a more hopeful note, the findings of the Public Perception Survey 2005 revealed that citizens have become more sensitive and responsive to the issue of women's safety than they were in the past. There are several reasons for this. Women's organizations have been able to break the silence around the issue of violence. Media coverage of incidents of violence has increased enormously. Women have also become more confident about their rights and are approaching the police in greater numbers to register formal complaints.

Violence against women is not just a women's concern. Women's safety and security cannot be ensured through the efforts of women's organizations alone, no matter how committed or active they are. Making Delhi safer for women will have beneficial conse-

quences for all citizens, and this can happen only through partnerships between women and women's organizations, citizen's groups and community organizations, the police and law enforcement agencies, the administration and elected representatives. The traditional approach to women's safety is based on restrictions and fear. Women are told to stay away from places and situations that are potentially violent, to avoid public spaces and stay at home as much as possible, not to go out at night, not to travel alone, not to protest if someone misbehaves with them, and so on. Ironically, this restrictive approach does not really make women any safer. If anything, it increases their vulnerability by forcing them to live in fear and creating the feeling in their minds of being helpless victim. This approach has several other unfortunate consequences. First of all, it makes women alone responsible for their own safety. If something happens to them, it is assumed to have happened because they have not followed the rules. Moreover,

Making Delhi safe for people— women and children in particular—has to become an urgent priority.

Box 6.3
What makes Delhi unsafe for women?

Many non-governmental organizations have been addressing the issue of women's safety in Delhi. Their work has become more intensive in recent years, given the escalation in crime against women. Jagori, for instance, a Delhi-based women's resource centre working for over two decades on issues of women's rights with a particular focus on violence against women, has been conducting participatory 'safety audits' of various areas in Delhi, including residential areas, shopping centres, government buildings, educational institutions, and cinema complexes. The audits are a means to identify 'unsafety' factors in the area, as well as to sensitize participants (who include members of the local community and clients/users of services) to the issue of women's safety. Some of the following factors have been identified as constituting a risk or creating a feeling of vulnerability for women.

- *Poor lighting*. Back lanes of markets and service lanes in residential colonies are badly lit and often obstructed with rubbish or debris. Underpasses and subways on main roads have non-functional lights. Parks within residential colonies seldom have any provision for lighting.
- *Poor signage*. Road signs and house numbers are either missing or unreadable. Helpline numbers are not clearly displayed in public buildings. Signboards bearing the names and contacts of elected representatives do not have addresses and emergency contact numbers.
- *Poor infrastructure*. Women's toilets few in number, dirty and ill-lit if free. Public phone booths are few, especially in affluent colonies. Private phone lines do not permit calls to toll-free helpline numbers. Bus stands are dilapidated, and the area behind them is a de facto urinal for men.
- *Deserted and derelict spaces*. Few women are visible in public spaces after dark, unless accompanied by a man. Most public parks are deserted after dark. Vacant plots obscured with debris and building materials are scattered across residential areas. In affluent colonies, houses are hidden behind high walls and no people are visible in the lanes.
- *Macho behaviour*. Verbal and physical aggression from police, car and bus drivers, bus conductors, parking attendants, and people on the streets is a visible feature of public spaces. Sexually coloured and abusive language, provocative remarks and physical harassment are a constant element.

Crime in Delhi is not simply a failure of law enforcement. Collective action involving various agencies of the government, the police, media, NGOs and communities are needed to make Delhi a safe city.

it restricts women's freedom and autonomy, and curtails their mobility and their ability to work and participate in social activities. It reduces women's self-confidence and makes them physically and psychologically dependent on the protection of others. It prevents them from fulfilling their potentials and enjoying their rights as citizens.

Discussions on women's safety must therefore begin from the recognition of women's right to a life free from fear and violence. From this perspective, the responsibility for preventing violence and making the city safer for women lies with society as a whole, not with women alone.

Many of the factors that make Delhi unsafe for women are common to other cities as well.

- A poor urban environment consisting of, among other things, dark or badly lighted streets, derelict parks and empty lots, badly maintained public spaces, inadequate signage and lack of sufficient public toilets particularly for women.
- Empty streets at night because of early closing of shops and businesses or lack of a tradition of street life.
- Poor public transport and rude or unhelpful or abusive behaviour of bus drivers and conductors.

- Insufficient presence and unresponsive and aggressive attitudes of police and civic authorities.
- Isolation from neighbours and lack of community life.
- Traditional notions of privacy and refusal of neighbours and police to intervene in situations of domestic violence.
- Ideas and beliefs about appropriate behaviour, leading to reluctance to protest in cases of public violence.
- A 'macho' culture and a lack of respect for women and women's rights, leading to cases of violence being ignored or trivialized by the general public as well as those in positions of authority.

Government of Delhi in collaboration with Jagori and Centre for Women's Development Studies, New Delhi organized a meeting to discuss the issue of women's safety. The meeting was attended by a cross-section of stakeholders in urban governance including representatives of civil society organizations, women's groups and government officials. The outcome was a set of concrete recommendations dealing with public safety covering infrastructure, services for women facing violence, strengthening community action, the role of the media, and police. These are presented in Box 6.4.

Box 6.4
Actions needed to address public safety in Delhi

Government of Delhi jointly with Jagori and Centre for Women's Development Studies, New Delhi organized a meeting with a cross section of representatives from Delhi to discuss the issue of women's safety. The meeting developed a set of specific recommendations for making Delhi a more secure city. The main recommendations are presented below:

Infrastructure
- Improve urban infrastructure—lighting, signage, pavements, and parks
- Signage in all public places giving details of helpline numbers and persons to be contacted in case of harassment
- Provisions of clean and well-lighted toilets in all public areas
- Ensure adequate infrastructure in resettlement colonies, particularly affordable and clean toilets and drinking water points
- Provide night-shelters for homeless women
- Ensure services for mentally ill women and women with disabilites
- Sensitization of bus drivers and conductors and signage on buses

Services for women facing violence
- Increase the number and improve the quality of available services including helplines, medical facilities, legal aid units, shelter homes and counselling centres
- Enforce existing government guidelines on prevention and redressal of sexual harassment at the workplace
- Disseminate information on government commitment to women's safety and available services
- Training for women in self-defence

Community action
- Strengthen community-level women's organizations
- Gender sensitization for resident Welfare Associations to enable them to respond to cases of domestic violence in their areas
- Collaboration between Resident Welfare Associations and women's organizations

Media
- Sensitization of media persons to issues of women's rights
- Formulation of a code of ethics in reporting cases of violence
- Public campaigns on women's safety
- Dissemination of information on available infrastructure and services

Police
- Training for police to equip them to deal sensitively and appropriately in cases of violence and violations of women's right to safety
- Recruitment and placement of women police officers in each police station
- Collaboration with women's NGOs for helpdesk in police stations
- Increase the number of PCR vans and police personnel
- Collaboration between senior officials and women's organizations to monitor and address violence against women—women's organizations could be invited to regular monthly review meetings taken by Police Commissioner
- Review of the functioning of the Crimes Against Women Cell to ensure that it responds appropriately to women's needs

Making Delhi a child-friendly city

Group discussions among residents in different localities have brought out the neglect of Delhi's children. Several problems confront Delhi's children. Many children are engaged in child labour in the capital city. According to recent estimates, close to 1.3 per cent of Delhi's children aged 5–14 years are employed. Only 74 per cent of the children aged 6–11 years are enrolled in school. The remaining are unfortunately called 'no where' children—perhaps working children. Crime against Delhi's children is also reportedly high.

As discussed earlier, there are many areas where more interventions for children are needed. Delhi's goals for its children must include the following:
- ensure universal immunization coverage;
- establish universal Integrated Child Development Services (ICDS) coverage especially in slums;
- ensure access to safe drinking water and sanitation facilities;
- ensure all children live in unpolluted environments;
- ensure all children up to the age of 14 years attend school;
- ensure effective learning in school;
- ensure safe transport to school and public transport;
- ensure safe streets for children by building sidewalks, playgrounds and parks;
- prevent and eliminate crime and violence against children;
- ensure effective protection against child labour and exploitation;
- ensure protective and caring environment in children's homes and institutions;
- encourage participation in social events.

Government of Delhi in partnership with non-governmental organizations needs to initiate a movement for making Delhi child-friendly. Some of the immediate actions needed for this are described in Box 6.5 and Box 6.6.

TABLE 6.2: Incidence and rate of crime committed against children in cities during 2003

SN	City	Incidence	Percentage contribution to all-India total	Population (millions)	Rate of total cognizable crimes
1	2	3	4	5	6
1.	Bangalore	15	0.5	5.68	0.3
2.	Chennai	12	0.4	6.42	0.2
3.	Delhi (City)	612	20.9	12.79	4.8
4.	Hyderabad	113	3.9	5.53	2.0
5.	Jaipur	39	1.3	2.32	1.7
6.	Kolkata	134	4.6	13.21	1.0
7.	Lucknow	28	1.0	2.26	1.2
8.	Mumbai	272	9.3	16.36	1.7
9.	Pune	276	12.9	3.75	10.0
Total (Cities)		2931	100	106.77	2.7

Source: National Crime Records Bureau (2005).

Box 6.5
Addressing the needs of Delhi's special and disadvantaged children

Not all of Delhi's children have the good fortune of leading comfortable lives. Many face several hardships that threaten their very survival. Among them are children with disabilities, children living in slums, relocated colonies and in unauthorized colonies and street, and working children.

Government of Delhi in their efforts to draw inputs towards an action plan for the human development report organized a workshop in collaboration with CRY, Chetna and Action Aid. Invited to the meeting were representatives from non-governmental organizations and Government departments as well as experts and concerned children. The main recommendations for an action plan are summarized below.

Children of relocated and unauthorized colonies
1. Establish a well functioning universal Integrated Child Development Services (ICDS) programme that covers all children and should cover every child in need of service. The location and address of all ICDS centres should be available to every person needing it. A system of concurrent evaluation of ICDS must be established.
2. Ensure availability of on-site crèches for children of construction workers.
3. Open adequate number of anganwadi centres in compliance with Supreme Court orders.
4. Establish Samuday Nigrani Samiti (Community Monitoring Committee) must be formed with parents of children for monitoring all activities relating to child care and development.
5. Ensure proper functioning of schools with focus on quality of education.
6. Effective regulation must be put in place to check private schools and private healthcare providers from exploiting the ignorance of poor families.

Street and working children
1. Designate NGOs to ensure proper food, shelter, and clothing for working children.
2. Introduce an appropriate and sensitive education policy for working children.
3. Put in place a suitable shelter policy for street and working children, with focus on proposals targeting schools and government buildings for children, ensuring quality environment in children's homes and greater involvement of NGOs.
4. Ensure easy and free access to healthcare facilities for street and working children.

Children in Slums

1. Ensure basic infrastructures like roads, hospital, schools, anganwadis, water and sanitation, etc. before relocating families.
2. Sensitize the police on issues of child rights.

Children with disability

1. Encourage and promote early identification and early intervention through existing services of ICDS, Balwadis, NGOs, hospital (referrals), and parents groups.
2. Allocate special resources to upgrade schools to make them disabled friendly.
3. Organize special training of teachers.

Box 6.6
Actions needed to promote a child-friendly city

Delhi needs to put in place certain essential requisites for making the city-state more child-friendly. The constituents of a child-friendly city are:

1. Encourage children's participation
   (a) Promote children's active involvement in issues that affect them; listen to their views and take them into consideration in decision-making processes.
   (b) Art competitions, peer-mentoring programmes and sporting events that involve children at all levels.
2. Develop a child-friendly legal framework
   (a) Establish legislation, regulatory frameworks and procedures that promote and protect the rights of all children.
   (b) Review the existing legislature and develop a Delhi specific code to integrate children's rights into local plans, budgets and programmes.
3. Evolve a city-wide child rights strategy
   (a) Develop a comprehensive strategy towards making Delhi child-friendly, involving stakeholders—local and national governments, NGOs, teachers, child care providers and parent teacher associations (PTAs), and businesses.
   (b) Involve youth clubs and other community service organizations to help address the needs of children.
4. Establish a child rights cell
   (a) Establish a child rights cell in Government of Delhi to address priority concerns affecting children
   (b) Promote awareness of children's rights.
5. Initiate child impact assessment and evaluation studies
   (a) Establish a process to assess the impact of law, policy and practice on.
   (b) Actively involve non-governmental organizations especially in monitoring and evaluations.
6. Develop and monitor a children's budget
   (a) Ensure adequate resource commitment and budget analysis for children.
   (b) Monitor and ensure effective outcomes from requisite outlays for children.
7. Prepare periodic State of Delhi's Children Report
   (a) Initiate regular public reporting on performance for children.
   (b) Develop a specialized data base on children.

Source: Adapted from *http://www.childfriendlycities.org/resources/index_conceptual_framework.html*

Delhi Development Goals 2015

Delhi, the capital of India, is a city that symbolizes the old and the new. It is a perfect example of tradition and modernity, continuity and change. As the nation's capital, Delhi is the door to India. To visitors from abroad, the city-state offers the first impression of the country. And it has much to offer. However, deprivations in many dimensions of life affect the lives of both the rich and the poor alike. Most striking are the wide disparities and inequities that are visible throughout the city-state.

A first step to make Delhi more secure and safer for its residents to eliminate the worst forms of human deprivations and inequalities. Delhi must strive to attain well-defined development goals by the year 2015 similar to the Millennium Development Goals (MDGs). Towards this end, a set of Delhi Development Goals (DDGs) has been formulated. A special feature of DDGs is the addition of a ninth Goal specific to Delhi—over and above the eight MDGs: 'Improve Public Safety'.

Box 6.7
Delhi Development Goals, Targets and Indicators

India is among the leading countries committed to the attainment of the Millennium Development Goals (MDGs) by the year 2015. Many of the development goals and tar gets enumerated in the T enth Five Year Plan ar e, in fact, mor e ambitious than the global MDGs.

The release of the first Human Development Report for Delhi offers a good opportunity to announce the Delhi Development Goals (DDGs) that the city-state will realize over the next ten years, that is, by 2015. The MDGs have been adapted for Delhi.

Goals and Targets	Indicators
GOAL 1: Eradicate extreme poverty and hunger	
Target 1: Halve, between 2000 and 2015, the proportion of population living below the poverty line	1. Proportion of population below poverty line by 2015 to be lowered from 8 per cent in 2000 to less than 4 per cent
Target 2: Halve, between 2000 and 2015, the proportion of people who suffer from hunger	2. Prevalence of underweight children (under-three years of age)—reduce proportion from 35 per cent in 1998–99 to 17 per cent or less by 2015
	3. Proportion of children 6–35 months having iron anaemia—reduce proportion from 69 per cent in 1998–99 to 35 per cent or less by 2015
	4. Universalize quality Integrated Child Development Services (ICDS)
GOAL 2: Achieve universal elementary education	
Target 3: Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of eight years of elementary schooling	5. Ensure universal enrolment of all children 6–14 years by 2008
	6. Ensure 100 per cent completion rate, that is, finish eight years of schooling for all children by 2008
	7. Introduce a universal school health program in all government schools
	8. Upgrade the quality of teaching in government schools
GOAL 3: Promote gender equality and empower women	
Target 4: Eliminate gender disparity in elementary schooling	9. Reduce gender gaps in literacy rates
Target 5: Arrest the decline in child sex ratio by 2011	10. Eliminate gender disparity in elementary education by disparity in elementary education by 2008
	11. Prevent any further decline in sex ratio among children 0–6 years below 865 by 2011
	12. Ensure an improvement in child sex ratio by 2015
GOAL 4: Reduce child mortality	
Target 6: Reduce by two-thirds between 2000 and 2015, the infant mortality rate	13. Infant mortality rate—reduce IMR from 28 per 1000 live births in 2003 to 10 or less by 2015
	14. Ensure universal immunization coverage of children—increase proportion of fully immunized children 12–23 months from 70 percent in 1998-99 to 100 percent by 2010

GOAL 5: Improve maternal health

> **Target 7:** Ensure universal access to reproductive health services

15. Proportion of women who receive adequate antenatal care—increase coverage from 33 percent in 1998-99 to over 80 percent by 2010
16. Proportion of births assisted by skilled health personnel—increase proportion of deliveries assisted by from 66 percent in 1998-99 to 100 percent by 2010

GOAL 6: Combat HIV/AIDS, tuberculosis, malaria and other diseases

> **Target 8:** Halt by 2015 and begin to reverse the spread of HIV/AIDS

17. Ensure universal awareness of protection against HIV/AIDS
18. Promote universal condom use among men

> **Target 9:** Have halted by 2015, and begun to reverse, the incidence of malaria, dengue and tuberculosis

19. Reduce prevalence rate of communicable diseases to negligible levels
20. Prevent recurrence of dengue and malaria

GOAL 7: Ensure environmental sustainability

> **Target 10:** Ensure adequate green cover
> **Target 11:** Ensure universal access to safe drinking water
> **Target 12:** Ensure universal access to improved sanitation

21. Increase—and nurture—proportion of land area covered by forests
22. Reduce carbon dioxide emissions
23. Improve access to proper sanitation in slums
24. Reduce significantly the extent of homelessness

GOAL 8: Strengthen Bhagidari

> **Target 13:** Develop further avenues for participation in governance
> **Target 14:** Extend application of Bhagidari to new areas

25. Increase awareness about Bhagidari
26. Extend the coverage of Bhagidari to new areas and new groups (such as children and the disabled)
27. Bring the poor and disadvantaged into the fold of Bhagidari

GOAL 9: Improve public safety

> **Target 15:** Reduce crime against women, children and the elderly
> **Target 16:** Improve conditions for the disabled
> **Target 17:** Make Delhi a child-friendly city

28. Set up effective public systems to monitor and reduce crime against women, children and the aged
29. Improve physical access as well as access to economic and educational opportunities for the disabled
30. Ensure effective protection for all children, women and the aged
31. Introduce appropriate policies and legislation to make Delhi a child-friendly city

Delhi has the resources and the capacity to deliver on the DDGs. Meeting the goals and targets are imminently possible. There is enough creative energy to come up with new and innovative ways of addressing people's priorities. Delivering on the DDGs requires strong partnership and close cooperation between citizens and Government of Delhi. It calls for stronger public vigilance and participation. It calls for a new form of governance that takes people into confidence. This is what the Bhagidari approach advocates. And in Bhagidari—partnerships—lies the potential for making Delhi a far more secure and caring society.

SCOPE AND OBJECTIVES

The Public Perception Survey 2005 captures perceptions, priorities and expectations of Delhi's residents belonging to different districts, localities and socio-economic strata. The main objectives of the Survey were to: (a) elicit people's opinions on the quality of different services and infrastructure in the NCT of Delhi; (b) use the perceptions of people from different socio-economic strata to rate and rank the quality of services, infrastructure and governance in different districts and localities; (c) understand people's problems and their concerns in relation to physical, social and economic infrastructure; and (d) bring out people's expectations and suggestions for making Delhi a better place to live in. The Survey covers a wide range of topics including education, health, water supply, power supply, sanitation, roads, transport, environment, immigration, livelihoods, housing, women empowerment, and overall governance. It is intended to assist policymakers, administrators and civil society organizations in identifying priorities for public action.

SAMPLING AND METHODOLOGY

The study employed a combination of quantitative and qualitative methods. The quantitative survey was an extensive survey covering all the districts and different types of localities in NCT of Delhi involving a sample size of over 14,000 households.

A stratified two-stage systematic random sampling design was adopted for the selection of households to be covered during the survey. The number of polling stations and localities (that constituted the Primary Sampling Units—PSU's) to be selected from each district was determined by dividing the sample size of each

district by 12 and this was fixed as the sample size per PSU. The pre-determined sample size of 14,000 households was first allocated to different districts following proportional allocation method. The requisite number of polling stations was selected from the complete list of polling stations falling under each district following systematic random sampling (SRS) procedure. The voters lists for 2004 was identified as the best sampling frame available for the selection of households and was consequently used to sample households for the survey.

The complete voter lists of the sampled polling stations were downloaded from the website of the Election Commission of India. Twelve respondents were selected from the voters list of each polling station by using SRS technique and investigators were given the name and address of the selected respondents. Following this procedure, a total of 1,168 polling stations and 14,013 respondents (8,161 males and 5,852 females) were covered in the entire NCT of Delhi. The sample composition presented in the table below closely resembles Delhi's population in most respects. In case of non-availability of sampled voters, investigators were asked to visit the same household twice to cover the same respondent. If in spite of two visits, an investigator could not find the identified respondent, he or she was replaced with the next person listed in the voters list with similar characteristics (that is, belonging to the same gender and age group). The household survey was carried out in the second half of 2004 and Focussed Group Discussions were completed in the first half of 2005.

The demographic and socio-economic characteristics of the sampled households and respondents are given in the Table A1.1.

TABLE A1.1: Characteristics of Household Surveyed

LOCALITY TYPE	No.	%
Approved Colonies	4246	30
Unauthorized Colonies	1855	13
Rural Areas	1404	10
Regularized Unauthorized Colonies	1439	10
Jhuggi-Jhopdi (JJ) Clusters	1223	9
Jhuggi-Jhopdi (JJ) Resettlement Colonies	1281	9
Posh Localities	556	4
Urban Villages	754	5
Walled City	490	4
Government. Housing	765	6
Total	14013	100
GENDER		
Male	8161	58
Female	5852	42
Total	14013	100
SOCIAL GROUP		
General Category	8387	60
Other Backward Castes (OBC's)	3414	24
Scheduled Caste (SC)	1712	12
Scheduled Tribe (ST)	500	4
Total	14013	100
RELIGION		
Hindu	11909	85
Muslim	1204	9
Sikh	688	5
Others	138	1
Total	14013	100.0
MONTHLY HOUSEHOLD INCOME		
Up to Rs 3000	2915	21
Rs 3001–5000	3671	26
Rs 5001–10000	4454	32
Rs 10001–20000	2245	16
Above Rs 20000	728	5
Total	14013	100
OCCUPATION		
Skilled Worker	2642	19
Shop Owner	1895	14
Unskilled Worker	1413	10
Petty Trader	1343	10
Businessmen	1137	8
Self Employed Professional	1106	8
Clerical/Salesmen	1015	7
Retired	819	6
Officers/Executives—Junior	597	4
Supervisory Level	445	3
Officers/Executives—Middle/Senior	277	2
Others	1324	9
Total	14013	100

Source: Public Perception Survey 2005, GNCTD.

Focus Group Discussions (FGDs)

FGDs were held with various RWAs and community representatives in different localities across different districts of Delhi. They were facilitated by a Discussion Guide and covered various aspects of enquiry. Some FGDs were conducted specially with women's groups in order to understand women's perceptions and to better understand their specific issues and concerns.

ESTIMATION METHOD

Performance scores have been calculated on the basis of people's perceptions about various services and facilities like education, health, water supply, power supply, sanitation, roads, public transport, and environment as well as about governance. The methodology adopted for the computation of Performance Scores was as follows: All respondents were asked to rate their perceptions about the quality of different services and facilities on a five point semantic differential scale of 1 to 5—'1' indicating 'very good' service delivery level and '5' indicating 'very poor' level. The percentage distribution (rounded off to the nearest integer) of respondents on the rating scale of 1 to 5 was then computed. Each percentage thus computed was then multiplied with a corresponding value assigned to the scale: 1.0 (Very Good), 0.75 (Good), 0.5 (Average), 0.25 (Poor) and 0.0 (Very Poor). The overall perception (perceived performance) rating or score in respect of each parameter was arrived at by adding up the five sets of values to get an overall aggregate SCORE for different services and facilities. This overall score was further disaggregated using the same methodology to arrive at similar overall scores for different districts, localities and citizens groups.

An example of computing the Perceived Performance Score in respect of 'Quality of Education in Government Schools' is give below:

Question:
How do you rate the quality of education in government schools?

Responses:
Percentage distribution of responses:

	Very Good	Good	Average	Poor	Very Poor
Rating	1	2	3	4	5
% Distribution	12	16	42	22	8

The Overall Score in respect of 'quality of education in government schools' is computed as follows:

$$9 \times 1.0 + 19 \times 0.75 + 42 \times 0.5 + 22 \times 0.25 + 8 \times 0.0$$
$$= 9 + 14.25 + 21 + 5.5 + 0.0$$
$$= 49.75$$
$$= 50.$$

The Score thus arrived is rounded off to the nearest integer.

A similar methodology has been followed for computing the overall scores for each attribute for different services. A cumulative district score has also been computed by calculating the mean of all individual service scores.

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