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Urban Growth by City and Town Size in India

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Abstract:

The urban size is an important attribute influencing urban population growth. The small and intermediate towns are expected to grow slowly compared to large cities in the early phases of urbanisation. In the latter phase small towns are expected to grow as a result of congestion and crowding in the large and intermediate towns.
The study of urban growth by size class of towns would help us to understand the stages of urban development in a country. Differential growth rates indicate the extent of rural to urban migration and the changes in the structure of city sizes.
The new economic policy launched in 1991 was expected to generate higher economic growth and increased urbanisation during the decade 1991-2001. But this has not happened so far, as urban growth has further slowed down during 1991-2001 after a significant reduction in growth rate in1981-91. Given the increased role of large cities in globalised environment, it is expected further that the cities will grow faster than the small, medium and large towns, but this has also been not found true in the last decade.

Introduction

Urban population is usually distributed among settlements of differing sizes along a continuum from small towns to giant cities with population of tens of million (Pacione 2001). Cities grow initially benefiting from the increasing agglomeration economy, but after a certain stage due to congestion and crowding diseconomies set in resulting into urban sprawl in the adjoining area. The monocentric urban structure becomes multi-centred and dominates the rest of the urban system. In an evolving urban structure, the small and intermediate towns are expected to grow slowly compared to large cities in early phases of urbanisation. It is at the latter phases that the smaller towns are expected to grow as a result of congestion and crowding in large and intermediate towns. This cycle of urbanisation postulated by Geyer and Kontuly (1993) in terms of primate city, intermediate city and small city phase keeps on repeating not necessarily with same group of towns.

The study of urban growth by size class of towns could help us to understand the stages of urban development in a country and the differential growth rates show the extent of rural to urban migration. Although natural increase continues to contribute largely in urban growth of India, however with acceleration in demographic transition, rural to urban migration is likely to play more prominent role in the urbanisation of the country.

Launching of the new economic policy was expected not only to generate higher economic growth but also increased urbanisation during the decade 1991-2001. Further given the increased role of large cities in globalised environment, it is also expected that the cities will be growing faster than the small, medium and large

towns. An attempt has been made in this paper to analyse the urban growth by size class of towns/cities for different states of India.

Urban Population Growth at Town/City Level: Some Measurement Issues

Urban population is usually presented in six-fold classification in Indian censuses. While the first size-class comprises cities i.e., urban places having 100 thousand and more population, the last category consists of the tiny towns i.e., places having population less than 5000. In order to provide a meaningful analysis of the changes in size-class composition of urban population, the last three categories namely towns having population 10,000-19,999; 5000-9999; and less than 5000 are grouped together and termed as small towns. Medium towns are defined to have population in between 20,000 to 49,999; and large towns constitute population in the range of 50,000 to 99,999. The places having more than 100 thousand population are named as cities. On the other hand, cities having population 1 million and more are termed as million plus cities (Jain, et al. 1992).

There are two approaches to estimate growth rates by size class of towns and cities namely i) instantaneous approach and ii) continuous approach. The instantaneous approach simply considers the population change within the size class category at two points of time. During this period, however, several new towns come up and some of the old towns get declassified. But the instantaneous approach does not make adjustment for this. Many times the results of urban growth by size class of towns derived from instantaneous approach are misleading. Continuous approach on the other hand computes urban growth based on population change of only those

towns and cities, which are common to two points of time. It is therefore an adjusted rate for new towns and also for declassified towns during the decade under study. Some towns are likely to change their size class status between two censuses. The size class at the later census was taken in the calculation of urban growth rates in this study. This controls the shifts of towns across size classes during the two censuses affecting their growth rates.

Outgrowths of cities and towns are also treated as urban in the census. Each such towns and cities along with its outgrowths, and also some times to-gether with adjoining town (s), are termed urban agglomeration (UA). In the calculation of growth rate, both UA and individual town/city could be considered. Since the calculation of growth rate in this study is based on continuous approach, individual town/city has been taken for the estimation of urban growth rates. As such, the growth figures are adjusted for outgrowths, new towns as well as any declassified towns within the fold of UA. The growth rates for million plus cities are also analysed separately keeping in view their dominant role in the urbanisation process of the country.

Urbanisation Trend and Metropolitan Growth

Urbanisation Trend:

The level of urbanisation in India was 27.78 per cent in 2001, which was much lower than the average level of urbanisation in developing countries (40 per cent in 2001). In south Asia, India has an edge over some of the neighbours in urbanisation. Countries like Bangladesh (25 per cent) Sri Lanka (23 per cent), Bhutan (7 per cent) and Nepal (12 per cent) have lower level of urbanisation, but Pakistan has higher level of urbanisation (33 per cent) than India. It is however important to note that the

comparison of the level of urbanisation at the world level is affected by definition of urban areas followed in each country. For example, in Bangladesh places having a municipality (*Pourashava)*, a town committee (*Shahar Committee)* or cantonment board are defined as urban; in Nepal, all localities of 9000 or more inhabitants are declared urban; in Pakistan places with municipal corporation, town committee or cantonment are declared urban; in Sri Lanka also municipalities, urban councils and town are treated as urban (UN 2001).

In India, the definition of urban is more rigorous. Both civic status as well as demographic criteria are taken for declaring a settlement urban. The census of India defined the urban places on the basis of the following criteria (Census of India 2001).

i) All places with a municipality, corporation, cantonment board or notified town area committee etc.

ii) All other places which satisfy the following criteria:

a) Minimum population of 5000
b) At least 75 % of male working population engaged in non-agricultural pursuits and
c) A density of population of at least 400 persons per square km. (1000 per sq mile).

Besides, the directors of census operations in states/ union territories were allowed to include in consultation with the concerned state Governments, union territory administration and the census commissioner of India, some places having distinct urban characteristics as urban even if such places did not strictly satisfy all the criteria mentioned under the category (b) above (Jain et al 1992). The definition adopted in India assumes that urbanization is the consequences of industrialization and therefore urban areas must have preponderance of non-agricultural activities. It considers only male work force in the non-agricultural sectors, as quality of census data on women work force is doubtful (Bhagat 2002).

Table 1: India: Indicators of Urbanisation

Census Year	Urban Population in Million	% Urban Population	Number of Towns / UA per 10 lakh Rural Population	Decennial Growth Rate of Population (%)
1901	25.85	10.84	8.6	-
1911	25.94	10.29	8.0	0.35
1921	28.08	11.18	8.7	8.27
1931	33.45	11.99	8.4	19.12
1941	44.15	13.86	8.2	31.97
1951	62.44	17.29	9.5	41.42
1961	78.93	17.97	6.6	26.41
1971	109.11	19.91	5.9	38.23
1981	159.46	23.34	6.4	46.14
1991	217.17	25.72	6.0	36.10
2001	285.35	27.78	6.0	31.30

Notes: 1. As 1981 Census was not conducted in Assam, the 1981 population figures for India include interpolated figures for Assam.
2. The 1991 Census was not held in Jammu & Kashmir. The 1991 population figures for India include projected figures for Jammu and Kashmir as projected by the standing committee of experts on population projection (October, 1989). For source: Census of India, 1991.http. \\www.censusindia.net (2001 Census).

The urban population in India at the beginning of 20th century was only 25.85 million constituting 10.84 per cent of India's population in 1901, which increased to 285.35 million comprising 27.78 per cent of total population in 2001. The growth rate was highest observed during 1971-81 (46.14 per cent) and there was subsequent slowing down of urbanisation.

Rural and urban areas are not independent of each other. Urban areas provide several services such as marketing of agricultural products and inputs, repair of agricultural implements and also educational and health services to the rural areas.

Because of the importance of urban centers in providing services to rural population, an indicator called number of urban centers per 10 -lakh rural populations is included in Table 1. It is surprising to note that the total number of towns/U.A. per 10-lakh rural populations has declined from 8.6 in 1901 to 6.0 in 2001. This shows that in a relative sense the lesser number of urban centers have to serve more and more rural populations.

Metropolitan Growth:

Literally, the word metropolis means a mother city, a meaning no longer holding any significance, though it does mean a dominant or a large city (Dikshit 2003). Generally, million plus cities are also called metropolises. According to census 2001, there are 35 million plus cities consisting of 107.9 million urban population and constitute nearly 39 per cent urban population in the country (see Table 2). Kolkata was the only million cities at the beginning of twentieth century. Mumbai joined the rank of million plus cities in 1911. Nearly for four decades, there were only two million cities until 1951 when Delhi, Chennai and Hyderabad joined the rank of million cities in 1951 increasing the total number of million cities to five. In the decade 1981-91, 11 new metropolises were added increasing the

Table 2: Number and Percentage of Population in Million plus Cities in India 1901-2001

Census Year	Number	Population (in million)	Population per Million Plus City (in million)	% to Urban Population
1901	1	1.51	1.51	5.84
1911	2	2.76	1.38	10.65
1921	2	3.13	1.56	11.14
1931	2	3.41	1.70	10.18
1941	2	5.31	2.65	12.23
1951	5	11.75	2.35	18.81
1961	7	18.10	2.58	22.93
1971	9	27.83	3.09	25.51
1981	12	42.12	3.51	26.41
1991	23	70.66	3.07	32.54
2001	35	107.88	3.08	38.60

Source: Jain et al (1992); Census of India 2001 (**http:// www.censusindia.net**)

total number of metro cities to 23 in 1991 from 12 in 1981. During the last decade (1991-2001), 12 more million plus cities have been added- the maximum number during the last century increasing the total number of million plus cities to 35. As a result, the concentration of urban population in million plus cities increased significantly in the last decade from nearly one-fifth in 1970s and 1980s to almost two-fifth in 1990s.

The average population per million cities has however not increased during the last two decades, after reaching a maximum population of 3.5 million per metropolis in 1981 as a significant number of new metropolises have joined the ranks of million plus cities since 1981compared to earlier decades.

Table: 3 Growth of Population of Million Plus Cities as Per 2001 Census, 1981-2001

U .A./City Proper	Urban Agglomeration (Growth Rate)		City Proper (Growth Rate)	
	1981-91	1991-2001	1981-91	1991-2001
1.Greater Mumbai	33.7	29.9	20.4	20.0
2.Kolkata	19.9	19.9	6.6	4.1
3.Delhi	46.9	51.9	43.2	36.2
4.Chennai	26.4	18.5	28.9	9.7
5.Banglore	41.3	37.8	7.4	61.3
6.Hyderabad	66.5	27.4	39.2	12.8
7.Ahmadabad	29.5	36.4	22.9	18.9
8.Pune	44.8	50.6	30.2	38.3
9.Surat	64.4	85.1	62.2	62.3
10.Kanpur	23.8	32.5	25.8	35.0
11.Jaipur	49.6	53.1	49.2	59.4
12.Lucknow	65.7	35.8	70.8	36.3
13.Nagpur	36.4	27.6	33.2	26.2
14.Patna	19.7	55.3	18.1	33.4
15.Indore	33.7	47.8	31.6	46.3
16.Vadodara	44.0	32.4	40.4	26.6
17.Bhopal	58.4	36.9	58.3	34.9
18.Coimbatore	19.6	31.4	15.9	13.1
19.Ludhiana	71.8	33.7	71.7	33.7
20.Kochi	38.3	18.8	13.5	2.4
21.Visakhapatnam	75.1	25.7	33.0	28.9
22.Agra	26.9	39.4	28.5	29.2
23.Varanasi	29.3	17.5	29.6	18.4
24.Madurai	19.7	10.0	14.6	-1.9
25.Meerut	56.5	37.4	67.9	42.5
26.Nasik	63.7	58.8	80.6	63.9
27.Jabalpur	17.4	25.7	20.8	22.0
28.Jamsedhpur	21.9	32.9	5.1	23.8
29.Asansol	52.0	42.7	42.9	85.4
30.Dhanbad	18.9	30.5	26.2	31.1
31.Faridabad	86.7	70.8	86.7	70.8
32.Allahabad	29.9	24.3	28.7	24.9
33.Amritsar	19.2	42.6	19.2	27.3
34.Vijayawada	37.8	19.6	32.9	17.6
35.Rajkot	47.1	53.1	25.7	72.8

Source: Census of India 1971, 81, 91 and 2001

The decline in growth rate is also observed in respect with million plus cities. The overall decadal growth rate among million plus cities declined from 36 per cent during 1981-91 to 34 per cent during 1991-2001. The decadal growth rates for all 35

million plus cities separately for UA and city proper (within the municipal corporation area) are presented in Table 3. It may be observed that among the six largest metros except Delhi all of them have shown decline in their growth rates as defined by UA concept. The city proper concept also shows greater decline in all of them except Bangalore, which is affected by changes in the municipal boundary during the last decade. The metros of Pune, Surat, Patna, Kanpur, Jaipur, Indore, Jabalpur and Rajkot have maintained the tempo of high urban growth during the last two decades. These are however the secondary metro cities seem to have benefited by the economic forces unleashed during the last decade. The increasing congestion and crowding of the primary metro cities namely Mumbai, Chennai and Kolkata and Delhi was an added advantage to them. For example, a fast growing metro of Faridabad has emerged adjacent to Delhi along with Meerut in 2001. Surat and Pune are also growing fastly being near to Mumbai. As a result, two clusters of metropolitan dominance are clearly emerging in the western and northern region of the country around the core of Mumbai and Delhi within the urban space of India.

A detailed study of population growth in the six largest mega cities of Mumbai, Kolkata, Delhi, Chennai, Bangalore and Hyderabad for the last two decades is presented in Tables 4 to 9.

The Greater Mumbai urban agglomeration is the largest in India in terms of population; in fact, it has the distinction of being among the largest cities of the world in this respect. In 2001, the population exceeded 16 million with the Brihanmumbai Municipal Corporation (BMC) itself nearing 12 million (Table 4). The main satellite towns, each of which has a population exceeding one million, are Kalyan-Dombivli and Thane. The other satellite towns are Navi Mumbai, a planned town established three decades ago, Mira-Bhayander and Ulhasnagar.

Table 4: Growth Rates of Population in Greater Mumbai UA and its Constituents, 1981-91 and 1991-2001

UA/Constituents	Total Population (000), 2001	Growth Rate 1981-1991 (%)	Growth Rate 1991-2001 (%)
Greater Mumbai UA	16368	33.43	29.94
Greater Mumbai (M. Corp.)	11914	20.21	20.03
Thane (M.Corp)	1262	157.0	57.02
Kalyan-Dombivili (M. Corp)	1495	130.8	47.42
Ulhasnagar (M.Corp)	473	34.77	28.14
Mira-Bhayander (M. Council)	520	584.73	196.29
Navi-Mumbai (M.Corp)	704	-	128.76

Notes:

1. Kalyan-Dombivili (M.Corp.) includes Ambarnath and Badlapur which have separate Municipal Council in 2001, but were part of Kalyan (M.Corp.) in 1991.
2. Navi-Mumbai experienced extra-ordinary growth rate of 3716.9 per cent during 1981-91. The area also increased from 6.30 sq km in 1981 to 104.13 sq km in 1991. Area of Mira-Bhayander increased from 24.45 sq km in 1981 to 79.4 sq km in 1991. Area of Kalyan was 50.75 sq km in 1981, which increased to 225.26 sq km in 1991. Figures of area for 2001 census are not yet available.

Sources:

1.Census of India 1991, Series I, India, Part IIA (ii)- A series, **Towns and Urban Agglomerations 1991 with Their Population**, 1901-1991, Registrar General and Census Commissioner, India, New Delhi.

2. Census of India 2001, Series 28, Maharashtra, Provisional Population Tables, Paper 2 of 2001, "Rural-Urban Distribution of Population", Director of Census Operations, Mumbai.

The growth rate of the urban agglomeration is significantly higher than that of the Brihanmumbai Municipal Corporation, indicating the faster growth of satellite towns. The growth-rate of the urban agglomeration has however decreased in 1991-2001 compared to the previous decade, while that of the city has remained approximately the same. The growth rates of both the major satellite towns i.e., Kalyan-Dombivli and Thane have shown a marked decrease compared to 1981-91. This is partly due

to administrative reorganization. The fastest growing satellite towns in 1991-2001 were Mira-Bhayander and Navi Mumbai. The former reflects the outward movement of population along the western railway corridor, with relatively cheaper real estate acting as a pull factor. Navi Mumbai, after a sluggish start in the 70s of the last century took off during the last decade due to the completion of mass transport links with the main city as well as improvements in infrastructure.

If one considers the population changes that the BMC itself experienced, one finds that for the first time it crossed the 10 million mark in 2001, with the population reaching 11.9 million. The growth rate remained approximately the same as in the previous decade. Hence, the trend of decrease of growth rate that was evident during 1971-81 and 1981-91, particularly the latter decade, was not continued.

Kolkata is the second largest urban agglomeration with a population of 13.2 million as per 2001 census. The core area of Kolkata urban agglomeration such as Kolkata and Hoara Municipal Corporationa areas show one of the lowest growth rates during 1991-2001 compared to the growth rates of 1981-1991. On the other hand, the

Table 5: Growth Rates of Population in Kolkata UA and its Constituents, 1981-91 and 1991-2001

UA/Constituents	Total Population (000), 2001	Growth Rate (%) 1981-1991	Growth Rate (%) 1991-2001
Kolkata UA	13216	19.88	19.91
Kolkata (M.Corp.)	4588	33.12	4.11
Haora (M.Corp.)	1009	27.67	6.13
Peripheral Areas	7619	10.24	34.34

Sources:
1.Census of India 1991, Series I, India, Part IIA (ii)- A series, **Towns and Urban Agglomerations 1991 with Their Population**, 1901-1991, Registrar General and Census Commissioner, India, New Delhi.
2. Census of India 2001, www.censusindia.net. Also Census of India 2001, Series 20, West Bengal, Paper No 2 of 2001.

peripheral area shows a reversal in the growth pattern in the decade 1991-2001 compared to the growth rates of core areas. It may be seen from Table 5 that the peripheral area registered three times growth in 1991-2001 compared to 1981-91.

Table 6: Growth Rates of Population in Delhi UA and its Constituents, 1981-91 and 1991-2001

UA/Constituents	Total Population (000), 2001	Growth Rate (%) 1981-1991	Growth Rate (%) 1991-2001
Delhi UA	12791	46.94	51.93
Delhi (M.Corp.)	9817	43.22	36.22
New Delhi (M.Corp.)	295	10.35	-2.16
Delhi Cantonment	124	10.83	31.84
Peripheral Areas	2555	149.17	232.88

Sources:
1.Census of India 1991, Series I, India, Part IIA (ii)- A series, **Towns and Urban Agglomerations 1991 with Their Population**, 1901-1991, Registrar General and Census Commissioner, India, New Delhi.
2. Census of India 2001, www.censusindia.net.

Delhi with a population of 12.8 million ranks third after Mumbai and Kolkata. It shows a higher growth rate exceeding 50 per cent during 1991-2001 compared to 47 per cent of the previous decade. Delhi Municipal Corporation, which is the central city, shows a decrease in growth rate. New Delhi Municipal Corporation, which had a slow growth rate in 1981-91, has in fact shown a decline in population in 2001.

The growth in Delhi UA is therefore primarily due to the census towns that have shown extremely high growth rates in 1991-2001. Some of the ring towns forming part of Delhi Metropolitan Region such as Ghaziabad, Loni, Noida, Faridabad, Gurgoan and Bahadurgarh also experienced higher growth than the Delhi UA. The pattern of growth is clearly centrifugal in the last two decades, a continuation of the trend observed in previous decades (Brush 1962).

Chennai ranks fourth with a population of 6.4 million in 2001. The growth rate has declined in 1991-2001 compared to 1981-91. The central city of Chennai Municipal Corporationhas experienced a sharp fall in growth, which is much lower than that of the UA.

Table 7: Growth Rates of Population in Chennai UA and its Constituents,1981-91 and 1991-2001

UA/Constituents	Total Population (000), 2001	Growth Rate 1981-1991 (%)	Growth Rate 1991-2001 (%)
Chennai UA	6424	24.99	20.28
Chennai (M. Corp.)	4216	15.82	9.76
Ambattur (M)	302	92.69	40.42
Avadi (M)	230	44.58	40.42
Tiruvottiyur (M)	211	25.25	25.57
Alandur (M)	146	28.28	16.70
Pallavaram (M)	143	32.53	28.71
Madavaram (M)	76	-	55.91
Tambaram (M)	137	22.63	28.38
Kattivakam (M)	32	22.56	19.83
St Th.Mount-cum-Pallavaram (CB)	42	18.29	6.83
Peripheral Areas	889	91.30	61.20

Sources:
1.Census of India 1991, Series I, India, Part IIA (ii)- A series, **Towns and Urban Agglomerations 1991 with Their Population**, 1901-1991, Registrar General and Census Commissioner, India, New Delhi.
2. Census of India 2001, Series 34, Tamil Nadu, Provisional Population Totals: Rural-Urban Distribution , Paper-2 of 2001, Director of Census Operations, Tamil Nadu, Chennai.

The growth rate in Chennai UA is therefore primarily due to numerous satellite towns, namely, Ambattur, Avadi, and Tiruvottiyur etc. The growth rate in 1991-2001 is highest in census towns and Town Panchayats, notwithstanding a decline compared to the previous decade.

The city of Bangalore ranks fifth with a population exceeding 5.6 million. The growth rate in 1991-2001 was marginally lower than in the earlier decade. The tempo of

growth in the central city continued unlike other cities where decline in growth rate was distinctly noticeable.

Table 8: Growth Rates of Population in Bangalore UA and its Constituents, 1981-91 and 1991-2001

UA/Constituents	Total Population (000), 2001	Growth Rate 1981-1991 (%)	Growth Rate 1991-2001 (%)
Bangalore UA	5686	41.36	37.69
Bangalore (M.Corp. +OGs)	4303	30.04	30.30
Dasarahalli (CMC+OGs)	292	-	567.97
Bommanahalli (CMC+OGs)	229	-	-
Byatarayanapura (CMC+OGs)	198	-	902.17
Krishnarajpura (CMC+OGs)	187	-	-
Mahadevaoura (CMC+OGs)	154	-	440.66
Pattanagere (CMC+OGs)	105	-	-
Yelahanka (CMC+OGs)	94	114.3	85.49
New Towns (7)	124	-	-

Sources:1.Census of India 1991, Series I, India, Part IIA (ii)- A series, **Towns and Urban Agglomerations 1991 with Their Population**, 1901-1991, Registrar General and Census Commissioner, India, New Delhi.
2. Census of India 2001, Series 30, Karnataka, Provisional Population Totals: Rural-Urban Distribution , Paper-2 of 2001, Director of Census Operations, Karnataka, Banglore.

Note : CMC- City Municipal Council; OGs- Outgrowths.

The towns and outgrowths of Bangalore UA as existed in 1991 have seen completely reorganized into 7 new City Municipal Council created during 1991-2001. In several cases the existing towns and outgrowths have been merged with more than one City Municipal Council. As such in those cases calculation of growth rates are not possible.

Table 9: Growth Rates of Population in Hyderabad UA and its Constituents, 1981-91 and 1991-2001

UA/Constituents	Total Population (000), 2001	Growth Rate 1981-1991 (%)	Growth Rate 1991-2001 (%)
Hyderabad UA*	5579	66.0	27.00
Hyderabad (M.Corp.+Ogs)**	3517	39.3	15.57
Kukatpalle (M)	291	229.9	55.43
C.B.Nagar (M+OGs)	281	-	72.15
Qutubullapur (M)	226	344.1	111.85
Secunderabad (CB)	204	25.85	19.30
Malkajgiri (M)	175	93.35	37.60
Rajendra Nagar (M+OGs)	162	951.85	62.06
Kapra (M)	159	471.01	81.40
Serilingampalle (M)	150	-	108.14
Uppal Kalan (M+OGs)	119	-	57.45
Alwal (M +OGs)	108	71.40	59.97
Census Towns (6)	187	143.10	37.94

Sources:
1.Census of India 1991, Series I, India, Part IIA (ii)- A series, **Towns and Urban Agglomerations 1991 with Their Population**, 1901-1991, Registrar General and Census Commissioner, India, New Delhi.
2. Census of India 2001, Series 29, Andhra Pradesh, Provisional Population Totals: Rural-Urban Distribution, Paper-2 of 2001, Director of Census Operations, Andhra Pradesh, Hyderabad.

Note: M- Municipality; OGs- Outgrowths; CB- Cantonment Board.

* Hyderabad UA and Constituent units of Hyderabad falling in Rangareddy district. The population of Hyderabad UA is 5534 thousands.

** It includes Hyderabad (M. Corp) falling in Ranga Reddy district also.

Further, the satellite towns like Byataryanapura, Dasrahalli and Mahadevapura have shown phenomenal increase in growth rate during the recent decade. These towns also have been accorded municipal status recently.

Hyderabad with a population of 5.5 million is ranked sixth, among the million plus cities in India.

The growth rate of the UA has substantially decreased during 1991-2001 compared to the earlier decade, especially in the central city. Hence, the growth rate in peripheral towns continues to be higher compared to the central city of Hyderabad.

Urban Population Growth by Size Class of Towns and Cities

Table 10 presents the adjusted decadal growth by size class of towns/cities for the period 1981-2001. As the adjusted rated are based on common towns during the period and excludes the new and declassified towns, the extent of growth is largely contributed by natural growth and migration and also to some extent by the changes in the boundaries of the towns/cities. The adjusted rates are lower than the unadjusted rates for the decade 1981-91 and 1991-2001 at the country level.

Table 10: Adjusted Decadal Urban Growth Rates by Size Class of Towns/Cities, India 1981-2001

Size Class	1981-91 (%)	1991-2001 (%)
Cities (>100,000)	30.2	28.4
LargeTowns (50,000-100,000)	30.0	26.1
Medium Towns (20,000-50,000)	28.8	24.5
Small Towns (<20,000)	28.8	28.3
Total	29.8	27.5

Note: Adjusted rates exclude the new towns as well declassified towns and are based on common towns during the decade.

The adjusted decadal urban growth rate for India was 27.5 per cent during the decade 1991-2001 compared to unadjusted growth rate of 31 per cent during the same period. The adjusted growth rates show that urbanisation has slowed down during the decade 1991-2001. In earlier decade, cities have grown faster than the small and medium towns, and the large towns and cities have identical growth rates. But the last decade shows that both small towns and cities are growing at

the same rate, whereas medium and large towns have lower growth rates. This pattern of growth during the 1990s indicates that people from large and medium towns are likely to be migrating to cities for better opportunities.

Table 11: Adjusted Decadal Urban Growth Rate (in per cent) by Size Class of Towns/Cities, India, 1991-2001 (Common Towns only))

States/ Country	Cities (>100,000)	Large Towns (100,000-50,000)	Medium Towns (50,000-20,000)	Small Towns (<20,000)	Total
Andhra Pradesh	11.1	25.5	20.8	23.8	15.1
Assam	32.3	10.3	24.5	27.2	25.8
Bihar	32.9	31.3	29.7	26.4	31.2
Chhattishgarh	43.2	17.2	40.8	19.2	33.7
Goa	-	16.6	26.9	18.3	18.2
Gujarat	23.6	13.2	20.6	25.2	21.5
Haryana	45.8	51.9	37.3	34.6	44.2
Jharkhand	28.7	25.3	23.3	21.5	25.6
Karnataka	41.9	39.1	33.1	32.5	38.6
Kerala	24.3	33.8	10.5	15.9	20.0
Madhya Pradesh	30.5	31.6	25.9	22.4	28.1
Maharasthra	32.0	24.4	25.2	25.9	30.4
Orissa	32.6	19.7	22.2	16.7	24.8
Punjab	25.3	22.9	23.2	25.1	24.6
Rajasthan	36.3	30.4	25.9	25.4	31.8
Tami Nadu	19.8	11.3	17.9	25.8	18.9
Uttar Pradesh	33.1	25.4	29.2	26.8	30.4
Uttaranchal	44.1	31.6	19.1	28.5	31.5
West Bengal	19.7	36.8	21.1	63.7	25.8
INDIA	28.4	26.1	24.5	28.3	27.5

This is consistent with forces of privatisation and liberalisation of the economy, which have more benefited the cities compared with towns. The growth of small towns might be due to higher natural increase among them as they are not very different from villages.

Further, the rural poor have little choice but to migrate only to short distances with small and medium towns as their destinations. The cost of living in cities as well as

metros has also risen enormously along with saturation of informal sector and decline in jobs in organized sectors (Kundu 1997; Planning Commission 2001). In such a situation migration to the nearby towns is an alternate possibility left to the rural poor.

At state level, most of the states show that the cities are growing faster than the small towns. But the state like Tamil Nadu, West Bengal, Karnataka and Gujarat show that cities are growing slowly than the small towns (see Table 10). The poorer states like Bihar, Jharkhand, Uttar Pradesh, Madhya Pradesh, and Rajasthan reveal large difference between the growth rates of small towns and cities.

The highest adjusted growth rate among cities is observed in Haryana (45.8 per cent) followed by Uttaranchal (44.1 per cent) and Chhatisgarh (43.2 per cent). The lowest growth rate among cities was found in Andhra Pradesh followed by West Bengal. But the small towns of West Bengal have grown much faster compared with other categories of towns and cities in the state. This is also found for the previous decade 1981-91 (Jain et al. 1992). A contrast could be observed between the faster growth rate of small towns in the state of West Bengal and Haryana. While in Haryana all categories of towns and cities have grown faster, in case of West Bengal it is the small towns only. The factors such as land reforms and more equitous agrarian relation could be attributed for this pattern of urbanisation in the state of West Bengal. It may also be observed from Table 10 that the state of Punjab shows a very balanced pattern of urban growth across the size categories of towns and cities in the state. As the development process in the state is rooted in agricultural sector in the wake of green revolution unlike other states, the cities benefited as much as the small and medium towns as a result of expansion of

agro based industries and marketing of agricultural products. The rural-urban trade off is, therefore, much balanced in Punjab compared with other states in the country.

In order to know whether urban size of towns and cities has any impact on their growth rates, an attempt has been made to regress the size of 3744 towns/cities on their growth rates during 1991-2001. The natural log of the size of each town /city has been taken in the analysis. The regression analysis reveals that size of the town/city is significantly negatively associated with growth rates, however the explanatory power of the variable is very low (R square 18 per cent). The equation is as follows:

$$Y = 176 - 16 \log_e X$$

Y= Decadal Urban Growth Rate (town/city)

X= Town/City Size

The negative relationship between the size of the towns/cities and the growth rate finds support in the theory of urban development which says that the continuous increase in size can not be sustained in the long run, and every town and cities has to experience decline, but the threshold of decline could vary enormously and not easy to predict.

Conclusion:

Although urbanisation has been continuously increasing since the second quarter of twentieth century, it has slowed down after a peak in 1970s. However, the dominance of million plus cities continues to be increasing very strongly since the last two decades. The relatively newer metropolitan cities like Pune, Surat, Patna, Kanpur, Jaipur, Indore and Jabalpur are growing fastly and have maintained their

growth tempo during the last two decades compared to older metros like Mumbai, Kolkatta and Chennai and Hyderabad and Banglore. Delhi being the capital of country is growing faster compared to its counterparts like Mumbai, Kolkatta and Chennai. Further, some of the newly emerged metros show very fast increase in population in the core compared to its periphery. Among the first six metros namely Mumbai, Kolkatta, Delhi, Chennai, Hyderabad, Banglore, all of them have declining core except Banglore. A detailed analysis of five metros namely Mumbai, Delhi, Chennai, Hyderadad and Banglore shows that the peripheral growth plays a significant role in the growth of city through urban sprawl.

Million cities are very distinct in terms of their relatively high population growth compared to non-million categories, and some of them are fastest growing in recent years. On the other hand, the differences in growth rates between cities and different categories of towns (large, medium and small) are not very much significant. It means that the cities within themselves show very large variations. The statistical analysis shows that the size of town and city is a negatively related to urban growth rates. It is quite natural that as city grows it expands the economic base and activities of the cities leading to increased advantage to the trade and commerce as well as to industries from the agglomeration economy. But it cannot be sustained very long. The decline in growth rate will certainly set in with increase in the size of city in the long run. Hence, effort to restrict city size is not always necessary and it could even be detrimental to the economic growth at the early stages of economic development in a country (Mills and Becker (1986). Therefore, cities should be allowed to grow naturally in order to reap the benefits of its growth momentum. In fact, the optimality of city size is elusive and each city could find its own in due course of time.

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