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Transformation of Urban Population Growth in Maharashtra (1971-2021): Dynamics, Drivers, And Emerging Spatial Patterns

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Abstract

This research paper demographic analysis examines the fundamental transformation of urban population dynamics in Maharashtra between the census years of 1971 and 2021. This period is defined by critical shifts in both national census definitions and subsequent economic liberalization policies. Maharashtra is recognized as one of India's most urbanized major states, with 45.2% of its population residing in urban areas in 2011, and projections indicating it are approaching 50% urbanization (48.5% projected in 2023). Utilizing time-series census data and demographic decomposition methods, the study identifies a structural transition in the sources of urban growth. While the state's overall decadal growth rate decelerated post 2001, urban expansion was sustained by the increasing relative contributions of administrative reclassification and persistent net migration. The 2001–2011 periods saw the formal recognition of 279 Census Towns (CTs) in Maharashtra, significantly inflating the recorded urban increment. Spatially, urbanization remains highly concentrated, with Class I cities (population average 100,000) accounting for 76.67% of the state's urban inhabitants by 2011. The transformation is fundamentally driven by the shift towards high-value services and specialized manufacturing following the 1991 economic reforms, which amplified the competitive advantages of metropolitan hubs like Pune and Nashik. This rapid, concentrated growth, however, has exposed a severe administrative crisis characterized by pervasive developmental disparity and infrastructure strain in Census Towns, which lack statutory urban governance.

Keywords: Maharashtra, Urbanization, Demographic Components, Census Towns

Introduction

1. Global and National Context of Urban Transition

The global demographic landscape of the 20th and 21st centuries is defined by a rapid shift of populations from rural to urban areas. India plays a crucial role in this transition, expected to lead the world's urban population surge alongside China and the United States by 2050. Urbanization is intrinsically linked to modernization, industrialization, and the consequential growth of secondary and tertiary economic activities.

Maharashtra stands as a critical nexus in India's urbanization narrative. It is the second most populous state in the country, after Uttar Pradesh. With 50.8 million urban inhabitants in 2011, Maharashtra accounted for 13.5 per cent of India's total urban population. In 2011, the state's level of urbanization stood at 45.2 per cent, significantly higher than the national average of 31.2 per cent, confirming its status as the third most urbanized major state. This high degree of urbanization reflects Maharashtra's historical and contemporary economic dynamism.

2. Rationale and Significance of the 1971-2021 Period

The period from 1971 to 2021 encapsulates two fundamental shifts that dictated the direction of urban growth in Maharashtra. First, the 1971 Census standardized the methodological baseline for analyzing urbanization by adopting a consistent, dual definition of urban areas. This definition included: (1) **Statutory Towns** (with municipal corporations, committees, or cantonment boards), and (2) **Census Towns** (meeting demographic and economic criteria: population average 5,000; density average 400 persons per sq. km; and average 75 per cent of the male main working population engaged in non-agricultural activities). Furthermore, the 1971 Census introduced the concept of the Urban Agglomeration (UA), recognizing contiguous urban spreads and their outgrowths, providing a more nuanced approach to classifying rapidly expanding metropolitan regions.

Second, the structural economic changes initiated by liberalization policies in the late 1980's and early 1990's dramatically altered the spatial and sectorial drivers of urban growth. Prior to 1991, the state's share of the secondary sector in the State Domestic Product had stagnated around 33 to 34 per cent since the 1970s. This stagnation, compounded by national industrial control and location policies that inhibited labor using, export oriented manufacturing, suggests that the urbanization tempo before 1991 was potentially suppressed relative to the state's economic potential.

The subsequent rapid, concentrated growth observed in cities like Pune and Nashik post 1992 is interpreted not merely as natural demographic momentum but as a delayed and geographically localized response to corrected policy direction and the opening of the economy.

A demographic consequence of Maharashtra's economic orientation is the persistent urban socio-demographic imbalance. While the state's overall sex ratio showed a modest increase from 922 in 2001 to 929 in 2011, the urban sex ratio remained substantially lower than the rural ratio (899 urban versus 948 rural in 2011). This gap highlights that economic migration remains predominantly male-led, focused on the job opportunities concentrated in urban centers, thereby maintaining a clear socio demographic disparity within the city populations.

Objectives

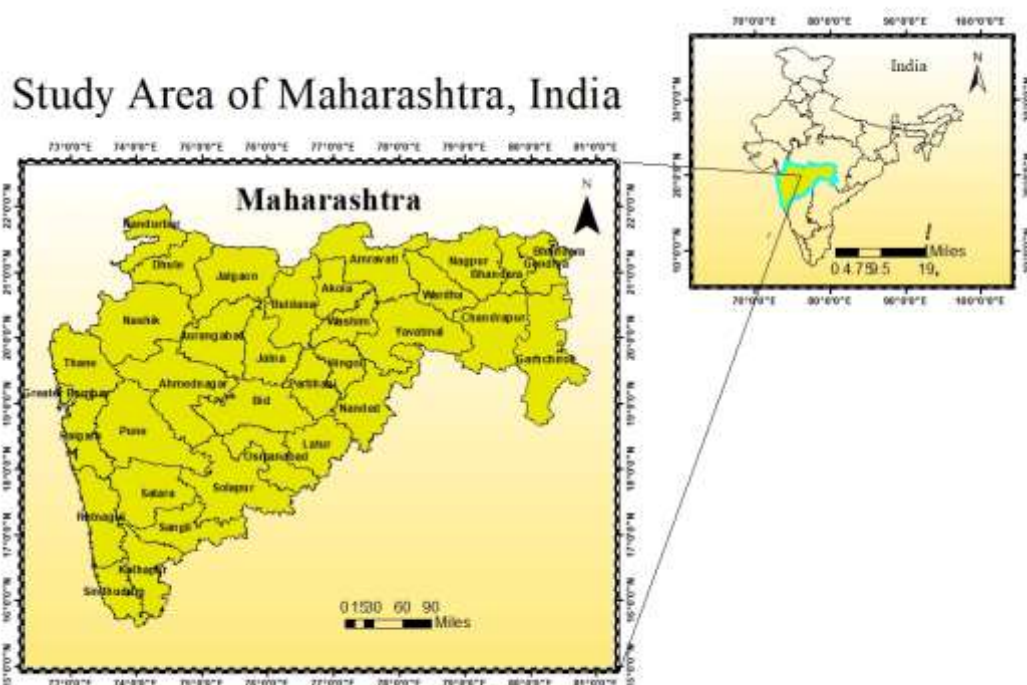
The primary objectives of this research paper are structured to provide a comprehensive analysis of the transformation of urban population growth in Maharashtra:

- To analyze the decadal variation in urban population growth rates and the tempo of urbanization in Maharashtra over the five decades (1971–2021).
- To quantify the relative contribution of natural increase, net migration, and reclassification to urban population growth, examining the shifting dominance of these demographic components.
- To assess the spatial transformation of urbanization, focusing on the hyper-concentration of population in Class I cities and the role of peri-urban sprawl in major Urban Agglomerations (UAs).
- To evaluate how pre and post liberalization economic policies have dictated urban demographic patterns and distribution.
- To highlight the administrative and developmental challenges resulting from the prevalence of non-statutory Census Towns (CTs) and the consequential strain on housing and civic infrastructure.

Study Area

Maharashtra covers 307713 Sq. km. of area. Latitudinal extent between 15°48' north to 22°6' north the longitudinal extension is from 72°36' east to 80°54' east with an estimated area of about 9.37% of the total geographical area of India. Maharashtra ranked 3rd after Rajasthan and Madhya Pradesh state. The state marks the geographical and cultural transition between north and south, since its near central location in Peninsular India. The state has a greater east-west extent than North-south and occupies nearly right-angle triangle shape. The hypotenuse of the right angle triangle is oriented in a northeast to south-west direction. The west coast forms a base of the triangle on which the Satpura mountain trend is perpendicular.

The western boundary of the state is bordered by the Arabian Sea the state of Gujarat and the Union territory Dadara and Nagar Hawely. The north-west of Maharashtra Madhya Pradesh is towards the north and east while Chhattisgarh to the east of Maharashtra. Andhra Pradesh is the south-east of Maharashtra, where Karnataka and Goa located to the South of the state. The west coastline of 720 km from the Arabian Sea.



Data Base and Methodology

1. Data Sources

The foundational data for this analysis are derived from official sources, primarily the decennial Census of India reports 1971 to 2011, published by the Registrar General of India (RGI) and the Directorate of Economics and Statistics (DES), Government of Maharashtra.

These sources provide time-series statistics on total population, urban population totals, percentage urbanization, decadal growth rates, and key demographic indicators like sex ratio and population density. For the period beyond 2011,

population projections (up to 2021 and 2023) published by bodies such as the National Commission and NITI Aayog are utilized to contextualize recent trends. The methodology also incorporates established scholarly working papers that detail the components of urban growth and the administrative history of urban classification in India.

2. Definitions and Classification

A robust demographic analysis of urbanization requires adherence to the consistent criteria established by the Indian Census since 1971. Urban areas are categorized primarily as:

1. **Statutory Towns (STs):** Places with a municipality, corporation, cantonment board, or notified town area committee. There were 4,041 Statutory Towns across India in 2011, up from 3,799 in 2001.
2. **Census Towns (CTs):** Areas that fulfill the demographic and economic criteria (population average 5,000; density $\geq$ 400 persons per sq. km; and average 75 per cent of the male main working population engaged in non-agricultural activities) but lack statutory municipal governance.

The presence of Census Towns represents a critical administrative ambiguity: these settlements are demographically urban but remain classified as rural for administrative purposes, often being governed by *Gram Panchayats*. This governance deficit is central to understanding developmental disparities in urban growth. Additionally, the analysis focuses heavily on **Class I Cities**, defined as having a population of 100,000 or more. These large cities are the primary vectors of economic growth and migration absorption in Maharashtra.

3. Analytical Frameworks: Demographic Decomposition

To analyze the transformation in urban growth, the study employs the demographic decomposition model, which segregates the total urban population increment (Delta U) into three constituent components:

Where:

- NI = Natural Increase (births minus deaths)
- NM = Net Migration (in-migrants minus out-migrants, including international, inter-state, and rural-to-urban)
- RC = Reclassification (the change in status of a settlement from rural to urban, or boundary changes in existing urban areas)

This framework is essential for determining whether urban growth is driven internally by fertility decline (NI) or externally by administrative factors (RC) and economic pull (NM).

The empirical foundation for Maharashtra's growth trajectory is presented below:

Table No. 1.1

Level and Decadal Growth of Urban Population in Maharashtra (1971-2011)

Year	Total Population (Crore)	Urban Population (Crore)	Percentage Urban	Decadal Urban Growth Rate (%)
1971	5.04	1.57	31.2	N/A
1981	6.28	2.20	35.0	40.13
1991	7.89	3.05	38.7	38.64
2001	9.69	4.11	42.4	34.75
2011	11.24	5.08	45.2	23.60

Source: Compiled from DES, Government of Maharashtra and ORGI Census data.

Results And Discussion

1. Shifting Dynamics of Urban Growth and Deceleration (1971–2021)

The analysis of decadal growth rates reveals a clear, phased deceleration in the tempo of urbanization in Maharashtra, particularly after the turn of the century. During the 1971-1991 period, driven by relatively high industrial growth and policy settings, urban growth rates remained robust, peaking at 40.13 per cent of during 1971–1981, and sustaining a high rate of 38.64 per cent in 1981-1991.

However, the period post-2001 marked a significant structural shift. The decadal urban growth rate (DGR) dropped sharply to 23.60 per cent during 2001-2011. Correspondingly, the state's overall population DGR during 2001-2011 was 16.0 per cent, which, for the first time since independence (except 1971), was lower than the national average. This deceleration in the overall state population DGR is symptomatic of demographic maturation, improved socio-economic conditions, and increased health awareness.

Despite the overall slowdown, the fundamental urban transition is evident in the urban-rural growth differential. During 2001-2011, the growth rate for urban areas (23.67 per cent) significantly outpaced the growth rate for rural areas (10.34 per cent). The dramatic decline in the urban DGR from the high 30s to the low 20s suggests a significant reduction in the Natural Increase (NI) component of urban growth. This reduction implies that urban areas experienced faster declines in fertility and mortality compared to rural areas during this decade. Consequently, the sustained growth of Maharashtra's urban population in the future is becoming critically dependent on external factors namely, sustained economic opportunities driving migration and flexible administrative practices enabling timely reclassification of settlements.

2. Deconstructing Urban Population Change: Components Analysis

Historically, Natural Increase constituted the dominant factor in India's urban population growth. However, recent decades show a transformative change in the structural components driving this growth. Although state specific decomposition data for Maharashtra is not directly provided in the available material, national trends establish a powerful interpretative framework.

The table no 1.2 illustrates that the share of Natural Increase declined sharply in the 2001–2011 decade (dropping to 43.8 per cent), while the combined contribution of Net Migration (NM) and Reclassification (RC) gained structural importance.

Table No. 1.2

Estimated Contribution of Components to Urban Growth in India (1971-2011)

Decade	Urban Increment (Million)	Natural Increase (%)	Net Migration (%)	Reclassification/Boundary Change (%)
1971–1981	49.9	50.0	18.6	18.7
1981–1991	56.8	62.3	18.7	17.3
2001–2011	91.0	43.8	20.6	35.6 (Combined RC/Boundary Change)

Source: Adapted from Datta & Nandan, 2010 and Census of India data.

The Role of Reclassification

The period 2001–2011 saw a substantial administrative shock to urban growth measurement. Maharashtra contributed to this national trend by having 279 Census Towns recognized in 2011. This high incidence indicates that a significant portion of the urban growth recorded during the decade was derived not from new population growth *within* existing cities, but from the statistical recognition of previously rural settlements that had attained urban characteristics. This phenomenon reveals that the true urbanization level of Maharashtra had been higher than officially recorded in prior censuses.

Sustained Net Migration

Maharashtra remains a premier destination for internal migration in India, alongside Gujarat and West Bengal. This continuous influx of people seeking economic opportunities and better amenities provides sustained support for the urban population increment, particularly in the major urban agglomerations. Key drivers identified for rural-to-urban migration include the prospect of better employment opportunities, the emergence of advanced agricultural technologies reducing rural labor demand, and expanded transport and media access connecting rural areas to cities. This continued migration sustains high population densities in peripheral districts, such as Mumbai Suburban, where density increased significantly between 2001 and 2011.

3. Spatial Hierarchy and Hyper-Concentration

The transformation of urbanization in Maharashtra is not only structural but profoundly spatial, characterized by extreme concentration of population in large metropolitan centers.

Table No. 1.3

Concentration of Urban Population in Class I Cities in Maharashtra (2011 Census)

Urban Category	Percentage of Total Urban Population (2011)	Number of Centers (2011)	Key Implication
Class I Cities (average 100,000)	76.67%	44	Hyper-concentration, resource strain
Other Towns (< 100,000)	23.33%	N/A	Limited role in overall urban growth

Source: Based on Census of India, 2011 data.

The table no. 1.3 shows that figures demonstrate that the vast majority of Maharashtra's urban population (76.67 per cent) resides in Class I cities, emphasizing a pattern of urban primacy. The concentration in these 44 centers reveals a massive disparity in economic vitality and population attraction compared to smaller towns, whose contribution to the overall urban population is relatively limited. The population of the Greater Mumbai Urban Agglomeration (UA) alone was 18.41 million in 2011, making it the country's largest UA.

The Rise of Secondary Hubs

While Mumbai remains dominant, the transformation includes the rapid ascent of other major hubs. Six districts—Thane, Pune, Mumbai Suburban, Nashik, Nagpur, and Ahmednagar collectively accounted for 40.17 per cent of the state's total population in 2011.

Post-1991 liberalization significantly intensified growth in these secondary hubs. Pune, for example, saw its urban built-up area expansion rate nearly double after 1992, growing from 2 km² per annum between 1973 and 1992 to 3.9 km² per annum between 1992 and 2013. This spatial growth is directly correlated with Pune's emergence as a major center for industry and services. Similarly, Nashik, traditionally a pilgrimage center, has successfully leveraged its skill based manufacturing, IT, and automotive sectors to transform into a planned Smart City. The city's population, which was 1.48 million in 2011, was projected to reach 2.12 million by 2021, illustrating the immense pressure for expanded infrastructure driven by sectorial growth.

4. Policy and Economic Drivers of Transformation

The pattern of urban growth in Maharashtra is inextricably linked to shifts in industrial and economic policies. Pre-liberalization policies, which included industrial reservation for small scale production and policies aimed at industrial dispersal, frequently inhibited the growth of labor using, export oriented manufacturing in urban centers. These restrictions contributed to low rates of urbanization observed in India during the 1990s and, arguably, suppressed Maharashtra's full urban potential despite its economic foundation.

The shift after 1991 catalyzed a revival in the manufacturing sector and led to a profound focus on high-value services. In an increasingly open economy, the competitiveness of Maharashtra's cities became fundamentally dependent on the efficiency and pricing of non-tradable services specifically, infrastructure quality and human resource development.

States that were already highly urbanized, such as Maharashtra, recorded higher economic growth rates following liberalization. This correlation suggests the presence of a positive feedback loop existing efficient infrastructure and a concentration of skilled human capital in major cities attracted investment and higher economic activity, which, in turn, acted as a stronger magnet for continued migration and population clustering. However, this concentrated growth quickly generates its own limitations. Urban real estate markets and inadequate physical infrastructure (roads, housing, utilities) have been identified as the single most significant constraint on sustaining high growth rates in the post-liberalization era.

5. Administrative Challenges and Developmental Disparities

A crucial and urgent outcome of the transformation is the widening administrative gap, primarily manifested in the proliferation of Census Towns (CTs). Maharashtra's 279 Census Towns embody areas that are functionally urban but administratively rural. This anomaly leads to a severe deficit in urban governance.

Because CTs lack statutory municipal status, they are governed by rural Gram Panchayats and are generally excluded from urban focused Central government assistance schemes, such as those governed by the 14th Finance Commission and the Atal Mission for Rejuvenation and Urban Transformation (AMRUT). Research confirms significant developmental disparities: studies using ward-level data indicate that wards within CTs exhibit lower levels of development and service provision compared to wards in statutory Municipal Corporations.

The demographic success achieved through the reclassification of these settlements into urban metrics has, ironically, exposed a critical administrative failure. This rapid, largely unregulated growth in peri-urban CTs results in immense pressure on infrastructure, including massive housing shortages, straining public services, and generating environmental concerns, including waste management difficulties. A staggering 23 per cent of Maharashtra's urban population resided in slums in 2011.

The proliferation of slums and land acquisition bottlenecks are persistent challenges. The Ministry of Urban Development has recognized this critical issue, urging states like Maharashtra to convert these Census Towns into statutory Urban Local Bodies (ULBs) to enable planned and coordinated infrastructure development, enhance revenue generation, and ensure efficient service delivery. Failure to formalize the governance structure risks losing the opportunity for planned urban development due, to construction and infrastructure provisioning.

Conclusions

The analysis of urban population growth in Maharashtra from 1971 to 2021 demonstrates a complex demographic transformation characterized by maturation, structural shifts, and pronounced spatial disparities.

1. **Maturation and Structural Dependence:** The tempo of urban growth has moderated since the 1990s, reflecting the demographic maturation and faster decline in fertility rates within urban centers. Future urban population growth is structurally dependent on sustained net migration driven by economic opportunities and the administrative inclusion of existing settlements through reclassification.
2. **Hyper-Concentration and Economic Drivers:** Urbanization is hyper-concentrated in Class I cities, which absorbed over three quarters of the urban population by 2011. This pattern is a direct consequence of post 1991 economic liberalization, which favored highly competitive, infrastructure rich hubs (Mumbai, Pune, Nashik) specializing in services and advanced manufacturing.
3. **Administrative and Infrastructure Crisis:** The significant contribution of reclassification to urban growth, exemplified by the 279 Census Towns in Maharashtra, has revealed a crucial governance deficit. These settlements, being functional urban areas without statutory status, face severe developmental disparities, lack access to necessary central urban funding, and drive much of the state's housing deficit and infrastructure strain, including extensive slum proliferation.

To sustain its economic momentum, Maharashtra must transition from merely recognizing urbanization statistically to governing it effectively. Immediate policy action is required to enforce the conversion of Census Towns into functional Urban Local Bodies to integrate these rapidly growing peripheries into formal urban planning and finance structures, thereby mitigating the transfer of infrastructure strain from the core cities to the vulnerable peri-urban areas. Continued, planned investment in sustainable infrastructure (transport, water, and housing) across all major Urban Agglomerations is essential to prevent infrastructure bottlenecks from constraining the state's potential for sustained high economic growth.

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Conflicts of interest

The authors declare that there are no conflicts of interest regarding the publication of this paper

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