

Pattern and Growth of Urbanisation in India during 1991-2011: An Inter-State Analysis

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Abstract

Urbanisation is a long-term process for any country, where more and more people are living in the urban sectors and people living in the rural areas are decreasing. From the ancient days this process has been continuing in every country. In urban areas the urban amenities, employment opportunities attract many rural people, and due to rural-urban migration the rate of urbanization is increasing in any economy like India. The urban population has increased from 21.75 crores in 1991 to 28.61 crores in 2001 and to 37.71 crores in 2011. This shows that rate of urbanization has increased from 25.71% in 1991 to 27.78% in 2001 and to 31.14% in 2011. Indian states have varied their total population as well as urban population during the period 1991-2011. Due to globalization, industrialization and infrastructural development of the states have been increasing. Urban growth in the post-liberalization phase would be very high as well as very much diversified among different states. The paper has focused on the pattern, growth, index of urbanization in India and its constituent states during 1991-2011. This paper also discusses the decomposition of growth rates of total population, urban population and urbanization during 1991-2011.

Urban population in India has been increasing, but still the number of populations live in urban area is less than the rural population in 2011. Among the bigger states Tamil Nadu and Kerala have shown a satisfactory level of degree of urbanization with above 90% level. But some states like Assam, Bihar, Orissa, Uttar Pradesh etc. have very low rate of degree of urbanization. Also, the growth of urbanization is not very satisfactory in some states. As the growth of urbanization is taken as a growth of an economy so some urban development policies should be reformulated to attract people. As a result, due to industrialization and infrastructural development our country will become more urbanized. For this we require the formulation and implementation of rigorous urban development policies by the Government of India as well as the State Government.

Keywords: *Urbanization, Total Population, Urban Population, Degrees of Urbanization,*

Introduction:

Urbanisation is a long-term process for any country, where more and more people are living in the urban sectors and people living in the rural areas are decreasing. From the ancient days this process

has been continuing for every country like India. In urban areas the urban amenities and employment opportunities attract many rural people, and due to rural-urban migration the rate of urbanization has been increasing. In the developed economy it has commensurate with its level of development and in fact come into being as a result of the necessity to organize and consolidate the expanding economic activities. On the other hand, in the developing economy it is often not associated with economic growth and it is too low for that level of urbanisation. There are inequalities among different states of a particular country. Industrial and infrastructural developments of some states are the main reason behind the rapid urbanization of those states. So, urbanization mainly occurs in the developed portions of a country.

According to the estimation of 2018, among total land area 2.4% has situated in India. On the other hand, 17% populations are the residents of India. Being a second populous country in the world, India is continuously witnessing a huge increase in population. The urban population of India has been growing very fast due to natural increase and migration.

According to Census of India, all municipality, corporation, cantonment board are regarded as town area, all other places whose population is more than 5000, at least 75% of male working population engaged in non-agricultural activities and the density of that are is at least 400 people per sq. km. In India the proportion of urban population to the total population has continuously increased from 17.97 % in 1961 to 25.71 % in 1991, to 27.78% in 2001 and 31.14 % in 2011. The urban-rural population ratio has also increased from 34% in 1991 to 38.5% in 2001 and to 45% in 2011.

In this paper we are to examine the changing pattern and trends of urbanisation in India and its constituent states during 1991-2011. Section I deals with the pattern of urbanisation in India and its constituent states during 1991-2011. Section II contains the urbanisation rate in India and its constituent states during the period 1991-2011. Degree of urbanisation in India and its constituent states is analysed in section III. Section IV contains the decomposition analysis of growth rate of urbanisation in India and its constituent states during 1991-2011. Concluding remarks are in section V.

Literature Review:

Urbanisation is an index of long-term process of transformation of agricultural sector to industrial sector. Due to poverty in the rural areas, many people are leaving the rural areas and they are migrated towards urban areas. Urban areas are not attracting new people but rural areas force some people to migrate towards urban areas (Datta, 2006). In the developed countries it depends on a product of industrialisation. But in the developing countries it had been the product of population explosion in the rural areas which has accelerated migration towards urban centres (Haggell, 1972).

Urbanisation depends on several factors. These are: a) natural increase of population b) net migration c) reclassification and declassification and d) the emergence of new points of concentration (Premi, 1981 & Kundu, 2003). In the developing countries it has occurred mainly due to natural increase of urban population. Bhagat (2017) has observed that the urban population in India has experienced rapid urban population growth during 2001-2011, due to very high urban natural increase. Huge numbers of new towns has emerged during this period, by which the

urbanization increases. During the last decade, there is an increasing concentration of population in big cities, especially in million plus cities. But not only the big cities are growing but also small and medium sized cities are also increasing. Also, urban India has been experiencing the rapid urbanization flow from rural to urban migration (Bhati, 2015). In India, Mathur (1993) has observed that net urban migration becomes the principal component of urbanisation. Rural-urban income gap increases the migration towards urban area from rural area (Sridhar, 2016). During 1961-91, urban population is increasing more for larger cities than the smaller towns. These are known as “size-class jumping”. Considering just the immediate effect, natural increase of population is greater contributor of urbanisation in India, but migration has a long-term effect (Keyfitz & Philipov, 1981). Giri (1998) has found that the level of urbanisation of West Bengal had shown a special concentration on Kolkata. During 1970-80 there was faster population growth in the small & medium urban centres as because of the location shift of various secondary and tertiary sectors. As rapid population growth could not be absorbed by agricultural sector so there was an increase in workforce participation in low-income urban activity. Chatterjee & Ayadi (2001) have examined that the urban population growth rate in West Bengal was higher than that of India. As an impact of urbanisation, they measured that the extent of poverty was higher in West Bengal than India where the mortality and birth rate is lower and literacy rate is higher in West Bengal than India. Kundu (2003) has observed that in 1990’s the developed states in India have attracted migration to their urban centers through industrialisation. Singh & Singh (2017) have observed that though India ranks the second about urban population, but it has very low level of urbanisation. Patterns of urbanisation are very diverse among the states. Delhi, Goa & Mizoram have recorded the significant level of urbanisation. In 2011, only 15 states and union-territories have showed the increasing population growth. Rajagopalan, Kumar, Ranjan & Singh (2018) have noticed that there is biasness of urban population towards urban towns and also found that urbanisation ratios in 2011 are higher for those states than the others for which the urbanization ratios were significantly high. Urbanisation occurs not only because of urban pull but also mainly due to rural push. Rapid urbanization leads to massive growth of slum followed by misery, poverty, unemployment, exploitation, inequalities, degradation in the quality of urban life. Due to unequal development throughout the country, migration trends and patterns are unequal (Shukla, K, Sanjay, M & Tripathi, S, 2010).

Different cities in India have contributed nearly two-third of India’s GDP. Growth rate of per-capita income in India and urbanization rate have a direct relationship between them (Sridhar, 2016). Growth rate of urban per-capita income is greater than the national per capita income in India during 1991-2011. Urban infrastructural development depends on different urban development policies and programs (Tripathi, 2015). But for different cities, the speed of urbanization is not matched by adequate housing and other basic facilities. The living condition of urban area is very much pathetic (Kumar & Rai, 2014). Chetana & Tripathi (2016) have suggested that Govt. should provide good public services like transport facility, electricity in different class-size cities so that urbanization can be improved more and also investment in different kind of industries are required for the development of urban sectors.

So, from these literatures we came to know that the urbanization rates among the different states in India are very much diversified. Also, the increase in urbanization rate increases the growth rate of per-capita income.

Section I: Pattern of Urbanization in India during 1991-2011

In this section we are to estimate the pattern of urbanization in India and its constituent states during 1991-2011. Our estimates (Table 1) reveal that there is a wide variation of pattern of urbanization in the Indian states during the period of 1991-2011. In 1991 among the states Maharashtra has achieved the highest share of urban population followed by Uttar Pradesh, Tamil Nadu, West Bengal and Assam has achieved the lowest share of urban population. In 2001 and 2011, Maharashtra has also taken the highest position and Assam the lowest one. Thus, we observe that there is no change in the position of highest and lowest states namely Maharashtra and Assam respectively. Interestingly, we note that the share of urban population has decreased in the states of Andhra Pradesh, Bihar, Karnataka, Maharashtra, Orissa, Punjab, Rajasthan, Uttar Pradesh and West Bengal during 1991-2011. Interestingly, we also observe that Maharashtra though achieved the highest position in urban population but its share has shown a declining trend during the period 1991-2011.

Section II : Rate of Urbanization in India During 1991-2011: An Inter-State Analysis

In this section we are to examine the urbanisation rate among the states in India during 1991-2011. The urbanization rate of any economy like India is the ratio between urban population and total population of the economy. Our estimates (Table 2) reveal that irrespective of sex the urbanisation rate has varied in India and its constituent states during the period under study. At the all-India level, it has increased from 25.43% in 1991 to 27.82% in 2001 and to 31.14% in 2011. It has increased in all the states excepting Bihar during 1991-2011. In 1991, irrespective of sex among the bigger states Maharashtra has shown the highest position in terms of urbanisation rate, whose position has lost by Tamil Nadu both in 2001 and 2011. Among the smaller states, Goa has taken the highest position for the three census years. Six bigger states namely Maharashtra, Gujarat, Punjab, Karnataka, Kerala, West Bengal and Tamil Nadu, two other states namely Goa & Mizoram have shown the higher urbanization rate than all India level for the three census years irrespective of sex. All the union territories have the higher urbanization rate than the all India level during 2001 - 2011. During 1991-2011, three major states namely Haryana, Kerala, Tamil Nadu and three smaller states namely Goa, Nagaland, Sikkim have shown an increase in rank. Among them, Kerala has shown the highest increase in rank with an increase in urbanisation rate. Tripura is the only state which has shown the equality in ranking of urbanisation during 1991-2011. It is observed that the smaller states and the union territories have recorded a significant urbanisation level with Delhi topping the list where 93% are the urban population. The union territories have taken the first five ranking in urbanisation rate in the three decades except in 2001 and Goa has taken the sixth position. Among the bigger states, Assam and Bihar have respectively achieved the lowest urbanisation rate in 1991 and in 2011. Among all the states and union territories, Dadra & Nagar Haveli is the least urbanised union territory in 1991, but Himachal Pradesh has occupied the same position with only 10% level of urbanisation in the last two decades. During 1991-2011, only few

states have shown the higher female urbanization rate than the male one. The rate of male urbanization rate as well as the total urbanization rate has increased but the female rate has decreased during 1991-2001 in the states of Gujarat and Himachal Pradesh. During 1991-2001, Nagaland is the only state where the total urbanization rate has increased only due to increase in female rate. During 2001-2011, Himachal Pradesh has shown an increase in total urbanization rate but its male urbanization rate has shown a slightly decreasing rate. In 1991, the female urbanization rate is greater than the male one in the states of Haryana, Manipur, Mizoram, Tripura, Chandigarh, Daman & Diu, Delhi and Pondicherry. In 2001, no bigger states have the higher female urbanization rate than the male one whereas in 2011, Kerala and Tamil Nadu have the higher female urbanization rate than the male one.

Thus we observe that the rate of urbanization has shown a rising tendency in the states and union territories of India during 1991-2011. Among the states the variation in urbanization rate for female has decreased more than the male one during this period. In 2011 the variation among the states in urbanization rate is more or less same for male and female.

Section III: Degree / Index of Urbanisation in India during 1991-2011

In this section we are to examine the degree of urbanisation among the states in India during 1991-2011. The degree of urbanization (DU) of any economy like India is defined as the ratio between urban population (UP) and rural population (RP) of the economy, i.e.

$$DU = UP/RP \times 100 .$$

Now, $DU=100$, when $UP=RP$,

<100 , when $UP<RP$,

>100 , when $UP>RP$.

Thus the degree of urbanisation refers to the relative number of people who live in urban area compared to the rural area in any economy. Our estimate (Table 3) reveals that the degree of urbanisation has increased in India and its constituent states during 1991-2011. The degree of urbanisation for the all India level has increased from 34% in 1991 to 45% in 2011. In 1991, only the union territories namely Chandigarh, Delhi, Lakshadweep and Pondicherry have shown a very high rate of degree of urbanization in India (greater than 100). This shows that in these union territories the urban population is higher than the rural one. In 2001, Lakshadweep has shown a 80% degree of urbanization i.e. the urban population is lower than the rural one. No states have shown a higher than 100% degree of urbanisation. In 2011, only two states namely Goa and Mizoram have shown more than 100% degree of urbanisation.

We also observe that in 1991, among the bigger states, three states namely Gujarat, Maharashtra and Tamil Nadu and among the smaller states, two states namely Goa and Mizoram have more than 50% degree of urbanisation. Irrespective of sex, in 1991, Maharashtra among the bigger states has achieved the highest degree of urbanisation, followed by Tamil Nadu in the next two decades. Irrespective of sex, Delhi has the highest degree of urbanisation during 1991-2011. Among the smaller states, Goa has achieved the first position both in 2001 and 2011, though in 1991 Mizoram was in this position. In 2001, irrespective of sex among the bigger states, Tamil Nadu, Maharashtra, Punjab and Gujarat have more than 50% degree of urbanisation. In 2011, all the union territories

have more than 50% degree of urbanisation though in 1991 this value was very small in case of Dadra & Nagar Haveli. Most of the states have shown an increasing trend in their degree of urbanisation excepting Bihar and Manipur during 1991-2001. Excepting Bihar all the States and Union Territories have shown an increasing trend of the degree of urbanisation during 1991-2011 irrespective of sex. Among the states, Himachal Pradesh has achieved the lowest position during the period under study. Dadra & Nagar Haveli has the lowest degree of urbanisation in the first two decades. But in 2011, Andaman & Nicobar Island have achieved the lowest degree. Among the bigger states, Kerala has shown a significantly increasing trend in degree of urbanisation from 25% in 1991 to 91% in 2011. In most of the states the degree of urbanisation is higher for male than for female during 1991-2011 excepting Haryana, Manipur, Chandigarh, Daman & Diu, Delhi and Pondicherry in 1991, Manipur, Meghalaya, Mizoram, Tripura, Chandigarh, Daman & Diu, Delhi and Pondicherry in 2001; and Kerala, Tamil Nadu, Manipur, Meghalaya, Nagaland, Sikkim, Tripura, Uttaranchal, Chandigarh, Delhi, Pondicherry in 2011. During 1991-2001 Nagaland has shown an increase in urbanization index but its male urbanization rate has been decreasing. In 1991, seven bigger states namely, Andhra Pradesh, West Bengal, Maharashtra, Karnataka, Punjab, Tamil Nadu and Gujarat have greater index of urbanization than the all-India level. In 2001, all the states excepting Andhra Pradesh have shown the same tendency. Among the smaller states Goa & Mizoram have greater urban-rural ratio than India during 1991-2011. Among the states, few states have shown greater index of urbanization for female than for male. The states are: Haryana, Kerala, Manipur, Mizoram & Tripura in 1991; Manipur, Meghalaya, Mizoram & Tripura in 2001 and Kerala, Tamil Nadu, Manipur, Meghalaya, Mizoram & Tripura in 2011. Thus we observe that irrespective of sex the degree of urbanization in different states has shown an increasing trend during 1991-2011. The variation in female urban-rural ratio in different states in India is higher than the male one during the period of study.

Section IV: Relationship among the Growth rates of Urbanization Rate and Total Population and Urban Population

Urbanisation rate (UR) is defined as the ratio between Urban Population (UP) and Total Population (TP) of any economy like India at any time t , i.e.,

$$UR = UP/TP \dots\dots\dots (1),$$

Taking log in both side of equation (1) we have:

$$\begin{aligned} \ln (UR) &= \ln (UP/TP) \\ &= \ln UP - \ln TP \dots\dots\dots (2). \end{aligned}$$

Taking total differentiation of equation (2) with respect to 't' we get,

$$d/dt (\ln UR) = d/dt (\ln UP) - d/dt (\ln TP)$$

From this we can get the growth rate of urbanization:

$$g_{UR} = g_{UP} - g_{TP},$$

where, g_{UR} : Growth Rate of Urbanisation Rate,

g_{UP} : Growth Rate of Urban Population,

g_{TP} : Growth Rate of Total Population.

The Growth rate of urbanization rate is the difference between the growth rates of urban population and total population of any economy like India at any time. Now the sign of the growth rate of

urbanisation rate depends on the resultant effects of the growth rates of urban population and total population. We shall now consider two cases here:

- Case-1 :** $g_{UR} > 0$, when (i) $g_{UP} > 0, g_{TP} > 0$ but $g_{UP} > g_{TP}$.
(ii) $g_{UP} > 0, g_{TP} < 0$.
(iii) $g_{UP} < 0, g_{TP} < 0$ but $|g_{UP}| < |g_{TP}|$.

Thus we observe that for the positive growth rate of urbanization rate, situation (i) is desirable.

- Case-2 :** $g_{UR} < 0$, when (i) $g_{UP} < 0, g_{TP} < 0, |g_{UP}| > |g_{TP}|$.
(ii) $g_{UP} < 0, g_{TP} > 0$.
(iii) $g_{UP} > 0, g_{TP} > 0$ but $g_{TP} > g_{UP}$.

Here all the cases are not desirable from the economic point of view.

Our estimates (Table 4) reveal that the growth rates of total population as well as urban population have been positive in India and its constituent states and union territories excepting Lakshadweep having negative urban population growth rate during 1991-2001, 2001-2011 and 1991-2011. As a result, the growth rate of urbanization rate has been positive in India and its constituent states and union territories during the period under study. During 1991-2011, in India the growth rates of TP, UP and UR are respectively 1.55%, 2.42% and 0.8%. During 1991-2011, only Bihar has shown a negative urbanization growth. The growth rate of total population has increased in the states of Bihar, Tamil Nadu, Uttar Pradesh, Manipur & Pondicherry from the period of 1991-2001 to 2001-2011. On the other hand, the rest of the states have shown a declining growth rate in the total population. On the other hand, urban population growth rate has decreased in the states of Haryana, Maharashtra, Meghalaya, Mizoram, Orissa, Punjab, Rajasthan, Uttar Pradesh, Andhra Pradesh, Goa, Himachal Pradesh, Tamil Nadu, Manipur, Andaman & Nicobar Island, Chandigarh, Daman & Diu and Delhi from the period of 1991-2001 to 2001-2011. Thus we observe that the variation in growth rates of total population, urban population and urbanization rate have decreased in these states during this period.

We also observe that during 1991-2001 the growth rate of urbanisation rate is positive in most of the states excepting Bihar, Kerala, Manipur, Daman & Diu and Lakshadweep. In most of the states the growth rate of urbanization rate is positive. This is due to the fact that growth of urban population is greater than growth of total production. During 1991-2001, Madhya Pradesh is the only state which has positive urbanisation growth rate where growth rate of urban population is positive but growth rate of total population is negative. The growth rate of urbanization rate is equal to zero only in Nagaland and Chandigarh, where the growth rate of urban population and that of total population are equal i.e. the increasing rate of urban population is same as the increasing rate of total population. During this period, in Bihar the growth rate of urbanization is negative since both the growth rates of urban population and total population are negative and absolute value of urban population growth is greater than that of total population growth. On the other hand, in Kerala, Manipur and Daman & Diu the growth rate of urbanization is negative as the growth rate of urban population is less than that of total population. In Lakshadweep, the growth of urbanisation is also negative as the growth rate of urban population is negative but the growth rate of total population is positive and the difference between the growth rate of urban population and total

population is less than zero. i.e. decrease in urban population is greater than the increase in total population. During 2001-2011, Nagaland has achieved the negative growth rate of total population, i.e. the total population is decreasing but the value is very low but the urban population is increasing and that is the reason the growth rate of urbanization is positive. During 1991-2011 all the states have positive urbanisation growth rate excepting Bihar where the growth of urban population is less than that of total population.

Section V: Concluding Remarks:

Urban population in India has been increasing over time, but still the number of populations live in urban area is less than that in rural area in 2011. Among the bigger states Tamil Nadu and Kerala have shown a satisfactory level of degree of urbanization with above 90% level during the period of 1991-2011. But some states like Orissa, Assam, Bihar, and Uttar Pradesh have shown a very low rate of urbanization during the period under study. Also, the growth rate of urbanization rate is not very satisfactory in some states. As the growth of urbanization is taken as a growth of an economy of India so some urban development policies should be reformulated to attract people. With industrialization and infrastructural development our country will become more urbanized. For this we require the formulation and implementation of rigorous urban development policies by the Government of India as well as the State Government.

Table 1: Percentage shares of Urban Population among in India during 1991 – 2011: Inter State Analysis

India/State/ Union Territories	1991	2001	2011
India	100	100	100
Bigger States			
Andhra Pradesh	8.29	7.27	7.48
Assam	1.15	1.20	1.16
Bihar	5.26	3.03	3.12
Gujrat	6.60	6.61	6.82
Haryana	1.88	2.14	2.34
Karnataka	6.45	6.28	6.27
Kerala	3.56	2.89	4.23
Madhya Pradesh	7.11	5.58	5.32
Maharashtra	14.15	14.36	13.48
Orissa	1.96	1.93	1.86
Punjab	2.78	2.89	2.76

Rajasthan	4.67	4.62	4.52
Tamil Nadu	8.84	9.61	9.26
Uttar Pradesh	12.79	12.07	11.79
West Bengal	8.67	7.84	7.71
Smaller States			
Arunachal Pradesh	0.05	0.08	0.08
Chhattisgarh	-	1.46	1.57
Goa	0.22	0.23	0.24
Jharkhand	-	2.09	2.10
Himachal Pradesh	0.21	0.21	0.18
Jammu & Kashmir	-	0.88	0.91
Manipur	0.23	0.20	0.22
Meghalaya	0.15	0.16	0.16
Mizoram	0.14	0.15	0.15
Nagaland	0.10	0.12	0.15
Skikim	0.02	0.02	0.04
Tripura	0.20	0.19	0.25
Uttaranchal	-	0.76	0.81
Union Territories			
Andaman & Nicobar Island	0.03	0.05	0.04
Chandigarh	0.27	0.28	0.27
Dadra & Nagar Haveli	0.01	0.02	0.04
Daman & Diu	0.02	0.02	0.05
Delhi	3.93	4.51	4.34
Lakshadweep	0.01	0.01	0.01
Pondicherry	0.24	0.23	0.23

Source: Author's own calculation based on Census of India, Govt. of India

Table 2: Rate of Urbanization in Indian States by sex during 1991-2011: Inter-State Analysis

India/States/ Union Territories	1991			2001			2011		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
India	25.43	25.87	24.97	27.82	28.29	27.31	31.14	31.37	30.91
Bigger States									
Andhra Pradesh	26.89	27.08	26.70	27.30	27.49	27.12	33.36	33.45	33.27
Assam	11.10	11.61	10.54	12.90	13.33	12.44	14.10	14.18	14.01
Bihar	13.14	13.62	12.62	10.46	10.75	10.14	11.29	11.43	11.15
Gujrat	34.49	34.98	33.95	37.36	38.16	36.49	42.60	43.48	41.64
Haryana	24.63	24.58	24.68	28.92	29.14	28.67	34.88	34.98	34.76
Karnataka	30.92	31.40	30.42	33.99	34.39	33.57	38.67	38.87	38.46
Kerala	26.39	26.43	26.36	25.96	25.97	25.96	47.70	47.54	47.85
Madhya Pradesh	23.18	23.64	22.67	26.46	26.75	26.14	27.63	27.82	27.44
Maharashtra	38.69	39.90	37.40	42.43	43.54	41.22	45.22	45.85	44.55
Orissa	13.38	14.13	12.60	14.99	15.60	14.36	16.69	17.09	16.27
Punjab	29.55	29.77	29.30	33.92	34.41	33.36	37.48	37.88	37.04
Rajasthan	22.88	23.25	22.47	23.39	23.77	22.97	24.87	25.06	24.67
Tamil Nadu	34.15	34.39	33.91	44.04	44.17	43.91	48.40	48.31	48.48
Uttar Pradesh	19.84	20.04	19.62	20.78	21.02	20.52	22.27	22.48	22.04
West Bengal	27.48	28.35	26.53	27.97	28.58	27.32	31.87	31.97	31.77
Smaller States									

Arunachal Pradesh	12.80	13.77	11.66	20.75	21.60	19.81	22.94	23.52	22.31
Chattishgarh				20.09	20.69	19.49	23.24	23.65	22.83
Goa	41.01	41.80	40.20	49.75	50.45	49.04	62.17	62.74	61.59
Jharkhand				22.24	23.09	21.35	24.04	24.53	23.54
Himachal Pradesh	8.69	9.37	7.99	9.80	10.75	8.82	10.03	10.67	9.37
Jammu & Kashmir				33.00	34.78	31.06	37.96	39.09	36.16
Manipur	27.52	27.28	27.78	26.58	26.17	27.01	29.21	28.62	29.81
Meghalaya	18.60	19.04	18.13	19.58	19.48	19.69	20.07	19.95	20.19
Mizoram	46.10	45.84	46.37	49.63	49.31	49.97	52.11	51.54	52.70
Nagaland	17.21	18.56	15.69	17.23	17.90	16.48	28.86	29.20	28.49
Sikkim	9.11	9.77	8.34	11.07	11.34	10.76	25.15	24.85	25.50
Tripura	15.29	15.19	15.41	17.06	16.96	17.16	26.17	25.99	26.35
Uttaranchal				25.67	27.31	23.96	30.23	31.51	28.91
Union Territories									
Andaman & Nicobar Island	26.71	27.46	25.79	32.64	33.17	31.98	37.70	37.75	37.65
Chandigarh	89.69	88.69	90.95	89.77	88.79	91.03	97.25	97.05	97.51
Dadra & Nagar Haveli	8.47	9.10	7.81	22.89	24.52	20.87	46.72	49.26	43.44
Daman & Diu	46.80	45.52	48.13	36.25	31.25	43.30	75.17	78.45	69.87
Delhi	89.93	89.82	90.06	93.18	93.14	93.23	97.50	97.48	97.53
Lakshadweep	56.31	56.68	55.90	44.41	44.78	44.13	78.07	78.13	78.00
Pondicherry	64.00	63.83	64.17	66.57	66.38	66.76	68.33	68.18	68.48
CV(%)	70.16	68.36	72.19	62.22	60.82	64.00	60.24	60.03	60.37

Source: Author's own calculation based on Census of India, Govt. of India

Table 3: Index of Urbanisation in Indian States by sex during 1991-2011: Inter-State Analysis

India/States/ Union Territories	1991			2001			2011		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
India	34.12	34.90	33.28	38.53	39.45	37.56	45.23	45.70	44.74
Bigger States									
Andhra Pradesh	36.79	37.14	36.43	37.56	37.91	37.21	50.07	50.27	49.86
Assam	12.48	13.14	11.78	14.81	15.39	14.21	16.41	16.53	16.29
Bihar	15.33	15.77	14.44	11.68	12.05	11.29	12.73	12.91	12.55
Gujarat	52.64	53.81	51.41	59.64	61.70	57.46	74.20	76.93	71.34
Haryana	32.68	32.60	32.77	40.69	41.11	40.20	53.56	53.80	53.28
Karnataka	44.76	45.77	43.73	51.48	52.41	50.53	63.05	63.59	62.51
Kerala	24.72	23.98	25.48	35.07	35.08	35.05	91.21	90.62	91.75
Madhya Pradesh	30.17	30.97	29.32	35.98	36.53	35.38	38.19	38.54	37.81
Maharashtra	63.11	66.39	59.73	73.69	77.10	70.13	82.56	84.67	80.34
Orissa	15.44	16.45	14.42	17.63	18.49	16.77	20.03	20.62	19.43
Punjab	41.94	42.39	41.44	51.33	52.47	50.05	59.96	60.99	58.82
Rajasthan	29.66	30.28	28.99	30.52	31.18	29.81	33.10	33.44	32.74
Tamil Nadu	51.87	52.41	51.32	78.70	79.11	78.29	93.79	93.47	94.11
Uttar Pradesh	24.78	25.07	24.41	28.65	28.99	28.26	28.65	28.99	28.26
West Bengal	37.89	39.57	36.10	38.84	40.01	37.60	46.79	46.99	46.57
Smaller States									
Arunachal Pradesh	14.67	15.97	13.20	26.19	27.55	24.70	29.76	30.75	28.72

Chattishgarh				25.14	26.08	24.21	30.28	30.98	29.58
Goa	69.53	71.82	67.21	99.04	101.81	96.23	164.36	168.35	160.38
Jharkhand				28.61	30.01	27.14	31.66	32.51	30.78
Himachal Pradesh	9.51	10.34	8.68	10.86	12.04	9.67	11.15	11.94	10.34
Jammu & Kashmir				32.99	34.78	31.06	37.69	39.08	36.16
Manipur	37.98	37.58	38.47	36.21	35.44	36.99	41.26	40.09	42.47
Meghalaya	22.84	23.52	22.15	24.35	24.19	24.52	25.11	24.92	20.19
Mizoram	85.51	84.65	86.46	98.53	97.27	99.90	108.82	106.34	111.42
Nagaland	20.79	22.80	18.61	20.81	21.80	19.73	40.56	41.24	39.85
Sikkim	10.02	10.83	9.10	12.45	12.79	12.06	33.61	33.06	34.22
Tripura	18.06	17.91	18.21	20.57	20.43	20.71	35.45	35.12	35.78
Uttaranchal				34.53	37.57	31.52	43.33	45.99	40.67
Union Territories									
Andaman & Nicobar Island	36.44	37.85	34.75	48.43	49.63	47.02	60.52	60.64	60.38
Chandigarh	870.02	784.42	1005.39	877.68	792.25	1015.16	3540.61	3285.79	3909.69
Dadra & Nagar Haveli	9.25	10.01	8.47	29.68	32.49	26.38	87.70	97.10	76.81
Daman & Diu	87.97	83.54	92.78	56.86	45.45	76.354	302.75	363.96	231.94
Delhi	892.67	881.90	906.02	1366.09	1357.08	1377.21	3906.27	3871.05	3947.62
Lakshadweep	128.86	130.86	126.78	80.06	81.09	78.99	355.93	357.31	354.48
Pondicherry	177.78	176.48	179.12	199.13	197.47	200.81	215.78	214.26	217.26
CV(%)	229.01	222.28	238.66	254.65	251.40	259.16	318.15	313.03	324.92

Source: Author's own calculation based on Census of India, Govt. of India

Table 4: Growth Rates (%) of Total Population, Urban Population & Urbanisation Rate in Indian States

India/States/ Union Territories	1991-2001			2001-2011			1991-2011		
	TP	UP	UR	TP	UP	UR	TP	UP	UR
India	0.84	1.23	0.39	0.71	1.20	0.49	1.55	2.42	0.88
Bigger States									
Andhra Pradesh	0.59	0.66	0.09	0.45	1.32	0.84	1.04	1.98	0.94
Assam	0.75	1.41	0.65	0.68	1.07	0.39	1.44	2.47	1.04
Bihar	-0.17	-1.17	-0.99	0.98	1.32	0.33	0.81	0.15	-0.66
Gujrat	0.89	1.23	0.35	0.77	1.34	0.57	1.65	2.57	0.92
Haryana	1.09	1.78	0.70	0.79	1.60	0.81	1.87	3.39	1.51
Karnataka	0.70	1.11	0.41	0.63	1.19	0.56	1.33	2.30	0.97
Kerala	0.37	0.32	-0.08	0.21	2.85	2.64	0.61	3.17	2.57
Madhya Pradesh	-0.41	0.17	0.57	0.80	0.99	0.19	0.41	1.17	0.76
Maharashtra	0.89	1.29	0.40	0.64	0.92	0.28	1.53	2.21	0.68
Orissa	0.65	1.15	0.49	0.57	1.04	0.47	1.22	2.12	0.96
Punjab	0.80	1.39	0.60	0.56	1.00	0.43	1.36	2.39	1.03
Rajasthan	1.09	1.18	0.09	0.84	1.11	0.27	1.92	2.29	0.36
Tamil Nadu	0.49	1.59	1.10	0.63	1.04	0.41	1.11	2.63	1.51
Uttar Pradesh	0.77	0.97	0.21	0.80	1.10	0.30	1.57	2.07	0.50
West Bengal	0.71	0.79	0.08	0.56	1.13	0.57	1.27	1.92	0.64
Smaller States									
Arunachal Pradesh	1.04	3.14	2.10	1.00	1.44	0.44	2.04	4.58	2.53
Chattishgarh				0.89	1.52	0.63			
Goa	0.61	1.45	0.84	0.34	1.31	0.97	0.96	2.77	1.81
Jharkhand				0.88	1.22	0.34			

Himachal Pradesh	0.72	1.23	0.52	0.53	0.63	0.10	1.23	1.86	0.62
Jammu & Kashmir				0.92	1.35	0.43			
Manipur	0.72	0.57	-0.15	1.20	1.61	0.41	1.92	2.17	0.26
Meghalaya	1.16	1.39	0.22	1.07	1.18	0.11	2.23	2.56	0.33
Mizoram	1.10	1.42	0.32	0.92	1.13	0.21	2.02	2.55	0.53
Nagaland	2.16	2.16	0	-0.03	2.22	2.24	2.14	4.38	2.23
Sikkim	1.24	2.09	0.85	0.53	4.09	3.56	1.77	6.18	4.41
Tripura	0.65	1.12	0.47	0.60	2.46	1.86	1.25	3.58	2.33
Uttaranchal				0.75	1.46	0.71			
Union Territories									
Andaman & Nicobar Island	1.03	1.90	0.87	0.29	0.92	0.63	1.32	2.82	1.50
Chandigarh	1.47	1.47	0	0.69	1.04	0.35	2.16	2.51	0.35
Dadra & Nagar Haveli	2.02	6.34	4.32	1.93	5.03	3.10	3.95	11.37	7.42
Daman & Diu	1.92	0.81	-1.11	1.87	5.04	3.17	3.79	5.85	2.06
Delhi	1.67	1.88	0.15	0.84	1.03	0.20	2.51	2.86	0.35
Lakshadweep	0.69	-0.33	-1.03	0.27	2.71	2.45	0.96	2.38	1.42
Pondicherry	0.81	0.99	0.17	1.07	1.19	0.11	1.89	2.17	0.28
CV(%)	62.79	94.57	223.26	50.00	78.79	119.10	53.05	145.24	122.5

Source: Author's own calculation based on Census of India, Govt. of India

Notes: TP: Total Population, UP: Urban Population, UR: Urbanisation Rate

Reference:

- Balakrishnan, P. 2010. '*Economic Growth in India: History and Prospect*', New Delhi: Oxford University Press
- Bhagat, R. B. 2004. 'Dynamics of Urban Population Growth by Size Class of towns and Cities in India', *Demography India*, 33(1): 47-60
- Bhagat, R. B. & Mohanty, S. 2009. 'Emerging Pattern of Urbanization and The Contribution of Migration in Urban Growth in India', *Asian Population Studies*, 5(1):5-20
- Bhagat, R. B. 2011. 'Emerging Pattern of Urbanisation in India'. *Economic and Political Weekly*, 46(5):245-259.
- Census of India. 2001. 'Primary Census Abstract Total Table for India'.
- Census of India. 2011. 'A -4 TOWNS AND URBAN AGGLOMERATIONS CLASSIFIED BY POPULATION SIZE CLASS IN 2011'
- Chatterjee, A. & Ayadi, F. 2001. '*Urbanisation and Economic Growth in West Bengal*'. Bangladesh: Allied Publisher.
- Giri, P.1998. 'Urbanisation in West Bengal, 1951-1991', *Economic and Political Weekly*, 42(12): 3033-3038.
- Harris, N. 2003. 'Globalisation & the Management of Indian Cities', *Economic and Political Weekly*, 38(25): 2535-2545.

- Keyfitz, N & Philipov, D. 1981 "Migration and Natural Increase in the Growth of Cities", *Geographical Analysis*, Vol. 13: 287-299.
- Konar, D. N. 2009. 'Nature of Urbanisation in West Bengal in the Post-Independence Period', *Economic Affairs*. 54 (3&4), 2009.
- Kumar, A. & Rai, A. K. 2014. 'Urbanization Process, Trend, Pattern and Its Consequences in India'. *New Geographia* Vol. III (IV).
- Kundu, A. 1997. 'Trends and structure of employment in the 1990s: implication for urban growth', *Economic and Political Weekly*, 32: 1399-1405.
- Kundu, A. 2003. 'Urbanisation and Urban Governance: Search for Perspective beyond Neo-Liberalisation', *Economic and Political Weekly*, 38(28):3079-87.
- Kundu, A. 2009. 'Exclusionary Urbanisation in Asia: A Macro Overview', *Economic and Political Weekly*, 44: 48-58.
- Kundu, A. 2011. 'Politics and Economics of Urban Growth', *Economic and Political Weekly*, 46 (20):10-22.
- Mishra, R P. 1998. '*Urbanisation in India, Challenges and Opportunities*'. New Delhi: Regency Publication.
- Rajagopalan, A., Kumar, R.R. and Singh, S. 2018. 'Decomposition and Progression of Urbanisation in India'. Available at <https://mpira.ub.uni-muenchen.de/88772/>
- Rani, C. and Tripathi, S. 2016. 'Determinants of Urbanization in different Size/Class Distribution of Cities/Towns in India'. Available at <https://mpira.ub.uni-muenchen.de/74757/>
- Sivaramakrishnan, K.C., Kundu. A & Singh. B.N.2007. Handbook of Urbanisation in India. Singapore: Oxford University Press.
- Sridhar, K. S. 2016. 'Costs and Benefits of Urbanisation: The Indian Case'. ADBI Working Paper 607. Tokyo. Available at <https://www.adb.org/publications/costs-and-benefits-urbanisation-indian-case>
- Tripathi, S. 2015. 'An Overview of India's Urbanisation, Urban Economic Growth and Urban Equity', *International Journal of Economics and Empirical Research*. 3(3), 115-127

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