

India's Urban Population: Trends, Pattern and Spatial Distribution

Prof. Dr. Shivaji Bhagwan Khemnar

Department of Geography

Agasti Arts, Commerce and Dadasaheb Rupwate Science College, Akole, Ahmednagar

Abstract: India's urbanization trajectory exemplifies a gradual yet accelerating transition from a predominantly rural society to one increasingly defined by urban centers, with profound implications for economic development, resource management, and environmental sustainability. This study conducts a comprehensive spatio-temporal analysis of urban population growth in India, spanning the period from 1901 to 2011, utilizing decennial census data to examine temporal trends in total and urban population growth rates, absolute urban increments, and percentage urbanization levels, alongside spatial variations across regions and urban hierarchies. The analysis reveals a slow and stagnant urbanization phase during the colonial era (1901 to 1947), where urban population share remained below 15%, constrained by limited industrialization, recurrent epidemics, famines, and extractive economic policies. Post-independence, particularly after 1951, urban growth accelerated markedly, driven by Partition-induced migration, planned industrial development, public health advancements, and later economic liberalization from 1991 onward. Decadal urban growth rates peaked in the 1971 to 1981 period (46.14%), reflecting intense rural-to-urban migration and natural increase in cities, while total population growth reached its zenith around the 1960 to 1980 before declining to 17.64% in 2001–2011 amid fertility transitions. At the same time, people migrate from small towns to big cities due to the fact that the population of urbanization increases. It is necessary to study urbanization to understand various problems. Therefore, for this study, it is systematic to study the urbanization of India between 1991 and 2011 censuses or urban population of India. For this, secondary data have been used 1991 and 2011 censuses periods.

Keywords: Urban Population, Migration, Causes, Environment.

I. INTRODUCTION

Urbanization represents one of the most profound transformations of human societies in modern history, reshaping economies, environments, social structures, and resource use patterns across the globe. In India, this process has unfolded with exceptional intensity and complexity, driven by a unique blend of demographic pressures, economic transitions, policy interventions, and regional disparities. As the world's most populous nation, India has witnessed its urban population surge from approximately 25.9 million 10.8% of total in 1901 to over 377 million (31.2%) in 2011, with continued acceleration in subsequent decades. This shift not only reflects a transition from a predominantly agrarian society to one increasingly centered on city but also highlights stark spatial variations ranging from densely urbanized western and southern states to slower-growing rural dominated regions in the north and east Balasaheb Raghunath Chakor et.al (2024). Spatio-temporal analysis of urban population growth integrates the dimensions of time decadal changes in growth rates, absolute additions, and percentage shares and space regional, state-level, and intra-urban patterns, including core-periphery dynamics, agglomeration effects and differential urbanization across city sizes. Such an approach goes beyond aggregate national trends to reveal underlying heterogeneities: why some regions experience explosive peripheral sprawl while others show densification, why mega-cities like Mumbai and Delhi exhibit distinct growth morphologies compared to smaller urban centers, and how historical events e.g., post-independence migration waves, economic liberalization since 1991, and infrastructure booms interact with contemporary drivers like rural distress, industrial relocation, and service-sector expansion Bhagat, R B (2005; 2009).

Historically, India's urbanization remained sluggish during the colonial period 1901 to 1947, constrained by extractive policies, epidemics, and famines, with urban shares hovering around 10–14%. The post-independence era marked a turning point, as planned industrialization, refugee inflows from Partition, and public health improvements triggered rapid urban expansion. The 1991 economic reforms further accelerated this trend, fostering private investment, IT or service hubs, and peri-urban development Kundu, A., (2006). Unlike many East Asian counterparts, India's urban transition has been relatively slow in percentage terms but massive in absolute scale, with cities absorbing the bulk of population increments even as overall demographic growth decelerates. This study employs a spatio-temporal lens to examine urban population dynamics in India, drawing on census data from 1901 to 2011 and beyond where relevant alongside insights from remote sensing and GIS-based analyses prevalent in recent literature. It traces temporal trajectories of decadal growth rates highlighting peaks in the 1970 to 1980 and sustained high urban increments post-1991 while mapping spatial inequalities across states, urban hierarchy's mega-cities vs. small towns and intra-urban gradients (core vs. fringe). By combining quantitative metrics e.g., growth indices, density gradients, and landscape fragmentation measures with qualitative contextual factors, the analysis aims to uncover patterns of diffusion, coalescence, edge-expansion, and outlying growth, as well as their implications for sustainability.

Understanding these spatio-temporal dimensions is critical for addressing pressing challenges: unplanned sprawl leading to environmental degradation, inadequate infrastructure, housing shortages, slum proliferation, and widening regional disparities. It also informs forward-looking urban policy, enabling better prediction of future trajectories, equitable resource allocation, and climate-resilient planning in an era when India is projected to add hundreds of millions more urban residents by mid-century. This paper contributes to the discourse by synthesizing long-term census trends with spatial perspectives, offering a comprehensive framework to interpret India's ongoing urban revolution and its diverse manifestations across time and territory.

Aim and Objectives:

The present study aims to analyse the trends, patterns, and spatial distribution of urban population in India from 1901 to 2011 with special reference to decadal growth dynamics.

1. To examine the trends and decadal growth rate of total population and urban population in India during 1901-2011.
2. To analyse the changing share of urban population in the total population of India over the study period.
3. To study the spatial distribution and regional variations in the level of urbanization across major states of India.
4. To explore the factors responsible for the growth and spatial distribution of urban population in India.

II. DATABASE AND METHODOLOGY

For the geographical study of the population of urbanization in India, the numerical statistics of the said population are taken from the census of India between 1901 and 2011. The above figures are numerically processed to show the population increase in percentage. At the same time, a distribution map of population urbanization is also prepared in this form and a line graph is also drawn.

III. URBANISATION IN INDIA

The arrival of the British in India and the settlements established by the East India Company accelerated the growth of cities and towns. In India, established military camps at strategic locations for their convenience and eventually became autonomous but autonomous parts of the associated cities. In the early days, attempts were made by the rulers to increase these cities as a part of increasing the importance of the Empire and in view of the convenience of the Jasan system. Cities like Ambala, Pathankot, Idhampur, Agra, Jhasi, Meerut, Roorkee, Mahu and Jalandhar were developed. Similarly, due to the hot climate of the Indian subcontinent, pheasants prefer to explore the cold weather. Ida. Tasmala, Mussoorie, Mahabaleshwar. According to the first census of 1872, India had 16 cities with a population of more than one lakh and 43 cities with a population of 50,000. Industrialization began in the nineteenth century, which led to the need for railway

networks and ports. It can be seen from this that special efforts were made to grow the cities of Delhi, Mumbai, Pune, Ahmedabad, Kolkata and Madras during the period. From the year 1901, urbanization accelerated in India. Due to increase in industrial production, commercial centers, increase in employment, the trend of urbanization in India increased and many metros were built. The have custom built hostels, camp sites, railway and industrial areas, commercial centers, civic amenities and civic offices, etc. Due to this, people's apathy towards the citizens increased. After the independence, the economic development in India was followed by an organized economy. Savangin Panchvatarak Yojana Akhun Implementation efforts have begun. Along with agricultural growth, the efforts to increase the speed of industrialization were boosted and with the initiative of the government, agriculture, electricity, steel etc. Factories started in government sector. Due to these big factories, the cities in that area became in need. After the industrial revolution there was a rapid development and improvement of wheels. Tavikhapatnam, Tasandri. Although initially the lives of workers and citizens in cities were rough and crowded, the ultimate result of urbanization was the improvement of the living conditions of the city dwellers through industrialization. Caves led to industrialization and resulted in the growth of cities. Rourkela, Bokaro etc. In the modern era, the pace of urbanization increased with the pace of industrialization. There was a steady increase in the size, proportion and number of urban centers of the urban population. Along with the increase in industrial production, it became necessary to make progress in transport and communication, so the increase in communication resulted in an increase in production. Due to the lack of transport facilities in the 18th century, the population was concentrated around the factories. Advances in transportation made it possible to settle far away from factories, and cities expanded.

The increase in urban population, urban centers and the level of urbanization has been accompanied by rapid urbanization. This growth is the fastest since 1951. During the period from 1951 to 2011, India's urban population has increased six times from 62.4 to 377. The number of urban centers increased from 2,843 in 1951 to 7,935 in 2011. This increase was 17.91 tusk. The proportion of people living in urban areas increased from 17.3 per cent in 1951 to 31.1 per cent in 2011. This shows that the pace of urbanization has increased by 13.8 percent in recent times. In the year 1951, there were 5 Dilkshi Jere in India. She turned 7 in 1961. In the year 1991, there were 23 Dilkshi Nagres in India, it increased to 53 in 2011. That is, although the average pace of urbanization in India is slow, the pace of growth of attractive cities is increasing.

Table 1: Trend of Urbanisation in India from 1901-2011

Census Years	Total Population	Urban Population	Rural Population	Urban Population in %	Rural Population in %	Number of UA/Town
1901	238396327	25851873	212544454	10.84	89.15	1827
1911	252093390	25941633	226151757	10.29	89.71	1815
1921	251321213	28086167	223235046	11.18	88.82	1949
1931	278977238	33455989	245521249	11.99	88.01	2072
1941	318660580	44153297	274507283	13.86	86.14	2250
1951	361088090	62443709	298644381	17.29	82.71	2843
1961	439234771	78936603	360298168	17.97	82.03	2365
1971	598159652	109113977	489045675	19.91	81.76	2590
1981	683329097	159462547	523866550	23.33	76.66	4029
1991	844324222	217177625	627146597	25.72	74.28	4689
2001	1027015247	285354954	741660293	27.78	72.22	5161
2011	1,210,193,422	377,105,760	833,087,662	31.16	68.84	7935

(Source: Census of India, 1901 to 2011)

Table no 1 present's census data showing the gradual but accelerating shift from a predominantly rural to a more urban society in India over the 20th century and into the early 21st century.

1. **Overall trend:** The level of urbanization urban population as a percentage of total population increased from **10.84% in 1901** to **31.16% in 2011**, nearly tripling over 110 years. The urban population grew from about 25.85 million to 377.11 million, the rural population percentage declined from 89.15% to 68.84%.
2. **Slow growth in the early period (1901 to 1941):** Urbanization remained almost stagnant or even slightly declined in some decades e.g., from 10.84% in 1901 to 10.29% in 1911. The percentage hovered around 11 to 14%. This reflects limited industrial development, colonial economic policies focused on extraction rather than urban expansion, and factors like plagues, famines, and slow population growth in urban areas.
3. **Post-independence acceleration (1951 to 2011):** A clear uptick began after 1947. The urban percentage rose from 17.29% in 1951 to 31.16% in 2011. The sharpest increases occurred in the later decades, especially 1971 to 2011, with the urban share jumping from about 20% to over 31%. The number of urban areas/towns also surged dramatically, from 2,843 in 1951 to 7,935 in 2011, indicating both natural growth and reclassification of rural settlements as urban.
4. **Recent acceleration (2001 to 2011):** This decade saw the largest absolute addition to urban population around 91 million, surpassing rural growth for the first time in some accounts. This reflects faster urbanization driven by economic liberalization, industrial expansion, and rural-to-urban migration.
5. India's urbanization has been relatively slowed compared to many other developing countries e.g., China reached over 50% urban much earlier largely because of high rural population growth and agriculture's persistent role in employment. However, India is now in an **acceleration phase**, with urban growth outpacing rural in recent censuses.

Causes of Urbanisation in India (1901 to 2011)

Urbanization in India has been driven by a combination of historical, economic, social, and policy related factors. These varied across periods:

Table 2: Causes of Urbanisation in India

Period	Causes	Explanation/Impact on Trend
Pre-1947 (1901 to 1941)	Colonial economic structure, limited industrialization, plagues/famines, wars	Slow urban growth; urban percentage stagnant or declining due to rural distress and lack of industrial pull. Expansion in government services during World War II provided some boost.
1947–1960	Partition migration, post-independence planned industrialization, expansion of administrative/government services	Massive refugee influx into cities; early Five-Year Plans emphasized heavy industries, creating urban employment. Urban percentage rose noticeably from 1951.
1970s–1990	Green Revolution effects (rural push), industrial growth, rural-urban migration for jobs, education, and better services	Migration accelerated due to agricultural mechanization reducing rural jobs, while cities offered opportunities in manufacturing, services, and education. Number of towns increased steadily.

1991–2011	Economic liberalization (1991 reforms), globalization, service sector boom (IT, finance), infrastructure development, rural distress	Rapid urban growth; private sector expansion, foreign investment, and job creation in cities pulled migrants. Reclassification of peri-urban areas as towns contributed significantly to the 2001–2011 jump. Social factors like better healthcare, education, and lifestyle aspirations also played a role.
-----------	--	--

In summary, early urbanization was constrained by colonial legacies and demographic factors, while post-independence phases especially after economic reforms saw stronger **pull factors** job opportunities, modernization and **push factors** rural poverty, lack of agricultural jobs. Migration rural-to-urban has been the dominant component, supplemented by natural urban population growth and definitional changes e.g., new statutory towns. This trend highlights India's transition toward an increasingly urban future, though still lower than global averages for developing economies.

Table 3: Decadal Growth Rate of Population

Year	Total Population in %	Urban Population in %
1901-1911	5.75	0.35
1911-1921	-0.31	8.27
1921-1931	11.00	19.12
1931-1941	14.22	31.97
1941-1951	13.31	41.42
1951-1961	21.64	26.41
1961-1971	24.80	38.23
1971-1981	24.66	46.14
1981-1991	23.87	36.47
1991-2001	21.54	31.13
2001-2011	17.64	31.80

(Source: Census of India 2011)

The table no 03 shows the **decadal percentage growth rates** (change over each 10-year census interval) for **total population** and **urban population** in India from 1901 to 2011. Key patterns include:

A. Total population growth:

1. Started low and erratic in the early 20th century: modest increase (5.75% in 1901 to 1911), followed by a rare **negative growth** (-0.31% in 1911 to 1921).
2. Accelerated significantly after 1921, peaking at around 24 to 25% per decade during 1961 to 1981 the highest phase.
3. Gradually declined thereafter: from 23.87% (1981 to 1991) to 21.54% (1991 to 2001), and further to 17.64% (2001 to 2011).
4. This reflects India's progression through the **demographic transition**: from high birth and death rates falling death rates leading to rapid growth eventually falling birth rates slowing growth.

B. Urban population growth:

1. Highly variable and consistently higher than total growth after 1911 to 1921, indicating faster urban expansion.

2. Extremely high in early post-independence decades: 41.42% (1941 to 1951) and 38.23% (1961 to 1971), peaking at 46.14% (1971 to 1981).
3. Remained robust at 31 to 36% in later decades (1991 to 2011), even as total growth slowed.
4. Urban growth outpaced total growth in every decade after 1921, driven by migration, natural increase in cities, and reclassification of areas as urban.

C. Overall trend:

1. The period 1901 to 1921 was one of stagnation/decline due to crises.
2. 1921 to 1981 marked explosive growth both total and urban, often called the "population explosion" phase.
3. Post-1981 showed deceleration in total growth but sustained high urban growth, signaling accelerating **urbanization** amid slowing overall demographic momentum.
4. By 2001 to 2011, urban decadal growth (31.80%) was nearly double the total (17.64%), highlighting those cities absorbed most of India's population increase.

Causes of Decadal Growth Rate Fluctuations:

The fluctuations were influenced by historical events, health improvements, economic changes, migration patterns, and policy shifts. Below is a period-wise summary:

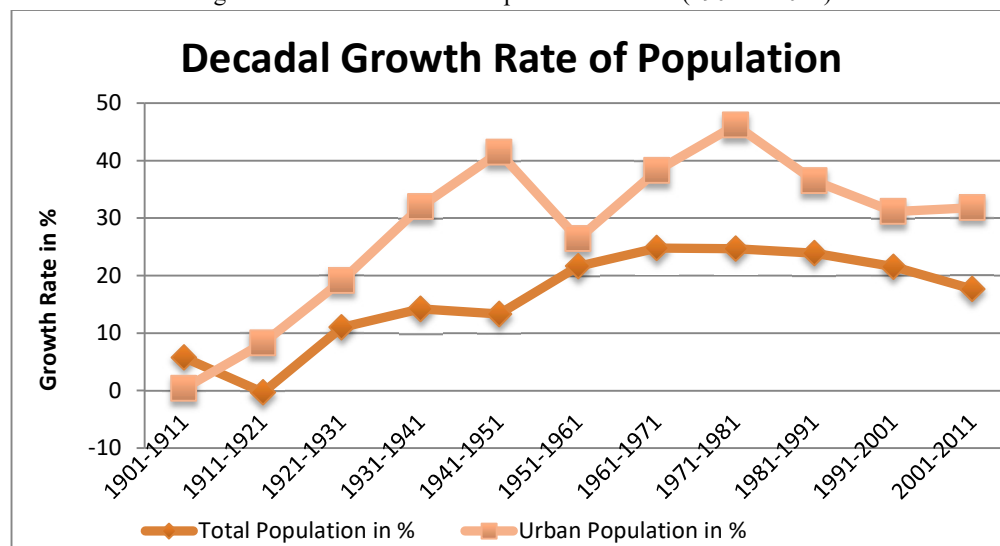
Table no 04: Causes of Decadal Growth Rate Fluctuations (1901 to 2011)

Period	Total Growth Rate (%)	Urban Growth Rate (%)	Major Causes
1901 to 1911	5.75	0.35	Modest natural increase; limited health improvements; colonial-era famines/plagues restrained faster growth. Urban growth near-zero due to rural distress and slow industrial development.
1911 to 1921	-0.31	8.27	Negative total growth massive mortality from 1918 to 1919 influenza pandemic (Spanish flu killed millions), famines, and World War I effects. Urban areas saw positive growth due to relative safety from rural epidemics and some migration.
1921 to 1931	11.00	19.12	Recovery phase; gradual decline in death rates from better sanitation, transport, and epidemic control. Early signs of urban pull from administrative and trade centers.
1931 to 1941	14.22	31.97	Continued mortality decline; pre-WWII economic stability; urban growth surged due to industrial beginnings and wartime preparations.
1941 to 1951	13.31	41.42	Partition of India (1947) caused massive refugee migration to cities; post-independence health campaigns reduced mortality. Highest urban surge from influx and natural growth in urban areas.
1951 to 1961	21.64	26.41	Post-independence boom: eradication of major epidemics (malaria, smallpox), better healthcare, antibiotics, and improved nutrition. Five-Year Plans boosted industrial/urban jobs.
1961 to 1971	24.80	38.23	Peak growth phase: sharp fall in death rates (IMR declined), high fertility persisted large "transitional" growth. Green Revolution increased rural survival but also pushed some migration to cities.
1971 to 1981	24.66	46.14	Highest urban growth; continued mortality decline, family planning efforts began but fertility still high. Industrial expansion, education, and service sector growth pulled rural migrants.

1981 to 1991	23.87	36.47	Sustained high growth; early signs of fertility decline in some states due to education, women's empowerment, and family planning. Urban growth remained strong from economic opportunities.
1991 to 2001	21.54	31.13	Noticeable slowdown in total growth; fertility decline accelerated (due to literacy, urbanization, delayed marriage). Economic liberalization (1991) boosted urban jobs in services/IT.
2001 to 2011	17.64	31.80	Sharpest total decline; widespread fertility reduction below replacement in many states, better healthcare/education, and family planning success. Urban growth stayed high from migration, IT boom, and peri-urban reclassification.

In summary, early fluctuations were driven by crises epidemics, famines and colonial constraints. Post-1921 acceleration resulted from mortality decline outpacing fertility decline. The post-1991 slowdown reflects India's entry into later stages of demographic transition, with declining birth rates, while urbanization continues rapidly due to economic pull factors jobs, services and rural push agricultural limits. This pattern positions India as moving toward population stabilization, with cities increasingly driving future growth.

Figure 1: Growth of Urban Population in India (1901 to 2011)



Along with the growing population in India, the rate of urbanization is also increasing rapidly. The industrial change population growth, migration employment opportunities communication facilities, health and education facilities etc. Due to reasons urbanization is increasing in India. Increasing urbanization of any country is considered as an indicator of the development of that country. But the rapid and unplanned urbanization is causing many social, cultural, economic, political and environmental problems. The standard of living of the population depends on the satisfaction of its basic needs. It is necessary to meet the basic needs of food, clothing, shelter, health, education, employment and business. Increasing population in urban areas makes it difficult to meet these needs. This results in a decline in the standard of living.

Due to increasing urbanization, there is a huge strain on the transport infrastructure. Increase in traffic leads to increase in number of accidents traffic jams lead to long queues of vehicles, resulting in wastage and serious problems.

Most of the population living in urban areas belongs to the small and medium income groups. Therefore, the expensive houses in the city are not available in the demand they are facing. They have to live in slums on foot. Slums and squatter settlements were formed from it. Social, economic, mental and health problems take a serious form in the slum area, from which there is an increase in problems like child labour, ill health, unemployment, crime, unethical and illegal business, gangsterism.

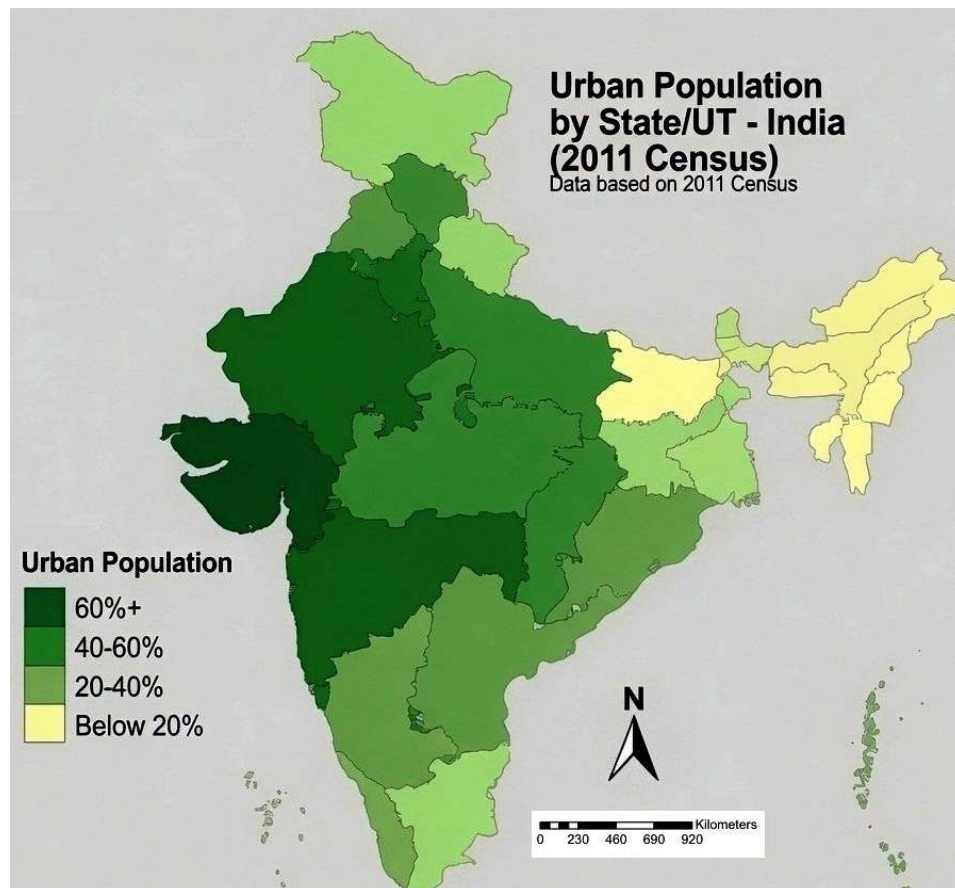
Table 05: Urbanization in India (2011)

		<i>Urban Population</i>	<i>Percentage of urban population</i>
	States	2011	2011
1	Andhra Pradesh	28,353,745	33.49
2	Arunachal Pradesh	313,446	22.67
3	Assam	4,388,756	14.08
4	Bihar	11,729,609	11.3
5	Chattisgarh	5,936,538	23.24
6	Goa	906,309	62.17
7	Gujarat	25,712,811	42.58
8	Haryana	8,821,588	34.79
9	Himachal Pradesh	688,704	10.04
10	Jammu & Kashmir	3,414,106	27.21
11	Jharkhand	7,929,292	24.05
12	Karnataka	23,578,175	38.57
13	Kerala	15,932,171	47.72
14	Madhya Pradesh	20,059,666	27.63
15	Maharashtra	50,827,531	45.23
16	Manipur	822,132	30.21
17	Meghalaya	595,036	20.08
18	Mizoram	561,997	51.51
19	Nagaland	573,741	28.97
20	Orissa	6,996,124	16.68
21	Punjab	10,387,436	37.49
22	Rajasthan	17,080,776	24.89
23	Sikkim	151,726	24.97
24	Tamil Nadu	34,949,729	48.45
25	Tripura	960,981	26.18
26	Uttar Pradesh	44,470,455	22.28
27	Uttarakhand	3,091,169	30.55
28	West Bengal	29,134,060	31.89
	Union Territories		
1	Andaman & Nico.	135,533	35.67
2	Chandigarh	1,025,682	97.25
3	Dadra & Nagar H.	159,829	46.62
4	Daman & Diu	182,580	75.16
5	Delhi	16,333,916	97.5

6	Lakshadweep	50,308	78.08
7	Pondicherry	850,123	68.31
	All India	377,105,760	31.16

(Source: Census of India 2011)

Map no 01: Urban Population in 2011



The 2011 Census data reveals significant **interstate and inter regional disparities** in urbanization levels in India, with the national urban population standing at 377,105,760, or **31.16%** of the total population. This spatial pattern highlights a clear divide: southern and western states, along with certain Union Territories and smaller north-eastern states exhibit much higher urbanization, while large northern and eastern states remain predominantly rural.

A. Highest Urbanization Levels (above 40 to 50%):

Delhi (UT): 97.5% virtually fully urban. **Chandigarh (UT):** 97.25% planned city status., **Lakshadweep (UT):** 78.08%. **Daman & Diu (UT):** 75.16%. **Goa:** 62.17%. **Mizoram:** 51.51%. **Tamil Nadu:** 48.45%. **Kerala:** 47.72%. **Maharashtra:** 45.23%. **Dadra & Nagar Haveli (UT):** 46.62%. **Gujarat:** 42.58%.

B. Moderate Urbanization (30 to 40%):

States like Karnataka (38.57%), Punjab (37.49%), Haryana (34.79%), Andhra Pradesh (33.49%), West Bengal (31.89%), and Uttarakhand (30.55%).

C. Lowest Urbanization Levels (below 25%) states are **Himachal Pradesh** 10.04% lowest among states, **Bihar:** 11.3%, **Assam:** 14.08%, **Odisha (Orissa):** 16.68%, **Uttar Pradesh:** 22.28%. Other low performers include Arunachal Pradesh (22.67%), Rajasthan (24.89%), and Jharkhand (24.05%).

D. Regional Patterns:

1. Southern states (Tamil Nadu, Kerala, Karnataka, Andhra Pradesh) generally show higher urbanization.
2. Western states (Maharashtra, Gujarat, Goa) are highly urbanized.
3. Northern hill states (Himachal Pradesh) and populous Gangetic plain states (Bihar, Uttar Pradesh) lag significantly.
4. Northeastern states vary widely (Mizoram high, Assam and others low).
5. Union Territories are overwhelmingly urban due to their small size, administrative functions, and planned development.

Causes of Spatial Variation in Urbanization Levels (2011):

The marked interstate differences stem from a combination of historical, economic, geographical, demographic, policy-related, and definitional factors. These have interacted differently across regions:

1. Industrial and Economic Development:

- a) States with strong industrial bases, port cities, and service sectors attract massive rural-to-urban migration and natural urban growth.
- b) Maharashtra (Mumbai as financial capital), Gujarat (industrial corridors, ports), Tamil Nadu manufacturing, IT, automobiles, and Karnataka (Bengaluru IT hub) benefit from early and sustained industrialization, private sector growth post-1991 reforms, and agglomeration economies.
- c) Kerala's high level partly results from dense "census towns" settlements meeting urban criteria non-agricultural employment, density without formal municipal status reflecting dispersed non-farm economic activities like remittances, tourism, and education-driven services.

2. Historical and Policy Factors:

- a) Planned cities and administrative centers drive high urbanization in Union Territories, Delhi as national capital, and Chandigarh as planned city.
- b) Colonial legacies and post-independence policies favoured industrial growth in western/southern states, while northern/eastern regions remained agriculture-dominated.
- c) Economic liberalization 1991 onward amplified urban pull in states with better infrastructure and investment climates.

3. Geographical and Topographical Constraints:

- a) Hilly terrain in Himachal Pradesh limits large-scale urban development, restricts infrastructure, and sustains agriculture/forestry-based economies.
- b) Flood-prone or agriculturally intensive plains in Bihar, Uttar Pradesh, Assam, and Odisha support dense rural populations with limited industrial pull.

4. Agricultural Dependence and Rural Economy:

- a) States like Bihar, Uttar Pradesh, Assam, and Odisha have high rural population reliance on subsistence agriculture, low agricultural productivity, and slower non-farm job creation, reducing rural push and urban pull.
- b) Persistent rural poverty and limited education/health infrastructure keep populations rural-bound.

5. Migration Patterns and Demographic Factors:

- a) Rural-to-urban migration is stronger toward economically vibrant states e.g., Maharashtra, Gujarat, Tamil Nadu receive migrants from Bihar or UP.
- b) In low-urbanization states, high rural fertility rates and slower demographic transition maintain rural dominance.
- c) Marriage and family migration dominate in some areas, but employment drives interstate flows toward urbanized states.

6. Urban Definitional and Administrative Issues:

- a) India's census definition minimum 5,000 populations, 75% non-agricultural male workers, density $\geq 400/\text{sq km}$ leads too many "census towns" in Kerala, Tamil Nadu, and West Bengal boosting reported urbanization without statutory urban governance.
- b) Some states e.g., northern ones are reluctant to notify rural settlements as urban due to fiscal implications loss of rural development funds, understating true urbanization in places like Bihar and Uttar Pradesh.
- c) In summary, the 2011 spatial pattern underscores a **southern western urban bias** driven by economic opportunities, industrialization, and migration inflows, contrasted with **northern eastern rural persistence** due to agrarian dependence, geographical barriers, and slower structural transformation. These variations highlight the need for region-specific urban policies to address imbalances, promote balanced growth, and manage rapid urban expansion where it is occurring.

IV. CONCLUSION

Spatially, the patterns exhibit significant heterogeneity: southern and western states demonstrate higher and more consistent urbanization levels, often characterized by agglomeration in large cities and peri-urban expansion, whereas northern and eastern regions show slower, more dispersed growth with persistent rural dominance. The study highlights differential dynamics across city-size classes mega-cities experiencing edge expansion and infilling, smaller towns witnessing reclassification-driven increases and underscores the role of migration as the primary driver of urban increments, supplemented by definitional changes and natural growth. By integrating temporal trajectories with spatial perspectives, this research elucidates key processes such as diffusion versus coalescence, core-periphery gradients, and the interplay of push-pull factors over more than a century. The findings emphasize that while India's overall urbanization level remains moderate compared to global peers, the absolute scale of urban population addition particularly post-1991 poses substantial challenges for sustainable urban planning, infrastructure provision, and regional equity. This spatio-temporal framework provides valuable insights for anticipating future urban trajectories and formulating policies that promote balanced, inclusive, and resilient urban development in one of the world's fastest-growing economies.

REFERENCES

1. Balasaheb Raghunath Chakor et.al (2024) Prognostication of Urbanisation Growth and Level in Pune District of Maharashtra State an Using GIS Technique, *Journal of Computational Analysis and Applications*, 33 (08) 473-482.
2. Bhagat, R B (2005): "Rural-urban Classification and Municipal Governance in India", *Singapore Journal of Tropical Geography*, 26(1): 61-74.
3. Bhagat, R. B. and Soumya M., (2009), Emerging pattern of Urbanization and the contribution of migration in urban growth in India. *Asian Population Studies*, 5(1), pp5-20.

4. Carter, H., 1995, The Study of Urban Geography. *Fourth edition, Edward Arnold, New York.*
5. Census of India, 1991 to 2011.
6. Chandna, R. C., .(1986). Geography of Population-Concept, Determinants and Patterns, Kalyani Publishers, New Delhi, Pp 100, 188.
7. Gadekar Deepak J (2015), "Level of Human Resources Development- Concepts and Review", Acme international Journal of Multidisciplinary Research, Vol. 3 Issue. 6, Pp48-61.
8. Gadekar Deepak J .(2015), "Human Resources Development in the Akole Tahsil, Ahemdagar District (M.S. India)", Quest International Multidisciplinary Research Journal Vol. 4, Issue. 4, Pp. 113-119.
9. Gadekar Deepak J .(2018), "Level of Human Resources Development in the Akole Tahsil District- Ahmednagra Maharashtra". Unpublished Ph. D Thesis, Savitribai Phule Pune University.
10. Gadekar Deepak J .(2019), "Regional Disparities of Woman Resources in the AkoleTahsilDistrict Ahemdagar Maharashtra State, India", Online International Interdisciplinary Research Journal, Vol.9 Issue 2, Pp94-99.
11. Giri Sanjay Pralhad (2020), Level of Development In Tribal Area-A Case Study of Akole Tehsil, Ahmednagar District, Maharashtra State, India. Muktsabd Journal, Volume IX, Issue VIII Pp 297-306.
12. Kundu, A., 2006, Trends and Patterns of Urbanisation and their Economics Implications. *India Infrastructure Report, New Delhi: Oxford University Press, pp27-41.*
13. Medhe Ravindra Sampat et.al, (2024) Estimate the Rate of Change in Forest Cover and Its Impact on Soil by Using GIS And Remote Sensing, A Case Study of Gadchiroli District, Maharashtra, The Bioscan19(3) Pp08-18
14. Medhe Ravindra Sampat, et al. (2024) Land Use and Land Cover Mapping Using Digital Classification Technique in Dindori Tehsil of Nashik District, Maharashtra State, India Using Remote Sensing, Journal of Computational Analysis and Applications 33(6) Pp 604-617
15. Talwar, P.P. and Sawhney, N., 1991, Perception and Responses of Administrators to the problems of Rapid Population Growth of Two Port-cities of India, Page 30-47.
16. World Urbanization Prospects-The 2005 Revision, United Nations, *Department of Economic and Social Affairs/Population Division.*
17. World Urbanization prospects-The 2011 Revision, United Nations, *Department of Economic and Social Affairs/Population Division*