



## **URBANISATION AND URBAN SYSTEMS IN HARYANA - A GEOGRAPHICAL ANALYSIS**

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### **Abstract**

Rural or urban distribution is an important attribute of any population because the characteristics associated with rural distribution are entirely different from the personality of an urban area. The term ‘urban population’ has been defined differently in different countries depending on the local conditions and criteria. With 27.81 per cent urban population, India is at a low level of urbanization as compared with the more developed countries. However, there exist large regional variations in different parts of the country as far as level of urbanization is concerned. The present paper is an attempt to analyse the process of urbanization and urban systems in a north-western state of Haryana from a geographical perspective. The state of Haryana is slightly above the national average (28.9 per cent) in terms of level of urbanization and plays a significant role in the country’s economy due to its strategic location around the national capital of Delhi and an important connection between the other north-western states and the national capital.

### **Introduction**

Urbanisation is the process through which rural areas transform into urban areas as agricultural pursuits common to villages change into non- agricultural and corresponding change of behavioural patterns also takes place. Urbanisation means the process whereby people acquire material and non-material elements of culture, behavioural patterns and ideas that originate in or are distinctive of city. Thus, the concept ‘urbanisation’ has three different elements of interpretation: demographic, structural and behavioural (Johnston, 1981, p.363). The demographic interpretation of the concept relates it with a process by which the population of an area gets concentrated into urban places, and an increasing proportion becomes concentrated in the largest urban centre. The structural interpretation relates urbanisation to the social and economic changes taking place due to industrialization and activities of trade and commerce in the urban centres. The behavioural interpretation is based on the fact that urban centres, especially large cities are centres of social

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change. Various ideas of social change originate from these places and diffuse to the surrounding areas. Thus, the process of urbanisation has many dimensions, varying from physical spread of land to the social processes by which urbanism inculcates into a population. In between these two extremes, there are other dimensions of urbanisation such as the proportion of population living in urban places, the absolute number of urban dwellers, the growth of the proportion of people living in urban centres, and the growth rate of population living in urban places (Clarke, 1972, p.49).

There are various measures to quantify the degree of urbanisation, such as percentage distribution of urban population, size and spacing of urban settlements, density of urban population, Gini concentration ratio, rank- size rule and primacy index (Chandna, 2009, p.374). Each of these measures has its own merits and highlights a particular dimension of urbanisation. The process of urbanisation is a function of socio-economic changes that take place in a society through time. The magnitude of urbanisation is directly correlated with the rate of proliferation of urban functions, wherein the role played by technology is undisputed (Castells, 1977, p. 21). The number of functions operated by urban centres multiplies with the advancements in science and technology. As a result, urban cultures expand and diffuse to the nearby surrounding areas. There are various factors which determine the process of urbanisation in an area. These can be classified into economic, social and demographic determinants (Chandna, 2009, p. 380).

#### **Objectives:**

The main objective of the present study is to analyse the spatial patterns of urbanisation in Haryana. It also brings into light the spatial variations and the underlying factors which are responsible for these variations in different parts of the state. The study provides some important suggestions for the planners and the policy makers to tackle with the situation of uneven urbanization and pressure of population in the metropolitan cities of the state.

#### **Database and Methodology:**

The study is based on the secondary data obtained from the census of India. Tahsil is taken as a unit of study, for analysis and mapping purpose. Data thus collected is interpreted and represented cartographically by using choropleth technique. The spatial patterns emerging from the maps are analysed and interpreted by correlating the degree of urbanisation with various demographic, socio-economic and cultural variables.



**Map 1**

HARYANA  
**Administrative Divisions**  
**2001**  
CHANDIGARH

### **The Study Area**

Haryana is a small landlocked state located in the north - western part of the country, between 27°39' and 30°55' North latitudes and 74°27' and 77°36' East longitudes. It comprised a part of the Indo- Gangetic plain. The state covered a geographical area of 44,212 sq. kms. and a population of 21,144,564 persons as per 2001 Census of India. Thus, Haryana supported 1.9 per cent of the country's total population over 1.4 per cent of its total land area. It borders with the state of Punjab in the west, Himachal Pradesh in the north, Uttaranchal and Uttar Pradesh in the east and Rajasthan in the south. The National Capital of Delhi lies to the south-east of Haryana (Map 1). The geographical boundaries of Haryana are marked by the Shiwalik Hills in the north- east; river Yamuna in the east; the Aravalli Hills in the south-west and half way by the Ghaggar river in the north-west. Administratively, Haryana was divided into 19 districts and 67 tahsils as per 2001 census of India (Map 1). The capital of Haryana, Chandigarh, is shared by the neighbouring state of Punjab. About 30 per cent of the state's total area, comprising the districts of Faridabad, Gurgaon, Rewari, Jhajjar, Rohtak, Sonipat and Panipat, falls into the National Capital Region (NCR) of India. In other words, 40 per cent of the total area of the National Capital Region (NCR) is that of Haryana state.

### **Urbanisation in India**

As per 2001 census of India, 286.1 million people of the country lived in urban centres, which is just 27.81 per cent of the country's total population. However, this percentage was only 10.84 per cent at the beginning of the 20<sup>th</sup> century, which increased to 13.85 per cent in 1941 and further to 19.90 per cent in 1971. Thus, the process of urbanisation has been very slow up to 1971 with only one fifth of total population classified as urban. The proportion of urban population increased to 23.31 per cent in 1981 and 26.10 per cent in 1991 (Table 1 and Fig. 1).

As far as growth of urban population is concerned, it has been fluctuating from decade to decade. The growth of urban population was below the rate of natural increase up to 1931, and exceeded the rate of natural increase after 1931. It has been increasing since 1931, except during the decade 1951- 61 in which, the growth of urban population declined due to change in the definition of an urban center (Fig. 7.1). The growth of urban population again started an upward trend and reached as high as 46.02 per cent during the decade 1971- 81. However, it again declined in the next decade to 36.19 per cent. The recent decade 1991- 2001 recorded a growth of 31.50 per cent in the urban population of India, which is lower by 5 per cent points than the growth during the decade 1981- 91 (Table 1 and Fig. 1). This significant decline in the growth rate of urban population can be attributed to the decline in the magnitude of rural to urban migration as well as in the rate of natural increase (Chandna, 2009, p. 390).

Table 1

#### **Urban population and its growth rate in India, 1901- 2001**

Year	Urban population in thousands	Urban population as per cent to total population	Growth during the preceding decade
1901	25867	10.84	--
1911	25958	10.29	0.35
1921	28091	11.17	8.22

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1931	33468	11.99	19.14
1941	44168	13.85	31.97
1951	62444	17.29	41.38
1961	78937	17.97	26.41
1971	109114	19.90	38.23
1981	159727	23.31	46.02
1991	217611	26.10	36.19
2001	286119	27.81	31.50

Source: Chandna, R.C. (2009), p. 390.

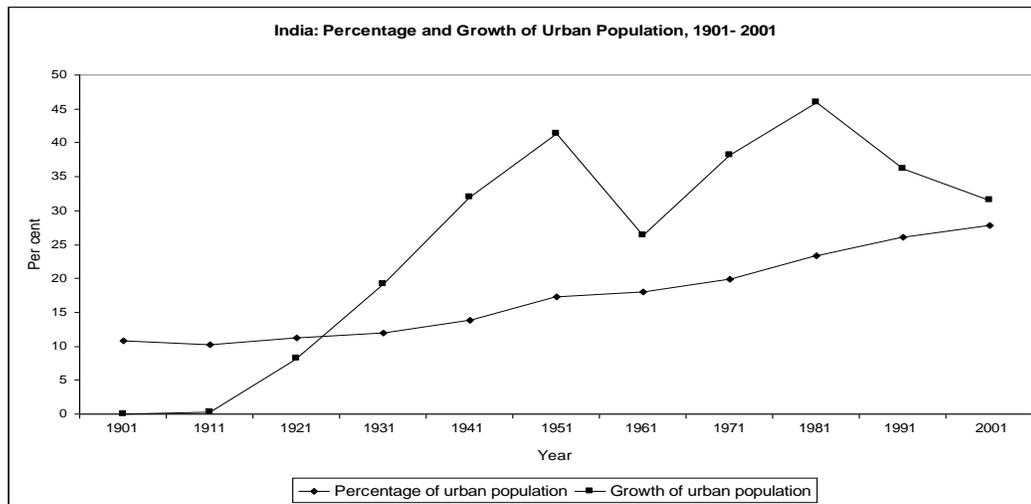


Fig. 1

Table 2

**India, States and Union Territories: Proportion of Urban Population to Total Population, 2001**

S.No	State/ Union Territory	Urban population as per cent to total pop.
<b>States</b>		
1	Goa	49.7
2	Mizoram	49.6
3	Tamil Nadu	44.0
4	Maharashtra	42.4
5	Gujarat	37.4
6	Karnataka	34.0
7	Punjab	33.9
8	<b>Haryana</b>	<b>28.9</b>
9	West Bengal	27.9
10	Andhra Pradesh	27.3
11	Manipur	26.6
12	Madhya Pradesh	26.5
13	Kerala	25.9
14	Uttaranchal	25.7

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15	Jammu & Kashmir	24.8
16	Rajasthan	23.4
17	Jharkhand	22.2
18	Uttar Pradesh	20.8
19	Arunachal Pradesh	20.8
20	Chhattisgarh	20.1
21	Meghalaya	19.6
22	Nagaland	17.2
23	Tripura	17.0
24	Orissa	15.0
25	Assam	12.9
26	Sikkim	11.6
27	Bihar	10.5
28	Himachal Pradesh	9.8
<b>Union Territories</b>		
1	Delhi	93.2
2	Chandigarh	89.8
3	Pondicherry	66.6
4	Lakshadweep	44.5
5	Daman & Diu	36.2
6	Andaman & Nicobar Islands	32.6
7	Dadra & Nagar Haveli	26.9
	<b>INDIA</b>	<b>27.8</b>

Source: Census of India- 2001, Primary Census Abstract, Total Population, Table A-5.

There existed large regional variations among the states and the union territories with respect to level of urbanisation. Among states, Goa stands at the top with 49.7 per cent of its total population residing in urban areas, followed by Mizoram (49.6 per cent), Tamil Nadu (44.0 per cent) and Maharashtra (42.4 per cent). Himachal Pradesh lies on the other end of the scale with only 9.8 per cent population as urban (Table 2).

Among union territories, Delhi (93.2 per cent) and Chandigarh (89.8 per cent) were highly urbanized while Dadra & Nagar Haveli with only 26.9 per cent urban population was least urbanized. In all, there were 9 states which had a level of urbanisation higher than the national average of 27.8 per cent. These included Goa, Mizoram, Tamil Nadu, Maharashtra, Gujarat, Karnataka, Punjab, Haryana and West Bengal. All the union territories (except Dadra & Nagar Haveli) had a higher percentage of urban population than the national average (Table 2). It was observed that the degree of urbanisation was high in those states which had early contact with the Christian missionaries; high rate of literacy; commercialized agriculture; diversified economy and high level of social awakening, for instance Goa, Mizoram, Tamil Nadu and Maharashtra.

### **Urbanisation in Haryana**

Haryana has been predominantly a rural part of India. Up to 1941, the level of urbanisation was less than 15 per cent. Only one-sixth of its total population lived in urban areas at the time of independence in 1947. A low level of urbanisation was associated with the subsistence nature of agricultural economy. Industries, commerce and service sector, which provide the major stimuli for urban growth, had not made a breakthrough in the state.

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The partition of the country in 1947 stimulated the process of urbanisation in this part of the country. A large number of refugees migrated from Pakistan to the Indian Punjab and settled down in towns of Punjab and Haryana, known as 'camps'. This led to the explosive growth of cities and towns in the state. However, level of urbanisation in the state (17.22 per cent) was still low in 1961 as compared with that of Punjab (23.10 per cent) and the national average of 17.97 per cent (Table 3 and Fig. 2). After its formation as a separate state in 1966, Haryana experienced a rapid acceleration in its process of urbanisation. In 1981 census, 21.88 per cent of the state's total population was registered as urban, which increased to about one-fourth (24.63 per cent) in 1991 census. Rapid developments in the agricultural sector during the Green Revolution period led to the establishment and growth of 'Mandi Towns' in various parts of the state. The proportion of urban population to total population (28.92 per cent) in 2001 in Haryana was above the national average of 27.81 per cent (Table 2).

Table 3  
**Haryana: Urban population and its growth, 1901- 2001**

Year	Urban population (per cent)	Growth during the preceding decade
1901	12.42	--
1911	10.77	-21.66
1921	11.30	7.00
1931	12.38	17.36
1941	13.39	25.00
1951	17.07	37.19
1961	17.22	35.02
1971	17.66	35.58
1981	21.88	59.47
1991	24.63	43.41
2001	28.92	50.82

Source: Census of India, 1991, Primary Census Abstract, Part II B, and Census of India- 2001, Primary Census Abstract, Total Population, Table A-5.

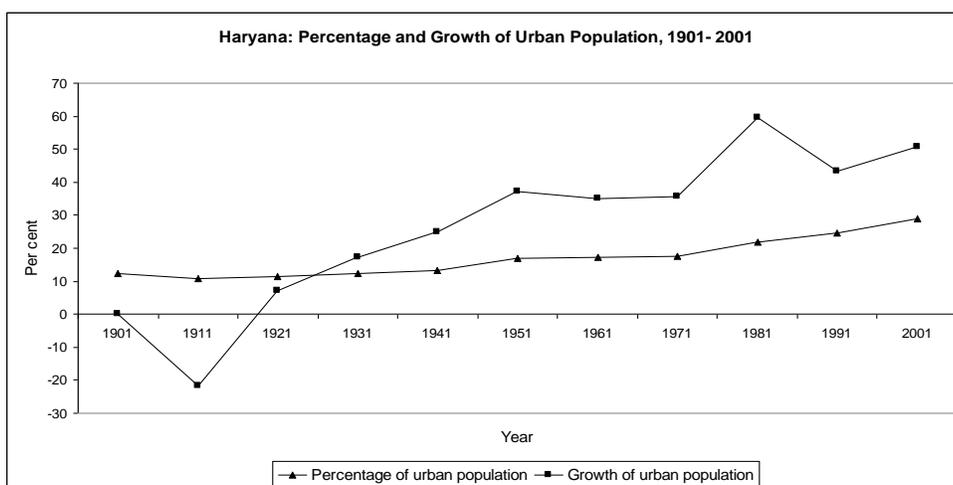


Fig. 2

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Thus, with 28.92 per cent of its population as urban, Haryana was ranked 8<sup>th</sup> among all the states of India. The state had a total urban population of 61,15,304 persons as per 2001 census of India, which lived in 106 urban centres of all classes. Thus, average population size of an urban center was 57,692 persons. If the towns were classified by districts, Gurgaon district had the highest number of towns (12) with a total urban population of 3,69,004 persons, which made up 6.03 per cent of the state's total urban population. In terms of number of towns, Gurgaon was followed by Yamunanagar district (11 towns). But it had an urban population of 3,93,022 persons which was 6.43 per cent of the state's total urban population. On the other hand, Rohtak district had the lowest number of towns, i.e. only three with a total urban population of 3,29,604 persons, which was 5.39 per cent of the state's total urban population (Table 4).

Table 4

#### **Haryana: District wise urban population and number of towns, 2001**

S.No.	District	Total urban population	Number of towns	Urban population as per cent to state's total urban population
1	Panchkula	208395	4	3.41
2	Ambala	357028	6	5.84
3	Yamunanagar	393022	11	6.43
4	Kurukshetra	215511	4	3.52
5	Kaithal	183482	4	3.00
6	Karnal	337842	7	5.52
7	Panipat	392080	6	6.41
8	Sonapat	321375	4	5.26
9	Jind	241577	5	3.95
10	Fatehabad	142157	4	2.32
11	Sirsa	293465	5	4.80
12	Hisar	398118	5	6.51
13	Bhiwani	270393	6	4.42
14	Rohtak	329604	3	5.39
15	Jhajjar	195097	5	3.19
16	Mahendragarh	109636	5	1.79
17	Rewari	136174	4	2.23
18	Gurgaon	369004	12	6.03
19	Faridabad	1221344	6	19.97
	Haryana	6115304	106	100.00

Source: Statistical Abstract of Haryana, 2008-09, p. 43, Department of Economic and Statistical Analysis, Haryana, 2010.

This may be due to large concentration of urban population in a few large cities (Rohtak, Maham and Kalanaur) in Rohtak district, while in Yamunanagar district it was dispersed in many small towns (Yamunanagar, Jagadhri, Kansepur, Sadaura, Radaur, Buria, Chhachhrauli, Bilaspur, Farrukhpur, Mustafabad and Sasauli). Among all the districts, Faridabad was most highly urbanized, which

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accommodated about one- fifth (19.97 per cent) of the state's total urban population. No other district had more than 7 per cent share in the state's total urban population (Table 4).

Broadly speaking, the eastern part of the state presented a contrasting picture with its western counterpart, as far as degree of urbanisation is concerned. About 70 per cent of the state's total urban population was concentrated in the eastern part, while the remaining 30 per cent was dispersed in the western part. The major urban centres of the state are located in the eastern part along the G. T. Road (NH 1) from Ambala to Delhi. High degree of diversification of economy, rapid industrial development coupled with agricultural advancement particularly in the National Capital Region and along the National Highways and highly developed transport & communication network contributed to a high degree of urbanisation in this part of the state.

Classified by size and class, out of a total of 106 towns, there were 20 Class I towns which accounted for 69.36 per cent of the total urban population. There were 7 Class II towns carrying 6.79 per cent of the total urban population. Thus, Class I and Class II towns together accounted for more than three- fourths (76.15 per cent) of the total urban population in the state (Table 5 and Fig. 3). The remaining 79 towns of Class III to Class VI type together contained only 24 per cent of the total urban population.

Table 5

#### **Haryana: Urban population by size and class of towns, 2001**

Towns Class	No. of towns	Population	Per cent to total urban population
I	20	4241867	69.37
II	7	415254	6.79
III	26	793838	12.98
IV	36	530695	8.68
V	16	129196	2.11
VI	1	4454	0.07
Total	106	6115304	100.00

Source: Census of India, 2001, Primary Census Abstract, Directorate of Census Operations, Haryana, Chandigarh.

There were 16 Class V towns which accounted for 2.11 per cent of the total urban population in the state and there was only one Class VI town and it had a share of only 0.07 per cent to the total urban population (Table 5 and Fig. 3). Thus, Class VI towns were smallest in number and had the lowest concentration of urban population. The highest number of towns (36) was of Class IV category, which together shared only 8.68 per cent of the total urban population in the state. Thus, it is indicated that Class I towns accounted for the largest proportion of the state's total urban population due to concentration of manufacturing, servicing, educational, health, transportation, commercial and administrative activities in these urban centres. These cities continued to grow at a faster rate than other towns due to urban to urban migration from small and medium towns. Contrary to this, small towns declined in number as well as their share in total urban population due to lack of infra- structural facilities and their shifting from lower size-class category to the upper size-class category.

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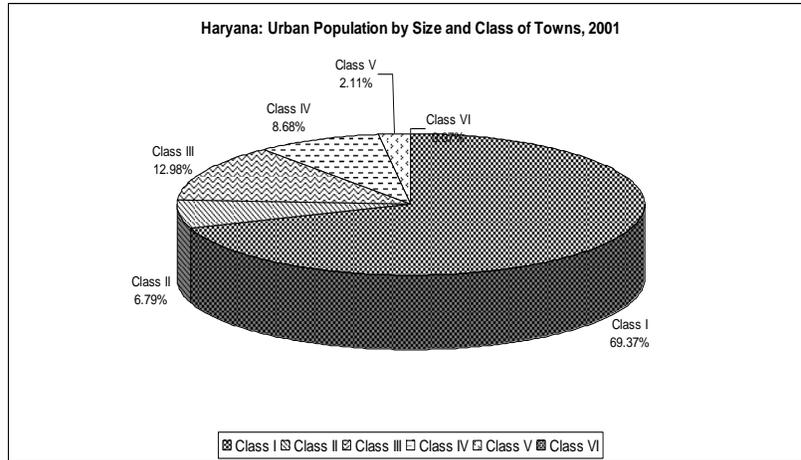


Fig. 3

District wise pattern of urbanisation indicated that Faridabad district was most urbanized, where more than half (55.65 per cent) of its total population was concentrated in urban areas. This was followed by Panchkula and Panipat districts with 44.49 and 40.53 per cent respectively of urban population to total population (Table 6). High level of urbanisation in these districts may be associated with a very high level of industrial development, their strategic location along the highway, administrative functions and close proximity of Faridabad to the national capital of Delhi and Panchkula to the state capital of Chandigarh.

Contrary to this, Mahendragarh district was least urbanized with only 13.49 per cent of its total population as urban. Low level of industrial development, its remote location, harsh climatic conditions and its poor connectivity with the national capital were among the major factors responsible for a low level of urbanisation in the district despite its rich mineral resource base.

Table 6

**Haryana: Level of Urbanisation, 2001**

S.No.	District	Urban population as per cent to total population
1	Faridabad	55.65
2	Panchkula	44.49
3	Panipat	40.53
4	Yamunanagar	37.73
5	Ambala	35.20
6	Rohtak	35.06
7	Karnal	26.51
8	Sirsa	26.28
9	Kurukshetra	26.11
10	Hisar	25.90
11	Sonipat	25.12
12	Gurgaon	22.23

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13	Jhajjar	22.17
14	Jind	20.30
15	Kaithal	19.39
16	Bhiwani	18.97
17	Rewari	17.79
18	Fatehabad	17.63
19	Mahendragarh	13.49
	<b>Haryana</b>	<b>28.92</b>

Source: Census of India, 2001, Primary Census Abstract, Directorate of Census Operations, Haryana, Chandigarh.

Out of a total of 19 districts, there were 6 districts with a level of urbanisation higher than the state average. These included Faridabad, Panchkula, Panipat, Yamunanagar, Ambala and Rohtak districts (Table 6). A relatively high degree of urbanisation in these districts may be associated with a high concentration of industries in these districts, their compact size and location along the major transport routes and multi-functional character (administrative, educational, health, servicing and manufacturing activities) of towns in these districts. The remaining 13 districts displayed a lower degree of urbanisation than the state average. These were characterized by a low level of industrial development, large size, small and medium sized towns and peripheral location with respect to the national and the state capital.

#### **Spatial Patterns of Urbanisation in Haryana, 2001**

Tahsil wise pattern of urbanisation depicted that out of a total of 67 tahsils, Faridabad tahsil recorded the highest degree of urbanisation, where 90.18 per cent of total population lived in urban areas. This was followed by Panipat (60.63 per cent) and Ambala (51.69 per cent). All other tahsils had a level of urbanisation below 50.0 per cent. On the other end of the scale, there were 5 tahsils which were entirely rural and contained no urban population. These included Barara, Israna, Adampur, Kosli and Ballabgarh. Besides these, Hathin (5.35 per cent) and Nuh (5.19 per cent) were least urbanized tahsils. If we consider the state average as a dividing point, there were 18 tahsils where proportion of urban population to total population was higher than the state average of 28.92 per cent, while the remaining 49 tahsils had a level of urbanisation below the state average. On the basis of level of urbanisation, the state can be divided into three broad regions, as following:

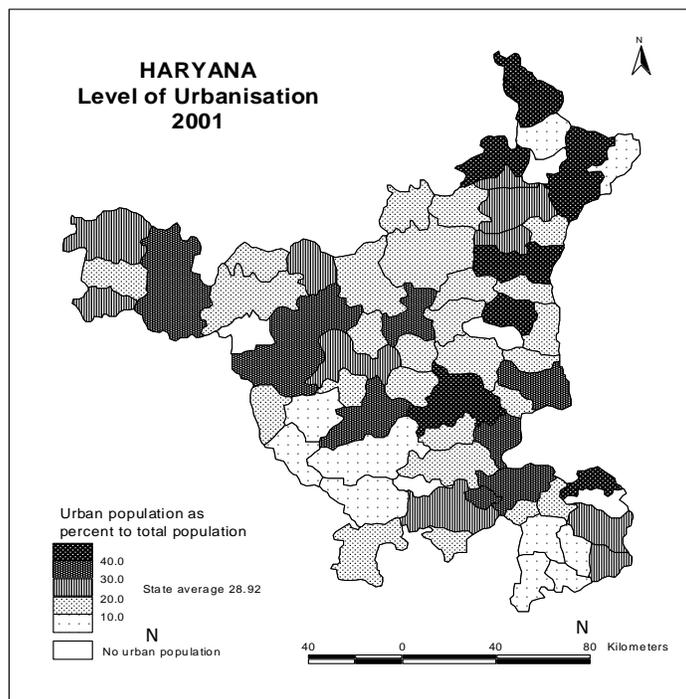
- A. Areas with high degree of urbanisation, having more than 30.0 per cent of total population as urban.
- B. Areas with low degree of urbanisation, having less than 20.0 per cent of total population as urban.
- C. Areas with moderate degree of urbanisation, having 20.0 to 30.0 per cent of population as urban.

#### **A. Areas with high degree of urbanisation**

All the areas where more than 30.0 per cent of total population lived in urban centres, were classified as areas with high degree of urbanisation. In all 67 tahsils, there were 16 tahsils in this category. This included 8 tahsils with a very high level of urbanisation, with more than 40.0 per cent population as urban. These were Kalka, Panchkula, Ambala, Jagadhri, Karnal, Panipat, Rohtak and Faridabad (Map 2). Besides these, other tahsils with a high level of urbanisation included Sirsa, Hisar, Jind, Bhiwani, Sonipat, Bahadurgarh, Gurgaon and Pataudi. It was observed that all the areas of high urbanisation were concentrated

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along the major National Highways. High concentration of population in urban centres in these tahsils may be attributed to a very high level of industrial development (Faridabad, Gurgaon, Bahadurgarh, Sonipat, Panipat,



**Map 2**

Karnal, Ambala, Jagadhri and Panchkula), their strategic location along the well developed roads and railway lines and high level of social awakening due to high male and female literacy rates both in rural as well as urban areas and diversified economy. The tahsils such as Sonipat, Rohtak, Bahadurgarh, Gurgaon and Faridabad located in the National Capital Region got the advantage of their close proximity to Delhi and over-spilling of urban population from the National Capital of Delhi. Similarly, Kalka and Panchkula were benefited from the over-spilling of urban population of Chandigarh as well as favourable policies of the state government to develop Panchkula as the semi-capital of Haryana (Yadav, 1993, p. 32). Also, location of very old army cantonments at Panchkula and Ambala helped in high concentration of population in urban areas. Rohtak was also benefited by the location of Maharishi Dayanand University and Post Graduate Institute of Medical Education and Research and, thus, was developed as a major educational center in the region. All the tahsils with a high degree of urbanisation were district headquarters and centres of administrative activities. Some of these towns such as Ambala, Hisar, Sirsa, Bhiwani, Rohtak, Panipat and Karnal, had a fairly long history of settlements.

Thus, the areas of high degree of urbanisation in Haryana were having old centres of settlement, important administrative centres and district headquarters, well developed transportation and communication network, big industrial centres with greater degree of economic diversification and high level of social awakening. Most of these urban centres were located in the eastern part of the state making a linear pattern along the Ambala- Delhi National Highway.

**B. Areas with low degree of urbanisation**

All those areas which had a proportion of less than 20.0 per cent of urban population were classified as areas with a low degree of urbanisation. Out of a total of 67 tahsils, there were 41 tahsils in this category. This category included 5 tahsils which were entirely rural in character and had no urban settlements. These included Barara, Israna, Adampur, Kosli and Ballabgarh. Besides these, 10 tahsils were having a very low proportion of urban population (less than 10.0 per cent) to total population. These included Naraingarh and Chhachhrauli in north-eastern part; Tosham, Loharu, Dadri and Mahendragarh in the south-western part; and Nuh, Hathin, Ferozepur Jhirka and Punhana in the Mewat region of the state (Map 2). All these areas were very poor in terms of agricultural and industrial development. Socio-cultural backwardness, low literacy levels among females and more particularly in rural areas, peripheral location and poorly developed infra-structural facilities were also responsible factors for a low level of urbanisation in these parts of the state. In addition, there were other 26 tahsils which had a low degree of urbanisation ranging between 10.0 and 20.0 per cent. These were largely located in the central parts of the state (Map 2). These tahsils were largely characterized by high proportion of workers engaged in agricultural and allied activities, low level of diversification of economy, low literacy rates among females and rural population, low level of social awakening, absence of any big urban-industrial centres and low level of socio-economic development. Thus the areas of low degree of urbanisation were mainly with agricultural based economy, low level of diversification, low level of social awakening, low level of industrial development and poor socio-economic development.

**C. Areas with moderate degree of urbanisation**

This category included all the areas having a proportion of between 20.0 per cent and 30.0 per cent of urban population to total population. Out of a total of 67 tahsils, 10 tahsils were included in this category. These were Shahbad, Thanesar, Nilokheri, Tohana, Dabwali, Ellenabad, Hansi, Rewari, Palwal and Hodal. These tahsils were at a moderate level of urbanisation due to the close proximity of one or the other big urban-industrial centre such as Shahbad (Ambala), Nilokheri (Karnal), Hansi (Hisar) and Dabwali and Ellenabad (Sirsa). The impact of urban shadow of these big cities on the small towns and urban to urban migration from small towns to big cities and urban centres have developed and flourished at the cost of small towns and surrounding rural areas. Establishment of small and medium scale industrial units and some agro-based processing units has helped in some concentration of population in urban centres of these tahsils. Location of these tahsils along the National Highways (Shahbad, Nilokheri and Kurukshetra on N.H.1; Rewari on N.H.8; Palwal and Hodal on N.H.2 and Hansi on N.H.10) and establishment of educational institutions like Kurukshetra University in Thanesar, Haryana Institute of Rural Development in Nilokheri, and other degree colleges also favoured in concentration of urban population in these tahsils. Thus, a moderate degree of urbanisation was due to impact of urban shadow, urban to urban migration, moderate level of urban-industrial development, location along the major transportation routes and establishment of some small and medium scale industries.

It was observed that the tahsils with no urban population (entirely rural) were adjoining the tahsils with a very high degree of urbanisation, such as Barara to Ambala (51.69 per cent), Israna to Panipat (60.63 per cent), Adampur to Hisar (33.02 per cent), Kosli to Gurgaon (39.55 per cent) and Ballabgarh to Faridabad (90.18 per cent). The impact of urban shadow of the big urban-industrial centres acted as a factor which did not allow the concentration of urban population in these entirely rural tahsils. Large scale out-migration from these tahsils also resulted in low growth of total population in these tahsils during the decade 1991- 2001.

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Ballabgarh tahsil in Faridabad district is a peculiar example of this which had experienced a negative growth (-37.86 per cent) in its total population during the decade 1991-2001 under the impact of urban shadow of Faridabad.

#### **Change in the level of Urbanisation in Haryana, 1971- 2001**

As mentioned earlier, urban population in Haryana has increased by 3.5 times, from 1,772,959 persons in 1971 to 6,115,304 persons in 2001. In proportional terms, level of urbanisation in Haryana has improved substantially from 17.66 per cent in 1971 to 28.92 per cent in 2001, recording an increase of 11.26 per cent points (Table 3 and Fig. 2).

The total number of towns in the state has increased from 65 to 106 during this period. Class I towns increased rapidly both in terms of numbers and their share in total urban population. The number of Class I towns increased tenfold from just 2 in 1971 to 20 in 2001 and their share in total urban population has increased more than five folds from 12.82 per cent in 1971 to 69.37 per cent in 2001 (Table 7 and Fig. 4).

Table 7

**Haryana: Urban Population by size and class of towns, 1971- 2001**

Class	No. of towns		Per cent to total urban population	
	1971	2001	1971	2001
I	2	20	12.82	69.37
II	9	7	39.75	6.79
III	14	26	26.06	12.98
IV	15	36	12.54	8.68
V	20	16	7.84	2.11
VI	5	1	0.99	0.07
Total	65	106	100.00	100.00

Source: Census of India, 1971 and 2001, Primary Census Abstract, Directorate of Census Operations, Haryana, Chandigarh.

The number of towns in Class III and IV also increased substantially from 14 and 15 in 1971 to 26 and 36 respectively in 2001 (Table 7). Contrary to this, number of Class II towns has declined from 9 to 7 and Class V towns from 20 to 16 during the period. Number of Class VI towns also declined from 5 in 1971 to only 1 in 2001. This may be due to shifting of towns from lower size-class to upper size-class with an increase in their population during the period 1971-2001. However, proportion of total urban population residing in Class II to Class VI towns displayed a sharp decline during 1971- 2001. Among them, proportion of urban population in Class II towns experienced the largest decline from 39.75 per cent in 1971 to 6.79 per cent in 2001. Similarly, proportion of urban population in Class III towns declined from 26.06 per cent to 12.98 per cent and that in Class IV towns from 12.54 per cent to 8.68 per cent during the period (Table 7 and Fig. 4). This decline in the proportion of urban population in Class III and IV towns was in spite of the substantial increase in the number of towns in these categories during 1971- 2001 (Table 7). Towns in the size Class V and VI, on the other hand, declined both in their numbers as well as their share in total urban population during the period. This indicated that the manifold increase in the proportion of urban population residing in Class I cities was at the cost of urban population living in Class II to Class VI towns. High population growth

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in big cities due to large scale in-migration from the surrounding rural as well as small urban centres; and up-gradation of towns from lower size-class to upper size-class are responsible for such a situation.

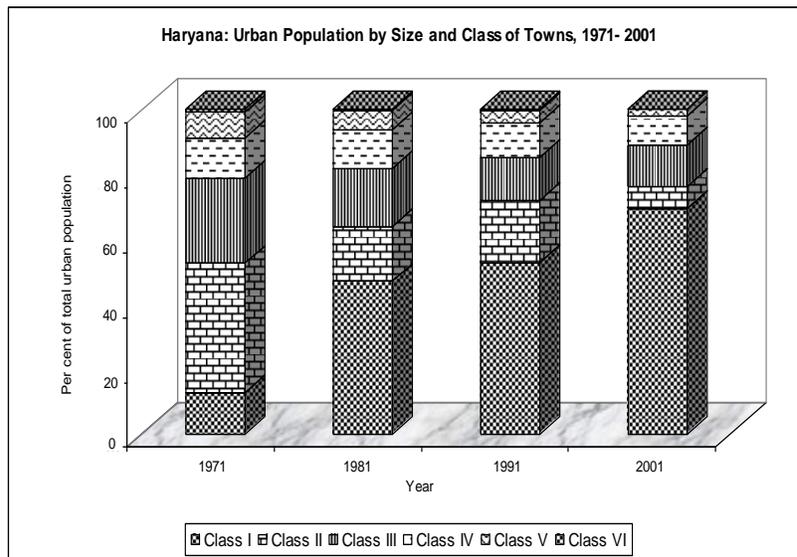


Fig. 4

Large concentration of urban population in big cities can also be understood by examining primacy index which is a measure of concentration of urban population in the first ranking city and the second ranking city in the state and computed as percentage of urban population living in first ranking city. In Haryana state, 7.03 per cent of total urban population was concentrated in the first ranking city as per 1971 census, which increased substantially to 11.70 per cent in 1981, 15.23 per cent in 1991 and 17.27 per cent in 2001 (Table 8). Contrary to this, proportion of urban population living in the second ranking city was 5.78 per cent in 1971. It increased marginally to 5.90 per cent in 1981, declined to 5.33 per cent in 1991 and again stabilized at 5.79 per cent in 2001 (Table 8).

Table 8

**Haryana: Primacy Index of Urban Population, 1971- 2001**

Year	Percentage of first ranked city population to total urban population	Percentage of second ranked city population to total urban population
1971	7.03	5.78
1981	11.70	5.90
1991	15.23	5.33
2001	17.27	5.79

Source: Calculated from Statistical Abstract of Haryana, 2004-05, p.49, Economic and Statistical Advisor, Planning Department, Government of Haryana, Chandigarh.

Thus, in 2001, about one-fourth of the total urban population was concentrated in the first and second ranking cities (Faridabad and Panipat) of the state. However, there was an increasing tendency to reside in

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the first ranking city of Faridabad due to (i) its close proximity to the national capital of Delhi; (ii) its location along the National Highway 2; (iii) concentration of large and medium scale industries, and (iv) availability of large employment opportunities.

Spatial pattern of urban population revealed that in 1971, level of urbanisation in the state was lower than that for the country as a whole. In Haryana 17.66 per cent population lived in urban areas as compared with the national average of 19.90 per cent. In terms of degree of urbanisation, out of a total of 7 districts, only 2 districts of Ambala (31.39 per cent) and Gurgaon (18.21 per cent) were above the state average of 17.66 per cent. A high degree of urbanisation in Ambala was attributed to the cantonment of Ambala and towns of Ambala and Yamunanagar. High percentage of urban population in Gurgaon district was due to the emergence of Faridabad and Gurgaon as important industrial centres. Mahendragarh with 10.22 per cent urban population was least urbanized district of the state as per 1971 census figures. In 1981, though the level of urbanisation in the state improved to 21.88 per cent, but was still below the national average of 23.31 per cent. There were large regional variations in the degree of urbanisation in the state. Among a total of 12 districts, there were 3 districts which had higher degree of urbanisation than the state and the national average. These were Faridabad (40.82 per cent), Ambala (32.90 per cent) and Karnal (26.18 per cent). The district with lowest degree of urbanisation was Mahendragarh (13.07 per cent). In 1991 census, proportion of urban population in Haryana though increased to 24.63 per cent from 21.88 per cent in 1981, yet it was less than the national average of 26.10 per cent. Out of a total of 16 districts in the state, 5 districts displayed a level of urbanisation higher than the state and the national average. These included Faridabad (48.57 per cent), Ambala (35.54 per cent), Yamunanagar (33.69 per cent), Karnal (27.46 per cent) and Panipat (27.16 per cent). Faridabad continued to be at the top position among all the districts in terms of level of urbanisation. All these districts with a high degree of urbanisation were major centres of industry, trade and commerce; which attracted large number of in-migrants from the surrounding areas. On the other end of the scale, Mahendragarh district remained least urbanized with only 12.41 per cent of its total population living in urban areas. With respect to the process of urbanisation in the state, the following observations can be made:

- (i) The process of urbanisation initiated in the state at the time of its formation in 1966 as an independent state and gained momentum with the passage of time.
- (ii) At the time of the first census of 1971, after the formation of Haryana as an independent state, Ambala district was the most highly urbanized district in terms of percentage of urban population (31.39 per cent). During the 1970s other districts like Faridabad and Gurgaon emerged as major urban-industrial centres. In addition to this, various industrial estates were established in towns like Panipat, Sonapat, Gurgaon, Rohtak, Palwal, Rewari, Ambala, Hisar and Shahbad in order to rehabilitate displaced persons from Pakistan at the time of independence, which played an important role in increasing the pace of urbanisation in the state. The refugee population with an urban background promoted trade and commerce in big as well as small towns in the region (Singh, 1985, p. 51). Due to this, development took place in a linear pattern along the Ambala- Delhi national highway and this area developed rapidly in terms of level of urbanisation (Maps 3 and 4).
- (iii) During the late 70's and early 80's, Green Revolution led to significant development of the agricultural sector, particularly in the wheat-paddy cultivation belt in north and north-eastern parts of the state, which resulted in increased agricultural productivity, progress of dairy farming and expansion of agro-based industries in the rural areas. This gave an impetus to the growth of

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- small and medium towns, particularly *Mandi Towns*, which emerged as main centres of agro-processing industries (Singh, 1985, p. 53).
- (iv) A large scale industrial development took place in the vicinity of the national capital of Delhi during early 1980's, which provided good transportation and communication network and infra-structural facilities in the towns located in the National Capital Region, such as Gurgaon, Faridabad, Panipat, Sonipat and Rohtak. Establishment of heavy industries (such as automobiles, cycles, tractors, cars, textiles, fertilizers and agricultural equipments) and good transportation facilities stimulated the large scale in-migration from the surrounding areas and further boosted the process of urbanisation in the region.
  - (v) The location of the national capital of Delhi proved to be extremely crucial in encouraging urban- industrial progress in the neighbouring areas of Haryana. Maruti Udyog Limited and Information Technology industries in Gurgaon; Ford, Hero Honda and Escorts group of industries in Faridabad; Cycle manufacturing industry in Sonipat; Hosiery industry and National Fertilizers Limited in Panipat were noteworthy in this regard.
  - (vi) Establishment of Haryana Urban Development Authority (HUDA) in 1987 also promoted the process of urbanisation in the state by way of setting up new residential, industrial and commercial estates, such as Panchkula (Panchkula); Ambala and Saha (Ambala); Pipli and Shahbad (Kurukshetra); Nilokheri and Karnal (Karnal); Gharonda and Panipat (Panipat); Kundli, Murthal, Rai and Manesar (Sonipat). This led not only to physical expansion of towns but also the inclusion of nearby villages within the jurisdiction boundaries of towns and cities.
  - (vii) The rapid industrial development in the eastern part along the National Highway No. 1 from Ambala to Delhi more particularly during the 1990's boosted the process of urbanisation. Consequently the certain parts of the state emerged as distinct industrially developed and urbanized belt of the state. Large scale rural to urban migration further strengthened the process of urbanisation. These areas had more than 30 per cent of total population living in urban centres.
  - (viii) Ambala- Panchkula- Kalka is another region which experienced a high level of urban- industrial development more particularly during the 1990's. This region surrounded the state capital of Chandigarh. Development of Panchkula as a planned city; its growth as semi- capital of Haryana; establishment of industries like Bharat Electronics Limited, ACC cement, Hindustan Machine Tools Limited; location of Western Command Headquarters at Chandimandir; and strategic location of Kalka as a gateway to Himachal Pradesh were some of the factors which initiated the process of urbanisation in the region. Large concentration of multi-national companies along the Ambala- Chandigarh national highway; location of poultry farming and brick-kilns in the countryside on Panchkula- Naraingarh route and development of Chandigarh Inter- State Region further strengthened the rural-urban relations and attracted large number of in-migrants from the surrounding areas into the region. All these factors in combination resulted in a high degree of urbanization in Panchkula, Ambala and Kalka tahsils.
  - (ix) The proposed railway line to link Yamunanagar with Chandigarh via- Naraingarh, Barwala and Panchkula is expected to connect two industrially developed tahsils of Jagadhri (Yamunanagar) and Panchkula. This will promote the urban- industrial development in Barwala and Naraingarh tahsils, which were so far neglected as far as growth of industries and level of urbanisation is concerned.

- (x) The development of Kundli- Manesar- Palwal (KMP) express highway to join four national highways (N.H. no. 1, 8, 10 and 2) and connecting the industrial estates of Kundli in Sonapat district with Palwal in Faridabad district via- Manesar is another effort of the state government to facilitate a rapid transportation network for movement of people and transport of goods. This will also ease the traffic congestion in the national capital of Delhi. A large concentration of Special Economic Zones (SEZ) along this 135 km. long express highway is expected to boost the industrial development in Sonapat, Rohtak, Jhajjar, Rewari and Faridabad districts and initiate the process of urbanisation in the socio-economically backward areas of Gurgaon district (Mewat region).

### **Conclusions**

Haryana was primarily a rural part of the country with only one-sixth of its total population as urban at the dawn of independence. A low level of urbanisation was due to mainly agriculture based economy. The partition of the country in 1947 stimulated the process of urbanisation in this part of the country. A large number of refugees migrated from Pakistan to the Indian Punjab and settled down in towns of Punjab and Haryana, known as '*camps*'. This led to the explosive growth of cities and towns in the state. However, level of urbanisation in the state (17.22 per cent) was still low in 1961 as compared with that of Punjab (23.10 per cent) and the national average of 17.97 per cent. After achieving the status of statehood in 1966, Haryana experienced a rapid acceleration in its process of urbanisation. In 1981 census, 21.88 per cent of the state's total population was registered as urban, which increased to about one-fourth (24.63 per cent) in 1991 census. Rapid developments in the agricultural sector during the Green Revolution period led to the establishment and growth of '*Mandi Towns*' in various parts of the state. The proportion of urban population to the total population was recorded 28.92 per cent in 2001, which was above the national average of 27.81 per cent. Among states, Haryana ranked 8<sup>th</sup> as far as degree of urbanisation was concerned.

There were large spatial variations in the level of urbanisation in the state. Among all the districts, Faridabad was highly urbanized, with 55.65 per cent of its total population living in urban areas. This was followed by Panchkula (44.49 per cent) and Panipat (40.53 per cent). High level of urbanisation in these districts can be associated with a very high level of industrial development, their strategic location along the highway, administrative functions and close proximity of Faridabad to the national capital of Delhi and Panchkula to the state capital of Chandigarh. Mahendragarh district, on the other hand, was least urbanized with only 13.49 per cent of its total population as urban. Low level of industrial development, remote location, difficult climatic conditions not well suited to human comfort and poor connectivity with the national capital were among the major factors responsible for a low level of urbanisation in the district of Mahendragarh despite its rich mineral resource base. Tahsil wise pattern of urbanisation depicted that among all 67 tahsils, Faridabad tahsil recorded the highest proportion of urban population (90.18 per cent), followed by Panipat (60.63 per cent) and Ambala (51.69 per cent). All other tahsils had a level of urbanisation below 50.0 per cent. On the other hand, there were 5 tahsils which were entirely rural and contained no urban population. These included Barara, Israna, Adampur, Kosli and Ballabgarh. Besides these, Hathin (5.35 per cent) and Nuh (5.19 per cent) were least urbanized tahsils. Considering the state average as a dividing point, 18 tahsils recorded a level of urbanisation higher than the state average of 28.92 per cent, while in the remaining 49 tahsils, it was below the state average.

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Broadly speaking, the eastern part of the state presented a contrasting picture with its western counterpart, as far as degree of urbanisation is concerned. About 70 per cent of the state's total urban population was concentrated in the eastern part, while the remaining 30 per cent was dispersed in the western part. The major urban centres of the state are located in the eastern part along the G. T. Road (NH 1) stretched between Ambala and Delhi. High degree of diversification of economy, rapid industrial development coupled with agricultural advancement particularly in the National Capital Region and along the National Highways and highly developed transport & communication network contributed to a high degree of urbanisation in this part of the state. Contrary to this, areas with low degree of urbanisation were mainly concentrated in the western and south-western parts of the state and characterized by largely agricultural based economy, low level of diversification, low level of social awakening, low level of industrial development and poor socio-economic development. The impact of urban shadow of the big urban-industrial centres of Ambala, Panipat, Hisar, Gurgaon and Faridabad did not allow the concentration of urban population in the entirely rural tahsils of Barara, Israna, Adampur, Kosli and Ballabgarh in the respective districts and also led to slow growth of population in these tahsils.

Classified by size and class, out of a total of 106 towns, 20 Class I and 7 Class II towns together accounted for more than three-fourths (76.15 per cent) of the total urban population in the state. The remaining 79 towns of Class III to class VI type together contained only 24 per cent of the total urban population. Thus, there was large tendency towards concentration of urban population in Class I cities. As far as change in urbanisation is concerned, proportion of urban population in Haryana increased from 17.66 per cent in 1971 to 28.92 per cent in 2001, recording an increase of 11.26 per cent points. The total number of towns in the state increased from 65 to 106 during this period. Among them, Class I towns increased rapidly both in terms of numbers and their share in total urban population. The number of Class I towns increased tenfold from just 2 in 1971 to 20 in 2001 and their share in total urban population increased more than five times from 12.82 per cent in 1971 to 69.36 per cent in 2001. This increase in the proportion of urban population of Class I cities was at the cost of urban population living in Class II to Class VI towns. High population growth in big cities was due to large scale in-migration from the surrounding rural as well as urban areas; and up-gradation of towns from lower size-class to upper size-class. The proportion of urban population living in first ranking city, which was just 7.03 per cent in 1971, increased substantially to 17.27 per cent in 2001. There was an increasing tendency to reside in the first ranking city due to its close proximity to the national capital of Delhi, its location along the national highway, concentration of large and medium scale industries, availability of large employment opportunities, in-migration from the surrounding areas and spilling over of urban population from Delhi.

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