International Journal of Advance and Applied Research
Peer Reviewed | International Open Access Journal
ISSN: 2347-7075 | Impact Factor – 8.141 | *Website:* https://ijaar.co.in/
Volume-13, Issue-5 | May – June 2026

Original Article

Dynamics of Urbanization in Maharashtra: Regional Trends and Future Prospects

Prajakta Kapare[1] & Dr. Uttam Gadhe[2]

[1]*Assistant Professor, Department of Geography, K.M.C. College, Khopoli.*

[2] *Assistant Professor, Department of Geography, K.M.C. College, Khopoli.*

Manuscript ID: IJAAR-130520
ISSN: 2347-7075
Impact Factor – 8.141

Volume - 13
Issue - 5
May – June 2026
Pp. 173 - 188

Submitted: 15 May 2026
Revised: 30 May 2026
Accepted: 1 June 2026
Published: 10 June 2026

Corresponding Author:
Dr. Uttam Gadhe

Quick Response Code:

Website: https://ijaar.co.in/

DOI: 10.5281/zenodo.21337142

DOI Link: https://doi.org/10.5281/zenodo.21337142

Abstract:

Urbanization is a fundamental spatial and demographic process reshaping developing nations. This paper examines the dynamics of urbanization in Maharashtra by analyzing regional trends, underlying drivers, and future prospects. Utilizing a descriptive and analytical framework based on longitudinal Census data (1961–2011) and a continuous exponential growth model, this study projects future urbanization trajectories. Maharashtra is one of India's most highly urbanized states, recording an urbanization rate of 45.23% in 2011 and a 23.67% urban population increase over the preceding two decades. However, the spatial distribution of this growth remains profoundly asymmetric. Driven by industrial agglomeration and rural-to-urban migration, growth is heavily concentrated in the western region—specifically Mumbai, Mumbai Suburban, and Thane. Conversely, eastern, northern, Konkan, and central regions experience low urbanization due to uneven topography and limited industrialization. Future population influxes are anticipated in emerging hubs like Pune, Nagpur, Nashik, and Aurangabad. The findings emphasize the urgent need for sustainable, decentralized urban planning policies to minimize the burden on primate cities, mitigate socioeconomic challenges, and ensure equitable regional development across Maharashtra.

Keywords: Urbanization Dynamics, Spatio-temporal trends, Exponential Growth, Demographic Projections, Maharashtra.

How to cite this article:

Prajakta Kapare & Dr. Uttam Gadhe. (2026). Dynamics of Urbanization in Maharashtra: Regional Trends and Future Prospects. International Journal of Advance and Applied Research, 13(5), 173 – 188 https://doi.org/10.5281/zenodo.21337142

International Journal of Advance and Applied Research
Peer Reviewed | International Open Access Journal
ISSN: 2347-7075 | Impact Factor – 8.141 | *Website:* https://ijaar.co.in/
Volume-13, Issue-5 | May – June 2026

Introduction:

Urbanization is conventionally defined as the demographic and spatial transition of a society from a predominantly agrarian economy to one driven by industrial and service sectors. In the contemporary global landscape, this phenomenon is not merely a byproduct of economic development but a primary engine of macroeconomic growth. Scholars have long posited that the urbanization process in the Global South differs fundamentally from the historical experience of the West, characterized by rapid demographic concentration that often precedes infrastructural maturity (Kundu, 2011). The United Nation's Agenda for Sustainable Development explicitly recognizes the critical need to make these rapidly expanding cities inclusive, resilient, and sustainable (United Nations, 2015). In developing nations like India, the urbanization trajectory is massive in scale, heavily catalyzed by structural economic shifts, post-liberalization policies, and large-scale internal migration.

Within the Indian context, the state of Maharashtra presents a fascinating and complex geography of urban growth. Historically a pioneering state in industrialization, Maharashtra remains at the forefront of India's demographic metamorphosis. According to the Census of India (2011), Maharashtra ranks as the third most urbanized state in percentage terms—with 45.23% of its population residing in urban areas, trailing only Tamil Nadu and Kerala. However, when evaluating the sheer volume of urban dwellers, Maharashtra ranks first nationally, housing over 50.8 million urban residents. Furthermore, urban centers in Maharashtra act as the primary economic engines of the state, contributing overwhelmingly to the Gross State Domestic Product (GSDP) (Economic Survey of Maharashtra, 2023). The state has witnessed an exponential decadal growth rate in its urban population, vastly outpacing the national average, signifying a rapid and permanent restructuring of its human settlements (Bhosale, 2022).

Despite these impressive state-level aggregates, the spatial distribution of urbanization in Maharashtra is profoundly unbalanced. The state's urban geography is heavily skewed by the "primate city" phenomenon, in which a single metropolitan region disproportionately dominates the state's economic and demographic landscape. The macro-level Western corridor acts as a massive gravitational pull for capital and labor. This has led to the formation of an industrial "Golden Triangle" comprising Mumbai, Pune, and Nashik, which effectively monopolizes infrastructural capital and foreign direct investment (Bhagat & Mohanty, 2009). Conversely, the hinterlands present a stark spatial disparity. Regions such as Marathwada, Vidarbha, and peripheral northern districts exhibit significantly lower levels of urban concentration. The urban-regional imbalance in these areas is largely constrained by recurrent climatic vulnerabilities, rugged topography, and historical deficits in infrastructure investment, leading to stagnation in small and medium-sized towns.

The dynamics driving urbanization in Maharashtra are deeply rooted in classic push-and-pull migration factors. The rapid expansion of industrial zones (such as MIDC estates), commercial hubs, and educational institutions in Tier-I and emerging Tier-II cities serves as a powerful pull factor, offering concentrated opportunities for upward social mobility. Simultaneously, agrarian distress acts as a formidable push factor. Recurrent droughts, fragmented landholdings, and declining agricultural profitability in regions like Marathwada have accelerated "distress migration," transforming rural agricultural laborers into urban informal workers (Deshingkar and Akter, 2009; Roy and Saha, 2023). Moreover, the recent proliferation of

International Journal of Advance and Applied Research
Peer Reviewed | International Open Access Journal
ISSN: 2347-7075 | Impact Factor – 8.141 | *Website:* https://ijaar.co.in/
Volume-13, Issue-5 | May – June 2026

"Census Towns"—large villages that have acquired urban characteristics without statutory urban governance—highlights a hidden, unmanaged urbanization spreading across the state's periphery (Pradhan, 2013).

This unprecedented concentration of populations in a few mega-cities has birthed severe localized bottlenecks. The uncontrolled horizontal expansion of these metropolitan areas has resulted in complex "peri-urban" interfaces, where prime agricultural land is rapidly commodified and converted to non-agricultural uses (Shaw, 2005). This spatial sprawl, coupled with lagging infrastructural provision, has led to acute housing shortages, the proliferation of slums, traffic congestion, and severe environmental degradation.

To harness the positive dividends of urbanization while mitigating its socio-ecological threats, there is a pressing need to understand the micro-trends across different districts. Therefore, this research aims to: examine the spatial and temporal trends of urbanization across Maharashtra's districts; analyze the structural drivers and regional disparities between the highly urbanized western corridors and the lagging eastern regions; and evaluate the future prospects of emerging urban centers to propose sustainable, decentralized planning interventions.

Objectives:

The main objective of the present study is to examine the spatio-temporal dynamics of urbanization and to analyze the regional variation and future prospects in the study region.

The sub-objectives are:

1. To analyze the trends of urbanization
2. To examine regional disparities in urbanization
3. To study the determinants of urbanization
4. To analyze the spatial pattern of urban growth
5. To project future urbanization trends

Study Area:

The present study focused on one of the most urbanized and economically significant states, Maharashtra. The state of Maharashtra, situated in the western and central peninsular region of India, serves as the geographical and economic locus of this empirical study. Spanning longitudinally between 72°36' E and 80°54' E, and latitudinally from 15°44' N to 22°6' N, the state covers an expansive territorial area of 307,713 square kilometers, making it the third-largest state in India by geographical landmass (Government of Maharashtra, 2023). It shares its administrative borders with Gujarat and Madhya Pradesh to the north, Chhattisgarh to the east, Telangana to the southeast, and Karnataka and Goa to the south. To its west lies a prominent coastline of approximately 720 kilometers along the Arabian Sea, which has historically facilitated global maritime trade and served as a crucial spatial catalyst for early mercantile urban settlements (Hussain, 2015). Administratively, the state is structured into six major revenue divisions—Konkan, Pune, Nashik, Chhatrapati Sambhajinagar (formerly Aurangabad), Amravati, and Nagpur—comprising a total of 36 districts and 355 talukas, and 48 Lok Sabha constituencies, which serve as the standard spatial units for demographic and regional assessments (Gadhe et al., 2024).

The physiographic layout of Maharashtra profoundly dictates its spatial settlement patterns, transport networks, and localized urbanization trajectories. Geomorphologically, the state is characterized by three distinct physical macro-divisions. First, the Konkan coastal plain is a narrow, low-lying strip of land nestled between the Arabian Sea and the Western Ghats. It experiences heavy monsoonal rainfall and boasts excellent deep-

water port accessibility, which has historically facilitated the rapid expansion and consolidation of the hyper-urbanized Mumbai Metropolitan Region (MMR) (Dikshit, 1986). Second, running parallel to the coastline is the Sahyadri mountain range (Western Ghats), which forms a major physical barrier; however, its historical mountain passes (Ghats) have been engineered into vital transport corridors that directly connect the coastal ports to the mainland interior. Third, sloping gently toward the east is the expansive, basaltic Deccan Plateau, which covers the vast majority of the state's landmass. While the western margins of this plateau, such as Pune and Kolhapur, benefit from rich river basins and extensive irrigation networks, the central and eastern segments, namely Marathwada and parts of Vidarbha, fall squarely in the rain-shadow region (Dikshit, 1986). These hinterland areas experience recurrent agricultural droughts, groundwater depletion, and systemic agrarian distress, which collectively act as primary socio-economic push factors driving out-migration toward the larger urban agglomerations (Deshingkar and Akter, 2009).

Demographically, Maharashtra is the second most populous state in India, with a total population exceeding 11.23 crore as of the 2011 Census, which occupies 9.3% of India’s population. Economically, it operates as a powerhouse, consistently contributing the highest share to India's national Gross Domestic Product (GDP), with its capital, Mumbai, widely recognized as the financial and commercial center of the country (Government of Maharashtra, 2023). However, the economic and urban geography of the study area is structurally fractured by a severe spatial dua r represents one of the most densely urbanized and economically vibrant macro-regions in South Asia. Conversely, the eastern and central sub-regions remain predominantly agrarian and structurally under-urbanized, dominated by slower-growing medium and small towns (Bhosale, 2022). This stark contrast between the hyper-industrialized western seaboard and the resource-constrained plateau provides an ideal spatial laboratory to analyze the complex dynamics, regional imbalances, and prospects of urbanization in a rapidly developing economy.

From a socio-demographic perspective, Maharashtra exhibits considerable regional variation in educational attainment and human development across its six administrative divisions. Recent evidence indicates that the Konkan Division records the highest levels of educational development within the state, with an overall literacy rate of 86.40%, substantially exceeding the state average of 82.91% according to the 2011 Census. These variations in educational attainment closely correspond with differences in urbanization, economic opportunities, and infrastructure development, thereby highlighting the uneven spatial pattern of development across Maharashtra (Gadhe et al., 2025).

Database and Methodology:

The present study is mainly based on secondary data sources to fulfill the objectives of the defined research objectives. Comprehensive demographic and spatial data about the urbanization of Maharashtra are obtained from the authentic and highly reliable repositories such as Census of India reports (1961-2011), Government reports, Journals, Reference books, Web-based journals, various published research articles accessed via both online and offline modes. The analysis and interpretation of data have been done from a geographical point of view. MS-Excel was used to process, analyze and represent demographic data. Crucially, to forecast the prospects of urban growth, a simple exponential growth rate was used rather than a decadal growth rate, as it accounts for the continuous nature of population growth.

International Journal of Advance and Applied Research
Peer Reviewed | International Open Access Journal
ISSN: 2347-7075 | Impact Factor – 8.141 | *Website:* https://ijaar.co.in/
Volume-13, Issue-5 | May – June 2026

Data Analysis and Results:

1. Urbanization in Maharashtra: Demographic Profile and Structural Drivers:

Maharashtra represents one of the most dynamic and rapidly urbanizing geographies in India. According to the Census of India (2011), the state supports a total population of approximately 112.37 million, of which 45.23% reside in urban areas, while the remaining 54.77% are classified as rural. This demographic profile positions Maharashtra as the third most urbanized state in the country, trailing only Tamil Nadu (48.45%) and Kerala (47.72%). Significantly, urban population growth accounted for an overwhelming 62.8% of the state's total demographic addition during the 2001–2011 decadal period, underscoring a decisive structural shift in human settlement patterns.

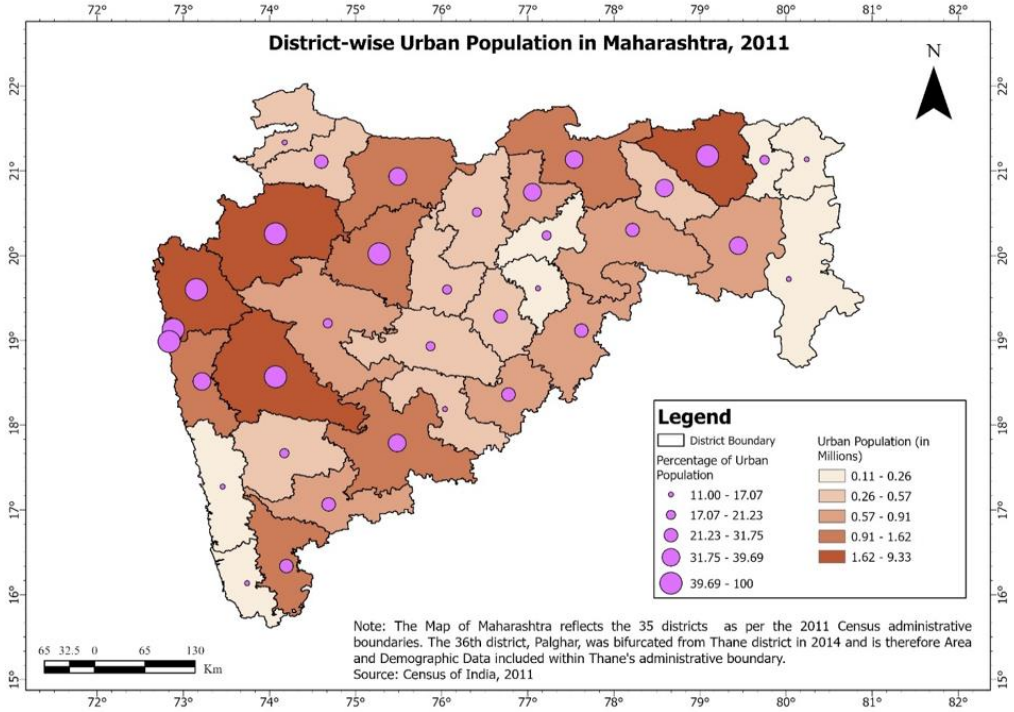
This demographic metamorphosis is propelled by several interwoven socioeconomic drivers. Foremost is the accelerated rate of rural-to-urban migration, catalyzed by the search for diverse employment opportunities, higher income sources, and upward social mobility. This spatial shift is structurally supported by the historical economic frameworks of the Five-Year Plans, which systematically prioritized industrialization, transport connectivity, and communication infrastructure. Consequently, there has been a profound transformation in land-use patterns, marked by the large-scale conversion of agricultural tracts into non-agricultural, commercial, and residential zones. Furthermore, the aggressive growth of the private sector, coupled with the expansion of governmental extension services, has solidified the economic pull of these urban nodes.

Spatially, the urban population is not evenly distributed but is heavily hyper-concentrated in specific metropolitan hubs. Mumbai, serving as the financial capital of India, acts as a primary economic magnet, attracting a massive influx of migrants not only from the state's rural hinterlands but from across the entire nation. As a result, the highest tiers of urbanization are localized in districts such as Mumbai, Thane, Pune, and Nagpur. An analysis of the major Municipal Corporations (M.C.) from the 2011 Census highlights this massive demographic concentration. The population of Greater Mumbai stood at an unprecedented 12.47 million, followed by Pune (3.11 million), Nagpur (2.40 million), Thane (1.82 million), Pimpri-Chinchwad (1.72 million), and Nashik (1.48 million). Other rapidly expanding urban agglomerations, including Kalyan-Dombivali (1.24 million), Vasai-Virar (1.22 million), Chhatrapati Sambhajinagar/Aurangabad (1.17 million), and Navi Mumbai (1.11 million), further illustrate the outward sprawl of the state's urban footprint.

Recognizing urbanization not merely as a demographic challenge but as a progressive catalyst for economic development, the Government of Maharashtra has adopted a proactive policy framework. To mitigate the immense infrastructural strain caused by this rapid physical expansion, state interventions are increasingly directed toward statutory urban planning, the provision of civic amenities, and integrated administrative policies. Through various statutory acts and targeted urban development schemes, the state aims to regulate urban sprawl, improve infrastructural carrying capacity, and ensure the sustainable growth of its expanding metropolitan regions.

International Journal of Advance and Applied Research
Peer Reviewed | International Open Access Journal
ISSN: 2347-7075 | Impact Factor – 8.141 | *Website:* https://ijaar.co.in/
Volume-13, Issue-5 | May – June 2026

Figure 1: *Urbanization Patterns Across Maharashtra: Evidence from the 2011 Census*



Source: Directorate of Town Planning, Government of Maharashtra; adapted from the Official State Urban Development Portal, 2011

2. Trends of Urbanization in Maharashtra:

2.1 Comparative Assessment of Urban Units and Population Growth (1961-2011)

Table 1: *Comparative Trends in Urban Growth, Infrastructure, and Population Transition in Maharashtra and India (1961–2011)*

Year	Maharashtra		India	
	Number of Urban Units	Population in Million	Number of Urban Units	Population in Million
1961	266	11.16	2657	78.94
1971	289	15.71	3081	109.11
1981	307	21.99	3971	159.46
1991	336	30.54	4615	217.18
2001	378	41.10	5161	286.12
2011	534	50.83	7935	377.1
Rates of Growth				
1961-71	0.8	3.4	1.5	3.2
1971-81	0.6	3.4	2.5	3.8
1981-91	0.9	3.3	1.5	3.1
1991-01	1.2	2.9	1.1	2.8
2001-11	3.5	2.1	4.4	2.8

Note: *Rates of growth are compound rates of growth per annum*
Source: *Compiled from Census of India 2001, Provisional Population Totals, Paper 2: Rural–Urban Distribution of Population, Series 28, Maharashtra, published by the Director of Census Operations, Maharashtra, Government Central Press, Mumbai, and the Registrar General of India (2001).*

International Journal of Advance and Applied Research
Peer Reviewed | International Open Access Journal
ISSN: 2347-7075 | Impact Factor – 8.141 | *Website:* https://ijaar.co.in/
Volume-13, Issue-5 | May – June 2026

Table 1 compares how cities grew in Maharashtra versus the rest of India over a 50-year period. From 1961 to 2011, Maharashtra's urban population grew massively, jumping from 11.16 million to 50.83 million people. In 1961, Maharashtra possessed 266 official urban units hosting an urban population of 11.16 million. By 2011, the number of urban units effectively doubled to 534, accommodating a massive aggregate of 50.83 million urban residents. On a national level, India experienced a parallel trajectory, with urban units multiplying from 2,657 to 7,935, and the overall national urban base surging to 377.10 million.

The growth rates at the bottom of the table show a major change in how Maharashtra is developing. Between 1961 and 1991, the state's city population grew very fast—around 3.3% to 3.4% every year. This high growth happened because people were rapidly moving into established factory towns and big business hubs.

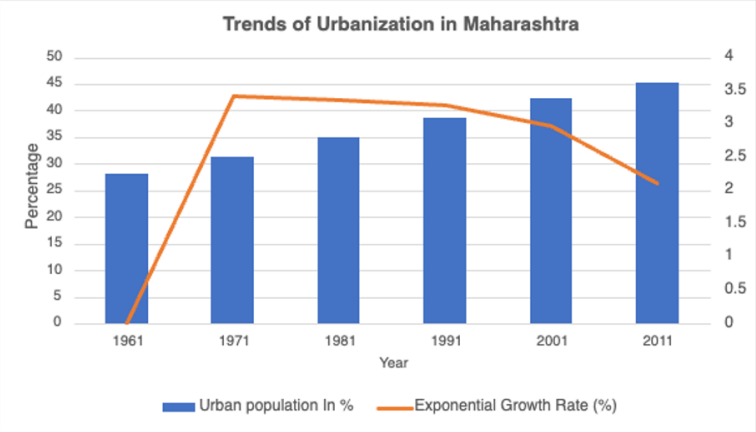
However, the 2001–2011 decade tells a completely different story. Maharashtra's population growth in cities slowed down to 2.1%, which was actually lower than the national average of 2.8%. But at the exact same time, the rate of adding brand-new cities jumped up to 3.5%. This clearly shows that Maharashtra's older, massive mega-cities are now full. Instead of packing more people into crowded cities like Mumbai, the state is growing by expanding outward and upgrading smaller villages into brand-new urban towns.

2.2 State-Level Trends of Urbanization in Maharashtra (1961-2011):

Table 2: *Spatio-Temporal Trends in Urbanization and Exponential Growth Rates in Maharashtra*

Year	Total Population in Millions	Urban population In Millions	Urban population in percentage	Average Exponential Growth Rate (%)
1961	39.55	11.16	28.22	-
1971	50.41	15.71	31.17	3.42
1981	62.78	21.99	35.03	3.36
1991	78.94	30.54	38.69	3.28
2001	96.88	41.1	42.43	2.97
2011	112.37	50.83	45.23	2.12
Source: *Calculated by the authors using Census of India data (1961–2011) based on the continuous exponential growth model.*				

Figure 2: *Urbanization Trends in Maharashtra (1961–2011)*



International Journal of Advance and Applied Research
Peer Reviewed | International Open Access Journal
ISSN: 2347-7075 | Impact Factor – 8.141 | *Website:* https://ijaar.co.in/
Volume-13, Issue-5 | May – June 2026

Table 2 clearly shows how Maharashtra's population shifted into cities between 1961 and 2011. During these 50 years, the state's total population nearly tripled, growing from 39.55 million to 112.37 million. However, the urban population grew much faster. In 1961, only 11.16 million people lived in cities, making up 28.22% of the total population. By 2011, this number jumped to 50.83 million, meaning that nearly half the state (45.23%) now lives in urban areas.

However, the most exceptional finding in this table is hidden in the very last column—the average exponential growth rate. Normally, people assume that because cities are getting more crowded, they must be growing faster than ever. But this table proves the exact opposite. While the total number of city dwellers is at an all-time high, the actual speed of this growth has been slowing down for decades. The growth speed peaked at 3.42% back in 1971 but has steadily dropped to just 2.12% by 2011. This unique detail proves that major mega-cities like Mumbai and Pune are finally running out of space (saturation), forcing future populations to spill over into smaller, surrounding towns.

In short, the data proves that even though Maharashtra's cities are heavily populated, the intense wave of rapid urbanization seen in earlies decades has peaked and is now leveling off.

2.3 Size-Class Dynamics of Urban Settlements:

Table 3: *Urban Centres and Population Distribution by Size Category in Maharashtra (1961–2001)*

Urban Units and Urban Population						
Size Class	Urban Units					
	1961	1971	1981	1991	2001	2011
Class I	6.32	7.73	11.03	10.99	7.55	8.21
Class II	5.48	9.76	10.63	9.93	9.39	10.07
Class III	18.56	23.58	28.74	38.66	28.77	31.36
Class IV	34.59	35.77	33.46	30.15	24.09	24.06
Class V	29.95	19.51	13.78	8.86	20.41	21.26
Class VI	5.07	3.65	2.39	1.41	9.79	5.04
Total	100	100	100	100	100	100
Number	266	289	307	336	378	534
Urban Population						
Size Class	1961	1971	1981	1991	2001	2011
Class I	63.86	67.95	73.81	74.25	75.78	76.67
Class II	8.01	10.55	8.42	8.28	7.59	7.38
Class III	12.53	10.69	9.66	12.39	10.29	10.45
Class IV	10.46	8.15	5.69	4.35	4.12	3.63
Class V	4.77	2.39	1.31	0.68	1.71	1.66
Class VI	0.37	0.27	1.11	0.05	0.51	0.21
Total	100	100	100	100	100	100
Number in Million	11.16	15.71	21.99	30.54	41.1	50.83

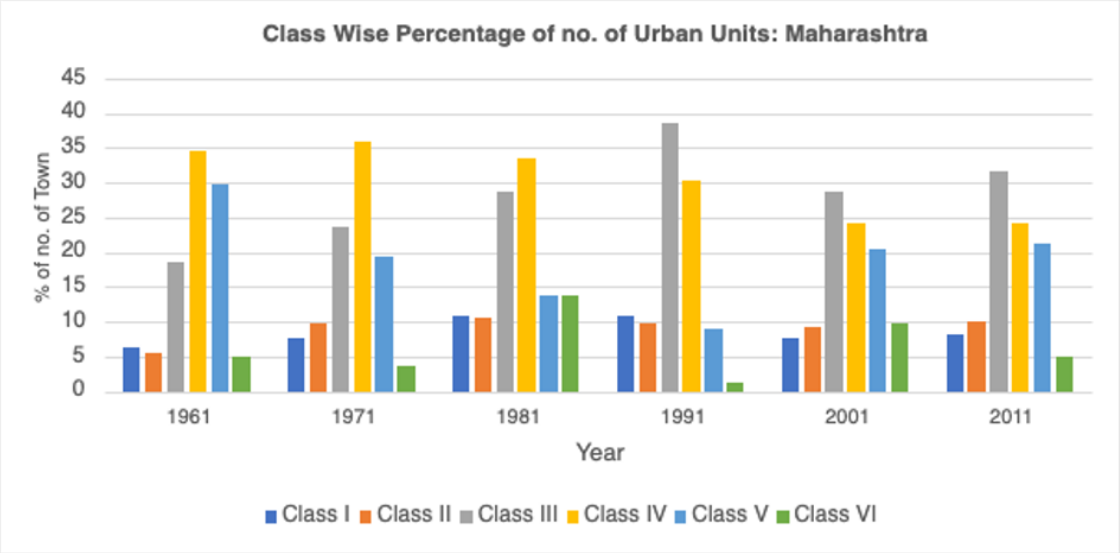
Source: *Compiled by researcher based on Census 2011*
Note: urban population is in percentage.

International Journal of Advance and Applied Research
Peer Reviewed | International Open Access Journal
ISSN: 2347-7075 | Impact Factor – 8.141 | *Website:* https://ijaar.co.in/
Volume-13, Issue-5 | May – June 2026

An analysis of Table 3 reveals a distinct structural shift in the distribution of Maharashtra's urban settlements and population from 1961 to 2011, during which the total number of urban units doubled from 266 to 534. Looking specifically at the proportion of urban units and settlements, the contribution of Class I cities to the state's urban framework stood at 6.32% in 1961, which experienced a steady and progressive increase to reach 8.21% by 2011. The share of Class II towns followed a similar upward trajectory, growing from 5.48% in 1961 up to 10.07% in 2011. In respect to the contribution of Class III towns, the data shows a highly significant increasing trend, expanding from 18.56% in the beginning of the study period to 31.36% in 2011, making it the largest expansion among the upper tiers. Conversely, a clear declining trend is visible in the Class IV category, where the percentage of cities dropped from 34.59% in 1961 down to 24.06% by 2011. The smaller settlements exhibited fluctuating patterns over the decades; Class V towns showed a steep declining trend from 29.95% in 1961 down to its lowest point of 8.86% in 1991, after which it reversed and increased to 21.26% in 2011. Meanwhile, the percentage of Class VI cities decreased from 5.07% in 1961 to a low of 1.41% in 1991, before rising to 9.79% in 2001 and dropping back down to 5.04% in 2011. This overall movement across the classes indicates that towns in general are growing physically and shifting upward into higher size-class classifications as their boundaries expand.

This structural mismatch between the growing number of mid-tier towns and the actual concentration of residents is visually illustrated in Figure 5.1 and Figure 5.2, which contrast the physical settlement distribution against the demographic share.

Figure 3: *Percentage Distribution of Urban Centres by Size Class in Maharashtra*



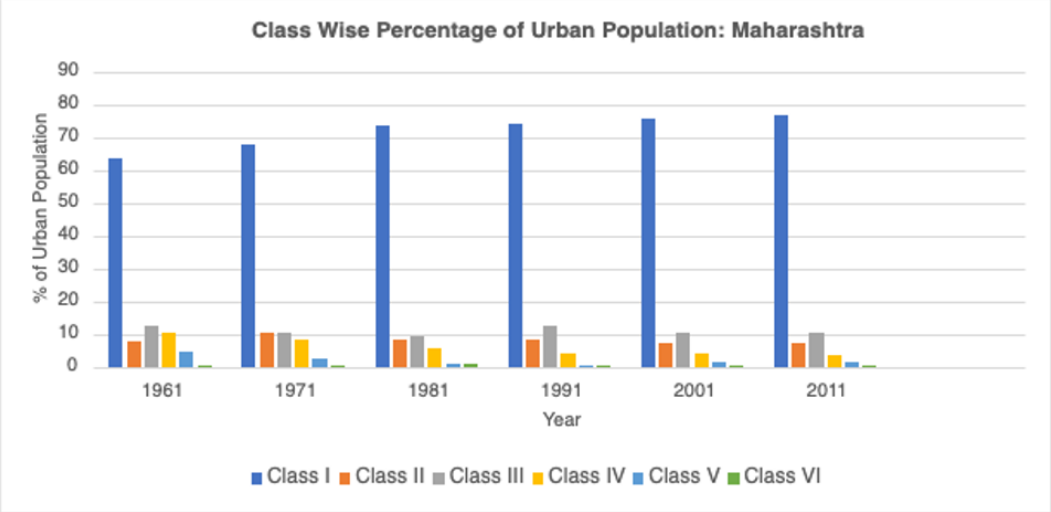
Source: *Compiled from Census of India (1961–2011).*

When evaluating the demographic weight and the actual percentage of town population across these categories, the data in Table 5.3 proves that the urban population is heavily skewed and highest in Class I towns as compared to all other classes. The population residing in Class I cities has been expanding continuously since 1961, where it stood at 63.86%, and steadily multiplied to reach an

International Journal of Advance and Applied Research
Peer Reviewed | International Open Access Journal
ISSN: 2347-7075 | Impact Factor – 8.141 | *Website:* https://ijaar.co.in/
Volume-13, Issue-5 | May – June 2026

overwhelming 76.67% in 2011. In the Class II category, the percentage of urban population started at 8.01% in 1961 and briefly increased to a peak of 10.55% in 1971, but after 1971, it showed a continuous downward trend, decreasing to 8.42% in 1981 and further dropping to 7.38% in 2011 as these towns upgraded into Class I status. Class III towns maintained the second-highest rank in population share but experienced a fluctuating trend over the study period; the share started at 12.53% in 1961, decreased down to 9.66% in 1981, increased to 12.39% in 1991, dropped again to 10.29% in 2001, and finally settled with a slight increase at 10.45% in 2011. For the lower-tier settlements, the percentage of population in Class IV towns decreased continuously and rapidly from 10.46% in 1961 down to a minor 3.63% in 2011. The population in Class V towns followed a similar weakening trajectory, falling from 4.77% in 1961 down to 0.68% in 1991, before rising slightly to 1.71% in 2001 and ending at 1.66% in 2011. The demographic contribution of Class VI towns remained negligible throughout, always staying below 1% across the entire timeline, except for a brief rise to 1.11% in 1981, ultimately closing at just 0.21% in 2011.

Figure 4. *Size-Class Distribution of Urban Population in Maharashtra (Percentage Share)*



Source: *Based on Census of India (1961–2011).*

In conclusion, the overall trend demonstrates that while the physical number of mid-tier towns is expanding, the proportional population concentration is rapidly increasing in Class I large cities while decreasing or stagnating across all other lower classes in Maharashtra. The Class I cities are expanding at a much faster rate and their contribution to the progress of urbanization is completely overwhelming. This rapid growth is directly tied to the rural-to-urban migration pipeline, as migrants are strongly drawn to these large metropolitan hubs due to the concentrated availability of industrial jobs, higher education institutions, specialized hospital facilities, and superior civic infrastructure that smaller class towns cannot provide.

International Journal of Advance and Applied Research
Peer Reviewed | International Open Access Journal
ISSN: 2347-7075 | Impact Factor – 8.141 | *Website:* https://ijaar.co.in/
Volume-13, Issue-5 | May – June 2026

2.4 Spatial Patterns of District-Wise Urbanization and Growth Rates:

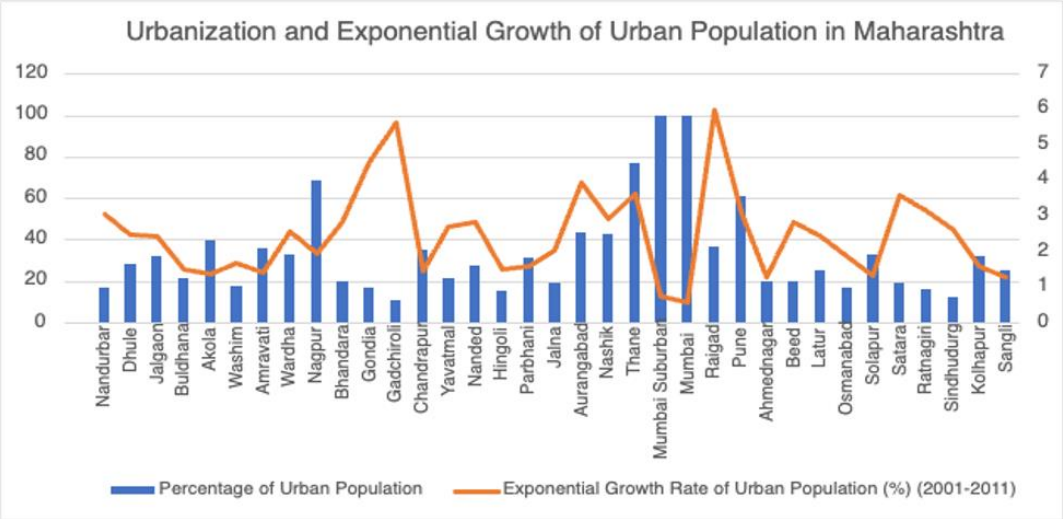
Table 4: *Urban Population Distribution and Exponential Growth Rates Across Districts*

Sr. No.	District	Total Population (in Millions)	Urban Population (in Millions)	Percentage of Urban Population	Exponential Growth Rate (2002-2011)
1	Nandurbar	1.65	0.28	16.72	3.06
2	Dhule	2.05	0.57	27.91	2.49
3	Jalgaon	4.22	1.34	31.8	2.44
4	Buldhana	2.59	0.55	21.23	1.49
5	Akola	1.82	0.72	39.69	1.4
6	Washim	1.2	0.21	17.69	1.71
7	Amravati	2.89	1.04	35.9	1.42
8	Wardha	1.3	0.42	32.47	2.58
9	Nagpur	4.65	3.18	68.3	1.96
10	Bhandara	1.2	0.23	19.5	2.85
11	Gondia	1.32	0.23	17.07	4.53
12	Gadchiroli	1.07	0.12	11	5.62
13	Chandrapur	2.19	0.77	35.08	1.46
14	Yavatmal	2.78	0.6	21.59	2.7
15	Nanded	3.36	0.91	27.23	2.82
16	Hingoli	1.18	0.18	15.17	1.5
17	Parbhani	1.84	0.57	31.04	1.61
18	Jalna	1.96	0.38	19.26	2.03
19	Aurangabad	3.7	1.62	43.74	3.97
20	Nashik	6.11	2.6	42.53	2.93
21	Thane	11.05	8.5	76.92	3.65
22	Mumbai Suburban	9.33	9.33	100	0.77
23	Mumbai	3.15	3.15	100	0.56
24	Raigad	2.64	0.97	36.91	5.98
25	Pune	9.43	5.74	60.89	3.12
26	Ahmednagar	4.54	0.91	20.1	1.28
27	Beed	2.59	0.51	19.9	2.85
28	Latur	2.46	0.63	25.47	2.44
29	Osmanabad	1.66	0.28	16.96	1.88
30	Solapur	4.32	1.4	32.4	1.32
31	Satara	3	0.57	18.98	3.59
32	Ratnagiri	1.61	0.26	16.35	3.16
33	Sindhudurg	0.85	0.11	12.6	2.62
34	Kolhapur	3.87	1.23	31.75	1.58
35	Sangli	2.82	0.72	25.51	1.28
	Maharashtra	112.37	50.83	45.23	2.12

Source: compiled by author based on census data

International Journal of Advance and Applied Research
Peer Reviewed | International Open Access Journal
ISSN: 2347-7075 | Impact Factor – 8.141 | *Website:* https://ijaar.co.in/
Volume-13, Issue-5 | May – June 2026

Figure 5. *Trends in Urbanization and Exponential Growth of Urban Population in Maharashtra*



Source: *Based on Census of India (1961–2011).*

Table 4 and the accompanying combo graph in figure 5 provide a detailed breakdown of Maharashtra's urban populations and growth speeds across its 35 districts (as per the 2011 Census). A close look at this data reveals a massive regional imbalance, as well as an exceptional demographic shift.

The table columns and the tall bars on the graph clearly show that urbanization is heavily clustered in just a few western economic hubs. Districts like Mumbai and Mumbai Suburban are 100% urbanized, followed closely by Thane (76.92%), Nagpur (68.30%), and Pune (60.89%). These massive districts act as the primary economic magnets of the state. On the other hand, the interior and eastern districts, such as Gadchiroli (11.00%) and Sindhudurg (12.60%), remain predominantly rural with very small urban populations.

The most extraordinary finding in this analysis is revealed by the exponential growth rate—represented by the final column in the table and the line running across the graph. Logically, most people assume that the districts with the largest city populations are growing the fastest. However, the mathematical data proves the exact opposite. Highly crowded mega-districts like Mumbai (0.56%) and Mumbai Suburban (0.77%) actually record the lowest urban growth speeds in the entire state. They have reached "urban saturation" and simply have no more space to expand.

Conversely, districts with very small urban populations are experiencing explosive growth. For example, Raigad (5.98%), Gadchiroli (5.62%), and Gondia (4.53%) show the highest exponential growth speeds. This proves a clear "spillover effect." Because the old metropolitan centers are completely full, industries and migrating populations are rapidly shifting into these smaller, peripheral districts, which is completely changing the future map of urbanization in Maharashtra.

3. Future Prospectus and Demographic Projections (2021–2041):

To understand how Maharashtra's city populations will grow in the future, we used a continuous population forecasting model. Since populations grow every single day—rather than just once every ten years—simply looking at ten-year Census jumps is not accurate enough for long-term planning. Because of this, this study uses a

International Journal of Advance and Applied Research
Peer Reviewed | International Open Access Journal
ISSN: 2347-7075 | Impact Factor – 8.141 | *Website:* https://ijaar.co.in/
Volume-13, Issue-5 | May – June 2026

continuous exponential growth formula to predict the future urban population:

$$P_n = P_0 e^{rt}$$

Where:

P_n= The future urban population we are predicting

P_0 = The starting urban population (50.83 million from the 2011 Census)

e = A standard mathematical constant (approximately 2.718)

r = The yearly continuous growth rate (2.12%, written as 0.0212)

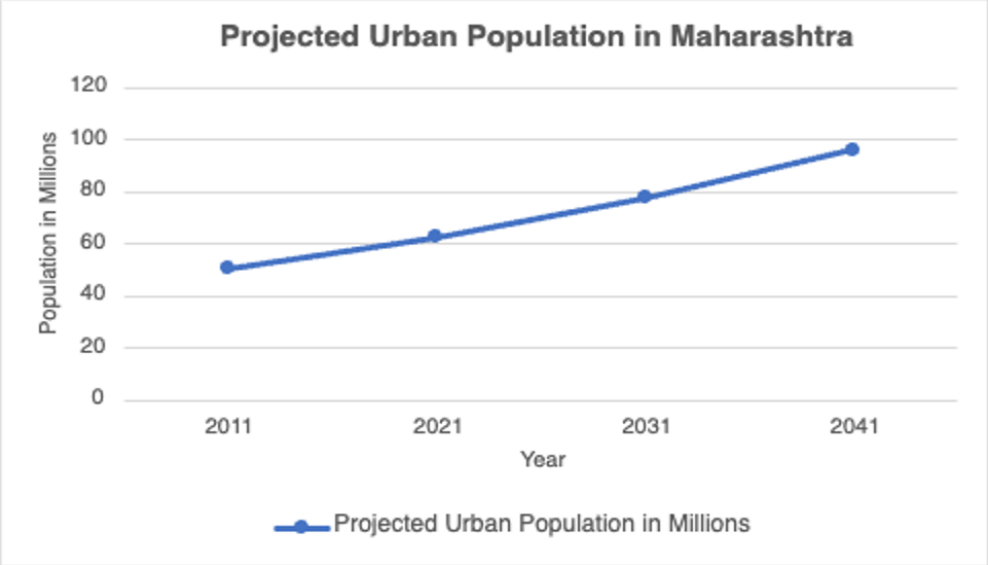
t = The number of years into the future from 2011

By applying this math to the 2011 starting data, the predicted city populations for the next thirty years are shown in Table [Z].

Table 5: *Projected Urban Population of Maharashtra (2021–2041)*

Projected Year	Time Interval (*n* years from 2011)	Projected Urban Population (in millions)
2011 (Base Year)	0	50.83
2021	10	62.83
2031	20	77.67
2041	30	96.01
***Source**: Projected by using the 2011 Census base data and continuous exponential growth formula based on the 2001-2011 stabilized growth rate of 2.12%)*		

Figure 6: *Projected Urban Population Trends in Maharashtra*



Note: *The year 2011 is used as the base year.*

Source: *Calculated by the Author using the Continuous Exponential Growth formula.*

Table 5 shows a massive future increase in Maharashtra's urban population. If the state's cities keep growing at a steady rate of 2.12% every year, the urban population will reach 62.83 million by 2021, 77.67 million by 2031, and a huge 96.01 million by 2041. Simply put, within just thirty years from the last official Census, the number of people living in Maharashtra's cities will nearly double.

This huge jump in population is a serious warning for government planners. Our earlier data

showed that major mega-cities in the western region (like Mumbai and Pune) are already running out of land, housing, and basic infrastructure. Because of this, the extra 45 million city dwellers expected by 2041 will be forced to spread outwards, creating heavy overcrowding in the surrounding areas. To prevent major social and environmental problems, the government needs to act now. Instead of focusing only on the big, crowded cities, they must invest money and build infrastructure in smaller Tier-II and Tier-III cities, so these places are ready to comfortably handle the upcoming population boom.

Conclusion:

This study establishes that Maharashtra continues to hold a dominant position in India's demographic landscape, ranking first nationwide in total urban population and accounting for over 13% of the country's entire urban demographic. Temporally, the state has witnessed an aggressive transition; between 1991 and 2011 alone, the urban population expanded dramatically from 30.54 million to 50.83 million, representing a decadal increase of 23.67% driven heavily by domestic and rural-to-urban migration. However, a deeper mathematical analysis of the continuous exponential growth rate introduces a critical new finding: while absolute numbers are breaking records, the actual yearly velocity of this urban expansion has steadily cooled down to a fifty-year low of 2.12%.

The spatial distribution of this growth remains highly heterogeneous and imbalanced across the state. Urbanization is starkly concentrated in the western corridor, led by Mumbai and Mumbai Suburban which are 100% urbanized, followed closely by major metropolitan hubs like Thane, Pune, Nashik, and Nagpur. In sharp contrast, the eastern and interior regions, particularly across the Marathwada and Vidarbha belts, exhibit the lowest levels of urbanization, anchored by heavily rural districts like Sindhudurg and Gadchiroli. Crucially, your exponential growth data reveals a unique paradox within this regional imbalance: the crowded mega-cities of the west have hit "urban saturation," dropping to stagnant growth rates below 1%, which is forcing an exceptional "spillover effect" that drives the fastest exponential growth speeds into peripheral and less-urbanized districts like Raigad and Gadchiroli.

Looking toward the future prospectus, continuous exponential projections reveal that Maharashtra's urban population will nearly double from its baseline, climbing steadily to 62.83 million in 2021, 77.67 million in 2031, and culminating at an astounding 96.01 million by 2041. As the state's urban share accelerates, it will inevitably trigger severe infrastructural, environmental, and socio-economic challenges. Because the traditional metropolitan centers have exhausted their carrying capacity, these future millions will spill directly into emerging tier-II towns and rural fringes. Therefore, this study provides vital guidelines for regional planners, proving that future policy must urgently pivot away from saturated mega-cities and focus instead on developing sustainable infrastructure in Maharashtra's rapidly expanding peripheral districts.

References:

1. Bhagat, R. B. (2018, May). *Urbanisation in India: Trend, pattern and policy issues* (IIPS Working Paper No. 17). International Institute for Population Sciences.
2. Bhagat, R. B. (1992). Components of urban growth in India with reference to Haryana: Findings from recent censuses. Nagarlok, 25(3), pp 10–14.
3. Bhagat, R. B. (2011). Emerging pattern of urbanization in India. Economic and Political

Weekly, 46(34), 10–12. http://www.jstor.org/stable/23017782

4. 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. https://doi.org/10.1080/17441730902790024
5. Bhosale, S. R. (2022). An analysis of urbanisation trends in Maharashtra: Issues and perspectives. ShodhSamhita, 9(2), 629–641.
6. Census of India. (2011). Provisional Population Totals, Paper 2, Volume 2 of 2011: Rural-Urban Distribution, Maharashtra Series 28. Directorate of Census Operations, Maharashtra.
7. Jawahar L. Chaudhari. (2023). URBANIZATION TRENDS IN MAHARASHTRA IN INDIA. Elementary Education Online, 20(3), 4363–4370.
8. Dikshit, K. R. (1986). Maharashtra in Maps. Maharashtra State Board for Literature and Culture, Bombay.
9. Directorate of Census Operations, Maharashtra. (1991). General Population Tables, Series 14, Table A-IV: Towns and Urban Agglomerations Classified by Population with Variation since 1901. Office of the Registrar General & Census Commissioner, India. Mumbai.
10. Directorate of Census Operations, Maharashtra. (2001). District Census Handbook: Primary Census Abstract, Series 28, Maharashtra. Office of the Registrar General & Census Commissioner, India. Mumbai.
11. Directorate of Economics and Statistics. (2017). Economic survey of Maharashtra 2016-2017. Planning Department, Government of Maharashtra.
12. Deshingkar, P., & Akter, S. (2009). Migration and human development in India. United Nations Development Programme Human Development Reports, Research Paper 2009/13.
13. Gadhe, U. N., Thakur, A. M., & Nazir, N. (2024). Changing pattern and trend of Lok Sabha verdict in Maharashtra. Scholarly Research Journal for Humanity Science & English Language, 12(66), 83–98. Https://doi.org/10.5281/ZENODO.14591542
14. Gadhe, U. N., Pednekar, S., & Nazir, N. (2025). Understanding the Literacy along the Konkan division: A comparative study across Districts. Scholarly Research Journal for Interdisciplinary Studies, 13(86), 181–191. Https://doi.org/10.5281/zenodo.14794126
15. Government of Maharashtra. (2023). Economic Survey of Maharashtra 2022-23. Directorate of Economics and Statistics, Planning Department, Mumbai.
16. Hussain, M. (2015). Geography of India. McGraw-Hill Education.
17. Kundu, A. (2011). Trends and processes of urbanization in India. Urbanization and emerging population issues, 6, 1-28.
18. Khadke, P. A., & Waghmare, P. B. (2017). Level of urbanisation and their disparities in Maharashtra State. Scholarly Research Journal for Interdisciplinary Studies, 4(35), 5953–5964.
19. Khadke, P. A., & Waghmare, P. B. (2018). Class and size wise distribution of urban centre and their determinants in Maharashtra. Research Review International Journal of Multidisciplinary, 3(8), 722–730.
20. Mulimani, A. A., & Morab, S. J. (2012). Spatial patterns of urbanization in Maharashtra: A geographical analysis.

National Geographical Journal of India, 58(2), 45–54.

21. Muluk, D. D., & Musmade, A. H. (2021). An assessment of district-wise urbanization growth of Maharashtra. Journal of the Maharaja Sayajirao University of Baroda, 55(2), 185–191.
22. Phadke, V. S., & Sita, K. (1981). Spatial patterns of urbanisation in Maharashtra. Population Geography, 3(1), 11–28.
23. Office of the Registrar General and Census Commissioner, India. (2011). Census of India. Ministry of Home Affairs, Government of India. https://censusindia.gov.in/census.website/
24. Pradhan, K. C. (2013). Unacknowledged urbanization: New census towns of India. Economic and Political Weekly, 48(36), 43-51.
25. Roy, A. K., & Saha, M. (2023). Emerging trends and patterns of urbanization and its contribution from migration in Gujarat: Evidence from district level analysis. Frontiers in Sustainable Cities, 5. https://doi.org/10.3389/frsc.2023.985278
26. Shaw, A. (2005). Peri-urban interface of Indian cities: Growth, governance and local initiatives. Economic and Political Weekly, 40(2), 129-136.
27. Salunke, V. S. (2019). Study of urbanization trends in western Maharashtra, Maharashtra Bhugolshastra Sanshodhan Patrika, 36(2), 67-71.
28. Salunke, V. S., Pathare, A. R., and Kudnar, N. S. (2021). An empirical analysis of emerging trend and pattern of urbanization in Maharashtra State, India. Urban India, 41(2), 250-270.
29. Shaban, A. (2012). Divergent growth and regional disparities in Maharashtra. Rawat Publications.
30. Shinde, R. P. (2016). Regional disparities in the levels of economic development in districts of Maharashtra. International Research Journal of Management Sociology & Humanity, 7(9), 212–220.
31. United Nations. (2015). Transforming our world: the 2030 Agenda for Sustainable Development. Department of Economic and Social Affairs.
32. Waghmare, P. B., and Khadke, P. A. (2014). Trends of urbanization in Nanded district of Maharashtra State. European Academic Research 2(2), 2970-2980.
33. World Bank. (n.d.). Urban population (% of total population). World Bank Open Data. Retrieved June 26, 2026, from https://data.worldbank.org/indicator/SP.URB.TOTL.IN.ZS