

Chapter 1 – Population: Distribution, Density, Growth and Composition

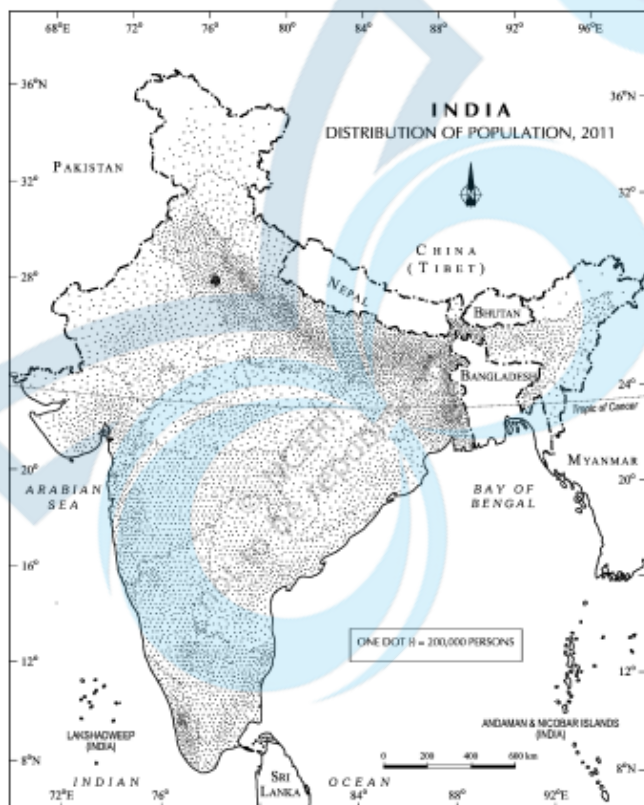
India is the second most populous country after China in the world with its total population of 1,210 million (2011). India's population is larger than the total population of North America, South America and Australia put together.

A large population invariably puts pressure on its limited resources and is also responsible for many socio-economic problems in the country.

Sources of Population Data Population data are collected through Census operation held every 10 years in our country. The first population Census in India was conducted in 1872 but its first complete Census was conducted only in 1881.

Distribution of Population

- India has a highly uneven pattern of population distribution.



- It shows that Uttar Pradesh has the highest population followed by Maharashtra, Bihar and West Bengal.

- U.P., Maharashtra, Bihar, West Bengal, Andhra Pradesh along with Tamil Nadu, Madhya Pradesh, Rajasthan, Karnataka and Gujarat, together account for about 76 per cent of the total population of the country.
- On the other hand, share of population is very small in the states like Jammu & Kashmir (1.04%), Arunachal Pradesh (0.11%) and Uttarakhand (0.84%) in spite of these states having fairly large geographical area.
- Such an uneven spatial distribution suggests a close relationship between population and physical, socio-economic and historical factors.
- As **physical factors** are concerned, climate along with terrain and availability of water largely determines the pattern of the population distribution. For example: the North Indian Plains, deltas and Coastal Plains have higher proportion of population than the interior districts of southern and central Indian States, Himalayas, some of the north eastern and the western states.
- However, development of irrigation (Rajasthan), availability of mineral and energy resources (Jharkhand) and development of transport network (Peninsular States) have resulted in moderate to high concentration of population in areas which were previously very thinly populated.
- Among the socio-economic and historical factors of distribution of population, important ones are evolution of settled agriculture and agricultural development, pattern of human settlement, development of transport network, industrialisation and urbanisation.
- The regions falling in the river plains and coastal areas of India have remained the regions of larger population concentration.
- On the other hand, the urban regions of Delhi, Mumbai, Kolkata, Bengaluru, Pune, Ahmedabad, Chennai and Jaipur have high concentration of population due to industrial development and urbanisation

drawing a large number of rural-urban migrants.

Density of Population

- It is expressed as number of persons per unit area.
- The density of population in India (2011) is 382 persons per sq km.
- There has been a steady increase of more than 200 persons per sq km over the last 50 years as the density of population increased from 117 persons/ sq km in 1951 to 382 persons/sq km in 2011.
- The spatial variation of population densities ranges from as low as 17 persons per sq km in Arunachal Pradesh to 11,297 persons in the National Capital Territory of Delhi.
- Among the northern Indian States, Bihar (1102), West Bengal (1029) and Uttar Pradesh (828) have higher densities, while Kerala (859) and Tamil Nadu (555) have higher densities among the peninsular Indian states.
- States like Assam, Gujarat, Andhra Pradesh, Haryana, Jharkhand, Odisha have moderate densities.
- The hill states of the Himalayan region and North eastern states of India (excluding Assam) have relatively low densities while the Union Territories (excluding Andaman and Nicobar Island) have very high densities of population.

- To get a better insight into the human-land ratio in terms of pressure of population on total cultivable land, the physiological and the agricultural densities should be found out which are significant for a country like India having a large agricultural population.

Physiological density = total population / net cultivated area

Agricultural density = total agricultural population / net cultivable area

Agricultural population includes cultivators and agricultural labourers and their family members.

Growth of Population

- It is the change in the number of people living in a particular area between two points of time. Its rate is expressed in percentage. Population growth has two components namely: natural and induced.
- While the natural growth is analysed by assessing the crude birth and death rates, the induced components are explained by the volume of inward and outward movement of people in any given area
- The decadal and annual growth rates of population in India are both very high and steadily increasing over time. The annual growth rate of India's population is 1.64 per cent (2011). It has been caused by annual birth rate and death rate and rate of migration.

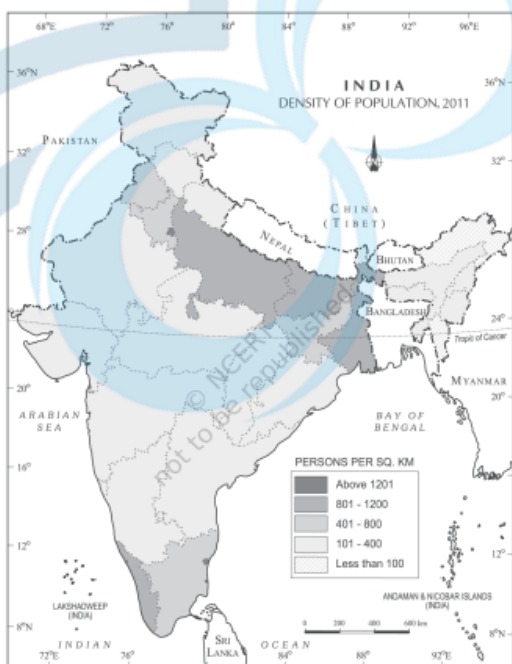
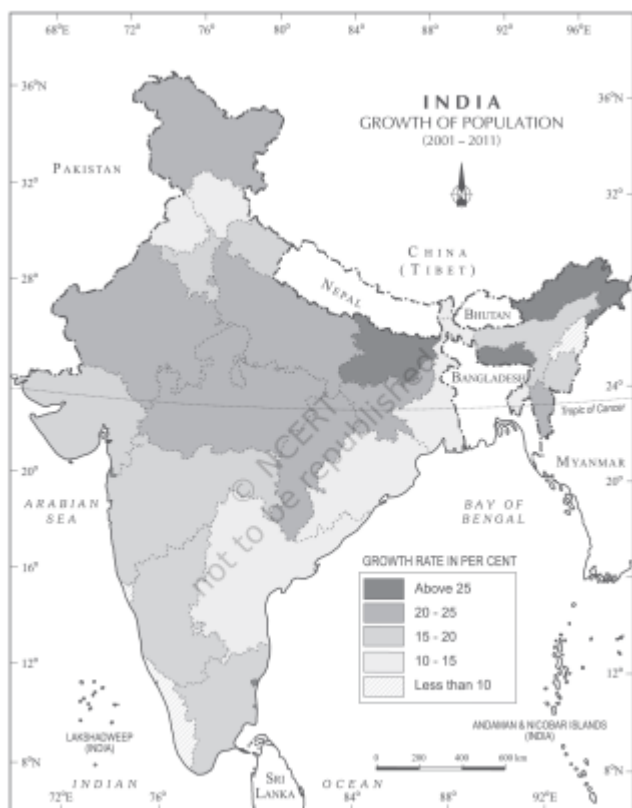


Table 1.1 : Decadal Growth Rates in India, 1901-2011

Census Years	Total Population	Growth Rate*	
		Absolute Number	% of Growth
1901	238396327	-----	-----
1911	252093390	(+) 13697063	(+) 5.75
1921	251321213	(-) 772117	(-) 0.31
1931	278977238	(+) 27656025	(+) 11.60
1941	318660580	(+) 39683342	(+) 14.22
1951	361088090	(+) 42420485	(+) 13.31
1961	439234771	(+) 77682873	(+) 21.51
1971	548159652	(+) 108924881	(+) 24.80
1981	683329097	(+) 135169445	(+) 24.66
1991	846302688	(+) 162973591	(+) 23.85
2001	1028610328	(+) 182307640	(+) 21.54
2011**	1210193422	(+) 181583094	(+) 17.64

* Decadal growth rate: $g = \frac{P_2 - P_1}{P_1} \times 100$
 where P_1 = population of the base year
 P_2 = population of the present year
 ** Source : Census of India, 2011(Provisional)



Phase I:

- The period from 1901-1921 is referred to as a period of stagnant or stationary phase of growth of India's population, since in this period growth rate was very low, even recording a negative growth rate during 1911-1921.
- Both the birth rate and death rate were high keeping the rate of increase low.
- Poor health and medical services, illiteracy of people at large and inefficient distribution system of food and other basic necessities were largely responsible for a high birth and death rates in this period.

Phase II:

- The decades 1921-1951 are referred to as the period of steady population growth.
- An overall improvement in health and sanitation throughout the country brought down the mortality rate. At the same time better transport and communication system improved distribution system.
- The crude birth rate remained high in this period leading to higher growth rate than the previous phase.
- This is impressive at the backdrop of Great Economic Depression, 1920s and World War II.

Phase III:

- The decades 1951-1981 are referred to as the period of population explosion in India, which was caused by a rapid fall in the mortality rate but a high fertility rate of population in the country.
- The average annual growth rate was as high as 2.2 per cent.
- It is in this period, after the Independence, that developmental activities were introduced through a centralised planning process and economy started showing up ensuring the improvement of living condition of people at large.
- Consequently, there was a high natural increase and higher growth rate. Besides, increased international migration from Tibet, Bangladesh, Nepal and Pakistan contributed to the high growth rate.

Phase IV:

- In the post 1981 till present, the growth rate of country's population though remained high, has started slowing down gradually.
- A downward trend of crude birth rate is held responsible for such a population growth. This was, in turn, affected by an increase in the mean age at marriage, improved quality of life particularly education of females in the country.

The growth rate of population is, however, still high in the country, and it has been projected by World Development Report that population of India will touch 1,350 million by 2025.

Regional Variation in Population Growth:

- The States like Kerala, Karnataka, Tamil Nadu, Andhra Pradesh, Odisha, Puducherry, and Goa show a low rate of growth not exceeding 20 per cent over the decade. Kerala registered the lowest growth rate (9.4) not only in this group of states but also in the country as a whole.
- A continuous belt of states from west to east in the north-west, north, and north central parts of the country has relatively high growth rate than the southern states.
- It is in this belt comprising Gujarat, Maharashtra, Rajasthan, Punjab, Haryana,

Uttar Pradesh, Uttarakhand, Madhya Pradesh, Sikkim, Assam, West Bengal, Bihar, Chhattisgarh, and Jharkhand, the growth rate on the average remained 20-25 per cent.

- During 2001-2011, the growth rates of almost all States and Union Territories have registered a lower figure compared to the previous decade, namely, 1991-2001.
- The percentage decadal growth rates of the six most populous States, namely, Uttar Pradesh, Maharashtra, Bihar, West Bengal, Andhra Pradesh and Madhya Pradesh have all fallen during 2001-2011 compared to 1991-2001, the fall being the lowest for Andhra Pradesh (3.5% percentage points) and highest for Maharashtra (6.7 percentage points).
- Tamil Nadu (3.9 percentage points) and Puducherry (7.1 percentage points) have registered some increase during 2001-2011 over the previous decade.
- An important aspect of population growth in India is the growth of its adolescents. At present the share of adolescents i.e., up to the age group of 10-19 years is about 20.9 per cent (2011), among which male adolescents constitute 52.7 per cent and female adolescents constitute 47.3 per cent.

The adolescent:

- Regarded as the youthful population having high potentials but at the same time, they are quite vulnerable if not guided and channelised properly.
- There are many challenges like lower age at marriage, illiteracy – particularly female illiteracy, school dropouts, low intake of nutrients, high rate of maternal mortality of adolescent mothers, high rate of HIV and AIDS infections, physical and mental disability or retardedness, drug abuse and alcoholism, juvenile delinquency and committence of crimes, etc.
- The Government of India has undertaken certain policies to impart proper education to the adolescent groups so that their talents are better channelised and properly utilised.
- For example: The National Youth Policy which has been designed to look into the

overall development of our large youth and adolescent population.

- The National Youth Policy (NYP-2014) launched in February 2014 proposes a holistic 'vision' for the youth of India, which is "To empower the youth of the country to achieve their full potential, and through them enable India to find its rightful place in the community of nations"
- The NYP-2014 has defined 'youth' as persons in the age group of 15-29 years.
- The Government of India also formulated the National Policy for Skill Development and Entrepreneurship in 2015 to provide an umbrella framework to all skilling activities being carried out within the country, and to align these to common standards and link skilling with demand centres.

Population Composition:

- It is a distinct field of study within population geography with a vast coverage of analysis of age and sex, place of residence, ethnic characteristics, tribes, language, religion, marital status, literacy and education, occupational characteristics, etc.
- In this section, the composition of Indian population with respect to their rural-urban characteristics, language, religion and pattern of occupation will be discussed.

Rural – Urban Composition:

- It means composition of population by their respective places of residence. It is an important indicator of social and economic characteristics. In India 68.8 per cent of the total population lives in village (2011).
- India has 640,867 villages according to the Census 2011 out of which 597,608 (93.2 per cent) are inhabited villages. However, the distribution of rural population is not uniform throughout the country.
- The states like Bihar and Sikkim have very high percentage of rural population. The states of Goa and Maharashtra have only little over half of their total population residing in villages.
- The Union Territories, on the other hand, have smaller proportion of rural population,

except Dadra and Nagar Haveli (53.38 per cent).

- The size of villages also varies considerably. It is less than 200 persons in the hill states of north-eastern India, Western Rajasthan and Rann of Kutch and as high as 17 thousand persons in the states of Kerala and in parts of Maharashtra.
- In contrary to rural population, the proportion of urban population (31.16 per cent) in India is quite low but it is showing a much faster rate of growth over the decades due to enhanced economic development and improvement in health and hygienic conditions.
- The distribution of urban population too, as in the case of total population, has a wide variation throughout the country. However, there has been a considerable increase of urban population that indicates both development of urban areas in terms of socio-economic conditions and an increased rate of rural-urban migration.
- The rural-urban migration is conspicuous in the case of urban areas along the main road links and railroads in the North Indian Plains, the industrial areas around Kolkata, Mumbai, Bengaluru – Mysuru, Madurai – Coimbatore, Ahmedabad – Surat, Delhi – Kanpur and Ludhiana – Jalandhar.
- In the agriculturally stagnant parts of the middle and lower Ganga Plains, Telengana, non-irrigated Western Rajasthan, remote hilly, tribal areas of northeast, along the flood prone areas of Peninsular India and along eastern part of Madhya Pradesh, the degree of urbanisation has remained low.

Linguistic Composition:

- India is a land of linguistic diversity. According to Grierson (Linguistic Survey of India, 1903 – 1928), there were 179 languages and as many as 544 dialects in the country.
- In the context of modern India, there are about 22 scheduled languages and a number of non-scheduled languages.
- Among the scheduled languages, the speakers of Hindi have the highest percentage.

- The smallest language groups are Sanskrit, Bodo and Manipuri speakers (2011).

Linguistic Classification:

- The speakers of major Indian languages belong to four language families, which have their sub-families and branches or groups.

Family	Sub-Family	Branch/Group	Speech Areas	
Austic (Nishada) 1.38%	Austro-Asiatic	Mon-Khmer Munda	Meghalaya, Nicobar Islands West Bengal, Bihar, Orissa, Assam, Madhya Pradesh, Maharashtra Outside India	
	Austro-Nesian			
Dravidian (Dravida) 20%		South-Dravidian Central Dravidian North Dravidian	Tamil Nadu, Karnataka, Kerala Andhra Pradesh, M.P., Orissa, Maharashtra Bihar, Orissa, West Bengal, Madhya Pradesh	
	Sino-Tibetan (Kirata) 0.85%	Tibeto - Myanmari	Tibeto-Himalayan	Jammu & Kashmir, Himachal Pradesh, Sikkim
		Siamese-Chinese	North Assam Assam-Myanmari	Arunachal Pradesh Assam, Nagaland, Manipur, Mizoram, Tripura, Meghalaya
Indo-European (Aryan) 73%	Indo-Aryan	Iranian	Outside India	
		Dardic	Jammu & Kashmir	
		Indo-Aryan	Jammu & Kashmir, Punjab, Himachal Pradesh, U.P., Rajasthan, Haryana, M.P., Bihar, Orissa, West Bengal, Assam, Gujarat, Maharashtra, Goa.	

Religious Composition:

- The spatial distribution of religious communities in the country shows that there are certain states and districts having large numerical strength of one religion, while the same may be very negligibly represented in other states.

Religious Group	2011	
	Population (in million)	% of Total
Hindus	966.3	79.8
Muslims	172.2	14.2
Christians	27.8	2.3
Sikhs	20.8	1.7
Buddhists	8.4	0.7
Jains	4.5	0.4
Other Religions and Persuasions (ORP)	7.9	0.7
Religion Not Stated	2.9	0.2

- Hindus are distributed as a major group in many states (ranging from 70-90 per cent and above) except the districts of states along Indo-Bangladesh border, Indo-Pak border, Jammu & Kashmir, Hill States of North-East and in scattered areas of Deccan Plateau and Ganga Plain.
- Muslims, the largest religious minority, are concentrated in Jammu & Kashmir, certain districts of West Bengal and Kerala, many

- The Government of India has duly acknowledged the adverse impacts of these discriminations and launched a nationwide campaign called 'Beti Bachao – Beti Padhao'.

Table 1.4 : Sectoral Composition of workforce in India, 2011

Categories	Population			
	Persons	% to total Workers	Male	Female
Primary	26,30,22,473	54.6	16,54,47,075	9,75,75,398
Secondary	1,83,36,307	3.8	97,75,635	85,60,672
Tertiary	20,03,84,531	41.6	15,66,43,220	4,37,41,311

- The number of female workers is relatively high in primary sector, though in recent years there has been some improvement in work participation of women in secondary and tertiary sectors.
- The proportion of workers in agricultural sector in India has shown a decline over the last few decades (58.2% in 2001 to 54.6% in 2011). Consequently, the participation rate in secondary and tertiary sector has registered an increase.

- This indicates a shift of dependence of workers from farm based occupations to non-farm based ones, indicating a sectoral shift in the economy of the country.
- The spatial variation of work participation rate in different sectors in the country is very wide.
- For instance, the states like Himachal Pradesh and Nagaland have very large shares of cultivators.
- On the other hand, states like Bihar, Andhra Pradesh, Chhattisgarh, Odisha, Jharkhand, West Bengal and Madhya Pradesh have higher proportion of agricultural labourers.
- The highly urbanised areas like Delhi, Chandigarh and Puducherry have a very large proportion of workers being engaged in other services.
- This indicates not only availability of limited farming land, but also large-scale urbanisation and industrialisation requiring more workers in non-farm sectors.

Occupational Categories

The 2011 Census has divided the working population of India into four major categories:

1. Cultivators
2. Agricultural Labourers
3. Household Industrial Workers
4. Other Workers
