

**THE NEW ECONOMIC POLICY AND THE
CHANGING URBAN STRUCTURE:
A CASE STUDY OF DELHI.**

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MASTER OF PHILOSOPHY

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CERTIFICATE

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Chapter I

INTRODUCTION

The issue of globalisation has generated much interest in urban studies in the last two decades. The eighties and nineties have witnessed growing literature on large World or global cities and the key role they play in the process of globalisation. Cities have always been considered as dynamic entities undergoing constant transformation according to the prevailing macro-economic and social conditions. It is therefore not surprising that the overriding theme of many of these works have been how within the context of global economic restructuring, large cities in different parts of the world have changed and reacted to the new challenges and opportunities.

There is today a growing consensus among scholars that significant changes in spatial dimensions have occurred within cities and these are very visible since the early 1970's. Descriptive accounts of such changes across various cities have multiplied in recent years.¹ Most of them however are in the context of the developed world and have placed emphasis on western inner city decline and decentralisation.² The rapid decline in manufacturing in older industrial cities and the emergence of servicing city have also been highlighted as two striking outcomes of globalisation.

Far less work has been attempted to investigate the effects of global economic change on developing world cities. The question of how globalisation is affecting the structure of cities in the developing world remains all the more elusive³. Whatever literature is available on the developing world mainly concentrates on the cities of East and South -East Asia and Latin America. This is understandable as these were among the

¹ Marcuse and Kempen (2000)

² Sassen (1991)

³ Potter and Evans (1998)

first countries of the developing world to have undergone the structural adjustment programmes. Moreover the so-called global cities of the developing world are also located in these regions.

Cities of the developing world are not only different from their western counterparts but also encompass great diversity among themselves in terms of levels of development, political-economic structures and the degree of their integration with the global economy. Any attempt therefore to apply the western model emphasising a new urban structure based on deindustrialisation and service sector led global economic growth, to the developing world cities is bound to be problematic. It is this realisation that has made the interpretation of the spatial implications of globalisation on cities an important research theme in the developing world.⁴ It is not surprising therefore that globalisation is listed as the top research agenda in urban studies for developing countries in the nineties.⁵

1. LOCATING INDIA IN THE GLOBAL DEBATE

In India economic reforms were launched at the beginning of the nineties. This decade has witnessed renewed attention on large or mega cities. The stabilisation programme and the Structural Adjustment Programme under the New Economic Policy in general favour the further growth of large metropolitan cities. It is therefore pertinent to investigate the implications of economic restructuring on the Indian mega cities.

The Indian cities joining the club of world mega cities include Mumbai, Kolkata, and New Delhi. While they may not be dominant centres in the global economy yet they connect and possess functions affecting hundreds of millions of people into that global

⁴ The interpretation of spatial implications of the globalisation of production and investment has been named as one of the five major themes of that had emerged after the investigation of the urbanisation process in Asia by George Chu-Sheng Lin (1993)

⁵ Yeung (eds.) (1998)

economy.⁶ While Mumbai often called the financial capital of the country, is viewed by many as the closest to becoming a global city⁷, Delhi follows close behind in terms of national importance. It has its own unique history of development influenced by the three different stages of development i.e from a colonial economy to the post colonial or command economy to the post command or reform economy. Being the national capital and the seat of national politics and policy making it is likely that the impact of structural reforms, if any, would be visible in the National Capital Territory of Delhi.

2. RESEARCH PROBLEM

From the ongoing discussion it is fairly clear that in the light of the recent economic restructuring, the developing world needs to investigate the implications of globalisation on its large cities. Cities of the developing world have their own sets of problems as they adjust themselves to economic reforms. Each city has a different starting point, a different historical inheritance, a different resource endowment and it operates in a different political and policy framework. Thus reactions to the structural adjustment programme would be peculiar to each city.⁸ Cities may produce dissimilar or even contrasting results depending on the degree of their integration with the global economy. Thus the management of large cities in the post reform scenario pose a great challenge as it calls for different strategies to tackle the problems of different cities.

Urban outcomes to a considerable extent depends upon public policies⁹, hence the future of large cities would be largely determined by how the reforms have been handled and how these cities respond to the challenges posed by the reforms. City development therefore needs to be more intentional and planned,¹⁰ the key word being 'effective management' and planning in the broadest sense of the term.

⁶ Borja and Castells (1997)

⁷ Yeung (1996)

⁸ Harris and Fabricius (1996)

⁹ Friedmann (1997)

¹⁰ Knight (1993)

All this is however possible only if the impact of economic reforms on the city is known. It is based on this knowledge that a useful strategy for effective management and the further growth of the city, can be worked out. Any such strategy would undoubtedly ensure that measures are taken to perpetuate the positive impacts of the reforms while appropriate steps are taken to dilute the negative impacts. This then brings the discussion to the research problem. Simply put the research problem can be outlined as the need to look into the spatial, social and economic restructuring on cities so as to help address the larger issue of post-reform city management on the one hand and its immediate environment on the other.

India is already a decade into the reform process. It would therefore be of great interest to examine the large metropolitan or mega cities in the post reform period. As mentioned before these cities may differ in terms of the impact of the New Economic Policy on the city structures. Much would depend on the extent to which the liberalisation process has taken off. The management of these growing cities in the liberalised era requires adequate information about spatial and other changes that they have undergone in the post reform period. It is against this backdrop that the case study of post reform cities has gained importance. The inspiration for the present study comes from the above-mentioned facts.

The present study is an attempt to investigate the impact of structural reforms on the National Capital Territory of Delhi (hereafter the NCTD). This would be done under three broad categories i.e. the impact of the structural reforms on: -

- a) The spatial structure of the NCTD
- b) The economic structure of the NCTD
- c) The social structure of the NCTD

Globalisation and the associated economic restructuring have reportedly brought about distinct changes in spatial divisions within cities of the developed countries. Some

of the important trends noticed in the mega cities of the developed world include decentralisation, suburbanisation, and the associated inner city decline. Urban functions and landuse patterns have been transformed. Urban functions worth locating in central districts are selected while old and unnecessary functions are removed and new functions are created.¹¹ These have been the main trends of spatial restructuring for cities like Tokyo. In the case of cities in the developing countries of Asia like Jakarta, Bangkok etc, McGee has observed a trend of 'extended metropolitanization' wherein the peripheral areas have witnessed rapid growth than the city itself. The rapidly growing peripheries absorb adjoining villages, blurring rural-urban contrasts. In this light it would be interesting to see whether after a decade of economic reforms, the NCTD is indeed undergoing a spatial transformation even if it is far from complete. It would also be pertinent to examine the industrial policy of the NCTD in this context. Does it for instance, favour industrial dispersal especially of small scale manufacturing units and polluting units while creating space for headquarters of MNCs to locate in the CBD?

Looking at the economic outcome of globalisation on cities, it is clear that the new international division of labour has redefined the employment structure of mega cities. It is amply evident from the literature available that mega cities or global cities of developed countries have an increase in control, management and service functions. Manufacturing has declined in relative importance both in terms of employment and contribution to the GDP. Deindustrialisation in the west actually implies the opposite in the developing countries i.e increased industrialisation, presumably in its large urban centres. In other words, manufacturing has deserted the old industrial countries and regions in favour of newly industrialising parts of the world where new and efficient technology can be allied to low labour costs. It would therefore be of interest to study the economic structure of the NCTD in the post reform period. Has industrial or manufacturing activities actually increased? What are the changes in the workforce structure? Are there signs of increasing informalisation of the workforce? These are some

¹¹ Yeung (1996)

of the questions that will throw light on the changes in the economic structure of the NCTD.

Infrastructure investments is yet another measure of the new economic policy. In general, globalisation has induced cities particularly of the developing world to invest heavily in physical infrastructure. Poor services in the city can neutralise any comparative advantage it has in terms of cheap labour etc. Hence many Asian cities have recently invested massively in physical infrastructure to be able to cope with rapidly growing traffic and telecommunications. In this context it would be important to see whether the efforts to improve the physical infrastructure in the NCTD has increased in the post reform period.

Globalisation also has distinct social implications for mega cities. In the global cities of the developed world such as New York and Los Angeles and some of the Asian 'global' cities like Tokyo, this has meant rising international migration to these cities leading to the informalisation of the core. Various studies have pointed to the growing polarisation within cities along class, gender and ethnic lines. For the present study it would therefore be pertinent to see whether globalisation has furthered the inequities existing within the NCTD. Has the inequality in terms of access to basic urban amenities increased? Is there segmentation in the internal structure of the city in terms of pockets of elite zones and neglected slum areas? These are some of the issues, which can throw light on the social outcomes of the New Economic Policy.

3. OBJECTIVES

Based on the above discussion, the objectives of this study are listed below-

1. To look into growth rate of the NCTD at it's core and periphery overtime. To examine the number of villages that have urbanised during this period so as to see whether the NCTD is showing trends of sub-urbanisation.

2. To look into the growth in industrial activity during the post reform period in the NCT and to examine the trends of growth in the major economic sectors.
3. To examine the workforce structure in the NCTD to see whether indeed the informal sector has grown in the post reform period.
4. To examine the availability and accessibility of basic urban amenities to the people of the NCTD in the post reform period.
5. To see whether there are disparities in the availability of basic amenities between the rural and urban areas as well as the core and the periphery of the NCTD.

4. RESEARCH QUESTIONS

The NCTD is at the threshold of a spatial, social and economic transformation. The process commencing in the 1990's is still in its formative stage. This transformation is primarily a result of the structural reforms introduced in the early nineties, which has among other things, led to increased private sector participation in the provision of infrastructure. The reforms have also made the NCTD more open to foreign investments. As a result efforts are on to upgrade the city infrastructure, transportation and communication. Growing importance of private sector in the provision of infrastructure and basic amenities has also meant the strengthening of disparities within the city. Under the changed circumstances some of the research questions that require serious attention and which the present study tries to empirically answer, can be summarised as follows-

- i. Is the NCTD witnessing the continued tendency of centrifugal growth pattern wherein the peripheries are growing faster than the core?
- ii. Has the manufacturing sector of the economy of the NCTD responded to the new economic regime by growing at an accelerated rate in the post reform period, as was witnessed by the newly industrialized countries of South East Asia?
- iii. Has the post reform period strengthened the segmentation of the labour market on gender, levels of education, and between rural and urban workers of the NCTD?

- iv. Is the NCTD witnessing the feminisation of the urban labour markets, as is seen in many of the newly industrialized countries that have undergone structural adjustments in the past?
- v. Has the New Economic Policy accelerated the process of informalisation of labour with increase in the subcontracting of jobs?
- vi. Has the post reform period created a scenario wherein the availability and accessibility to basic urban services has improved while intra-metropolitan disparities has strengthened?

5. DATA BASE AND METHODOLOGY

Having described the objectives as well as the research questions for the present study, it would now be appropriate to specify the sources of data and the methodology used. The study is based entirely on secondary data published by various organisations. Table 1.1 gives a comprehensive picture of the nature, source, publication and the year for which data is available.

Nature of Data, Source and Publication

Table 3.1

NATURE OF DATA	SOURCE OF PUBLICATION	PUBLICATION	YEAR
1) DEMOGRAPHIC VARIABLES			
a) Population growth of NCTD from 1901-2001	Directorate of Census Operation, Delhi	Census of India 2001 (series 8) Delhi, Provisional Population Totals Paper 1 of 2001.	2001
b) Population growth of rural and urban areas of the NCTD		Census of India 2001, (series 8) Delhi Provisional Population Totals Paper 2, Rural Urban Distribution of Population.	2001
c) Population growth of the urban agglomeration of Delhi and its constituent units.		Census of India 1991, Delhi series	1991
d) Population growth of census towns of the NCTD from 1971-2001		District Census Handbook of Delhi.	1971 1981 1991
e) Population growth of villages of the NCTD			

between 1981-91			
f) Density of population in the districts of the NCTD.			
g) Population growth in the urban agglomeration in the hinterland of Delhi between 1951-2001		1) Town and Urban Agglomeration with decadal variation since 1901 2) http://www.censusindia.net	1991
h) Crude birth rate and crude death rate in the NCTD between 1981-1999		Delhi Statistical Handbook	2000
2) ECONOMIC VARIABLES			
a) Distribution of Agricultural and Non-Agricultural enterprises in the rural and urban areas of the NCTD.	Directorate of Economic and Statistics, Government of NCTD.	Report of the Fourth Economic Census in Delhi.	1998
b) Distribution of non-agricultural enterprises by major activity group.	Same as above		
c) Employment data / data on Workers and Non-Workers.	1) National Sample Survey Organisation (NSSO). 2) Directorate of Census Operations, Delhi.	1) GoI, Sarvekshana, Special Number, September 1990. 2) Census of India, 1991 Provisional Population Totals, Workers and their distribution, paper III of Government of India. 3) http://www.censusindia.net	1990 991
d) Workers according to Industrial classification	Same as above	Report no. 409 Employment and Unemployment in India, 1993-94, 50 th round (July 93-June 94).	1997
e) Workers according to industrial classification	Same as above	Employment and Unemployment India, 1999-2000 NSS 55 th round (June 2000)	2001
3) SOCIAL VARIABLES			
f) Levels of education in rural areas of the NCTD according to size of land holding and social class.	NSSO	NSS Report no. 473: Literacy levels of education in India. 1999-2000.	2001
g) Levels of water supply	NCR planning board	Delhi-1999, Fact sheet	2000
h) Sources of drinking water in rural and urban areas of the NCTD between 1993-1998	Directorate of economics and statistics.	Report no. 31 and 34 based on NSS.	1999
i) Growth of Slum Population in the NCTD	Census of India	http://www.censusindia.net	
j) Population living in Sub-Standard settlements	Planning Department Government of NCTD.	Economic Survey of Delhi, 2001-2001	2002

On the basis of the data mentioned in the above table building comparable indicators for the eighties, the early nineties and the late nineties has carried out the analysis. The eighties and the early nineties have been taken as by and large representing the pre-reform conditions. The following paragraphs give in detail the techniques used to convert the variables into indicators.

I. Demographic Indicators:

- i. Annual Exponential Growth Rate has been computed to measure the growth of the NCTD since 1901 and each of its constituents. The following formulae have been used-

$$P_t = P_o \wedge (r * t)$$

$$\text{Rate}(r) = [(1/t) \ln (P_t/P_o)] * 100$$

Where P_o = original population

P_t = new population

t - time

r = rate

- ii. Growth of census towns: To measure the growth of urban areas bordering the main urban core it was essential to look at the growth pattern of census towns in the NCTD. The number of census towns have been steadily increasingly since 1971 from 27(1981) to 29(1991) to 59(2001). For comparison, only those which continued to maintain their status as census towns in 2001 were chosen. Their annual growth rate between 81-2001 was computed. The Mean Annual Exponential Growth Rate for these 24 census towns were then calculated for the decade 1981-1991 and 1991 to 2001. These figures were compared to the corresponding figures for the urban core.

- iii. Growth of revenue villages: Annual Exponential Growth Rate for the 209 villages of the NCTD was computed for the decade 1981-1991. The villages were then classified on the basis of their growth rates into villages with low, moderate, high and very high growth rates. These were then mapped, using the Choropleth Cartographic Technique to provide an idea of the spatial pattern of growth in the NCTD.
- iv. Density: In order to find out whether there exist any relation between the growth rate of population and the density of the area, the Correlation Coefficient of these two indicators was computed using the following formula-

$$(\Sigma x*y)/[\{(\Sigma x^2)*(\Sigma y^2)\}^{1/2}]$$

where $x=(x-\bar{x})$

$y=(y-\bar{y})$

2. Economic Indicators

- i. The Economic Census gives a head count of enterprises, employment and other main characteristics of enterprises in numerical terms. Since the line of approach adopted for the second, third and fourth economic censuses conducted in 1980, 1990 & 1998 respectively were similar, comparable indicators could be built overtime. The annual growth rate of enterprises and employment under major economic activities were computed to compare the pre and post reform positions. The following formula was used-

$$\text{Annual growth rate (r)} = \left\{ \frac{(P1-P2)/P1}{t} \right\} * 100$$

Where r = Annual rate of growth

$P1$ = Initial population

P2 = Final population

t- time

- ii. The share of each major economic activity in terms of the number of enterprises and employment was computed by finding their percentage to the total. These figures were computed for all the three points of time to gauge the sectoral shifts, over time.

- iii. For analysis of employment pattern in the NCTD, data from two sources that is the National Sample survey and census of population were used. To look into the pre and post reform contrasts in employment growth and structure, three points of time has been taken that is 1987-88, 1993-94 and 1999-2000. The period 1987-88 to 1993-94 is taken as representing the pre reform period whereas the period 1993-94 to 1999-2000 is expected to capture the changes brought out by the economic reforms.

Here it must be mentioned that earlier studies on employment have pointed out that the year 1987-88 was not normal weather wise and is likely to throw up distortions in the rural employment scenario.¹² Despite this, the year 1987-1988 has been taken up for the present study for the following two reasons-

- a) Firstly an overwhelming 93% of the population of the NCTD is urban and hence is unlikely to throw up distortion of the kind mentioned above.
 - b) Only 11% of the rural workers are involved in cultivation (according to 2001 census)
- v) In most of the analysis the usual status data (principal + subsidiary) was used.

vi) The 1999-2000 employment survey is based on the 1998 NIC classification whereas the 1993-94 survey and the 1987-88 survey are based on national industrial classification (NIC) 1987 and 1970 respectively. In order to make the data comparable over time certain clubbing had to be resorted to.

National Industrial Classification for 1970, 1987,1998.

Table 1.2

NIC 1970	NIC 1987	NIC 1998
1) Agriculture	1) Agriculture	1) Agriculture
2) Mining and Quarrying	2) Mining and Quarrying	2) Mining and Quarrying
3) Manufacturing	3) Manufacturing	3) Manufacturing
4) Electricity, Gas and Water	4) Electricity	4) Electricity, Water etc
5) Construction	5) Construction	5) Construction
6) Trade	6) Wholesale, Retail trade	6) Wholesale, Retail trade and Restaurants and Hotelling
7) Transport	7) Transport	7) Transport, storage and Communications services
8) Services	*8) Financial insurance and real estate, services 9) Community services	*8) Financial, insurance, Real estates and Business services 9) Public Administration, Education, Community services.

* Sectors 8 and 9 of NIC 1987 and NIC 1998 were clubbed together as services

¹² Chadha- Post reform setbacks in rural employment, EPW 2002

vii) Index of casualisation: Index of casualisation shows the number of casual wage earners for every 100 regular salaried employees.¹³ To look into the severity of casualisation of labour the index of casualisation was computed using the following formula-

$$I.C = (C/R)*100$$

where, C = proportion of casual labour per 100 usual status workers

R = proportion of regular employees per 100 usual status worker

I.C = Index of casualisation

6. LIMITATIONS OF DATA

Although the Indian economy has lived through more than full decade of the new economic policy regime, the precise effects of the reforms implemented so far could not be gauged in full manner owing to the lack of a sound database. The limitations of the existing database used in the present study highlighted below-

- i. Since much of the analytical work presented in the subsequent chapters draws from Census 2001 data, it is important to mention here that the data presented for 2001 are yet provisional. They have not been subjected to the intensive checks and cross checks which are applied before finalizing the Census data¹⁴
- ii. A major part of the 2001 data is still inaccessible. This has limited scope of the present day study.
- iii. The data published by the national data gathering agencies, such as the Population Census and National Sample Survey (NSS) are not free of shortcomings. The report of the fourth Economic census has admitted to several shortcomings during the survey, which makes their data not very reliable. Hirway (2002) has pointed to

¹³ Chadha and Sahu (2002)

¹⁴ Census of India, 2001

the failure of the census of population and NSSO survey in netting the work of the poor and women. The discrepancy existing between the two data sets was particularly noticed in the case of rural females who showed contrasting trends in the post reform period as per the NSSO on the other hand and the census on the other.

- iv. In several cases comparable data over time was not available to show the pre and post reform trends. For instance data on the informal sector was collected for the first time in the 55th round (1999-2000) of the NSSO. Similarly the purpose of classification of the budget of the NCTD is available only for 1997-98 and 1998-99.
- v. Finally most of the data is available only at the aggregate level that is for the NCTD as a whole and for rural and urban areas of the NCTD. These figures mask the inter district or zonal disparities associated with the post reform period.

Despite the above mentioned limitations the national data gathering agencies are by far the most reliable source of secondary data. Hence the limited secondary data available has still been used to assess the impact of the NEP on the NCTD.

7. Scheme of Chapters

Ever since the New Economic Policy was launched in India in 1991, it has become a hot topic for discussion in research circles. Many of the research work undertaken in the early and mid nineties assessing the impact of the new policy were largely speculative in nature as it was still early days. However now that the Indian economy has already lived through more than a full decade of the policy regime, an assessment of its impact can be undertaken with greater precision at least in some sectors. This is precisely what the present study has hoped to do with respect to the National Capital Territory of Delhi.

The structural adjustments that India underwent in the terminal decade of the last century, is a part of a larger global process which began in the late seventies and early eighties. Hence a large corpus exist which sink the global flow of capital to merge cities in developed and newly industrialised countries of the world. Chapter 1 briefly introduces the global debate on these cities and tries to locate India in this debate. Stemming from this discussion is the research problem, objectives and research methodology used to look into these questions. The literature on global cities is at a threshold. Starting with early efforts in the seventies, the focus of these studies have shifted to the mega cities and the problem of their sustainability in the new global scenario. These developments have been traced in the survey of literature in chapter 2. Based on the literature survey a broad theoretical framework for the present study is presented.

The details of the study area, that is, the National Capital Territory of Delhi, is presented in chapter 3, by tracing its historical development from a colonial to a post reform city. The reasons for choosing it as a study area has also been provided.

Assessment of the impact of structural adjustments on Delhi starts with an analysis of its demographic profile, which throws light on the growth of the city particularly in the post reform period. This is the theme of chapter 4, which also subsequently analysis the economic profile of Delhi.

Since work force is a volatile sector of the economy, in which the impact of the new economic policy is most likely to be manifested sooner, it is dealt separately in chapter 5..An analysis of the urban structure would be incomplete if its social dimensions are not looked into. The emerging social structure in the NCTD forms the subject of chapter 6.Finally a summary of the main finding of this study is finally presented.

Chapter II

GLOBALISATION AND ITS IMPACT ON THE URBAN STRUCTURE: SURVEY OF LITERATURE AND THEORETICAL FRAMEWORK

Globalisation of production and investment is by no means a new process. Transnational corporations (TNCs), the key agents in the transnationalisation process, existed before the industrial revolution took place. The importance of TNCs however was fully perceived only in the early 60s when the increase of foreign direct investment (FDI) found to be outpacing the expansion of international trade.¹ Efforts at examining the interrelationship between the twin process of transnationalisation of capital and urban development came up even later i.e. in the early 1970s. Broadly the review of literature has been classified temporally on the basis of the central theme during each decade.

- i. 1970s: Initial efforts at theorising the link between global financial flows and urbanisation.
- ii. 1980s: Opening of the debate on world cities/global cities.
- iii. 1990s: Phase of mounting research on Mega cities.

I. Initial Efforts at Theorising the Link between Global Financial Flows and Urbanisation

Among the early attempts to document the impact of transnational capital on urbanisation and to theorise this process, are those of **Manuel Castells** (1972) and **David Harvey** (1973). In fact John Friedmann has credited the two for revolutionizing the study of urbanization by linking city-forming process to the larger historical movement of industrial capitalism.²

In his work, David Harvey provides a theoretical framework for analysing the links between circuits of capital and urbanisation. According to him accumulation of capital takes place within three circuits – primary, secondary, and tertiary. Crisis of the

¹ Chu-Sheng Lin, George (1994)

² Friedmann J (1986)

primary circuit is resolved by switching investments towards the secondary and tertiary circuits, which involves spatial movements of capital. The interesting part of the model is that each of the three circuits leads to the development of a different type of city.

Another effort to link the flow of transnational capital with urban system formation was made by Hymer (1972). He suggested that multi-national corporations tend to be attracted to the core region or primary metropolitan area of a nation.³

II. Opening of the Debate on World Cities/Global Cities

However it was only since the early 80s that the study of cities has been directly connected to the world economy.⁴ This was the time when the world was experiencing certain distinct and significant changes in its economy, leading to global structural adjustments. For instance the 80s witnessed a fall in the prices of primary commodities as a result of reduction in the use of raw materials in production. This was mainly due to huge advances in science and technology that encouraged resource saving techniques of production. The fallout of all this was a debt crisis among resource exporting countries of the world. This period also witnessed increasing importance of transnational capital, and the consequent race among cities for attracting FDI. The 'third industrial revolution' involving electronics, biotechnology and information processing, encouraged flexible mode of production at convenient points on information highways. Thus the new dynamics of global production and changing comparative advantage created the need for global economic reforms.

It was during this time that **Friedmann and Wolff** (1982) came up with what was to form the 'World city' hypothesis. According to them one of the spatial outcomes of the flow of transnational capital has been the emergence of the 'World cities' system. This concept was further elaborated by Friedmann (1986) when he presented his World city hypothesis. He put forward seven theses, which he feels links the urbanisation process to

³ Yeung (eds.) (1996)

⁴ Chakravorty (2000)

the global economic forces. He argued that under the new economic regime key cities throughout the world are used by global capital as 'basing points'. Any structural changes occurring within these cities will depend on the form and extent of a city's integration with the world economy and the functions assigned to them in the new spatial division of labour. Based on transnational linkages, he argues that it is possible to arrange world cities in a complex spatial hierarchy.

While studying the urbanisation process in Asia and Latin America, **Armstrong and McGee** (1985) linked the process of transnationalisation of capital with the changing functional structure of urban hierarchy in developing countries.⁵ They have termed Third world urban systems as 'theatres of accumulation', as they feel that cities and large metropolitan areas in particular, offer advantageous conditions for an increasing concentration of financial, commercial and industrial activities. At the same time they also argue that cities are 'centres of diffusion' from which modern (western) lifestyles and culture are diffused. Along with these two processes the Third world countries are characterised by a trend of 'convergence' in their urbanisation pattern. Armstrong and McGee contend that transnational capital has resulted in a growing similarity of urbanisation patterns, especially in large cities. Simultaneous to this trend is the growing 'divergence' within Third world countries between their primate cities and interior rural regions. Armstrong and McGee's convergence/divergence and concentration/diffusion model of Third world urbanisation highlights how the globalisation of capital has created a dualism in many Asian nations.⁶

III. Phase of mounting research on Mega cities

Since the 80's a growing interest towards the phenomena of mega-cities has resulted in mounting research on them in the major regions of the world. After experimenting with decentralisation and rural development policies, in the hope that it would bring about more spatial equity and narrow social, economic and spatial

⁵ Harris, Nigel and Ida Fabricius (1996)

⁶ Friedmann (1997)

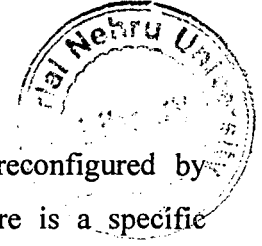
disparities, large cities are back on the global research and policy agenda⁷. Once again large cities are being looked upon as command centres and engines of economic growth and development. It is not surprising therefore that the recent decades has witnessed a spurt of studies on ‘mega-cities’, ‘world cities’ and ‘global cities’. Mega-cities are primarily defined by their demographic weight i.e. cities exceeding the population of 8 million (as per UN). The concept of world cities/ global cities on the other hand is critical to the new global economy as they are recognised on the basis of the particular functions they perform in the global economy.

There is a large corpus of literature on the theme of globalisation and urban development especially in the form of edited works. **Knight & Gappert (1989)** recognised that urbanised areas are entering a new era, an era in which cities will be shaped primarily by their responses to powerful global forces. They argue that national urban policies that have been formulated tend to be reactive, driven by problems than by opportunities. What cities need are policies and programmes that enable them to be more responsive to the opportunities that are being created as national barriers and market regulations are being removed.⁸ Thus they feel that cities face a great challenge and those that are able to respond to the demands of the global society will evolve into global cities.

Sassen (1991) has identified four key functions for global cities. Firstly they serve as command post in the organisation of the global economy. Second, they serve as key locations for finance and specialized services. Thirdly they function as sites for production and innovations in leading industries. Finally global cities are also markets for products and innovations produced. Sassen argues that the immediate future of major cities is being shaped by the interaction of two processes i.e. shift to services and globalisation of economic activity. Both these process rely on the new information technologies. Sassen (1994) further contends that the centre/core of the city has been profoundly altered by telematics and the growth of a global economy. She identifies new forms of city centrality wherein the CBD remains a key form of centrality only in some

⁷ Fu-Chen Lo and Yue-Man Yeung (eds) 1998

⁸ Knight and Gappert (eds) 1989




cases. In major international business centres the CBD has been reconfigured by technological and economic changes. Sassen (1998) argues that there is a specific geography of globalisation, which comprises the twin process of spatial dispersal and concentration. On one telematics has made possible spatial dispersal of economic activity, on the other hand globalisation has resulted in the centralization of top-level management, control operations and the provision of producer services. In the current phase of the world economy it is precisely the combination of the global dispersal of economic activities and global concentration of economic ownership and control that has contributed to a strategic role for certain major cities or global cities. (Sassen 2000)

While staying on the topic of global cities attention must be drawn to the work of **Hall** (1996). He streamlines five forces shaping urban growth and change at the end of the 20th century. These include tertiarization, locational disarticulation of manufacturing, informationalization, globalisation and innovation. These forces result in a new system of cities having elements of both networking and hierarchy. The hierarchy shows a few global cities dominating the rest. Global urban hierarchy results in competition among cities, with sub-global cities competing with global cities in specialized sectors. Like Sassen, Hall argues that while on the macro scale there is increasing concentration into metropolitan area and corridors, at the level of the individual metro there is a simultaneous dispersal of homes and jobs.

A popular theme in urbanisation literature in the context of global economic restructuring has been its impact on large cities in economic, spatial and social context. There are several studies that survey large cities in different parts of the world have changed and reacted to the challenges and opportunities presented by the new global economic order [Fu-Chen and Yue-Man-Yeung (ed 1998), Yeung (1996,1997), Godfrey (1995), Fuchs et al (1994), Marcuse & Kempen (eds 2000) etc], while the nature of impact of globalisation is far from clear, there is a growing consensus among theorists that globalisation has substantial impact on urbanisation and the structure of the city. An important reason to expect changes within the cities is the changing nature of economic activities and the concomitant shift in location of the components of the production

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process. There has also been declining importance of manufacturing and increasing significance of the services with power of capital to bargain with labour of all kinds of location. All this may increasingly influence the spatial layout and physical appearance of areas within cities.

Much of the documentation on the impact of globalisation has focussed on cities of the developed world. Case studies of many of these cities have shown that in a broad sense similarity of pattern in the post reform urbanisation can be discerned. Discussing the spatial and structural changes in the world city regions of Europe. **Kunzmann** (1998) says that a large proportion of the national population live in European world city regions. Although population change in the last two decades has been negligible, cities are spatially growing and expanding. The inner city districts display concentration of financial institutions and services. The majority of the other districts in world cities do not differ in their structure from any other large urban agglomeration in Europe. Kunzmann (1998) says that a large proportion of the national population live in European world city regions. Although population change in the last two decades has been negligible, cities are spatially growing and expanding. The inner city districts display concentration of financial institutions and services. The majority of the other districts in world cities do not differ in their structure from any other large urban agglomeration in Europe. Kunzmann talks of the growing income disparities and increasing number of people below the poverty line. There is also spatial polarisation within the world city manifested in the urban glamour areas and urban backwater areas differentiating the city. Thus Kunzmann argues that the deregulation spirit in Europe is accelerating the process of social erosion in world cities. In terms of the city structure he contends that world cities in Europe are becoming 'Patchwork cities' of functionally specialized spaces, some with global functions, some with function of European importance & others solely with local functions.

Discussing the case of world cities in the North America **Gorden & Richardson** (1998) argue that the growing tendency appears to be continued decline of the inner city

and the industrial strength of the suburbs with high levels of employment in the outer suburbs. There is increasing immigration to these cities in an environment of increasing internationalisation. Minorities are much more concentrated in the city centres than in the suburbs. In a study of New York City **Godfrey** (1995) finds that New York's global financial and managerial roles coupled with deindustrialization & corporate relocation have polarized social areas.

One theme, which emerges from the above review, is the concept of social polarisation. Several authors have argued that world city status brings considerable social costs, particularly in terms of what Sassen terms social polarisation and Castells terms 'dual city'. Not all researchers however are in agreement with this concept. **Dieleman & Hamnett** (1994) have pointed out the weakness of this theory, which sees a necessary inevitable link between the process of globalisation and the social problems, found in many global cities. They argue that this theory takes little or no account of urban social and political context and largely ignores both the structure and role of the welfare state and structure and role of the physical planning system. They propose the 'Regulations theory', which suggests that the capitalist system is crisis prone, but it is possible to avoid or postpone the crisis in the regime of accumulation through particular modes of social regulation. They argue that the form and degree of state intervention and the mode of social regulation varies from one country to another and therefore the outcomes of the processes of globalisation will differ between particular countries and cities. They therefore contend that there is no necessary contradiction between globalisation and state regulation. To drive home this fact, the authors have highlighted the 'Dutch' model of combining participation in globalisation economy with an extensive system of social regulation & consensus building, which has apparently resulted in positive outcomes. Thus Dieleman and Hammet point out that there is no single global city, only global cities located within the context of their own particular nation state. It is important that in examining the impact of the process of globalisation one does not lose sight of their national backgrounds, contexts and cultures.

A similar criticism of the global city theoretical model has been put forth by **James** (1998), who calls it economically reductionist and ethnocentric. He suggests that major international cities need not globalise in the theoretical sense, that economic domination is not inevitable and that globalism and post industrialization need lead to dualism. Paris & Tokyo are offered as examples of international metropolises that are not dominated by capital and are not characterized by extreme polarisation.

As already pointed out much of the work on the impact of globalisation on large cities has been undertaken in the context of the developed world, with emphasis on western inner city decline, decentralization & sub urbanisation. However the question of how globalisation affects cities in the developing world has received increasing attention in the last decade.

Stren & Yeung (1998) have pointed out that with the advent of 1990, the context of undertaking & supporting urban research in developing countries has become significantly different from the previous decades. Urban research has been placed higher on the political and development agenda. They have ascribed this to various factors including increasing urbanization in developing countries, persistence of sharpened disparities within cities, growing concern for urban environment and sustainable development etc. Among the seven major elements on the urban research agenda for the 1990 in developing countries, which they have selected, Stren & Yeung have placed 'globalisation' as the topmost. They stress that structural adjustment programmes and their impact on cities have to be investigated.

However one finds that the available literature focuses mainly on the cities on the cities of newly industrialized economies (NIEs) of Pacific Asia and Latin America. These are the regions where the so-called 'global cities' of the developing countries are located. The interest in these cities therefore is not surprising.

Armstrong and McGee's (1985) work on the urbanisation process in Asia and Latin America in the context of globalisation has already been cited . They have come up with

the concept of accumulation /diffusion and convergence/ divergence for describing the third world urban systems. **McGee and Ginsburg** (1991) have advanced the notion of the 'The extended metropolis' as a unique feature of the urbanisation process in many Asia countries. They observe that many Asian countries significant changes are noticeable in the region surrounding and between metropolitan centres. This is manifested by the growing diversification and commercialisation of agricultural activities, the increasing inflow of foreign direct investment and the development of infrastructure, particularly improvement in transportation, and communication. They contend that these changes have resulted in a growing intensity of rural-urban linkages and the blurring of the traditional rural-urban distinctions.

While examining the changing theoretical perspectives on urbanisation Asian developing countries **Lin Sheng** (1994) observes that research on the spatial implications of globalisation on cities has emerged as one of the five major themes of research. He however laments that the extent to which transactional capital has affected spatial economic & Urban development is still far from clear because of poor documentation. Moreover he points out that the existing empirical studies often come up with conclusions that contradict each other, making it all the more elusive. Citing numerous works, Lin Sheng highlights the two opposing interpretation of the impact of Transnational Capital on third world urbanisation. Proponents of the dependency school contend that trade and investment dependent on global capital will exacerbate the problem of the growth of the huge primate cities, increase the likelihood of 'over urbanisation' and would perpetuate income inequalities. On the other hand there are empirical studies which prove that foreign capital influx has no effect overall urban growth at least on the short run. They argue that the high urban primacy displayed in many Asian countries reflect the country's level of economic development, existing patterns of economic activity, infrastructure and the location decisions of indigenous rather than foreign investors. Thus Lin Sheng feels that the assessment of the impact of the TNCs on the urbanisation of the Third World has become a matter of unsettled debate. He points that while trans nationalisation of capital has without doubt found its way into altering and creating spatial configuration, its role in shaping the patterns and

processes of urbanisation cannot be overemphasised at the expense of other forces internal to the process or deeply rooted in local economies.

In a study of globalisation and world city formation in Pacific Asia **Yeung & Lo Chen** (1998) have drawn attention to the emerging and critical roles played by certain cities in the new global economy. They function as network cities in the regional and global economy. The authors argue that growth has favoured the sub-urban areas rather than the city centres, with urban fringe areas experiencing fastest growth rates and rapid physical transformation. They thus endorse MCGee & Ginsburg's concept of extended metropolitanisation. Yeng and Lo Chen point out the major cities in Pacific Asia have been preparing themselves in different ways in a process called world city formation. These include heavy investment on infrastructure, creating more space within their territory and improving themselves physically and economically to play roles as command post, financial centres, headquarter location and transport hubs.

While discussing the element of globalisation and their effects on Latin America, **Gilbert** (1998), point out that technology and new production systems have changed the structure of corporations such that less profitable and more volatile functions are subcontracted or performed by temporary workers. These trends have created spatial contexts in large cities that encourage the informal economy. He contends that foreign direct investments concentrates more on services, especially producer services than on manufacturing as is manifested in the growth of major international hotels, communications, transport, accounting and banking systems in Latin America. Gilbert also looks into the issue of social polarisation and inequality in large cities. He argues that if the poor gain a few of the advantages offered by mega-cities, they reap most of the disadvantages. The rich on the other hand are able to benefit from large cities and to escape from most of the diseconomies.

Studies on the impact of globalisation on South Asian cities are few. The fact that the region's experience with structural reforms is relatively new can perhaps explain this

paucity of literature. Among the few attempts that have been made in the direction are those of Chakravorty (2000) and Dupont (2000).

Chakravorty (2000), in a case study of Calcutta looks into the spatial transformation of Calcutta from a colonial city to a post colonial city to a post reform city while admitting that the last stage is still in its formative period, he feels that some spatial changes in the post reform years are noticeable, although it is difficult to foresee the post reform spatial structure with certainty. Despite the lack of hard data the author engages in speculative analyses on the question of what will happen or is happening to the internal structure of Calcutta as result of its reintegration into the global economy. He contends that much will depend on the degree of integration of the local economy in the global market. While offering several possible spatial outcomes, Chakravarty maintains that the city proper is likely to retain much of its present structure.

In a somewhat different exercise **Dupont** (2000) declares the decade 1990 as crucial for the emergence of Delhi in the national and international scene. He feels that there is a need for highlighting the role of Delhi firstly in the unification of the national space and second within the process of the integration of Indian places & regions into global networks. With the help of numerous data maps, Dupont tries to portray Delhi as an important commercial & financial centre, next only to Mumbai. He contends that although far from being a global city, Delhi does have the potential of emerging as an important regional centre.

If there is one theme that emerges clearly from the above literature review, it is the unclear impact of globalisation. Case studies of cities have come up with differing conclusions. While there are some areas of convergence, for instance the increasing social polarisation within cities, for instance the impact of globalisation on cities have differed depending upon the degree of their integration with the global economy, as also their different historical and political contexts. This is perhaps best summed up by Marcuse and Kempen (2000).

Marcuse & Kempen in their edited work look into the twin questions of whether there is a clearly visible direct impact of globalisation on the internal spatial pattern of cities and whether there is indeed any generalizable city form that is characteristic of globalizing cities. Based on a series of case studies cities from both developed and developing world, the authors conclude that there is no new spatial order in cities. However they contend that there is a change, important and visible change, with very significant impacts on the lives of the people of these cities. Marcuse & Kempen have summarized these changes as an increase in the strength of divisions in the city and inequality among them. Thus they argue that there is no standard pattern, no 'the Globalized city', no single new spatial order within cities all over the world. But there is a set of common trends that taken together form a pattern, standing in some orderly relationship to each other.

Harries & Fabricius (eds.)(1996), have presented a somewhat similar argument in their attempt to address the issue of management of major cities of the world as they adjust to economic reforms. They contend that each city has a different starting point, a different historical inheritance, a different resource endowment and it operates in a different political and policy framework. Thus reactions to structural adjustment programmes would be peculiar to each city. Thus they warn that the temptation to draw quick lessons from the contemporary record of the restructuring of city economies must be resisted, since it so easily becomes superficial exercise. Despite this the authors feel that something can be learned from the past two decades of economic restructuring. They have listed a series of common trends, which would serve as key policy pointers in the reform package for cities. These include expansion in labour intensive manufacturing for exports, improved infrastructure, modernization of transport, improved air services, technical upgrading of city output, formalising of activity & decentralization of government. The author feels that management of post reform cities must keep these trends in mind.

Looking back at this review of literature it is clear that research on global economic restructuring and its impact on large cities stands on the threshold of urban

research. Work under this theme has in fact multiplied in the post decade. The world city hypothesis has proved useful as a theoretical framework particularly for the cities of the developed world. On the other hand the convergence-divergence hypothesis have been employed as a theoretical framework for documenting the changing role of cities in the developing world. However there seems to be no general model that can be applied worldwide. The review also highlights the nascent stage of such works in South Asian Countries in particular. It thus points out the area when future research should be directed.

Thus it is clear that even though studies interlinking the twin issues of globalisation and urbanisation have looked into myriads of issues and have come up with differing if not opposing results, there are certain premises over which there is general consensus among researchers. These agreements form the framework over which the theoretical basis for the present study is constructed.

- (i) Mega cities hold the key to future urbanisation, especially in the newly industrialized countries. They are the most significant urban phenomena for the twenty first century.
- (ii) They are the centres of economic, technological and business dynamism in their countries and in the global system. They are the engines of growth.
- (iii) They are centres of cultural innovation, symbol creation and scientific research. At the same time they are also centres of diffusion from which modern life styles and culture are diffused.
- (iv) They are centres of political power even in cases where the government resides in other cities, on account of the ideological and economic forces they represent.
- (v) They are fundamental nodes in the global network and serve as connecting points of informational networks. They articulate regional national and international economies into the global economy.
- (vi) Their integration into the global system lead to a deep-seated transformation of the urban spatial structure. However the technological and economic

processes that form the basis for this transformation intermesh with the history, culture and institutions of each country, region and city, giving rise to great diversity in spatial models.

- (vii) Mega cities are externally connected to the global networks yet they are disconnected from those sectors of their local population that are regarded as unnecessary or as forces for social disturbance. Thus they are internally segmented and disconnected in social and spatial terms.
- (viii) They give rise to a social class that has been called the transactional capitalist class. Its interest is the smooth functioning of the global system of accumulation. It has a cosmopolitan culture and a consumerist ideology. Its presence often gives rise to severe conflicts between itself and the subaltern classes who have more locally defined territorial interests.

Chapter III

THE STUDY AREA: THE NATIONAL CAPITAL TERRITORY OF DELHI

Delhi, the capital of India is a unique city in many ways. It is believed to be one of the oldest cities in the world. Steeped in history and having a rich architectural and cultural heritage, it is an amalgam of old traditions and new forces. In order to fathom its historical nuances one has to gaze at its 1376 monuments, the highest number in any single city in the world.¹ These tell the story of several civilizations across thousands of years in history.

1. GEOGRAPHICAL SETTING

Spread over an area of 1483 sq.kms the National Capital Territory of Delhi as it is now called, is situated between the Himalayas and the Aravali range, at the heart of the Indian subcontinent. It lies between 28 25' and 28 53' North latitude and 76 50' to 77 22' East longitude. In the North, South and West it shares its border with the state of Haryana, and in the East, with Uttar Pradesh. River Yamuna cuts through eastern Delhi, in a north south flow. While major part of the territory lies to the west of River Yamuna, some villages and urban area of Shadara lie to east of the river. Delhi forms the terminal point of the Aravali range. River Yamuna and the terminal part of the Aravali hill range are the two main geographical features of the city and together they form the Delhi Triangle². The Aravali hill range constitutes the main forest cover of the city. Called the Ridges, this forest cover forms the city's lungs. In recent decades the forest cover in Delhi has increased from 0.76% of total area in 1980-81 to 1.75% in 1994-95 and 5.93% in 2000-01¹, due to conscious policy decisions of the Government.

Geographically Delhi enjoys a strategic location. The gaps and depressions intervening the higher prominences of the Aravalies i.e the Ferozepur Jhirka-Nuh gap, Sohna depression, Sahibi gap, and the Narnaul or Krishnawati-Dohan gap, all seem to

¹ Diwakar and Qureshi (1996)

² Singh R. L. (1971)

converge at Delhi. These have provided entry routes to the central and western gaps. Apart from being a natural point of convergence of routes from most parts of the country, Delhi's nodality is further enhanced by its cross-road strategic position in South Asia, 'it holds the Gateway position in the constricted space between the Peninsular edge and the Thar on the one hand and the Himalayas on the other, controlling the approaches to Malwa and other Peninsular lands². 'Between the North West, ever accessible to new waves of invasion and cultural intrusion, and the shock absorbing Gangetic Plain.... Few sites enjoy such advantages, and perhaps none save Rome and Istanbul have had such long sustained significance'³.

2. HISTORICAL BACKGROUND

The study of any area would be incomplete without an understanding of its historical precedents. Keeping this in view a brief description of the historical background of Delhi is presented in this section.

From Indraprastha to New Delhi the city has witnessed a long journey in time. The history of Delhi is not only one of grandeur, battles, bloodsheds, massacres and memorials; it is also the story of mighty emperors, great kings, its inhabitants, their ideals, creations and lives⁴. For most part of its history Delhi remained an important seat of power. It has been ruled by the Rajputs, the Pathans, the Mughals, and the British. The city however has not remained fixed at a single site. The city has in fact been shifting from one site to another throughout history. Each dynasty selected its own site of capital, abandoning the site developed by its previous ruler. Thus the number of 'Dillis' in Delhi is still debatable. While popular traditions believes that there were seven old cities of Delhi and New Delhi is the eighth, others argue that there were fifteen old cities and New Delhi is the sixteenth. Perhaps this constant shifting of site was the main reason why the

¹ Economic Survey of Delhi, 2001-2002

² Singh R. L (1971)

³ As cited in Singh R. L. (1971)

⁴ Diwakar and Qureshi (1996)

area of Delhi and the size of its population did not grow much. It was only at the beginning of the 20th century that the city started experiencing a fast rate of growth.

Tracing the historical evolution of Delhi since the beginning of the British rule three distinct stages of development can be discerned i.e. developments during the colonial period, post colonial period and post reform period.

Evolution of Delhi Through the Ages

TABLE 2.1

Serial No.	Name of the Capital	Associated With	Period
1	Indraprastha	Yudhishtira	1450 BC*
2	Dilli	Raja Delu	57 BC
3	Mehrauli/Quil Raipithora	Prithvi Raj Chauhan	1052
4	Kilokari/Naya Shahar	Kaikabad	1287
5	Siri	Allaudin Khilji	1303
6	Tughalagabad	Ghias-ud-din Tughlaq	1321
7	Jahanpanah	Mohd. Adil Shah	1334
8	Firozabad	Ferozeshah Tughlaq	1354
9	Khizrabad	Khizr Khan	1418
10	Mubarkabad	Mubarak Shah	1432
11	Din Panah/Quila	Humayun	1530-1540
12	Shergarh	Sher Shah Suri	1539-1545
13	Salimgarh	Salim Shah Suri	1550
14	Shahjahanabad	Shahjahan	1648
15	Civil Lines (Temporary Capital)	The British	1911-31
16	New Delhi	The British and now Free India	1931

*This date receives sanction of General Cunningham's Authority.

Source: Diwakar & Qureshi (1996).

i. Colonial city

The last dynasty to rule over Delhi, before it became the capital city of free India was the British. In 1803 the city of Delhi passed into the hands of the British when General Lake defeated the Marathas in the Battle of Patpar Ganj. This event marked the end of the Mughal empire in Delhi and the beginning of the British rule.

On the arrival of the British, Delhi was a big province including Rohilkhand, Bareilly, Moradabad, Shahjahanpur, Meerut, Haryana, Sirhind, Patiala and Sikh states apart from Rampur state in the United Province.¹ The British reorganised the province and made Delhi a part of Punjab Province. In 1819, the present district of Delhi was first constituted, including the Parganas of north and south with the city at the centre. In 1861, Sonapat, which was until then a part of the Panipat district, was transferred to Delhi district². Thus at that time the district of Delhi comprised of three district of Delhi, Ballabgarh and Sonapat.

Although the British gained control over Delhi in 1803, it was only in 1911 that King George V Emperor of British India, proclaimed that the capital should be transferred from Calcutta to Delhi. This proved to be one of the most significant events in the history of the city. It gave a boost to the growth of the city and within a few decades Delhi acquired the status of a premier city in Northern India. Like their predecessors the British decided to build the city at a new site. They chose the area around Raisina Hill for the location of the new capital. The King expressed a desire that 'the planning and designing of the public buildings to be erected will be considered with the greatest deliberation and care so that the new creation may be in every way worthy of this ancient and beautiful city'.³ Between 1911-31 when the intense planning and building of New Delhi was going on, Civil Lines served as the temporary capital.

¹ Diwakar and Qureshi (1996)

² Delhi, district census handbook, 1971

³ A.K Jain (19

The chief architect of New Delhi was Lutyens, an ambitious architect who visualized the building of an 'Anglo Indian Rome'. In this Sir Herbert Baker, noted for his Government buildings at Pretoria, assisted him. While Lutyens was responsible for the general layout, the viceroy's house, India Gate and the Record Office, Baker was entrusted with the design of the Secretariats and the Council Chamber (Parliament House). W.R. Mustoe and Walter George were appointed as landscape architect. Thus was laid the first garden city of India covering 1293 Hectare; which was completed in 1931.¹

With the transfer of the capital from Calcutta to Delhi another reorganisation took place in 1912. A new province of Delhi was created. Sonapat tehsil was merged with Rohtak district and a greater part of Ballabgarh tehsil was made a part of Gurgaon district. This reduced the area of Delhi, as it comprised of the then Delhi tehsil and the remaining portion of Ballabgarh tehsil.

Meanwhile, due to its elevation as the capital city, Delhi was growing at a fast pace. The rapid growth of the city population and increasing congestion within the walled city created a need for organised development of the city. Several agencies were set up to achieve this task. In 1927 the new Delhi Municipal Committee was constituted to oversee the management of the civic affairs of Delhi. Apart from other works the Municipal Committee undertook sanitary and public works programme. By 1932 the Committee was upgraded to the status of a first class Municipality entrusted with the responsibility of providing civic services. In 1937 the Delhi Improvement Trust was set up to execute schemes for ameliorating the living conditions of the people, specially in the Walled City. It also planned several town extension schemes, slum improvement or clearance schemes etc.²

¹ Jain A.K.(1993)

² *ibid*

ii. Post Colonial City

After the country gained independence in 1947 New Delhi continued as the capital city of Free India .The province of Delhi underwent another reorganisation in 1955, where it was enlarged by the inclusion of Shahdara town and about 65 villages of Ghaziabad district across river Yamuna. However the province continued to consist of one district and one tehsil only.

The province of Delhi acquired the status of part 'C' state after the adoption of the constitution of India .A legislative assembly was set up in 1952. However this continued till only 1 November 1956, when the central Administration was reintroduced in Delhi following the recommendation of the States Reorganisation Commission that the national capital must remain under the effective control of the national government.

As mentioned earlier, for a long time in history Delhi remained a stop and go capital.¹ Hence the city did not experience any significant growth either in its area or population prior to the 20th century. The 20th century however witnessed a rapid growth of the city. This is closely linked to the historical events taking place at that time. The shifting of the capital from Calcutta to Delhi in 1911, partition of the country in 1947 and the planned development of Delhi from 1962 onwards were some of the key factors contributing to this growth. The geographical location of Delhi in the gangetic plain and the absence of any significant physical barrier to the process of urbanisation, favoured multi-directional urban expansion.² Between 1921-1991 approximately 657 sq.km. of rural land had been incorporated within the urban limits of Delhi. The trend of urbanisation has been from South Delhi to West and North Delhi. However the city has experienced maximum expansion in the south (Table 2.2).

¹ Diwakar and Qureshi (1996)

² Dupont (2000)

The period of accelerated growth of Delhi began with partition and independence of the country. Delhi witnessed an unprecedented migration of people, one of the largest in the history of the city. Within two months the population of Delhi doubled as an estimated half a million sought shelter in the city. Thus Delhi started expanding in all directions, but without any overall plan.¹

Incorporation of villages into the urban core up to 1991

TABLE 2.2

DIRECTION	Prior to 1931	1931-51	51-61	61-71	71-81	81-91	TOTAL
EAST (Across Yamuna)	1	2	6	16	5	2	32
WEST	18	5	13	1	7	5	49
NORTH	-	7	2	10	6	10	35
SOUTH	6	8	27	13	9*	8	71
TOTAL	25	22	48	40	27	25	187*

* 2 census towns of 1991- Bijwasan and Chattarpur were declassified in 91, hence total villages urbanised up to 1991 are 185 instead of 187.

Source: Diwakar and Qureshi (1993)

In 1957 the Delhi Development Act was passed and the Delhi Development Authority was set with the objective of planned development of Delhi. The idea was to promote and secure the development of Delhi according to some plan. Over the years the role of the DDA has changed from an organisation concerned primarily with formulation, overseeing implementation and enforcement of master plans to one concerned primarily with land development and construction of houses for middle and higher income groups and tenements for low income groups.² Between 1970-90 the DDA became the largest land development and construction agency in India and one of the largest in the world.

Delhi was the first Indian city to have a statutory Master Plan approved by the parliament in 1962. This has served as a prototype for planning and urban development all over the country. The foremost objective of the Master Plan was to prevent the adhoc growth of private colonies. All operating agencies were brought within the overall frame of the plan. The first Master Plan terminated in 1981.

¹ Jain A.K.

² Nath V. (1995)

Several studies assessing the implementation of the Master Plan point out that the plan has been known more for non-compliance rather than compliance. They highlight the fact in the case of most sectors the projections of needs proved to be underestimates because growth of economic activities and of population in Delhi was higher than the projections of the Master Plan. Thus a huge deficit between needs and supply was created. Secondly there was lack of progress in shifting non-conforming industrial units from their old locations to the new ones that had been recommended in the plan. On the contrary, new units came up within the high-density residential areas of the Delhi Urban Agglomeration.¹ Unauthorized colonies and buildings, which are non-conforming to the plan, were regularized time and again.

After an interval of almost a decade the second Master Plan was enforced on 1st August 1990. This Master Plan was an updated version of the first Master Plan for Delhi with a perspective of 2001. The Master Plan for Delhi (MPD) 1990-2001 conformed to the objectives, strategy and policies of the 'Regional Plan 2001' prepared by the National Capital Region Planning Board.

MPD II recognised the shortcomings of MPD I and admitted that some of the policies of MPD I were unrealistic and needed to be changed. Two most important changes recommended were –

- (i) To permit non-residential activities in residential premises which had been prohibited in MPD I. The change had to be made considering the high prevalence of mixed land use not only in old Delhi but also in most of the residential colonies that have come up since 1961
- (ii) Significantly higher Floor Area Ratios (FAR) than those in MPD I. This change was made keeping in view the high price of land in Delhi and the consequent pressures for the adoption of higher FARs.²

¹ ibid

² Nath, V (1995)

The Regional Plan envisaged a restricted growth of Delhi and calls for dispersing population and activities away from it to towns in the region by their induced development so as to resolve the problems of overcrowding and congestion in Delhi. The program of dispersal of activities and population from Delhi to the six ring towns around it was envisaged in the first Master Plan itself. However it has remained largely unimplemented and over the years the problems of Delhi has multiplied. There has been a continuous migratory flow from the neighbouring states because of the large employment opportunities in Delhi. High housing costs, high rental rates scarcity of affordable land and shelter has forced a very large number of migrants to live in slums and squatter settlements on encroached public lands.¹

iii. Post reform city

With the launch of economic reforms in the nineties Delhi has been ushered into yet another significant phase in the history of its development, a phase which is likely to change the face of the city in the near future. The integration of the Indian economy with the global economy will be manifested in various forms in the metropolitan cities of India, Delhi being no exception. This phenomena is best explained in the words of Borja and Castells(1997) in the following extract:

'as soon as a region in the world becomes articulated into the global economy, thereby dynamizing its local economy and society, the setting up of an urban node for advanced services becomes a prerequisite, and it is invariably organised around an international airport, a satellite telecommunication system, luxury hotels with appropriate security systems, English language secretarial support, financial and consultancy firms familiar with the region, local and regional government offices capable of providing information and infrastructure to back up international investors and a local labour market having personnel skilled in advanced services and technological infrastructure'.²

¹ NCR Directory

² Borja and Castells (1997)

Delhi's entry into the post reform period started with a new name and new administrative set-up. After an interval of nearly forty years Delhi was once again given a legislative assembly when the President approved the Government of National Capital Territory of Delhi Bill 1991 on 2nd January 1992. This Bill gives the National Capital a special status among the Union Territories whereby Delhi has a 70 member Legislative Assembly and a 7 member Council of ministers with restricted powers. A Chief Minister appointed by the President heads the Council of ministers. With the passing of the Act, the Union Territory of Delhi is now called the National Capital Territory of Delhi.

With the new administrative set-up in Delhi, a number of other changes have followed-

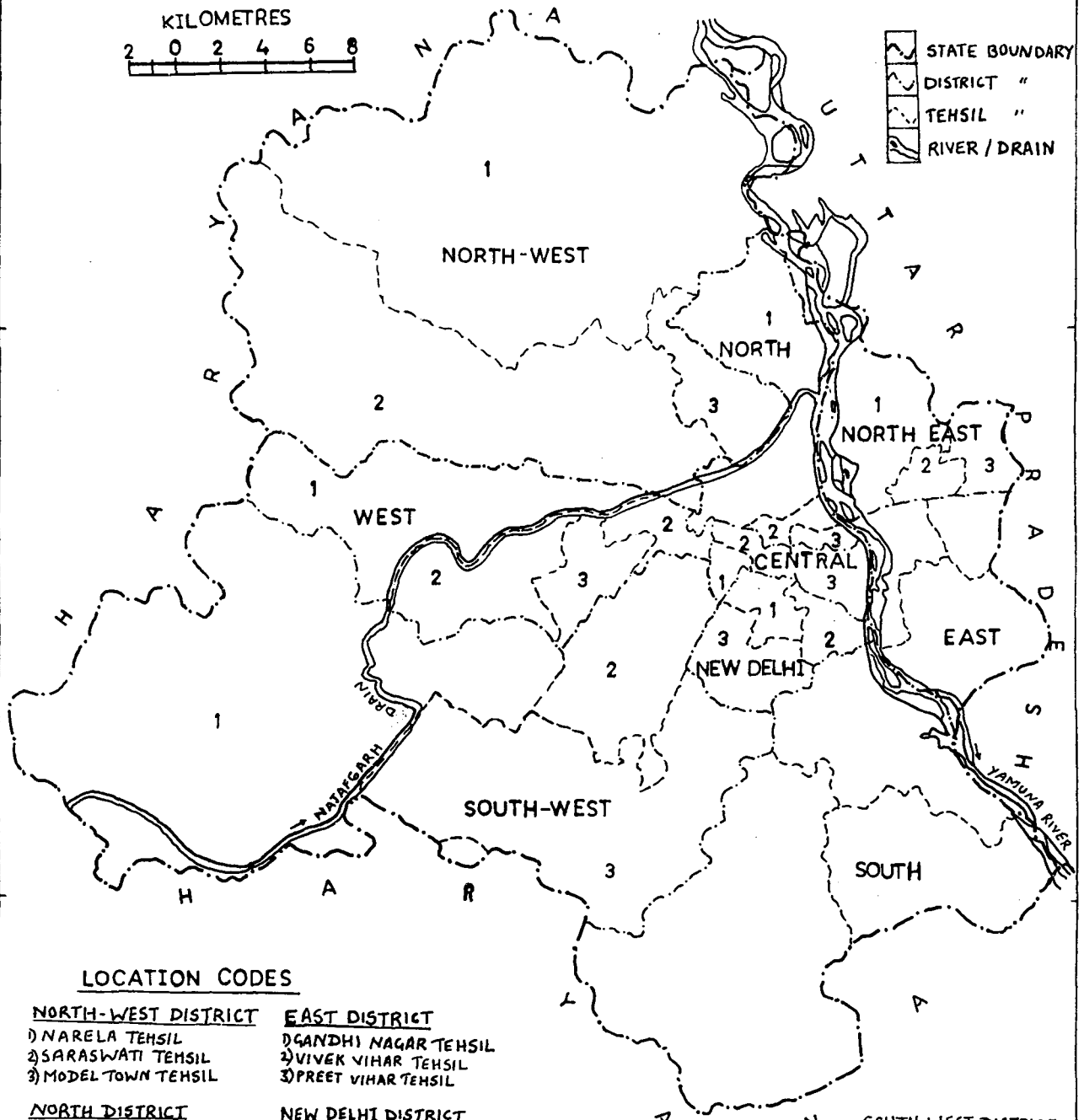
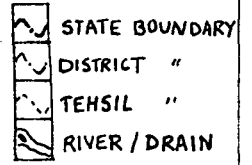
- (i) In place of the single district that existed in Delhi, 9 districts with 27 sub-divisions have been created since January 1997.
- (ii) Delhi Transport Corporation has been transferred from the Central Government to the Delhi Government.
- (iii) The Delhi Electricity Supply Undertaking has been reorganised as the Delhi Vidyut Board (DVB) and the Delhi Water Supply and Sewage Disposal Undertaking has been reorganised into the Delhi Jal Board (DJB). Both these agencies have been transferred from MCD to the Delhi Government.

3. DELHI ADMINISTRATIVE UNITS

Delhi has an area of 1,483 Sq. kms, out of which 685.34 Sq.kms are Urban and 797.66 sq.km are rural. Administratively the entire area of National Capital Territory of Delhi (NCTD) is divided among three local bodies Municipal Corporation of Delhi (MCD), New Delhi Municipal Committee (NDMC) and the Delhi Cantonment Board. The area of MCD has both Urban and Rural area whereas the other two local bodies are entirely urban.

MAP 1

NCTD
ADMINISTRATIVE UNITS



LOCATION CODES

NORTH-WEST DISTRICT

- 1) NARELA TEHSIL
- 2) SARASWATI TEHSIL
- 3) MODEL TOWN TEHSIL

NORTH DISTRICT

- 1) CIVIL LINES TEHSIL
- 2) SADAR BAZAR TEHSIL
- 3) KOTJALI TEHSIL

NORTH-EAST DISTRICT

- 1) SEELAMPUR TEHSIL
- 2) SHAHDARA TEHSIL
- 3) SEEMAPURI TEHSIL

EAST DISTRICT

- 1) GANDHI NAGAR TEHSIL
- 2) VIVEK VIHAR TEHSIL
- 3) PREET VIHAR TEHSIL

NEW DELHI DISTRICT

- 1) PARLIAMENT STREET TEHSIL
- 2) CONNAUGHT PLACE TEHSIL
- 3) CHANAKYA PURI TEHSIL

CENTRAL DISTRICT

- 1) KAROLBAGH TEHSIL
- 2) PAHARGANJ TEHSIL
- 3) DARYAGANJ TEHSIL

WEST DISTRICT

- 1) PUNJABI BAGH TEHSIL
- 2) PATEL NAGAR TEHSIL
- 3) RAJOURI GARDEN TEHSIL

SOUTH-WEST DISTRICT

- 1) NAJAFGARH TEHSIL
- 2) DELHI CANT. TEHSIL
- 3) VASANT VIHAR TEHSIL

SOUTH DISTRICT

- 1) DEFENCE COLONY TEHSIL
- 2) HAUS KHAS TEHSIL
- 3) KALKAJI TEHSIL

77° 00' E

77° 15'

An overwhelming majority of the NCT of Delhi's population is urban i.e. 89.9%. The Urban population is distributed among 32 towns, out of which 3 towns i.e. NDMC, Delhi Cantonment and DMC (U) are statutory towns and the remaining 29 are census towns (CT). The DMC (U) is the largest among them and accounts for 85.1% of the total urban population. Next comes NDMC with 3.6% of the total urban population and Delhi Cantonment with 1.1% of the total urban population comes third in place among the three statutory towns.

4. DEMOGRAPHIC PROFILE

The population of Delhi has mushroomed over the years and so has the degree of its urbanization. Even since 1901 Delhi has never witnessed a negative growth. The decadal growth rate of population has in fact been growing very rapidly since 1901. From a meagre growth rate of only 1.98% in the decade 1901 – 11, it had reached a peak of 90% growth rate in 1941-51. The exceptionally high growth rate of 1941-51 was primarily the result of partition-induced migration when the population of Delhi had nearly doubled. The real decline in the growth of Delhi was witnessed only in 1981-91 when the growth rate fell from 53% (71-81) to 51.45% (81-91). In fact in this decade the growth rate of rural areas was exceptionally high i.e. 109.86%. This clearly demonstrates the fact that migrants are increasingly settling in the villages where the cost of land is relatively cheaper. The declining trend was perpetuated in the decade 91-2001 when the growth rate further fell to 46.31%.

The degree of urbanization of the National Capital Territory of Delhi has also recorded an increase from merely 2 towns in 1901 to 32 towns in 1991. Preliminary analysis of satellite IRS – IS data taken in March 1999 indicate that the built up area has increased to roughly 75,000 ha. Which is more than 50% of the total NCT area of Delhi. Thus rural land is getting transformed into urban use. The total numbers of villages urbanized up to 1991 are 185. In 1901 there were 2 towns in the NCT of Delhi, which rose to 10 at the time of 1951 census. In 1958 the Delhi Municipal Corporation Act was

passed as a result of which except NDMC and Delhi Cantonment. All other local bodies functionary in Delhi were merged together to form one large body. The Municipal Corporation of Delhi. Hence the number of towns remained 3 in 1961 and 71. At the time of the 1981 census 27 villages were treated as census towns and the number of towns rose to 30. In 1991 there were 32 towns in the NCT of Delhi. This increased to 62 by 2001.

The density of the NCT of Delhi has been increasing steadily. The 1991 census reported the density as 6,352-persons per sq.km. This increased to 9,294 persons per sq.km. in the 2001 census, clearly indicating very high congestion levels. The sex ratio of Delhi has been always low. This is primarily owing to the high rate of male – selective migration into the NCTD. The literacy rate among the people has improved over the decades. It has been reported to be 81.82% in the 2001 census.

5. ECONOMIC PROFILE

Over the last few decades, the Delhi has transformed from a Historical Capital to a commercial and industrial center. The number of enterprises has witnessed a phenomenal growth over the decades. On grouping the entrepreneurial units under the broad sectors of the economy, namely primary, secondary and tertiary, it is found that the tertiary sector or service sector is in the fore front both in the number of enterprises and employment with 78.74% share in the total number of persons usually working. In terms of contribution to state income 74% is contributed by the tertiary sector, manufacturing sector contributes about 24% and agriculture and mining sector contributes about 1 to 1.5%.

While there is no doubt that the tertiary sector contributes the maximum to the economy, one cannot deny the tremendous contribution of the manufacturing sector in the growth of Delhi. Manufacturing has emerged as a major economic force in Delhi. The growth trend of industrial units in Delhi as indicated in the industrial profile (2000) for Delhi shows a rapid growth from 8,160 units in 1951 to 1,24,363 units in 1998. Delhi

has about 20 industrial estates developed by the DDA and 8 by the Industrial department / DSIDC. Majority of the industries are however situated in residential and non-conforming areas with only about 25,000 industries working in about 28 Industrial Estates.¹ This unplanned growth can be attributed primarily to the phenomenal growth in small-scale industries, since large and medium industries been restricted in the NCTD. The encouragement to the small-scale industries led to their continued growth and concentration in non-conforming zones. In fact the NCTD has emerged as one of the biggest centers of small-scale industries in the country. Approximately 80% of the industrial growth takes place in the informal and unplanned sector. These informal industries are traditionally low tech with low value addition; high and inefficient use of electricity and heavy dependence an unskilled migrant labour.

Maximum number of industries units in Delhi are engaged in the manufacture of electrical machinery, apparatus, appliances and parts followed by manufacture of textile products. Apart from these the other major industrial groups in Delhi are manufacturing of food products, printing and paper products, rubber and plastic products as well as chemicals and chemical products.

6. URBAN INFRASTRUCTURE

The phenomenal growth of industries in Delhi can be attributed to the large conglomerate nature of Delhi that tends to attract commerce, trade and industry. As the capital of the country, it has tremendous comparative advantages in terms of availability of infrastructure, communication facilities, technical and R & D institutions. Delhi has highly qualified manpower emerging from technical institutes such the IIT, Delhi College of Engineering, etc. There are several Research & Development centers that can provide quick and easy information to the industrial sector. Examples of these include National Physical Laboratory, National Informatics Centre, Centre for Development of Telematics, Council of Scientific and industrial research etc. Delhi also has excellent communication infrastructure. It is one of the important hub centers for the National Telecom Network.

¹ NCT Directory

It is well connected by road, rail and air transport, both national and international. Five National Highways i.e. NH1, NH2, NH8, NH10 and NH24 converge on Delhi's Ring Road. Apart from good physical infrastructure, the low tax rate in Delhi as compared to the neighbouring states, low transportation costs, low wholesale prices etc have contributed to its rise as an important commercial and industrial center.

The Reason for choosing the study area

As cities are dynamic entities, undergoing constant transformation according to prevailing macro-economic and social conditions, it is not surprisingly that the question of how globalisation effects cities in the developing world has received increasing attention in the last decade¹. Armstrong and McGee's influential work identifies cities as 'theatres of accumulation' and as 'centres of diffusion' in the developing world. However only large metropolitan cities play a key role in accumulating capital, international investment, elite populations, modern employment and services. Such cities also play important role as 'centres of diffusion' of culture, urbanism, modernity, western tastes and consumerism, which promotes further capital accommodation in the city.

In India by 2001 the number of metropolitan cities or million plus cities increased to 35, accounting for roughly one-third of the country's urban population (70.66 million) of these, only the six largest metropolitan cities i.e. Bombay, Calcutta, Delhi, Madras, Hyderabad and Bangalore a much larger regional influence.

Having considerable economic and political clout, as well as better infrastructural facilities, it is highly likely that these six metropolitan cities would act as 'theatres of accumulation' in the future. These cities would attract the maximum foreign investments, generate, greater employment and in general would proper growth in the region. A recognition of this fact is evident in the governments Mega city project which began after the economic liberalization process in five of these six largest regions – Bombay, Calcutta, Madras, Hyderabad and Bangalore. Delhi was not considered because

¹ Simon (1993)

its financing comes from a different account, the National Capital Region programme.¹ The Mega city programme is an attempt to share up infrastructure in these cities using innovative financing mechanisms and emphasizing cost recovery. The idea is to set up a stage for augmenting the further growth of these cities. Thus one may argue that the impact of the structural reforms on cities would be most visible only in large Metropolitan cities.

While in India, Mumbai has been viewed as the closest to becoming a global city²; Delhi has certain advantages of its own being the National Capital. Unlike its colonial counterparts i.e. Mumbai, Kolkatta and Chennai which were port cities specializing in trade and other economic activities, Delhi were primarily an administrative capital during the British rule. Even today in the Indian political and administrative system Delhi stands out clearly on the capital city in which is concentrated the totality of institutions, directly or indirectly connected to this function. Thus it houses the country's parliament, various ministries, ruling bodies, representative offices of all the major political parties of the country as well as the representative bodies of all the 28 states that form the Indian Union.

Over the years Delhi has transformed from a historical capital to a commercial city. The manufacturing sector has grown rapidly. In the last 4 decades Delhi has experienced a significant functional shift in its economic structure in favour of manufacturing and processing activities, which increased from 19% in 1951 to 25% in 1991.

In terms of infrastructure Delhi is relatively better off it is well connected by roads, rail and air transportation. Efforts are underway specially from the 90s onwards to ease of the congestion on the roads. Thus Delhi has witnessed the construction of several flyovers and several more are on the anvil. The Metro rail project to provide greater connectivity to Delhi and its surrounding areas is also underway. As mentioned earlier

¹ Chakravorty, S. (1999)

² Yeung, M. (1997)

Delhi is also one of the important hub centers for the National Telecom Network. It has a large number of centers of excellence in the field of science and technology and Research and Development. Further, the location of all embassies in Delhi gives an edge to the exporters and importers of technologies to have the facility of easy communication with foreign companies through embassies.

All these factors give the National Capital territory of Delhi an edge over most other Indian cities in terms of accessing the benefits of the liberalization process. In, India the economic liberalism of the 1990's has placed the big urban agglomerations at the center of economic dynamics. The choice of Delhi as study area is a result of all the factors mentioned above. Moreover Delhi has a sound database. It would be easier to avail the secondary sources of data for Delhi than for any of the other Metropolitan cities.

**LIBERALISATION AND THE DYNAMICS OF DEMOGRAPHIC AND
ECONOMIC PROFILE OF DELHI**

Delhi for long had been primarily a capital city for India. Most of its planning have been done primarily as a service center. But, in recent years particularly after the independence of India its character has changed rapidly and Delhi along with its Ring Township have emerged as an important industrial center in the country. Though, service sector as activity continues to be the main feature of Delhi yet manufacturing has gained prominence in recent decades consequently it has also emerged as a major center of economic opportunities both in formal as well as non formal sector. In fact it would be appropriate to state that the changing demographic and spatial profile of Delhi is a response to its ever-increasing economic opportunities and opportunities dynamics. Thus the changing economic profile and Delhi holds an important explanation for many aspects in the post reform period.

In the present chapter an analysis of the trends and patterns of demographic and economic development in Delhi, during the post reform period has been attempted. The analysis is based on secondary data, the details of which have already been provided in the previous chapter. This first section looks into the spatial and demographic growth of the NCTD and its components during the last century. It analyses the growth trends in the NCTD, its components, including its towns and villages, during the post reform period. The second section looks into the economic profile of the NCTD and analysis the economic activities gaining importance in the NCTD during the same period.

1. SPATIAL AND DEMOGRAPHIC GROWTH OF DELHI

Delhi is one of the largest cities of India next only to Mumbai and Kolkata in terms of population size. It is also one of the fastest growing cities in the country. The Delhi Urban Agglomeration (UA) has grown at a rate of over 4% per annum in every

decade since 1931, except for 1991. None among the other metropolitan cities in the country has experienced such a high demographic growth.¹ The growth of Delhi reflects a major trend in India's urbanisation process, which is the growing concentration of metropolitan² cities.

i. Demographic growth of Delhi (1901-2001)

An analysis of the demographic evolution of Delhi reveals that the growth of the city is closely linked to its history. After it was declared as the new capital of the British Indian Empire in 1911, Delhi grew rapidly till 1941. It grew steadily at an annual growth rate of 0.2% in 1901-1911 to 1.7% in 1911-21, 2.6% during 1921-31 and then to 3.7% in 1931-41 (Table 4.1).

GROWTH OF POPULATION IN THE NCTD 1901-2001

Table 4.1

Year	Annual Exponential Growth Rate		
	Total	Urban	Rural
191	0.2	1.1	-0.9
192	1.7	2.5	0.5
193	2.6	3.9	0.3
194	3.7	4.4	1.6
195	6.4	7.3	3.2
196	4.2	5.0	-0.3
197	4.2	4.4	3.4
198	4.3	4.6	0.8
199	4.2	3.8	7.4
200	3.8	4.1	0.1

Source: Computed from Census of India, 2001

After Independence in 1947 Delhi became the capital of the newly formed Indian Union. Delhi had to face massive transfer of population following the partition of the

¹ Kundu, A.

² Metropolitan cities are those with a population of more than million people.

country. Hence, the decade 1941-51 witnessed an abnormal increase growth rate, that is, an annual growth rate of 6.4%. Majority of the migrants settled down within the urban limits of the national capital resulting in a peak annual urban growth of 7.3% during the decade. A section of these migrants were accommodated in the rural areas as well, which consequently recorded an annual growth rate of 6.4%, much above that of any other preceding decade.³

In the period after 1951, growth rate of population in Delhi remained high, with an annual growth rate of above 4%. However there were hardly any increments in the growth rate and it remained more or less stagnant at a high level of above 4%. By the eighties the growth rate had started declining from an annual growth rate of 4.3% during 1971-81 to 4.2% during 1981-91 and further to 3.8% in the decade 1991-2001.

Tracing the demographic growth of Delhi from 1901-2001, three distinct phases can be observed-

- a) Period of rapidly increasing growth rate (1901-1951): when growth rates were high primarily due to Delhi attaining the status of the administrative capital of India and secondly to the partition of the country and the consequent migration of people into the capital.
- b) Period of marginally increasing growth rate (1951-81): This is the period of planned development in Delhi, when the city though growing at a fast rate, was gradually showing signs of approaching saturation.
- c) Period of gradually declining growth rate (1981-01): By the eighties, Delhi had reached a point of near saturation in terms of population growth. Migration to the city declined during 1981-91, at the same time natural increase of the population was declining resulting in gradual fall in the growth rate. While the fall in the eighties was negligible, the nineties have witnessed a more convincing fall. (Table 4.1)

³ Kundu, A (unpublished document)

The overall growth of the NCTD conceals certain interesting features of the rural and urban growth of population (Table 4.1).

1) Up to 1951 the urban growth rate followed the same trend as the overall growth rate that is increasing rapidly with each decade and reaching its peak during 1941-51. Rural growth rate for the same period was comparatively moderate. It started the century with a negative growth rate of 0.9% (1901-11) owing to severe ravages of plague and malaria epidemics.

2) From 1951 onwards the urban growth rate has been fluctuating at a high level of over 4% annual growth rate, except during the decade 1981-91. The rural growth rate on the other hand has been undergoing greater fluctuations, specially since 1941, with alternate years of high and low growth rate. There seems to be a negative relation between rural and urban growth. For instance when growth rate for rural Delhi was negative (-0.3%) during 1951-61 and very low (0.8%) during 1971-81, the corresponding urban growth rates were high (5% and 4.6% respectively). On the other hand when rural growth rate registered a sharp increase of 7.4% in 1981-91, the urban growth rate slipped to 3.8%. Figure 3.1 also shows this negative relationship between the two, though this relationship is statistically not found significant with 0.23 value correlation.

3) Looking at figure 3.2 it is clear that since 1951-61, the line graphs for urban and rural growth rates are moving in opposite directions. When the urban growth rate rises, the rural growth rate dips and vice versa. The negative growth in rural Delhi during the fifties and the deceleration of growth during the seventies can be attributed in part to the transformation of a number of rural settlements into towns.⁴ These formed a part of the Delhi UA and consequently these decades witnessed higher than usual urban growth.

4) The pattern of population growth during the eighties was different from the previous decades due to the following two reasons-

- i) A phenomenal increase in annual growth rate of rural population, from 0.8% during 1971-81, it soared to 7.8% during 1981-91.

⁴ Census of India, District Census Handbook of Delhi, 1971

ii) A corresponding decline in the urban growth rate such that it witnessed the lowest growth rate since 1921 when it fell from 4.6% in 71-81 to 4.4% in 81-91.

These figures had strengthened the theory of centrifugal pattern of urban growth in Delhi. Dupont (2000) noted that the centrifugal pattern of growth has persisted and extended beyond the limits of the urban agglomeration. He argued that these growth patterns are revealing of the effective appeal of the capital's rural hinterland to migrants coming from other states, and to those city dwellers who choose to leave the Delhi urban agglomeration in search of less congested or cheaper places to live⁵. A similar interpretation has been presented by Kundu who takes the high growth rate of rural Delhi as an indication of the rural hinterland of Delhi absorbing a large proportion of the migrants. He therefore argues that the dynamics of growth in Delhi is resulting in a strong process of sub urbanisation in the hinterland.

The post reform period (1991-2001) has witnessed a reversal in the population growth pattern as compared to the preceding decade. If 1981-91 recorded a phenomenal rise in the growth of rural Delhi, 1991-01 has recorded an equally incredible fall from 7.4% to 0.1% annual growth rate. At the same time the growth of urban population once again accelerated to reach the above 4% mark annual growth rate. Viewed in this manner, it does appear that the growth trend of the eighties have undergone a reversal in the nineties. The low growth of rural Delhi also puts into serious doubt, the theory of sub urbanisation of the rural hinterland that was raised earlier.

However before reaching any conclusion it is essential to look at the data at a disaggregated level. Village level data on population growth would provide a clearer picture. Since village level data for the 2001 census has not yet been published, the present study has taken into consideration the village level data for 1981 and 1991.

⁵ Dupont, V. (eds.) (2000)

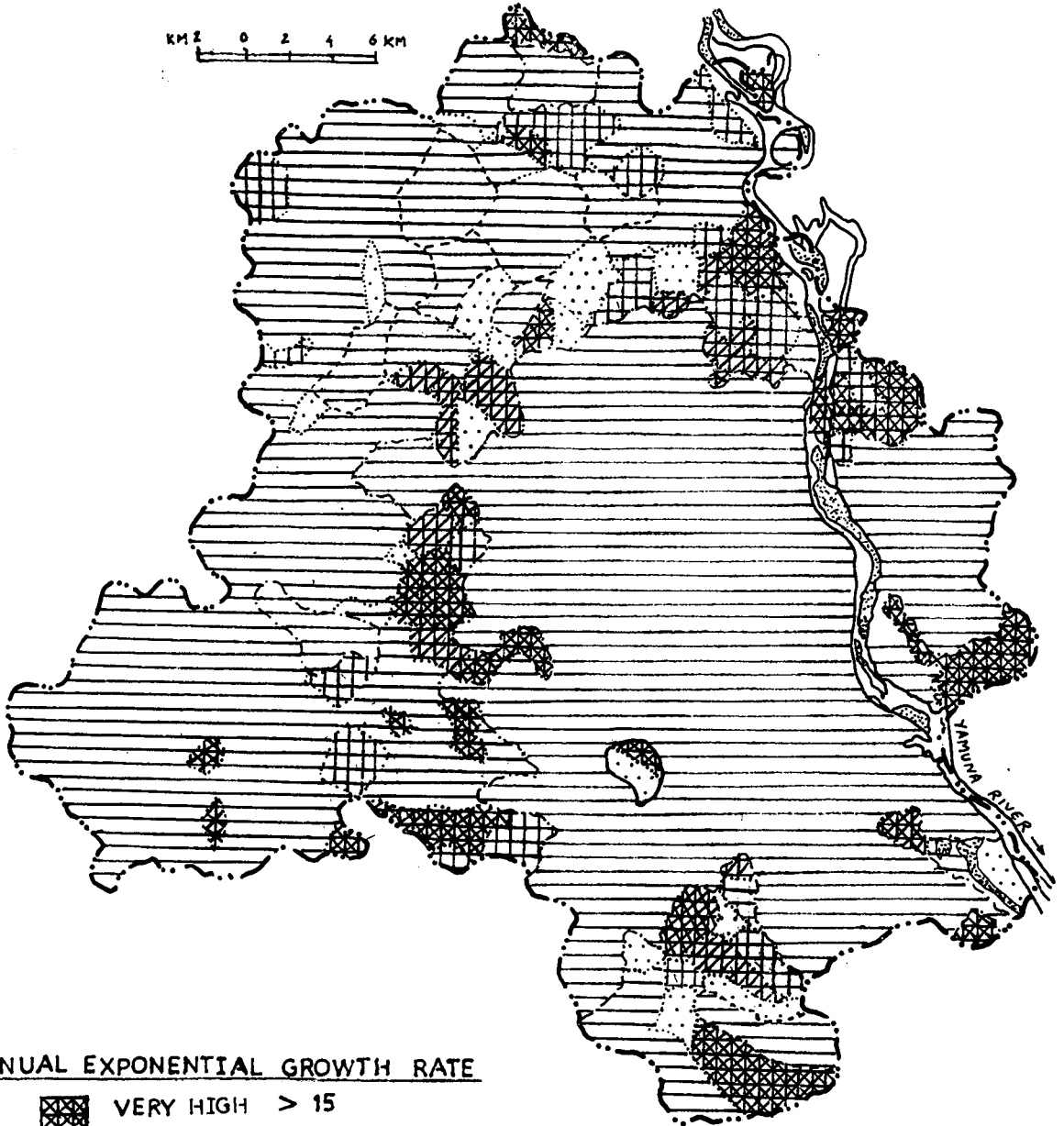
MAP 2

NCTD
GROWTH OF RURAL AND URBAN CONSTITUENT
UNITS

KM 0 2 4 6 KM

28°
45'

28°
30'



ANNUAL EXPONENTIAL GROWTH RATE

	VERY HIGH	> 15
	HIGH	10-15
	MODERATE	5-10
	LOW	0-5
	VERY LOW	< 0

BOUNDARIES

	STATE
	URBAN AGGLOMERATION
	CENSUS TOWNS
	VILLAGES

77° 0'

77° 15'

ii. Growth of constituent units of Delhi

The spatial pattern of population growth is revealed only when data is analyzed at the desegregated level. The Delhi Urban Agglomeration comprises of the following civic bodies-

- a. New Delhi Municipal Committee (NDMC)
- b. Delhi Cantonment Board
- c. Delhi Municipal Council (DMC) (U)
- d. Census towns.

Growth of the Constituent Units of the NCTD

Table 4.2

Year	Annual Exponential Growth Rate			
	NDMC	Delhi Cantt.	M.C.D (U)	UA
1901	-	-	-	-
1911	-	-	-	1.1
1921	-	-	-	2.5
1931	-	-	-	3.9
1941	2.4	-	-	4.4
1951	10.8	5.7	-	7.3
1961	-0.5	-1.3	-	5.0
1971	1.4	4.6	4.7	4.4
1981	-1.0	4.0	4.0	5.7
1991	1.0	1.0	3.9	3.8
2001	-0.2	2.8	3.1	4.2

Source: Computed from Census of India, 2001

Compared to the above two constituents, the DMC (U) had always recorded a high growth rate. However table (3.2) shows that from 1961 (the year when it was created) the DMC have shown a declining growth rate from 4.7% (961-71) to 3.1% (1991-01). The fall in the growth rate was highest during the post-reform period (a 11% fall, compared to the preceding decade when it fell by only 1%).

This fall in the growth rate, among other factors, can be attributed again to the Government's Environment Improvement Schemes that has necessitated the relocation of

polluting industries. About 30,000 polluting industries were closed in different parts of Delhi, following The Supreme court order. This has resulted in the out migration of industrial laborers from the DMC. This fact has been corroborated by the Electoral office. As per the electoral rolls revision in 1994, there were 88 lakh voters in the DMC. The revision of the electoral rolls in 2001 showed the number of voters to be 88 lakhs.⁶ This indicates that there has been out migration, most of the migrants being either industrial laborers or jhuggi-jhonpuri cluster residents. Trinagar Assembly constituency is one such example where in one of the polling stations 1000 out of the earlier 1500 voters were found to have migrated. Trinagar used to be one of the main unauthorized industrial areas in north Delhi, where most of the industries were closed down following the Supreme Court orders.⁷

The analysis of the above three constituent units of Delhi UA shows that the spatial pattern of population growth in the NCTD is one of steady deconcentration from the core. However it must be noted here that the growth of Delhi UA has always been high, registering above 4% annual growth rate (except in 1981-91). As mentioned before in the post reform period the growth rate of Delhi UA again revived to 4.2%. How can the high growth rate of Delhi UA be explained keeping in view the low to moderate growth rate of its three major constituent units? The answer to this lies in the growth pattern of census towns that form a part of the Delhi UA.

Table 4.3 shows the growth rate of the 2001 census towns that have retained their status in 2001, from 1971 onwards. Looking at the data it is clear that in all of the census towns recorded growth much higher than the three statutory towns at the core. Between 1991-01 70% of the census towns recorded higher growth rate than statutory towns of the UA. The average growth rate of the census towns has been higher than the rural areas of Delhi as well (except for the decade 81-91). The growth of urban area in the NCTD for 91-01 clearly depicts the negative growth at the core (NDMC) encircled by a zone of low growth. The periphery of the urban agglomeration comprising of census forms a ring of high growth zone.

⁶ Hindustan Times newspaper report, 17 December 2001

⁷ *ibid*

Growth of Census Towns in the NCTD

Table 4.3

Town	Annual Exponential Growth Rate		
	71-81	81-91	91-01
Bawana	4.4	4.1	2.0
Pooth K	2.1	1.5	-0.15
Ali Pur	-	3.2	5.86
Bhalswa	-	3.0	4.66
Pehladpur	3.9	-0.4	7.81
Babarpur	17.4	7.7	-0.90
Kanjhawala	-	-	3.55
Sultanpur M	41.4	6.9	3.84
Gokalpur	22.8	11.9	6.10
Jaffarabad	23.5	0.8	11.89
haronda....	-	-	4.05
Mundka	-	-	9.27
Nangloi Jat	7.3	7.0	6.82
Dichaon K	12.5	10.0	10.23
Nangal Dewat	-	-	5.42
Rajouri	0.0	7.1	0.81
Ghitroni	-	-	3.78
Sultanpur	-	-	-19.97
igri	15.3	6.9	2.66
Molarband	13.1	13.0	6.93
Taj Pul	-	-	22.92
Pul Pehlad	4.3	4.9	11.94
Deoli	6.1	17.5	12.80
Asola	-	-	-0.12

Source: Computed from Census of India, Delhi 1981,1991,2001

Table (4.2) shows that the growth of Delhi UA has not been uniform nor have they been following the same trend. The NDMC located at the heart of Delhi has always recorded low growth rate since 1951, compared to the other units. The trend of population growth in the NDMC has been highly fluctuating with alternate decades of negative growth rate. The low growth rate in the NDMC can be interpreted as its success at diverting incremental migrant population mostly to other segments. Scholars have attributed the low population growth to the adoption of massive Jhuggi Jhonpri Removal

(JJR) and Environment Improvement Schemes. In the post reform period the Governments policy of cleaning up the city seems to have paid off as the NDMC has recorded a negative annual growth rate of -0.2% (1991-01). The Delhi Cantt. which had registered a low decadal growth rate of 10.83% in 1981-91, reverted to a growth rate of 3.84% in 91-01. However this rate is lower than that of the DMC.

From the above finding the following conclusions can be reached with respect to the spatial pattern growth in the NCTD-

a) The urban core of the Delhi is undergoing deconcentration. This trend has been strengthened in the post reform period. The government efforts at cleaning up the city through the relocation of polluting industries from unauthorized areas as well as through removal of jhuggi jhonpris, has resulted in the out migration of industrial laborers and slum dwellers.

b) The rural hinterland adjoining the urban areas is experiencing sub-urbanization. * The villages adjoining the UA are growing at a fast rate and graduating to census towns. Each decade has been an increase in the number of census towns as also the number of villages getting urbanized.

c) The census towns and the villages adjoining the UA are accommodating the incremental migrant population both from other states as well as those the urban core. These towns and villages have the advantage of being located close proximity to the urban core and yet away from the high land cost and the stringent environmental policies of the core.

iii. District wise growth of Delhi and its hinterland.

Prior to 1993 Delhi was uni-district with the 2 tehsils of Delhi and Mehrauli. For the 2001 census Delhi was divided into 9 districts, each having 3 tehsils, making a total of 27 tehsils as shown in map (i). Delhi's hinterland comprise of the 8 adjoining districts of U.P. and Haryana i.e. Meerut, Ghaziabad, Noida, Sonipat, Rohtak, Jhajjar, Gurgaon and Faridabad. The study of Delhi's hinterland, outside the administrative limits of the NCTD, is essential in the backdrop of deconcentration of population of Delhi Urban core. Earlier studies have shown that the centrifugal population dynamics stretches out beyond the administrative limits of the NCTD, thereby extending the trend of population deconcentration already observed in the urban agglomeration and its rural hinterland. Thus, the ring towns around Delhi have grown at a much faster rate than Delhi UA, up to 81-91.

Select Variables for the Districts of the NCTD (1991-2001)

Table 4.4

District	Annual Exponential Growth rate	Density	Number of Census Towns	Number of Villages	Percentage of urban Population
North	1.2	12,996	2	6	94.03
South	4.1	9,033	11	16	91.83
East	3.5	22,637	5	3	98.75
West	3.9	16,431	4	9	95.98
Central	-0.2	25,760	0	0	100
N-West	4.7	6,471	19	66	90.75
N-East	4.9	29,395	11	13	91.98
S-West	4.8	4,165	7	52	87.21
New Delhi	0.2	4,909	0	0	100

Source: Census of India, Delhi 2001

Table (4.4) shows the growth rate of the districts of the NCTD. It can be seen that there is a district spatial pattern manifested in the growth rates of the districts within the NCTD. The core of the NCTD comprising the central district and the New Delhi districts

has witnessed negative and very low growth rates respectively. On the other hand the districts surrounding these two core districts have registered much higher growth rate.

The table also reveals that in general it is the districts having a large number of villages and census towns that have witnessed the highest growth rates. The North East district was the only exception, which recorded the highest growth rate of 62% although the number of villages and census towns are relatively low in this district. However in all other cases districts having a large number of villages and census towns have recorded a high growth rate of 60.12%. Similarly the southwest district with a total of 57 villages and census towns, has recorded a growth rate of 61.28%. There are also districts with relatively lower percent of urban population. On the other hand the central and New Delhi districts with 100% urban population and no census towns, have recorded the lowest growth rate. These findings are therefore in line with the theoretical construct put forth earlier that the rural hinterland of the NCTD and specially the census towns are undergoing rapid growth in the recent decades.

iv. Density of Population

The spatial pattern of growth in the NCTD can be better understood if we contrast the centrifugal pattern of population growth with the spatial pattern of population densities. Table 4.4 shows the density of population for the various districts of the NCTD. In general, the districts along river Yamuna i.e. The North-East, central, East, North and South have all registered high densities of population. The districts to the east of Yamuna are areas of very high densities i.e. above 22,000 persons/sq.km. Similar central district region along the west bank of Yamuna comprising the tehsils of Karol bagh, Paharganj and Daryaganj have recorded a very high density of 25,760 persons/sq.km. The districts with low density include the North-West, South-West and New Delhi districts.

Figure 4.1 shows the relationship between growth rate and density of population of the districts of Delhi (1991-01). The diagram shows a moderately negative

relationship. This means that district with high population density has recorded low growth rates and vice-versa. This however is not confirmed statistically as the coefficient of correlation comes out to be -0.07.

Growth of the Hinterland of Delhi, 1951-2001

Table 4.5

UA/Towns	Annual Exponential Growth Rate				
	1951-61	1961-71	1971-81	1981-91	1991-2001
Delhi UA	4.96	4.36	4.52	3.85	4.18
Panipat UA	1.98	2.72	4.50	3.27	6.16
Sonipat UA	4.19	3.07	5.61	2.75	4.47
Rohtak UA	2.04	3.47	2.90	2.59	3.10
Gurgaon UA	7.10	4.12	5.68	2.98	5.23
Faridabad CA	4.57	7.32	9.91	6.24	5.35
Meerut UA	1.85	2.62	3.49	4.48	3.18
Modinagar UA	6.79	5.83	7.01	3.41	1.25
Ghaziabad M.Corp.	4.76	6.65	7.40	5.78	6.38
Noida CA	-	-	-	14.16	6.96
Bahadurgarh UA	2.94	5.44	3.73	4.23	8.35
Bulandshahr M.B.	1.64	2.98	5.53	2.07	3.26

Source: Computed from Towns and Urban Agglomerations, 1991

Having discussed the growth and density of the districts of the NCTD, it would be interesting to analyze these features for Delhi's hinterland. Table 3.5 shows the growth of urban agglomerations in Delhi's hinterland. The table shows the following features-

1. Over the last five decades the number of urban agglomeration in Delhi's hinterland outdoing Delhi in its growth rate has risen steadily. In the decade 1951-61, only Gurgaon UA and Modinager UA registered annual growth rates higher then that of Delhi, however by 1991-2001, the number of such urban agglomerations increased to 7.

2. In the post reform period, the urban agglomerations surrounding Delhi have witnessed accelerated growth rates. This Bahadurgarh, Noida, Ghaziabad, Faridabad, Gurgaon, Sonipat and Panipat have witnessed very high annual growth, much higher than Delhi Urban agglomeration. Many of these ring towns are attracting residential population as well as corporate enterprise from Delhi. New townships such as Greater Noida Industrial Area, have come up. They have been set up with the idea of developing integrated Industrial Township near Delhi on par with international townships. Development of better access routes to Delhi have made these ring towns more attractive destinations for multinational and corporate business. For example a 550m, long eight lane Noida Toll bridge has been constructed across river Yamuna connecting Maharani Bagh in Delhi to Noida. This has reduced the distance, time and cost of connecting to Delhi.

Based on the findings of this first section the following conclusions can be drawn:

- i) Delhi is experiencing a centrifugal pattern of growth whereby the urban core is undergoing deconcentration and the rural hinterland on the other hand is experiencing a process of sub-urbanization.
- ii) Districts with traditionally high densities have experienced saturation and are hence either witnessing out-migration or very low growth rate. On the other hand districts with low population densities have recorded high growth rates.
- iii) The urban population in Delhi's hinterland is growing rapidly and this process has strengthened in the post reform period. The number of urban agglomerations surrounding Delhi has not only increased but they are also undergoing very high growth rates compared to the Delhi UA. These therefore serve as counter magnets to Delhi. This entire region of the National Capital Territory (NCR) has high urban growth potential in the future.

2. Economic Profile of the NCTD in the post reform period

Having discussed the spatial and demographic changes in the NCTD during the post-reform period it is now essential to look into the economic outcomes of the reforms. The economic profile of Delhi presents a picture of tradition and change. It is continuity between antiquity and post modernity. Every new change has witnessed a conceptual intrigue. The age of post reform introduced in the nineties of the last century is no exception to this. As a result scholars and planners have expressed varied opinion, about the varied economies profile Delhi. The economic census and Delhi tries to address some of these intrigues by evolving a workable conceptual framework.

The analysis is made using data from the economic census carried out in the NCTD, during 1980,1990 and 1998. The first part of this section is a description of the entrepreneurial activities taking place within the NCTD. It looks into the distribution and the types of enterprises, the pattern of employment and the year of operation of these enterprises. The second part is a temporal analysis based on the comparison of the three economic censuses.

The economic census is considered to be a complete enumeration of entrepreneurial activities operating in the geographical boundaries of the NCTD at a given point of time. The coverage includes briefly all types of entrepreneurial activities in the field of agriculture as well as non-agriculture. The term 'entrepreneurial activities' meaning all those economic activities dealing with the production and /or distribution of goods/services not solely for the purpose of own consumption.

i. Distribution of Enterprises in the NCTD

As per the economic census 1998, there were 6,85,852 enterprises operating in the geographical boundaries of the NCTD. Of these nearly 96% were found in the urban areas of the NCTD while only 4% were located in rural areas.

1) Type of Enterprises:

An overwhelming majority (98.8%) of the enterprises in the NCTD are non-agricultural. Table (4.6) gives the distribution of enterprises on the basis of employment. The table reveals the following features

Distribution of Enterprises in Delhi by Type

Table 4.6

Type of Enterprises	Percentage of Enterprises to the Total		
	Rural	Urban	Total
Own Account Enterprises	57.3	47.58	4
Establishments			
i) Non-Directory	34.2	36.24	36.1
ii) Directory Enterprises	8.46	16.18	15.8
All	10	100	10

Source: Report on the Fourth Economic Census, Delhi

- (i) Of the total enterprises in the 48% in the NCTD were Own Account Establishment i.e. those enterprises, which operated without hired labour, and 52% were Establishments or enterprises that run with at least one hired worker.
- (ii) The proportion of own account enterprises were higher in rural areas, than in urban areas accounting for 57% of the total enterprises.
- (iii) The Establishments are further divided into Non-Directory enterprises if they employed less than 6 workers including household and hired and Directory enterprises if they employed 6 or more workers on a fairly regular basis. The Non-Directory enterprises accounted for 69% of the total establishments.

From the above facts it is clear that nearly half of the total enterprises in the NCTD are household enterprises. Even in enterprises using hired labour majority are those using less than 6 workers including household workers. Thus by clubbing own account enterprises and Non-directory enterprises, it is seen that a whopping 84% of the enterprises within the NCTD can safely be considered as small-scale units.

- (i) A majority (96%) of these enterprises are located in the urban areas of the NCTD, the rural areas housing only 4% of them.
- (ii) Both in rural and urban areas it is noticed that Retail trade accounted for the maximum number of enterprises (34%) followed by community social and personal services (21.5%) Manufacturing was the third most important sector constituting about 18% of the total non-agricultural enterprises.

Proportion of Non-Agricultural Enterprises in Major Activities Groups, 1998

Table 4.7

Major Economic Activity Group	Rural	Urban	Total
Mining & Quarrying	0	0	0
Manufacturing	12.02	19.35	19.06
Electricity, Gas, Water	0.07	0.16	0.15
Construction	1.46	1.21	1.22
Wholesale Trade	1.67	5.6	5.45
Retail Trade	46.6	33.55	34.05
Restaurants & Hotels	4.27	4.46	4.46
Transport	3.39	7.12	6.98
Storage & Warehousing	0.7	0.97	0.96
Communication	1.23	1.65	1.63
Financial, Insurance, Real estate & Business services	3.13	4.34	4.3
Community, social & Personal services & others	25.45	21.59	21.74
Non Agriculture	100	100	100

Source: Economic Census of Delhi, 1998

2) Employment in Enterprises: -

Table (4.8) shows the distribution of persons usually working.

- (i) Of the total workers employed in the 6.85 lakhs enterprises of Delhi about 74% were hired workers and the remaining 26% comprised of household workers. However in rural areas the proportion of household workers outnumbered the hired workers. This confirms the fact that in rural areas enterprises are mostly managed by the household itself.
- (ii) On an average 5 persons were employed per enterprises in the NCTD. This reemphasizes the fact in Delhi majority of the enterprises are small scale operating with the help of less than 5 workers. In rural areas the average persons employed per enterprise were only 2.

Nature of Employment in Enterprises

Table 4.8

Persons Usually Working	Rural	Urban	Total
Household	52.3	25.72	26.37
Hired Workers	47.6	74.28	73.63
Average Employment	2.9	5.2	5.1

Source: Economic Census of Delhi, 1998

Employment according to Location and Average Person Employed, 1998

Table 4.9

	Rural		Urban		Total	
	Total Employment	Average Emp. Per Enterprise	Total Employment	Avg. Emp. Per Enterprise	Total Employment	Avg. Emp. Per Enterprises
Agricultural	11.85	3.3	0.35	5.2	2.4	3.1
Non -Agricultural	88.15	2.8	99.64	5.	97.5	5.1
Total	100	2.	100	3.1	10	5.

Source: Economic Census of Delhi, 1998

2.1 Pattern of employment on the basis of Location

- (i) Only 2% of the total persons employed worked in rural enterprises (Table 4.9). This is obvious considering that only 4% of enterprises were located in rural areas. An overwhelming 97% of the workers were employed in urban enterprises suggesting that the urban core of the NCTD continues to be the main source of employment.
- (ii) In both rural and urban areas the non-agricultural enterprises provided the maximum employment (88% and 99% respectively). It must be mentioned here that agricultural enterprises does not include crop production and plantation. This explains the higher employment in non-agricultural enterprises even in rural areas.
- (iii) The average employment in agricultural enterprises was 3 persons while for non-agricultural enterprises it was 5 persons. However in rural areas agricultural enterprises reported higher average employment of 3 persons against 2 persons in Non-agricultural enterprises.

Distribution of Employment by Sex and Sector in the NCTD, 1998

Table 4.10

Type of Enterprises	Percentage of Workers								
	Rural			Urban			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Agricultural	79.03	20.96	100	81.79	18.21	100	80.53	19.46	100
Non-Agricultural	91.6	8.39	100	92	8	100	92	8	100
Total	90.11	9.88	100	91.96	8.03	100	91.92	8.08	100

Source: Economic Census of Delhi, 1998

2.2 Pattern of Employment on the basis of Gender

Table (4.10) shows the sex-wise distribution of persons usually working. From the table the following facts emerge-

- (i) Only 8% of the total workers were females, which shows that even in post reform period a majority of females in Delhi are confined to the traditional domestic work which are not captured by most labour statistics.
- (ii) A higher proportion of females were engaged in agricultural enterprises than in non-agricultural enterprises, the figures being 19% and 8% respectively. Thus females employed in agricultural enterprises more than doubled those working in non-agricultural enterprises. This tendency was seen both in rural and urban areas of Delhi. This again points to the fact that females have still not been able to break away from the so-called traditional sectors of the economy, which generally does not require high educational or technical skills.
- (iii) In general both in rural and urban areas the proportion of females employed in non-agricultural enterprises of the NCTD was marginal.

The above findings with respect to gender based employment shows the continued prevalence of disparities in male-female employment rates. However the picture is not so grim. Female employment has shown signs of increase in the post reform period as will be seen in the next chapter.

2.3 Pattern of Employment based on the Major Economic Activity

Table (4.11) shows that nearly 75% of the persons usually working in the non-agricultural enterprises of the NCTD, were absorbed by 3 major activity groups i.e. –

- a) Manufacturing and Repairs accounting for 41% of the total employed.
- b) Services, comprising Community, Social & Personal Services accounting for 17%.
- c) Retail trade with 5% share in the total employment.

Table (4.11) further shows that Manufacturing enterprises have the maximum employment potential; followed by services. Although retail trade has the highest number enterprises (34.05%) within the NCTD, they absorb only 15.4% of workers. The same pattern is seen for urban areas as a whole. However in rural areas it was found that maximum workforce was absorbed by retail trade (33.16%) followed by community, Personal and Social Services. This is understandable because nearly half of the total enterprises in Rural Delhi comprise of retail trade.

Comparison of Employment and Enterprises of the three

Major Economic Activity

Table 4.11

Major Economic Sector	Rural		Urban		Total	
	Percentage of Enterprises	Percentage of Employment	Percentage of Enterprises	Percentage of Employment	Percentage of Enterprises	Percentage of Employment
Manufacturing	12.0	24.08	19.3	41.78	19.06	41.4
Retail Trade	46.	33.16	33.5	15.01	34.05	15.41
Services	25.4	25.45	25.4	17.68	21.74	17.89

Source: Compiled from Economic Census, 1998

This shows that manufacturing, as an economic activity is still not very prominent in rural areas. The relatively low employment compared to urban areas indicates that rural manufacturing enterprises of Delhi are mainly small scale. This is clear from the

fact that the total manufacturing enterprises in rural areas 21.5% are run without hired labour (OAE). The corresponding figure for urban areas is only 5%.

2.4 Size class of Employment

If we look at the enterprises on the basis of the number of workers hired, (Table 4.12) the following is seen: -

Distribution of Enterprises by Size-Class of Employment

Table 4.12

Location	Size Class of Employment			
	1-5	6-10	10 & Above	All Classes
Rural	90.88	5.87	3.25	100
Urban	83.41	8.95	7.64	100
Total	83.73	8.82	7.45	100

Source: Economic Census of Delhi, 1998

- (i) In rural areas of the NCTD total enterprises 90.88% were found to be employing persons in the range of 1 to 5 only 3.25% in the range of 10 or more persons.
- (ii) In urban areas about 83% of the total enterprises employed 1-5 workers. The percentage of enterprises employing 10 and above workers was 7.64% (higher than that for rural areas). This further reiterates the fact that by and large the enterprises within the NCTD are small size units.

2.5 Years of Operation of Enterprises

- i) Out of the total enterprises in the NCTD about 30% have been operating for more than 30 years.

ii) Thus about 70% of the total enterprises have started operation after 1990 when the reforms were launched. It seems that the NEP has given impetus to the growth of small-scale enterprises as about 5% of the total enterprises had started their operation in the year of the survey.

Distribution of Enterprises in the NCTD by Years of Operation, 1998

Table 4.13

Years of Operation	Number of Enterprises		
	Rural	Urban	Total
Less than 1 Year	4.33	5.67	5.61
Completed 1 Year	8.46	5.59	5.72
Completed 2 Years	11.58	9.37	9.46
Completed 3 Years	11.56	9.50	9.59
Completed 4 Years	10.89	7.91	8.04
Completed 5 Years	12.00	10.35	10.42
Completed 6 Years	7.41	8.32	8.28
Completed 7 Years	4.29	5.22	5.18
Completed 8 Years	4.61	7.40	7.28
Completed More than 8 Years	24.87	30.67	30.45
Total Enterprises	100	100	100

Source: Economic Census of Delhi, 1998

iii) It is interesting to note that about 76% of enterprises in rural Delhi started operation after 1990. This figure is slightly higher than for urban areas. Secondly,

more than half of the total enterprises operating in rural areas have completed less than 7 years of operation. Thus, it seems that the strict pollution policy in the urban core of Delhi has forced new enterprises to locate in the rural hinterland. The high cost of land in urban areas is another reason why new enterprises are being established in the rural areas.

3. Temporal Analysis

In order to gauge the changes in the growth of enterprises and the sectoral shifts in terms of both share of enterprises and employment in major economic activities in the post reform period, a temporal analysis is essential.

1) Growth of Enterprises

- (i) From 1980-90 the growth of enterprises in the NCTD was 5.69% the growth rate increased to 6.51% between 1990-98. Although the growth rate increased by less than 1% (0.66), it is significant considering that the latter time period is of 8 years.
- (ii) The growth of rural enterprises shows an interesting pattern. From 1980-90 its growth was negative (-1.7%). There was a decrease in the total number of rural industries between these two points of time. However, between 1990 to 1998 there was positive growth rate of 3.42. Perhaps, this is an indication of the growing popularity of rural areas bordering the urban core as a site for locating enterprises.
- (iii) Agricultural enterprises have shown a decline during 1990-98. However, non-agricultural enterprises have shown an increasing trend with a growth rate of 5.76% during 1980-90 and 6.46% during 1990-98.

2) Growth of Employment

- (i) The growth rate of employment doubled during the period 1990-98 recording and growth rate of 8.49% per annum.
- (ii) In rural areas also employment grow but by a much smaller percentage of 2.28.
- (iii) Hired labour witnessed a significant increase. Between 1980-90 it grew by 3.71% per annum whereas between 1990-98 this figure jumped to 9.02% per annum.

Thus one can conclude that the period since the launching of the NEP (1991-98) has witnessed an increased momentum in the growth of enterprises and consequently employment. Increasing growth of enterprises and consequently employment. Increasing growth rate of hired labour indicate the growing employment potential of enterprises in Delhi. However since majority of the enterprises are small-scale units (belonging to the unorganized sector), increasing hired labour is also indicative of growing casualisation of labour.

3) Sectoral Shifts in Major Economic Activities

The Non-Agricultural enterprises fall under two broad sectors i.e. Secondary and Tertiary Sector.

Delhi's economy is dominated by the tertiary sector. Table (4.14) amply demonstrates this. In fact, the share of the tertiary sector enterprises has increased from 69.12% in 1980 to 79.57% in 1998. Consequently the proportion of secondary sector enterprises fell from 30.87 to 20.43% during the same period. However, close observation show the rate of its decline, over the specified period, fell significantly. This

is a signal that the secondary sector and beginning to grow at a faster pace post 1991. This is validated by the figures for annual growth rate. Between 1980 to 1990 the annual growth rate of enterprises in the secondary sector was 1.25%, this jumped to 5.08% per annum between 1990-98. On the other hand the tertiary sector grew at 7.78% per annum during 1980-90. The growth rate fell to 6.85% per annum during 1990-98.

Sectoral Distribution of Economic Activities in the NCTD, 1990-98

Table 4.14

Major Economic Activity Group	Percentage to Total			Annual growth rate	
	1980	1990	1998	1980-90	1990-98
Secondary Sector	30.87	22.03	20.43	1.25	5.08
Mining & Quarrying	0.15	0.004	0	-9.53	-12.50
Manufacturing	28.95	20.59	19.06	1.21	5.06
Electricity, Gas, Water	0.27	0.20	0.15	1.68	2.15
Construction	1.50	1.25	1.22	3.15	5.97
Tertiary Sector	69.13	77.96	79.57	7.78	6.85
Wholesale Trade	41.10	6.14	5.45	6.92	4.32
Retail Trade	0.00	37.99	34.05		4.50
Restaurants & Hotels	6.16	4.82	4.46	2.33	5.04
Transport	3.94	2.63	6.98	0.51	37.90
Storage & Warehousing	3.00	3.04	0.96	5.97	-6.50
Communication	0.17	0.13	1.63	1.87	224.49
Financial, Insurance, Real estate & Business services	4.14	5.13	4.30	9.56	3.38
Community, social & personal services & others	10.62	18.09	21.74	16.84	10.30
TOTAL (NON-AGRI)	100.0	100.0	100	5.76	6.46

Source: Economic Census 1998

- (i) In case of sector wise employment, the tertiary sector dominated the scene, providing more than 50% of the total employment. During the 1980's it accounted for 65.38% employment, which increased, to 67.19% during 1990's. However in 1998 there has been a significant fall in the proportion as it accounted for only 54.65% of total employment. Conversely, the secondary

sector, whose share of employment declined from 34.62% (1980) to 32.81% (1990), witnessed a significant increase accounting for 45.35% of employment during 1998. Thus, the annual growth rate of employment for the secondary sector, which was 3.45% between 1980-90, jumped to 16.62% per annum between 1990-98. For the tertiary sector the growth rate of employment during the same period remained stagnant at 4.5%.

Sectoral Distribution of Employment in the NCTD of Delhi, 1980-98

Table 4.15

Major Economic Activity Group	Employment			Annual growth rate	
	Percentage to Total			1980-90	1990-98
	1980	1990	1998		
Secondary Sector	34.63	32.82	45.36	3.45	16.62
Mining & Quarrying	0.81	0.46	0.00	-2.02	-12.50
Manufacturing	31.86	30.84	41.40	3.74	15.78
Electricity, Gas, Water	1.40	0.99	3.32	0.05	57.94
Construction	0.56	0.53	0.64	3.42	13.11
Tertiary Sector	65.37	67.18	54.64	4.59	4.64
Wholesale Trade	17.60	5.09	4.55	-5.89	6.31
Retail Trade	0.00	16.46	15.41	7.38	7.22
Restaurants & Hotels	4.03	3.89	3.32	3.69	5.49
Transport	3.39	3.01	3.93	2.59	15.00
Storage & Warehousing	1.35	1.59	0.78	6.70	-2.21
Communication	1.41	2.48	2.80	14.89	11.32
Financial, Insurance, Real estate & Business services	7.69	9.41	5.96	7.37	0.86
Community, social & personal services & others	29.89	25.25	17.89	1.99	2.43
TOTAL(NON-AGRI)	100	100.	100	4.19	8.57

Source: Economic Census 1998

From the above findings the following trends can be discerned-

- (i) The above analysis indicates a significant sectoral shift in Delhi's economy both in terms of the number of enterprises as well as employment.
- (ii) While the tertiary sector continues to dominate the economy in terms of providing employment, its position has weakened in the post reform period.
- (iii) The post reform period has witnessed a 13.17 percent increase in the annual growth rate of employment in the secondary sector. Thus clearly it is the secondary sector that is providing additional employment in the post reform period and is undergoing maximum growth.

4) Major Economic Activity

In order to know which economic activity within the broad sectoral groups are undergoing growth, it is important to look at each of the major economic activity for which data is available.

If we look at Table (14. 14) the following is evident-

- (i) The three economic activities having the higher number of enterprises in Delhi are Trade, Community, Private and Social Services, and Manufacturing.
- (ii) From 1980's onward the share of manufacturing enterprises in the total number of enterprises has fallen from 28.95% in 1980 to 19.06% in 1998. However while the decline in the first decade (1980-90) was substantial, from 1990-98 the fall was marginal (of 1.53%).
- (iii) The share of enterprises engaged in trade fell during 1990-98. Services however has increased over the years so has transport and communication. Although the latter two activities still have a low share in the total number of enterprises.

The annual growth rate of major economic activity from 1980-98 shows the following trends: -

- (i) During the Pre-reform i.e. 1980-90 enterprises involved in the provision of community, social and personal services grew at a high annual rate of 16.84%. This was followed by Financial, Insurance, Real estate and Business services that grew at an annual growth rate of 9.56%. The third highest growth rate was witnessed by trade (6.92%).
- (ii) The post reform period reveals a different scenario in Delhi's economy. This period saw enterprises dealing with communications growing at very high annual rate of 224.49%. This was followed by Transport enterprises (37%). The other major economic activities, which grew at 5% per annum, were Manufacturing, Trade, Services, Hotels and Restaurants and Construction.

Thus it can be concluded that the post reform period has witnessed a spurt in enterprises dealing with Communications and Transport. Both these economic activities are directly related to the building of better infrastructure in the NCTD. It may perhaps be inferred that the N.E.P. have created conditions which call for improved infrastructure and that these enterprises have turned to be the most lucrative under the new economic climate.

Within the Secondary Sector Manufacturing and Construction are the two economic activities that are growing rapidly, in the post reform period. Looking at the contribution these economic activities make towards employment the following trends are seen: -

- (i) Manufacturing enterprises have traditionally accounted for the maximum employment share. The post reform period witnessed a spurt in the share of manufacturing enterprises in total employment.
- (ii) The Second most important economic activities in terms of employment has been services followed by retail trade. The share of both these activities in

employment has declined slightly between 1990-98, following the increase in employment in manufacturing enterprises.

A look at the growth rate of employment in the major economic activity reveals: -

- i) Enterprises providing electricity, Gas and Water (mainly dominated by government enterprises) accounted for very high annual growth rate of 57.94%.
- ii) Manufacturing account for an annual growth rate of 15.78% in the post reform period. This was followed by closely by Transport, Constructions and Communications.

The employment data further validates the theory that the post reform period has created a economic climate which makes it both essential and lucrative to invest in infrastructure providing enterprises. These enterprises are growing and this is shown by the high growth rate of employment in these enterprises.

5) Own Account Non-Agricultural Enterprises

As mentioned before own account enterprises are those that have no hired labour and the enterprises are owned and operated with the help of household members only. Since these enterprises form a major chunk of the informal sector it would be worth while to analyze their distribution (Table 4.16).

- i) Nearly half of the total non-agricultural enterprises 48% in Delhi are own account enterprises. A majority of these (95%) are located in the urban areas of the NCTD.
- ii) During the post reform period this sector registered an annual growth rate of 5.2%.

- iii) In terms of the major economic activity it is seen that three sector i.e. Retail trade (41%), community service (21%) and manufacturing (10%), together accounted for 85% of the total own account enterprises.
- iv) In terms of its share in employment it is seen that Retail trade accounted for 40%, manufacturing accounted for 21%, Services for 15% and Transport for 9%.

**Percentage Distribution of Own-Account Enterprises and Employment
in the NCTD by major Economic Activity, 1998**

Table 4.16

Major Economic Activity	Percentage of Own Account Enterprises	Percentage of Persons usually working
Mining & Quarrying	0	0
Manufacturing	10.63	15.29
Electricity, Gas, Water	0	0
Construction	1.84	1.50
Wholesale Trade	3.00	3.83
Retail Trade	41.53	39.58
Restaurants & Hotels	3.46	3.28
Transport	10.73	8.80
Storage & Warehousing	0.58	0.53
Communication	2.44	2.20
Financial, Insurance, Real estate & Business services	4.06	4.10
Community, social & personal services & others	21.73	20.89
Non-Agricultural Activities	100	100

Source: Economic Census 1998

From the above the importance of own account enterprises in the economy of the NCTD is clear. It contributes greatly to the retail, service and manufacturing sectors both in terms of number of enterprises as well as in terms of employment. The fact that these economic activities have registered high growth rates in the post reform period indicates a greater probability of informal sector growth and the consequent casualisation of labour.

The post reform period has indeed brought about certain distinct changes in the economic structure of the NCTD. Based on the analysis of the economic profile the NCTD following conclusion can be drawn: -

- i) The post reform period has experienced accelerated growth of enterprises in the NCTD. Rural enterprises have registered a positive growth rate suggesting that the rural hinterland of the NCTD are serving as new destination for the setting up of enterprises.
- ii) Greater employment is being generated in the post reform period with the growth rate of employment doubling during 1990-98. There has been an increase in the growth of hired labour. Since nearly 85% of enterprises of the NCTD are small-scale units, growth of hired labour suggests greater incorporation of labour in the unorganized sector. This is indicative of growing casualisation of labour.
- iii) The post reform period has provided impetus for the faster growth of the secondary sector. The growth rate of employment was also higher in the secondary sector.
- iv) In terms of the major economic activities, it was found that enterprises dealing with communications and transport have grown at a very high annual growth rate. Which indicates that the city is gearing up to the provision of better infrastructure. Within the secondary sector Manufacturing and construction grew rapidly in the post reform period.

- v) Manufacturing enterprises have traditionally accounted for the maximum share of employment. In the post reform period its share has increased. Enterprises providing electricity, gas and water, manufacturing enterprises and these dealing with transport, communications and construction have accounted for high growth in employment. Thus these seem to be the key sectors in the post reform period.

**POST REFORM EMPLOYMENT SCENARIO IN THE
NATIONAL CAPITAL TERRITORY OF DELHI**

One segment of the Indian economy which is most likely to be affected by the New Economic policy of the nineties is the labour market. The reforms of 1991 encompassed all major sectors of the Indian economic including agriculture, industry, trade, foreign investment and technology, public sector and financial institutions. India was drawn into the global economy as the earlier policy of import substitution was given up in favour of an export-linked strategy. This integration of the Indian economy into the global economic system was strengthened further with India joining the World Trade Organisation (WTO) in 1995. In order to boost trade expansion, by 2001 exports and imports were made free of all regulation that served as bottlenecks earlier. Thus the Indian economy has been ushered into an era in which every section of the economy is now linked with the outside world either through its direct involvement in international trade or through indirect linkages with the export or import transactions of other sectors of economy.¹

Integration of the Indian economy with the global economy is expected to bring significant changes in the employment scenario of the country, particularly in large urban centres that serve as nodes global. The likely employment scenario in the post-reform era is best described by Chadha (2002). According to him, under the new regime quality consciousness in price competitiveness become prime considerations for staying on in the market. This means that the quality of the workforce acquires significance for coping with the new productions regime. Thus he talks of further sharpening of the dualism in the labour market, wherein demand for educated, trained and skilled job aspirants is increasing on one hand and the demand for uneducated, semi or unskilled worker is declining on the other.

Secondly, opening up of the domestic economy to foreign trade, foreign finance, foreign investment and technical know-how would impact the technology used in various sectors of the economy. This in turn can have a decisive impact on employment. For

¹ Chadha, and Sahu (2002)

instance 'informative technology' has become the key to technology today and people trained in it stand to gain. Thus employment prospects are brighter for the more qualified than for the untrained job seekers difference in employment prospects get magnified between self employment and wage paid jobs and still more significantly between urban and rural area.

Keeping in mind these aspects an analysis of the employment scenario in the National capital territory of Delhi (NCTD) has been attempted. The analysis is based on both the NSS data the 43rd (1987-88), 50th (1993-94) and the 55th round (1999-2000) have been taken into consideration.

Before carrying out the analysis it would be appropriate to a brief description of the data formed. There are two major sources of workforce statistics in India, the decennial census of population and the quinquennial surveys of Employment Unemployment conducted by the NSSO. Both these sources have been making continuous efforts at netting comprehensively the workforce of the country². In the case of population the term 'work' has been defined as any productive work for which remuneration is paid and is market oriented, and is a person engaged in work. If a person has worked for a major part of the reference year, he or she is a main worker and if a person has worked for less than half a year, he or she is a marginal worker. In the case of NSSO surveys, a person is a worker if he or she is engaged in some economically meaningful activity. This also includes general activities such as work done within the sphere of household activities such as looking after livestock, fodder collection, food grain processing etc. The NSSO is therefore known to be capturing 'worker' in a much better way than the census, and the size of the workforce as well as the workforce participation rate under the NSSO are higher than the same under the census of population.³

Table 5.1 shows the comparison of workforce participation rates as computed from census data 2001 and from NSS data for 1999-2000. From this table it is clear that the Work Force Participation Rate (WFPR) for all the categories (except rural females) is slightly higher as per the NSS, as mentioned above. However, the differences are not

² For details of these efforts refer Hirway(2002)

³ Hirway (2002)

much between the two sets of data. Here it must be mentioned that the difference of 7% points in the WFPR of rural females in the NCTD as returned by the NSS and census is indeed puzzling.

Comparison of WFPR computed from NSSO and Census data

TABLE 5.1

Residence and Sex	Census WFPR	NSSO WFPR	Difference
Rural Persons	32.0	30.8	-1.2
Rural Male	49.7	52	2.3
Rural Female	10.1	2.9	-7.2
Urban Persons	32.9	33.2	0.3
Urban Male	52.4	52.8	0.4
Urban Female	9.1	10.5	1.4

Source: Computed from NSSO and Census 2001

Having given a brief description of the data sources it would now be appropriate to look into the various aspects of employment and the changes they have undergone in the reform period.

1. WORKFORCE PARTICIPATION RATES

The Workforce Participation rates (WFPR) refer to the number of person employed as a percentage to the total population. In the following paragraphs the main findings from the Census of Population and NSS data has been listed. Explanations for the same have been tackled subsequently. Table 5.2 shows the WFPR for NCTD as per the Census of Population. The following main trends can be discerned-

**Work Force Participation rates as per Census Data According to Category,
Sex and Residence (1981-01)**

Table 5.2

Residence	Year	Proportion to Total Population			
		WFPR	% of Main Workers	% of Marginal Workers.	% of Non- Workers
TP	1981	32.2	31.9	0.3	67.8
	1991	31.6	31.5	0.1	68.4
	2001	32.8	31.2	1.6	67.2
TM	1981	52.7	52.5	0.2	47.3
	1991	51.7	51.6	0.1	48.3
	2001	52.2	50.1	2.2	47.8
TF	1981	6.8	6.5	0.3	93.2
	1991	7.4	7.2	0.2	92.6
	2001	9.1	8.2	1.0	90.9
RP	1981	30.2	28.5	1.7	69.8
	1991	29.1	28.8	0.4	70.9
	2001	32.0	29.1	2.9	68.0
RM	1981	47.5	46.6	0.9	52.5
	1991	48.2	48.1	0.2	51.8
	2001	49.7	46.4	3.3	50.3
RF	1981	8.7	6.1	2.7	91.3
	1991	5.5	4.8	0.6	94.5
	2001	10.1	7.8	2.3	89.9
UP	1981	32.3	32.2	0.1	67.7
	1991	31.9	31.8	0.1	68.1
	2001	32.9	31.3	1.5	67.1
UM	1981	53.1	52.9	0.1	46.9
	1991	52.1	52.0	0.1	47.9
	2001	52.4	50.3	2.1	47.6
UF	1981	6.7	6.6	0.1	93.3
	1991	7.6	7.5	0.1	92.4
	2001	9.1	8.2	0.9	90.9

Source: NSSO reports

**Work Force Participation Rate as per NSS According to Residence
and Sex (1987-88/1999-2000)**

TABLE 5.3

Work Status	WFPR						
	Year	RM	RF	RP	UM	UF	UP
Principal	1987-88	42.6	3.9		53.9	8	
Status	1993-94	58.6	7.5	39.8	53.7	9.8	34.4
	1999-2000	52	2.2	30.5	52.6	8.2	32
Principal+	1987-88	42.6	5.1		54.4	9	
Subsidiary	1993-94	58.6	9.7	40.6	53.7	9.7	34.5
Status	1999-2000	52	2.9	30.8	52.8	10.5	33.2
Current	1987-88	45	3.9		54.1	8.3	
Weekly	1993-94	58.6	10.9	41.1	54.5	11.2	35.7
Status	1999-2000	52.1	3.3	31.1	54.8	11.3	34.6
Current	1987-88	44.8	3.8		53.7	8.3	
Daily	1993-94	58.3	10	40.6	54.2	9.7	34.9
Status	1999-2000	51.3	2.3	30.3	53.2	9.6	33

Source: GoI, Sarvekshana, April 1988:23

GoI, Sarvekshana, Special No. Sept1990

(GoI 1997 and 2001)

- (i) The overall WFPR in the NCTD, which had slipped from 32.2% in 1981 to 31.6% in 1991, revived to 32.8 % in 2001.
- (ii) A similar trend is seen for male WFPR in the NCTD, which had slipped from 52.7% to 51.7% between 1981 to 1991, this revived to 52.2% in the post reform period.

Female WFPR on the other hand has been witnessing a steady increase right from the eighties. However it must be noted that from 81-91 the increase was by 0.6%, whereas from 91-01 the increase was by 1.7%. Thus the increase was higher in the post

reform period and although the increase seems small in terms of percentage points, it is substantial when seen in absolute terms.

The disaggregated data for the rural and urban area shows that within the NCTD there are differences in the employment pattern between rural and urban areas-

- (iii) Rural work force participation rates have increased more convincingly than the overall WFPR. Thus while during the eighties it had fallen from 30.1% (1981) to 29.1% (1991), the WFPR increased to 32% by 2001. This trend is true for both rural males and females of the NCTD. However the NSSO data for rural male and female WFPR shows differing trends compared to the Census.
 - (a) Firstly the NSS shows a decline for rural male WFPR from 58.6% in 99-2000.
 - (b) Secondly for rural females too the NSS reports a significant decline from 9.7% in 93-94 to 2.9% in 99-2000.

On the other hand the census reveals the following results-

- a) Rural males have registered a marginal increase right from the eighties from 47.5%(1981) to 48.2%(1991) to 49.7%(2001).
- b) Rural females WFPR that fell from 8.7% in 1981 to 5.5% in 1991 witnessed a spectacular increase and was 10.1% in 2001.

How does one explain the discrepancy between the two sets of data?

1) Some scholars have argued that the 1993-94 level of WFPR appear to be outliers, when seen against WFPRs of the earlier surveys. Using this argument one observes that between 1987-88 and 1999-2000, rural male WPR has indeed increased from 42.6%(1987-88) to 52%(1999-2000) (Ignoring the figure for 1993-94). This therefore confirms the trend shown by the census data.⁴

2) In the case of rural females however, even if one ignores the 1993-94 figures, there is a definite decline in female WFPR from 5.1% in 1987-88 to 2.9% in

⁴ Sundaram (2001)

1999-2000. This in contrast to the census data where an increasing trend is noticed. Clearly the explanation lies elsewhere.

- (iv) In urban areas, the work force participation rates follow closely the trend of the overall WFPR that is the WFPR for urban persons has shown a slight increase in the post reform period from 31.9%(1991) to 32.0%(2001). This increase is mainly due to the steady increase in the WPR of urban females from 6.7% in 1981 to 9.1% in 2001 (as per the census). NSS data confirms this trend (9% in 1987-88 to 10.5% 1999-2000). In both the data sets the increase has been slightly higher in the post reform period. In the case of urban males however the WPR has remained more or less constant as per the census data whereas the NSS shows a steady decline from 54% in 1987-88 to 52.8% in 1999-2000.

Having highlighted the broad trends in the growth of workforce, it would be interesting to look into changes in the nature of the workforce. Looking at the census (Table 5.3) data the following trends can be observed-

- i. The proportion of main workers to the total population in the NCTD has been declining almost imperceptibly from 31.93%(1981) to 31.51%(1991) to 31.18%(2001). The proportion of male main workers on the other hand has shown a more convincing decline from 52.5% in 1981 to 50.1% in 2001. This trend is opposed to the trend in the growth of female main workers of the NCTD who have registered an increase from 6.5%(1981) to 8.2%(2001).
- ii. Similar trend is seen for both rural and urban areas of the NCTD. In both cases the proportion of main male workers has declined whereas the proportion of female main worker has increased. Thus the key difference is not between rural versus urban areas of the NCTD rather it is male worker

versus female worker. Females who have traditionally remained out of the workforce are increasingly being incorporated even as main workers.

- iii. The category of marginal workers has undergone an increase in the case of all categories of workers by varying degrees, during the post reform period. This trend is stronger in the case of males who recorded an increase of 2% between 1991 to 2001. For females the trend is feeble in overall terms.
 - i) Taking into account the residence, the rural areas of the NCTD has shown a stronger evidence of marginalization of the workforce, both in case of male and female workers. The former increased from 0.2%(1991) to 3.3% while the latter increased from 0.6% to 2.3% during the same period.
 - ii) In urban areas although the proportion of marginal workers has gone up, it has been lower than rural areas. This is particularly true of urban female who registered smaller increase compared to their rural counterpart.

It would be worthwhile to check whether the above-mentioned features revealed by the census data is testified by the NSS data as well. Table 4.3 reveals that the trends seen in the WFPR in terms of the usual status (principal status +subsidiary status) data holds true for the current weekly and current daily status as well. Two points however needs to be highlighted.

- a) Firstly the urban males in the NCTD have shown a steady decline in the usual as well as daily status however their WPR in terms of current weekly status remained constant in the post reform period.
- b) Secondly for urban females the increase in usual status WPR appears to be due to increase in subsidiary work status [Principal status was 8.2% whereas (principal+subsidiary) status was 10.5%].

From the above finding it is clear that in some areas the census and NSS data are conflicting. However in other areas they have shown similar trends. Based on these on these trends the following conclusions can be drawn about the post reform WFPR in the NCTD.

- 1) The WFPR in the NCTD during the post reform period are not very much different from what existed in the pre-reform period. There has been changes, however these are only marginal. Thus the post reform employment scenario while not bringing much cheer does not send disturbing signals either when looked at from aggregate level.
- 2) A male-female differential in the employment level is apparent. Females in the NCTD who have traditionally registered low WFPR, are gradually improving their participation rate. This trend existed in the pre –reform period, however it got further strengthened in the nineties. While there is confusion as to whether rural females within the NCTD have experienced an increase in their WPR (both census and NSS show conflicting results), urban females have undoubtedly witnessed an increase. This is confirmed by census and NSS data.
- 3) The post reform s period while not showing deterioration in the WPR in general, has certainly pointed toward a fall in the proportion of main workers. This trend is seen in the case of the male workers for both rural and urban areas of the NCTD. The fact that the fall in the main workers is compensated by a rise in marginal workers indicates the growing trend of marginalisation of labour.
- 4) It is of interest to note here that the females of the NCTD do not seem to share the above-mentioned trend. They have shown the continued increase in the proportion of their main workers, both in rural and urban areas. The share of female main workers in the total main workers has been consistently rising from 9.1%(1981) to 11.8%(2001) this true of both rural and urban areas. Thus females, owing to their improvement in education are actively competing with males for employment; and are impinging into the male share of main workers.
- 5) A rather disturbing trend of the post reform, which was briefly mentioned earlier, is the growth of the marginal labour pool. The fact that the trend is stronger in the rural areas is all the more worrisome as it spells that the post reform period will

bring hard times rural workers. Rural workers seem to be suffering greater setbacks in the post reform period, owing to their educational and skill deficiencies.

Secondly, the share of males in the total marginal workers has suddenly swelled in the nineties. This in the case of urban males, their share in the marginal workers which was 52% in 1991 jumped to 74% by 2001. While for rural males it increased from 25% in 1991 to 63% by 2001. It seems unlikely that the increase in the share of males in the total marginal workers has been caused by a decline in the female marginal workers; since females have also registered an increase as marginal workers (census data). In fact it the absolute increase in male marginal workers in the post reform period, which has disturbed the traditional dominance of females in the marginal labour pool.

3. LABOUR FORCE PARTICIPATION RATE

The labour force participation rate is a measure of the population available for work. It refers to the population that supplies labour and therefore includes persons who are employed as well as those who are 'seeking or available for work'. Table 5.4 shows that the WFPR has been following the trend of the LFPR in most cases.

2) Similarly LFPR for rural females have declined for all work status and this is reflected in their WFPR.

**Labour Force Participation Rates in the NCTD according to
Category, sex and residence (1987-88/1999-2000)**

TABLE 5.4

Work Status	Year	Labour Force					
		RM	RF	RP	UM	UF	UP
Principal	1987-88	45.3	3.9		56.3	8.9	
Status	1993-94	58.6	7.5	39.8	54.3	9.8	35
	1999-2000	54.1	2.9	32.1	54.4	8.7	33.2
Principal+	1987-88	45.3	5.1		56.7	9.9	
Subsidiary	1993-94	58.6	9.8	40.7	54.3	10.2	35.2
Status	1999-2000	54.1	3.6	32.4	54.6	10.9	34.3
Current	1987-88	45.4	3.9		56.5	9.3	
Weekly	1993-94	58.6	9.3	41.1	55.3	11.8	36.5
Status	1999-2000	54	4	32.5	56.7	11.8	35.8
Current	1987-88	45.2	3.6		56.2	9.2	
Daily	1993-94	58.4	10	40.7	55	10.4	35.7
Status	1999-2000	53.4	3.1	31.8	55.5	10	34.4

Source: GoI, Sarvekshana, April 1988:23

GoI, Sarvekshana, Special No. Sept1990

(GoI 1997 and 2001)

3) However it is the case of the urban male that needs to be highlighted. According to the usual status the urban male LFPR has remained constant however their WPR as mentioned earlier has hinted at a slight decline in the post reform period. This trend is worrisome as it points towards rising unemployment among urban males, if this were to continue in the coming years. Secondly urban male LFPR as per current weekly status has increased slightly in the post reform period from 53.3%(1993-94) to 56.7%(1999-2000) that is an increase of 1.4%. This is significant considering that in all other work status the urban male LFPR had remained constant for the same period

This is reflected in the WFPR of urban males which remained constant for current weekly status (54.5% in 1993-94 & 54.8% in 1999-2000) whereas all other work status had registered a slight decline. Perhaps this trend is indicative of greater availability of urban males for short duration employment in the post reform period.

3. WORK FORCE PARTICIPATION RATES BY AGE GROUPS

The Age specific usual status work participation rates tells the proportion of persons usually employed in a particular age group to the total persons in the age group (in percentage). It provides a more detailed picture of the employment scenario. Table 5.5 highlights the following features-

- 1) The age group 10-14 has registered an increase in the WFPR for all categories of workers except rural female. This is most significant in the case of urban females who have registered an above 5% increase in the post reform period. Both rural and urban boys between 10-14 years of age had registered decline between 1987-88 to 1993-94, however their WFPR increased in the post reform period.
- 2) Generally it is clear that the older age groups, that is, above 40 years have undergone a decline in their WFPR in varying degrees irrespective of whether they live in rural or urban areas or whether they are males or females. (Except in the urban males of age 50-54 who have witnessed a slight increase from 96% to 99% between 1993-94 & 1999-2000).

Work Participation Rate of Usual (Principal + Subsidiary) Status

Workers by Age Group, Sex and Residence 1987-88/1991-2001

Table 5.5

Age	Year	RM	RF	RP	UM	UF	UP
10,14	1987-88	3-	-	-	5	3.1	
	1993-94	-	-	-	2.6	0.6	1.8
	1999-2000	2.5-	-	1.	3.7	5.8	4.7
15,19	1987-88	43.9-	-	-	31.3	4	
	1993-94	56-	-	40.	49.2	3.3	28.6
	1999-2000	47.2-	-	28.	24.7	5.8	17.2
20,24	1987-88	76-	-	-	75.4	10.9	5.8
	1993-94	92.4	3.3	71.	73.8	8.3	41.1
	1999-2000	75.9	5.3	49.	72.3	16.9	48.8
25,29	1987-88	75.2-	-	-	96.2	18.9	
	1993-94	100	17.9	66.	94.7	17.7	63.3
	1999-2000	93.2	1.5	58.	89.9	12.8	52.7
30,34	1987-88	100	12.5	-	96.4	17.6	
	1993-94	100-	-	68.	94.3	23	62.6
	1999-2000	97.8	7.2	33.	95	19.6	56.7
35,39	1987-88	97	39.6	-	97.5	18.4	
	1993-94	100-	-	61.	98.6	15.4	61.2
	1999-2000	99.5	10	73.	98.7	20.9	60
40,44	1987-88	100-	-	-	99.8	15.7	
	1993-94	100	57.5	84.	99	27.2	65
	1999-2000	99.7	0	36.	98.3	15.9	63.6
45,49	1987-88	92	17	-	96.5	17.4	
	1993-94	100	24.6	83.	96.6	15	64
	1999-2000	92.7	5.2	62.	99.3	15	63.2
50,54	1987-88	100	24.2	-	98.1	15.5	
	1993-94	100-	-	3	94.9	16.3	62.5
	1999-2000	60	0	50.	94.2	12.9	59.2
55,59	1987-88	100-	-	-	90.3	6	
	1993-94	100	-	10	87.8	13.9	47.1
	1999-2000	86.1	2.3	50.	88.5	10.7	54.1
All Age Groups	1987-88	42.6	5.1	-	54.4	9	
	1993-94	58.6	9.8	40.	53.8	9.6	34.6
	1999-2000	52	2.9	30.	52.8	10.5	33.2

3) The younger age group between 10-39 years of age reveal several interesting features –

a) The increase in child labour (age group 10-14) has already been highlighted.

b) The urban female in the younger age group, that is, between 10-24 years, have recorded significant increases in the WFPR. While in the age 25-34 there has been a fall, the subsequent age group, that is, 35-39, has recorded a 5% increase in the post reform period. Graph 4.1 shows that for the urban females WFPR show a M-shaped curve with two peaks. In the post reform period the M-shape shifts in favour of the younger age group, that is, the first peak in the female WFPR is seen for the age group 20-24, corresponding roughly to the period before their marriage. In the next age group, that is, 25-29 there is a fall in WFPR, indicating the withdrawal of female from the work force, probably due to factors such as marriage, childbirth etc. Then again there is a steady increase in the WFPR, reaching a second peak in the age group 35-39. This is followed by a second withdrawal of female from the workforce probably owing to added household responsibilities such as caring for the aged household members etc. This pattern of employment for urban females of Delhi in the post reform period is very similar to that which existed in Japan in the seventies.

4) For urban males of the NCTD the WFPR for the younger age group has remained more or less constant. However the 15-19 age group and the 25-29 age groups have registered declines. This is substantial for the former whose WFPR fell from 49% to 24% between 1993-94 and 1999-2000. This seems to suggest that young

urban males are withdrawing from the labour force and continuing with their education.

- 5) For rural males there has been slight increase in most of the younger age groups if we take the year 1993-94 as outlier. Rural females on the other hand have registered a negligible WFPR for the 10-19-age group. However the age group 20-24 has shown a slight increase from 3.3% (1993-94) to 5.3% (1999-2000), in line with the trend shown by their urban counterparts.

On the basis of the above finding the following can be interpreted –

(i) The post reform period appears to be giving boost to child labour in the NCTD. This clearly means a rise in those kinds of jobs that does not require much skill and education. The significant increase in the WPR of urban females in the age group between 10-14 points to the rise of such jobs as domestic maids etc which the affluent section of the urban area are able to afford. It is their ability to provide services at lower wages, which appears to be increasing the demand for child labour. This is a disturbing trend as school going children are getting incorporated into the labour market.

(ii) The post reform period has generated greater demand for young workers of the NCTD. The fact the females between the age group of 10-24 are increasingly being incorporated into the labour market is a confirmation of the increasing feminisation of the urban labour market.

Rosa (1994) points out that in newly industrialized countries the role of young female labour, has been decisive in ensuring the competitiveness of MNCs, which have decentralised into these countries⁵. Manuel Castells & Borja (1997) points out two reasons which make young women highly desirable in the new global information economy

⁵ Jorji Borja & Manuel Castells-Local & Global-management of cities in the informative age (1997)

a) Their capacity to provide an equivalent service at a lower wage and under much more insecure working conditions than their male counterparts.

b) Emergence of job flexibility owing to the need of companies and employment market to free themselves from the constraints of a social legislation won through labour disputes of industrial society. Thus part time work, subcontracting, fixed contract work and the processes of informalisation of the economy have become essential mechanisms of the new model of flexible production.⁶ Woman workers are therefore preferred, as woman's wages are considered as supplementary in the household.

iii) While urban female adolescents are increasingly getting incorporated into the labour market, this is not true for urban male adolescents. The latter are withdrawing from the labour market perhaps in favour of continuing the education. (This has to be empirically tested)

iv) Finally the post reform period seems to spell harder times for the older members of the workforce (above 40 years). Perhaps the government policy of encouraging the public sector to shed its 'unproductive weight' is yielding results. The ongoing disinvestments drive as well as the launching of various voluntary retirement schemes aimed at downsizing public sector corporate may partly explain the fall in proportion of WPRF for the older age groups, especially in the urban areas of the NCTD.

4. WORK PARTICIPATION RATE BY LEVELS OF EDUCATION

An important aspect of employment in modern times has been its positive correlation with levels of education. Level of education and skill obtained through long years of schooling holds the key to employment in the non-traditional sectors. Though this trend was started in British India, under the much talked about McCauley mission, yet it gained enhanced importance under the Information technology based post

⁶ same as above

liberalisation period in India. Today education and particularly computer literacy has become crucial for getting employment in urban India and Delhi is no exception to this trend.

Table 5.6 shows the education specific work participation rate of usual status workers of age 15 and above. A few interesting features needs to be underlined-

- i) Within the NCTD a long-term trend of decline in the WFPR of illiterate persons has been observed from 1983 onwards, both for males and females in urban and rural areas. This trend continued in the post reform period.
- ii) On the other extreme there has been a perceptible increase in the WFPR of persons with an educational qualification of graduation or above (except in the case of rural females). Maximum increase is noticed among rural male indicating their willingness to take up a job having attained a higher level of education. This is contrary to the trend portrayed by rural females who have witnessed a decline in the WFPR of those with graduation and higher levels of education from 77% in 1987-88 to 8% in 1999-2000. This intriguing trend raises many questions that need to be empirically answered. Is it that female graduates are enlisting themselves for only certain types of jobs, jobs which are not growing adequately to incorporate them?
- iii) In the urban areas there has been a growth in the WFPR of those with educational qualification of graduation and above but the growth has been sluggish both for urban males and females.
- iv) For all other levels of education a slight decrease in WFPR in varying degrees is discernable. Rural males and urban females stand out as exceptions to this general trend. Rural males have recorded an increase in WFPR for persons with middle level schooling since 1987-88 whereas those with secondary level of schooling showed a decline. This shows that even in rural areas workers with moderate levels of

education are gaining preference. Secondly it appears that those with secondary education tend to stay on in educational institutions to complete their training rather than join the workforce.

- v) Urban females have shown a significant increase in WFPR for persons with primary and middle school levels of education during the post reform period. In case of the former the increase was from 4% to 9.6% between 1993-94 and 1999-2000 whereas for the latter the increase was from 3.1% to 12.6% during the same period. The WFPR for even illiterate urban females did not decline but remained constant at 14%. This confirms the theory the feminisation of the urban labour market is coupled with the proliferation of females working in the informal sector that does not require skilled or educated manpower.

**Education Specific Work Force Participation Rate in the
NCTD, for Age 15 years and above**

Table 5.6

Residence	Education Specific Work Participation Rate of Age 15 Years And above						
	Year	Not Literate	Up to Primary	Middle	Secondary	Graduate and Above	All
RM	198	92.2	88.6	67.3	78.8	100	84.2
	1987-88	75	83	61.7	67.8	82.1	73.3
	1993-94	98.4	92.7	83.6	91.7	72.7	90.9
	1999-2000	75	75.4	85.7	65.7	95.3	79.2
RF	198	43.7	13.8	32	-	-	35.38
	1987-88	10	-	-	2.1	77.8	8.3
	1993-94	16.6	9.5	32.9	-	35.1	16.2
	1999-2000	1.4	9.9	1.6	4.8	8.2	4.4
RP	198						
	1987-88						
	1993-94	44.6	68	66	87.4	64.3	64.6
	1999-2000	18.6	50.3	52.6	41.9	76.5	47.2
UM	198	90.6	85.3	71.3	73.2	90.9	81.4
	1987-88	86.9	80.9	64.9	70.9	89	78
	1993-94	92.1	85.9	73.9	68.7	82.4	79.6
	1999-2000	82.2	81.8	69.9	63.5	83	74.5
UF	198	16.5	9.8	4.5	13	28.6	14.6
	1987-88	11.6	4.7	4.2	9.2	36.4	13
	1993-94	14.5	4	3.1	6.4	25.5	13.2
	1999-2000	14.1	9.6	12.6	5.1	27.8	14.1
UP	198						
	1987-88						
	1993-94	47.1	55.4	47.3	42.2	57.6	49.7
	1999-2000	37.2	48.6	47.5	39.2	59.5	46.8

Source: GoI, Sarvekshana, Special No. Sept1990

(GoI 1997 and 2001)

COMPOSITION OF USUAL STATUS WORKERS

Composition of Usual Status Workers in the NCTD, 1987-88/1999-2000

Table 5.7

Workers	Workers	Year	Mode of Employment			Index of Casualisation
			Self Employed	Regular Employees	Casual Labour	
Rural	Male	1987-88	39	54.7	6.3	12
		1993-94	29	68.8	2.2	3
		1999-2001	36.3	45.4	18.3	40
	Female	1987-88	35.3	52.9	11.8	22
		1993-94	81.6	18.4		0
		1999-2001	54.6	45.4	0	0
	Persons	1987-88				
		1993-94	33.7	64.3	2	3
		1999-2001	46.3	45.4	17.6	39
Urban	Male	1987-88	38.2	58.1	3.7	6
		1993-94	44.4	45.5	10.1	22
		1999-2001	42.1	46.8	11.1	24
	Female	1987-88	30	66.7	33	49
		1993-94	25	57.3	17.7	31
		1999-2001	36.4	59.1	4.5	8
	Persons	1987-88				
		1993-94	42.1	46.8	11.1	24
		1999-2001	41.1	54.8	4.1	7

Table 5.7 shows the composition of usual status workers as regular, self-employed or casual labour. Looking at the table it is clear that both rural-urban and male-female differences exist in nature of employment.

1. Rural males have witnessed a significant fall in the proportion of regular salaried worker during the post reform period (from 68% in 1993-94 to 45% in 1999-2000). The regular jobs are yielding to casual labour and self-employment. With the fall of regular jobs rural males searching for alternate jobs are either getting self-employed if they are relatively well off or are getting incorporated as casual labourers. The index of casualisation (i.e the number of casual labour per 100 regular labour) for rural males increased significantly (from 3-40) during the post reform period.

2. Rural females show contrary trends as regular salaried workers are increasing at the cost of self-employed workers in the post reform period. Female rural workers have not shown casualisation. Another point of cheer is that the gap between the proportion of regular rural female workers and regular urban female workers is narrowing. It was 18% for rural females and 57% for urban females in 1993-94. This gap narrowed considerably in the post reform with the figures being 45% and 59% respectively
3. In urban areas the proportion of workers engaged as regular workers has increased slightly for both males and females. What is however significant is the fall in the female casual labour in urban areas. The index of casualisation fell from 49 in 1987-88 to 8 in 1999-2000. They seem to be getting increasingly incorporated as self employed labour. Thus while urban females may be joining the informal sector, they are certainly not undergoing casualisation in the post reform period. On the other hand urban males have registered a slight increase in the index of casualisation.

SECTORAL DISTRIBUTION OF USUAL STATUS WORKERS

Table 5.8 show the sectoral distribution of usual status workers from 1987-88 onwards. The rural-urban contrasts in the employment is apparent from the table-

- 1) The general trend of employment growth in the post reform period for rural areas of the NCTD is a fall in employment in both primary and secondary sectors and a significant increase in the tertiary sector.
- 2) For urban areas the growth of employment is noticeable in all three sectors with the highest increase in tertiary sector, followed by the secondary and primary sector. For the primary sector the increase has been very marginal.
- 3) In terms of gender, the males of the NCTD follow a more or less similar trend. Employment in the primary sector continued to slip in the post reform period. For rural males it remained constant at 6% while urban males showed a decline. Secondary

sector witnessed a decline for both rural and urban males (However if 1993-94 figures are taken as outliers for rural males, then there has been a long term increase in their WPR in secondary sector from 19% in 1987-88 to 37% in 1999-2000). Urban males however have shown a steady decline in the secondary sector from 37% in 1987-88 to 31% in 1999-2000.

Sectoral Distribution of Usual Status (Principal + Subsidiary) Workers by Sex and Residence, 1987-88/1999-2000

Table 5.8

Sector	Residence	Male			Female			Persons	
		1987-88	1993-94	1999-2000	1987-88	1993-94	1999-2000	1993-94	1999-2000
PRIMARY SECTOR	Rural	39.2	6.2	6.2	36	51.7	39.2	10.3	7.5
	Urban	0.9	1.1	0.8	2.4	2.5	6.8	1.2	1.7
Mining and Quarrying	Rural	-	-	0	-	-	0	-	0
	Urban	-	0.1	0	-	-	0	0.1	0
Manufacturing	Rural	11.1	53.4	26.6	11.7	29.9	12.6	51.4	26
	Urban	27.9	26.2	24.8	16.2	10.1	21.8	14.3	24
Utilities	Rural	2.3	-	0.5	-	-	0	-	0.4
	Urban	3.5	0.8	0.3	0.2	-	8	0.7	0.3
Construction	Rural	5.8	0.8	10.4	-	-	0	0.8	0.4
	Urban	6.1	11.2	6.2	2.9	6.3	9	10.6	5.4
SECONDARY SECTOR	Rural	19.2	54.2	37.5	11.7	29.9	12.6	52.2	26.8
	Urban	37.5	38.3	31.3	19.3	16.4	38.8	25.7	29.7
Trade, hotelling, etc	Rural	3.4	11.5	30.8	-	-	21.7	10.5	30.4
	Urban	22.2	23.8	31.7	11.6	13	9.7	22.5	28.5
Transport, communication, etc	Rural	8.9	7.8	8.8	-	-	0	7.1	8.4
	Urban	8.4	7.5	7.6	2.6	1.3	1.4	6.8	6.7
Services *	Rural	29.3	20.2	16.8	52.3	18.3	26.5	20	17.2
	Urban	28.7	29.1	28.6	62.1	66.8	58.6	33.7	33.1
TERTIARY SECTOR	Rural	41.6	39.5	56.4	52.3	18.3	48.2	37.6	56
	Urban	59.3	60.4	67.9	73.7	81.1	69.7	63	68.3

Note: * includes finance, insurance and real estate, community, social and personal services, etc

Source: GoI, Sarvekshana, April 1988:23

GoI, Sarvekshana, Special No. Sept1990

(GoI 1997 and 2001)

All activities within the secondary sector have shown varying degree of decline in employment. A steady decline in WPR of males in urban areas is most conspicuous. Is it that manufacturing activities are shifting from the urban core of the NCTD and moving towards the rural peripheries? Or is the relocation drive of polluting industries from the urban core contributing to this decline? If the 1993-94 figures are ignored as outliers for rural males then it would appear that WPR in manufacturing has indeed increased.

Another activity that gained significance in terms of rural male employment is construction where WFPR increased from 5.8% in 1987-88 to 10.4% in 1999-2000. This partly explains the casualisation of labour among rural males.

Thirdly WFPR increased in the tertiary sector for both rural and urban males, it being higher for the former. Within the tertiary sector, activities such as trade (retail and wholesale) and hotelling etc has provided the maximum employment for both rural and urban males. Surprisingly their WPR in these activities has been higher than that of services in the post reform period. This explains the fall in regular services for rural male and only a slight increase among urban males, on one hand and the rise in self employed labour on the other as was when seen in the earlier section. Transport and communication have also registered increase both for urban and rural areas.

- 4) Females in rural and urban areas show no uniform trend like the males. They in fact show diverging trends. Rural females have shown a decline in their WFPR in the primary sector in the post reform period. However it is the case of urban females that need to be highlighted as they have registered an increase in the primary sector from 2.5% in 1987-88 to 6.8% in 1999-2000.
- 5) This would partly explain the earlier findings that urban females are increasingly getting self-employed and that WFPR of less educated females have raised. This trend certainly raises several questions. Is it that the growing demand for food in the urban core is pushing some sections of urban females into agriculture (growing vegetables

etc.)? Or that these females of those villages, which have suddenly incorporated as census towns and therefore have been categorised as urban females? This second argument does not seem to be valid as both the survey periods (1993-94 & 1999-2000) fall within a census decade (changes in status of villages was effectuated only in 2001).

Secondly WPR of rural females in the secondary sector declined from 29% in (1993-94) to 12% in(1999-2000). Urban females on the other hand registered an increase from 16% (1993-94) to 38% (1999-2000). Within secondary sector urban females recorded increases highest in manufacturing followed by utilities and construction. The increase in urban female WPR in manufacturing when seen in the context of decline in urban male WFP lends greater validity to the theory females are increasingly being preferred as workers owing to their ability to provide services at lower wages.

In the tertiary sector WFPR of rural females have improved between 1993-94 and 1999-2000, whereas urban females have registered a decline from 81% in 1993-94 to 69% in 1999-2000. However it must be noted that this is still very high compared to the pre-reform figure of 14%(1987-88). This decline is seen for services particularly. Two explanations can be put forward for this decline-

- a) Firstly it seems that the secondary sector is weaning away a part of the urban female labour force. Lower educational qualifications required for these jobs means greater accessibility of such jobs for females with even low education levels.
- b) Secondly a rise in self employed female labour who may be engaged in household production activities.

Rural females on the other hand have shown increase in services. With improvement in educational qualification they are getting incorporated into regular salaried services. This have also witnessed an increase in activities such as trade, hotelling etc. like their male counterparts.

On the basis of the major findings in this chapter the following conclusions can be made.

- i. The post reform period has resulted in the increased marginalisation of workers, particularly male workers in both rural and urban areas of the NCTD. However this trend is stronger in rural areas.
- ii. There has been an increase in child labour in the NCTD during the post reform period owing to their ability to provide services at very low wages.
- iii. The NCTD is witnessing the growing feminisation of the urban labour market. Young female workers in the age group of 10-24 are particularly in demand not only because they provide services at low wage rates but also because they can work under flexible work conditions such as part time work, subcontracted work etc.
- iv. Rural males of the NCTD have reported high incidence of casualisation in the post reform period and a consequent fall in the proportion of regular workers. These are signs of increased segmentation of the labour market in the NCTD, wherein rural workers are being pushed to insecure contractual jobs on account of their educational deficiencies.
- v. Finally, the tertiary sector continued to be the main source of employment for both rural and urban males, whereas their participation in the secondary sector declined. Urban females on the other hand have registered increased participation in the secondary sector, particularly in manufacturing and construction.

Chapter VI

LIBERALISATION AND THE EMERGING SOCIAL STRUCTURE IN THE NATIONAL CAPITAL TERRITORY OF DELHI

Studies on mega cities have shown that globalisation has distinct social implications. This is true of cities both in the developed and developing world. It was seen in the survey of literature (chapter II) that 'social polarisation' has emerged as one of the social costs of globalisation. Large cities are showing signs of intra metropolitan dualism, owing to marked spatial and social segregation. The following extract describes this tendency aptly:

Deepest social exclusion processes manifest themselves in an intra metropolitan duality, particularly in large cities of nearly every country...in different spaces within the same metropolitan system there exist, with no articulation between them and sometimes without even seeing each other, the most highly valued and the most degraded functions, the social groups that produce information and appropriate wealth contrasting with the excluded social groups and people in a marginalized state. (Borja and Castells 1997)

Critics of the New Economic Policy have argued that under the new regime, the government's actions get restricted and its ability to intervene on behalf of the poor declines. As the government has fewer policy instruments to work with, it sheds its obligations to the individual and especially to the non- well off. As a result, small elite has cornered most of the gains of the policy changes leaving little for the rest. They have voiced serious concerns at the 'strategic retreat of the state' from crucial social sectors as this could put national goals of such as equity, poverty alleviation, literacy etc into jeopardy.¹

In the present chapter an attempt has been made to look into the emerging social structure in the NCTD, during the post reform period especially with respect to the availability of basic amenities. However it must be mentioned at the onset that an analysis of

¹ Kumar, A. (2002)

this nature would, to a certain extent limited in scope. This is primarily because of the lack of reliable data for this sector, despite a decade into the reform process. While data from the Population Census on the availability of amenities is still awaited, the other sources do not provide data at the disaggregated level. Despite these weaknesses the analysis has been attempted on the basis of whatever appropriate data that is available.

1. POVERTY

In India, the Planning Commission estimates the proportion and the number of poor both at the national and the state levels. Assessment of the poverty trends has undergone several methodological modifications. Table 6.1 provides the poverty line estimates from 1973-74 onwards for both rural and urban areas of Delhi.

Monthly Per Capita Poverty Line for the NCTD 1973-74 to 1999-2000

Table 6.1

Year	Monthly per Capita Poverty Line	Rural	Monthly per Capita Poverty Line	Urban	Total
		Percentage of People		Percentage of People	Percentage of People
1973-74	49.95	24.44	67.95	52.23	49.61
1977-78	59.37	30.19	80.17	33.51	33.23
1983	88.6	7.7	123.3	27.9	26.2
1987-88	122.9	1.29	176.91	13.56	12.41
1993-94	233.79	1.9	309.48	16.03	14.69
1999-2000	362.68	0.4	454.11	9.42	8.23

Source: Economic Survey of Delhi, 2001-2002

From these estimates the following conclusions can be reached-

- 1) Firstly it can be argued that in Delhi, poverty has steadily declined during the seventies, eighties and the nineties.
- 2) During 1993-94 the slight increase in the proportion of people below the poverty line by 2% points had raised an alarm among researchers, particularly the critics of the New Economic Policy. However the reversal of this trend, with the proportion of population below the poverty line declining to 8.2% in 1999-2000 is

a good sign indeed. It shows that the restructuring of the economy has not altered the trend of decline in poverty, which started in the seventies.

- 3) The pace of decline of poverty has slowed down in the post reform period. Whether this slowing down is due to the negative effects of the economic reforms or due to the fact that at lower levels greater decline is difficult to come by, is open to debate. However the latter seems a more probable reason.
- 4) Both in rural and urban areas a similar trend of declining poverty is noticeable. The Rural –Urban poverty differential continues to be high in the post reform period, with urban poverty estimates being several times that of rural poverty estimates. This is not surprising given the fact that households below the poverty line in rural areas invariably migrate to the urban areas of the NCTD in the hope of getting employed and thus swell the numbers of urban poor.

2. LEVELS OF EDUCATION

The importance of education, and particularly higher education, in securing employment in non-traditional sectors is well known and hardly needs to be emphasised. In recent decades a market for educated, trained and skilled job aspirants is steadily expanding. Differences in employment prospects between rural and urban job aspirants get magnified owing to the educational and skill deficiencies of the former. What needs to be emphasised here is that these educational deficiencies arise due to deep-rooted economic and social inequities existing in the society.

1. Level of Education by size of Land Possessed

The levels of education by the size of land possessed by the people in the rural areas of the NCTD (Table 6.2) reveals the following patterns-

- (i) The proportion of rural persons who are not literate increase with the size of land possessed (except for those who possess land in excess of 4 hectares, who have reported lower proportion of illiterates). This pattern is noticed for

both rural males and females. This is a rather intriguing pattern, the probable reasons for which have looked into later in this section.

Percentage distribution of persons aged 7 and above by level of Education, Sex and Land possessed in the Rural areas of the NCTD,1999-2000

Table 6.2

Size class of land possessed (ha)	not literate	literate below primary	primary	middle	secondary	higher secondary	graduate & above	all
	i	ii	iii	iv	v	vi	vi	vii
Males								
< 0.01	2	26.8	7.7	10.6	18.9	22.5	11.4	100
0.01 - 0.40	2.1	11.4	14.5	24	20.6	20.1	7.3	100
0.41 - 1.00	0	7	14.8	21.6	29.8	10.7	16.1	100
1.01 - 2.00	20.3	1.5	8.4	20.9	27	15.5	6.2	100
2.01 - 4.00	-	-	-	-	-	-	-	0
4.01 +	-	-	-	-	-	-	-	0
all classes	2.5	22.9	9.1	13.6	19.7	21.7	10.5	100

Females	i	ii	iii	iv	v	vi	vi	vii
< 0.01	34.8	5.8	8.3	19.2	14.2	10.6	7	100
0.01 - 0.40	29.3	8.5	21.5	13.7	18.2	6.4	2.3	100
0.41 - 1.00	31.9	0	14.6	0	43.2	10.3	0	100
1.01 - 2.00	29	0.8	16.5	19.5	21.6	9.2	3.4	100
2.01 - 4.00	-	-	-	-	-	-	-	0
4.01 +	-	-	-	-	-	-	-	0
all classes	33.1	6.2	12.1	17.5	16	9.5	5.6	100

Persons	i	ii	iii	iv	v	vi	vi	vii
< 0.01	14.8	18.6	8	13.9	17.1	17.9	9.7	100
0.01 - 0.40	15.1	10	17.9	19.1	19.5	13.6	4.9	100
0.41 - 1.00	15.3	3.6	14.7	11.2	36.2	10.5	8.4	100
1.01 - 2.00	24.6	1.2	12.4	20.2	24.4	12.5	4.8	100
2.01 - 4.00	-	-	-	-	-	-	-	0
4.01 +	0.9	1.8	13.1	18.9	46.7	6.9	11.8	100
All classes	15.2	16	10.3	15.2	18.2	16.7	8.5	100

Source: NSS Report No. 473: Literacy and Levels of Education in India, 1999-2000

- (ii) The proportion of persons who are literate but below primary level is inversely proportional to the size of land possessed. For instance only 1.8% of rural persons possessing land in excess of 4 hectares are 'literate below primary' whereas the figure is 18.6% for rural persons possessing less than 0.01 hectare of land. This pattern is evident again for both rural males and females. For rural males as many as 26% of those possessing land less than 0.01 hectare are literate below primary.
- (iii) In most cases the level of education for persons possessing different size categories of land, is up to middle or secondary school level. However for persons possessing land less than 0.01 hectares, the proportion of those with literacy below primary school level is high. Thus it can be argued that persons with few economic assets are also the ones with low educational qualifications.
- (iv) Finally the proportion of persons with educational levels of graduation and above is higher for those possessing land less than 0.01 hectares compared to most other categories. This is true for both rural males and females.

The above findings reveal two interesting facts-

- 1) Firstly it seems that possession of land is seen as a measure of economic security that 'frees' households from the need to attain higher levels of education. However this is obviously not true for the very rich rural households having land more than 4 hectares, as they have recorded a significant proportion (11.8%) of persons with educational level of graduation and above. In contrast persons possessing smaller land holding of less than 0.01 hectares need to look for gainful employment outside the traditional sectors. This explains the high proportion (9.7%) of such persons reporting educational levels of graduation and above.
- 2) Despite this trend, the fact remains that people with few economic assets also occupy low rungs of the educational ladder. This is a matter of grave concern in the future. People with small land holdings are most likely to

give in to the increasing pressure of conversion to non-agricultural land uses. Once rendered landless, this segment of population is will joins the ranks of the future unemployed owing to their educational deficiencies.

2. Levels of Education by Social Group

Percentage Distribution of Persons Aged 7 and Above by Level of Education, Sex and Social Group in Rural areas of the NCTD, 1999-2000

Table 6.3

		below				higher	graduate	
Social Group	not literate	primary	primary	middle	secondary	secondary	& above	all
Males								
Scheduled Tribe	-	-	-	-	-	-	-	-
Scheduled Caste	4.7	33.4	9.6	9.9	17.7	16.4	8.3	100
Other Backward Class	0.6	30.8	7.7	7	5.7	34.3	13.9	100
Others	2.2	18.6	9.6	16.4	24.7	18.6	9.9	100
Females								
Scheduled Tribe	-	-	-	-	-	-	-	-
Scheduled Caste	57.1	8	19	3.9	8.5	2.7	0.8	100
Other Backward Class	32.2	8.9	16.6	5.5	30.4	6.2	0.3	100
Others	29	5	9.6	23	13.8	11.6	7.9	100
Persons								
Scheduled Tribe	39.2	10.3	13	10.3	25	2.3	0	100
Scheduled Caste	26.8	22.7	13.6	7.4	13.8	10.6	5.2	100
Other Backward Class	11.4	23.3	10.7	6.5	14.2	24.6	9.2	100
Others	13.8	12.7	9.6	19.2	20	15.6	9	100

Source: NSS Report No. 473: Literacy and Levels of Education in India, 1999-2000

Levels of education are also disparate across different social groups in Delhi. This is clear from Table 6.3, which shows the following pattern-

- (i) The proportion of illiterates is maximum among the scheduled tribes followed by the scheduled castes. There are also gender differences with females reporting higher levels of illiteracy in all categories of social groups.

- (ii) Among the literates a higher proportion of (25%) of scheduled tribes have educational qualification of up to secondary level of schooling. This could be a result of the positive effect of the numerous policy measures taken up by the government. The scheduled castes however show no such positive trend. Among the scheduled castes that are literate, a high proportion about (22%) is literate below primary. The 'other backward' class while recording a high proportion (23%) of persons, who are literate below primary, have registered an equally high proportion (24%) who are educated up to the higher secondary level.

- (iii) Among those with educational qualification of graduation and above, the disparity among the social groups is marked. Generally the 'other backward class' fared better with higher proportion of graduates than those among scheduled castes and scheduled tribes. The same trend is seen for both rural males and females with minor variations.

The above findings make it clear that disparity in the level of education is apparent not only according to economic prosperity but also across social groups in Delhi. The fact that this tendency continues in the post reform period is telling of the processes of social exclusion that is likely to manifest itself more convincingly in the post reform scenario.

3. AVAILABILITY OF BASIC AMENITIES

The fact that large cities especially of the developing world face acute shortages in the provision of basic services to its every growing population is well known. Delhi is no exception to this. However it would be interesting to see whether this general trend has altered in the post reform period. Critics of the New Economic Policy point out that the process of segmentation of large cities into rich and poor colonies has been conspicuous in recent years, which is manifested in the increasing gap in the level and

quality of urban amenities. They argue that this process is backed by both market forces as well as by governmental programmes, which push the poor out of the high-income localities.²

Demand and Supply of Water in Delhi, 1981-2001

Table 6.4

Year	Demand (mld)	Supply (mld)	Gap (mld)
1981	2131	1150	981
1991	2840	2347	493
2001	5121	4189	932

Source: NIUA

1. Water Supply and Sanitation

Water and sewerage are an essential component of the basic infrastructure for urban areas. In Delhi the demand for water far exceeds the installed capacity of its water works. Table 6.4 shows the demand and supply for water in Delhi during the pre and post reform period. While the demand as well as supply of water has increased in the period 1981-2001, the mismatch between the two continues.

Map 5.1 shows the levels of water supply in the different zones of Delhi. It is clear from the map that-

a) Significant disparities exist in the supply of water in different zones of Delhi. The inequitable distribution is manifested in some favoured areas getting more water supply and most other areas getting less. The city core comprising of the affluent and protected areas of the NDMC and Cantonment Board getting surplus water, much higher than the stipulated norm. The level of supply in the Cantonment is the highest, that is, 509 lpcd and

² Kundu, A.(1994)

in the NDMC, this figure is 462, both are in excess of the Delhi master plan norm of 363 lpcd.

b) All this comes at the expense of the MCD areas especially the peripheral zones of Delhi such as Narela, Najafgarh, Mahrauli and Shahdara all of which get low supply of water.

The above findings reveal that distribution of water in Delhi is far from equitable. While the core periphery inequities are apparent, it would perhaps be incorrect to link the supply differentials to elite versus non-elite zones. New Delhi and South Delhi zones comprising largely medium and high-income residential areas have also recorded low levels of water supply despite a high demand.

2. Sources of Drinking Water

Distribution of Households in the NCTD by Sources of Drinking water, 1993/1998

Table 6.5

Sector	Sources of Drinking Water						
	Tap		Tubewell/HandPump		Others		All
	1993	1998	1993	1998	1993	1998	
Rural	65.75	34.25	34.25	23	0	7.1	100
Urban	94.06	96.1	5.83	2.8	0.11	1.1	100
Total	91.47	93.9	8.43	4.5	0.10	1.6	100

Source: NSS Report No.31

Table 6.5 shows the sources of drinking water for households in Delhi during 1998. The table reaffirms the obvious fact that tap is the principal source of drinking water for households in Delhi, whether it is urban or rural area. Some other facts highlighted by the table are as follows-

- i) Nearly 70% of rural households rely on tap as a source of drinking water while 23% on tubewells/handpumps.

ii) In urban areas as many as 96% of households depend on tap as the main source while 2.8% depend on tubewells/handpumps.

iii) Between 1993 and 1998 there has been an improvement in the proportion of households having access to tap water from 91% in 1993 to nearly 94% in 1998. This increase is observed both in rural and urban areas. However rural areas have witnessed a greater improvement of nearly 5% points.

Thus the efforts at providing safe drinking water to the people of Delhi have continued during the post reform period. While there is intra metropolitan disparity in the supply of water, at the disaggregated level, on the whole the supply of tapped water has witnessed greater coverage.

Mere accessibility to a particular source of water does not imply efficient supply. In Delhi insufficiency of water becomes particularly acute during the summer months. May and June has been identified by 13% of urban household as months during which insufficiency was experienced. To tide over this difficulty, households to a great extent depended on water supplied by local authorities through tankers.³

3. Accessibility to Toilet Facilities

Percentage Distribution of Households in Delhi according to Accessibility to Toilet Facilities, 1998

Table 6.6

Type of Lavatory	Rural	Urban	Total
No Latrine	36.46	4.39	7.32
Service Latrine	1.11	7.28	6.71
Septic Tanks	43.09	4.11	7.67
Flush System	16.58	81.22	75.32
Others	2.76	3.00	2.98
Total	100	100	100

Source: NSS Report No.34

³ NSSO Report No. (34)

Table 6.6 shows the access of households to toilet facilities. Toilets with flush system are the most common in use. Sharp rural urban differences exist in terms of accessibility to toilet facilities. This is clear from the following points-

- i. In rural areas 36% of the household have no toilets. This figure is 4% for urban areas of Delhi. This means that still a significant proportion of rural households have to defecate in the open in unsanitary condition.
- ii. In rural area there is still a greater dependence on septic tanks, that is, 43% while for urban areas this figure is much lower at 4%.
- iii. The use of flush toilet system is still very low in rural areas with only 16% of rural households having access to it. In urban areas on the other hand 81% of households have access to flush system toilet.
- iv. Another significant feature is that service latrines are still operational in urban areas and 7% of urban households are dependant on it.

Thus clearly the provision of basic sanitation facilities in Delhi still leaves much to be desired specially in rural areas. While at the disaggregated level data is not available, Table 5.7 show the results of a survey conducted by the Hazard Centre. It shows the nature of municipal services available in sub-standard settlements. From the table it is clear that the Resettlement colonies are better off with greater access to municipal services. Jhuggi Jhonpri clusters have to depend mainly on hand pump for water and on public lavatories for defecation. The unauthorised colonies on the other hand are virtually dependent on whatever services they can muster for themselves.

Thus sharp differences exist in Delhi in the access of households to basis urban services between rural and urban areas and within urban areas between planned and sub-standard settlements.

Services Available in Sub-Standard Settlements of the NCTD

Table 6.7

Service	Type of Sub-Standard Settlement		
	Resettlement	Jhuggi Jhonpri	Unauthorised
1) Water			
Hand pump	9	78	88
Tap	90	25	2
2) Lavatory			
Private	23	3	50
Public	60	94	1

(All figures in percentage household)

Source: Manual for People's Planning

4. MEDICAL FACILITIES IN MCD ZONES

Medical Facilities in the NCTD According to Zones, 1993

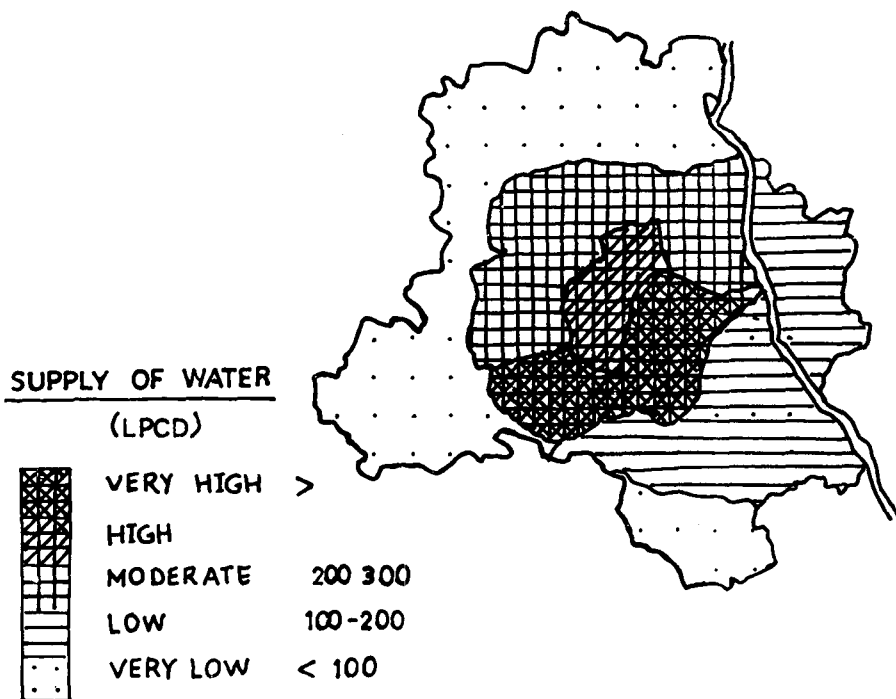
Table 6.8

Zone	Percentage to the total		
	Hospitals	Private Nursing Homes	Dispensaries
City	11.1	9.4	7.2
Central	13.6	14.2	6.9
South	7.4	14.2	7.6
Karol Bagh	8.7	10.4	7.1
Sadar Paharganj	1.2	-	5.6
West	7.4	8.5	8.8
Civil Lines	16	17.9	6.3
Shahdara (South)	1.2	9.4	9.2
Shahdara (North)	8.7	2.8	5.3
Rohini	4.9	7.6	9
Narela	1.2	-	5.8
Najafgarh	2.5	0.9	7.8
NDMC	13.6	4.7	12.9
Cantonment	2.5	-	0.5

Source: Public Utilities in MCD Zones, Directorate of Economics and Statistics, Delhi.

In order to gauge the intra metropolitan disparities existing within Delhi with respect to the availability of public utilities, data at the MCD level has been analysed in the following section.

NCTD
LEVELS OF WATER SUPPLY



MAP 4

AVAILABILITY OF MEDICAL FACILITIES

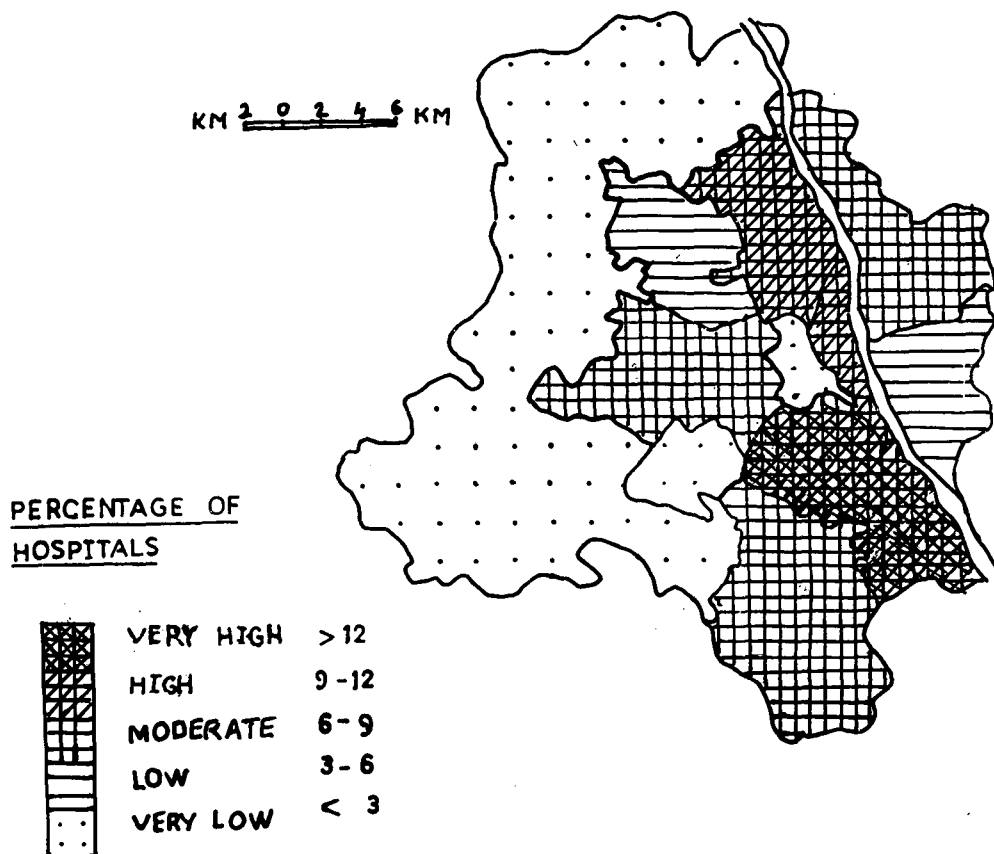


Table (5.8) shows the availability of medical facilities in different constituent units of Delhi during 1993. It is clear from the table that hospitals and private clinics are not equitably distributed within Delhi. The Civil lines zone has the highest proportion of both hospitals and private clinics. The NDMC, Central and city zones also have higher proportion of hospitals compared to the less affluent zones like Narela, Najafgarh, Shahdara South, Sadar Paharganj, etc. Private clinics on the other hand, are found in greater numbers in zones of middle and high-income class like Central, South, Karol Bagh zones. These are particularly lacking in zones with high rural population like Narela and Najafgarh and in zones of low-income residential areas like Sadar Paharganj. Dispensaries are distributed more ubiquitously, on account of government efforts to provide at least basic medical facilities in more equitable manner.

From the above it is clear that if crucial sectors like Health are left to private initiative the tendency would be to locate private health centres in the more affluent zones of the city while the low income zones are by passed.

5. GROWTH OF SLUM POPULATION

Distribution of Population living in Substandard Settlements of the NCTD

Table 6.9

Type of settlement	Approx. Population (In lakhs)	Percentage to Total
J.J.Clusters	20.72	14.84
Slum Designated Areas	26.64	19.08
Unauthorised Colonies	7.4	5.30
Resettlement Colonies	17.76	12.72
Rural Villages	7.4	5.30
Regularised Unauthorised Colonies	17.76	12.72
Urban Villages	8.88	6.36
Planned Colonies	33.08	23.69
Total	139.64	100.00

Source: DUEIIP-2021

The growing population of Delhi puts increasing pressure on land and infrastructure. Lack of adequate developed land at affordable prices to different categories of residents has resulted in the growth of various unplanned settlement especially in the form of large slums and squatter settlement. Table (6.9) shows that nearly 40% of the population of the NCTD live in sub-standard settlement comprising JJ clusters, slums and unauthorised colonies. This is a large number of any standards, and is telling of the gross inadequacy of standard housing stock in Delhi. It is known that the socio-economic and the environmental conditions in these settlements are dismal. Only 24% of the population live in planned colonies and hence would have access to standard basic services.

Growth of Slum Population in the NCTD

Table 6.10

Year	Slum Population	Growth
1951	63745	
1961	214045	235.78
1971	312970	46.22
1981	493545	57.70
1991	1296720	162.74
2001	20290	56.23

Source: Manual for People's Planning
Slum Population of India 2001 (Provisional)

Table (6.10) shows the growth of slum population in the NCTD since 1951. From the table it is clear that the 80s witnessed a quantum increase in the slum population. However the 90s have once again witnessed a fall in the decadal growth rate of slum population. This is primarily due to the massive demolition and relocations that are underway in Delhi, following the Government's adoption of massive Jhuggi Jhonpri Removal (JJR) and Environment Improvement Schemes. About 18% of the population in MCD live in slum areas. Slums are not confined to the DMC (U) areas alone, in 2001, 11 Census towns of Delhi adjoining the urban core reported the presence of slum

population.⁴ It thus seems that the government policy of shifting the slum population from the central areas is resulting in their growth in the peripheries of DMC (U).

The findings in this chapter reveal certain interesting patterns in the emerging social structure of the NCTD in the post reform period. Poverty in Delhi continued to decline in the post reform period, with the per capita income increasing rapidly from Rs 18021 in 1993-94 to Rs 24450 in 2000-01 (at constant 1993-94 prices), making Delhi the top three states in terms of per capital income⁵. However findings in this chapter show that socio-economic disparities exist in terms of the levels of education, which is likely to contribute to further segmentation of the labour market in the changed economic scenario.

The availability of basic amenities in the NCTD is far from equitable in the post reform period. Apart from acute shortages in the availability of safe drinking water, there is also intra metropolitan disparity in the supply of water, between the core and periphery. Rural-Urban disparities are apparent in the access of household to basic sanitation facilities both in terms of level and quality of service. Within urban areas the disparities exist between standard and sub-standard settlements. Intra Metropolitan disparities also exist in the NCTD in terms of availability of Medical facilities, between the core and periphery.

Finally, life for the urban poor has become more difficult under the stringent environmental policy pursued in the NCTD during the post reform period. The consequent governmental policies are gradually pushing the slum population to the urban periphery where both accessibility to and quality of services is poor.

⁴ <http://www.censusindia.net>, Explanatory note –Slum Population of India 2001 (Provisional)

⁵ Economic Survey of Delhi, 2001-2002

SUMMARY AND MAIN CONCLUSION

In this chapter the summary and the main conclusion of the present study is provided. This study started with the basic premise that the economic restructuring process which countries all over the world have been undergoing in the last few decades has distinct spatial, social and economic manifestations. India is already a decade into the reform process. It would therefore be of great interest to examine the large metropolitan or mega cities in the post reform period. The National Capital Territory of Delhi was taken up for a case study. Based on the analysis of available secondary sources of data the following main conclusions were reached with respect to the spatial, economic and social structure of the NCTD:

With respect to spatial pattern of urban growth the main trends seen in the post reform period are as follows-

- i) Delhi is experiencing a centrifugal pattern of growth whereby the urban core is undergoing deconcentration and the rural hinterland on the other hand is experiencing a process of sub-urbanization.
- ii) Districts with traditionally high densities have experienced saturation and are hence either witnessing out-migration or very low growth rate. On the other hand districts with low population densities have recorded high growth rates.
- iii) The urban population in Delhi's hinterland is growing rapidly and this process has strengthened in the post reform period. The number of urban agglomerations surrounding Delhi has not only increased but they are also undergoing very high growth rates compared to the Delhi UA. These therefore serve as counter magnets to Delhi. This entire region of the National Capital Territory (NCR) has high urban growth potential in the future.

The growth of enterprises and employment in these enterprises witnessed the following trends in the NCTD-

- (i) The post reform period has experienced accelerated growth of enterprises in the NCTD. Rural enterprises have registered a positive growth rate suggesting that the rural hinterland of the NCTD are serving as new destination for the setting up of enterprises.
- (ii) Greater employment is being generated in these enterprises in the post reform period with the growth rate of employment doubling during 1990-98. There has been an increase in the growth of hired labour. Since nearly 85 per cent of enterprises of the NCTD are small-scale units, growth of hired labour suggests greater incorporation of labour in the unorganized sector. This is indicative of growing casualisation of labour.
- (iii) The post reform period has provided impetus for the faster growth of the secondary sector enterprises. The growth rate of employment was also higher in the secondary sector enterprises.
- (iv) In terms of the major economic activities, it was found that enterprises dealing with communications and transport have grown at a very high annual growth rate. Which indicates that the city is gearing up to the provision of better infrastructure. Within the secondary sector enterprises involved in manufacturing and construction grew rapidly in the post reform period.
- (v) Manufacturing enterprises have traditionally accounted for the maximum share of employment. In the post reform period it's share has increased. Enterprises providing electricity, gas and water, manufacturing enterprises and these dealing with transport, communications and construction have accounted for high growth in employment. Thus these seem to be the key sectors in the post reform period.

Employment in the NCTD has shown certain distinct patterns in the post reform period that may strengthen in the future-

- (i) The post reform period has resulted in the increased marginalisation of workers, particularly male workers in both rural and urban areas of the NCTD. However this trend is stronger in rural areas.
- (ii) There has been an increase in child labour in the NCTD during the post reform period owing to their ability to provide services at very low wages.
- (iii) The NCTD is witnessing the growing feminisation of the urban labour market. Young female workers in the age group of 10-24 are particularly in demand not only because they provide services at low wage rates but also because they can work under flexible work conditions such as part time work, subcontracted work etc.
- (iv) Rural males of the NCTD have reported high incidence of casualisation in the post reform period and a consequent fall in the proportion of regular workers. These are signs of increased segmentation of the labour market in the NCTD, wherein rural workers are being pushed to insecure contractual jobs on account of their educational deficiencies.
- (v) Finally, the tertiary sector continued to be the main source of employment for both rural and urban males, whereas their participation in the secondary sector declined. Urban females on the other hand have registered increased participation in the secondary sector, particularly in manufacturing and construction.

Finally the impact of economic restructuring of the NCTD is manifested in its social structure as well –

- (i) Poverty in Delhi continued to decline in the post reform period, even as the per capita income continued to rise, making Delhi the top three states in terms of per capital income.

- (ii) Socio-economic disparities exist in terms of the levels of education, which is likely to contribute to further segmentation of the labour market in the changed economic scenario.
- (iii) The availability of basic amenities in the NCTD is far from equitable in the post reform period. Apart from acute shortages in the availability of safe drinking water, there is also intra metropolitan disparity in the supply of water, between the core and periphery.
- (iv) Rural–Urban disparities are apparent in the access of household to basic sanitation facilities both in terms of levels and quality of services. Within urban areas the disparities exist between standard and sub-standard settlements.
- (v) Intra-Metropolitan disparities also exist in the NCTD in terms of availability of Medical facilities, between the core and periphery.
- (vi) The stringent environmental policy in the NCTD during the post reform period, and the consequent government policies are gradually pushing the slum population to the urban periphery.

Having presented the main conclusions of the analysis carried out in this study, it would now be appropriate to see whether the research questions around which this study has been centred, have been answered.

- i. The first question put forward was, is the NCTD witnessing the continued tendency of centrifugal growth pattern wherein the peripheries are growing faster than the core?

The answer to this is yes; indeed the NCTD is showing tendencies of deconcentration in its urban core. The incremental population are moving not towards the adjoining census towns and villages but there is also evidence of a larger process of the NCR hinterland serving as counter magnets to the Delhi UA.

- ii. Secondly, it was asked whether the manufacturing sector of the economy of the NCTD responded to the new economic regime by growing at an accelerated rate in the post reform period?

The Economic Census shows that this is indeed the fact and apart from manufacturing and construction, enterprises involved with the provision of infrastructure such as transportation and communication have also grown in the post reform period.

- iii. With reference to employment the question raised was whether the post reform period had strengthened the segmentation of the labour market on gender, levels of education, and between rural and urban workers of the NCTD?

This study shows that segmentation of the market is gaining strength in the NCTD primarily on account of the educational disparities existing between rural and urban areas.

- iv. Is the NCTD witnessing the feminisation of the urban labour markets, as is seen in many of the newly industrialized countries that have undergone structural adjustments in the past?

An answer to this question is clearly demonstrated by the NSS and the Population Census data, both of these confirm that feminisation of the urban labour market is the new employment pattern observed in the NCTD during the post reform period.

- v. Has the New Economic Policy accelerated the process of informalisation of labour with increase in the subcontracting of jobs?

Although, the answer to this question was inferred through indirect sources of data yet the analysis presented in this study shows that there is enough evidence to suggest that under the new economic regime the nonformal sector has proliferated and has increased the number of casual labourers, particularly in the rural areas of Delhi.

- vi. Finally, it was asked whether the post reform period created a scenario wherein the availability and accessibility to basic urban services has improved while intra-metropolitan disparities has strengthened?

While this could not be answered with certainty owing to paucity of recent data, yet the existence of this tendency is confirmed on the basis of available data.

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