



# DENSITY OF POPULATION IN INDIA: AN ANALYSIS

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## ABSTRACT

*Population density refers to how people spread out within a geographical area. India has highly uneven pattern of population distribution. In this paper States and UTs wise detailed analysis of population density was analyzed. The study uses secondary data available in the Census 2011. For data analysis tabulates it accordingly and represented throw graphs. Bihar has a significantly high density of 1,106 people sq km, making it the most densely populated large state. West Bengal (1,028) and Kerala (860) also have high population densities. These are generally states with fertile plains, good infrastructure and historical population growth. States in the North-Eastern Region (e.g., Arunachal Pradesh, Mizoram, Sikkim, Nagaland, Meghalaya) and mountainous or desert States (e.g., Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Rajasthan) typically have much lower population densities due to challenging terrain, forest cover or arid conditions. Arunachal Pradesh has the lowest density at just 17 people per sq km, followed by Andaman & Nicobar Island at 46.*

**KEY WORDS:** *Census of India 2011, Density of Population.*

## 1. INTRODUCTION

India is a populous country, making its demographic trends globally significant. Population size, growth, distribution, density and composition have profound implications for India's economic development, resource allocation, environmental sustainability and social well-being. Understanding these trends is crucial for effective policymaking.

India has a long history of population enumeration, with systematic decennial Censuses being conducted since 1881. This rich dataset provides a unique opportunity for longitudinal analysis.

## 2. STUDY AREA

India, is a country in South Asia, which is the seventh largest country by area; the most populous country since 2023. The population of India according to Census 2011 stood at 1,21,08,54,977 and it was accounted around 17.00% of the world. In 2011, population of India was almost equal to combined population of USA, Indonesia, Brazil, Pakistan, Bangladesh & Japan put together.

According to the Census 2011, India comprised 28 States and 7 Union Territories. Presently 28 States and 8 UTs – Andaman & Nicobar Islands, Chandigarh, Dadara & Nagar Haveli and Daman & Diu, Jammu and Kashmir, Ladakh, Lakshadweep, NCT of Delhi, and Puducherry.

India lies to between 6° 44' and 35° 30' North Latitude and 68° 7' and 97° 25' East Longitude. India measures 3214 km from North to South and 2933 km from East to West with a total land area of 3,28,263 sq km (2.40% of the world). India ranks as the 7<sup>th</sup> largest country in the world by land area after Russia, Canada, China, United States of America, Brazil and Australia.

It has a land frontier of 15,200 km and a coastline of 7516.5 km. Andaman and Nicobar Islands in the Bay of Bengal and Lakshadweep in the Arabian Sea are parts of India. The country shares its political borders with Pakistan and Afghanistan on the West and Bangladesh and Myanmar on the East. The northern boundary is made up of the China, Tibet, Nepal and Bhutan. India is separated from Sri Lanka by narrow channel of sea formed by the Palk Strait and the Gulf of Mannar.

Indian climate is strongly influenced by the Himalayas and the Thar Desert. The climate of India may be broadly described a tropical monsoon type. The Indian Meteorological Department of designates four official seasons: i) Winter Season, from December to early April, when temperatures average around 10-15°C, ii) Summer or Pre-Monsoon Season, lasting from April to June. Temperatures average around 32-40°C in most of the interior, iii) Monsoon or Rainy Season, lasting from June to September, which slowly sweeps across the country beginning in late May or early June, and iv) Post-Monsoon Season, lasting from October to December.



### 3. OBJECTIVES OF THE STUDY

The main objective of present paper is to comprehend the density of population in India across various States and Union Territories.

### 4. SOURCES OF DATA AND RESEARCH METHODOLOGY

The Census 2011 is the primary and most reliable source of data for the present study.

Acknowledging any limitations of the Census data itself (e.g. undercounting in certain regions or specific periods, changes in methodology over time, impact of historical events like famines or political unrest on data collection).

### 5. RESULTS AND DISCUSSION

The term 'Population' refers to the total number of people or inhabitants in a specific geographic area, such as a city, country or the world. Population distribution refers to how people are spread out within a geographical area. India has a highly uneven pattern of population distribution.

**Table: 01**  
**India: States and Union Territories**

Sr. No.	States & Uts	Total Population	Male Population	Female Population	Area (in sq km)	Population Density
1	JAMMU & KASHMIR @&	1,25,41,302	66,40,662	59,00,640	2,22,236	124
2	HIMACHAL PRADESH	68,64,602	34,81,873	33,82,729	55,673	123
3	PUNJAB	2,77,43,338	1,46,39,465	1,31,03,873	50,362	551
4	CHANDIGARH	10,55,450	5,80,663	4,74,787	114	9,258
5	UTTARAKHAND	1,00,86,292	51,37,773	49,48,519	53,483	189
6	HARYANA	2,53,51,462	1,34,94,734	1,18,56,728	44,212	573
7	NCT OF DELHI	1,67,87,941	89,87,326	78,00,615	1,483	11,320
8	RAJASTHAN	6,85,48,437	3,55,50,997	3,29,97,440	3,42,239	200
9	UTTAR PRADESH	19,98,12,341	10,44,80,510	9,53,31,831	2,40,928	829
10	BIHAR	10,40,99,452	5,42,78,157	4,98,21,295	94,163	1,106
11	SIKKIM	6,10,577	3,23,070	2,87,507	7,096	86
12	ARUNACHAL PRADESH	13,83,727	7,13,912	6,69,815	83,743	17
13	NAGALAND	19,78,502	10,24,649	9,53,853	16,579	119
14	MANIPUR	28,55,794	14,38,586	14,17,208	22,327	128
15	MIZORAM	10,97,206	5,55,339	5,41,867	21,081	52
16	TRIPURA	36,73,917	18,74,376	17,99,541	10,486	350
17	MEGHALAYA	29,66,889	14,91,832	14,75,057	22,429	132
18	ASSAM	3,12,05,576	1,59,39,443	1,52,66,133	78,438	398
19	WEST BENGAL	9,12,76,115	4,68,09,027	4,44,67,088	88,752	1,028
20	JHARKHAND	3,29,88,134	1,69,30,315	1,60,57,819	79,716	414
21	ODISHA	4,19,74,218	2,12,12,136	2,07,62,082	1,55,707	270
22	CHHATTISGARH	2,55,45,198	1,28,32,895	1,27,12,303	1,35,192	189
23	MADHYA PRADESH	7,26,26,809	3,76,12,306	3,50,14,503	3,08,252	236
24	GUJARAT	6,04,39,692	3,14,91,260	2,89,48,432	1,96,244	308
25	DAMAN & DIU	2,43,247	1,50,301	92,946	111	2,191
26	DADRA & NAGAR HAVELI	3,43,709	1,93,760	1,49,949	491	700
27	MAHARASHTRA	11,23,74,333	5,82,43,056	5,41,31,277	3,07,713	365
28	ANDHRA PRADESH	8,45,80,777	4,24,42,146	4,21,38,631	2,75,045	308
29	KARNATAKA	6,10,95,297	3,09,66,657	3,01,28,640	1,91,791	319
30	GOA	14,58,545	7,39,140	7,19,405	3,702	394
31	LAKSHADWEEP	64,473	33,123	31,350	30	2,149
32	KERALA	3,34,06,061	1,60,27,412	1,73,78,649	38,852	860
33	TAMIL NADU	7,21,47,030	3,61,37,975	3,60,09,055	1,30,060	555
34	PUDUCHERRY	12,47,953	6,12,511	6,35,442	,490	2,547
35	ANDAMAN & NICOBAR ISLANDS	3,80,581	2,02,871	1,77,710	8,249	46

Source: Census of India 2011, Computed by Author



The above Table: 01 provides a comprehensive overview of the demographic characteristics of India. The total population across all listed States and Union Territories is 1,21,08,54,977 according to the Census 2011. Uttar Pradesh stands out as the most populous state by a significant margin. Maharashtra, Bihar and Andhra Pradesh (undivided as per the 2011 Census) also rank among the top in terms of total population. Lakshadweep has the smallest population. Daman & Diu, Dadra & Nagar Haveli, Andaman & Nicobar Islands, and Sikkim are among the least populous regions. The average population among these States/UTs was approximately 34.6 million. The population ranges widely, from a minimum of 64,473 (Lakshadweep) to a maximum of nearly 200 million (Uttar Pradesh).

**Density of Population**

Population density is the average number of people living in a specific area. The Figure: 01 illustrates the population density of various Indian States and Union Territories, arranged in descending order from highest to lowest density.

**Key Findings**

- Extreme Urban Densities: NCT of Delhi exhibits an exceptionally high population density of 11,320 people per sq km, followed by Chandigarh (9,258) and Puducherry (2,547). This is largely due to their limited geographical area and high degree of urbanization.
- Highly Populated Large States: Bihar is the most densely populated large state with 1,106 people per sq km. West Bengal (1,028) and Kerala (860) also show high densities, attributed to their fertile plains, well-developed infrastructure, and historical population growth.
- Moderate Densities: Many states, including Uttar Pradesh, Haryana, Tamil Nadu, Punjab, and Jharkhand, show a more gradual decrease in population density, ranging from the 800s to the 300s.
- Low Densities: States in the North-Eastern Region (e.g., Arunachal Pradesh, Mizoram, Sikkim, Nagaland, Meghalaya) and mountainous or desert states (e.g., Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Rajasthan) have significantly lower population densities. This is primarily due to challenging terrain, extensive forest cover, or arid conditions.
- Lowest Density: Arunachal Pradesh records the lowest density at just 17 people per sq km, followed by the Andaman & Nicobar Islands at 46.

**Observations**

- Extreme Density in UTs/Cities: The graph immediately highlights an extremely high population density in a few specific UTs/Cities at the beginning.
- High Density in Certain States: Following the UTs, some States exhibit very high population densities. These are generally states with fertile plains, good infrastructure and historical population growth.
- Gradual Decline for Most States: After the initial steep drop, the line flattens out, indicating a more gradual decrease in population density across the majority of Indian States.
- Low Density in North-Eastern and Hilly/Desert States: The tail end of the graph represents States and UTs with very low population densities.

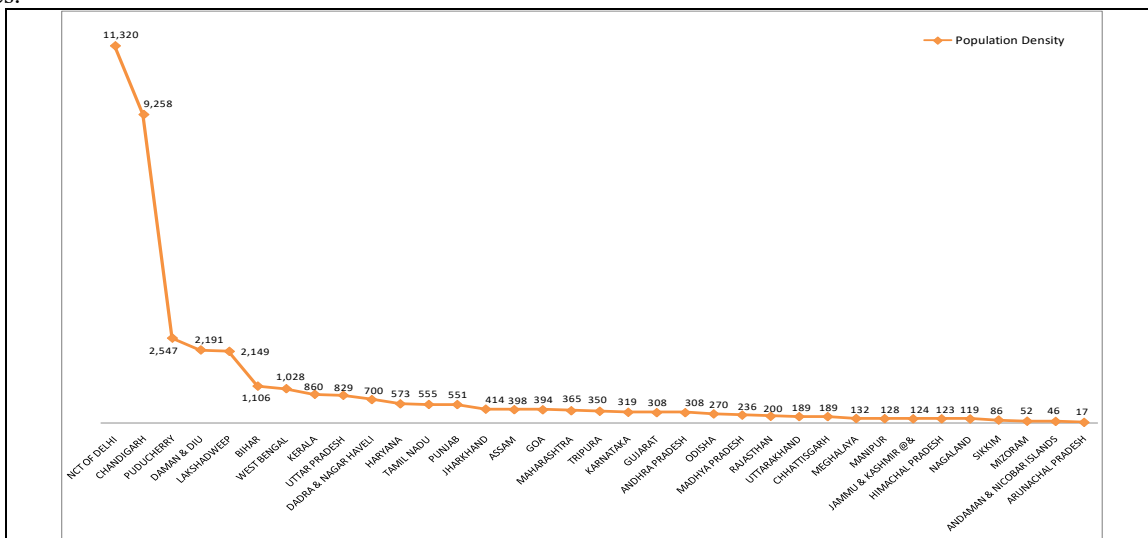


Figure: 01  
**India: States & Union Territories wise Population Density (Census 2011)**



## 6. CONCLUSION AND IMPLICATIONS

India is a populous country, making its demographic trends globally significant. Population size, growth, distribution, density and composition have profound implications for India's economic development, resource allocation, environmental sustainability and social well-being. Understanding these trends is crucial for effective policymaking.

Implications of Density: Population density has significant implications for resource allocation, infrastructure development (housing, transport, and sanitation), environmental impact and strain on public services, while low density areas may face challenges related to connectivity and access to services.

### Implications

- Demographic Transition: The India's ongoing demographic transition, where different States are at various stages of moving from high birth and death rates to low birth and death rates.
- Policy Challenges: The disparities in growth rates pose significant challenges for policy-making. States with high growth rates need to focus on education. Conversely, states with low growth might face challenges related to an aging population and labour force availability in the long run.

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