URBAN SECTOR ASSESSMENT REPORT

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INDIA

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URBANISATION AND URBAN ECONOMY

The Urban Challenge

The second half of the present century has seen a massive transformation of the development process unfolding in developing countries. In a short span of time, urbanisation has dramatically transformed developing countries from a world of small and distant villages to a world of town and cities. The unprecedented growth of urban population is without historical parallel and this urban challenge offers a unique opportunity for a new style of national development which regards cities as engines of economic growth and generators of income and wealth.

In the 35 years since 1950, the number of people living in cities across the globe tripled, increasing by 1.25 billion. While in the developed regions, urban population nearly doubled from 450 million to 840 million; in the developing countries it quadrupled, from 285 million to 1.15 billion over the period.

According to recent UN projections, the urban population of the developing countries is expected to grow by nearly another one billion in the next 15 years, to reach a level of 1.97 billion by the year 2000, or by 70 percentage points (Table 1.1). This is considerably more than the growth of global urban population (which is projected to increase by 46 per cent) and substantially outstrips the growth of urban population in the industrialized countries, expected to record a 13 percentage increase over the 15 year period.

Table - 1.1

Projected increases in Urban Population in Major World Regions, 1985 - 2000

Region	Urban population (million)		Absolute increase (million)	Percentage increase
	1985	2000		
Africa	174	361	187	108
Asia	700	1187	487	70
Latin America	279	417	138	49
Oceania	1.3	2.3	1	77
Developing Countries	1154	1967	813	70
Industrial Countries	844	950	106	13
World	1998	2917	919	46

Source: United Nations (1989).

Asian Urbanisation

While the arena of urbanisation has clearly shifted to the developing countries, it is the unprecedented pace of urban growth in Asian countries which is likely to play a key role in the unfolding urban scenario in the Third World. Although the level of urbanisation in Asia at 28.1 per cent in 1985, is considerable lower than Latin America where 69 per cent of the population lived in urban areas and also slightly lower than in Africa where the corresponding figure was 29.7 per cent, the absolute urban growth will be the greatest in the Asian region. Asia's cities are expected to gain another 487 million inhabitants during the period 1985 to 2000. The comparative increase for Latin America and Africa are 138 and 187 million respectively. In India alone urban population is projected to increase by 140 million during 1986 to 2000.

Asia's urban growth is characterised by wide variations in the level and rate of urbanisation in different countries (Table 1.2). While the continent contains some of the world's most urbanised countries such as Singapore and Hongkong; it also has some of the least urbanised countries such as Nepal and Bhutan within its frontiers.

Table - 1.2

Urbanisation Pattern in Selected Asian Countries, 1965-1987

Sl. No.	Country	Urban population as percentage of total population		Urban population average annual growth rate		Percentage of urban population in largest city	
		1965	1987	1965-80	1980-87	1960	1980
1.	Bangladesh	6	13	6.4	5.8	20	30
2.	Bhutan	3	5	3.9	4.9	-	-
3.	Myanmar	21	24	3.2	2.3	23	23
4.	China	18	38	2.3	11.0	6	6
5.	Hong Kong	89	93	2.1	1.7	100	100
6.	India	19	27	3.9	4.1	7	6
7.	Indonesia	16	27	4.8	5.0	20	23
8.	Korea,Rep.of	32	69	5.8	4.2	35	41
9.	Laos PDR	8	17	5.2	6.1	69	48
10.	Malaysia	26	40	4.5	5.0	19	27
11.	Nepal	4	9	6.4	7.8	41	27
12.	Pakistan	24	31	4.3	4.5	20	21
13.	Philippines	32	41	4.2	3.8	27	30
14.	Singapore	100	100	1.6	1.1	100	100
15.	Sri Lanka	20	21	2.3	1.2	28	16
16.	Thailand	13	21	5.1	4.9	65	69
17.	Vietnam	-	21	-	3.9	-	21

Source: World Bank (1989).

It may be seen from Table 1.2 that amongst the major Asian countries, the Republic of Korea with 69 per cent of the total population living in urban areas in 1987 and a growth rate of urban population of 5.8 per cent during 1965-80 has the highest

level of urbanisation. India, China, Indonesia, Malaysia, Pakistan and the Philippines constitute an important set of countries in the region, having an intermediate level of urbanisation between 25-40 per cent in 1987, which are urbanizing at a rapid rate. Table 1.2 further shows, that Bangladesh with a still fairly low level of urbanisation of 13 per cent in 1987, had the highest growth rate of urban population in Asia (of 6.4 per cent) during 1965-80.

An important feature of Asian urbanisation is the high degree of primacy in several countries of the region. It may be observed from the above table that a number of Asian cities contain more than a quarter of the nation's urban population. While Bangkok with 69 per cent of the urban population in 1980 was the most `primate' city; Vientiane (48 per cent), Seoul (41 per cent), Manila and Dhaka (30 per cent) and Kuala Lumpur and Kathmandu (both 27 per cent) were the other significant primate cities in Asia in 1980. While both China and India had low primacy levels, with Shanghai and Calcutta both having concentrations of only six per cent of the total urban population; in both these countries over 40 per cent of the urban population is concentrated in large cities of over 5 lakh persons.

India's Urban Transition

The popular notion that India is a largely rural country, with the urban centres merely existing on the periphery of village India, is not really valid any longer. During the last four decades, while the total population of India has almost

doubled, urban population has nearly quadrupled - from 50 million in 1947 to an estimated 217 million as per the latest Census Evaluation. In 1991, India's urban population was the fourth largest in the world next only to the urban population of the USA, USSR and China.

The National Commission on Urbanisation (NCU 1988) have made population growth projections to the year 2001. According to NCU projections by the year 2001 the urban population residing in India's towns and cities will be anywhere between 340 and 350 million. There will be 40 such cities with more than a million people each and Calcutta, Bombay, Delhi and Madras will have more than 10 million each.[1] According to projections made by the United Nations, of the eleven largest cities in the world in the year 2001, with a population of 13 million plus, three, viz., Calcutta (16.53 million), Bombay (16 million) and Delhi (13.24 million) will be in India. These three megacities are expected to grow between the years 1980 and 2000 at phenomenal rates with their percentage growth or population recording 74.7, 88.2 and 108.4 respectively.

The growth of urban India is presented in Table 1.3. It may be seen that at the beginning of the century the urban share of India's population was only 10 per cent (26 million) and even at the time of Independence it was not more than 17.30 per cent (65 million).

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1. The projections of the total population as well as the rural and urban population will have to be revised in the light of the final results of the 1991 Census.

During 1901-91, India's population grew by 3.5 times, its rural population by 3 times but its urban population grew by as much as eight times. And between 1947 and 1991 while the country's total population doubled, the urban population of India increased by three times. The urban population has almost doubled during the last two decades from 109.11 million in 1971 to 217.18 million in 1991. Similar doubling of the urban population was also witnessed during the period 1961-81.

It is important to note that while the total urban population increased eight-fold between 1901-1991, the number of urban settlements increased by less than 100 per cent over the same period. Thus, most of the population growth has occured because of enlargement of existing settlements at every level and not because of the addition of new settlements.

Table 1.3 further reveals that the urban growth rate in the decade 1981-91 slightly exceeded 36 per cent, as against a rural growth rate of a little less than 20 per cent, that is, almost twice the rural growth rate. According to the provisional figures released by the Census Commissioner the annual exponential rate of growth of India's urban population has registered a decline from 3.83 percent during 1971-81 to 3.09 per cent during 1981-91. During the decade 1971-81 the level of urbanisation increased by 3.43 percentage points.

In the decade 1981-91 however, the increase in the urbanisation level has been only of 2.38 percentage points. As a consequence the annual rate of gain in percentage of urban

population has also declined from 1.72 to 1.02. This indicates that the tempo of urbanisation in India has slowed down during the decade 1981-91 as compared to the previous decade.

Table - 1.3

India : Urban Population, 1901-91

India	Urban population (million)	Percentage of urban population to total population	Decadal urban growth rate (per cent)
1901	25.85	10.84	0.0
1911	25.94	10.29	0.35
1921	28.09	11.18	8.27
1931	33.46	11.99	19.12
1941	44.15	13.86	31.97
1951	65.44	17.29	41.42
1961	78.94	17.97	26.41
1971	109.11	19.91	38.23
1981	159.73	23.34	46.14
1991	217.18	25.72	36.19

Source: Provisional Population Totals : Rural-Urban Distribution, Series 1, Paper 2 , Census of India, 1991.

This conclusion of the Census of India has been the subject of debate and some controversy. It is argued that due to several factors, there has been an underenumeration in the 1991 Census which has been provisionally estimated at 3 per cent in the urban areas. Adjusting the urban provisional population totals for this underenumeration factor, brings the "true" urban population of India in 1991 to approximately 223-224 million (not 217.18 million); the level of urbanisation to 26.52 per cent (not 25.72 per cent) and the decadal urban growth rate to 40.24 per cent (not 36.1 per cent).

Urban Economy and Trends in India

The differential urban-rural growth rate is a persisting feature of economic development in India since Independence and has brought about a marked shift in the contribution of the urban and rural sectors to the national economy.

It has been estimated that in terms of its contribution to the national economy , in 1950-51 urban India contributed approximately 29 per cent to the NDP. In 1970-71 the share had risen to 37 per cent and by the year 2001 it is likely to grow to 60 per cent. Considering that about 35 per cent of the population of India is projected to be urban by the year 2001, this means that a relatively small proportion of the population would contribute over 60 per cent of the NDP. And herein lies the importance of the urbanisation process in determining the socio-economic make-up of the country.

A significant feature of Indian urbanisation is that it is characterised by significant diversities in terms of socio-economic and cultural development as well as considerable disparities in terms of uneven regional spread and level of development among different States in India. While urbanisation of hill regions and the coastal areas display multifaceted patterns and diverse inter-relationships; strong inter-State and intra-State variations in the levels of urbanisation are present. At the sometime it is to be observed that areas exhibiting high urbanisation coexist with areas displaying medium and low levels of urbanisation, leading to an uneven development of urbanisation in the country.

Maharashtra with an urbanisation level in 1991 of 38.73 per cent is the most urbanised State in India, followed by Gujarat (34.40 per cent), Tamil Nadu (34.20 per cent), Karnataka (30.91 per cent) Punjab (29.72 per cent) , West Bengal (27.39 per cent), Andhra Pradesh (26.84 per cent) and Kerala (26.44 per cent). At the other end of the spectrum Orissa with an urbanisation level of 13.43 per cent, Bihar (13.17 per cent), Arunachal Pradesh (12.21 per cent), Assam (11.08 per cent), Sikkim (9.12 per cent) and Himachal Pradesh (8.70 per cent) are among the least urbanised. of Dadra & Nagar Haveli (6.67 per cent) are among the least urbanised.

The urban population is the lowest (8.47 per cent) in Dadra & Nagar Haveli. In Sikkim, Himachal Pradesh and Dadra & Nagar Haveli , more than 90 per cent of the population lives in rural areas. In addition, the states in which the rural population is more than 80 per cent of the total population comprise Uttar Pradesh, Meghalaya, Nagaland, Tripura, Orissa, Bihar, Arunachal Pradesh and Assam. In all other states the urban proportion is more than 20 per cent.

Urbanisation in India displays a striking spatial disparity in the distribution of population. Maharashtra, Tamil Nadu and Gujarat, together account for nearly one-third of the country's total urban population, although their share in the total population (urban and rural) is only one-fifth. At the other end of the scale, Karnataka, Punjab and West Bengal together with the above mentioned three States account for nearly one-third of the

country's total population and have nearly half of India's urban population residing within their geographical boundaries.

Indian urbanisation shows marked regional diversities. While the Coastal States (with the exception of Kerala and Orissa) are generally more urbanised than the inland States; virtually all the Hill States including Himachal Pradesh, Sikkim and those located in the North Eastern Region, are at a lower level of urbanisation than the country as a whole.

Urban population growth rates have displayed wide variations at the state level during the decade 1981-91. Mizoram had the highest urban growth rate of 160.27 per cent among all states in India; while Sikkim with a negative urban growth rate (-27.60 per cent) was at the other end of the scale. The negative urban growth rate exhibited by Sikkim was because of the change in the statutory limits of five towns in the state.

A comparison of decadal urban growth rates for the periods 1971-81 and 1981-91 shows that there has been a general slowing down of the pace of urbanisation in 1981-91 as compared to 1971-81. Among the major states, except for Kerala which witnessed an increase in the decadal urban growth rate from 37.64 per cent in 1971-81 to 60.88 per cent in 1981-91, all the other 13 major state experienced a slow down in the urban growth rate during the two decadal periods. The decline in the urban growth rates for the reference decades was striking in the case of Orissa (68.54 per cent to 36.08 per cent) , Uttar Pradesh (60.62 per cent to 38.97 per cent) and Karnataka (50.65 per cent to 29.09 per cent).

The growth of the urban population may be broken into various components like natural increase, net migration from rural to urban areas, change in the status of an area as a result of reclassification and declassification, horizontal extension or the change in the territorial jurisdiction of towns. The contribution of each of these factors has to be separated out for the study of the urbanisation process. As at present there is a lack of information on migration from rural to urban areas or the effect of change in the jurisdiction of towns, we have restricted our analysis to the preceding decade 1971-81.

An analysis of the data reveals that the most significant explanatory factor behind Indian urban growth is natural increase i.e. the increase in birth rates over death rates; a factor accounting for about 41 percent of the total urban growth during the 1971-81 decade.

An equally important factor explaining the rapid pace of urbanisation in India is rural to urban migration which accounted for 40 percent of the total increase in urban population during the reference period.

Increase in urban population by reclassification (resulting in emergence of new towns, alterations in the territorial jurisdictions of existing towns or by small settlements being formally notified as towns) accounted for 19 per cent of the total increase during the period 1971-81.

The statewise picture reveals that during 1971-81, the highest figure for urban migration was recorded by Karnataka (55

per cent). The migration component was lowest in Uttar Pradesh accounting for 22 percent of the total increase during the decade. In the more urbanised State of Maharashtra, West Bengal and Tamil Nadu while migration accounted for respectively 49 per cent, 40 per cent and 32 per cent of urban growth; natural increase in these States was responsible for 46 per cent, 44 per cent and 60 per cent respectively.

This suggests that in India, it would be wrong to assume that it is migration that sustains urbanisation; the share of natural population increase in explaining urban growth is equally if not more substantial.[2]

With the emergence and growth of a large number of small and intermediate urban centres in India , and the diversified economic activities and functions they perform, there has been an increase in urban to urban migration , as skill upgradation has improved the likelihood of labour absorption in the expanding sectors of the urban economy, in particular, the urban informal sector and allied activities.

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2. i) Birth rate, death rate and rate of natural increase for the year 1981-89 are 27.3, 7.7 and 19.6 respectively.

   ii) The increase of population due to new towns in 1991 is 10.04 (J & K excluded).

   Source: i) Provisional Population Totals, 1991, Paper 2, statement 29 p.52

   ii) State of India's Urbanisation, 1991 (unpublished)

There were 23 metropolitan cities in India with a population of more than a million each in 1991. These metropolitan cities together accommodated nearly one-third (32.54 per cent) of India's urban population. The number of metropolitan cities in India increased from 7 in 1961 to 9 in 1971 to 12 in 1981. The number almost doubled during 1981-91.

Though these 23 metropolitan cities are scattered among all the major states their concentration is more in Gujarat, Maharashtra, Tamil Nadu and Uttar Pradesh, each having three such cities. Andhra Pradesh and Madhya Pradesh have two each and seven are distributed among Bihar, Karnataka, Kerala, Punjab, Rajasthan, West Bengal and Delhi.

The total urban population of India in 1991, excluding Assam and Jammu & Kashmir, was spread over 3609 urban settlements of various sizes. Table 1.4 shows that these include 296 cities (population exceeding 100,000); 1268 medium towns (population from 20,000 to 99,999) and 2045 small towns (population less than 20,000). This gives a ratio of 1:4:7 among the larger (cities), medium and small towns in terms of their numbers. In terms of distribution of urban population among different size categories of towns and cities, the table further reveals that approximately seven out of every ten urban dwellers in India are living in its 296 cities, with two out of every ten of the 1991 urban population being residents of medium sized urban centres and one out of every ten urban inhabitants residing in small towns.

Table 1.4

India: Urban Areas and Urban Population

Size class	Number of urban centres 91	Population (million)		Growth rate	
		1981	1991	1971-81	1981-91
Class I (100,000 and more)	296	95.3	138.8	54.35	46.87
Class II (50,000-100,000)	341	18.2	23.3	55.73	28.14
Class III (20,000-50,000)	927	22.6	28.1	30.85	25.30
Class IV (10,000-20,000)	1135	15.0	16.5	27.54	10.72
Class V (5,000-10,000)	725	5.7	5.5	17.82	-1.27
Class VI (Less than 5,000)	185	0.9	0.6	65.73	-21.70
All classes	3609	157.7	212.9	46.23	36.09

* Excludes Assam and Jammu & Kashmir

Source: General Population Tables, Part II(A) (A-4), Census of India, 1981.

Paper 2 of 1991, Provisional Population Totals: Census of India, 1991.

The urban structure of the country is marked by a high concentration of urban population in a few large cities. Table 1.5 reveals that while the number of cities in India increased from 148 in 1971 to 218 in 1981 to 296 in 1991, the number of metropolitan cities went up faster from 9 to 12 to 23 over the same period.

Table 1.5

Growth of Metropolitan Cities in India

Urban centres	Total number		
	1971	1981	1991
Cities (1,00,000 - 10,00,000)	148	218	296
Metropolitan cities	9	12	23

Source: Census of India.

Table 1.6 presents the share of cities in the urban population of selected states in India. It may be observed that out of fourteen states covered by this assessment, with the exception of two low-income states viz. Orissa and Bihar, the remaining twelve states registered an increase in the share of cities in the state's urban population during 1981-91.

At the all-India level the share of urban population living in class I urban centres (population size 100,000 and above) increased from 59.85 per cent in 1981 to 64.34 per cent in 1991 or by 4.49 per cent points. It is however, significant to

observe that over the last two census decades the growth rate of urban population in each size class of urban centre in India has been consistently registering a decline. In particular the decline has been marked in Class I and Class II (urban centres) from 54.35 per cent and 55.73 per cent in 1971-81 to 46.87 per cent and 28.14 per cent in 1981-91 respectively.[3] This evidence suggests that urbanisation in India is tending to display a greater evenness and balance in recent times.

The above feature notwithstanding, there are striking inter-state differentials in the urban growth trend. While the share of cities in urban population increased by more than 13 per cent points in Andhra Pradesh and Kerala; both Punjab and Gujarat witnessed an increase of more than 8 per cent points in their share of population living in class 1 urban centres during 1981-91. The comparable change in the relatively urbanised states of Maharashtra, West Bengal and Tamil Nadu is of moderate degree. The less urbanised states of Orissa and Bihar display a trend contrary to the general, with the share of cities in urban population of these two states declining by 12.79 per cent and 1.54 per cent respectively.

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3. Census of India 1991, Provision Population Totals : Rural Urban Distribution, Paper-2 of 1991, Series-1. India P. 34.

Table 1.6

Share of Cities in Urban Population of Selected States in India, 1981-91

States	Increase Decrease in share (% points 1981-91)	Population in Class I urban centres (100,000+ in million		Per cent of Class I population to State's urban population	
		1981	1991	1981	1991
High Income					
Punjab	8.09	2.15	3.26	46.24	54.33
Haryana	1.98	1.60	2.37	56.54	58.52
Maharashtra	2.53	16.56	23.74	75.31	77.84
Gujarat	8.43	6.15	9.41	58.02	66.45
Middle Income					
West Bengal	4.73	11.12	15.12	76.96	81.69
Karnataka	5.91	6.30	8.95	58.71	64.62
Tamil Nadu	3.69	9.93	12.55	62.26	65.95
Andhra Pradesh	13.15	6.71	11.91	53.72	66.87
Kerala	13.24	2.53	5.09	53.04	66.28
Low Income					
Rajasthan	3.22	3.38	5.03	46.88	50.10
Uttar Pradesh	4.63	10.22	15.48	51.36	55.99
Madhya Pradesh	4.78	4.55	7.33	42.97	47.75
Orissa	-12.79	1.78	1.88	57.23	44.44
Bihar	-1.54	4.72	5.98	54.13	52.59
INDIA	4.49	95.43	139.43	59.85	64.34

Analysis of Growth Behaviour

A statistical examination of the distribution of urban centres by their growth behaviour indicates that of the 3696 urban centres in the year 1991, 899 were identified as fast growing (growth rate being more than 36.19 per cent during 1981-91), 1266 moderately growing (growth rate between 20 to 36.19 per cent) and 1531 slow growing (growth rate less than 20 per cent).

Table 1.7 provides a state level distribution of urban centres by growth behaviour during 1981-91. Analysis of this data reveals that nearly 60 per cent of the fast growing urban centres were located in Uttar Pradesh, Madhya Pradesh, Andhra Pradesh, Rajasthan and Maharashtra while almost 35 per cent of the slow growing urban centres are to be found in Tamil Nadu, Madhya Pradesh and Karnataka. The moderately growing urban centres appear to be concentrated in only six states of India - Uttar Pradesh, Madhya Pradesh, Maharashtra, Rajasthan, Andhra Pradesh and Bihar - which account for more than two-thirds (66.59 per cent) of all such urban centres in the country.

Table 1.7

INDIA : Distribution of Urban Centres by Growth Behaviour

State Name	No. of urban centres 1991	Number (and percentage) of					
		Fast growing urban centres		Moderately growing urban centres		Slow growing urban centres	
		No.	%	No.	%	No.	%
		>36.19		>20.-<36.19		<20.00	
INDIA	3696	899	100.0	1266	100.0	1531	100.0
ANDHRA PRADESH	213	67	7.45	90	7.11	56	3.66
ARUNACHAL PRADESH	10	6	0.67	0	0.00	4	0.26
ASSAM	87	50	5.56	8	0.63	29	1.89
BIHAR	211	39	4.34	90	7.11	82	5.36
GUJARAT	225	36	4.0	66	5.21	123	8.03
GOA	26	4	0.44	4	0.32	18	1.18
HARYANA	90	17	1.89	42	3.32	31	2.02
HIMACHAL PRADESH	55	13	1.45	18	1.42	24	1.57
JAMMU & KASHMIR	0	0	0.00	0	0.00	0	0.00
KARNATAKA	254	39	4.34	65	5.13	150	9.80
KERALA	109	16	1.78	4	0.32	89	5.81
MADHYA PRADESH	433	104	11.57	145	11.45	184	12.02
MAHARASHTRA	290	66	7.34	96	0.00	128	8.36
MANIPUR	30	8	0.89	10	0.79	12	0.78
MEGHALAYA	7	4	0.44	3	0.24	0	0.00
MIZORAM	22	6	0.67	0	0.00	16	1.05
NAGALAND	9	7	0.78	0	0.00	2	0.13
ORISSA	119	14	1.56	49	3.87	56	3.66
PUNJAB	120	22	2.45	49	3.87	49	3.20
RAJASTHAN	215	67	7.45	96	7.58	52	3.40
SIKKIM	8	0	0.00	1	0.08	7	0.46
TAMIL NADU	260	17	1.89	44	3.48	199	13.00
TRIPURA	18	1	0.11	3	0.24	14	0.91
UTTAR PRADESH	702	232	25.81	326	25.75	144	9.41
WEST BENGAL	160	55	6.12	52	4.11	53	3.46
A N & ISLAND	1	1	0.11	0	0.00	0	0.00
CHANDIGARH	1	0	0.00	1	0.08	0	0.00
DADAR & NAGAR HAVELI	1	1	0.11	0	0.00	0	0.00
DELHI	7	2	0.33	0	0.00	4	0.26
DAMAN & DIU	2	1	0.11	1	0.08	0	0.00
LAKSHADWEEP	4	0	0.00	3	0.24	1	0.07
PONDICHERRY	7	3	0.33	0	0.00	4	0.26

Source : National Institute of Urban Affairs, New Delhi, 1991
Calculations own.

In contrast to the standards in many Third World countries, India's urbanisation morphology is not distorted by a high degree of urban primacy. The share of the largest city in the total population is very low. Calcutta had 5.9 per cent of India's urban population in 1981 (and 5.8 per cent in 1901), whereas the equivalent proportion for all low income developing countries, excluding India and China, was 28 per cent.

In a continental sized country such as India it would be more appropriate to compare the degree of urban primacy within individual states rather than the country as a whole. By its very nature urban primacy is, generally, higher in the hill states, in the relatively industrialised and urbanised states and also in most Union Territories. It is noticeably lower in the larger, populous and less developed states. The states with dispersed pattern of agro-industrial development (Punjab, Haryana, Gujarat and Kerala) show a low urban primacy. At the all India level there is a gradual decline in the degree of urban primacy.

Trend of Urbanisation and Urban Growth
By Income Classification of States

With a view to examining whether the forces at work pushing the urban growth rate to higher levels can be sustained by economic development, an attempt is made to correlate the level of urbanisation in different States and its level of economic development, using the State net domestic product data for constructing an income classification of States in India.

The level of urbanisation within individual states is closely related with the growth rate of the State's economy. This is observed from the behaviour of the annual compound growth rate of the State net domestic product over the period 1960-61 to 1980-81. Among the top six states ranked according to their urbanisation level in 1981, with the exception of Tamil Nadu, the rest had relatively high rates of economic growth ranging from 3.77 per cent per annum in Gujarat to 5.08 per cent per annum in the case of Punjab.

However, when considered in terms of the relative shares of states in the urban population of India, no consistent relationship between the level of urbanisation and the State's economic development is observed.

In Gujarat, Maharashtra and Punjab, the relative shares of urban population have declined despite high rates of economic growth; but in Andhra Pradesh and Tamil Nadu, the decline in the share of urban population is accompanied by a comparative slowing down of their economies. There are also states such as Bihar, Madhya Pradesh and Uttar Pradesh which have had accelerated urbanisation despite a slow economic growth.

While the sectoral structure of the economy of the states have undergone substantial shifts over the period 1960-61 to 1980-81 leading to greater diversification in their economic structure; the effects of these shifts within states from the largely primary to secondary and tertiary sectors, again present mutually contradictory trends.

The highly urbanised States of Maharashtra, Punjab, Tamil Nadu and West Bengal exhibit a diversified economic structure, but the relative shares of their urban population show a slight decline during the reference period. Bihar, Haryana, Karnataka, Madhya Pradesh, Rajasthan and Uttar Pradesh have noticeably expanded their secondary or tertiary sectors and in all these states there has been a corresponding rise in the urban population also.

Table 1.8 provides data on the urbanisation level and urban growth trends in the 25 states of India which have been ranked according to the above mentioned income classification.

From an aggregative level of 42.21 per cent in the decade 1971-81 to 36.64 per cent in 1981-91. Despite this declaration, the urban growth rate of three high income states - Goa, Haryana and Maharashtra was higher than the all-India average for the decade 1981-91.

An examination of Table 1.8 reveals that at an aggregate level th high-income and middle-income category states had in 1971, 1981 and 1991 - an urbanisation level higher than theo national average. At the disaggregative level, the high-income state of Haryana and the middle-income states - Sikkim, Himachal Pradesh, Arunachal Pradesh, Jammu & Kashmir, Manipur (in 1971), Nagaland and Mizoram (in 1971) - had an urbanisation level less than the all-India average for all three reference years.

The low-income category states display a different trend with their urbanisation level being consistently lower than the national urbanisation level for each individual state in this category.

The high-income states have been witnessing a deceleration in their urban growth rate from an aggregative level of 42.21 per cent in the decade 1971-81 to 36.64 per cent in 1981-91. Despite this deceleration, the urban growth rate of three high income states - Goa, Haryana and Maharashtra was higher than the all-India average for the decade 1981-91.

Taken together, the twelve middle-income states showed a declining trend with urban growth rate coming down from 38.58 per cent in 1971-81 to 32.58 in 1981-91.

However, the Hill states of Himachal Pradesh, Arunachal Pradesh, Jammu & Kashmir, Nagaland and Mizoram displayed high urban growth rates during 1981-91. Sikkim saw a decline in urban growth largely due to change in the jurisdiction of five of its towns. Kerala considerably improved its urban growth rate over the previous decade from 26.44 per cent in 1971-81 to 60.89 per cent in 1981-91.

An atypical State in the middle-income category is Tamil Nadu which while being one of the most urbanised states in India (urban level of 34.20 in 1991), had the lowest decadal urban growth rate (19.28 per cent) in the middle-income category.

Table 1.8

Urbanisation by States, Ranked according to Income

States	Percentage of urban population to total population			Urban Growth rate (%)		Average per capita income (Rs.)
	1971	1981	1991	1971-81	1981-91	
High Income						
Goa	26.44	32.37	41.02	55.14	48.53	3592
Punjab	23.73	27.68	29.72	44.51	29.11	3407
Haryana	17.66	21.88	24.79	59.47	43.07	2788
Mahrashtra	31.17	35.03	38.73	39.99	38.66	2672
Gujarat	28.08	31.10	34.40	41.42	33.60	2475
Sub-total	27.99	31.66	34.90	42.21	36.64	
Middle Income						
West Bengal	24.75	26.47	27.39	31.73	28.90	1994
Sikkim	9.37	16.15	9.12	159.73	-27.60	1945
Himachal Pradesh	6.99	7.61	8.70	34.76	36.40	1935
Karnataka	24.31	28.89	30.91	50.65	29.09	1778
Arunachal Pradesh	3.70	6.56	12.21	139.63	152.98	1752
Jammu & Kashmir	18.59	21.05	23.83*	46.86	45.99	1737
Tamil Nadu	30.26	32.95	34.20	27.98	19.28	1733
Manipur	13.19	26.42	27.69	165.36	34.73	1711
Nagaland	9.95	15.52	17.28	133.95	74.74	1704
Andhra Pradesh	19.31	23.32	26.84	48.62	42.64	1685
Kerala	16.24	18.74	26.44	37.64	60.89	1660
Mizoram	11.36	24.67	46.20	222.61	160.27	1631
Sub-total	23.01	26.04	28.57	38.58	32.58	
Low-Income						
Rajasthan	17.63	21.05	22.88	58.69	39.24	1599
Assam	8.33	-	11.08	-	38.69**	1593
Tripura	10.43	10.99	15.26	38.93	85.75	1558
Meghalaya	14.55	18.07	18.69	63.98	36.36	1551
Uttar Pradesh	14.02	17.95	19.89	60.62	38.97	1476
Madhya Pradesh	16.29	20.29	23.21	56.03	44.98	1431
Orissa	8.41	11.79	13.43	68.54	36.08	1411
Bihar	10.00	12.47	13.17	54.76	30.39	1195
Sub-total	13.02	17.52	18.25	58.89	38.78	
India	19.91	23.34	25.72	46.14	36.19	2049

In the low income category, the level of urbanisation for the eight low-income states taken together was consistently lower than the national urbanisation level for 1971, 1981 and 1991. The level of urbanisation in 1991 was less than 20 per cent for six of the eight low-income States - the exceptions being Rajasthan (22.88 per cent) and Madhya Pradesh (23.21 per cent). It would appear that a significant relationship exists between the economic development of low-income states and their level of urbanisation.

In contrast to their low level of urbanisation, the urban growth rate of low-income category states (with the exception of Orissa and Bihar) was higher than the national average during 1981-91. While Bihar recorded the lowest growth rate of 30.39 per cent during 1981-91, among all eight low-income states, the highest urban growth rate was achieved by Tripura (85.75 per cent). In terms of the trend, however, the urban growth rate of low-income states has been slowing down. With the exception of Tripura which improved its urban growth rate from 38.93 per cent in 1971-81 to 85.75 per cent in 1981-91, all the remaining low-income states considerably reduced their growth rate over the two census decade.

The present assessment of urbanisation and urban economy has underlined that :

i. The "urban component" of the national economy shows a long-term trend of increasing faster than the rural component. If the present trend

continues the urban-based share of GDP will exceed the rural by the year 2000. This highlights the need for strategies of urban economic development and the positive role of urban centres in the national economy.

ii. A significant feature of Indian urbanisation is that it is characterised by significant diversities in terms of socio-economic and cultural development as well as disparities in terms of uneven regional spread and level of development among different states and Union territories in India. Considerable variations in the level and structure of urbanisation are to be observed with areas exhibiting high urbanisation co-existing with areas displaying medium and low levels of urbanisation in India.

iii. An analysis of Census data reveals that the most significant explanatory factor behind India urban growth is natural population increase; followed closely by rural to urban migration. These two explanatory variables accounted for over 80 per cent of urban population increase while the remaining 20 per cent is due to urban reclassification (resulting in emergence of new towns as well as changes in the territorial jurisdictions of existing towns/small settlements). Following from the above it would

be incorrect to assume in the Indian case that it is migration that sustains urbanisation; the share of natural population increase in explaining Indian urban growth is equally if not more substantial.

iv. At the same time with the emergence of growth of a large number of small and intermediate urban centres and their diversified economic function has improved the likelihood of labour absorption particularly in the urban informal sector and allied activities and given a push for urban-urban migration.

v. The evolution of the Indian urban morphological structure till 1991 shows an increasing trend of concentration of population in the metropolitan cities. In terms of numbers while cities (population size: 1,00,000 and above) have doubled during the period 1971-1991; metropolitan cities (population size: million plus) have increased by more than two and a half times during the same period.

vi. Further the evidence shows that in contrast to the standards in many developing countries, India's urbanisation morphology is not distorted by a high degree of urban primacy.

CHAPTER II

URBAN ENVIRONMENT

The urban environment is a vital factor for sustaining life in the towns and cities. Healthy urban environmental conditions constitute an essential component of the life-support system which facilitate organic growth of the physical, social and cultural elements in the urban economy.

Urbanisation is not simply the aggregation of growing population in a limited area. It is an integral part of the development process, with major economic, demographic, cultural and environmental dimensions. The dimension and scale of urbanisation which has taken place in India, particularly since Independence has been dealt with in the Introductory chapter. We now turn attention to the state of India's urban environment and make an assessment of the environmental consequences of rapid urbanisation with special reference to the living conditions and quality of life of India's teeming urban population.

At the outset it is important to emphasise that the enormous pressure for shelter and services in most large cities has frayed the urban fabric. Much of the housing used by the poor is decrepit. Civic buildings are frequently in a state of disrepair and advanced decay. So too is the essential infrastructure of the city. Public transport is overcrowded and overused, as are roads, buses and trains, transport stations, public latrines, and washing points. Water supply systems leak and a large proportion

of the city's population often has no piped water, storm drainage, or roads. [4]

With modern urbanisation processes bringing about large changes to the configuration of Indians towns and cities, the sectoral structure of the urban economy has also undergone substantial changes with greater diversification of the economic base and the emergence of cities as leading centres of industry, trade, and services.

Although air and water pollution might be assumed to be less pressing in Indian cities because of lower levels of industrial development, in fact a large number of such cities, in particular the metropolises, have high concentrations of industry. Air, water, noise, and solid waste pollution problems have increased rapidly and have serious deleterious impacts on the living conditions and health of city inhabitants.

Urban areas, by their nature,are net importers of pollution : they import raw materials, export finished products, and retain waste and pollution as a net residual of the production process. Domestic household waste is also highest in urban areas due to the combination of high density and relatively high income.

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4. J.E.Hardoy and D.Satterthwaite, Shelter: Need and Response; Housing, Land and Settlement Policies in Seventeen Third World Nations (Chichester, U.K.: John Wiley and Sons.1981)

At the same time, urbanisation involves greater concentration of pollutants as well as the increasing substitution of non - biodegradable materials for organic materials. The durability of these materials, which makes them attractive in an urban society, means that if they are improperly disposed of, their effects will be long lasting and cumulative.

With urban densities becoming higher the uncontrolled physical expansion of cities has also had significant implications for the urban environment and economy. Uncontrolled development makes provision of housing, roads, water supply, sewers, and public services prohibitively expensive. Rapid urbanisation has led cities to often exceed their own resource base capacity and as a result environmental challenges associated with urban development have become more formidable than ever before.

The state of India's urban environment has been assessed in terms of the prevailing situation with regard to the following five priority environmental impact areas:

i Urban overcrowding;

ii Urban water pollution;

iii Solid waste management;

iv Urban air pollution;

v Urban health.

Urban overcrowding

There has been a greater awareness in recent years among the planners and administrators about urban slums and the serious threat they pose to the environmental quality of Indian cities.

Despite more than 70 statutory development authorities in various cities in India, urban slums -- which generally constitute a cluster of huts with sub-normal living and environmental conditions -- continue to grow rapidly.

Table 2.1 provides data on the estimated slum population in India by the size class of urban centres in 1981. It may be observed from the table that 18.75 per cent of India's urban population (or about 30 million out of the total urban population of 160 million) was living in slums in 1981.

Table 2.1

India's Estimated Slum Population by Size Class of Towns and Cities, 1981

Population Size Class of towns	Percentage of slum population to total population in each size class	
	NBO's Estimate	Task Force's estimate
Less than 100,000	10.66	17.5
100,000 to one million	18.93	21.5
One million plus	30.78	35.5
All classes	18.75	23.0

Source : 1 National Buildings Organisation, Handbook No. 3 Housing Statistics, 1981, New Delhi

2. Task Force on Housing and Urban Development, Planning Commission, New Delhi, 1981, Low and high estimates have been averaged for this Table.

The Task Force on Housing and Urban Development appointed by the Planning Commission, New Delhi, provided two estimates a low estimate of 20 per cent and a high estimate of 26 per cent of the urban population in India residing in slums in 1981. An average of the low and high estimates works out as 23 per cent or in other words, the number of urban slum dwellers reached 36.8 million in that year (Table 2.1).

The percentage of slum population in urban population differs widely by states. The highest percentage of urban population living in slums is in Bihar (37.5 per cent), which is a state having the lowest average per capita income among states in India. By comparison, other low income states of Orissa, Assam, Uttar Pradesh, Madhya Pradesh and Rajasthan are characterised by comparatively small proportion (one-seventh to one-sixth) of slum population in urban places.

The lowest percentage of urban population in slums is to be found in Kerala (8.81 per cent). Karnataka also had a low percentage (14.43) of slum population. The relatively urbanised states of Maharashtra and West Bengal, having the megacities of Bombay and Calcutta respectively, record nearly one-third of their urban population as slum dwellers. By comparison Tamil Nadu, another relatively urbanised state and also containing the megacity of Madras, has a slum population slightly less than one-fifth of its urban population. Gujarat, another relatively developed state has 18.84 per cent of its urban population living in slums. Both Maharashtra and Gujarat have a per capita income greater than the national average, while Punjab, the state with the second highest per capita income in the country has about one-third its urban population residing in slums. (Table 2.2)

Table 2.2

India's Percentage of Urban Population living in Slums by States, 1981

State	Percentage of slum population in towns/cities			
	Less than 100,000	100,000-1,000,000	1,000,000+	Total
Bihar	37.50	37.48	37.51	37.50
Maharashtra	22.50	32.49	37.50	32.62
West Bengal	17.49	27.48	37.49	31.53
Andhra Pradesh	32.50	32.50	22.51	30.47
Punjab	22.49	27.48	37.49	31.53
Gujarat	17.49	17.82	22.50	18.84
Tamil Nadu	12.49	15.00	32.50	18.75
Orissa	17.45	19.95	*	18.49
Assam	-	-	-	17.46
Haryana	7.47	22.419	*	15.98
Uttar Pradesh	7.49	17.49	40.63	15.76
Madhya Pradesh	17.50	12.50	*	15.15
Karnataka	14.43	12.49	10.43	14.43
Rajasthan	9.98	14.95	27.50	14.06
Kerala	7.49	9.98	*	12.47

* : Denotes not applicable
\- : Stands for data not available.

Source : Task Force on Housing and Urban Development, Planning Commission, New Delhi (1983)

The growth of urban slums in some major Indian cities is shown in Table 2.3. It may be observed that in all the cities, the number of slum dwellers have registered an increase during the second half of the 1970s. The increase ranges between a minimum of 21.4 percentage points in Kanpur to a maximum of 129 percentage points in Delhi during the reference period. While Bombay recorded only an increase of 29 percentage points, the city had more than half (51.03 per cent) its population residing in urban slums in 1981. This record is matched by Delhi where 52 per cent of the urban population were living in slums in that year.

Table 2.3

Slum Population growth in major Indian Cities

Metropolitan	Year	Population of city (millions)	Slum population (millions)	% of slum
Calcutta	1974	3.19	1.44	45.00
	1981	9.16	3.24	35.35
Greater Bombay	1976	7.94	3.25	41.00
	1981	8.23	4.20	51.03
Delhi	1977	5.29	1.32	25.00
	1981	5.71	3.02	53.00
Madras	1977	2.47	0.99	40.09
	1981	4.27	1.36	31.86
Hyderabad	1977	1.99	0.40	20.00
	1981	2.52	0.54	21.28
Ahmedabad	1976	1.89	0.42	22.00
	1981	2.51	0.66	26.16
Kanpur	1976	1.33	0.56	41.98
	1981	1.68	0.68	40.34

Source : Task Force on Housing and Urban Development, Vol IV p.32 Planning Commission, New Delhi, 1983.

Shelter conditions in urban slums are alarming. Table 2.4 gives the data on households, with family size greater than six persons ,occupying one room tenaments in the 12 metropolitan cities as per 1981 census. It may be observed from the table that Bombay has taken the first place in households occupying one room tenament with a family size of more than six persons which comes to 24.6% followed by Pune with 20.8% and then Ahmedabad. Bangalore and Nagpur with 17.1%, 16.7% and 16.4% respectively (see table). The cities having least households occupying one

room tenament having family size of more then six persons are Jaipur, Hyderabad, Lucknow, Madras & Calcutta where the figures are 10.7%, 12.0%, 13.3%, 13.5% and 14.2% in the ascending order. Delhi has 15.0% of households in the one room tenaments where the family size is more then six persons.

Table 2.4

Households Occupying One Room Tenament
Having Family Size More Than Six Persons, 1981

Urban centres	Total no.of HHs	HHs staying one room tenament having family size > 6 persons	% of HHs	Population 1981
Hyderabad U.A.	432,855	52,075	12.0	2545836
Ahmedabad U.A.	471,740	80,545	17.1	2548057
Bangalore U.A.	521,550	86,910	16.7	2921751
Greater Bombay MC	1,617,610	398,710	24.6	8243405
Nagpur U.A.	235,425	38,645	16.4	1302066
Pune U.A.	326,645	68,075	20.8	1686109
Jaipur U.A.	182,800	19,645	10.7	1015160
Madras U.A.	834,445	112,785	13.5	4289347
Kanpur U.A.	309,405	48,760	15.8	1639064
Lucknow U.A.	183,385	24,385	13.3	1007604
Calcutta U.A.	1,751,005	247,995	14.2	9194018
Delhi U.A.	1,133,885	169,883	15.0	5729283

Source: Census of India, 1981, Part VIII-A & B(ii), HHs Tables (Table HH-2 to 4) P-A-205.

A survey of about 4,000 households in nine slums in Bombay revealed that nearly 40 per cent have two to four persons packed into one room, another 35 per cent households have five to nine persons crammed into one living room, and one per cent have 10 or more persons living in one room. The depredation of the slum environment could be gauged from the fact that no house had private toilet facilities. A quarter of the households surveyed

did not even have community toilets and were hence forced to use open spaces around the slums. Over a third had no drainage facilities and another 40 per cent had uncovered drains. The lack of basic civic amenities therfore has made the slum environment extremely dirty, unhygienic and prone to sickness.[5] The picture is replicated at the town and city level. Data reveal that a little less than one-fifth of the slums in Class I and II towns in 12 States were having underground sewerge facilities with the bias towards Class I urban centres. Around half the slums in these states possessed open surface drains which were generally filthy, hazardous to health and played havoc with the lives of slum dwellers particularly during the rainy season when they overflowed.

Urban water pollution

A safe and adequate urban water supply system is a basic need of human settlements and forms an essential component of the urban environment. While most urban areas in India have a public water system, the adequacy of the system in terms of its coverage and quality leaves much to be desired. According to the mid-term Review[6] of the Water Decade Programme , as much as 27 per cent of the urban population in India is officially estimated not to have any access to potable water supply. In slightly more than half the states the proportion of urban population covered by piped

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5. The State of India's Environment, 1984-85, Centre for Science and Environment, New Delhi, p.138

6. Mid-term review of Water Decade Programme, Ministry of Urban Development, Govt. of India, 1985.

water supply was less than the national average (73 per cent) in 1985, the latest year for which data is available, with particularly unsatisfactory coverage in the low income states of Assam, Bihar, Orissa and Rajasthan.

That India has still to go a long way to provide potable water supply to its urban inhabitants is evident . While the statistics show that the proportion of urban population in India covered by water supply has marginally increased from 72.3 per cent in 1981 to 72.9 per cent in 1985 there is a wide variation of coverage across different states.

At the same time it is important to note that access to water supply does not mean either that this essential resource is readily available, or that the water is potable. While it is true that the quantum of water supplied is not in conformity with the demand for water, it is often the case in most Indian cities that water is supplied only for a few hours daily and sometimes not even on every day. This causes severe problem particularly to households without private storage, particularly urban inhabitants dependent on public standposts for their requirement.

In addition to inadequate coverage and access of the urban population to piped water supply, the quality of water is also not assured. There is always the risk that poor maintenance of the pipelines may lead to contamination of drinking water with sewerage. Most of the key elements of urban water supply systems in Indian cities are in serious deterioration. The major reasons for this include the increasing degradation of surface and

ground waters due to soil erosion, agricultural run- off containing pesticides and chemicals, industrial discharges, inadequate treatment and discharge of municipal wastewater and contaminated water supplies to urban areas.

According to a study by the CPHEEO,[7] by the year 2001, 15 per cent of the urban demand may have to be met from the ground water. It has been observed that a large number of municipalities in India do not have proper scientific treatment facilities. Often however, it happens that even with adequate treatment, the absence of continuous pressure in the main distribution channels, leads to inward leakages of pollutants. Even properly treated water can thus become polluted before it reaches the final consumer point at standpipes or in homes.

Environmental Sanitation and Solid Waste Management

One of the most obvious problems facing the urban areas of India is solid waste collection and disposal. In public parks, side streets and back alleys in almost every neighbourhood one finds uncollected garbage. In many cases it has been left for weeks.

In India, solid waste systems are traditional and by statute provided by the municipal bodies and they are wholly responsible for the collection and disposal of waste and for maintaining proper environmental sanitation in areas within their jurisdiction.

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7. Status of Urban Water Supply - A report CPHEEO (1978). See also: Status of Water Supply and Waste Water Collection, Treatment and Disposal in Class I Cities - 1988. Central Pollution Control Board, New Delhi.

Urban solid wastes are of various types. They include: (a) (i) domestic waste, (ii) waste generated by commercial and office establishments, (iii) institutional waste, (iv) waste and garbage on roads and streets and, (v) waste from industries. Normally, waste generated by industrial establishments due to its special nature is treated and disposed of by the industries themselves.

Waste generated per capita is usually a factor of city functions, and often of city size. As the function of a city undergoes a change, there is a corresponding change in the quantities of waste, caused essentially by the generation of non-domestic wastes. City size also affects the quantity of waste generated in urban areas.

Table 2.5 presents the data on the refuse collection and disposal rates in different states classified according to income. It may be observed that the average urban garbage disposal rate in 1986/87 in India was about 0.26 kg. per person per day. Removal of garbage in cities and towns has lagged behind the refuse generation in all states without exception. At the all-Indian level, a high proportion of 27.5 per cent of total waste generated remains uncollected and scattered on streets and other city areas.

Table 2.5

Refuse Generation and Disposal by States, 1986-87

States	Per Capita (Grams/Day)		Per cent waste
	Generation	Disposal	Undisposed
High Income States			
Goa	816.48	612.36	25.00
Punjab	502.04	354.45	29.40
Haryana	326.33	268.02	17.87
Maharashtra	450.48	322.30	28.45
Gujarat	296.98	181.66	38.83
Sub-Total	387.32	273.83	29.30
Middle Income States			
West Bengal	158.14	117.39	25.77
Himachal Pradesh	967.07	587.59	39.24
Karnataka	292.38	238.71	18.36
Jammu & Kashmir	516.87	383.63	25.78
Tamil Nadu	293.58	216.29	26.33
Manipur	122.22	88.00	28.00
Nagaland	550.39	396.28	28.00
Andhra Pradesh	346.27	256.96	25.71
Kerala	246.36	201.02	18.40
Mizoram			
Sub-Total	307.60	234.15	23.88
Low Income States			
Rajasthan	515.84	321.89	37.60
Assam	233.79	175.80	24.80
Tripura	589.63	333.27	43.48
Meghalaya	272.72	208.55	23.90
Uttar Pradesh	438.91	341.25	22.25
Madhya Pradesh	228.99	167.37	26.91
Orissa	300.56	184.01	38.78
Bihar	410.55	241.60	41.15
Sub-Total	132.80	94.09	29.15
All India	364.61	264.24	27.53

Source : Upgrading Municipal Services Norms and Financial Implications, NIUA Research Study Services Number 38, (1989)

Analysis of Table 2.5 reveals that the middle income states have in general fared better than the high and low income states in terms of urban-solid waste management. About 24 per cent of the waste generated remained undisposed as against the national average of 27.53 per cent. The exceptions are the hill states of Himachal Pradesh, Manipur and Nagaland which had relatively unsatisfactory waste disposal facilities in urban areas.

While the highest level of per capita urban waste generation was recorded by Himachal Pradesh (.967 kg. per day) followed by Goa (.816 kg. per day) and Tripura (.589 kg. per day), Manipur and West Bengal had the lowest levels of per capita waste generation of .122 kg. and .158 kg. per day respectively.

The record in terms of urban waste left undisposed shows that Tripura and Bihar had the most unsanitary conditions with 44 per cent and 41 per cent of waste generated left undisposal. Haryana, Karnataka and Kerala with an urban waste disposal rate of about 72 per cent emerge as the three states in the country with highest level of environmental sanitation.

Open air defecation is a common practice in the urban areas of India even today. These human faeces spread cholera, typhoid, dysentery, diarrhoea and jaundice. At least a third of the urban population - well over 50 million people - do not have access to latrines of any kind. Another third are served by bucket latrines which are hardly sanitary. The rest, mainly in the large cities, have access to sewered facilities. In small and medium towns, excreta is often flushed into open drains a long the street.

The situation with regard to sewerage and drainage in urban areas of India is distressing. All cities with population over 1,00,000 are required by law to provide water-borne sewerage systems. A survey of urban sewerage facilities conducted by the National Institute of Urban Affairs (1986-87) revealed the alarming picture that as many 109 of the 159 sampled urban centres were without an effective sewerage system. As per the accepted norms, at least 150 litres per capita per day water supply is needed for efficient functioning of the sewerage system in any city or town. The NIUA study found that even if this norm is lowered to 100 letter level, "only 81 per cent of the responding urban centres would seem to have effective sewerage systems in terms of per capita water availability.[8]

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8. Upgrading Municipal Services Norms and Financial Implications, NIUA Research Study Services Number 38, (1989) P. 31.

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BOX 2-1

Environmental Problems in Indian Cities

Out of India's 3119 towns and cities, only 209 had partial and only 8 had full sewerage and sewage treatment facilities. On the river Ganges, 114 cities each with 50,000 or more inhabitants dump untreated sewerage into the river every day. DDT factories, tanneries, paper and pulp mills, petrochemical and fertilizer complexes, rubber factories and a most of others use the river to get rid of their wastes. The Hooghly estuary (near Calcutta) is choked with unheated industrial wastes from more than 150 major factories around Calcutta. Sixty per cent of Calcutta's population suffer from pheumonia, bronchitis, and other respiratory diseases related to air pollution.

Source: Centre for Science and Environment, State of India's Environment: A Citizen's Report, New Delhi (1983).

Urban Air Pollution

Urban transport in India is a nightmare. Totally inadequate and hopelessly overburdened public transportation services, chaotic traffic on major routes, worsening traffic congestion and unsafe roads, have brought the urban transport network in major Indian cities to near breakdown and collapse. the urban poor are especially vulnerable because their low incomes can not bear increased transport with consequent limited mobility of the economically.

With disorderly and uncontrolled growth of urban transport, environmental problems are becoming particularly acute. The automobile has emerged as the main polluter of air in the cities. Many of us are not aware that a middle-sized urban centre annually emits into the air upto 800 kilograms of carbon monoxide and hundreds of kilograms of other toxic substances.[9] And in urban India today there are over 15 million vehicles including car, jeeps, buses, trucks, auto rickshaws not to mention two wheelers and motorcycles.

Automobiles lead all other means of transportation in polluting the environment. Researchers have found a large number of polluting components in the exhaust of automobiles most of which are toxic including carbon monoxide, nitrogen oxides, aldehydes and other hydrocarbons. Each of these components is in

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9. R. Rama Rao, Environment : Problems of Developed and Developing Countries, Economic and Scientific Research Foundation, New Delhi, 1976, p. 23

one way or another detrimental to human health. For example, as carbon monoxide enters the blood stream it exerts an adverse influence on blood cells which then lose their ability to carry oxygen. Nitrogen oxides are no less dangerous. A person may be able to live without food for a time, but he cannot stop breathing. Research has proved that air pollution has caused an increase in the number of incidents of such diseases as lung infections, coronary ailments, cancer, bronchitis, myocardial diseases, pneumonia, vascular lesions of the nervous system among other ailments.

In the Indian metropolitan cities the ambient air quality mainly consists of three compounds which are sulphardi-oxide, the nitrogen di-oxide and the suspended particulate matters. The data which is available in Table 2.6 is based upon the 16 hours monitored day in the few cities of Ahmedabad, Bangalore, Pune, Madras, Lucknow and Delhi, and is for the year 1989. The figures are annual and taken from strategic points or locations of the cities which are either industrial, residential and sensitive locations.

The minimum sulphar di-oxide compound present in the ambient air is below detection limit (BLD) in the (L.D. Engineering College) and (AESO Sabarmati locations) of Ahmedabad city. Similarly, in the city of Pune both the locations have sulphar di-oxide below the limit (see table 2.6). In Madras also, all the five locations and one location (Vikas Nagar) in Lucknow and one in Delhi (Nizamuddin) has Sulphar di-oxide BDL. However,

the maximum Sulphar di-oxide present in ambient air is in Ahmedabad (AESO Sabarmati) which is 172.3 mu.g/cub.m followed by (Cadilla Narol) 156.5 mu.g/cub.m again in Ahmedabad.

The minimum Nitrogen di-oxide present in the ambient air is in Delhi (Nizamuddin) is BDL. On the other hand the maximum Nitrogen di-oxide compound present in ambient air is in Ahmedabad (Shardaben Hospital) which is 261.0 mu.g/cub.m followed by Madras (Thiruvottiyur) 217.8 mu.g/cub.m and then 187.5 mu.g/cub.m in Ahmedabad (Naroda GIDC).

The minimum suspended particulate matters present in the ambient air is in Bangalore (Jayanagar Police station) which is 11 mu.g/cub.m followed by 13 mu.g/cub.m in (Karnataka Soaps and Detergents (ASEA)) in the same city. However, the maximum figures is 1462 mu.g/cub.m in Delhi (Shahzada Bagh) followed by (Shahdara) 1722 mu.g/cub.m in the same city, the next position is occupied by (Ashok Vihar) 1462 mu.g/cub.m again in the same city of Delhi.

In the recent ambient air quality watch conducted by Central Pollution Control Board of eight hours average value at Bahadurshah Zafar Marg (I.T.O. crossing) Delhi revels that Sulphar di-oxide, Oxide of Nigrogen and Carbon Monoxide are within the acceptable values. However, suspended particulate matter continues to be higher then the acceptable norms is 856 mu.g/m^3 and 1044 mu.g/m^3 during 6 a.m. to 2 p.m. and 2 p.m. to 10 p.m. respectively, as against the acceptable value of 500 mu.g/m^3. A World Bank report says that as many as 400 million

city dwellers in developing contries like India will be exposed to unhealthy and dangerous levels of air pollution by the end of the century should be given immediate attention. Delhi being one of the most polluted city of the world has an automobile account for 60 to 70 per cent of air pollution which has increased by about 75 per cent in the last decade. Nearly two million automobiles accounts for 1000 tonnes of emissions per day in Delhi, for Bombay and Bangalore the figure is 574 and 264 tonnes respectively in 1986-87 and for Madras and Ahmedabad it is 297 and 209 tonnes in 1987-88. In Delhi the incidence of respiratory diseases is 12 times the national average which affects 30 per cent of population due to street level pollution vehicular exhaust which contain carcinogenic elements and contributes to an increase in the incidence of lung cancer. However, the Department of Non-conventional Energy Sources (DNES) has shown through successful tests that the use of 15 per cent diesel along with Ethanol and Methanol can cause a 30 to 35 per cent reduction in the pollution caused by Delhi Transport Cooperation (DTC) buses.

Table 2.6

India : Ambient Air Quality 1989
Metropolitan Cities

(Fig. in mu.g/cub.m) and are annual

City/Location/ Area class	Sulphar di-oxide				Nitrogen di-oxide				Particulate matters			
	Min.	Mean	Max	Hrs	Min.	Mean	Max	n	Min.	Mean	Max	n
1	2	3	4	5	6	7	8	9	10	11	12	13
Ahmedabad												
Cadilla Narol I	50	54.5	156.5	141	7.0	35.8	124.8	143	117	327	946	150
L.D. Engineering college R	BDL	10.0	50.0	150	3.8	40.4	149.2	154	62	251	527	159
Shardaben Hospital I-C	2.0	26.1	113.5	135	10.0	50.8	261.0	136	110	340	772	140
Naroda GIDC I	0.8	24.7	123.2	162	6.7	50.1	187.5	165	72	232	514	168
AFSD Sabarmati I-R	BDL	19.5	172.3	142	11.7	36.9	96.5	142	124	363	1105	142
Bangalore												
Graphite India I-R	6.2	25.5	130.5	56	2.2	11.1	58.9	55	17	134	961	58
Amco Batteries I-R	8.8	33.4	101.9	51	5.0	17.4	47.7	51	70	204	1029	53
Anand Rao Circle C	7.2	26.9	104.4	39	7.7	22.7	69.7	40	21	141	478	43
Karnataka Soaps I Detergents (ASEA), Penya	9.0	18.2	54.2	39	3.6	10.2	49.8	38	13	102	305	46
Jayanagar Police Station R	7.0	18.9	38.6	42	3.0	11.2	28.1	45	11	88	374	52
Pune												
Alandi Road I	BDL	11.6	70.7	94	6.5	41.6	135.8	92	41	182	389	57
Vehicular Traffic C	BDL	8.8	36.5	130	5.0	39.1	113.8	129	72	237	793	94

Contd..

Air Pollution

There are four major sources of air pollution; industry; fuels for cooking, heating, and electricity generation; solid waste disposal and motor vehicles. The scale of the problem and the relative contribution of different sources varies from city to city. Local conditions such as the dispersion characteristics can increase or decrease the severity of the problem. Localized problems occur in and around particular businesses or roads.

Stone quarries and brick making often located near the periphery are major sources of particulate matter. Vehicular emissions consist of carbon monoxide, oxides of nitrogen, lead, hydrocarbons and suspended particulates. Even though the number of vehicles is not very large, a combination of narrow streets and poorly maintained vehicles increases the level of emissions.[10]

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10. Hardoy,J.E. and Satterthwaite,D. 1989, **Urbanisation and Sustainable Development**, U.N.Centre for Human Settlements, Nairobi. pp.31-34.

Table 2.7 provides the 1990 levels of suspended particulate matter (SPM) in the residential areas of metropolitan cities collected by the Central Pollution Control Board. The World Health Organisation guidelines for SPM are 60 - 90 micrograms per cubic metre for the annual mean and 150 - 230 for the daily average. The levels of suspended particulate matter in Indian cities are very high - unacceptably high in terms of international standards. Levels in industrial and commercial areas are higher than

the levels shown in the Table. Nitrogen dioxide levels have also shown an increasing trend over the period 1978 - 87 in most of the metropolitan cities, including high levels of vehicular pollution. [11]

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11. Sundaresan, B.B., 1991. "Air Pollution: The Dangerous Dimensions", The Hindu Survey of the Environment 1991, Madras.

Table 2.7

Suspended Particulate Matter (SPM) Levels in the Residential Areas of Major Indian Cities, 1990.

	(in micrograms per cubic metre)
Ahmedabad	357
Bangalore	165
Bombay	228
Calcutta	136
Delhi	383
Hyderabad	136
Jaipur	357
Kanpur	566
Madras	136
Nagpur	130
Pune	247

Source: Central Pollution Control Board, New Delhi. National Ambient Air Quality Statistics.

Urban Health

In the context of a deterioration in environmental conditions, therefore, it is not surprising that India faces, although to a lesser degree, a grim health scenario with its vulnerable urban population under severe health risks. A growing number of the urban poor suffer from a high incidence of diseases; most are environmentally based and could be prevented or dramatically reduced through relatively small investments. Acute respiratory diseases such as ,tuberculosis, gastro intestinal illnesses and diseases linked to poor sanitation and contaminated drinking water (diarrhoea, dysentery, hepatitis, and typhoid) are usually endemic and constitute one of the major causes of illness and death, especially among children and women of reproductive age.

Table 2.8 shows the distribution of reported cases of death by major illnesses among States in 1987. It can be observed that water and sanitation related illnesses such as cholera, dysentery and gastroenteritis accounted for about 60 per cent of all urban deaths at the all-India level. Tetanus was responsible for another 38.43 per cent of reported deaths according to major illnesses in urban India.

Table 2.8

Distribution of reported urban deaths by major illness by states 1987

States	Cholera	Dysentry	Gastroenteritis	Tetanus	Malaria	Total Deaths
High Income States						
Punjab	0	16	121	187	0	324
Haryana	0	107	4	316	0	427
Maharashtra	18	173	450	563	2	1206
Gujarat	11	42	213	118	1	385
Sub-Total	29	338	789	1184	3	2343
Middle Income States						
Sikkim	0	7	6	0	0	13
Himachal Pradesh	0	29	140	20	0	189
Karnataka	87	72	414	256	0	829
Arunachal Pradesh	0	16	5	2	0	23
Jammu & Kashmir	0	14	18	3	0	35
Tamil Nadu	88	34	1186	56	0	364
Manipur	0	0	5	2	0	7
Nagaland	0	11	16	2	0	29
Andhra Pradesh	11	290	659	486	1	1147
Kerala	7	68	181	42	1	299
Mizoram	0	9	17	1	0	27
Sub-Total	193	550	1647	870	2	3262
Low Income States						
Rajasthan	0	104	116	248	-	468
Assam	0	171	102	132	14	419
Tripura	0	11	13	2	-	26
Meghalaya	0	26	11	1	1	39
Uttar Pradesh	0	266	322	436	-	1024
Madhya Pradesh	0	256	52	486	13	807
Orissa	0	275	420	275	90	1060
Bihar	0	18	27	30	11	86
Sub-Total	0	1127	1063	1610	129	3929
All India	222	21015	3499	3644	134	9534

Source : Health Information India, 1988

A state level analysis reveals that deaths due to water borne diseases were higher in the hill states of Sikkim, Himachal Pradesh, Arunachal Pradesh, Jammu & Kashmir, Nagaland, Tripura and Meghalaya accounting for more than nine-tenth of all deaths by major illnesses. In the highly urbanised states of Maharashtra and Gujarat more than half the reported urban deaths took place due to Cholera, dysentery and gastroenteritis. The lowest rate of death due to water borne diseases is to be found in Haryana where one in four deaths took place due to this factor. It is hence evident that health conditions in urban India are strongly influenced by environmental conditions, with the incidence of such diseases likely to be greater in the urban slums and informal settlements which face even more degraded and impoverished environments.

BOX 2-B

SLUM SICKNESS

Data from India's major cities indicates that the most common illnesses in slums are respiratory diseases, gastrointestinal disorders, skin diseases, worms, ear, nose, and throat (ENT) infections and tuberculosis. Venereal diseases are found mostly among migrant men who have left their wives behind in the village.

In Delhi, the Town and Country Planning Organisation (TCPO) survey of four squatter settlements found that 56 per cent of the households had suffered from malaria within their previous year, and 27 per cent from diarrhoea.

Calcutta's slums appear to be the worst affected . A recent survey by the Calcutta Metropolitan Development Authority (CMDA) of an upgraded basti found that 76.4 per cent of the household reported respiratory diseases in the previous year, 65.5 per cent reported gastro-intestinal disorders, 62.4 per cent diseases of the mouth, teeth and gums, 35 per cent viral infections, 17 per cent tuberculosis, 15.6 per cent heart diseases, 16 per cent skin diseases and 14 per cent ENT diseases.

Source : The State of India's Environment, 1984-85, Centre for Science and Environment, New Delhi, p. 146.

CHAPTER III

URBAN EMPLOYMENT

In post-Independence India, the concern for employment generation has received the highest priority, although programmes to translate that concern into reality, have been less than fully expressed, particularly with reference to the rapidly growing urban areas of the country, and the consequent indifference has been carried over from one Plan to the other.

The nature, characteristics and extent of urban employment in India has under gone important changes in recent years. While it is well recognised that India lags behind in the utilisation of idle human resources for socio-economic development, systematic study of the dimension and trend of urban employment in India remains an area of relative neglect, in significant part due to problems of data base which is often weak and unreliable.

In this Chapter, an assessment is made of the urban employment situation in India, with particular reference to the period 1961-1981. The assessment relies on Census of India and National Sample Survey Organisation (NSSO) data and is based on an analysis of the level, trend and pattern of employment in urban areas at the all India and regional (State) levels. The focus of this assessment is on the major changes that have taken place in the urban employment, as well as, unemployment situation in the country over the last three decades.

The earlier sections of this Report have highlighted that since Independence urbanisation has been extremely rapid, and this is mainly a consequence of the advances made by the country in the areas of trade, commerce, industry, communications and education.This has resulted in a significant shift in the economy from the agricultural to the urban sector particularly as the urban component has increased with the graduation of a number of villages into towns during this period.

The observed urbanisation trend in India has had a significant impact on the structure of the urban labour market ith the sectoral distribution of urban employment displaying noticeable changes in recent decades.

Table 3.1 provides data on the sectoral distribution of urban employment in India for the years 1961, 1971 and 1981. It is interesting to note that urban employment in the country registered a significant increase from 26.14 million persons in 1961 to 31.62 million in 1971 and further to 46.08 million in 1981. In other words, aggregate urban employment in the country increased by 76.28 percent over the twenty year period while the population increase was 101.75 per cent over the specified period.

The table further reveals the dominance of urban services and industry in the urban employment structure. As of 1981, tertiary activities accounted for 52.15 per cent of the total urban employment, while the share of the secondary sector (including large and small-scale industry) was of the order of 33.73 per

cent and primary sector workers accounted for 14.12 per cent of total urban worksforce employed in that year.

While urban employment seems to be largely concentrated in the tertiary and services - sector oriented activities, an analysis of the trend reveals that during the period 1961-81, striking changes in the sectoral composition of the workforce in urban India have taken place.

It is important to point out that the employment performance of the urban sector is crucially influenced by developments in the manufacturing and services sector activity in the economy. The experience of developing countries shows that employment in the tertiary sector largely moves in line with changes in manufacturing output which is likely to influence the rate of activity particularly in transport and communications, trade and commerce, as well as financial and other services.

Table 3.1 reveals a noticeable shift in the sectoral distribution of urban workforce particularly in manufacturing, trade & commerce, transport and communications sectors and even in agriculture related allied economic activities. Manufacturing which accounted for 21.02 per cent of the total urban workforce employment in 1961 increased its share to about 25 per cent in 1981. In trade and commerce, urban employment increased by over 3.6 per cent points from 16.24 per cent in 1961 to 19.87 per cent in 1981. The construction sector maintained a steady trend in providing employment in India's urban areas during 1961-81, increasing its share by a modest 0.43 per cent.

Table 3.1

Sectoral Distribution of Urban Employment in India

1961,1971 and 1981

(In thousands)

Occupational Categories	1961	1971	1981
Cultivators	1723 (6.59)	1616 (5.11)	2366 (5.13)
Agriculture Labourers	918 (3.51)	1913 (6.05)	2787 (6.05)
Livestock, Forestry, Fishing Hunting & Plantations, Orchards and Allied activities	450 (1.72)	531 (1.68)	832 (1.81)
Mining and Quarrying	210 (0.80)	313 (0.99)	485 (1.05)
Manufacturing, processing Servicing and Reports			
a. Household Industries	2072 (7.93)	1575 (4.98)	2278 (4.94)
b. Other than households industries	5496 (21.02)	7265 (22.98)	11377 (24.69)
Construction	958 (3.67)	1103 (3.49)	1902 (4.13)
Trade & Commerce	4245 (16.24)	6310 (19.96)	9156 (19.87)
Transport, Storage and Communication	2083 (7.97)	3133 (9.91)	4181 (9.07)
Other Services	7987 (30.55)	7856 (24.85)	10719 (23.26)
Total	26142 (100.00)	31615 (100.00)	46083 (100.00)

Note: (i) Excluding Assam.For 1971 Assam is excluded but information for Mizo district is included.

(ii) Figures in brackets are percentages to the total.

Source : General Economic Tables, Census of India.

Employment Status

The employment status determines to a large extent the types of benefits enjoyed by the workers. The NSS classifies workers into three categories - (i) self-employed (ii) regular wage/salaried work; and (iii) casual wage labour.[1]

The NSS data show a distinct `casualization' of the workforce as revealed by Table 3.2. Though this has occurred both in the case of males and females, the degree to which females have been affected is marginally greater.

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1. The NSSO uses the following definitions : (i) self-employed : Persons who work in their own farm or non-farm enterprise are defined as self employed; (ii) regular salaried/wage employees : Persons working on others' farm or non-farm enterprises (both household and non-household) and getting, in return, salary or wages on a regular basis (and not on the basis of daily or periodic renewal of work contract) are treated as regular salaried/wage employees. The category, salaried/wage employees will include not only salary and wage earners getting time wage but also earners getting piece wage or salary and paid apprentices, both full time and part time; and (iii) casual wage labour : Persons engaged in others' farm or non-farm enterprises (both household and non-household) and getting in return wages according to the terms of the daily or periodic work contract are treated as casual wage labour.

Table 3.2

Distribution of Workers (main+marginal) according to Usual Status by Employment in Urban Areas

Employment Category	Round							
	27th (1972-73)		32nd (1977-78)		38th (1983)		43rd round	(1987-88)
	M	F	M	F	M	F	M	F
Self-employment	39.25	48.40	40.38	49.47	40.67	45.80	41.70	47.10
Regular wage/ salaried work	50.69	27.89	46.41	24.94	44.58	25.80	43.70	27.50
Casual wage labour	10.06	23.71	13.21	25.59	14.75	28.40	14.60	25.40

Source : Sarvekshana, Vol. XI, No. 4, April 1988.
Sarvekshana, Special No. Sep. 1990.

Casualisation of the Urban Labour Market

Nearly 15 per cent of the male work force and 27.27 per cent of the female work force are reported to be casually employed in the urban areas. The NSS data shows that there has been a noticeable increase in the number and proportion of casually employed during 1972-73 and 1983-84.

Open urban unemployment in India is not high by the standards prevailing in developing countries. In 1987-88 when it was last assessed, 5.2 per cent of males and 6.2 per cent of females were reported to be unemployed. As may be seen the population of female unemployed is relatively higher.

An examination of the data provided in Table 3.2 reveals the following significant features of the urban employment situation in India:

- Inability of the formal wage sector to expand fast enough to

- Inability of the formal wage sector to expand fast enough to absorb the increasing urban labour force. According to the tables, wage employment as a proportion of the total declined during the period 1972-73 and 1983-84. Its proportion which used to be a little more than half of the total urban employment in 1972-73 dropped to less than 45 per cent within a period of 10-12 years. A somewhat similar indication is available from the census data which showed a lower share of main workers in 1981 (29.23) as compared to 1971 (29.32).

- Expansion of the non-wage, informal sector. The non-wage sector of the country's urban economy showed appreciable expansion during 1972-73 and 1983-84. Non-wage employment as a proportion of the total increased from 50.31 to 55.42 per cent in the case of male workers and from 72.11 to 73.77 per cent in the case of female workers.

- Within the non-wage sector, the share of the casually employed rose much faster than those who were self-employed. Likewise, the proportion of marginal workers who otherwise constitute a small proportion of the urban labour force also showed some improvement.

Urban Employment Situation-

An examination and analysis of the urban employment scenario in India, based on official statistics, reveals that the size of the urban labour pool[2] is very large in quantitative terms and

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2. Representing the total number of urban inhabitants in the 15-59 years age group.

has expanded faster than the rate of growth of urban population. In 1961, the number of persons in the urban labour pool was of the order of 43.83 million. Between 1961-1981, approximately 47.68 million persons were added to the urban labour pool in India, bringing its size to 91.51 million in 1981, which constituted nearly 60 per cent of the net increment to urban population during the same period. It may be observed from Table 3.1 that the annual average growth rate of urban labour pool during 1961-81 was estimated at 3.75 per cent, in comparison to urban population growth rate which recorded 3.29 per cent annually over the same period.

Table 3.3

Growth of Urban Population and Labour Pool, 1961-81

Year	Net Increment (Million)		Annual Average Growth Rate (%)	
	Urban Population	Labour Pool	Urban Population	Labour Pool
1961-71	30.18	16.47	3.59	3.24
1971-81	50.61	31.21	3.87	4.26
1961-81	80.79	47.68	3.29	3.75

Source : NIUA Research Study Series 44, 1990.

A closer look at the urban labour pool shows that its size in proportionate terms is larger in metropolitan cities and cities with over one million population relative to small and medium sized cities. In 1981, the urban labour pool accounted

for 61.45 per cent of the total population of over one million cities; in comparative terms, this proportion was 56.19 for urban centres in the population size class of less than 500,000.

Another significant feature of the urban labour pool in India is that it has undergone a major qualitative change in recent years. An examination of data shows that the gender composition of the labour pool has shifted in favour of the female population in the age group of 15-59 years in proportionate terms with every successive decade. In 1961, the proportion of female labour pool was of the order of 53.88; in 1971, it rose to 54.0 per cent and further increased to 56.45 in 1981.

While therefore, the urban labour pool in India has shown considerable dynamic, growth and structural change, the "Urban Labour market", i.e. the combined total consisting of workforce and persons who are seeking work, has tended to stagnate.

Table 3.4 reviews the trend of growth in labour force and employment in urban areas in India during the period 1981-91 and provides projection estimates to the year 2001. The projections are done by applying crude labour force and work force participation rates. It is expected that the participation rates shall increase gradually over the next 15-20 years, because of the changing age structure of the population, and expected increase in the proportion of people in the 15-64 age group.

Table 3.4

India : Growth in Work Force and Labour Force in Urban areas (1981-2001)

(Persons in million)

Year	Labour force	Work force	Labour force unemployed (%)
1981	61	48	21.3
1986	74	60	18.9
1991	91	73	17.9
1996	109	88	19.3
2001	128	104	18.8

Note: The `employed' and `unemployed' together constitute the `Labour Force' and `Work Force' denotes the economically active population.

Source: Task Force on Housing and Urban Development, 1983 Vol. I - Planning Commission, New Delhi.

It may be seem from the above table that the urban labour force is increasing faster than the absorptive capacity of urban areas. As a result the backlog of unemployment shows an increasing tendency over the reference period. While in 1981, 21.3 per cent of the urban labour force was unemployed, the employment situation registered a marginal improvement in 1991, when only 19.78 per cent of the total urban labour force was without employment.

Thus although the Census of India estimates indicate that the urban work force in India increased substantially during the reference period, the evidence suggests that work force as a proportion of the total urban population (participation rate) has stagnated within a narrow range varying from 33.44 per cent in

1961 to 29.32 per cent in 1971 and 29 per cent in 1981. This is indicative of the fact that workforce participation in Urban India is quite low particularly when we keep the growth of the urban labour pool in comparative picture.

A similar conclusion is reached by the National Sample Survey Organisation (NSSO),which finds that during the period 1977/78 to 1987/88 the proportion of male and female principal status workers has remained constant at a level of approximately 500 male principal status workers and 120 female principal status workers. However, taking both principal and subsidiary status workforce together, NSS data shows that there has been a marginal decline in male and female urban workforce participation rates in India during the ten year period.

An analysis of the trend indicates that the urban employment situation is worsening over the years. According to the NSSO, the usually unemployed were estimated to be about 12 million persons during 1987/88 as against the estimate of eight million persons during 1983. Of the 12 million unemployed persons during 1987/88, a little over two millions persons had some `employment' in a subsidiary capacity. The unemployment rate, i.e. the number of persons unemployed per thousand persons in the labour force (employed and unemployed together) was found to be lower in rural areas compared to urban areas during 1987/88. Chronic unemployment rate was lowest among rural males while the corresponding unemployment rate in the urban areas was more than twice the rate in the rural areas, thus accentuating the rural-urban differences.

During the ten-year period 1977/78 to 1987/88, chronic unemployment rates have remained almost at the same level for males - about two to three per cent in the case of rural males and about six per cent in the case of urban males. However, for females there has been a decline in the chronic unemployment rates in both rural and urban areas. (Table 3.5)

Table 3.5

Unemployment rates by Sex and Residence Status : All India

Year	Category	Unemployment Rates			
		Rural		Urban	
		Male	Female	Male	Female
1987-88	Usual Status	28 (4.5)	35 (2.6)	61 (3.5)	85 (1.1)
	Usual Status adjusted (excluding subsidiary status workers)	18 (3.0)	24 (2.3)	52 (3.0)	62 (1.0)
1977-78	Usual Status	22 (3.1)	55 (3.5)	65 (2.3)	178 (1.6)
	Usual Status adjusted (excluding subsidiary status workers)	13 (1.8)	20 (1.8)	54 (2.0)	124 (1.3)

Source : Results of the Fourth Quniquennial Survey on Employment and Unemployment (all India) NSS 43rd Round (July 1987-June 1988)

Note : Figures in parentheses give aggregates in millions.

In order to assess the impact of urbanisation on the employment situation one must evaluate the economic facets of the urbanisation process.

The contribution of urban areas to national economic activity is disproportionately large. It is estimated that in 1950-51, the contribution of urban India to net domestic product was 29 per cent. This grew to 37 per cent by 1970-71 and further to about 41 per cent in 1980-81. If the present economic trends persist, it is likely to increase to over 60 per cent by the year 2001. Thus about 35 per cent of the population will contribute over 60 per cent of the country's net domestic product of total urban workforce in the secondary and tertiary sector activities in urban areas of the country. In 1981, 52.15 per cent of the total urban workforce at the all-India level was concentrated in the tertiary sectors of the economy; the corresponding figure for the secondary sector employment was of the order of 33.73 per cent during that year. It may be stated ,at some risk, that while the services sector employment vastly increased, it is the performance of manufacturing employment that would tend to characterise whether the former represents dynamism or distress adjustment.For instance, it is the case that where manufacturing sector fails to absorb the labour force significantly, the growth of service sector in the urban economy, largely represents proliferation of informal sector activities.

State Level Analysis

Our assessment, so far, has been concerned with the size, structure and trend of urban employment and unemployment at the all-India level. What has been the spatial distribution of urban employment and unemployment in the country? Which types of States have a better track record of providing urban employment - an important indicator of economic development? Has unemployment increased in the poorer States (as commonly accepted) or has unemployment increased in the richer States (due to a grater degree of urban concentration in few large urban centres)? How has the sectoral distribution of urban work-force changed over time in the poor, middle-income and rich states and whether this structural behaviour pattern of the urban workforce admits of generalisations of the kind which took place in the more advanced countries during their comparable stage of economic development?

In what follows an attempt has been made to examine some of these questions and issues and to focus attention on the urban employment and unemployment situation in its regional context. Table 3.6 provides data on the size distribution of urban employment and unemployment according to the income classification of States.

Table 3.6

India : Urban Employment and Unemployment by States and Income Classification

Sl.No.	States	Number of Persons Employed ('000)	Percentage of the Total person employed	Number of Persons Unemployed ('000)	Percentage of the Total persons unemployed
High Income States					
1.	Goa, Daman & Diu	100	0.15	16	0.36
2.	Punjab	2000	3.02	112	2.55
3.	Haryana	1400	2.11	68	1.54
4.	Gujarat	4100	6.18	181	4.12
5.	Maharashtra	9200	13.88	584	13.29
Sub-total		16800	25.34	961	21.87
Middle Income States					
6.	West Bengal	6100	9.20	680	15.48
7.	Sikkim	-	-	1	0.02
8.	Himachal Pradesh	100	0.15	10	0.23
9.	Karnataka	4900	7.39	256	5.83
10.	Arunachal Pradesh	-	-	1	0.02
11.	Jammu & Kashmir	500	0.75	32	0.73
12.	Tamil Nadu	7500	11.31	588	13.38
13.	Manipur	100	0.15	6	0.14
14.	Nagaland	100	0.15	3	0.07
15.	Andhra Pradesh	5800	8.75	403	9.17
16.	Kerala	2200	3.32	450	10.24
17.	Mizoram	100	0.15	-	-
Sub-total		27400	41.33	2430	55.30
Low Income States					
18.	Rajasthan	3300	4.98	128	2.91
19.	Assam	800	1.21	66	1.50
20.	Triura	100	0.15	11	0.25
21.	Meghalaya	200	0.30	3	0.07
22.	Uttar Pradesh	8400	12.67	275	6.26
23.	Madhya Pradesh	4600	6.94	205	4.67
24.	Orissa	1500	2.26	114	2.59
25.	Bihar	3200	4.83	201	4.57
Sub-total		22100	33.33	1003	22.83
Grand total		66300	100	4394	100

Source : Results of the Fourth Quniquennial Survey on Employment and Unemployment (all India) NSS 43rd Round (July 1987-June 1988)

It may be observed from Table 3.6 that the middle income States in India, on an aggregate, accounted for the highest level of both employment and unemployment in urban areas in 1987/88. While 41.33 per cent of the urban workforce was employed in the principal as well as subsidiary status work in these States, as much as 55.30 per cent of the urban unemployed also, on the other hand, were to be found in the middle income States in that year. Data indicate that Tamil Nadu with 11.31 per cent of total urban workforce employment among all states in the country had the highest level of urban employment in India; West Bengal with 15.48 per cent and Tamil Nadu with 13.38 per cent urban unemployed were the two states with the highest levels of unemployment of the urban workforce in the country in 1987/88.

Contrary to what one would be led to believe on the basis of conventional wisdom, low income States in India had a higher level of urban employment (33.33 per cent) in comparison to the high income States, which in aggregate terms could provide employment to only 25.34 per cent of the total urban workforce in all States in 1987/88. It is interesting to note that the unemployment levels in aggregate terms, were of the same order in both high as well as low income States, being respectively 21.87 per cent and 22.83 per cent. In the high income category, while Maharashtra had the highest levels of urban employment (13.88 per cent) and unemployment (13.29 per cent), among the low income States, Uttar Pradesh had the highest levels of urban employment (12.67 per cent) and unemployment (6.26 per cent) in 1987/88.

A notable feature of the urban employment and unemployment situation to be observed from Table 3.6, is that the hill States (Sikkim, Himachal Pradesh, Jammu & Kashmir as well as the North Western Region) and the coastal state of Goa, Daman and Diu had extremely low levels of urban employment and unemployment.

An analysis of regional variations in urban employment in India, classified by principal as well as subsidiary status employment reveals that the workforce participation rates(WPR) [3] among urban males, was above the all-India average in the major states of Tamil Nadu, Haryana, Punjab, West Bengal, Kerala, Jammu & Kashmir and Assam. On the other hand, for urban females Tamil Nadu and Andhra Pradesh had the highest percentage of usually employed[4] (22 to 23 per cent) followed by Karnataka, Kerala and Rajasthan (19 to 20 per cent). It was very low in the States of Bihar, Assam and Uttar Pradesh (8 to 9 per cent) compared to the all India average of 15 per cent in 1987/88. Compared to other States, the proportion of subsidiary status workers among urban females was relatively higher in the major States of Punjab, Kerala, Jammu & Kashmir and Haryana. An analysis of the usual status unemployment rates for different States shows that the chronic unemployment rate was highest in Kerala during 1987-88, the rate being 14 per cent and 34 per cent respective for urban and rural areas.

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3. The number of persons employed per thousand persons is referred to as the workforce participation rate (WPR).
4. Number of persons usually employed refers to those persons who worked to a relatively longer period of a reference period of 365 days preceding the date of the Survey by the NSSO. males and urban females in the State, as against the corresponding all-India aver of 6 per cent and nine per cent respectively.

In the case of urban males, the major States with the chronic unemployment rate higher than the all-India average were West Bengal (9 per cent), Tamil Nadu, Orissa, Himachal Pradesh and Maharashtra (7 per cent each) apart from Kerala. Uttar Pradesh had the lowest unemployment rate for urban males. For urban females, Kerala was followed by Assam (28 per cent) and West Bengal (21 per cent). The rate was 14 to 16 per cent in the States of Jammu & Kashmir, Orissa and Punjab. The lowest chronic unemployment rate for urban females was observed in Rajasthan and Gujarat (1 to 2 per cent) in 1987-88.

Given the dimensions of economic change and population growth anticipated, employment creation in urban areas assumes critical importance. In this context, several recent studies have suggested that the informal sector participation in economic activities in urban India is substantial and now is estimated to provide over half of all employment in the urban areas.

According to a study published by the NIUA[5] by standards of international comparison, relatively high proportions of the urban workforce were employed in the informal sector, typically ranging between 50 to 60 per cent in the intermediate-sized towns Other studies have found that the proportion for Indian metropolitan cities ranges from a low of 40 per cent in Bangalore

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5. National Institute of Urban Affairs (NIUA), Research Study Series No. 19 (1988).

upto 63 per cent in Delhi. Comparative estimates for other Asian cities are 19 per cent in Colombo, 45 per cent in Jakarta and 69 per cent in Pakistan.

In an urban situation wherein rapid migration from rural areas, coupled with natural population growth places severe constraints on the absorptive capacity of the formal organised sector, the urban informal sector is likely to expand further and its development role in the urbanisation process will assume greater significance in the future.

To conclude, the assessment of the urban employment situation in India shows that although economic growth has been accompanied by a transformation of the economy towards the secondary and tertiary sectors, employment growth in these sectors has not been sufficient to absorb an increasing proportion of the workforce. While the urban labour pool in India has shown considerable dynamism, growth and structural change, the urban labour market has tended to stagnate. At the sametime, casualisation of labour has emerged as a notable feature of the urban employment situation in recent times with nearly 15 per cent of the male workforce and over 26 per cent of the female workforce being only "casually employed", in urban India in 1987/88.

At the level of the States, Tamil Nadu stands out with the highest level of urban employment in India, while West Bengal had the highest level of unemployment of the urban workforce in the country. Contrary to expectations, the low income states in India had a higher level of urban employment in comparison to the high income states; while the unemployment levels in aggregate terms, were of the same order in both high and low income states.

The urban informal sector has emerged as an integral part of the urban economy and a positive contribution to employment growth in the country. Despite increasing concern of planners and policy makers alike, over urban employment and unemployment issues and problems, official policies continue to be strongly biased towards the formal sector and its development. A direct approach to use the entire development mechanism to provide work and generate employment and income to people, in ever larger numbers, and improve their living standards, is urgently required.

CHAPTER IV

URBAN INFRASTRUCTURE AND SERVICES

The provision of appropriate infrastructure facilities in urban areas is a necessary precondition for urban development. Delivery of adequate goods and services so as to enhance socio-economic welfare, is a primary function of urban local government and it is difficult to visualise planned urban development without acknowledging the significant contribution and role of urban infrastructure and services as an integral component of socio-economic change.

Urban infrastructure including water supply , sewerage, drainage, refuse collection, electricity / street lighting and urban transport, constitute the underlying `capital' of an urban economy. They provide an essential foundation upon which society's economic and social activities are built and the strength of an urban economy depends critically upon the vitality of urban infrastructure and service delivery in urban areas.

While urban centres in India have registered disproportionately high population growth rates, and consequently the demand for essential urban services has increased much faster than their supply, critical gaps and imbalances have emerged in urban infrastructure and provision of essential urban services.

In 1981, 33 million or 22 per cent of urban population was assessed to be without safe water supplies and 108 million or 73 million or 73 per cent of the urban population was not covered by an adequate and sanitary system of solid waste disposal.[1]

Against this the following Decade (International Water Supply and Sanitation Decade) targets to be reached by March 1991, were agreed to by the Central and State Governments (Table 4.1)

Table 4.1

India : Urban Water and Sanitation Decade Targets

Sector Category	Coverage	Level of Service
Urban Water Supply	100 %	Piped water supplies in all communities, where feasible;demand range 70-250 lpcd, average 140 lpcd. Standposts in fringe areas if necessary at strategic locations; demand range 25-70 lpcd, average 40 lpcd.
Urban Sanitation	80 %	100 % coverage for Class I cities with sewerage and sewage treatment facilities; low cost sanitation methods in other towns. Overall coverage of 80 % in all cities and towns.

1. **Report of the National Commission on Urbanisation,** August 1988, Volume IV p.148.

At the end of Phase I of the Decade Programme (March 31, 1985) , sector position at all- India level in urban water supply and sanitation was as follows (Table 4.2):-

Table 4.2

India: Urban Water Supply and Sanitation Coverage

Category	Population Served (in millions)				
	1981		1985		
	Popln.	%	Popln.	%	Diff. 81-85 +/- %
Water Supply	115.48	72.3	127.23	72.9	+0.6
Sanitation	40.03	25.1	49.56	28.4	+3.3

Source: National Master Plan, India: International Drinking Water Supply and Sanitation Decade, 1981-90.
Mid-Decade Review, Ministry of Urban Development, GOI, Oct.16-17, 1985.

The strain created by the very size of urban population on the city system in terms of provision of basic urban services should be obvious. The strains and stress of urban growth on the large cities apart, the small and medium towns at most have only the rudiments of services. To quote from the National Commission on Urbanisation's Report :

> There is no doubt that most of our large cities are showing signs of serious overstress. Under pressure of population growth, the essential infrastructure of cities has reached the verge of collapse. Housing, water supply and drainage, city transport, local employment and the availability of land on which to locate city activity have all suffered grievously because the city management systems have not been able to react adequately to the problem of growth.

This chapter makes an assessment of the status of urban infrastructure and services in India in order to focus on the extent of urban population actually having access to urban services as also the level of services obtaining in urban settlements at the regional (state) and individual city levels.

Infrastructure and Services

The responsibility for providing and maintaining urban infrastructure falls within the domain of the State Governments. These responsibilities have been assigned to the municipal corporations and in some cases to the specialised agencies. The Central Government provides technical guidance to the States and Union Territories in the formulation and implementation of water supply and sanitation programmes through the technical wing known as the Central Public Health and Environmental Engineering Organisation (CPHEEO).

The rapid growth of the urban population, together with the financial constraints of the urban local bodies, have resulted in severe shortages in the supply of essential urban services. While the analysis of status of urban services in India is constrained by the lack of data on the levels of services in various States as well as in different size categories of towns and cities; the present Chapter provides an account of the sector position with

respect to the following urban infrastructure services: water supply, sewerage, drainage, refuse collection, electricity and urban transport.

A. Water Supply

A safe and adequate urban water supply system is a basic need of human settlements and forms an essential component of the urban environment. It is a critical requirement not merely for economic activities but for human survival itself. According to the mid-term review of the National Master Plan (1985), as already noted, on an average nearly 73 per cent of the population at all-India level is being served by piped water supply in urban areas. At the level of the states, however, it may be observed that in slightly more than half the states, access to water supply by the urban inhabitants was less than the national average (Table 4.3).

Table 4.3

Statewise Population Coverage by Piped Urban Water Supply, 1985

States	Population Coverage (Per cent of total)	Below(-)/Above(+) Average
Andhra Pradesh	52.1	-
Assam	37.5	-
Bihar	59.5	-
Gujarat	83.2	+
Goa	81.9	+
Haryana	69.1	-
Himachal Pradesh	89.1	+
Jammu & Kashmir	86.6	+
Karnataka	81.2	+
Kerala	64.5	-
Madhya Pradesh	79.7	+
Maharashtra	87.5	+
Manipur	51.5	-
Meghalaya	22.1	-
Nagaland	46.7	-
Orissa	38.1	-
Punjab	71.2	-
Rajasthan	56.0	-
Tamil Nadu	83.8	+
Tripura	51.5	-
Uttar Pradesh	70.1	-
West Bengal	63.7	-
All India Average	72.9	

Source : Mid-term review of Water Decade Programme, Ministry of Urban Development, Govt. of India, 1985.

While the low income states such as Bihar, Orissa, Assam and Rajasthan are characterised by unsatisfactory statewise population coverage by piped water supply; high and middle income states - Maharashtra, Gujarat, Himachal Pradesh, Karnataka, Tamil Nadu and Goa - had a high proportion of population coverage by piped water supply.

These figures do not reveal the wide variations between cities nor do they indicate the inadequacies at the town level or the extent of exclusion of the poorer segments of the population. The proportion of urban population covered by water supply has only marginally increased from 72.3 per cent in 1981 to 72.9 percent in 1985. There is a wide variation of coverage from this average national coverage. Almost half the states have coverage of less than the national average of 72.9 per cent.

Out of 31 states and union territories, it is only in 13 states, that the coverage has recorded an increase; it has declined in the remaining states. Inadequate coverage of urban population apart, the quantum of water supplied is also not in conformity with the demand for water.

Thus, as much as 27 per cent of urban population is officially estimated not to have any access to potable water supply . Even if water supply is available, there is always a risk that, poor maintenance of the pipelines may lead to contamination of drinking water with sewerage. At the same time about 61 per cent of water supply in cities with more than 100,000 population was found to be drawn from surface sources which are generally contaminated due to carriage of unhygienic elements into the water during rains.

The water supply situation in some of the states like Tamil Nadu and Andhra Pradesh in south India is critical. Especially with reference to the large cities in these states, the National Commission on Urbanisation has observed that:

> ... the water sources are totally inadequate to meet the demands of even the domestic sector, with the result that there is very limited piped supply. In the towns with less than 100,000 population the piped water supply situation presents an even more grim situation. In most of the small and medium towns the water supply need is taken care of through private and substantial recourse to alternative sources on an individual or community basis. [2]

In the towns with less than 100,000 population, the piped water supply situation is even more grim. In most of the small and medium towns the water supply need is taken care of through private initiative by boring the handpumps.

The situation is not very different at the city level. In the early 1960s, a Committee of Ministers in its Report - (popularly known as the Zakaria Committee) had suggested a supply of 157.5 to 270 litres of water per capita per day (lpcd) as the basic minimum level of supply for cities with a population of 100,000 and above. The urban water availability standard, set by the Central Public Health and Environmental Engineering Organisation (CPHEEO), ranges between 125-200 litres per capita for Class I cities in India.

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2. India (1988). National Commission on Urbanisation, Report, Vol II, Ministry of Urban Development, New Delhi.

In 1988 the Central Pollution Control Board undertook a survey of 212 Class I cities in India. The findings of this survey revealed that in 39 cities 100 per cent population is covered by organised water supply, while in 154 of the 212 cities surveyed, about 75 per cent population is covered by organised water supply system.[3]

The per capita water supply ranges between a low of 12 litres per day in Junagarh (Gujarat) to as high as 460 litres per day in Chandigarh. Two other cities Tiruvathiyar and Avadi in Tamil Nadu reported per capita water supply less than 20 litres per day. The cities of Jammu and Agra had per capita water supply more than 400 litres per day. All the class I cities in Jammu & Kashmir, Orissa and the Union Territories of Chandigarh, Delhi and Pondicherry had per capita water supply more than the national average. On the other hand, all Class I cities in Meghalaya, Manipur, Tamil Nadu and Tripura had per capita water supply less than the national average in 1988.

In the metropolitan cities, only 7 per cent of the population is covered by organised water supply. The metropolitan water supply coverage is not uniform, ranging between 100 per cent in Hyderabad, Bangalore and Lucknow to a low of 75 per cent in Kanpur and Nagpur. The per capita availability data (Graph A) show that in 1988, 5 of the 12 metropolitan cities

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3. Status of Water Supply and Waste Water Collection, Treatment and Disposal in Class I Cities, 1988. Central Pollution Control Board, New Delhi

in India namely, Calcutta, Bangalore, Madras, Pune and Jaipur were below the CPHEEO normative standards. The highest water availability levels were present in Delhi (235.1 lpcd) and Lucknow (236.8 lpcd) followed by Bombay and Hyderabad respectively.

The water supply situation in towns and cities in India is thus quite grim. First, the extent of coverage of urban population is inadequate. Second, the quantum of water supplied is below the actual minimum need of urban population. Third, the water, in many instances, is not potable. In addition, where water supply is provided , about 30 - 40 per cent of the water supplied is lost due to leakage at various stages of supply and consumption .

B. Sewerage & Drainage

According to the mid-term review of water and sanitation programme, only about 28 per cent of urban population is served by sewerage system This overall national average apart, the actual population covered in the states of Jammu and Kashmir, Madhya Pradesh, Orissa, Rajasthan and Manipur is less than 10 per cent. A study conducted by the NIUA for the Ninth Finance Commission shows that out of 159 class one towns (with a population of more than 100,000) selected for the study, as many as 109 of them did not have any sewerage system (NIUA 1989 : 18). The data on accessibility of the entire urban population to sewerage system are not available. However, according to

estimate of the Planning Commission, hardly 20 per cent of urban population have access to flush arrangement connected to sewerage system, 14 per cent have access to water borne toilets connected to septic tanks, 33 per cent use bucket or dry latrines and the remaining 33 per cent do not have any access to any facility whatsoever . The analysis of accessibility to sewerage system according to income level indicates that the beneficiaries happen to be only the upper income groups. Urban poor and the low income group people hardly have accessibility to sewerage system.

To quote from the report of the National Commission on Urbanisation (NCU):

> If the water supply system is unequal and unjust being highly biased in favour of the rich, the sewerage system is even more unjust and even more highly biased in favour of the rich. (India 1988 op.cit.p. 297).

The analysis of drainage system also does not present a happy situation. The NIUA study reveals that out of 127 towns and cities which responded to the questionnaire of the study, the drainage system covered only about 66 per cent of urban population. Thus, a little more than one-third of urban population in the sample towns and cities are not serviced by drainage system (NIUA 1989 op.cit.p.32-33). The study noted that in about one-third of the urban centres, more than 40 per cent of urban population was not being served by drainage system.

The mid-term review of water supply and sanitation decade programme 1981-1990, at all-India level, the proportionate share of population served by sanitation services (sewerage/drainage)

in urban areas was about 28 per cent in 1985. Besides Punjab and Tamil Nadu only in the states of Gujarat, Karnataka, Maharashtra and Sikkim the sanitation coverage is above the national average. A large number of states including some of the developed ones have only partial coverage by sewerage services in some of the urban centres. (Table 4.4)

All cities with population over 1,00,000 are required by law to provide water-borne sewerage systems. A survey of urban sewerage facilities conducted by the National Institute ofUrban Affairs (1986-87) revealed the alarming picture that as many 109 of the 159 sampled urban centres were without an effective sewerage system. As per the accepted norms, at least 150 litres per capita per day water supply is needed for efficient functioning of the sewerage system in any city or town. The NIUA study found that even if this norm is lowered to 100 litre level:

> Only 81 per cent of the responding urban centres would seem to have effective sewerage systems in terms of per capita water availability.[4]

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4. Upgrading Municipal Services Norms and Financial Implications, NIUA Research Study Services Number 38, (1989) P. 31.

Table 4.4

Statewise Urban population coverage by Sanitation Services (Sewerage/Drainage), 1985

States	Urban Population coverage (Per cent of total)	Below(-)/Above(+) Average
Andhra Pradesh	10.9	-
Assam	15.7	-
Bihar	22.9	-
Gujarat	38.0	+
Goa	13.3	-
Himachal Pradesh	28.4	-
Haryana	28.4	Average
Jammu & Kashmir	7.7	-
Karnataka	38.4	+
Kerala	28.2	-
Madhya Pradesh	7.8	-
Maharashtra	39.8	+
Manipur	0.8	-
Orissa	9.5	-
Punjab	48.5	+
Rajasthan	9.6	-
Sikkim	32.9	+
Tamil Nadu	47.5	-
Tripura	13.2	-
Uttar Pradesh	14.1	-
West Bengal	19.5	-
All India Average	28.4	

Source : Mid term review of urban water supply and sanitation decade, Ministry of Urban Development, Govt. of India, 1985.

C. Garbage Disposal

India, on an average, the amount of solid waste generated varies from 300 to 500 grams per person per day and the density varies from 100 kg. per cu. m. to 600 kg. per cu. m. At this rate, the amount of solid waste generated in the towns and cities is tremendous. As against this, the management of solid waste

disposal seems to be far from satisfactory. The situation is grim especially in the small and medium towns where there does not exist any rudiment of hygienic disposal system. The NIUA study reveals that in the 153 sample towns, 27.5 per cent of the total waste generated remained uncollected and scattered on the streets (NIUA 1989 op.cit.p. 36). It further reveals that of the 153 responding towns and cities, 41 per cent had a refuse disposal level below the sample average of 72.5 per cent. In 12 urban centres, the level of uncollected waste was 50 per cent or even more.

D. Electricity / Street Lighting

Providing electricity through an appropriate street lighting system has become one of the major functions of local bodies.The rapid increases in vehicular traffic, changes in life styles and a network of road systems have resulted in fast movement of the city population during all hours of day and night. Therefore, street lighting has become an essential service for city transport. However, street lighting involves more than mere installation of a few electric poles on streets, it has to conform to certain standards and requirements of traffic in the concerned areas.

According to Dr Walrauf, an eminent illumination engineer, adequate public street lighting is one in which vehicles can be driven at the designed speeds of a highway without the use of headlights, so that the objects can be seen on the road within a safe stopping distance. In cities where the

average speed limit is between 30-35 m.p.h. the safe stopping distance is about 130 feet. According to this accepted normative standard, there should be cent- percent coverage of roads in the urban centres by lighting with an average distance of 30 metres between two lighting poles.

A first look at, the findings of the NIUA study reveal a favourable situation so far as street lighting is concerned. Of the 153 sample urban centres, about 50 per cent of them had street lighting to the extent of 100 per cent coverage of roads and in as many as 88 of them (153 cities), the number of lamp posts compared favourably with the accepted norms. However, on closer examination of the data it is found that in as many as 29 towns and cities, the proportion of lighted roads was even below 50 per cent (NIUA 1989 op.cit.p. 40). The situation again seems to be quite grim in India's secondary cities especially in the north-eastern states where as many as 13 out of 22 urban centres studied were found to be deficient in the availability of urban street lighting facilities.(NIUA 1989 p.70)

E. Urban Transport

The demand for urban transport in urban areas in India has increased manifold during the past decades, far exceeding the very limited supply. As a result most large cities are facing severe transport problems. Road congestion is spreading, the movement of people and goods is slowing down and transport costs are shooting up.

Urban transport directly affects the economic efficiency of cities and the well- being of urban inhabitants and as almost everyone in urban areas makes daily use of some form of transport, the operation of the transport system acquires critical importance in urban infrastructure and service delivery in urban areas.

It is a well recognised fact that the vehicular population in Indian cities has been growing much faster than the growth of population. This can be attributed partly to factors such as rising income levels of certain sections of city inhabitants and partly to the inability of mass transport to keep pace with the ever increasing travel demands.

In large Indian cities, there has been a manifold increase in industrial and commercial activities in the past two decades. For example, in Bangalore city, industrial and commercial employment grew at an average annual rate of about 8 per cent, during 1971-81 and this led to a three- fold increase in commercial vehicles during the same period. A survey of traffic volume in Delhi in 1981 showed that the 20 major inter-sections in Delhi handle more than 50,000 vehicles per day.

Table 4.5 provides data on the growth of urban transport in the 12 metropolitan cities in India ever the period 1975-1985. It may be seen that all categories of vehicles have registered an increase during the reference period. The two wheeler sector has recorded very high growth rate with vehicles registering more than 100 per cent increase in all metropolitan cities with the

exception of Pune. The maximum increase has been in Jaipur where two-wheeler vehicle population has increased from 21,000 to 1977 to 79,000 in 1986 or by 276 per cent. The only metropolitan city where the two wheeler population has in fact declined is Pune which witnessed a 21 per cent decline in this sector, during the period 1977-85. The automobile sector has also registered modest to high growth with the maximum increase being recorded in Jaipur (171 per cent) and the minimum increase in Madras (40.7 per cent).

Bus services have registered fast growth in all the metros for which data are available. The total vehicular population in this category has nearly doubled in two metros (Bombay and Calcutta) , more than doubled in five metros (Delhi, Bangalore, Ahmedabad, Kanpur, and Pune) and registered a record growth of more than three times in the two metropolitan cities of Jaipur and Lucknow during the reference period 1977 to 1985. The maximum increase recorded in this mode of urban transport is in Jaipur (273.5 per cent) and the minimum increase in Bombay (76.3 per cent).

The rapid increase in vehicle population is worsening the urban transport situation in most large cities in India. Just ten years ago the total vehicle population in the country was about 5.2 million. Presently it is about 13.35 million. By the year 2000 the number is likely to rise to about 42.36 million.

While two wheelers were less than 9 per cent of the total number of vehicles in 1950/51, today they account for 61 per cent of vehicular population and in another ten years the share of two- wheelers is expected to rise further to around 81 per cent of the total number of vehicles.The production of private cars has also been witnessing a steady increase from 0.3 million in 1961 to 1.17 million in 1981 to a level of 1.91 million currently. By the year 2000 production of private cars is estimated to rise to 3.31 million.

Table 4.5

Growth of Urban Transport in Metropolitan Cities
(in thousands)

City	Car/Jeep/Taxis		Motorcycles/Scooter		Buses	
	1977	1985	1977	1985	1977	1985
Calcutta	85	145 (70.6)	33	86 (160.6)	147	286 (94.6)
Bombay	151	216 (43.0)	57	137 (140.4)	245	432 (76.3)
Delhi	100	166 (66.0)	240	579 (141.3)	389	841 (116.2)
Bangalore	25	55 (120.0)	62	190 (206.5)	109	279 (155.9)
Hyderabad	NA	24 (-)	NA	122 (-)	NA	172 (-)
Ahmedabad	14	24 (71.4)	40	120 (200.0)	68	177 (160.3)
Kanpur	5	8 (60.0)	20	69 (245.0)	32	89 (178.1)
Pune	15	19 (26.6)	138	109 (-21.0)	75	160 (113.3)
Nagpur	NA	11 (-)	NA	59 (-1)	NA	83 (-)
Lucknow	5	12 (140.0)	18	61 (238.8)	27	82 (203.7)
Jaipur	7	19 (171.)	21	79 (276.0)	34	127 (273.5)
Total	1195	2867 (139.)	3260		8796	(169.8)

Note : Figures in brackets are the percentage increase over the period 1977-85

Source : Motor Transport Statistics, Transport Research Division, Ministry of Surface Transport, Government of India.

With the increase in population, the number of passenger trips performed by inhabitants of urban centres has gone up considerably. For example, the estimated number of daily trips in Calcutta went up from 35 lakhs in 1966-67 to 76 lakhs in 1983 recording an increase of 117 per cent, and in Madras from 16 lakhs in 1966-67 to 37 lakhs in 1981, recording an increase of 131 per cent. This substantial increase in daily trips over a short period indicates the tempo of growth in transport demand. At present although daily about 26 million bus trips are performed in the urban areas of the country the growth rate of bus production has not kept pace with the demand.

The foregoing assessment has shown that the shortages in urban infrastructure have reached critical proportions. This has resulted in a marked fragility of the urban system of an increasing number of urban centres in the country. Apart from the shortages and gaps in urban infrastructure of an absolute nature, unequal distribution and limited access to services particularly among the poorer sections of the population has further compounded the unsatisfactory urban infrastructure and service delivery situation.

At the same time, the deficiencies in infrastructure such as water supply, sewerage and sanitation, refuse collection and disposal, electricity and transport seriously affect the economic efficiency of urban areas and undermine the efforts at poverty alleviation without which meaningful urban development shall remain a chimera and continue to elude purposeful solutions.

CHAPTER V

MUNICIPAL FINANCE

Rapid urbanisation in India has been accompanied by an increasing role of urban local bodies in providing essential urban services in cities of varying sizes and functional characteristics. They have to provide the inhabitants of towns and cities with necessary utilities, services and facilities and create a healthy and efficient environment for living and working.

The provision of these services and facilities necessitate both current and capital expenditures. While the current account including operational and maintenance expenditures are the responsibility of the local bodies, capital account expenditures particularly for development and maintenance functions of water supply, sewerage and drainage services are borne by the State government departments of public health and engineering (PHEDs), urban development and local self-government.

Urban local bodies in India cover five distinct types of authorities: the municipal corporations, the municipal councils, the notified area committees, the town area committees and the cantonment boards. The municipal corporations and councils are fully representative bodies, while the notified area and town area committees are either fully or partially nominated bodies. The cantonment boards are created under a central legislation and consist of partially elected authorities supervised by the Union Ministry of Defence.

Municipal corporations are constituted for cities and bigger towns and they enjoy more tax powers, functional competence and autonomy in decision- making, than other types of municipal authorities. The municipalities enjoy more or less the same tax powers as the corporations, except that the degree of state control here is relatively more. The notified area committees are constituted for rapidly growing towns which do not qualify for full- municipalisation, while the town area committees are created for small townships having pronounced rural characteristics.

Municipal authorities enjoy tax powers and functional competence as conferred on them by the state governments through a process of delegation incorporated in the governing legislations constituting such authorities. A few municipal laws empower the local authorities to levy any tax which the state legislature has the power to impose with the consent of the state government (e.g. U.P. Municipal Corporations Act).

The taxation powers of the corporations are confined to a few items and are generally of a compulsory nature; on the other hand, the tax powers of the other types of urban local authorities cover a wider range, optional in nature and subject to a procedure for their imposition requiring the final sanction of the state governments. The tax powers of the notified area and the town area committees are about the same as in the case of the municipalities, except for a greater degree of state control over the town area committees in this regard.

Urban local finances

The sources of finance for municipal expenditures on the revenue (current) account comprise own taxes, share in State taxes, grants-in-aid and user charges. Local revenue assignments make property tax and octroi (where it is levied) as the two most important revenue sources.

According to a study by the National Institute of Urban Affairs (NIUA, 1987), octroi constituted about 35.6 percent of the aggregate local tax revenue in 1983-84, while property tax constituted only 28.2 percent.

Apart from property tax and octroi, there are certain other taxes directly connected with services. These are taxes on conservancy and drainage, sanitation and scavenging, street lighting, water supply and fire protection. An education or health cess would also fall in this category.

Grants and shares in taxes, the two-components of inter-governmental transfers, do not constitute dependable sources in the absence of consistent policy and rational formulae for allocation and distribution of government grants-in-aid.

The existing system of financing capital expenditures consists of surpluses from municipal current accounts, grants and loans from the State Governments and from LIC and HUDCO. The loans are generally taken in the name of municipalities/ corporations, but the entire amount is transferred to the State PHED, or the State- or metropolitan-level board responsible for undertaking capital projects on their behalf. The repayment of loans, however, is the responsibility of the local governments.

Some of the major metropolitan governments also receive funds from the international agencies such as the World Bank under the arrangement of externally aided projects. The external component of project costs incurred by local governments is in the proportion of 70 percent loan and 30 percent grant. Further capital funds flow to municipal bodies in the form of centrally sponsored projects/ schemes.

The municipal finance system should enable the resources of local bodies to exceed their current expenditures, thereby creating a self-financing capacity capable of carrying on the essential investments. However, one of the major problems being faced by urban local bodies in India is that they have as yet not been able to achieve satisfactory level of financial autonomy and the consequent capacity to meet local needs.

This Chapter undertakes an assessment of the existing conditions and trends of municipal finances in India; analyzes the behaviour pattern of local expenditure and revenues of municipal bodies at the State level; and examines the regional variations in municipal financial performance in the country with a view to suggesting measures for effective resource mobilisation for urban local bodies.

Inter-State Distribution of Urban Local Bodies

The distribution of urban local bodies in India by states ranked according to the adopted income classification is provided in Table 5.1. It may be observed from the Table that in 1981, of the 2442 urban local bodies in India, municipalities comprised

72.76 per cent, Town and Notified area Committees constituted 22.19 per cent, while the municipal Corporations accounted for 2.9 per cent of the total.

An examination of Table 5.1 reveals a marked inter-regional imbalance in the distribution of urban local bodies in India. More than half (51.63 per cent) of all urban local bodies are located in the five states - Karnataka, Madhya Pradesh, Maharashtra, Rajasthan and Uttar Pradesh. The other states with high concentration of urban local bodies include Punjab, West Bengal, Tamil Nadu, Kerala, Orissa and Bihar. The hill states of

Table 5.1

Number and Classification of Local Bodies in India, 1981

States	Municipal Corporations	Municipal Councils	TACs NACs	Cantonment Boards	Total
High Income					
Goa	-	11	-	-	11
Punjab	3	96	30	-	129
Haryana	-	64	-	-	64
Maharashtra	11	216	-	8	235
Gujarat	6	52	4	1	63
	20	439	34	9	502
Middle Income					
West Bengal	3	105	5	1	114
Sikkim	1	1	-	-	2
Himachal Pradesh	1	19	16	4	40
Karnataka	6	230	6	1	243
Arunachal Pradesh	-	7	-	-	7
Jammu and Kashmir	-	3	53	2	58
Tamil Nadu	3	110	-	1	114
Manipur	-	5	30	-	35
Nagaland	-	-	3	-	3
Andhra Pradesh	3	86	3	1	93
Kerala	3	43	60	1	107
Mizoram	-	4	-	-	4
	20	613	176	11	820

Low Income					
Rajasthan	-	189	10	1	200
Assam	1	24	38	-	63
Tripura	-	1	9	-	10
Megalaya	-	1	-	-	1
Uttar Pradesh	9	198	47	21	275
Madhya Pradesh	17	206	77	8	308
Orissa	-	30	71	-	101
Bihar	3	71	71	1	146
	30	720	323	31	1104
Union Territories	1	5	9	1	16
INDIA	71	1777	542	52	2442

Source: Census of India, 1981

Sikkim, Arunachal Pradesh, Nagaland Mizoram and Meghalaya were the least municipalised.

Considered in terms of income classification, it is to be observed that the low-income states in India had the highest number of urban local bodies with 45.21 per cent of the total; followed by the middle-income states with 33.58 per cent; and the low-income states with 20.56 per cent. Taking municipal Corporations and municipalities as a percentage of all local bodies (in each income category) as an indicator of the level of municipalisation it is to be noted the high income states were the most municipalised with 91.43 per cent of all local bodies being either Corporations or Municipalities; followed by middle-income states (77.20 per cent) and low-income states which had a municipalisation level of 67.93 per cent.

The high-income state of Maharashtra having a municipalisation level of 45.22 per cent was the most municipalised state in India. In the middle and low-income

category the states with highest municipal development were Karnataka (28.78 per cent) and Madhya Pradesh (20.20 per cent) respectively. However, in view of the fact that the Area Committees and Cantonment Boards constitute 8.57 per cent of the total urban local bodies in the high-income category states, 22.80 per cent in the middle income category and 32.07 per cent in the low-income category it may be observed that there is a greater scope for municipalisation of middle and low income states, as their urban local bodies have yet to graduate to the municipal status.

Financial Resources of Municipal Bodies

Table 5.2 provides the per capita Municipal revenues and expenditure at constant prices for sampled urban local bodies in India for the period 1980-1984.

Table 5.2

Per Capita Municipal Revenues and Expenditure 1980-84
(210 local bodies, Rs. per person)

Size Class of Urban Centre	Revenue		Expenditure		1983- Deffi Surpl
	1979-80	1983-84	1979-80	1983-84	
1 million or more	166.5	162.8	107.0	156.6	6.
100,000 - 1 million	83.0	83.2	66.9	82.8	0.
50,000 - 100,000	65.2	64.4	51.3	66.6	-2.
20,000 - 50,000	48.6	47.1	41.8	47.7	-0.
Less than 20,000	46.0	44.6	42.0	46.4	-1.
Total	128.0	125.0	87.4	121.6	3.

Source: NIUA, The Nature and Dimension of the Urban Fiscal Crisis Research Study Series Number 18, 1987, New Delhi.

It is to be observed from Table 5.2 that while municipal expenditures, in per capita terms, have registered an increase for all size classes of urban centres during the reference period, municipal revenues have declined except for the 100,000 - 1 million size class which saw revenues marginally increasing from Rs 83.0 in 1979-80 to Rs. 83.20 in 1983-84 per capita.

A significant finding emerging from Table 5.2 is that while per capita municipal expenditures have increased substantially over the reference period from Rs 87.4 to 121.6 per capita municipal revenues have actually declined form Rs 128.0 per capita in 1979-80 to Rs 125.0 in 1983-84. It is to be further noted that the smaller urban centres in India, which are more severelly constrained in their resource mobilisation powers, have faced a more serious erosion of their financial resources.

Regional Variations in Municipalisation and Financial Performance of Urban Local Bodies

Table 5.3 gives the per capita municipal revenues and expenditure for sampled municipal bodies according to states ranked by income classification for 1986-87. It may be seen that all 5 high income states had a budgetary surplus in 1986-87 while 3 of the 7 middle - income states - Karnataka, Tamil Nadu and Kerala ran a budgetary deficit ranging from 13 to 20 per capita in 1986-87. Municipal bodies in 4 of the 8 low income states for which data was reported - Assam, Uttar Pradesh, Madhya Pradesh and Bihar were in the red in that year. It is interesting to note, however that in the aggregate, the sampled municipal bodies were still in a surplus position in 1986-87 with a per capita budgetary surplus of Rs 7.54. The surplus balance is explained by the fact that in most states, municipalities are statutorily barred from running deficits. The municipal laws in these states do not allow the municipal authorities to formulate a deficit budget. The budgetary surplus is therefore artificially created. Indeed whatever surplus exists in the municipal budgets is used to finance the capital development programme under the capital budgets of the municipalities.

Table 5.3

India : Municipal Revenues and Expenditures, 1986-87
(151 Class I Municipal Bodies, at constant prices)

States	Total (Rs '000)		Per Capita (Rs)		Per Capita surplus/ deficit (Rs)
	Revenue	Expenditure	Revenue	Expenditure	
High Income					
Goa	10376	5998	211.79	122.43	89.36
Punjab	544499	486574	208.20	186.05	22.15
Haryana	125877	109593	115.46	100.52	14.94
Maharashtra	1914041	1677297	335.63	294.12	41.51
Gujarat	750948	721832	256.83	246.87	9.96
Middle Income					
West Bengal	51478	35469	49.94	34.41	15.53
Sikkim	-	-	*	*	*
Himachal Pradesh	36835	32075	450.91	392.65	58.26
Karnataka	421526	482331	12.62	141.45	-17.83
Arunachal Pradesh	-	-	*	*	*
Jammu and Kashmir	105991	66383	121.74	76.25	45.49
Tamil Nadu	304951	345095	105.70	119.61	-13.91
Manipur	1144	507	5.59	*	*
Nagaland	-	-	*	11.17	*
Andhra Pradesh	674084	585193	134.38	116.66	17.72
Kerala	130655	170992	66.07	86.47	-20.40
Mizoram	-	-	*	*	*
Low Income					
Rajasthan	243013	213006	81.82	71.72	10.10
Assam	6134	8447	11.12	15.31	-4.19
Tripura	30946	27807	198.33	178.22	20.11
Megalaya	9667	9576	77.54	76.81	0.73
Uttar Pradesh	533653	583956	82.33	90.09	-7.76
Madhya Pradesh	134591	175387	102.39	133.43	-31.04
Orissa	176566	149450	154.72	130.96	23.76
Bihar	12390	21560	19.56	34.04	-14.48
ALL INDIA	6219365	5908529	150.68	143.14	7.54

Source : NIUA, Upgrading Municipal Services: Norms and Financial Implications, Research Study Series 38, 1989.

* Not reported/not available.

The distribution of local revenues by source for 1983-84 is shown in Table 5.4. It may be seen that taxes accounted for the largest share (72 per cent) of municipal revenues (up from 69 per cent in 1979-80). Taxes account for a smaller share of municipal revenues in the smaller and medium sized urban centres and they made up less than half of all revenues in urban centres under 50,000. It is to be observed that 49 per cent of the 1983-84 tax revenue came from Octroi levies, 39 per cent from property taxes, and the remaining 12 per cent came from a variety of other local taxes.

Table 5.4

Municipal Revenues by Source, 1983-84

Size class of Urban Centres	Taxes	Non-Taxes	Grants	Misc.	Total
1 million or more	75	11	13	1	100
100,000 - 1 million	70	7	19	3	100
50,000 - 100,000	53	8	26	13	100
20,000 - 50,000	50	13	31	7	100
Less than 20,000	49	13	30	9	100
Total	72	10	15	2	100

Source: NIUA, 1987, op.cit.

Non-tax revenues of municipal bodies include user changes (fees for urban services), income from municipal investments, and rents from public properties. Non-tax revenues of sampled municipal bodies in aggregate terms increased from 7.2 per cent of total revenue in 1979-80 to 10.2 per cent n 1983-84. In view of the fact that public services (such as water supply) are

priced well below their costs, there is scope for income expansion of local bodies through (i) appropriate pricing of public services and (ii) capital funds for investment in remunerative urban project.

Grants from higher level governments accounted for 15.3 per cent of all local revenue in 1983-84 which was slightly less than the corresponding figure for 1979-80 (16.1 per cent). The local bodies reliance on grants varies significantly by city size. While grants constituted only 13.3 per cent of municipal revenues in urban centres of over 1 million population, they make up around 30 per cent in urban centres under 50,000. Income from other miscellaneous sources declined over the period, dropping from 7.8 per cent of total revenue in 1979-80 to 2.1 per cent in 1983-84.

Municipal Revenues of States

Table 5.5 provides the distribution of municipal revenues by source for the year 1986-87 for 25 States in India ranked according to the adopted income classification.

a. Internal Sources :

Municipal bodies in both high and middle-income states are characterized by a high level of internal revenue generation.

Among the high-income states, Punjab and Gujarat had more than 75 per cent of total revenues accounted for by internal sources. In the case of Haryana and Maharashtra internal revenue generation was of the

order of about 70 per cent of local revenues of municipal bodies. Goa as the only high-income state in which less than half (43 per cent) of municipal revenues came from internal sources.

In the low-income category, the highest level of internal revenue generation was in the state of Assam (91.33 per cent), followed by Rajasthan (85.94 per cent), Orissa (64.71 per cent), Uttar Pradesh (61.94 per cent) and Madhya Pradesh (56.46 per cent). Municipal bodies in Tripura had the lowest internal revenue generation accounting for only 5.38 per cent of the total.

In all the high and middle-income states (except Tamil Nadu and Manipur) tax revenues were the major source of funds for the local bodies. The states in which more than 50 per cent of internal funding came from taxes in these categories are : Punjab, Maharashtra, Gujarat, Karnaaka and Kerala. While in Manipur 76.33 per cent of local revenues came from non-tax sources, the high and middle-income states in which non-tax revenues accounted for 20-35 per cent of total revenues are the following : Goa, Haryana, Himachal Pradesh, Tamil Nadu, Andhra Pradesh and Kerala.

Table 5.5

Municipal Revenues by Source, 1986-87@

(%)

States	Total	Internal sources		External sources		Miscellaneous
		Taxes	Non-taxes	Grants	Shared taxes	
High Income						
Goa	100	21.95	21.05	38.45	NR	18.56
Punjab	100	78.54	13.08	2.79	NR	5.59
Haryana	100	49.89	20.70	21.98	0.67	6.75
Maharashtra	100	59.54	7.42	15.8	4.91	12.33
Gujarat	100	64.41	10.54	13.98	4.35	6.62
Middle Income						
West Bengal	100	33.09	3.74	34.11	29.06	NR
Sikkim	100	NR	NR	NR	NR	NR
Himachal Pradesh	100	31.56	29.79	10.86	NR	27.79
Karnataka	100	54.81	19.76	2.84	7.75	14.83
Arunachal Pradesh	100	NR	NR	NR	NR	NR
Jammu and Kashmir	100	33.59	7.29	58.55	NR	0.57
Tamil Nadu	100	25.29	34.71	9.24	28.67	2.09
Manipur	100	2.79	76.33	NR	20.87	NR
Nagaland	100	NR	NR	NR	NR	NR
Andhra Pradesh	100	26.29	23.63	26.5	11.23	12.34
Kerala	100	63.42	20.20	5.82	10.56	NR
Mizoram	100	NR	NR	NR	NR	NR
Low Income						
Rajasthan	100	74.61	11.33	7.03	0.15	6.88
Assam	100	29.49	61.84	5.02	2.64	0.78
Tripura	100	2.96	2.42	79.21	NR	15.69
Megalaya	100	29.67	11.18	52.54	NR	6.62
Uttar Pradesh	100	52.57	9.37	28.25	0.91	8.9
Madhya Pradesh	100	42.05	14.41	22.87	2	18.67
Orissa	100	56.57	8.14	24.06	0.47	10.76
Bihar	100	30.48	16.59	38.86	NR	14.09
ALL INDIA	100	54	13.45	16.72	5.81	9.73

@ Data relates to 157 class Municipal Bodies

NR - Not Reported/Not Available

Source : NIUA, 1989.

Among low-income category states tax revenue accounted for more than half of total municipal revenues in Rajasthan (74.61 per cent), Uttar Pradesh (52.57 per cent) and Orissa (56.57 per cent). Non-tax revenue as a per cent of total local revenues was highest in Assam (61.84) and lowest in Tripura (2.42) in the reference year.

b. External Sources :

Grants-in-aid form a relatively small proportion of the total revenue of municipal bodies they however, constitute a rising share of total municipal revenues. In 1970-71 the share of grants-in-aid in total revenue of sample municipal bodies in India was 8.11 per cent, they rose to 8.44 per cent in 1976-77 and reached a level of 16.72 per cent in 1986-87.

With the exception of Goa, West Bengal and Jammu & Kashmir which received substantial grants-in-aid from the State government, constituting 38.45, 34.11 and 58.55 per cent of municipal revenues respectively, the remaining high and middle-income category states received a moderate level of grants. On the contrary municipal bodies in a majority of low-income category states (with the exception of Rajasthan and Assam) received fairly significant level of grants ranging however 22.87 per cent for Madhya Pradesh and 79.21 per cent for Tripura from

State governments. It is to be noted that states such as Goa, Jammu & Kashmir, Tripura, Meghalaya and .pa Bihar which had nil or insignificant level of shared taxes had high percentage of grants-in-aid in total municipal revenues.

Grants-in-aid are fundamentally based on the assumption that the existing resources available with the municipal bodies are not sufficient to yield the revenue they need. In that case, this lacuna necessitates certain fundamental correctives to equip urban local bodies with the necessary financial powers to meet their requirements. The function of grants-in-aid should only be marginal to remedy the inequalities among municipal bodies in utilising the available resources.

Municipal Expenditure of States

Table 5.6 gives the pattern of municipal expenditures for the sampled municipal bodies in 25 States of India ranked according to income classification.

An analysis of municipal expenditure shows that in all the three income category states, public health expenditures account for a major share of municipal expenditures of the local bodies.

Expenditure on public heatlh varies between 26.84 per cent of the total in Gujarat to 49.31 per cent in Goa in the high income category; between 36.19 per cent in Jammu & Kashmir to 100 per cent in Nagaland in the middle-income category; and

Table 5.6

India : Pattern of Municipal Expenditure, 1986-87@

States	Total expenditure ('000 Rs)	Percentage distribution of expenditure					
		General administration & collection of revenue	Public health	Public safety	Public works	Education	Recreational activities
High Income							
Goa	5998	NR	49.31	4.93	45.76	NR	NR
Punjab	486574	5.02	43.53	4.53	20.32	0.03	2.37
Haryana	109593	16.27	48.67	6.26	8.38	0.23	3.54
Maharashtra	1677297	12.26	33.49	4.42	12.41	16.01	1.82
Gujarat	721832	19.24	26.84	11.82	6.87	18.19	2.62
Middle Income							
West Bengal	35469	27.20	55.40	4.38	8.62	2.58	NR
Himachal Pradesh	32075	12.61	44.06	NR	6.93	0.31	NR
Karnataka	482331	9.05	54.23	4.44	14.23	0.11	2.07
Jammu & Kashmir	66383	47.18	36.19	4.39	8.53	NR	1.49
Tamil Nadu	345095	8.55	40.37	9.54	6.27	16.43	5.10
Manipur	NR	NR	NR	NR	NR	NR	NR
Nagaland	507	NR	100.00	NR	NR	NR	NR
Andhra Pradesh	585193	11.30	41.53	3.89	11.87	21.71	1.10
Kerala	170992	16.15	41.22	14.17	17.78	2.47	4.68
Low Income							
Rajasthan	213006	25.51	30.33	8.75	16.65	0.43	2.85
Assam	8447	33.60	40.63	1.68	22.64	0.96	0.49
Tripura	27807	15.96	42.15	4.19	30.01	NR	0.08
Meghlaya	9576	22.32	65.07	0.70	10.78	NR	NR
Uttar Pradesh	583956	9.68	47.41	5.45	22.63	1.31	1.21
Madhya Pradesh	175387	10.48	28.59	4.23	12.19	3.88	1.49
Orissa	149450	9.62	32.71	5.10	23.87	10.53	0.41
Bihar	21560	7.04	57.63	12.62	10.75	NR	5.03

@ Data relates to 157 class Municipal Bodies
NR - Not Reported/Not Available

Source : NIUA, 1989.

between 28.59 per cent in Madhya Pradesh to 65.07 per cent in

between 28.59 per cent in Madhya Pradesh to 65.07 per cent in Meghalaya in the low-income category states in India, during the reference year.

Municipal expenditure on general administration and collection of revenues was highest in the middle-income State of Jammu & Kashmir and lowest in the low-income State of Meghalaya. Public Works expenditure as a proportion of total municipal expenditure was highest in Goa (45.76 per cent) and lowest in Tamil Nadu (6.27 per cent); while the proportional expenditure of municipal bodies on education was highest in Andhra Pradesh (21.71 per cent) and lowest in Punjab (0.03 per cent).

The Resource Gap

The data and analyses indicates that urban local authorities in India are facing a severe constraint on local revenues which prevent them from spending enough to provide adequate urban services. As a result, most urban areas in the country have witnessed in recent years a deterioration in the standard and quality of public services and civic amenities.

The Planning Commission Task Force[1] estimated that the provision of adequate basic services to urban areas would require he expenditure of about 8 per cent of total public sector resources - approximately twice the percentage actually being spent at the beginning of the 1980s. Thus a doubling of resources was required at that time. A more recent estimate of

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1. Planning Commission, Task Force on Housing and Urban Development : Planning of Urban Development New Delhi, Govt. of India, 1983.

the financial needs of the sampled municipal bodies in India, by the National Institute of Urban Affairs (NIUA)[2] places the requirement at approximately Rs 26,814 million over the period 1990-95, in order to be able to maintain and operate the core municipal services at acceptable normative levels.

In conclusion; the rapidly increasing urban population in India is placing a heavy burden on the resources of urban local authorities to maintain an appropriate level of civic amenities and services. The municipal bodies are unequal to the task and have, in general, undeveloped or eroded tax systems which do not provide enough revenues even for maintenance of the existing civic infrastructure leave alone its development. The main burden of strengthening the existing urban infrastructure or the creation of new infrastructure, therefore, falls on the State governments. There is urgent need for revitalising municipal bodies through structural reforms in financial administration and the tax system, so that urban local authorities could mobilise resources to provide and maintain urban services effectively and efficiently.

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2. NIUA, Upgrading Municipal Services:Norms and Financial Implications, 1989, New Delhi.

CHAPTER VI

URBAN INSTITUTIONS AND GOVERNANCE

It is well recognised that the structure of urban institutions plays a crucial determining role not only in promoting but also in facilitating rapid urban development. Affirming that development of urban institutions an extremely complex activity in the context of changing cultural and socio-political factors, the World Bank in a recent World Development Report has observed as follows:

> " Urban Government presents very difficult tasks under the best of circumstance; in the cities of developing countries, the problems faced by urban authorities are monumental, while the resources to deal with them are exceedingly scarce. But since the public sector has a pervasive role in managing urban growth, the benefits from making urban government more effective will be substantial. Even the best urban development strategy comes to naught unless there are institutions that can implement it. Improvements in the institutional framework are therefore a prerequisite for more efficient and equitable urban growth."

Beginning in the early sixties, as a result of the "considerable thinking on urban issues"[1] generated by the preparation of the Delhi Master Plan (1961-1981), several institutions and organisations , were established for the planning and management of urban development in India. At the

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1. Task Forces on Housing and Urban Development, Planning of Urban Development Vol.1, Planning Commission(GOI), September 1983.

operational level these institutions include the urban local bodies, the urban development authorities , the improvement trusts, as well as special purpose sectoral agencies such as water supply and sanitation authorities, housing and slum clearance boards and corporations.

This Chapter provides an overview of the roles and responsibilities of the institutions at the Central, State and local levels that are involved in urban planning, administration and service provision.

Institutional Structure for Urban Development

Under the Indian federal structure, the division of powers between the Centre and the States is such that while the responsibility for urban planning and policy is split between the Central and State governments, the implementation of decisions on urban development are almost exclusively the responsibility of the State governments and the local government agencies constituted under them.The Central Government has only a guiding and coordinating role.

National Level

At the national level the main organisations concerned with urban planning and development are the Planning Commission, the Ministry of Urban Development and the Town and Country Planning Organisation (T.C.P.O.).

Planning Commission

The Planning Commission is chaired by the Prime Minister and consists of a Deputy Chairman and members who are appointed for five year terms, plus a Secretariat. The members of the Planning Commission are responsible for the functional sectors including urban development and housing. The Planning Commission is responsible for preparation of the national five year plans and the annual plans of the States. The Planning Commission also conducts periodic reviews of development policies, and monitors and evaluates the progress of development plans.

Ministry of Urban Development

Urban development is a State subject and the Central Government performs an advisory and coordinating role apart from providing technical and financial assistance for promoting orderly urbanisation.

Ministry of Urban Development is the successor to the former Ministry of Works and Housing, and retains many of the functions implied by that name, including the provision of housing for government employees.

As part of its advisory Ministry of Urban Development played a prominent role in drafting the National Housing Policy and was responsible for steering it through numerous meetings and corresponding drafts. It was responsbile for providing the secretariat for the National Commission on Urbanisation, and prepares statements on the sector for international conferences. It takes the lead in drafting model or national legislation, including the revisions to the Urban Land Ceiling Act and the Delhi Rent Control Act.

The Ministry of Urban Development has a number of subsidiary agencies for which it has nominal responsibility, including among others the Housing and Urban Development Corporation (HUDCO), the National Buildings Organisation (NBO), the Town and Country Planning Organisation (TCPO), and the National Institute of Urban Affairs (NIUA).

Town and Country Planning Organisation

The Town and Country Planning Organisation (TCPO) is the apex technical advisory body on matters relating to urban and regional planning strategies, research, monitoring and evaluation of Central Government Schemes and development policies. It provides technical inputs for the formulation of urban development and infrastructural development policies to the Ministry of Urban Development and provides consultative services and project assistance to different State/ Organisations.

In addition to the above Central institutions impinging directly on the urban sector other Central ministries and organisations have an implicit role in urban planning and development. Major industrial location and public sector investment decisions are taken by national level organisations which in turn have their spatial and regional implications. Investment decisions relating to the transport sector have significant effects on the growth of urban areas. Without adequate investment in transportation most of the investment in industrial estates or industrial growth centres often proves unproductive resulting in an adverse impact on the urban sector.

The State and Local level

At the State level the organisations dealing with urban development and planning are the State Secretariat Departments concerned, the Planning Boards or Departments and the Town Planning Departments.There is no uniform pattern of responsibilities of the Secretariat Departments. In West Bengal, for instance, there is a Department of Metropolitan Development in addition to the Department of Urban Development. Other States often have Departments of Local Self-Government which are exclusively concerned with the administration and control of Local bodies.In some States there is one Department of Housing and Urban Development, while in others these responsibilities are split into two departments. In addition, core infrastructure services like water supply and sanitation are often the responsiblity of yet another Department or Organisation.

At the local level, the largest cities: Calcutta, Madras, Delhi and Bombay all have metropolitan development authorities viz. the Calcutta Metropolitan Development Authority (CMDA), the Madras Metropolitan Development Authority (MMDA), Delhi Development Authority (DDA),and the Bombay Metropolitan Regional Development Authority (BMRDA). The responsibility for strategic development planning , capital budgeting and programming, coordination of development programmes and policies as also, monitoring evaluation rests with them.

In the case of CMDA and DDA they carry out the bulk of execution of capital works as well. MMDA and BMRDA , though quite different in their functions, are similar in that they are not

executing agencies but do mainly planning and coordination .MMDA has been more effective while BMRDA is yet to establish its authority effectively because of the well functioning and powerful Bombay Municipal Corporation (BMC) which , moreover, unlike other city corporations, has jurisdiction over all of Greater Bombay.

Development authorities have been formed in the other metropolitan cities also and even below the metropolitan level there are about 50 urban development authorities which have been designated as the relevant planning authorities for those cities.In the rest of the towns and cities, urban planning and development is carried out by the Town Planning Departments on behalf of the local bodies.

The municipal government in India encompasses urban local bodies of various types--- Corporations, Municipalities and Municipal Boards, the Town Area Committees and Notified Area Committees.[3]

The urban local authorities are the responsibility of the State Government under the constitutional division of powers; they derive their authority from a statute enacted by the State Government or governmental executive instructions. In the case of Union Territories such as Delhi, the authorities are the direct creations of central legislation.

These municipal institutions are creatures of the State Legislation, which lay down the conditions within which they can be constituted.The legislations define their functions and responsibilities,as well as, their resource raising powers which vary significantly from one State to another.

The municipal authorities are required to perform obligatory and discretionary functions as listed in their statutes.The former include duties such as provision of water supply; solid wastes management; primary education; street lighting; urban roads;medical and health services (including dispensaries and maternity homes) and public works.[4] The discretionary functions of municipal bodies include secondary and higher education; city transport services; supply of electricity

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3. There can be other types of municipal bodies also. These include Cantonment Boards, Town and Nagar Panchayats, Sanitary Boards, and Specified Special Areas. However, these have not been included in this assessment.

4. Telephones and telecommunications, railways, ports, commercial banks in all the cities are under the control of the Central Government directly or indirectly.

and gas undertakings; as well as commercial and industrial activities etc. All urban local bodies are subject to statutorily defined supervision and control by the State Governments.

In 1979-80, there were 2709 urban local bodies; of these, 40 were municipal corporations, 1774 municipalities, 839 notified area and town area committees and 56 cantonment baords. A more recent estimate (1989) places their number at 2789 with the following break-up :

Table 6.1

Urban local bodies in India

Type of local body	1981	1989
Municipal Corporations	41	73
Municipalities	1704	1770
Notified Area Committees	396	229
Town Area Committees	455	717
Total	2596	2789

Source: T.C.P.O., New Delhi.

Municipal authorities enjoy tax powers and functional competence as delegated by the state in the legislation constituting them. They are required to perform obligatory and discretionary functions. Their tasks include regulatory activities, namely, enforcement of building bye-laws, registration of births and deaths, controlling noxious trades and indsutries, regualting markets and slaughter houses, ensuring the

quality of good and drugs sold and such other activities. The civic functions include water supply, drainage, sewerage, conservancy, primary health, sanitation, dispensaries and maternity homes, primary education, street lighting, roads and public works.

While the scope and area of influence of municipal government - as reflected in the quantitative increase of urban local bodies shown above- has registered a significant increase in the 1980s, in the context of the speed and rapidity with which urbanisation has taken place in India, most municipal bodies found themselves unprepared- in physical, financial and administrative terms - to tackle the problems of providing basic infrastructure services to the urban population.

Effectiveness of Urban Governance

The urban sector institutional framework reflects the basic three tier system of government in the country and is functional as such.However, with the rapid growth of urban centres, significant problems have arisen in the organisational set-up for managing urban development .

Municipal institutions constitute just a sub-set of a much larger world of urban administration. As the Indian experience[2] shows, the number of agencies involved in urban management is quite large with many local government functions,

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2. Abhijit Datta & B. Chakravarty, Organizing Metropolitan Development, Centre for Urban Studies, Indian Institute of Public Administration (IIPA), New Delhi, 1981.
See also: K.C. Sivaramakrishnan & L. Green, Metropolitan Management - The Asian Experience, Oxford University Press, 1986

as noted above, having been ceded to special agencies and development authorities.This is particularly true of big urban complexes such as Calcutta, Bombay, Madras, Delhi and others.

In this context an area of increasing concern is that the role of urban local bodies has been progressively undermined , with many functions performed hitherto by local authorities now being performed by urban development authorities (which are State government organisations) and by other State level institutions for specific purposes. It needs to be emphasised that in contrast to their earlier position of eminence, the last few decades, particularly since the 1970s, there is an increasing erosion of the functional domain of urban local bodies with , even their assigned obligatory functions being taken over by new State level agencies and development authorities , which have been entrusted with the specific task of planning and development of basic urban infrastructure services, hitherto the exclusive jurisdiction of the municipal bodies.

The specialised sectoral agencies have certain "efficiency advantages" associated with the externalities of large scale operations and specialised spheres of functioning.They also undertake investment planning, programming, capital budgeting and improved financial accounting practices in executing their capital development and management functions.

However, a major consequence of the rather arbitrary distinction between the capital works and maintenance functions of urban local bodies and the specialised agencies is that the

maintenance of critical urban infrastructural facilities is often deficient. With the municipalities generally not being involved in the development planning process there is little popular participation at the local level in the planning and delivery of urban infrastructure and services.

At the same time the municipalities, lack the initiative and motivation to undertake maintenance and supervision responsibilities, as a result expensive urban investments are not maintained properly and are threatened with early damage requiring extensive repairs.

This functional fragmentation has led to a situation in which a large number of municipal bodies have become moribund with little capacity to provide adequate urban services and infrastructure at present. Further, such fragmentation has resulted in urban local bodies becoming ill-equipped to address the requirements of accelerated urban growth and the concomitant innovations in urban resource management and development in the future.

While the organisational incapacity of the urban local bodies in the face of severe deficits in urban service provision have reduced the municipalities to a position of irrelevance; it is important to note that the specialised agencies and urban development authorities have grown and strengthened their position in the urban development process.

Another significant feature of the urban institutional set- up in recent years is that the variety of single and multi-

purpose agencies in Indian cities, including development authorities, bodies with responsibilities for water and sewerage, land development, or transport, has become truly staggering.

Table 6.2 provides an illustration of urban institutions in the Madras Metropolitan Area in the year 1978. The institutional structures in Delhi, Bombay and Calcutta are even more complex with a multiplicity of urban planning,development and management agencies.

Table 6.2

Madras Metropolitan Area Institutions 1978

Departments and directorates of the state and central governments concerned with infrastructure planning and investment activities in the Metropolitan Area

- Defense Ministry (defense cantonments, factories and townships)
- Posts and Telegraphs
- Civil Aviatation
- Telephones
- Paort Trust
- Railways (long distance and suburban)
- Fisheries
- Social Welfare
- School Education
- Tamil Nadu Dairy Development Corporation (milk supply)
- Tamil Nadu Small Industries Corporation (industrial estates)

Statutory entities with specific functions of planning or control for the Metropolitan Area or a large part of it

- Madras Metropolitan Development Authority
- Directorate of Public Health
- Inspectorate of Factories
- Police Department
- Regional Transport Authority
- Labour Department
- Fire Services Department
- Civil Aviation Department

Statutory bodies or utilities with statewide or larger jurisdiction also functioning in the Metropolitan Area

- Tamil Nadu Housing Board
- Tamil Nadu Water Supply and Drainage Board
- Electricity Board
- Pallavan Transport Corporation
- Town and Country Planning Board

Statutory bodies with metropolitan or local jurisdiction

- Madras Metropolitan Development Authority
- Madras Metropolitan Water Supply and Sewerage Board
- Slum Clearance Board
- Madras City Municipal Corporation
- 4 municipalities
- 4 townships
- 16 town panchayats

Reproduced from "Metropolitan Management - The Asian Experience", K.C.Sivaramkrishnan and Leslie Green

In such a situation , it is often the case that most Indian cities suffer from geographic as well as , functional fragmentation of urban / municipal institutions,leading to what may be termed an "urban dysfunctional syndrome". Since investment funds for urban development are channeled through State government agencies and the urban development authorities, the weight of responsibility in urban management and finance has shifted perceptibly from the municipal bodies to the State government agencies.

At the sametime , the position of the municipal bodies has been further eroded due to a majority of these bodies remaining in a state of supercession for long durations.Table 5.3 provides an update on superseded municipal corporations in India till 1989.

Table 6.3 **India : List of Superseded Municipal Corporations,1989**

S.No.	Name of the Corporation	Since when superseded	Population 1981	% Growth Rate 1971-81
Assam				
1.	Gauhati	13.10.1982	550,000*	344.32
Bihar				
2.	Bhagalpur	25.09.1979	225,062	30.70
3.	Gaya	18.11.1983	247,075	37.35
4.	Muzaffarpur	16.04.1981	190,416	50.67
Karnataka				
5.	Banglore	since 1988	2,476,355	60.72
6.	Gulbarga	-do-	221,325	52.02
7.	HUbli - Dharwar	-do-	527,108	39.02
8.	Mangalore	-do-	172,252	4.29
9.	Mysore	-do-	441,754	24.20
10.	Belgaum	since 1988	274,430	42.62
Madhya Pradesh				
11.	Bhopal	27.3.87	671,018	74.35
12.	Bilaspur	since 1987	147,218	41.01
13.	Burhanpur	since 1987	140,986	33.85
14.	Dewas	Since 1982	83,465	60.92
15.	Durg	Since 1987	114,637	68.85
16.	Gwalior	Since 1988	539,015	32.72
17.	Indore	27.3.1987	829,327	47.85
18.	Jabalpore	29.4.1986	614,162	44.09
19.	Katni	1.1.1981	N.A.	N.A.
20.	Khandwa	1.1.1981	114,725	34.33
21.	Raipur	since 1984	338,245	64.21
22.	Ratlam	1.1.1981	142,319	32.95
23.	Rewa	1.1.1981	100,641	45.47
24.	Rajnandgaon	Since 1984	86,367	54.70
25.	Sagar	Since 1987	160,392	35.27
26.	Satna	26.1.1981	90,476	57.26
27.	Ujjain	Since 1980	278,454	34.55
Maharashtra				
28.	Amravati	15.3.1983	261,404	34.88
29.	Kalyan	1.10.1983	1,36,052	36.67
30.	Nagpur	since 1988	1,219,461	40.80
31.	Nasik	7.11.1982	262,428	49.03
Punjab				
32.	Amritsar	1.4.1977	594,844	30.79
33.	Jallandhar	1.4.1977	408,196	37.85
34.	Ludhiana	1.4.1977	607,052	51.32
Tamil Nadu				
35.	Coimbatore	1.5.1981	704,514	24.63
36.	Madras	1.12.1973	3,276,622	27.35
37.	Madurai	27.7.1984	820,891	29.48
Uttar Pradesh				
38.	Allahabad	14.9.1974	616,051	25.57
39.	Lucknow	1.7.1973	895,721	19.55

Source : Ministry of Urban Development, New Delhi. * - Estimated

With increasing urbanisation and continuing expansion of existing urban centres , restoring the health of urban local bodies as well as revival and restructuring of institutions with a view to effective urban governance has become imperative. Municipal governments need to be strengthened - administratively and financially - and provided with technical and planning guidance. Efforts should be made to supplement the local bodies rather than to supplant and supersede them.

The problems arising from the multiplicity of agencies dealing with urban growth, weak planning and management as well as the scarcity of municipal finance are inextricably interwoven. As many as five levels of government -- national, state, metropolitan, regional, municipal or local -- may be involved with often little communication between them. More than 30 municipal authorities may be involved in a single metropolitan area as is the case in Calcutta.

The exceptional speed of urbanisation and the rapid growth of large mega-cities in India poses particularly acute problems of systemic adaptation.The number of individual uncoordinated agencies under a single authority constitutes a major problem. At the sametime creation of autonomous agencies to ensure better management of individual services are likely , in the absence of a similar strengthening of municipal administration, compound the problem of integrating policies and determining appropriate priorities of the urban sector as a whole.

The fast changing urban scene has made it imperative that the legal and statutory provisions governing various urban functions should keep pace with the ever changing requirements. The states like Maharashtra and Tamil Nadu have already made considerable efforts in this area. The state of Maharashtra has an advantage of having earlier Town Planning Acts in India. Though town planning Acts were in vogue even in the early part of the present century, they were restricted to physical aspects like land-use control, lay-out sanctions, zoning, etc. The broader issues like employment, industrial growth, migration and settlement patterns, etc., were left out. Further, the jurisdiction of a town plan was limited to cities and towns, excluding the hinterlands. Thus, the Town Planning Acts lacked comprehensiveness as well as integrated perspective.

As a step towards integration, certain states have enacted regional planning legislations. For instance, the state of Maharashtra has enacted the Maharashtra Regional and Town Planning Act, 1966. This Act provides that the local bodies including the Zila Parishads are responsible for planning and implementation in their respective jurisdictions. Further, the provision of Special Planning Authority is made for developing new towns.

With regard to metropolitan regions, the constitution of Regional Planning Boards is provided. But these Boards are made responsible for planning only. The Maharashtra Regional Town Planning Act is very comprehensive. Many aspects like population distribution, land-use, greenery, enviornment, water supply,

transport and communication, etc., are included in town planning and transformed the term town planning into development planning.

This apart, a number of legislations like the Land Acquisition Act, Urban Land (Ceiling and Regulation) Act, City Corporation and Municipalities Act, Panchayat Samitis and Zila Parishads Acts, etc. govern various organisations engaged in urban development process. A number of other state and central agencies are administered by different statutes. Simultaneous operation of these laws, with their specific objectives, bye-laws, rules and regulations has created a complex urban situation. Some of the laws like the Urban Land (Ceiling and Regulation) Act and the Land Acquisition Act have overlapping functions.

The diversified legal frame is found to be a major hurdle for smooth operation of the interdependent urban planning and implementation functions. Many a time they had either restrictive or overlapping influences. Hence, an analysis of the effects of operation of these laws on one another requires utmost attention.

In conclusion,it may be said that improvement in urban governance and management or "institution building" is critical to the attempts to produce more efficient urban growth. In this process it is necessary to emphasise the role of urban local governments as the major actors in the urban development process. Clearer and more transparent allocation of responsibility and authority to them is required. Of crucial significance is the integration of physical and investment planning with regional and

sub-regional urban development plans. In restructuring urban institutions there is need to reorganise priorities, programmes, organisations and resources so as to avoid overlaps and facilitate coordinated programming.Improved personnel incentives are required for recruitment and development of qualified staff to achieve higher levels of productivity and efficiency. Without these the best machinery will be ineffectual.