

BLOCK**4****POPULATION AND SETTLEMENT**

UNIT 14**POPULATION**

UNIT 15**SETTLEMENTS**

GLOSSARY

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BGGET- 141

GEOGRAPHY OF INDIA

VOLUME - 1

BLOCK 1 PHYSICAL SETTING

Unit 1	India in the Sub-Continental Setting
Unit 2	Physiography
Unit 3	Drainage
Unit 4	Climate
Unit 5	Soil and Vegetation

BLOCK 2 RESOURCE BASE

Unit 6	Land Resources
Unit 7	Water Resources
Unit 8	Forest Resources
Unit 9	Mineral Resources
Unit 10	Energy Resources

VOLUME - 2

BLOCK 3 ECONOMY

Unit 11	Agriculture	9
Unit 12	Industries	31
Unit 13	Transport	53

BLOCK 4 POPULATION AND SETTLEMENT

Unit 14	Population	79
Unit 15	Settlements	123

BLOCK 5 REGIONAL APPROACHES TO GEOGRAPHY OF INDIA

Unit 16	Physiographic Approach	159
Unit 17	Socio-Cultural Approach	179
Unit 18	Economic Approach	195

BLOCK 4: POPULATION AND SETTLEMENT

In the first three blocks of this course, you have learnt that Geography is a multi-faceted domain of knowledge that deals with the myriad components involving physical and human features on the Earth's surface. One branch of geography deals with human features and other one deal with physical features. Human beings are both consumers and producers of resources for their life and livelihood. Their numbers and characteristics need to be seen in order to assess the human-resource relationship in a geographical region that varies over space and time. Three crucial factors namely birth, death, and migration bring a change in human population. Natural increase of population refers to the difference between birth rate and death rate. Human beings have evolved certain religious practices and speak various languages varying from one region to another, even across the short boundaries of a natural stream or river course over a geographical region.

As you know that besides food and clothing, shelter is third most important basic necessities of human beings and their communities. In the beginning parts of human civilization, humans were attuned to lodge in forests and natural caves. With the passage of time, when humans domesticated plants and animals, they started living in thatched huts and rudimentary houses. Later on, the shape and design of houses and buildings witnessed a significant transformation with expanding knowledge, capital, and technological inputs. It became to be known as settlement where humans live in social groups and communities. Settlement denotes a permanent abode as a living place with definite geographical coordinates. It includes both rural and urban settlements. The size of settlement also varies from a tiny hamlet to that of a metropolitan city. As a consequence of industrialization and economic liberalization, the rate of urbanization is also progressing at a fast pace since last two decades in India.

In Block 4, we will introduce you to the **population and settlements** as elaboratively described in two units.

Unit 14: Population

Unit 14 has been devoted to the study of population. It will provide you an idea about the various concepts employed in the study of human population. You will learn about the size and growth of population along with distribution and density of population. You will further learn many aspects related to age and sex ratio of India. You will also learn about the religious and linguistic composition of India along with castes and tribes. This unit will help you to comprehend the diverse aspects of population of India and their importance in terms of human resources for the welfare of country.

Unit 15: Settlements

Unit 15 has been devoted to the study of settlements. In the beginning, you will get an idea about the concepts and classification schemes of settlements in India. You will learn about the characteristics of both rural and urban settlements of India. You will also learn about the process of urbanization in India. After studying this Unit, you will be able to comprehensively understand the settlements of India along with key characteristics and their importance.

We hope that after studying block 4, you will be able to comprehend the **population and settlements** in a better and more logical ways.

Our best wishes are always with you in this endeavour.

UNIT 14

POPULATION |

Structure

14.1	Introduction	14.7	Caste and Tribe
	Expected Learning Outcomes	14.8	Summary
14.2	Size and Growth	14.9	Terminal Questions
14.3	Distribution	14.10	Answers
14.4	Density	14.11	References and Suggested
14.5	Age and Sex Composition		Further Reading
14.6	Religious and Linguistic Composition		

14.1 INTRODUCTION

Geography is the description of Earth as an abode of human beings. Thus, study of human beings becomes an essential part of the discipline of Geography. Considering this G.T. Trewartha in his presidential address to the Association of American Geographers in 1953 pleaded for the development of Population Geography as a sub-division of the systematic branch of Geography. In 1954, he offered a full-fledged course on Population Geography at the graduate level in the University of Wisconsin. In India, the Department of Geography at the Punjab University, Chandigarh under the guidance and leadership of Prof. G.S. Gosal was the first to introduce teaching and research in Population Geography at the postgraduate level in the early sixties. Prof. G.S. Gosal was the first student of Prof. G.T. Trewartha who did his Ph.D. in Population Geography.

Human beings are the consumers and producers of resources. Thus, it becomes very important to study their numbers and characteristics to assess the human-resource relationship. Change in human population is largely influenced by three factors namely birth, death and migration. The difference between birth rate and death rate is known as the natural increase of population. The sources of population data are varied depending on the use, but some of the commonly used data are the census, the surveys, the registrations, migration reports, estimates and projections. A large number of countries in the world have adopted census taking on a regular basis which provides population data. United Nations also produces population data for different demographic attributes. In this Unit, we will introduce you to the

aspects of India's population like size and growth, distribution, density, age and sex composition, religious and linguistic composition, caste and tribe as explained in detail from Sections 14.2 to 14.7.

Expected Learning Outcomes

After studying this unit, you should be able to:

- understand the size and growth of population from the beginning of 19th century;
- define the distribution and density pattern of population;
- explain the age and sex composition of India;
- discuss the religious and linguistic composition; and
- describe the Castes and Tribes of India.

14.2 SIZE AND GROWTH

With 1210.08 million people in 2011, India is world's second most populous country of the World. It accounts for more than 17 percent of the world population. The population of India was a little less than the combined population of USA, Indonesia, Brazil, Pakistan, Bangladesh and Japan. India accounts for a meagre 2.4 percent of the world surface area of 135.79 million square kilometre. On the other hand, it supports and sustains 17.5 percent of the world population. In contrast, the USA accounts for 7.2 percent of the surface area with only 4.5 percent of the world population. A little more than 51 percent of India's total population comprised of males and 49 percent females. A large majority of this population was living in rural areas (69 percent) whereas 31 percent were living in urban areas.

Growth of population 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. Population growth is measured in absolute numbers and in percentage.

The growth of the population is the function of its three components. These are Fertility, Mortality and Migration. Fertility refers to the occurrence of birth, commonly calculated per thousand of population. Mortality has been defined as permanent disappearance of all evidence of life at any time after birth has taken place (United Nation, 1953, p. 48). Migration refers to the permanent or semi-permanent change in the residence of person, which involves a complete change and readjustment of community affiliations of individual. Population Growth is calculated as = Fertility – Mortality + (Immigration – Emigration). The natural growth of population is calculated as Fertility – Mortality. Hence, the population growth can also be calculated as the difference between the populations of the two censuses.

Factors Affecting Population Growth

Factors affecting fertility, mortality and migration are responsible for bringing about population change. These factors play significant role in defining the

stage of demographic transition. These factors can be classified into four broad categories viz., Biological, Social, Economic and Demographic Determinants.

Biological Determinants: The factor of race, the fertility potential in women and genetic fertility in men are the most established biological factors determining fertility. Different races have different fertility rates and they vary from person to person. General health conditions also define fertility and mortality rates. While healthy and hygienic society has low rates of fertility and mortality, the other side has high rates of both fertility and mortality.

Social Determinants: These are the most influencing and include a wide range of factors. Fertility is today the main cause of population change in India. Population change may be determined by religious background – each religion has its own norms of population control and freedom to migrate; ethnic composition – the minor groups usually have higher fertility levels to increase their numbers; level of education – the more educated a mother is, the lesser children she would have, higher education level also develops a tendency to migrate for better opportunities; age of marriage – higher the age of marriage, lesser the number of children; traditions and customs relating to marital and sexual life; status granted to females and desire for a son; attitude towards the family planning measures and governmental policies about abortions, initiatives about population redistribution and population policies etc.

Economic Determinants: Income level of population also may determine the fertility and mortality levels. Rich and most importantly middle class apply strict control over family size. They also show low mortality levels. Standard of living also defines the fertility rates; poor people have higher fertility rates. Dietary habits, protein intake also control fertility, the regions with high protein intake have low fertility. However, when medical facilities are universally available the disparity in mortality rates significantly reduces.

Demographic Determinants: Factors like higher population in reproductive age group, lower age at marriage, and paucity of females, urban living and a greater number of working women affect fertility rates of a region. In less developed countries people suffering from malnutrition and low medical facilities have higher rates of female mortality. Different stages of urban development show different pattern of mortality rates.

Table 14.1: India: Growth of Population, 1901–2011

Census Years	Population (Millions)	Decadal Growth Rate (%)	Average Annual Growth Rate (%)	Progressive Growth Rate over 1901 (%)
1901	238.39	-	-	-
1911	252.09	5.75	0.56	5.75
1921	251.32	-0.31	-0.03	5.42
1931	278.97	11.00	1.04	17.02
1941	318.66	14.22	1.33	33.67
1951	361.09	13.31	1.25	51.47
1961	439.23	21.64	1.96	84.25
1971	548.15	24.80	2.22	129.94
1981	683.32	24.66	2.20	186.64
1991	846.42	23.87	2.14	255.05

2001	1028.73	21.54	1.95	331.52
2011*	1210.08	17.70	1.63	407.64

(Source: 1. Census of India, *Provisional Population Totals*, 2011, p.41

2. *Computed from Census of India, *Primary Census Abstract*, 2011, available online at www.censusindia.gov.in/2011)

Growth of Population in India (1901-2011)

Growth of population in India has gone through different phases of population increase. On an average, the growth rate of population had been 1.64 percent per annum against 1.3 percent of China. Population of a country if growing at a rate of 2 percent per year doubles itself in a period of about 35 years. India's population has more than doubled between 1951 and 1986 from 361 million to 763 million (Chaurasia and Gulati, 2008). The decadal and annual growth rates of population in India are both very high and steadily increasing over time. Annual growth rate of India's population is 1.64 percent (2011).

Population of India has been increasing at a constant pace. Table 14.1 reveals that population of 2011 is five times more than the population of the country that was at the beginning of the 20th century. Jawaharlal Nehru - the first Prime Minister – was often heard to say that 'India would ... [be] ... a much more advanced nation if its population were about half its actual size' (Dyson, 2018).

Fig. 14.1 reveals that the growth of population till 1951 was low, it was after 1961 that population started increasing at a rapid rate. From 1961 till 2001, the line graph depicting growth of population is a straight upward line which means steep rise in population. In 2011, a slight dip is witnessed which means reduction of growth rate.

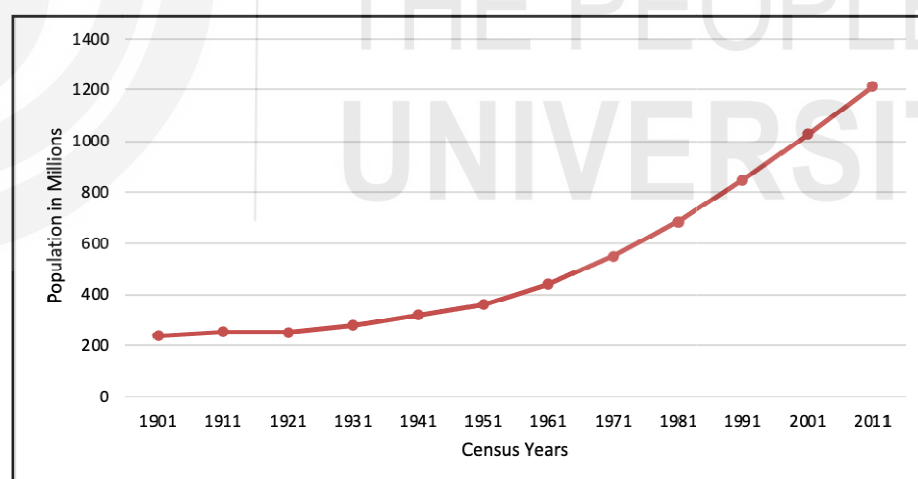


Fig. 14.1: India, Growth of Population, 1901-2011.

The demographic history of India from 1901 to 2011 can be divided into three distinct periods viz., period of stagnant population (1901-21), steadily increasing population (1921-1971), and rapidly increasing population (1971-2011).

Period of Stagnant Population Growth (1901-1921)

Initial years of 20th century i.e., 1901 to 1921 have been recognized as the period of stagnant population. During this period, India's population increased from 238 million to 251 million. This was a period when birth rates and death

rates were very high. Both birth rates and death rates were well above 40 per thousand which cancelled out each other and resulted in very less growth of population (Table 14.2).

Table 14.2: India: Natural Rate of Increase, 1911–2011

Census Years	Birth Rate per Thousand	Death Rate per Thousand	Natural Rate of Increase
1911	49	43	6
1921	48	47	1
1931	46	36	10
1941	45	31	14
1951	40	27	13
1961	42	23	19
1971	37	15	23
1981	34	12	22
1991	31	11	20
2001	25	8	17
2011	22	7	15

(Source: 1. Census of India, *A Handbook of Population Statistics*, 1988, Table 35, p.109.

2. Chandna, R.C., *Geography of Population: Concepts, Determinants and Patterns*, 2014, Table 28, p. 238.)

Note: Birth and death rates have been rounded off.

Higher death rates were the result of recurrent cholera, smallpox, plague, fevers, dysentery and diarrhea clubbed with droughts and famines. In the decade 1901-11, the population grew at a slower pace than the previous decades because of widespread plague. The 1911-21 decade was the worst of all for population growth in the country. The life expectancy averaged only about 22 years. This was the result of 1918-19 influenza epidemic or Spanish Flu (Dyson, 2018, p. 125-126).

Period of Steadily Increasing Population (1921-1971)

Year 1921 is considered to be a significant demographic divide as after 1921 the population of the country increased steadily. The population of the country more than doubled during the period 1921-71 from 251 million to 548 million. Between 1921 to 1941, population grew at an average annual rate of 1.2 percent. During 1941 to 1951, the population growth rate remained close to 1.2 percent but then in 1960's and 1970's the growth rate rose sharply to 2 percent per year. This sudden rise in growth rate is ascribed to fall in death rates and increase in life expectancy. The decrease in death rates was largely due to the control of widespread epidemics such as plague, cholera, small pox and influenza etc. It was during this period that India started to enter in the second stage of demographic transition.

Period of Rapidly Increasing Population (1971-2011)

Population grew at a rapid rate and increased from 548 million to 1210 million between 1971 to 2011. It witnessed an increase of 662 million with growth rate of almost 2 percent. This was because birth rates and death rates fell by similar numbers thus leaving the growth rate unchanged (Table 14.2). The natural rate of increase during 1971 to 1991 hovered in the twenties. It was after 1991 that birth rate and death rate declined more than the previous years that natural rate of increase fell below 20's and in 2011 it further

declined to 15 per thousand. It was in 1991 that the decadal percentage growth rate started to show some signs of decline. The decadal percentage growth rate further declined in 2001 and 2011. In 2011, it came down below 20 percent, but the population is still increasing. This increase is attributable to population momentum.

Population momentum occurs when a country's fertility rate declines to or below replacement level i.e., 2.1 children per women but the population numbers go on increasing due to larger proportion of population in the younger age group. As large numbers of young people will enter reproductive age group, they will have their own children. As a result, that even with fertility rates below replacement level, the sheer number of females bearing children will outnumber the overall deaths and keep population growing. 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

Growth rate of population during 2001-2011 in Indian states and Union Territories shows very obvious pattern. The country on the whole recorded decadal growth rate of 17.64 percent. States like Kerala, Goa, Andhra Pradesh, Sikkim, Himachal Pradesh, Punjab, West Bengal, Odisha, Tripura, Tamil Nadu, Karnataka, Maharashtra, Assam and Chandigarh displayed low rate of growth below the national average. Kerala registered the lowest growth rate of 4.86 percent, not only in this group of states but also in the country as a whole (Table 14.3).

Three Union Territories namely Puducherry, Dadra & Nagar Haveli and Daman & Diu reported population growth rate of above 25 percent. Only one state, i.e., Nagaland showed negative growth rate. It can be attributed to illegal migration of Nagas from Myanmar and illegal migrants from Bangladesh in the previous Census decades and false reporting either in 2011 Census or the earlier ones. As per the government of Nagaland, the previous Census data of 1991 and 2001 had inflated population figures which were reported by villagers and population enumerators to get more development funds for their villages. However, these claims are not verified. There is no data or official documents to support the claim of either illegal immigration or inflated population figures.

Table 14.3: India: Growth of Population, 2001-2011

States/Union Territory	Growth rate (2001-2011)
Dadra & Nagar Haveli	55.50
Daman & Diu	53.54
Meghalaya	27.82
Puducherry	27.72
Arunachal Pradesh	25.92
Bihar	25.07
Jammu & Kashmir	23.71
Mizoram	22.78
Chhattisgarh	22.59

Jharkhand	22.34
Rajasthan	21.44
Delhi	20.96
Madhya Pradesh	20.30
Uttar Pradesh	20.09
Haryana	19.90
Gujarat	19.17
Uttarakhand	19.17
Manipur	18.65
Chandigarh	17.10
Assam	16.93
Maharashtra	15.99
Karnataka	15.67
Tamil Nadu	15.60
Tripura	14.75
Orissa	13.97
West Bengal	13.93
Punjab	13.73
Himachal Pradesh	12.81
Sikkim	12.36
Andhra Pradesh	11.10
Goa	8.17
Andaman & Nicobar Islands	6.68
Lakshadweep	6.23
Kerala	4.86
Nagaland	-0.47
India	17.64

(Source: Census of India, 2001-2011)

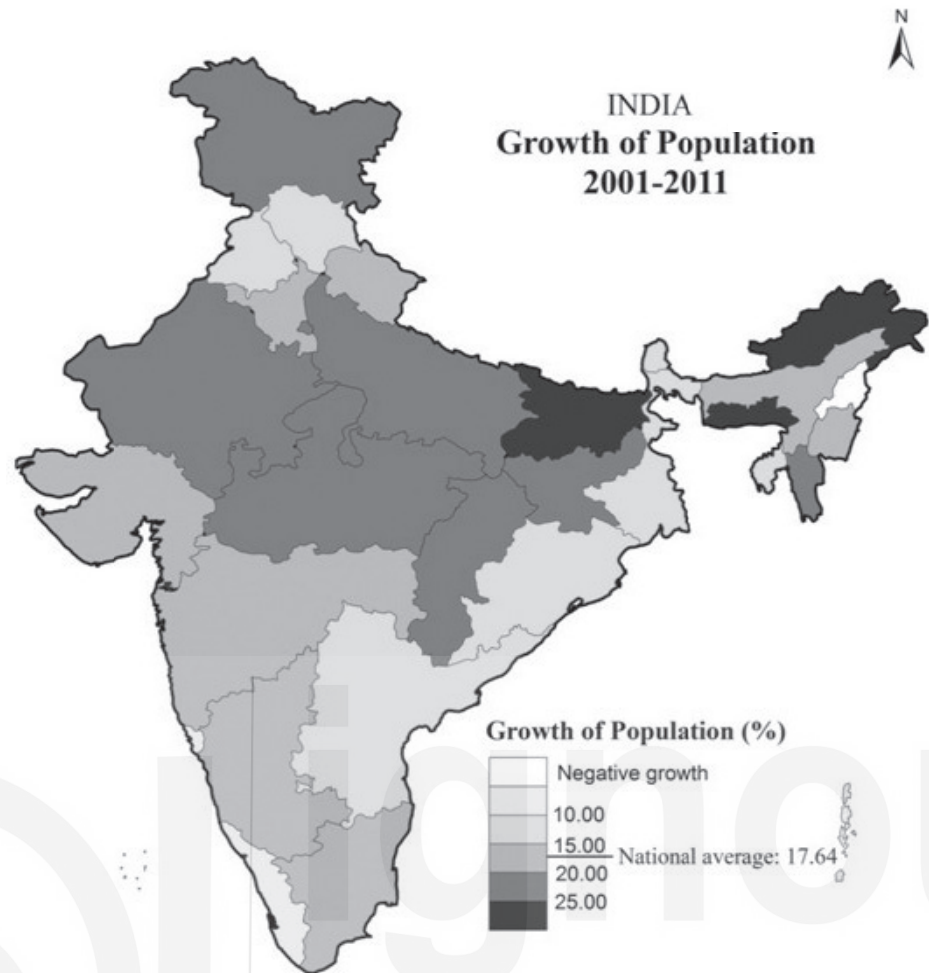


Fig. 14.2: India, Growth of Population.

(Source: Primary Census Abstract, Census of India, 2011)

A continuous belt of many states from west to east in north, and north central parts of the country has witnessed relatively high growth rate than the southern states. It is in this belt comprising Rajasthan, Uttar Pradesh, Madhya Pradesh, Chhattisgarh, Bihar, Jharkhand, Meghalaya, Mizoram and Arunachal Pradesh, the growth rate on the average remained between 20-25 percent. Another continuous belt along the east comprising of Sikkim, West Bengal, Orissa, and Andhra Pradesh depicted lower growth rates (Fig. 14.2).

14.3 DISTRIBUTION

Humans only occupy five percent of Earth's surface because oceans, deserts, rainforests, and glaciers cover much of the planet. The term for areas where humans permanently settle is '**ecumene**'. When the world was sparsely populated, human distribution followed linear patterns which was mostly along rivers or major routes but with the spread of human beings into most of habitable parts of lithosphere, it becomes difficult to explain the patterns of such distribution.

Before we consider various determinants of population distribution, we must first differentiate between population distribution and population density.

Population distribution is the spread of people across land, i.e., where people live. It refers to spatial pattern of people living on Earth surface. It can be linear, scattered, nucleated and clustered, etc. Geographers study population distribution patterns at different scales: local, regional, national and global.

Population density is the number of people living in a particular area – usually 1 square kilometre – and can be written as total population/land area. It is the ratio between the number of people and land/area.

In a nutshell, population distribution is locational and population density is proportional (Chandna, 2014, p. 42). The population of the world is now over 7 billion people, vast majority of whom live in developing world. World's population is spread unevenly across the globe with concentrations of large numbers of people living in some areas. World as a whole has more 'empty' areas than 'crowded' areas. According to 2021 World Population Data Sheet released by Population Reference Bureau, world population was 7837 million, but this population was not evenly distributed. Less developed countries had bulk of population (83.78 percent) and more developed countries had only 16.22 percent of the world population.

Table 14.4: Regional Distribution of World Population, 2021

Region	Population in millions	Percentage
South Asia	1970	25.14
East Asia	1650	21.05
Southeast Asia	671	8.56
Latin America and Caribbean	656	8.37
Eastern Africa	458	5.84
Western Africa	413	5.27
North America	371	4.73
Eastern Europe	290	3.70
Western Asia	284	3.62
Northern Africa	248	3.16
Western Europe	196	2.50
Middle Africa	185	2.36
Southern Europe	152	1.94
Northern Europe	106	1.35
Central Asia	76	0.97
Southern Africa	68	0.87
Oceania	43	0.55
World	7837	100

(Source: World Population Data Sheet, 2021, Population Reference Bureau)

Regional distribution of population also displays a wide disparity. South Asia and East Asia have largest share of population, collectively these two regions hold 46 percent of world population. On the other hand, regions like Central Asia, Southern Africa and Oceania have less than 1 percent each of world population. Even within the continents, distribution of population shows wide disparity. In Asia itself, South Asia and East Asia have highest proportion of

world population but Southeast Asia, Western Asia and Central Asia have very low population share. Moreover, Central Asia (0.97 percent) has one of the lowest proportions of world population. Within Africa also, Eastern and Western Africa combined (871 million) have more population than Northern, Middle and South Africa (501 million). Of all the four regions of Europe, Eastern Europe (290 million) has more population than Western (196 million), Northern (152 million) and Southern Europe (106 million).

There are several physical and human factors to explain these variations. Ecumene and non-ecumene or an ecumene are the terms used by geographers to differentiate between permanently inhabited parts and the uninhabited parts or very sparsely populated parts of the world. These contrasts in distribution of population are due to the influence of a variety of factors, which may be broadly classified into physical, socio-cultural and demographic factors.

Physical Factors

Physical factors include climate, geology and topography of region. These are the most direct and influencing factors determining distribution of population in an area. However, technology has been able to make many of the non-ecumene regions habitable for man, but pattern of population distribution still reflects the influence of physical landscape of region. Physical factors that affect population distribution include climate, altitude and latitude, relief, soils, vegetation, water and location of mineral and energy resources. It is important to note that most of the physical factors influence population distribution only indirectly through climatic conditions.

Climate

Climate is one of the major elements of physical factors which influence spatial distribution of population through temperature conditions and amount of precipitation. Take the case of hot and dry deserts of Rajasthan and cold and wet Eastern Himalayan region where very low temperature and heavy precipitations prevail. This is the reason for uneven distribution and low density of population here. Almost even distribution and high density of population are found in plains of Kerala and West Bengal where rainfall is high. It is low in the regions of Rajasthan, and on leeward side of the Western Ghats. The regions experiencing extremes of temperature have sparse distribution of population. Hot lands experiencing scarcity of water and cold lands are sparsely populated. People prefer to live in temperate climates where there is enough rainfall and no extremes of temperature.

Landforms

Landforms influence distributional pattern of population. The factors like altitude, slope, and drainage affect population distribution. High altitude imposes an ultimate physiological limit upon human existence due to reduced atmospheric pressure and low oxygen content. Therefore, very few permanent settlements can be seen in lofty mountains of the world at a height above 5,000 metre. Staszewski (1957) observed that only about 20 percent of the world's total population was found in regions with an altitude of more than 500 metres and 80 percent within 500 metre. A little more than 56 percent of the world's population lives within 200 metre, above the sea level.

Most striking evidence of influence of altitude and slope on population density and distribution has been observed between mountains and plains. For example, take the case of most densely populated Indo-Ganga plains on the one hand and a highly mountainous state of Arunachal Pradesh on the other. Other than this, factors like drainage and water table have also been affecting population distribution.

Soils

It is another factor which affects the density and distribution of population. One may be tempted to question the validity of the role of soil in the present day highly industrialised society. But even today about 70 percent of population in India lives in villages. People in villages earn their livelihood from agriculture which depends upon the quality of soil. That is why alluvial region of northern plains and coastal and deltaic regions of India continue to support high densities of population. On the other hand, it may be worth mentioning that vast tracts of land in desert areas like Rajasthan and Rann of Kachchh in Gujarat have been suffering from problems like soil erosion and soil efflorescence which support only low density of population. In any region, density and distribution are influenced by more than one factor. Take for example North-Eastern region of India. Here several factors are responsible for low density of population. These factors are high rainfall, rough terrain, dense forests and poor quality of soil. Areas with fertile soils are good for growing crops to feed the population. Therefore, fertile tracts of river basins have high concentrations of human population.

Water

Availability of fresh water is also a determinant for human habitation. Water is considered as an elixir of life. Water is most essential for human settlement; it is fundamental for human existence as agriculture is totally dependent on water. It has been seen in the past that many settlements were ruined when the source of water dried up around these settlements. Many examples can be cited from the Indus-Sarasvati civilisation, prominently of Lothal (Gujarat) and Kalibangan (Rajasthan) which depicted extensive use of water but with extinction of water these well-developed settlements turned to ruins.

Geology and Minerals

Geology of a place and mineral occurrence in an area also determines level of population concentrations in an area. Regions rich in economic deposits of coal, crude oil, ores, limestone and marble etc., attract human population.

Accessibility

Places which are well-connected in terms of transportation and communication have high concentration of population. Therefore, we see that coastal regions are densely populated than their interior counterparts. Big cities, which provide similar facilities, are also populated.

Socio-Cultural Factors

Like physical factors, socio-cultural factors also play an equally important role in density and distribution of population. However, there may not be a perfect agreement upon the relative importance of these two determinants. In certain

places physical factors play a vital role whereas in some places socio-cultural factors have a greater impact. It has generally been agreed that the role of socio-cultural (non-physical) determinants increases. Various factors which have impact upon population are (i) socio-cultural and political factors; (ii) exploitation of natural resources. According to Clarke (1971, p. 435), the role of physical factors is decreasing with advent of urbanization. As human's increasing technological advancement is enabling them to survive in otherwise less suitable areas and adapt to different climatic conditions.

Socio-Cultural and Political Factors

Mumbai-Pune industrial complex is a good example to show how social, cultural, historical, and political factors collectively have contributed to its rapid growth of population and its density. There were small insignificant islands of Thana Creek on the western coast. Adventurous Portuguese seamen claimed these islands for their monarch. Less than 200 years ago, they gifted these islands to the Royal Family of England by way of dowry. These sleepy fishing villages located on these islands could never guess that they would shortly turn into India's largest population conglomeration. East India Company of England set up a trading center on these islands and later made it the capital city of Bombay Presidency. Unexpectedly, the Suez international navigation canal made Mumbai the nearest Indian port to Europe. Availability of educated youth from Mumbai and Pune and inexpensive and disciplined labour from Konkan also contributed to the rapid population growth. Discovery of Bombay High oil and natural gas fields gave boost to its petro-chemical industry. Today, Mumbai is known as commercial capital of India backed by international and domestic airports, major sea ports, national road and rail terminals. Similar is the case with other cities like Kolkata and Chennai which were established by the colonial rulers.

Availability of Natural Resources

Chhotanagpur plateau has all along been an area with rocky and rugged terrain. This rainy and forested region has been a home of several tribes and was one of the sparsely populated parts of the country. However, a string of industrial towns and centers sprung up over the past century soon after rich minerals such as iron-ore, manganese, limestone and coal etc., were found in unusual abundance and close to one another. Rich coal and iron fields attracted heavy industries particularly iron and steel, heavy engineering, and metallurgy and transport equipment industries. The region has also important super-power thermal stations from where power is supplied to far off areas. After liberalisation, many multi-nationals as well as national companies have been establishing their industries in large numbers. All these factors contributed to the growth of population.

History of Settlement

The history of settlement is a determining factor in the present concentration of populations. Regions, which enjoy a long history of settlement as Indo-Gangetic plain, river valleys of South India still have a high concentration of human population. Distribution of population in Old and New World varies due to this factor.

Economic Development

Each stage of economic development is marked with distinct changes in population density and distribution. Hence, the technological and economic advancement is responsible for concentration and redistribution of population in an area through its:

- employment opportunities,
- better transport facilities,
- better incomes and standard of living and
- variability in economic activities.

Density of urbanized region is more due to the fact that the supporting capacity of an industrial worker is more than an agrarian worker. Therefore, small sized closely spaced settlements are common in agrarian regions.

Political Factors

The political factor also affects the redistribution tendencies. Wars, Political Events and Government Policies have brought about a profound effect. In some countries, government is initiating redistribution of population to sparsely populated regions, for example China to redistribute its population to western parts. Social Organization and Inter Group Incompatibilities influence distribution at micro level.

Demographic Factors

Changes in distribution and density of population take place due to variations in rate of natural increase and also through the medium of migration between areas. Variations in the factors of mobility, fertility, and mortality give rise to disparity in distribution of population in an area. It is normally observed that the regions having a huge population base and a comparatively high natural increase would have a higher density of population.

Natural and Man-made Disasters

It has been observed that natural and man-made disasters have been responsible to alter the population map of some areas. Areas which are prone to recurrent disasters are sparsely populated as compared to those areas which are unaffected by these disasters.

Urbanisation

According to the United Nations, more than half of world's population now live in urban areas, most notably in high-density cities. This number is expected to increase to 60 percent by 2030. Globally, more than 4 billion people live in urban areas. This is projected to increase to more than 7 billion by 2050. Urbanisation rates are increasing rapidly in developing countries as people migrate from rural to urban areas. In developing countries, many people still live in rural areas, as there are large numbers of people working in primary activities such as farming, whereas in developed countries most people are employed in industries and services.

Pattern of Population Distribution in India

In India, population is very unevenly distributed. For example, Indo-Gangetic plains, coastal plains, settlements near rivers and fertile lands are very

densely populated, while the mountainous regions of Himalayas, North-east have very low densities. Urban areas like towns, cities and metropolis have high densities than rural areas. One can visualise that densely populated regions and sparsely populated regions coexist together, yielding sharp-edged boundaries between the two (Fig. 14.2).

Indo-Gangetic plain is most densely populated region in India. It is largely due to agrarian base of economy in India and the region provides fertile stretch of flat land, plenty of water for irrigation, favourable climate and cheap labour. Deltaic areas of southern rivers of Mahanadi, Godavari, Krishna and Cauvery show the similar pattern of population distribution. States of Kerala, Karnataka, Tamil Nadu and Andhra Pradesh also have many agricultural and industrial advantages and show high concentration of population. However, density of population in moist Southern states is lower in comparison to Northern states. This disparity is attributed to relative rugged terrain and greater awareness towards population growth.

Northern areas and North Eastern states having rugged Himalayan terrain and harsh climatic conditions have low density of population. This is also attributed to unsuitable agricultural conditions and inadequate developmental initiatives. Hilly regions of south India also show similar pattern.

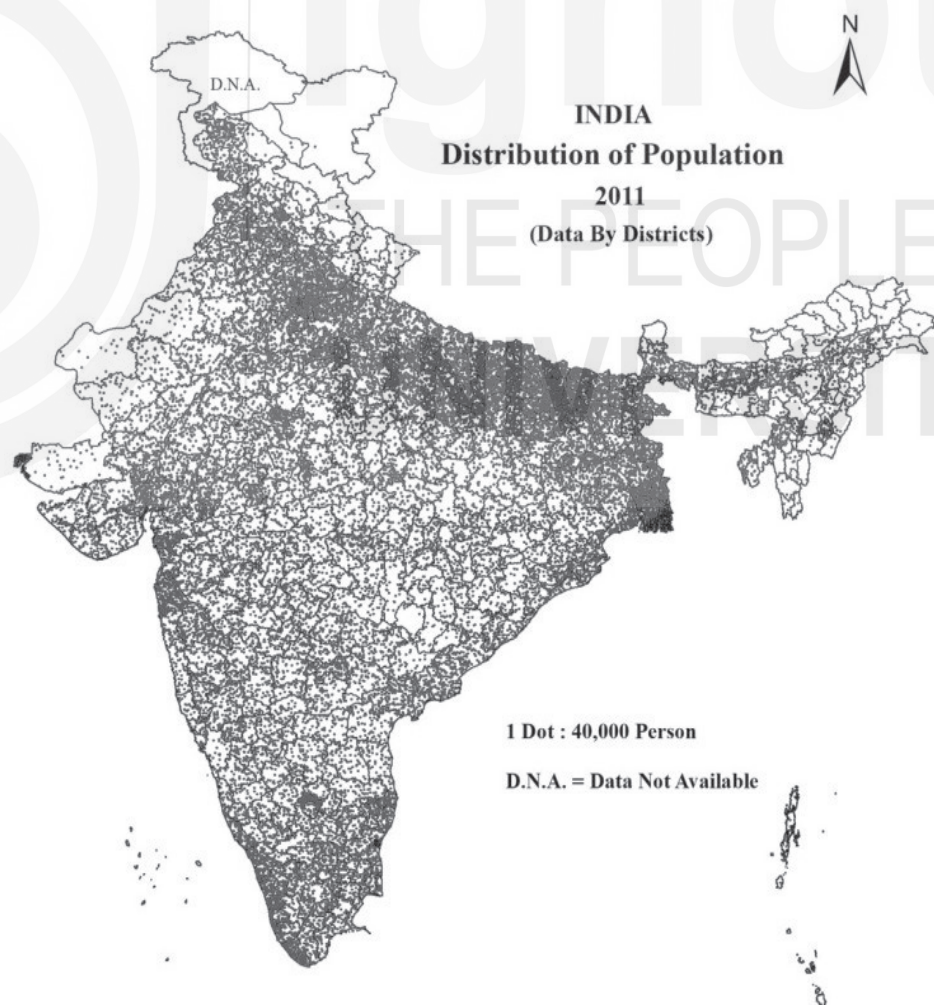


Fig. 14.3: Population Distribution.

Some areas of Central Highlands, Thar Desert, Kachchh Peninsula of Gujarat, rain-shadow parts of Peninsula, and Islands of Bay of Bengal, and Arabian Sea also have low concentration of population. This is attributed to paucity of arable land, extreme climatic conditions, and huge distances from mainland etc. Presence of minerals in Jharkhand, Chhattisgarh, Odisha and West Bengal has contributed to concentration of population due to various developmental activities and creation of employment opportunities.

Eastern and western coasts are densely populated that is why many cities have become million cities. This is attributed to suitable temperature, adequate rainfall, high level of urbanization and industrialization, facilities of export and import through sea, accessibility to islands and far regions etc. Density of population of some parts is comparable to high density areas of Indo-Gangetic plains.

The Union Territories of Delhi, Pondicherry, Chandigarh, and various other metropolitan centers of Mumbai, Kolkata, Chennai, Bangalore and Pune etc., and other million cities have huge population pressure; it is due to high urbanization, better standards of living and employment opportunities etc. Their high density is also attributed to high in-migration. Due to these factors, these places are expanding at an alarming rate encompassing fertile agricultural lands. Emergence of slums, problems of waste disposal, and problems of traffic, housing, pollution, health and hygiene are some of the common difficulties faced by people living in these areas.

Pattern of population growth and pattern of population distribution are not same. For example, Kerala, West Bengal and Tamil Nadu exhibit low growth rates but have high population concentration. On the other hand, north eastern states show high growth rates but have low densities in India. Hence, population distribution reflects the demographic history of the state while population growth reflects the social awareness and level of development of a region. In India, the social factors play a pivotal role in determining demographic statistics of the country. Other factors, most of the time, are overruled by this set of determinants.

SAQ I

Define biological determinants.

14.4 DENSITY

Density of Population may be defined as the number of persons per square kilometre. It is an important index of population concentration in a particular area. Analysis of distribution of population and density of population plays an important role in studies related to population geography. Both these are the outcome of cumulative effects of several natural as well as socio-economic factors functioning in a region. Population density is used as an indicator to measure concentration of population. It is a way of measuring population distribution and shows whether an area is sparsely or densely populated. Population density is calculated using the following formula:

Population density = Total population/Total land area in square kilometre.

It indicates the balance between population of the region and its natural resources. It gives magnitude of man-land ratio. Density of population plays a vital role in any scheme related to health, trade, and socio-economic development. In short, it indicates possibilities of development. If density of population is more than what the natural resources of a region can sustain, then such a situation encourages out-migration.

Population Density in India, 2011

As such, among the ten most populous countries of the world, only Bangladesh has a higher population density compared to India. As per the Census data of 2011, population density of India has gone up to 382 persons per square kilometre from 325 persons per square kilometre in 2001. On an average, 57 more people inhabit every square kilometre in the country as compared to a decade ago (Table 14.5). At the beginning of the 20th century i.e., in 1901 density of India was as low as 77 persons per square kilometre. This steadily increased in each decade to reach 382 persons per square kilometre in 2011. This constitutes 17.5 percent increase over 2001. High increase in density of population is a matter of great concern as it puts immense pressure on natural resources and on existing infrastructural facilities, and adversely affects the quality of life.

The states and Union Territories of our country vary widely in terms of their density due to differences in climatic conditions, geo-physical characteristics, availability of resources etc. It is, therefore, essential to analyse the variation across the states/UTs.

Census data of 2001 and 2011 when compared reveals that two states i.e., Bihar and West Bengal have interchanged their places. Bihar is at the top pushing West Bengal to second rank. Kerala and Uttar Pradesh have retained their rankings of third and fourth respectively. Haryana on the other hand has advanced by two ranks from Rank 7 to Rank 5 replacing Punjab which has fallen by two ranks from 5 to 7. Jharkhand similarly has risen by two places from Rank 10 to 8 replacing Goa which has declined from Rank 8 to 10. Karnataka has moved up by one place while Andhra Pradesh has fallen by one place from 13 to 14.

Meghalaya has moved up by 2 ranks; Jammu & Kashmir has moved up by 3 ranks; Himachal Pradesh dropped by 1 rank; Nagaland dropped by 4 ranks. Other states namely, Tamil Nadu, Assam, Maharashtra, Tripura, Gujarat, Orissa, Madhya Pradesh, Rajasthan, Uttarakhand, Chhattisgarh, Manipur, Sikkim, Mizoram and Arunachal Pradesh have retained their rankings.

Table 14.5: India: Density of Population, 2001-2011 (Persons per square kilometre).

States/Union Territory	2011	2001
Delhi	11297	9340
Chandigarh	9252	7900
Puducherry	2598	2034

Daman and Diu	2169	1413
Lakshadweep	2013	1895
Bihar	1102	881
West Bengal	1029	903
Kerala	859	819
Uttar Pradesh	828	690
Dadra & Nagar Haveli	698	449
Haryana	573	478
Tamil Nadu	555	480
Punjab	550	484
Jharkhand	414	338
Assam	397	340
Goa	394	364
Maharashtra	365	315
Tripura	350	305
Karnataka	319	276
Andhra Pradesh	308	277
Gujarat	308	258
Odisha	269	236
Madhya Pradesh	236	196
Rajasthan	201	165
Uttarakhand	189	159
Chhattisgarh	189	154
Meghalaya	132	103
Jammu and Kashmir	124	100
Himachal Pradesh	123	109
Manipur	122	103
Nagaland	119	120
Sikkim	86	76
Mizoram	52	42
Andaman & Nicobar Islands	46	43
Arunachal Pradesh	17	13
India	382	324

(Source: Census of India, 2001-2011)

Population Density by Geographical Regions

An attempt has been made to analyse the differentials in population densities across the six regions in the country. The Eastern region has highest density of 625 persons per square kilometre, and the North-Eastern region has the lowest density of 176 persons per square kilometre. Central region occupies the second highest place in density with 417 followed by Southern region (397), Western region (344) and Northern region (267) respectively. Over the period 2001-2011, density in the Central region has increased by 20.31 percent, Northern region by 19.48 percent, and Eastern region by 18.98 percent has gone up at a higher pace than that of Western region (17.18 percent), North-Eastern region (17.00 percent) and Southern region (12.58 percent). This is consistent with what historical demographers have noted that

Gangetic plain has constituted the sub-continent's demographic heartland for over two millennia, and will remain so during the foreseeable future.

Population Density by Districts

In 2011, the densest district of India was North-East district of Delhi with a population density of 36155 persons per square kilometre. Delhi's six districts figured in the top most densely populated 12 districts of India. Other six districts were those which had million plus cities, like Chennai, Kolkata, Mumbai Suburban, Mumbai and Hyderabad. On the lower end was Dibang Valley district of Arunachal Pradesh with population density of only 1 person per square kilometre.

The belt of districts starting from plains of Punjab, runs through Ganga-Yamuna plains, middle and lower reaches and delta of Ganga system, winds through the eastern coast to Kanyakumari, traversing deltas of Mahanadi, Godavari, Krishna, Cauvery and other rivers and finally turns around the western coastal districts, especially Kerala, have density well above the national average. In comparison, districts of north-east, especially those of Arunachal Pradesh, Manipur and Mizoram, and a few from Himachal Pradesh, Jammu and Kashmir, Uttarakhand and arid districts of Rajasthan have very low densities (Fig. 14.4).

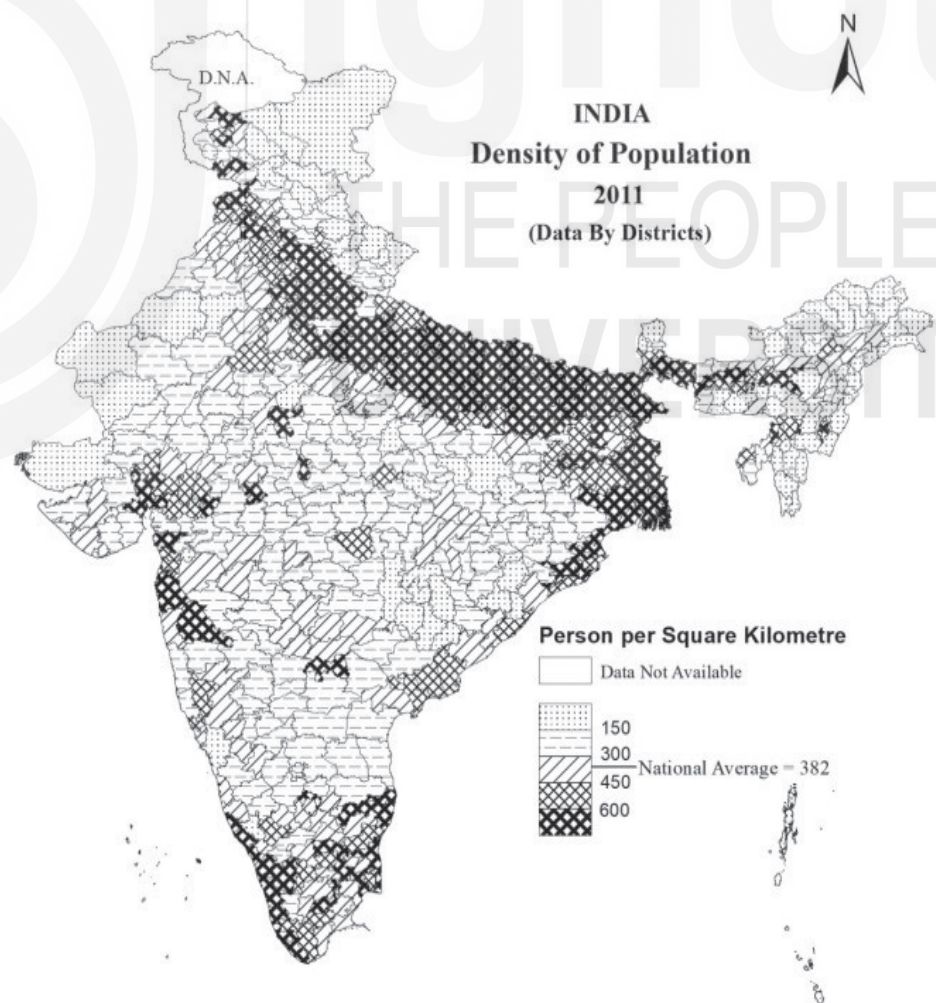


Fig. 14.4: Density of Population.

SAQ 2

What is ecumene?

14.5 AGE AND SEX COMPOSITION

Age and Sex are the most important characteristics of human population. These are very important for demographic analysis that these are referred to as “the demographic variables” (Bogue, 1969: 149). The demographic processes of fertility, mortality, and migration produce the population’s age and sex structure (Horiuchi and Preston, 1988), and the age and sex structure influences the demographic processes.

In population pyramid, population is plotted on X-axis and age on Y-axis. It consists of two back-to-back bar graphs. One showing the number of males and one showing females in a particular population in five-year age groups (also called cohorts). Males are conventionally shown on the left and females on the right, and they may be measured by raw number or as a percentage of total population.

Demographers can derive vital information about the birth rate and death rate of a country. The shape of any population pyramid is an indication of what challenges or advantages a particular place or region will face.

Types of Population Pyramid

On the basis of the shape, there are three types of pyramids, Stationary (Stable), Constrictive and Expansive (Fig. 14.5). Shape of a pyramid depends on the stage of population demography of that country.

1. **Expansive Pyramid:** Expansive pyramids represent population that has large proportion of young people. With a wide base, expansive pyramid usually depicts a population with a high fertility rate and lower life expectancies. The number of people in the older age group is usually low and thus has a narrow top. Many developing countries have expansive population pyramids. The countries which showcase this type of population pyramids have high birth rate and high death rate.
2. **Constrictive Pyramid:** Population that has low or declining number of younger people when represented in bar diagram gives a constricted pyramid. This is result of a country having slow or declining birth rate with each succeeding age group getting smaller and smaller. The country will have more older people than younger ones. The larger number of older people can also be linked to good health care facilities for older citizens. This reduces the death rate in high age group and they live longer. This is also known as contracting or barrel shaped pyramid.
3. **Stationary Pyramid:** A stationary pyramid or stable pyramid is created if the rate of birth and death remains same in a population over time. This is usually a rectangular or square shaped graphical representation where it is slightly tapering at the top of the graph. Countries with better living conditions, geriatric care, and medical facilities have a high

expectancy of life. Also, many countries have a stable rate of birth as these have more awareness to use birth control measures. Such type of pyramid shows a stable increase along with population in due time. It can also be regarded as a population pyramid which is showing an unchanging pattern of fertility and mortality. The stationary pyramid is mostly seen in highly developed countries like Sweden, USA and Netherlands.

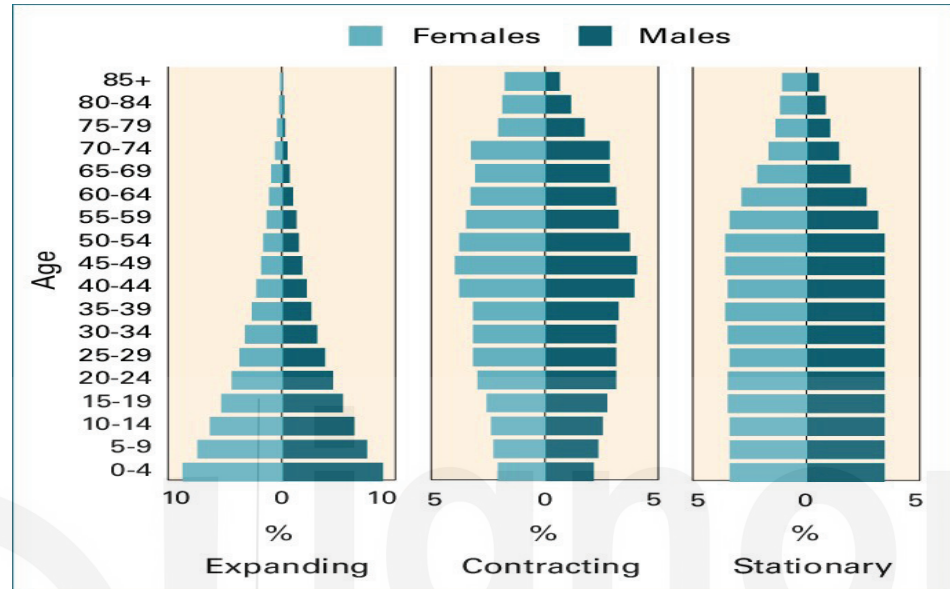


Fig. 14.5: Types of Population Pyramid.

The age structure of a country tells us a lot about its demographic attributes. It can tell us in which stage of demographic transition is the country passing through and it also tells us broadly about dependency ratio of the country. There are three methods to analyse the age composition of a population. These methods are Age Groups, Age Pyramids and Age Indices.

1. Age Groups

Each country provides data in five-year age groups starting from 0 to 80 plus. Mostly, 15 years and 60 years are considered as break points, and on this basis population is classified in three broad groups: Young age group (0-14), Adult age group (15-60) and Old age group (60 and above).

- **Young age group:** This age group includes children below 15 years of age. The proportion of population in this age group is determined by the stage of demographic transition through which it is passing. This proportion is high in those countries which are passing through first or second stage of demographic transition. Globally 26 percent of population is below the age of 15 years. This age group is economically and biologically unproductive and requires more economic expenses in terms of health and education.
- **Adult age group:** This age group comprises of people in the age group of 15 to 59 years. The adult age group is biologically and economically most productive and demographically most mobile (Trewartha, 1969, p. 122). This age group bears the burden of taking care of the young and old age groups.

- **Old age group:** All those people who have attained the age of 60 years and above are included in this age group. These people are termed as senior citizens. The proportion of this age group goes on increasing as the country moves from one stage to another of demographic transition. In this age group, the proportion of females is more than males because of lower female mortality rate than males.

2. Age Pyramids

It is one of the commonly used methods of analysing age composition. In this diagram, males and females are depicted in various age groups by horizontal bars. The shape of the pyramid varies depending on the stage of the demographic transition through which the country is passing.

Age pyramid helps in the analysis of population by providing diagrammatic representation of the relationship between age structure of population and economy. The shape of an age pyramid can explain the socio-economic and demographic history of the concerned population.

3. Age Indices

Age indices are the ratios between different age groups of population. These ratios are calculated for the purposes of estimation and planning of labour force and population analysis, etc. These indices are calculated between young, adult, and old age groups. The most important indices is the dependency ratio which is calculated between adult age group and young and old age group combined. This dependency ratio depicts the drain on the adult population of the country. The dependency ratio is high in case of the developing countries due to large number of young people.

Age Structure of Population in India

India's age structure in 2011 was quite positive with 60 percent of its population comprising of adult age group and only 40 percent were in the young age group and old age group combined. Even within this 31 percent were children and 8 percent were senior citizens (Table 14.6). Although, the proportion of children was more than the world average but the proportion of aged was quite near to the world average of 9 percent.

Table 14.6: India: Age Structure, 2011

Age groups	Person	Percentage	Male	Percentage	Female	Percentage
All ages	1210854977	100	623270258	100	587584719	100.00
0-14	372444116	30	194351375	31	178092741	30.31
15-59	730072019	60	375474130	60	354597889	60.35
60+	103849040	8	51071872	8	52777168	8.98
Age not stated	4489802	0.37	2372881	0.38	2116921	0.36

(Source: Census of India, Table C-14, 2011.)

The shape of age-sex pyramid of India according to the 2011 census data is just like an inverted top (Fig. 14.6). The proportion of population under the age groups of 10 years is less as compared to the 10-14 age groups depicting

that the birth rate is declining. The proportion of population is declining with subsequent increase in age group. The proportion of people aged 80+ is increasing again. The proportion of females is less in all the age groups but after the 55-59 age group, the proportion of females goes on increasing although the proportion of females is just a tiny bit more than the males but in absolute numbers it comes out to be quite significant.

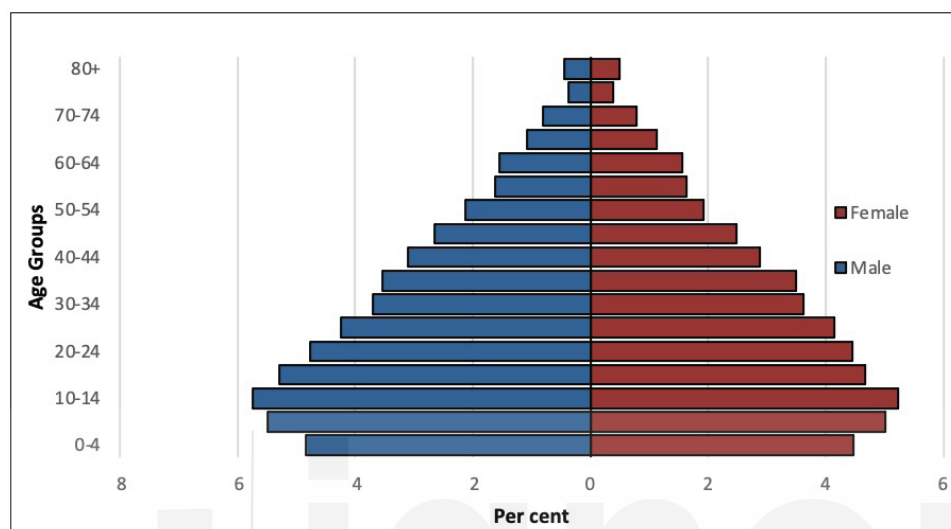


Fig. 14.6: Age-Sex Pyramid of India, 2011.

Population in various age groups have been changing over time. Proportion of young age group has been declining over the time, there has been a decline of 10.3 points from 1961 to 2011 census. It's a very positive sign for the country as whole since it depicts that the country is passing from the various stages of demographic transition where birth rates are declining over time. Due to declining birth rates and declining death rates, proportion of aged population is also increasing over time. There has been an increase of 2.9 points over a period of 50 years. This increase also suggests that the country's medical infrastructure is also improving. The adult age group has also been increasing over time, this age group has witnessed an increase of 7.1 points. Increase in adult age group and decrease in young age groups indicates a positive dependency ratio (Table 14.7).

Table 14.7: India: Temporal Change in the Percentage Age Composition, (1961- 2011)

Age Groups	1961	1971	1981	1991	2001	2011
0-14	41.1	42.0	39.6	37.3	35.3	30.8
15-59	53.2	52.0	53.9	55.5	56.9	60.3
60+	5.7	6.0	6.5	6.8	7.4	8.6

(Source: 1.Census of India, 1991, India: General Population Tables.

2. Census of India, 2001, India at a glance / Broad Age Groups.

3. Census of India, 2011, Table C-14)

State-wise distribution of age composition depicts the stage of demographic transition. The state like Kerala which is in the last stage of its demographic transition has an age composition which is comparable with many developed countries of the world. Kerala has only 23.44 percent children in its total population which is even less than the global average of 26 percent. The proportion of older population in its total population is 12.55 percent which is

highest in the country and also more than the global average of 9 percent. According to Tim Dyson (2010) as the populations go through the transition, the young age structures also change to having old age structures that is population ageing. The same is happening with the states of Kerala, Goa, Tamil Nadu, Punjab and Himachal Pradesh where proportion of children is varying between 21 and 26 percent and older population is varying between 10 to 13 percent. The lowest proportion of children in total population is in Goa (21.81 percent). On the other extreme are states like Bihar, Meghalaya, Jharkhand, Uttar Pradesh, and Arunachal Pradesh where proportion of children is varying between 35 to 40 percent. This depicts first or second stage of demographic transition where the death rates have declined but the birth rates have not declined in the same proportion. Thus, it is leading to higher child proportion in their total population.

Table 14.8: India: Pattern of Age Composition, 2011

State/UT	0-14	15-59	60+
Jammu & Kashmir	33.81	58.71	7.36
Himachal Pradesh	25.86	63.75	10.24
Punjab	25.54	63.98	10.33
Chandigarh	25.25	68.36	6.36
Uttarakhand	31.02	59.88	8.93
Haryana	29.70	61.52	8.65
NCT of Delhi	27.19	65.87	6.83
Rajasthan	34.61	57.54	7.46
Uttar Pradesh	35.69	55.77	7.73
Bihar	40.08	52.13	7.40
Sikkim	27.18	65.96	6.67
Arunachal Pradesh	35.65	59.64	4.60
Nagaland	34.32	60.41	5.19
Manipur	30.17	62.55	7.00
Mizoram	32.45	61.24	6.25
Tripura	27.71	64.37	7.88
Meghalaya	39.70	55.42	4.68
Assam	32.84	60.44	6.66
West Bengal	27.10	64.29	8.48
Jharkhand	36.05	56.46	7.14
Odisha	28.77	61.45	9.49
Chhattisgarh	32.04	60.03	7.84
Madhya Pradesh	33.46	58.56	7.87
Gujarat	28.86	62.82	7.92
Daman & Diu	22.60	72.58	4.67
Dadra & Nagar Haveli	31.37	64.48	4.04
Maharashtra	26.62	63.13	9.88
Andhra Pradesh	25.76	63.54	9.79
Karnataka	26.23	64.22	9.48
Goa	21.81	66.83	11.21
Lakshadweep	25.53	66.12	8.17
Kerala	23.44	63.90	12.55
Tamil Nadu	23.57	65.93	10.41
Puducherry	23.91	66.35	9.65
Andaman & Nicobar Islands	24.35	68.87	6.68

(Source: Census of India, Table C-14, 2011)

The proportion of adult age group was varying between 52 percent and 72 percent. The highest proportion of adult age group was witnessed in Daman & Diu (72.58 percent) whereas the corresponding proportion of child and adult population was 22.60 and 4.67 percent. The lowest proportion of 52.13 percent was found in Bihar (Table 14.8).

Sex Composition

Sex composition is one of the basic demographic characteristics of the human population, which is very important for any meaningful demographic analysis. Changes in sex composition largely reflect the underlying socio-economic and cultural patterns of a society in different ways. Sex ratio is an important social indicator to measure the extent of prevailing equity between males and females in a society at a given point of time. Sex ratio is a valuable source for finding the population of women in India and what is the ratio of women to that of men. Sex ratio is used to describe the number of females per 1000 of males.

Determinants of Tertiary Sex Ratio

There are wide regional variations in sex ratio. This ratio is mainly determined by three basic determinants, which are:

- The sex ratio at birth
- The sex ratio at death
- The sex ratio of the migrants

The examination of sex ratio of registered births of different countries, reveal a similar pattern of having excess males at the time of birth for each hundred females. Yet, not all the countries in the world have similar natural sex ratio, and this is due to various factors. According to Thompson and Lives, "since the natural sex ratio in itself is governed by the differences in the pre-natal mortality of the two sexes and since more males die before birth than females, it is often said that these countries where pre-natal biases are low, natural sex ratio is more masculine and it is less masculine where the pre-natal biases are more".

It is quite interesting to know that within the same country, one can find differences in sex ratio of various population groups as is the case in India where Muslims, Christians, Hindus have different sex ratio. Sex ratio at death varies more from country to country. Differences in the sex ratio at death among various countries are to be associated with their differences in the stage of socio-economic development, standard of living, status granted to women, type of economy and degree of participation in work by females etc.

Third factor, which affects sex ratio, is selectivity among migrants on the basis of sex. Basically, migrations that take place due to economic reasons are mainly sex-selective for example, in India rural to urban migration is highly male dominated. It is economically motivated migration. In more developed countries, urban sex ratios are more in favour of females. Socially determined migration is also sex-selective. The perfect example is of India, where migration for matrimony involves movement of females from the place of residence of their parents to the place of residence of their spouses. Sex ratio

is also affected drastically by wars, epidemics, and certain practices partial to a particular sex.

It was revealed in Census of India, 2011 that sex ratio in the country was 943 females per 1000 males. It was better than sex ratio of 2001 by 10 points. This was highest since 1971. Sex ratio in the country has been historically negative meaning thereby it was unfavourable for females. Figure 14.7 reveals that even during pre-independence period, sex ratio was male dominated meaning thereby there was shortage of females per thousand males. Sex ratio declined consistently till 1941 but rose slightly in 1951. Again for two consecutive decades, the sex ratio declined again and improved marginally in 1981. But in 1991, the country witnessed lowest sex ratio in the century i.e., 927 females per thousand males. But after 1991 and in the new millennia, sex ratio has been improving from 933 in 2001 to 943 in 2011. This increase is attributable to many steps taken by Government of India to curtail the declining sex ratio. The most prominent being the imposition of ban on pre-natal determination of sex.

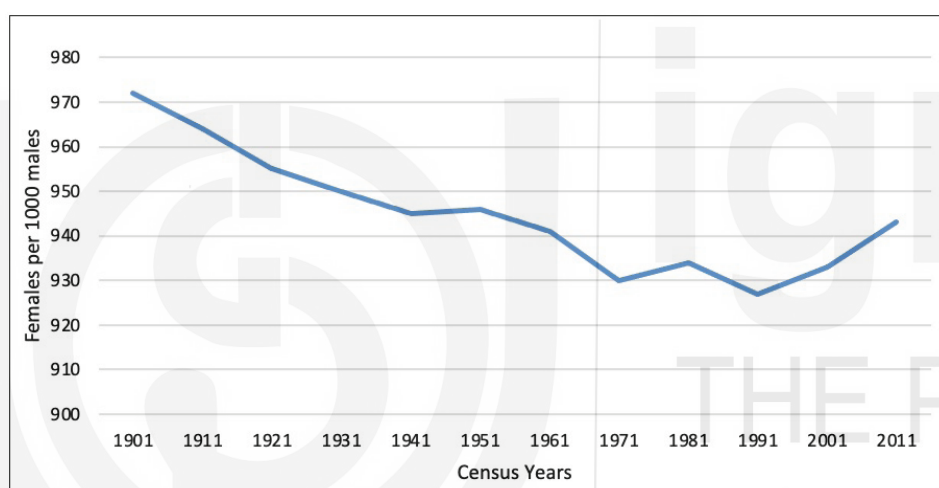


Fig. 14.7: Sex Ratio of India, 1901-2011.

Sex Ratio in 2011

According to the census data of 2011, India recorded sex ratio of 943 females per thousand males. Rural sex ratio was 949 females per thousand males whereas urban sex ratio was only 929 (Table 14.9). Meaning thereby that rural sex ratio was better than urban sex ratio but here the impact of male-selective rural to urban migration has to be taken into consideration before making any generalisation. Highest sex ratio was recorded by Kerala (1048) and lowest by Daman & Diu (618). Only two states displayed sex ratio more than 1000 females per thousand males. These were Kerala and Puducherry. Highest rural (1078) and urban (1091) sex ratio was also seen in Kerala. Contrary to the national scenario, urban sex ratio was more in Kerala than in the rural areas. Only a few states exhibited more urban sex ratio than the rural areas. These states/Union Territories were Chandigarh, Meghalaya, Manipur, Mizoram, NCT of Delhi, Puducherry, Sikkim, Tamil Nadu and Tripura.

Five states/Union Territories displayed rural sex ratio more than 1000 females per thousand males. These were Chhattisgarh, Goa, Kerala, Puducherry and Uttarakhand.

Table 14.9: India: Sex Ratio, 2011

Name	Total	Rural	Urban
India	943	949	929
Andaman & Nicobar Islands	876	877	874
Andhra Pradesh	993	996	987
Arunachal Pradesh	938	953	890
Assam	958	960	946
Bihar	918	921	895
Chandigarh	818	690	822
Chhattisgarh	991	1001	956
Dadra & Nagar Haveli	774	863	682
Daman & Diu	618	864	551
Goa	973	1003	956
Gujarat	919	949	880
Haryana	879	882	873
Himachal Pradesh	972	986	853
Jammu & Kashmir	889	908	840
Jharkhand	948	961	910
Karnataka	973	979	963
Kerala	1084	1078	1091
Lakshadweep	946	952	945
Madhya Pradesh	931	936	918
Maharashtra	929	952	903
Manipur	985	969	1026
Meghalaya	989	986	1001
Mizoram	976	952	998
Nagaland	931	940	908
NCT of Delhi	868	852	868
Odisha	979	989	932
Puducherry	1037	1028	1042
Punjab	895	907	875
Rajasthan	928	933	914
Sikkim	890	882	913
Tamil Nadu	996	993	1000
Tripura	960	955	973
Uttar Pradesh	912	918	894
Uttarakhand	963	1000	884
West Bengal	950	953	944

(Source: Census of India, PCA, 2011)

District-wise sex ratio figures revealed contrasting picture as shown in Fig. 14.8. Here, Mahe district of Puducherry Union Territory had highest sex ratio of 1184 females per thousand males in the country followed by Almora (1139) and Kannur (1136). Daman district had lowest sex ratio of 534 females per thousand males. Around 99 districts had sex ratio of 1000 or more females per thousand males. Seven districts namely Anugul, Khandwa (East Nimar), Maharajganj, Nanded, Rae Bareilly, Tamenglong and Ukhrul had sex ratio equal to national average. 343 districts had sex ratio of more than national

average of 943 females per thousand males. 291 districts had sex ratio less than national average.

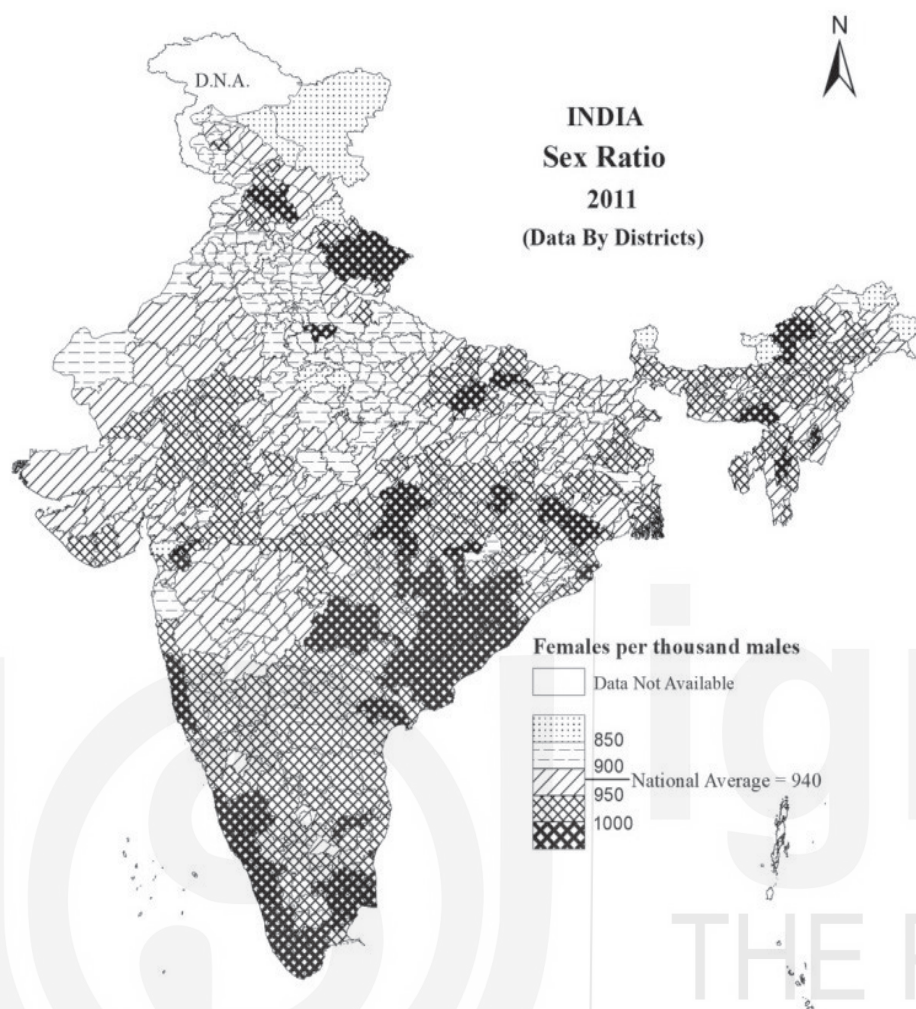


Fig. 14.8: Sex Ratio.

Child Sex Ratio in 0-6 age group

While the overall sex ratio is showing encouraging trends in the country particularly in the new millennium but the same is not true in case of the girls in the age group of 0-6 years. Table 14.10 and Fig. 14.9 both shows declining trend of child sex ratio in the country. There has been a constant decline in the child sex ratio from 976 girls per thousand boys to 918 girls per thousand boys. A decline of 58 points over six decades.

Table 14.10: India: General Sex Ratio and Child Sex Ratio during 1961-2011

Census Year	Sex Ratio	Child Sex Ratio (0-6 years)
1961	941	976
1971	930	964
1981	932	962
1991	927	945
2001	933	927
2011	943	918

(Source: Census of India, PCA, 2011)

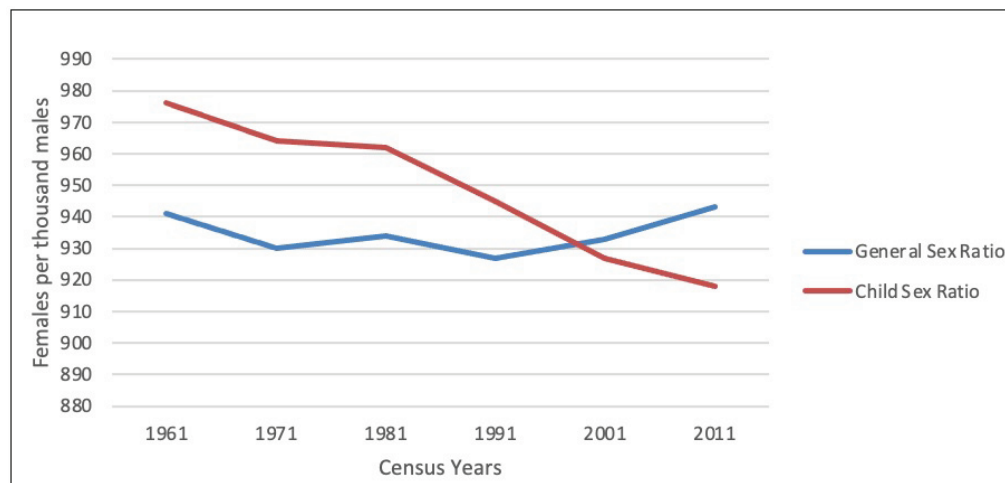


Fig. 14.9: General and Child Sex Ratio of India, 1961-2011.

Table 14.11: India: Child Sex Ratio (0-6 years), 2011

Name	Total	Rural	Urban
India	918	923	905
Andaman & Nicobar Islands	968	976	954
Andhra Pradesh	939	941	935
Arunachal Pradesh	972	975	957
Assam	962	964	944
Bihar	935	938	912
Chandigarh	880	871	880
Chhattisgarh	969	977	937
Dadra & Nagar Haveli	926	970	872
Daman & Diu	904	932	894
Goa	942	945	940
Gujarat	890	914	852
Haryana	834	835	832
Himachal Pradesh	909	912	881
Jammu & Kashmir	862	865	850
Jharkhand	948	957	908
Karnataka	948	950	946
Kerala	964	965	963
Lakshadweep	911	911	911
Madhya Pradesh	918	923	901
Maharashtra	894	890	899
Manipur	930	923	949
Meghalaya	970	972	954
Mizoram	970	966	974
Nagaland	943	933	973
NCT of Delhi	871	814	873
Odisha	941	946	913
Puducherry	967	953	975
Punjab	846	844	852
Rajasthan	888	892	874
Sikkim	957	964	934
Tamil Nadu	943	936	952

Tripura	957	960	947
Uttar Pradesh	902	906	885
Uttarakhand	890	899	868
West Bengal	956	959	947

(Source: Census of India, PCA, 2011)

Although, the general sex ratio has been increasing since 2001 but child sex ratio has been declining over time. Table 14.11 reveals that child sex ratio is better in rural areas than urban areas of the country. Three north-eastern states of India namely Arunachal Pradesh (972), Mizoram (970) and Meghalaya (970) displayed highest child sex ratio whereas on the other extreme were the three states of North India namely Haryana (834), Punjab (846), and Jammu and Kashmir (862). Ironically, two most agriculturally developed states of India known as the food bowl of India had the lowest proportion of girls in its population. The child sex ratio was much better in rural areas of Chhattisgarh and Andaman & Nicobar Islands. As opposed to this, even in rural areas of Haryana and Punjab child sex ratio was worst. However, in urban areas of the country the dearth of girls was very acute as only 905 girls were there in comparison to 1000 boys.

Sex ratio in the country needs to be improved in general but particularly more emphasis must be laid on raising child sex ratio. Although Government of Haryana has launched '*Beti Bachao Beti Padhao*' scheme, its impact on the child sex ratio needs to be checked, when the census results of 2021 are released.

SAQ 3

Define constrictive pyramid.

14.6 RELIGIOUS AND LINGUISTIC COMPOSITION

Religion is a system of faith or worship that influences the way a person thinks, views, and interacts with the world. A person's religion is often the main source of their ethical and moral beliefs. For many believers, religion is a source of great comfort, perhaps even purpose. Religion is a set of organized beliefs, practices, and systems that most often relate to belief and worship of a controlling force such as a personal god or another supernatural being.

Religion influences the socio-economic institutions, political ethos, and laws of society. For example, marriage requires religious sanctions in most groups. Religion also influences family size.

Many different religions exist throughout the world. Although, religions are often very different from one another in theology and practice. It is arguable that most of them focus upon two near-universal themes: How to behave here on Earth and what to expect when we die.

About 85 percent of the world's people identify themselves with religion. The most popular religion is Christianity which is followed by an estimated 2.38

billion people worldwide. Islam, which is practiced by more than 1.91 billion people, has the second largest following. Other religions measured and projected include Hinduism (1.16 billion), Buddhism (507 million), Judaism (14.6 million) and two umbrella categories.

India is the birth place of four religions viz., Hinduism, Buddhism, Jainism and Sikhism. Religion had been an important aspect of even the inhabitants of Indus valley civilization.

Religious diversity and secularism in India have been helpful to promote multiculturalism and social democracy. India has no state religion. Hindus form nearly 80 percent of the total population of India. But who are Hindus? Originally, *Hindu* simply meant the people living beyond river Sindhu or Indus.

Nearly 80 percent of Indians follow Hinduism, another 14 percent are followers of Islam whereas Christianity and Sikhism is followed by 2.3 percent and 1.7 percent respectively. Buddhism, Jainism and other religions are followed by less than 3 percent of the total population.

Table 14.12: India: Religious Composition (%), 2011

Name	Hindu	Muslim	Christian	Sikh	Buddhist	Jain	Others	Religion not stated
INDIA	79.80	14.23	2.30	1.72	0.70	0.37	0.66	0.24
Jammu and Kashmir	28.44	68.31	0.28	1.87	0.90	0.02	0.01	0.16
Himachal Pradesh	95.17	2.18	0.18	1.16	1.15	0.03	0.01	0.12
Punjab	38.49	1.93	1.26	57.69	0.12	0.16	0.04	0.32
Chandigarh	80.78	4.87	0.83	13.11	0.11	0.19	0.02	0.10
Uttarakhand	82.97	13.95	0.37	2.34	0.15	0.09	0.01	0.12
Haryana	87.46	7.03	0.20	4.91	0.03	0.21	0.01	0.17
NCT of Delhi	81.68	12.86	0.87	3.40	0.11	0.99	0.01	0.08
Rajasthan	88.49	9.07	0.14	1.27	0.02	0.91	0.01	0.10
Uttar Pradesh	79.73	19.26	0.18	0.32	0.10	0.11	0.01	0.29
Bihar	82.69	16.87	0.12	0.02	0.02	0.02	0.01	0.24
Sikkim	57.76	1.62	9.91	0.31	27.39	0.05	2.67	0.30
Arunachal Pradesh	29.04	1.95	30.26	0.24	11.77	0.06	26.20	0.48
Nagaland	8.75	2.47	87.93	0.10	0.34	0.13	0.16	0.12
Manipur	41.39	8.40	41.29	0.05	0.25	0.06	8.19	0.38
Mizoram	2.75	1.35	87.16	0.03	8.51	0.03	0.07	0.09
Tripura	83.40	8.60	4.35	0.03	3.41	0.02	0.04	0.14
Meghalaya	11.53	4.40	74.59	0.10	0.33	0.02	8.71	0.32
Assam	61.47	34.22	3.74	0.07	0.18	0.08	0.09	0.16
West Bengal	70.54	27.01	0.72	0.07	0.31	0.07	1.03	0.25
Jharkhand	67.83	14.53	4.30	0.22	0.03	0.05	12.84	0.21
Odisha	93.63	2.17	2.77	0.05	0.03	0.02	1.14	0.18
Chhattisgarh	93.25	2.02	1.92	0.27	0.28	0.24	1.94	0.09
Madhya Pradesh	90.89	6.57	0.29	0.21	0.30	0.78	0.83	0.13
Gujarat	88.57	9.67	0.52	0.10	0.05	0.96	0.03	0.10
Daman & Diu	90.50	7.92	1.16	0.07	0.09	0.12	0.03	0.10

Dadra & Nagar Haveli	93.93	3.76	1.49	0.06	0.18	0.35	0.09	0.14
Maharashtra	79.83	11.54	0.96	0.20	5.81	1.25	0.16	0.25
Andhra Pradesh	88.46	9.56	1.34	0.05	0.04	0.06	0.01	0.48
Karnataka	84.00	12.92	1.87	0.05	0.16	0.72	0.02	0.27
Goa	66.08	8.33	25.10	0.10	0.08	0.08	0.02	0.21
Lakshadweep	2.77	96.58	0.49	0.01	0.02	0.02	0.01	0.10
Kerala	54.73	26.56	18.38	0.01	0.01	0.01	0.02	0.26
Tamil Nadu	87.58	5.86	6.12	0.02	0.02	0.12	0.01	0.26
Puducherry	87.30	6.05	6.29	0.02	0.04	0.11	0.01	0.17
Andaman & Nicobar Islands	69.45	8.52	21.28	0.34	0.09	0.01	0.15	0.18

(Source: Census of India, Religion PCA, 2011)

Although, Buddhism originated in India its followers are only 8.2 percent in the country. However, Buddhism is widespread in East, South-east and South Asia due to the efforts of King Ashoka who spread the message of Gautam Buddha both within and outside the country.

28 states and Union Territories have majority followers of Hinduism in India. Muslims are in majority in only two states/UTs in Jammu and Kashmir and Lakshadweep. Sikhs are in majority only in Punjab whereas Christians are in majority in four north-eastern states of Arunachal Pradesh, Nagaland, Mizoram and Meghalaya. Significant numbers of Buddhists were enumerated in Sikkim and Arunachal Pradesh. Others were in significant numbers in Arunachal Pradesh and Jharkhand. These are people following tribal religions.

Although, the country has large number of religious communities but the most important religion is Hinduism as it has the largest followers in the country. Although, there are other religions also but their spatial and numerical extent is very less as compared to Hinduism.

Linguistic Composition

Language is the mean of communication, either spoken or written, consisting of the use of words, in a structured and conventional way. The functions of language include communication, the expression of identity, play, imaginative expression and emotional release.

Dialect is a variety of language distinguished by grammar, pronunciation, or vocabulary, spoken in a specific area by a specific group of people. Dialect is usually used by a local cultural group. A language may have many dialects which differ considerably particularly in verbal expression. It is stated that dialect tends to change after 40 to 50 kilometres. In Hindi belt, there are some major dialects of Hindi like Magadhi, Bhojpuri, Awadhi and Bundelkhandi etc. which are quite different from each other. In North India following dialects like *Dogri, Majhi, Doabi, Malwai, Bagdi, Bhatani, Ahirwati, Mewati, Braj, Haryanvi, Puadi, Kinnauri, Laholi, Kullvi, Mandiali, Pahadi, Kangadi, Bilaspuri* and *Chambiali* are spoken by the people of Jammu, Himachal Pradesh, Punjab and Haryana.

Hindi is the official language of India but as many as 22 scheduled languages are recognised by the Constitution of India. These are mentioned in Eighth Schedule of Constitution of India. These languages are:

- | | |
|--------------|---------------|
| 1. Kashmiri | 12. Kannada |
| 2. Punjabi | 13. Tamil |
| 3. Hindi | 14. Telugu |
| 4. Urdu | 15. Malayalam |
| 5. Nepali | 16. Sanskrit |
| 6. Bengali | 17. Assamese |
| 7. Oriya | 18. Manipuri |
| 8. Marathi | 19. Bodo |
| 9. Konkani | 20. Dogri |
| 10. Gujarati | 21. Maithili |
| 11. Sindhi | 22. Santa |

Indian languages belong mainly to four linguistic families viz.

1. Austric (Nishad)
2. Dravidian (Dravida)
3. Sino-Tibetan (Kirata)
4. Indo-Aryan (Arya)

The chronological evolution of these linguistic families is closely related to the racial history of Indian sub-continent.

1. The Austric Family (Nishad)

This linguistic family is related with Australoid (Austric) people who came to India after the Negritoes. The Austric family of languages is divided into two branches, Austroasiatic and Austronesian, the latter formerly called Malayo-Polynesian. These are spoken in India, Southeast Asia and Pacific Islands.

The Austroasiatic branch has three sub-branches: Munda, Mon-Khmer, and Vietnamese-Muong, out of which the first one is located in India.

2. The Dravidian Languages

The actual word '*Dravidian*' was first used by Robert A. Caldwell, who introduced the Sanskrit word Dravida among Dravidian languages. Besides the four internationally known languages spread in many parts of the world, there are 26 Dravidian languages by the current count, of which 25 are spoken in India and one (Brahui) is spoken in Baluchistan on Pakistan-Afghanistan border. Spoken by more than 300 million people in south Asia, the antiquity of Dravidian languages is largely due to the rich grammatical and linguistic-literary tradition of Classical Tamil.

Apart from Tamil, even other major Dravidian languages, namely, Malayalam, Kannada, and Telugu – possess independent scripts and literary histories dating from the pre-Christian era. These languages are mainly concentrated in the southern plateau region and the adjoining coastal plains.

3. The Sino-Tibetan Family

This linguistic family consists of 70 languages spoken in the Tibet Himalayan Mountain region and North-eastern states of India. Significant languages of

this family are Tibetan, Bhotia, Kinnauri, Lepcha, Adi Miri, Aka, Dafla, Mishi, Abor, Bodo, Garo, Mikir, Tripuri, Angami, Sema, Manipuri, Lushai and Konyak etc. These languages are spoken by about 8 million people of different tribal communities living in Ladakh, parts of Himachal Pradesh, Sikkim, Assam, Meghalaya and other North-Eastern states.

4. The Indo-Aryan Languages

The largest chunk of languages and mother tongues belong to the Indo-Aryan sub-family of Indo-European languages. These are also known as Indic or Indian. These are sub-divided into two major branches – Dardic and Indo-Aryan. Dardic languages include Dardi, Shina, Kashmiri and Kohistani and the languages of Indo-Aryan group are Hindi, Urdu, Sanskrit, Punjabi, Rajasthani, Gujarati, Marathi, Konkani, Oriya, Bengali, Assamese, Sindhi and Nepali etc. Among the modern Indo-Aryan languages, Hindi and Bengali happen to be the most well-known languages internationally.

Distribution of Population by Language

According to the 2011 census data on languages and mother tongues, 3/4th of the total population of India spoke Indo-Aryan family of languages. 43.63 percent spoke Hindi language followed by Bengali (8.03 percent), Marathi (6.86 percent), Telugu (6.70 percent), Tamil (5.70 percent), Gujarati, Urdu, Kannada, Odia, Malayalam, Punjabi, Assamese, Maithili, Santali, Kashmiri, Nepali, Sindhi, Dogri, Konkani, Manipuri, Bodo and Sanskrit. Although, Sanskrit is spoken by almost 25000 people but when calculate it in percentage term, it comes out to be very minuscule (Table 14.13).

Table 14.13: India: Proportion of Speakers of Scheduled Languages to Total Population, 2011

Sr. No.	Scheduled Languages	Percentage of Speakers
1	Hindi	43.63
2	Bengali	8.03
3	Marathi	6.86
4	Telugu	6.70
5	Tamil	5.70
6	Gujarati	4.58
7	Urdu	4.19
8	Kannada	3.61
9	Odia	3.10
10	Malayalam	2.88
11	Punjabi	2.74
12	Assamese	1.26
13	Maithili	1.12
14	Santali	0.61
15	Kashmiri	0.56
16	Nepali	0.24
17	Sindhi	0.23
18	Dogri	0.21
19	Konkani	0.19
20	Manipuri	0.15
21	Bodo	0.12
22	Sanskrit	Negligible

(Source: Census of India, Language and Mother Tongue, 2011)

SAQ 4

How many languages are there in Indian linguistic family? Define any one language of linguistic family.

14.7 CASTE AND TRIBE

The Indian society is divided into various sects and classes. This is because of the caste system which is prevalent in the country.

Scheduled castes are sub-communities within the framework of the Hindu caste system who have historically faced deprivation, oppression and extreme social isolation in India on account of their perceived 'low status'. Only marginalised Hindu communities can be deemed Scheduled Castes in India, according to The Constitution (Scheduled Castes) Order, 1950. Those who belonged to one of the four major *varnas* namely Brahmin, Kshatriya, Vaishya and Shudra are called *Savarna*. The *avarna* referred to as 'untouchables' and are known by the name Dalit, this word comes from the Hindi word *dalan*, meaning oppressed or broken. Mahatma Gandhi called them *Harijan*, which meant 'children of god.' The term Scheduled Castes was first used by British in the Government of India Act, 1935, which first categorised the lower castes under 'Depressed Classes'.

The 2011 Census places the number of scheduled castes in India at 16.63 percent of the total population, in absolute terms 201,378,372 people. One fifth of these scheduled castes are found in Uttar Pradesh only. Uttar Pradesh has the highest number of scheduled castes in its total population. It accounted for 20.70 percent of the total population of the state. Meaning thereby every fifth person living in Uttar Pradesh belongs to scheduled caste category. Although Uttar Pradesh has the largest number of schedule castes in its population but the largest proportion of Scheduled caste are found in the state of Punjab, where they accounted for 31.94 percent of the total population.

The second largest numbers of scheduled caste people are in West Bengal, followed by Bihar, Tamil Nadu, Andhra Pradesh, Maharashtra, Rajasthan, Madhya Pradesh and Karnataka (Table 14.14).

Two states and two Union Territories namely Arunachal Pradesh, Nagaland, Lakshadweep, and Andaman and Nicobar Islands reported no Scheduled caste population in its total population.

Table 14.14: India: Distribution of Scheduled Caste Population, 2011

Name	Scheduled Castes	Percentage
India	201378372	100.00
Uttar Pradesh	41357608	20.54
West Bengal	21463270	10.66
Bihar	16567325	8.23
Tamil Nadu	14438445	7.17
Andhra Pradesh	13878078	6.89

Maharashtra	13275898	6.59
Rajasthan	12221593	6.07
Madhya Pradesh	11342320	5.63
Karnataka	10474992	5.20
Punjab	8860179	4.40
Odisha	7188463	3.57
Haryana	5113615	2.54
Gujarat	4074447	2.02
Jharkhand	3985644	1.98
Chhattisgarh	3274269	1.63
Kerala	3039573	1.51
NCT of Delhi	2812309	1.40
Assam	2231321	1.11
Uttarakhand	1892516	0.94
Himachal Pradesh	1729252	0.86
Jammu & Kashmir	924991	0.46
Tripura	654918	0.33
Chandigarh	199086	0.10
Puducherry	196325	0.10
Manipur	97328	0.05
Sikkim	28275	0.01
Goa	25449	0.01
Meghalaya	17355	0.01
Dadra & Nagar Haveli	6186	0.00
Daman & Diu	6124	0.00
Mizoram	1218	0.00
Arunachal Pradesh	0	0.00
Nagaland	0	0.00
Lakshadweep	0	0.00
Andaman & Nicobar Islands	0	0.00

(Source: Census of India, PCA, 2011)

Table 14.15: India: Proportion of Scheduled Caste Population to Total Population, 2011

State/Union Territory	Total Population	SC Population	Percentage
India	1210854977	201378372	16.63
Punjab	12541302	41357608	31.94
Himachal Pradesh	6864602	21463270	25.19
West Bengal	27743338	16567325	23.51
Uttar Pradesh	1055450	14438445	20.70
Haryana	10086292	13878078	20.17
Tamil Nadu	25351462	13275898	20.01
Chandigarh	16787941	12221593	18.86
Uttarakhand	68548437	11342320	18.76
Rajasthan	199812341	10474992	17.83
Tripura	104099452	8860179	17.83
Karnataka	610577	7188463	17.15
Odisha	1383727	5113615	17.13

NCT of Delhi	1978502	4074447	16.75
Andhra Pradesh	2855794	3985644	16.41
Bihar	1097206	3274269	15.91
Puducherry	3673917	3039573	15.73
Madhya Pradesh	2966889	2812309	15.62
Chhattisgarh	31205576	2231321	12.82
Jharkhand	91276115	1892516	12.08
Maharashtra	32988134	1729252	11.81
Kerala	41974218	924991	9.10
Jammu & Kashmir	25545198	654918	7.38
Assam	72626809	199086	7.15
Gujarat	60439692	196325	6.74
Sikkim	243247	97328	4.63
Manipur	343709	28275	3.41
Daman & Diu	112374333	25449	2.52
Dadra & Nagar Haveli	84580777	17355	1.80
Goa	61095297	6186	1.74
Meghalaya	1458545	6124	0.58
Mizoram	64473	1218	0.11
Arunachal Pradesh	33406061	0	0.00
Nagaland	72147030	0	0.00
Lakshadweep	1247953	0	0.00
Andaman & Nicobar Islands	380581	0	0.00

(Source: Census of India, PCA, 2011)

The proportion of scheduled caste population to total population portrays an entirely different picture as shown in Fig. 14.10. According to the census data presented in Table 14.15, 16.63 percent of Indians belong to schedule caste category. State-wise the largest proportion of scheduled castes is found in Punjab (31.94 percent) meaning thereby that every third Punjabi belongs to schedule caste category. Followed by Punjab we have Himachal Pradesh (25.19 percent) where every fourth person is a scheduled caste. In West Bengal, 23.51 percent of people belong to scheduled castes. In Uttar Pradesh, Tamil Nadu and Haryana every fifth person is a scheduled caste.

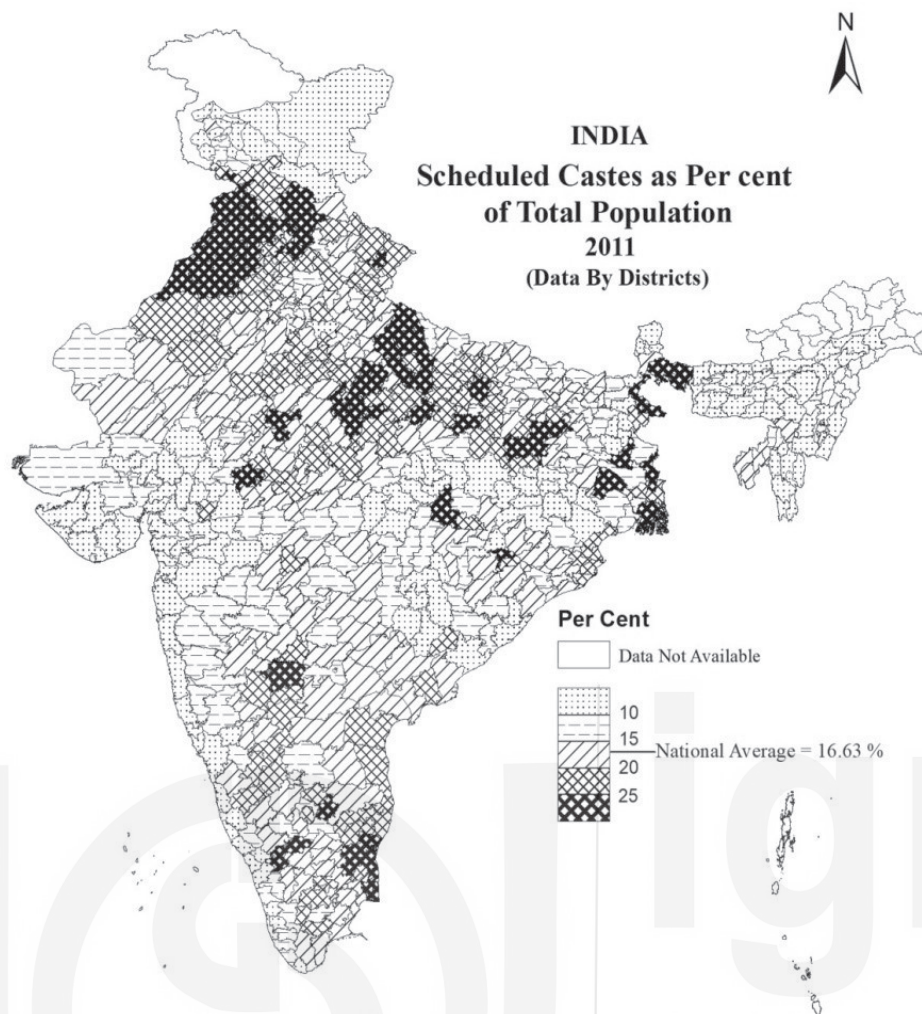


Fig. 14.10: Scheduled Castes as percentage of Total Population.

On the other extreme, we have states/Union Territories which have less than 1 percent of scheduled caste population in their total population. These are Meghalaya and Mizoram.

The district-wise distribution of scheduled caste population revealed that the highest proportion of scheduled castes was enumerated in Koch Bihar (50.17 percent) district of West Bengal followed by Shahid Bhagat Singh Nagar (42.51 percent) which was earlier known as Nawanshahr, Muktsar (42.31 percent), Firozpur (42.17 percent), Jalandhar (38.95 percent), Faridkot (38.92 percent), Jalpaiguri (37.65 percent), Ganganagar (36.58 percent), Moga (36.50 percent) and Hoshiarpur (35.14 percent). On the other end, we have 33 districts where the proportion of scheduled castes is zero in the total population or they are negligible. Another 33 districts have less than 1 percent of scheduled caste people in its population.

Scheduled Tribes are classified as marginalised communities on the basis of geographical isolation. There are over 700 Scheduled Tribes in India according to The National Commission for Scheduled Tribes.

Like the definition for Scheduled Castes, which was carried over from British-era legislation, the definition for “Scheduled Tribes” has been retained from the 1931 Census. The National Commission for Scheduled Tribes explains: Primitiveness, geographical isolation, shyness, and social, educational and

economic backwardness due to these reasons are the traits that distinguish Scheduled Tribe communities of our country from other communities. The term 'Scheduled Tribes' first appeared in the Constitution of India. Article 366 (25) defined scheduled tribes as "such tribes or tribal communities or parts of or groups within such tribes or tribal communities as are deemed under Article 342 to be Scheduled Tribes for the purposes of this constitution".

No community has been specified as Scheduled Tribe in relation to the states of Haryana and Punjab and Union Territories of Chandigarh, Delhi and Puducherry. Article 342 provides for specification of tribes or tribal communities or parts of or groups within tribes or tribal communities which are deemed to be for the purposes of the Constitution the Scheduled Tribes in relation to that state or Union Territory. The list of Scheduled Tribes is state/UT specific and a community declared as a Scheduled Tribe in a state need not be so in another state. The inclusion of a community as a Scheduled Tribe is an ongoing process.

The essential characteristics of these communities are:

- Primitive Traits
- Geographical isolation
- Distinct culture
- Shy of contact with community at large
- Economically backward

Tribal communities live in various ecological and geo-climatic conditions ranging from plains and forests to hills and inaccessible areas. Tribal groups are at different stages of social, economic, and educational development. While some tribal communities have adopted a mainstream way of life, at the other end of the spectrum, there are certain Scheduled Tribes, 75 in number known as Particularly Vulnerable Tribal Groups (PVTGs), who are characterised by a) pre-agriculture level of technology, b) stagnant or declining population, c) extremely low literacy and d) subsistence level of economy.

Table 14.17: India: Distribution of Scheduled Tribe Population, 2011

Name	Scheduled Tribes	Percentage
India	104545716	100.00
Madhya Pradesh	15316784	14.65
Maharashtra	10510213	10.05
Odisha	9590756	9.17
Rajasthan	9238534	8.84
Gujarat	8917174	8.53
Jharkhand	8645042	8.27
Chhattisgarh	7822902	7.48
Andhra Pradesh	5918073	5.66
West Bengal	5296953	5.07
Karnataka	4248987	4.06
Assam	3884371	3.72
Meghalaya	2555861	2.44
Nagaland	1710973	1.64

Jammu & Kashmir	1493299	1.43
Bihar	1336573	1.28
Manipur	1167422	1.12
Tripura	1166813	1.12
Uttar Pradesh	1134273	1.08
Mizoram	1036115	0.99
Arunachal Pradesh	951821	0.91
Tamil Nadu	794697	0.76
Kerala	484839	0.46
Himachal Pradesh	392126	0.38
Uttarakhand	291903	0.28
Sikkim	206360	0.20
Dadra & Nagar Haveli	178564	0.17
Goa	149275	0.14
Lakshadweep	61120	0.06
Andaman & Nicobar Islands	28530	0.03
Daman & Diu	15363	0.01
Punjab	0	0.00
Chandigarh	0	0.00
Haryana	0	0.00
NCT of Delhi	0	0.00
Puducherry	0	0.00

(Source: Census of India, PCA, 2011)

Distribution of Scheduled Tribes in India

The Scheduled Tribes are notified in 30 states/UTs and the number of individual ethnic groups, etc. notified as Scheduled Tribes is 705. The tribal population of the country, as per 2011 census, is 10.45 crore, constituting 8.6 percent of the total population (Table 14.17 and 14.18). Nearly 90 percent (89.97) of them live in rural areas and 10.03 percent in urban areas. The decadal population growth of the tribals from Census 2001 to 2011 has been 23.66 percent against the 17.69 percent of the entire population.

The sex ratio for the overall population is 943 females per thousand males and that of Scheduled Tribes is 990 females per thousand males.

Broadly the Scheduled tribes inhabit two distinct geographical area – the Central India and the North-Eastern Area. More than half of Scheduled Tribe population is concentrated in Central India, i.e., Madhya Pradesh (14.65 percent), Maharashtra (10.05 percent), Odisha (9.17 percent), Rajasthan (8.84 percent), Gujarat (8.53 percent), Jharkhand (8.27 percent), Chhattisgarh (7.48 percent), Andhra Pradesh (5.66 percent) and West Bengal (5.07 percent). The other distinct area is the North-East comprising of Assam, Nagaland, Mizoram, Manipur, Meghalaya, Tripura, Sikkim and Arunachal Pradesh. On the other end, we have states/Union Territories like Goa, Lakshadweep, Andaman and Nicobar Islands and Daman and Diu where the proportion of scheduled tribe population to the total scheduled tribe population of the country is very low (Table 14.17).

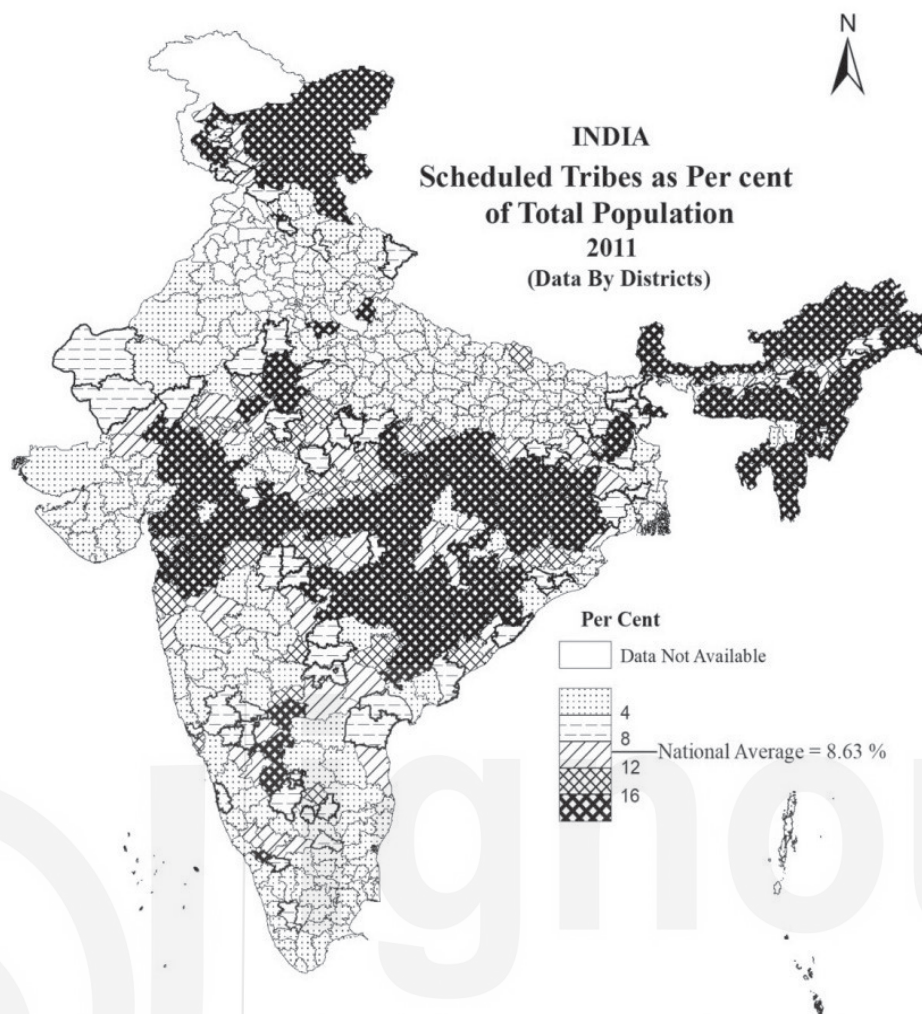


Fig. 14.11: Scheduled Tribes as percentage of Total Population.

Table 14.18: India: Proportion of Scheduled Tribe Population to Total Population, 2011

State/Union Territory	Total Population	ST Population	Percentage
India	1210854977	104545716	8.63
Lakshadweep	64473	61120	94.80
Mizoram	1097206	1036115	94.43
Nagaland	1978502	1710973	86.48
Meghalaya	2966889	2555861	86.15
Arunachal Pradesh	1383727	951821	68.79
Dadra and Nagar Haveli	343709	178564	51.95
Manipur	2855794	1167422	40.88
Sikkim	610577	206360	33.80
Tripura	3673917	1166813	31.76
Chhattisgarh	25545198	7822902	30.62
Jharkhand	32988134	8645042	26.21
Odisha	41974218	9590756	22.85
Madhya Pradesh	72626809	15316784	21.09
Gujarat	60439692	8917174	14.75
Rajasthan	68548437	9238534	13.48
Assam	31205576	3884371	12.45
Jammu and Kashmir	12541302	1493299	11.91

Goa	1458545	149275	10.23
Maharashtra	112374333	10510213	9.35
Andaman & Nicobar Islands	380581	28530	7.50
Andhra Pradesh	84580777	5918073	7.00
Karnataka	61095297	4248987	6.95
Daman & Diu	243247	15363	6.32
West Bengal	91276115	5296953	5.80
Himachal Pradesh	6864602	392126	5.71
Uttarakhand	10086292	291903	2.89
Kerala	33406061	484839	1.45
Bihar	104099452	1336573	1.28
Tamil Nadu	72147030	794697	1.10
Uttar Pradesh	199812341	1134273	0.57
Punjab	27743338	0	0.00
Chandigarh	1055450	0	0.00
Haryana	25351462	0	0.00
NCT of Delhi	16787941	0	0.00
Puducherry	1247953	0	0.00

(Source: Census of India, PCA, 2011)

The data in Table 14.18 and Fig. 14.11 depicts the proportion of scheduled tribe population to the total population of the state. It reveals that the states which had the lowest proportion of scheduled tribe population to the total scheduled tribe population of the country had the highest proportion of scheduled tribe population in their total population. For example, Lakshadweep had only 0.06 percent of total scheduled tribe population of the country but within Lakshadweep the proportion of scheduled tribe population was 94.80 percent of the total population of the state. Similarly, some Islands and the North-eastern states had the highest proportion of scheduled tribe population in their total population.

14.8 SUMMARY

In this Unit, you have learnt the following:

- Birth, death, and migration are three major elements that drive human population change and in turn are impacted by biological, social, economic and demographic determinants.
- The growth trend of the population and the distribution pattern of the population are not same.
- In India, the distribution of population is based on factors like history of settlement, terrain, climate, employment, trade and commerce etc.
- The favourable physical factors like fertile lands, favourable climate has led to high density of population in the Gangetic plains, deltaic region of the eastern coast.
- The peninsular region, the desert regions, north east etc., have low density of population because of rough terrain and hostile climatic conditions.

- The most effective way to graphically depict the age and sex distribution of a population is population pyramid.
- Three-quarters of India's population speaks Indo-Aryan languages.
- In terms of overall population, Uttar Pradesh has the greatest proportion of scheduled castes, followed by West Bengal and Bihar and so on.
- There are 10.45 crore tribal people in the country, accounting for 8.6 percent of the overall population as per 2011 Census data.

14.9 TERMINAL QUESTIONS

1. What do you mean by population growth? Describe different components of population growth with reference to India.
2. Explain different factors affecting the density of population using Indian perspective.
3. What is population pyramids? Describe pattern of India's population pyramid.
4. What do you understand by Scheduled caste and Scheduled tribe? Explain it using special reference to India.
5. Write short note on
 - a) Pattern of population distribution in India
 - b) Regional pattern of population density in India
 - c) Population pyramids and their types
 - d) Type of sex ratios
 - e) Linguistic diversity of India

14.10 ANSWERS

Self-Assessment Questions (SAQ)

1. It refers to the factor of race, the fertility potential in women and genetic fertility in men that determines fertility. It varies across the different races as well as from person to person.
2. It signifies a term that comprises five percent area of Earth's surface fit for humans to settle permanently.
3. Constricted pyramid indicates the low or declining number of younger people of population when represented in a bar diagram.
4. There are four linguistic families among Indian languages. Austric family is related with Australoid (Austric) people. It is divided into two branches, Austroasiatic and Austronesian.

Terminal Questions

1. Include the meaning of population growth in your answer. Refer to Sec. 14.2.
2. To answer it, discuss the factors affecting density of population. Refer to Sec. 14.4.

3. Define population pyramids and include Indian scenario in your answer. Refer to Sec. 14.5.
4. In your answer, explain the major features of scheduled caste and scheduled tribe in India. Refer to Sec. 14.7.
5. Refer to Sections 14.3, 14.4, 14.5 and 14.6.

14.11 REFERENCES AND SUGGESTED FURTHER READING

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SETTLEMENTS |

Structure

15.1	Introduction	15.5	Urbanisation
	Expected Learning Outcomes	15.6	Summary
15.2	Classification of Settlements	15.7	Terminal Questions
15.3	Characteristics of Rural Settlements	15.8	Answers
15.4	Characteristics of Urban Settlements	15.9	References and Suggested Further Reading

15.1 INTRODUCTION

Shelter is one of the most important basic necessities of human beings, the other two being food and clothing. Earlier humans used to stay in forests then they started living in caves. Human beings started building houses for themselves after they had started to domesticate plants and animals. A settlement is a place where humans live. Human beings construct dwellings in order to live settled existence, and the location where they construct houses is known as settlement.

A settlement is a community in which people live. The size of settlements may vary from a small number of dwellings to larger cities. Settlements may include villages, towns and cities. There are two types of settlements, temporary and permanent.

Temporary settlements are built and occupied by hunters, gatherers, and people who practise transhumance and shifting cultivation. Temporary settlements are also made by the people who are displaced from their homes due to disasters. Tents and *kuccha* houses are the most common forms of temporary settlements.

Permanent settlements comprise *pucca* houses. Some of the important determining factors for permanent settlements are – availability of water and land for agriculture, availability of transport, communication and infrastructure for education, livelihood, health and safety.

Settlements in geography are studied under the branch of human geography.

A settlement has a *site* and a *location*. The site is the land or area on which the settlement is built, it can be at the base of a hill, by a riverside or on a plain. The location is its position in relation to other cultural features or settlements in the region. For instance, Chandigarh is sited near the foothills of Shivaliks, we are describing its site. But when we say that it is located about 265 kilometre north of New Delhi and bounded by the state of Haryana on the east and by the state of Punjab on all other sides, we are describing its location.

Settlement is a place where people live and interact through activities such as agriculture, trading and entertainment. Settlements in geography help us to understand human's relationship with environment.

A rural settlement is a place where the community is involved predominantly in primary activities such as farming, lumbering and mining etc.

An urban settlement has people engaged predominantly in secondary and tertiary activities such as in industry, trade and services etc.

Physical environment tends to determine the site of a settlement, depending on:

Water supply – Water is essential for human survival and agricultural activities.

Relief – The availability of broad flat land such as floodplains promote agricultural activities.

Soils – Fertility of soils is another consideration for agricultural activities.

In this Unit, therefore, the classification of settlements along with characteristics of rural and urban settlements is discussed in detail in Sections 15.2, 15.3, and 15.4. The last Section 15.5 is devoted to the study of urbanisation in India.

Expected Learning Outcomes

After studying this Unit, you should be able to:

- understand the classification of settlements;
- explain the characteristics of rural and urban settlements of India; and
- define the process of urbanisation.

15.2 CLASSIFICATION OF SETTLEMENTS

Before discussing the main themes of this Unit, we would like to briefly acquaint you with the classification of settlements based on multiple criteria.

Settlements are categorised according to their pattern, size, and housing density. These can also be categorised by functions, morphology and other factors, but the most often used criterion is the function performed by the settlement's residents.

Classification According to Pattern

On the basis of pattern, there are five types of settlements. These are isolated, dispersed, nucleated, linear, integrated nucleated and linear.

An **isolated settlement** consists of a single farm or house very remote from any other one, usually found in hilly areas of India.

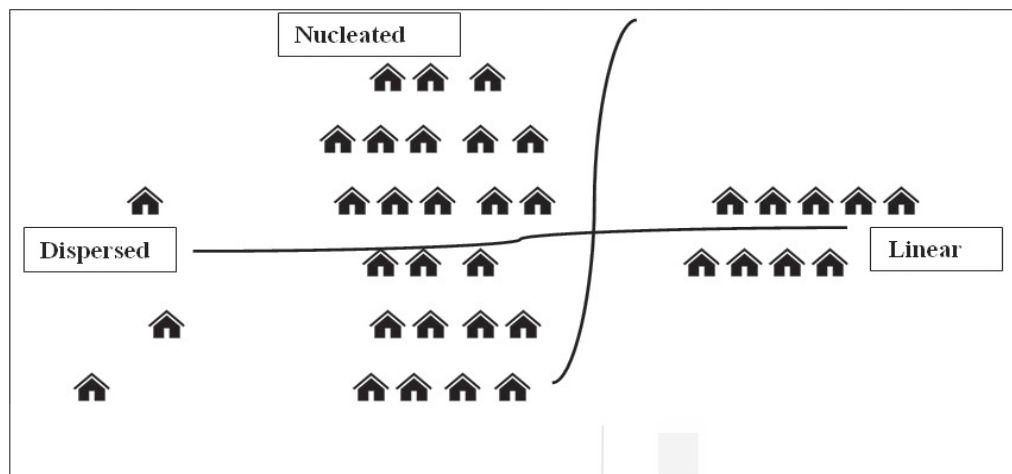


Fig. 15.1: Types of Settlements.

A **dispersed settlement** is made up of several houses, scattered or dispersed (as the name implies). One house may be up to one or more kilometre from the next. This type of settlements is common in Himalayas.

In a **nucleated** or **compact settlement**, the buildings are clustered, linked by roads, and the settlement itself may have a nearly circular or irregular shape. Such settlements can be either cultural or urban, depending on the size and the functions these perform.

A **linear** or **elongated settlement** forms a straight or curved line, following a line of movement, such as a road, river, coastline or the foot of an elongated escarpment. This type of settlement is found in rural area, but linear developments may constitute extensions of towns on their outskirts.

Finally, the **integrated nucleated** and **linear** settlements combine the characteristics of both types of settlement and these are star-like. They often occur at junctions and a number of them in urban settlements. Fig. 15.1 depicts the types of settlements.

Classification According to Size and Housing Density

Size and housing density are used together with settlement functions to classify settlements into major categories i.e., rural and urban.

Rural settlements are often small in size and have low housing and population densities.

Urban settlements are larger in size and have many houses built close together.

Rural settlements can further be broken down into these four grades on the basis of size; *homestead*, *farmstead*, *hamlet* and *village*.

A **single homestead** has just one compound, usually isolated and owned by a family and one may be many kilometre from the next.

A **farmstead** consists of two or more homesteads, usually dispersed in a farmland and occupied by up to fifty individuals.

A **hamlet** is made up of several dispersed, nucleated or linear homesteads generally with shops, schools or other service centres and occupied by some hundreds of persons who are engaged in primary activities like farming, hunting and fishing.

A **village**, like a hamlet, may be dispersed, nucleated or both nucleated or linear, but the village has more homesteads and the population may be up to several thousands. The people are engaged in primary occupations, but there may also be craft and cottage industries, and service centres like schools, post offices, health centres and markets.

Urban settlements can equally be graded into four, according to size. These are *towns*, *cities*, *conurbations* and *megapolis*.

Towns are urban settlements of up to several thousand persons. Houses are built together and the emphasis is more on secondary and tertiary rather than on primary occupation. Usually, a town has large chain stores and many other social and commercial facilities.

Cities are the major towns of a country, like the major state capitals which have administrative functions. The old concept of a city being a walled town is no longer tenable as cities are no longer walled these days. These are generally larger than towns.

A **conurbation** grows when two or more towns or parts have grown and joined together to form a large urban area of 1 million persons or thereabouts. The boundary between original towns becomes blurred, just like we have in Lagos (Ikeja) and Accra (Tema).

Megapolis are several cities or conurbations which have grown over the years and have joined together to form a massive sprawling urban settlement. Such settlements stretch over several square kilometre and as conurbations, it is difficult to know where one original city ends and the other begins. Megapolis is the highest in the hierarchy of urban settlements. Examples are New Delhi, Mumbai, Chennai, Kolkata (India), Tokyo (Japan) and Greater London (Britain).

Rural Settlements

The term "rural settlement" refers to collection of houses known as "villages" as well as the surrounding land from which the residents get their livelihood. Various authors have defined village in various ways. Richthofen is of the opinion that "They (Villages) are groups of families that stick to one another because of the necessity of participating in the production of the same crops because they are related by shared descent or at least share rituals". Village, according to Blache, is a form of community that is larger than a family or clan. The village has a variety of qualities that characterise it as a separate entity: geographical, ethnic and cultural.

In India, however, a village is defined as a mauza, which means "a parcel of land with precise borders for revenue reasons without clear and consistent concern for its people." Each village has its own individual place name that helps to differentiate it from the others. The hamlet, also known as *faliya*, *para*, *dhana*, *dhani* and other local names, refers to a discrete cluster of dwellings within the village boundaries, sometimes with a name and always as part of the total.

Classification of Villages

Although there are various methods for classifying villages, one of the most common is by size. The most widely used and recognised classification of villages is by population and geographical area. The following village classifications are recognised based on these characteristics.

1. **Pura-** refers to a location where a habitat formerly existed and where major habitats may be found all around or in surrounding locations. As a result, this habitat might be referred to as the area's nucleus. In agricultural regions, isolated habitats commonly become "*puravas*," which can expand into settlements given the right conditions.
2. **Khas-** The major village, or *sadar*, is referred to as *khas*. People from the main village might relocate to a new location and name it after their home community. When a village's population grows, the term *khas* is used to refer to the village from which people expand out.
3. **Kalan-** The term *kalan* is used to describe big settlements and is added to the end of the village name, for as Bound Kalan. These settlements are home to people from various social groups and castes.
4. **Khurd-** Because the word *khurd* is a degraded version of the Urdu word *barkhurdar* (which means son, young or little), it is used to refer to small settlements, such as *Dumarkha Khurd*.
5. **Khera-** This term refers to tiny colonies as well as the village's higher ground. *Khera* has a high social significance for the village community since it hosts practically all of the village's shows, such as Ramlila, Nautanki and others.
6. **Nanglay-** It is made up of a collection of tiny settlements, each of which is bordered by multiple satellite villages.

Types of Settlements

Various authors have proposed various approaches for discussing different sorts of settlements. Finch, Trewartha and others distinguished between two sorts of settlements viz., nucleated, and isolated or scattered. Isolated settlements relate to a single-family house, whereas nucleated villages refer to a group of dwellings concentrated in the centre of the village grounds.

D.C. Money distinguished three types of settlements:

1. the single large nucleated village;
2. hamlets scattered throughout the countryside; and
3. single homesteads.

Enayat Ahmed distinguishes four types:

1. compact, cluster, hamlet, and village;
2. scattered settlement;
3. fragmented or hamleted settlement; and
4. dispersed settlement.

R.L. Singh distinguishes four distinct types:

1. compact settlements;
2. semi-compact or hamleted cluster;
3. semi-sprinkled or fragmented hamleted settlements; and
4. sprinkled or dispersed type.

On the basis of number of villages, hamlets and number of occupancy units,

R.B. Singh identified four types of settlements. They are as under:

1. compact
2. semi compact
3. hamleted and
4. dispersed or scattered type

Compact Settlements: Settlements that are close together. The settlement is compact if the number of villages in an area unit equals the number of hamlets. Malwa plateau, Narmada valley, Nimar upland, significant areas of Rajasthan, paddy lands in Bihar, Uttar Pradesh, the Vindhyan plateau and various other cultivated parts of India are also home to such settlements.

Semi-Compact: The semi-compact settlements represent an intermediate type between compact and hamleted settlements. It is marked by the presence of one easily recognisable site (main village) and one or two small hamlets closely linked with the main site by foot paths or cart tracks (Blache, 1962).

The basic feature of these settlements is an early identified site with one or more hamlets that are connected to the main site through footpaths, cart tracks, or roadways. Purvas and Mazras (hamlets) in the immediate vicinity of the main village expand as the population of the main community grows.

Depending on the natural circumstances, semi-compact or hamleted rural villages can be found on both plains and plateaus. These are very common in khadar areas of Ganga, Yamuna, Brahmaputra and several of their tributaries. These are also found in the wet banks of Punjab, Tarai region of Uttar Pradesh and Uttarakhand and the deltas of peninsular rivers of Mahanadi, Godavari, Krishna and Cauvery.

Hamleted Settlements: It is a hamlet settlement if the number of villages equals half of the hamlet number. The hamlets are dispersed across area, separated by fields, and the major centre of community. The initial place is frequently difficult to discern and morphological variety is rarely noted. West Bengal, eastern Uttar Pradesh, Madhya Pradesh and the coastal plains have such settlements.

Dispersed Settlements: The settlement is considered dispersed if the number of villages is less than half the number of hamlets. Dispersed villages

have individual houses distributed among the farmed areas. Individualism, desire to live freely and marital tradition are all favourable to such settlements. Slopes of Himalayas and terrain with a dissected and uneven surface also result in the emergence of such settlements.

Difference between Compact Settlements and Dispersed Settlements

A. Compact Settlements

1. Compact settlements are mainly found in fertile plains and river valleys.
2. The main occupation of people is agriculture.
3. Houses are built in close vicinity to each other and have lesser living space.
4. Size of the fields is small.
5. Streets are dirty due to lack of proper drainage.
6. The inhabitants of compact settlements work and defend themselves collectively.

B. Dispersed Settlements

1. Scattered settlements are mainly found in hills, plateaus, highlands and arid and semi-arid lands.
2. Animal grazing and lumbering are the main occupations.
3. Houses are isolated and scattered over land. These provide more living space.
4. Fields are large.
5. These settlements are quite neat and clean.
6. People of dispersed settlements lead isolated life.

Rural Settlement Patterns

Pattern refers to the settlement's geometrical form and shape, and various settlements have different sorts of pattern depending on the settlement's location and historical past. A settlement's pattern depicts its shape and each pattern is given a name, such as linear, elongated, square and so on. The two-dimensional geometrical arrangement of rural villages in a region is sometimes referred to as a pattern.

Following are some of the most common patterns of rural settlements found in India.

1. **Linear Pattern:** This pattern is sometimes referred to as a ribbon or string pattern. Most of the village stores are located on the community's main street, which runs parallel to a road, railway line or water front. The location of several fishermen's communities along the coast is determined by the sea level at high tide. This pattern may be seen mostly in the middle and lower Ganga plains, sections of Himalayan area and along beaches.
2. **Checkerboard Design:** This pattern emerges when two roads or other modes of transportation intersect practically at right angles. The settlement's expansion is centred on the intersection of two major routes. Other roads run parallel to the main routes and parallel to the catch streets. They are at right angles to one other. The Ganga-Yamuna Doab has a high concentration of such settlements, which may be found

in huge numbers in plains of north India. The checkerboard design is quite popular in Tamil Nadu and Karnataka in southern India.

3. **Rectangular Pattern:** These settlements are mostly rectangular and occasionally square in shape. Such towns are most common in north India's plains, where intensive agriculture is practised. The streets in these communities are straight and connect at right angles. The rectangular pattern in India is a legacy of our previous land measurement method, which played a key role since the first cultivated fields and orchards were constructed in rectangular form. Punjab, Haryana, and western half of Uttar Pradesh have abundance of such settlements. Indira Gandhi Canal Command Region in Rajasthan has considerable number of rectangle-shaped rural villages. Suratgarh has the largest concentration of them.
4. **Radial Pattern:** A radial pattern emerges at a nodal point when a number of roads, streets, or footpaths converge from various directions. Roads, streets and footpaths, on the other hand, radiate outward from a nodal point, forming a radial pattern. Houses are erected along transportation corridors, forming a radial design. This location may also be home to certain socio-cultural structures.
5. **Star-like Pattern:** It's a more sophisticated version of the radial design. It emerges when the area between transportation channels such as roads, streets and footpaths is not occupied by houses and other buildings. However, majority of construction occurs along the transportation corridors, and the entire hamlet takes on the appearance of a star.
6. **Circular Pattern:** Around a pond, a lake, or a crater, a circular pattern emerges. Because of the simple accessibility of water, many prefer to build their homes near a pond or lake. A pattern can sometimes form around a temple or a mosque. The upper half of Ganga-Yamuna Doab, trans-Yamuna area and Madhya Pradesh has villages in a circular layout.
7. **Triangular Pattern:** Hindrances occurring on three sides result in this pattern. The impediments might be physical, cultural or both. Such impediments limit settlement growth on three sides, causing settlement to take on a triangle shape. At the junction of two rivers or two highways, a pattern like this commonly emerges.
8. **Semi-Circular Pattern:** Villages that sprout up around river meanders, oxbow lakes, or a lake in the foothills take on a semi-circular appearance. Circular settlements can be seen along the Ganga and its tributaries.
9. **Arrow Pattern:** Villages that arise at the extremity of a cape, or at a sharp bend in a meandering river or lake, sometimes take the appearance of an arrow. The majority of the houses are along the roads, and the number of dwellings grows as you move away from the arrow point. Such villages may be seen in India near Kanyakumari, in Madhya Pradesh, around Chilka Lake, the Gulf of Khambhat, and Sunar rivers banks, and in Bihar and along Burhi Gandak.

- 10. Terraced Pattern:** The preponderance of villages with a terraced design are found on hill slopes. These hills are cut and transformed into farming terraces. Farmers build their homes along the terraces, resulting in a tiered pattern. In these settlements, houses might be close together or far apart. Such settlements are found on hill slopes in Jammu and Kashmir, Himachal Pradesh, Uttarakhand, Sikkim, Arunachal Pradesh, Mizoram and in Western Ghats.

SAQ I

Differentiate between dispersed and nucleated settlements.

15.3 CHARACTERISTICS OF RURAL SETTLEMENTS

Rural settlements have long been connected with agriculture. Other forms of rural communities have emerged in recent times.

The most fundamental seating variables may be plainly seen at work in rural settlements. This is because permanent communities, like the semi-permanent settlements of shifting cultivators or nomads, or temporary camps of hunters and gatherers from which they emerged, have the same fundamental needs for food, water, shelter and protection as semi-permanent settlements of nomads.

Rural settlements are those where bulk of people's occupations are related to local natural resources, such as

- fisheries along the coast.
- tribal people in the forest.
- farmers along the banks of rivers.

Rural Settlements in India

According to 2011 census data, there were 640,932 rural settlements in India, out of which 597,608 were inhabited and 43,324 were uninhabited. The largest number of rural settlements was found in Uttar Pradesh (106,774). The largest numbers of inhabited and uninhabited rural settlements were also located in Uttar Pradesh only. Kerala had only one uninhabited village and Puducherry, Dadra and Nagar Haveli, Daman and Diu, and Chandigarh had no uninhabited village. Chandigarh although is a planned city but even there are five inhabited villages.

Table 15.1: India: Rural Settlements, 2011

Name	Number of Villages		Total	Number of Households	Population
	Inhabited	Uninhabited			
INDIA	5,97,608	43,324	6,40,932	16,86,12,897	83,37,48,852
Jammu & Kashmir	6,337	216	6,553	15,53,433	91,08,060
Himachal Pradesh	17,882	2,808	20,690	13,12,510	61,76,050

Punjab	12,168	413	12,581	33,58,113	1,73,44,192
Chandigarh	5	0	5	7,140	28,991
Uttarakhand	15,745	1,048	16,793	14,25,086	70,36,954
Haryana	6,642	199	6,841	30,43,756	1,65,09,359
NCT of Delhi	103	9	112	79,574	4,19,042
Rajasthan	43,264	1,408	44,672	94,94,903	5,15,00,352
Uttar Pradesh	97,814	8,960	1,06,774	2,56,85,942	15,53,17,278
Bihar	39,073	5,801	44,874	1,68,62,940	9,23,41,436
Sikkim	425	26	451	93,288	4,56,999
Arunachal Pradesh	5,258	331	5,589	2,00,210	10,66,358
Nagaland	1,400	28	1,428	2,77,491	14,07,536
Manipur	2,515	67	2,582	3,85,520	20,21,640
Mizoram	704	126	830	1,05,812	5,25,435
Tripura	863	12	875	6,16,582	27,12,464
Meghalaya	6,459	380	6,839	4,30,573	23,71,439
Assam	25,372	1,023	26,395	54,20,877	2,68,07,034
West Bengal	37,469	2,734	40,203	1,38,13,165	6,21,83,113
Jharkhand	29,492	2,902	32,394	47,29,369	2,50,55,073
Odisha	47,675	3,636	51,311	80,89,987	3,49,70,562
Chhattisgarh	19,567	559	20,126	43,65,568	1,96,07,961
Madhya Pradesh	51,929	2,974	54,903	1,10,80,278	5,25,57,404
Gujarat	17,843	382	18,225	67,73,558	3,46,94,609
Daman & Diu	19	0	19	12,744	60,396
Dadra & Nagar Haveli	65	0	65	36,094	1,83,114
Maharashtra	40,959	2,706	43,665	1,32,14,738	6,15,56,074
Andhra Pradesh	26,286	1,514	27,800	1,42,34,387	5,63,61,702
Karnataka	27,397	1,943	29,340	79,46,657	3,74,69,335
Goa	320	14	334	1,28,208	5,51,731
Lakshadweep	6	15	21	2,710	14,141
Kerala	1,017	1	1,018	41,49,641	1,74,71,135
Tamil Nadu	15,049	930	15,979	95,28,495	3,72,29,590
Puducherry	90	0	90	95,018	3,95,200
Andaman & Nicobar Islands	396	159	555	58,530	2,37,093

(Source: Computed from Table A-1 Number of Villages, Towns, Households, Population and Area, Census of India, 2011)

Although the city was planned by relocating 21,000 people of 58 villages, five villages didn't give their land for this project. Although these villages were at the time of planning out of the limits of city but subsequent expansion of the city in second and third phase brought these villages within the administrative boundary of Chandigarh.

Paschim Medinipur district of West Bengal had the highest number of rural settlements in the country (8,694). Out of these, 7,600 were inhabited and 1094 were uninhabited. East Delhi district had only one rural settlement which was lowest in the country. However, nine districts reported zero rural settlement. These were New Delhi, Central Delhi, Kolkata, Mumbai Suburban, Mumbai, Hyderabad, Chennai, Yanam and Mahe.

India's 1210 million population lived in 250 million households. On an average, 5 persons lived in each household. Out of 250 million households, 67.58 percent were in rural settlements. Here 833 million people lived in 168 million households. In rural areas also, the average number of people living in a single household were five persons. The largest number of rural households were found in Uttar Pradesh (25.6 million) followed by Bihar, Andhra Pradesh, Maharashtra and Madhya Pradesh each having more than 10 million rural households.

The lowest number of rural households was reported from Lakshadweep (2710) (Table 15.1). Uttar Pradesh reported highest rural population of 155 million followed by Bihar (92 million), West Bengal (62 million), Maharashtra (61 million) and Andhra Pradesh (56 million). The lowest rural population was reported from Lakshadweep (14,141 persons). The largest rural population was found in South Twenty-Four Pargana district of West Bengal and the lowest rural population was reported from East Delhi. There were nine districts in India which reported zero rural population meaning thereby that these nine districts were totally urban.

The highest density of rural population was observed in Chandigarh with 6486 persons per square kilometre and lowest in Mizoram i.e., 26 persons per square kilometre. Only four other states and Union Territories had rural population density of more than one thousand persons per square kilometre. These were Lakshadweep, NCT of Delhi, Puducherry and Bihar. Rest of the states and Union Territories had rural population density between 967 and 26 square kilometre.

Table 15.2: India: Percent of Rural Population in Total Population, 2011

State/U.T.	Total	Rural	Percent
India	1210854977	833748852	68.86
Himachal Pradesh	6864602	6176050	89.97
Bihar	104099452	92341436	88.71
Assam	31205576	26807034	85.90
Odisha	41974218	34970562	83.31
Meghalaya	2966889	2371439	79.93
Uttar Pradesh	199812341	155317278	77.73
Arunachal Pradesh	1383727	1066358	77.06
Chhattisgarh	25545198	19607961	76.76
Jharkhand	32988134	25055073	75.95
Rajasthan	68548437	51500352	75.13
Sikkim	610577	456999	74.85
Tripura	3673917	2712464	73.83
Jammu & Kashmir	12541302	9108060	72.62
Madhya Pradesh	72626809	52557404	72.37
Nagaland	1978502	1407536	71.14
Manipur	2855794	2021640	70.79
Uttarakhand	10086292	7036954	69.77
West Bengal	91276115	62183113	68.13
Andhra Pradesh	84580777	56361702	66.64
Haryana	25351462	16509359	65.12
Punjab	27743338	17344192	62.52

Andaman & Nicobar Islands	380581	237093	62.30
Karnataka	61095297	37469335	61.33
Gujarat	60439692	34694609	57.40
Maharashtra	112374333	61556074	54.78
Dadra & Nagar Haveli	343709	183114	53.28
Kerala	33406061	17471135	52.30
Tamil Nadu	72147030	37229590	51.60
Mizoram	1097206	525435	47.89
Goa	1458545	551731	37.83
Puducherry	1247953	395200	31.67
Daman & Diu	243247	60396	24.83
Lakshadweep	64473	14141	21.93
Chandigarh	1055450	28991	2.75
NCT of Delhi	16787941	419042	2.50

(Source: Computed from Primary Census Abstract, Census of India, 2011)

Looking at district-wise figures, the highest rural density of population was reported from East Delhi district whereas the lowest rural density of 2 person per square kilometre was reported from Leh (Ladakh) district of Jammu & Kashmir and Lahaul and Spiti district of Himachal Pradesh. Both these districts have harsh climates and are considered as cold deserts with very little natural vegetation. During winters, these remain cut off from the rest of the country due to very high deposition of snow on mountain passes. Very extreme temperature of -40 degree Celsius has been recorded here. Therefore, these conditions are not conducive for larger populations.

In 2011, 68.86 percent of India's population was living in rural areas. The highest proportion of rural population (89.97 percent) was reported from the hilly state of Himachal Pradesh followed by Bihar (88.71 percent), Assam (85.90 percent), Odisha (83.31 percent) and so on. The lowest proportion was found in NCT of Delhi (2.50 percent) (Table 15.2).

Although, the proportion of rural population has been declining over the years, but even today two out of every three persons are living in rural areas of the country.

SAQ 2

Discuss the local resources on which rural settlement occupation is based.

15.4 CHARACTERISTICS OF URBAN SETTLEMENTS

Urban settlements are generally compact and larger in size and are engaged in a variety of non-agricultural economic and administrative functions.

Towns flourished in India since prehistoric times. During the time of Indus valley civilisation, towns like Harappa and Mohenjo-Daro were in existence. On the basis of their evolution in different periods, Indian towns may be classified as:

Ancient Towns: There are number of towns in India having historical background spanning over 2000 years. Most of them developed as religious and cultural centres. Varanasi is one of the important towns among these. Prayagraj (Allahabad), Pataliputra (Patna) and Madurai are some other examples of ancient towns in the country.

Medieval Towns: About 100 of the existing towns have their roots in the medieval period. Most of them developed as headquarters of principalities and kingdoms. These were fort towns which came up on the ruins of ancient towns. Important among them are Delhi, Hyderabad, Jaipur, Lucknow, Agra and Nagpur.

Modern Towns: British and other Europeans have developed a number of towns in India. Starting their foothold on coastal locations, they first developed some trading ports such as Surat, Daman, Goa and Pondicherry, etc. The British later consolidated their hold around three principal nodes – Mumbai (Bombay), Chennai (Madras), and Kolkata (Calcutta) – and built them in the British style. Rapidly extending their domination either directly or through control over the princely states, they established their administrative centres, hill towns as summer resorts, and added new civil administrative and military areas to them.

A large number of towns have been developed as administrative headquarters after independence e.g., Chandigarh, Bhubaneswar, Gandhinagar and Dispur etc., and industrial centres such as Durgapur, Bhilai, Sindri, and Barauni. Some old towns also developed as satellite towns around metropolitan cities such as Ghaziabad, Faridabad and Gurgaon etc., around Delhi.

Urban settlements could be studied as a referral code of urban growth.

Houston (1953) has recognised three stages as follows:

- (i) **The Nuclear Stage:** represented by central area of a town inside wall like Paris and Moscow.
- (ii) **The Formative stage:** houses outside the central area along lines of transport.
- (iii) **The Modern Stage:** Development of motor transport and growth of suburban towns in a large way.

Taylor (1949) has examined 4 stages of growth of urban settlements of Canada. His classification is based on growth of civilisation. These are:

- (i) **The Infantile Stage:** Towns where residential and commercial areas cannot be separated and buildings are haphazardly distributed.
- (ii) **The Juvenile Stage:** The skyline of the houses rises and factories are also established, e.g., Munger.
- (iii) **The Mature Stage:** This stage is marked by well separated residential and commercial areas. The rise and new colonies on the fringe and vertical expansion is the rule e.g., Delhi, Patna, Ontario and London.
- (iv) **Senility:** Growth stops in this stage. Decay of some areas and decline in economic development starts, e.g., Yorkshire, Lancashire, Durban, Agra, Mathura and Muzaffarnagar.

Lewis Mumford (1938) under the influence of Patrick Geddes visualised a town not so much as a physical entity but as a social phenomenon. He suggested a six-stage development of cities as under:

- (i) **Eopolis:** A small town of village origin based on agriculture, mining and fishing.
- (ii) **Polis:** Market town with wholesale grain market.
- (iii) **Metropolis:** It is a large city with 10 lakhs of population.
- (iv) **Megapolis:** When main cities and metropolis coalesce to form a giant urban centre.
- (v) **Tyranopolis:** In this country wide urbanisation predominated the scene. Here the display and expense become the measurement of culture.
- (vi) **Nekropolis:** It is known as ghost city or dead city. This stage comes due to war, famine, diseases and decay of culture.

Classification based on population:

- 1. **Small town** – Less than 50,000 population
- 2. **Major towns** – 50,000 to 99,999 population
- 3. **City** – 1,00,000 population
- 4. **Metropolis** – 1,000,000 population

Classification based on functions:

- 1. **Administrative Towns:** These are mainly the capital city, centres of provinces, states, and district headquarters. These are organised e.g., Delhi, Lucknow, Mumbai and Chandigarh etc.
- 2. **Commercial Towns:** These are towns where retailing and trading is the biggest function. These houses financial offices, business buildings, banks and offer commercial services, e.g., Kanpur, Nagpur, Agra, Bhopal, London and New York.
- 3. **Market Towns:** These are the places of collection and distribution of various goods as main function and perform exchange activity. Usually these towns have mandis, wide range of shops, stores, godowns and warehouses, supported by a good network of transport facilities.
- 4. **Mining Towns:** The main function of such towns is exploitation of minerals from mines. Their location is governed by the availability of mineral resources, e.g., Raniganj, Jharia and Bokaro etc.
- 5. **Industrial Towns:** These towns mainly perform secondary activities of changing raw materials into finished goods. Such towns provide facilities of power, labour, market, efficient network of communication and transport, e.g., Bangalore (watches), Bokaro (steel) and Surat (Textiles).
- 6. **Cultural Towns:**
 - a. **Educational** – Patna, Allahabad, Bangalore, Cambridge and Oxford.
 - b. **Entertainment** – Mumbai and Hollywood.
 - c. **Religious** – Varanasi, Rishikesh, Jerusalem, Ayodhya and Mecca.

d. Resort –

- i. **Coastal Resorts** – Puri, Mumbai, Goa and Kochi.
- ii. **Hill Resorts** – Shimla, Mussorie and Nainital.

7. Defensive Towns: Such towns may be naval dock, air bases and are characterized by barracks, cantonment special air fields, training centres for army, equipped hospitals, e.g., Ambala, Dehradun, Cochi and Chennai.

8. Residential Towns: These are mainly new and planned towns located far from the congested cities and provide residential facilities for urban people. These are well planned and have healthy environment, e.g., Chandigarh.

The following is the definition of urban area used in India's 2001 census.

- a) Any area where there is a municipality, corporation, cantonment board, or notified town area committee, for example.
- b) All other locations that meet the following requirements:
 - i. A population of at least 5,000 people.
 - ii. At least 75 percent of the working male population is engaged in non-agricultural activities.
 - iii. A population density of at least 400 people per square kilometre (1000 per square mile).

Furthermore, the Directors of Census Operations in States/Union Territories were empowered to include some places with distinct urban characteristics as urban, in consultation with state governments/Union Territory Administrations and the Census Commissioner of India, even if such places did not strictly satisfy all of the criteria listed under category (b) above.

In 2011, the concept of urban areas was modified, with two types of administrative units - Statutory Towns and Census Towns - comprising urban areas.

- a) **Statutory Towns:** Municipal Corporation, Municipality, Cantonment Board, and Notified Town Area Committee are all administrative divisions that have been classified as urban by legislation. Statutory Towns include Town Panchayats, Nagar Palikas and others.
- b) **Census Towns:** Census Towns are administrative units that meet all three of the following requirements at the same time:
 - a. It should have a population of at least 5,000 people.
 - b. Non-agricultural occupations should have accounted for at least 75 percent of the male working population.
 - c. It should have a population density of at least 400 people per square kilometre (1,000 per square mile).

The Census of India has classified the urban places under the following six categories:

Class I : Population of 100,000 and above

Class II	: Population of 50,000 to 99,999
Class III	: Population of 20,000 to 49,999
Class IV	: Population of 10,000 to 19,999
Class V	: Population of 5,000 to 9,999
Class VI	: Population less than 5,000

City: Towns with population of 100,000 and above are categorised as cities.

Apart from these, there are some other terms which are associated with urban centres.

Out growth: An out Growth (OG) is a viable entity, such as a village or hamlet, or an enumeration block made out of such a village or hamlet, with well-defined boundaries and location. Railway colony, university campus, port area, military camp and other developments that have sprung up near a statutory town outside of its statutory bounds but inside the revenue limits of a village or villages next to the town are just a few examples.

When determining the outgrowth of a town, it must have urban features such as pucca roads, electricity, taps, drainage systems for waste water disposal, etc., as well as educational institutions, post offices, medical facilities, banks, and other amenities, and be physically contiguous with the UA's core town.

Urban Agglomeration

Each town, and its own outgrowths, is considered as an urban agglomeration. An "urban agglomeration" is a continuous urban spread that generally comprises of a town and its adjacent urban outgrowths (OGS), or two or more physically contiguous towns with contiguous well-known outgrowths, if any.

The following factors are considered pre-requisites for the delineation of Urban Agglomerations:

- a) An urban agglomeration's centre town, or at least one of its member towns, must be a statutory town.
- b) An urban agglomeration's total population (including towns and outgrowths) should not be fewer than 20,000 people (as per 2001 Census). Greater Mumbai UA, Delhi UA and others are examples.

The following are the conceivable varied conditions in which Urban Agglomerations should be formed if the above-mentioned basic two requirements are met:

- A city or town with one or more adjacent outgrowths.
- Two or more adjacent towns with their outgrowths.
- A city and one or more neighbouring towns, together with their outgrowths, forming a continuous spread.

Metropolitan Cities: Metropolitan cities are defined as cities with populations of one million or more. Industries, trade, commerce, transportation, culture and

politics are the key activities of these cities. Number of metropolitan cities has risen from 12 in 1981 to 53 in 2011.

Mega Cities: According to Indian Census, mega cities are defined as cities with a population of more than 5 million people. Megacities, on the other hand, are defined by the United Nations as cities with populations of 10 million or more. Megacities in India include Greater Mumbai, Kolkata, and Delhi.

Conurbation: This word was invented by Patrick Geddes, and it refers to the merging of urban settlements that were formerly separated by open space. Ribbon Development along major inter-urban transportation lines is a common way for coalescence to develop. Conurbations such as Mumbai, Delhi and Kolkata are notable examples in India.

Megalopolis: It's a Greek word formed by combining the words "great" and "city." It's similar to conurbation in that it's developed when a huge metropolis sprawls and absorbs the smaller towns and cities nearby. Gottman used the word in 1964 to characterise the metropolitan landscape of the United States' north-eastern coast.

Metropolisation (or Metropolitanisation)

The expansion of metropolitan centres with an industrial and tertiary economic foundation is referred to as metropolitanisation. A metropolis is a different type of community that is characterised by the spreading of its built-up area and the interdependence of its neighbouring villages and towns.

Metropolisation is essentially a product of the centralisation of administrative, political, and economic forces in the country at the national and state capitals.

The pace of metropolisation depends upon the rate of direct migration of rural folk to metropolitan cities as well as from the smaller towns. In fact, migration constitutes the very foundation of the process of urbanisation and is recognised as the chief mechanism by which urban centres continue to grow.

Table 15.3: India: Increase in the number of Metropolises (1901-2011)

Census Year	Number of Metropolises
1901	1
1911	1
1921	1
1931	1
1941	2
1951	5
1961	7
1971	9
1981	12
1991	23
2001	35
2011	47

(Source: Census of India, 2011)

The Census of India defines a metropolitan area as one with a population of one million or more people. These cities are also known as million-plus cities. In India, metropolitanisation is predominantly a post-independence phenomenon. In the year 1901, Kolkata (Calcutta) was India's only metropolitan city. Mumbai (Bombay) joined Kolkata in 1941.

The number of metropolises till 1981 grew at a very sluggish pace but afterwards, the increase was tremendous and their number grew to 23 in 1991 and these further increased to 35 in 2001. It was a straight forward increase of 12 cities in a decade. This increase continued in 2011 also where the total number rose to 47 again registering an increase of 12 of twelve cities (Table 15.3).

Urban Sprawl

Urban sprawl refers to population growth and geographic extension of a metropolis in the countryside. With the passage of time, almost all cities across the world develop in population and territory, making urban sprawl a more or less continual process. The three variables that cause urban sprawl are as follows:

- (i) Population expansion due to natural causes (difference between birth rates and death rates).
- (ii) A large-scale migration of people from rural to urban locations.
- (iii) People moving from small towns to large cities.

The three causes described above create fast increases in population and city area, and they frequently operate in combination. The relative relevance of these elements, on the other hand, varies throughout time and space.

Although natural population increase may be the dominant cause in some cities, migration of people from rural to urban regions plays a key part in the process of urban sprawl in the majority of cities.

Squatters establish improvised shacks on vacant property on the outskirts of certain cities, despite the fact that they have no legal claim to the land.

Suburbs are those organised residential communities, which lie outside the corporate limits of a large city, but are culturally and economically dependent upon the central city (Dobriner, 1958).

Sub Urbanisation is a new trend of people moving away from congested urban areas to cleaner areas outside the city in search of a better quality of living. Important suburbs develop around major cities and everyday thousands of people commute from their homes in the suburbs to their work places in the city.

Historically suburbs have grown first along major roads leading into the town. This type of growth is known as **ribbon settlement**.

Rural-Urban fringe is the transition zone between the city and rural agriculture area where a mixed land use pattern having both rural and urban practices are located. It is the area where the city meets the countryside. It is an area of transition from agriculture and other rural land use to urban

use. Located well within the urban sphere of influence, the fringe is characterized by a wide variety of land-use including dormitory settlements, housing of middle-income commuters who work in the central urban area. Sub urbanisation takes place at the municipal boundary of the rural-urban fringe. Many scholars call the fringe area by different names like peripheral zone, out growth and Rural-Urban Continuum.

Characteristics of Urban Settlements

- Urban settlements are larger in size with a high density of population.
- An urban area is the region surrounding a city.
- Most inhabitants of urban areas have non-agricultural jobs. The main occupation of the people is related to secondary and tertiary sectors.
- Urban areas are more developed, meaning that there is higher density of human structures such as houses, commercial buildings, roads, bridges and railways.
- Towns usually have local self-government, and these may grow around specialised economic activities, such as mining or railroading.

SAQ 3

- Define Tyrannopolis and Nekropolis.
- What are statutory towns?

15.5 URBANISATION

Urbanisation is considered as a process of change when a society gets transformed from an agrarian economy to an industrial economy. Tisdale (1942) considers the increasing degree of population concentration as one of the most conspicuous aspects of urbanisation process. Gibbs (1963) evolved the following five-staged process of population concentration (Chandna, 2016):

Stage I: Urban settlements emerge but the percentage increase in urban population is either equal to or less than the percentage increase in the rural population.

Stage II: The rate of increase in urban population exceeds the rate of increase in rural population, largely because of rural-urban migration. Consequently, cities of fairly large size emerge on the scene.

Stage III: Rural depopulation takes place because of the increased magnitude of rural-urban migration, even the natural increase in the countryside gets wiped out. The rate of urban concentration excels further.

Stage IV: The requirements of big cities become more sophisticated and oriented towards specialisation. Big cities start attracting migrants from small towns. The volume of rural-urban migration dwindles.

Stage V: The concentration process does not persist so as to lead to the concentration of entire population in one huge urban centre. In fact, the

process of more ubiquitous distribution of population begins. Improvements in transport and communication reduce the physical and time distance and enable the population to live without a high degree of concentration. Thus, an outward movement from the core to periphery starts. Satellite towns emerge on the periphery of huge metropolitan concentrations.

Causes of Urbanisation

Natural increase of population: It occurs when the number of births exceeds the number of deaths.

Rural to urban migration: It is driven by pull factors (that attract people to urban areas) and push factors (that drive people away from the rural areas).

Employment opportunities, educational institutions and urban lifestyle are the main pull factors.

Poor living conditions, lack of educational and economic opportunities and poor health care facilities are the main push factors from rural areas.

Trends of Urbanisation in India

The urban population in India has increased from 11.0 percent in 1901 to 31.1 percent in 2011. The trend of growth of urban population is not steady. Table 15.4 reveals three distinct phases of urban growth.

1. **Period of Slow Urban Growth:** The period from 1901 to 1931 may be termed as the period of slow urban growth. The frequent occurrence of natural calamities like drought, floods, famines, epidemics and high mortality rate retarded the urban growth of population. The number of urban centres also grew from 1917 to 2219.
2. **Period of Medium Growth Rate:** The period from 1931 to 1961 was the period of medium growth. This growth was also partly due to the planned period of development initiated after independence. During this period, a number of industrial units were established which led to the increased urbanisation. During this period, the number of urban centres increased by 480. In 1951, the number of urban centres increased to 3059 but in 1961 it decreased to 2699.

Table 15.4: India: Trend of Urbanisation (1901-2011)

Year	Urbanisation (Percentage)	No. of Towns
1901	11.0	1917
1911	10.4	1909
1921	11.3	2047
1931	12.2	2219
1941	14.1	2424
1951	17.6	3059
1961	18.3	2699
1971	20.2	3119
1981	23.7	4019
1991	25.7	4689
2001	27.8	5167
2011	31.1	7933

(Source: Census of India, 2011)

- 3. Period of Rapid Urban Growth:** Between 1961 and 2011, the urban population of the country grew at a faster pace. The urban population in 1961 was 18.3 percent of the total population which increased to 31.1 percent in 2011. The number of urban centres also increased from 2699 to 7933.

Urbanisation in India through the Perspective of Five-Year Plans

Urbanisation since independence has been focused through respective five-year plans as follows:

First two plans focused on institution and organisation building and same was instructed to the states to do. For ex., Delhi Development Authority, Town and Country Planning Organisation came into existence during this period.

Third plan (1961-66) was turning point in urban planning history, as it emphasized on importance of towns and cities in balanced regional development.

Fourth plan (1969-74), continued with the theme of third plan and development plans for 72 urban areas were undertaken.

During fifth plan, urban land ceiling act was passed in 1976. It also advised the state governments to create metropolitan planning regions to take care of the growing areas outside administrative city limits.

The sixth five-year (1978-83) plan stressed the need to develop small and medium sized towns (less than 1 lakh), and a scheme of Integrated development of Small and Medium Towns (IDSMT) was launched in 1979 by the central government.

During the seventh plan, some important institutional developments were undertaken, which shaped the urban development policy and planning. The National commission on urbanisation submitted its report in 1988 and 65th constitutional amendment was introduced in Lok Sabha in 1989. This was first attempt to give urban local bodies a constitutional status with three tier federal structure.

During Eighth plan, the Mega city scheme was introduced in 1993-94 covering five mega cities of Mumbai, Calcutta, Chennai, Bangalore and Hyderabad. Also, IDSMT scheme was revamped through its infrastructural development programs for boosting employment generation for diverting migration from big cities to the small and medium towns.

The ninth plan, continued with the schemes of eighth plan and also emphasized on decentralisation and financial autonomy of urban local bodies.

The Tenth plan (2002-07) recognised the fact that urbanisation played a key role in accelerating the economic growth in 1980s and 1990s. It took place as a result of the economic liberalisation and also stressed that without strengthening the urban local bodies, the goal of urbanisation cannot be achieved.

The eleventh plan (2007-2012) introduced some innovative changes through capacity building, increasing the efficiency and productivity of the cities,

dismantling the monopoly of public sector over urban infrastructure, using technology as a tool for rapid urbanisation. In this direction, major initiative launched by central government was JNNURM (Jawaharlal Nehru National Urban Renewal Mission) in 2005 for focused and integrated development of the urban infrastructure and services, initially for 63 cities. *Rajiv Awas Yojana*, was launched in 2011 for creating “slum free India” as a pilot project for two years. But now it has been extended till 2022. It is applicable to all slums in the city whether notified or non-notified. It is also applicable to urban homeless and pavement dwellers.

The 2011 Census was the first one that collected data on people living in slums those have become commonplace in rapidly urbanising India. It found that around one out of every six households in urban India (17.4 percent) is living in a slum, and that well over one-third of all slum households in the country (38 percent) are in cities with a population in excess of a million.

Urbanisation in India

According to Census of India 2011, 377 million people lived in urban areas of the country, this was 31.14 percent of the total population. There were 4041 Statutory Towns, 3,894 Census Towns, 475 Urban Agglomerations and 981 Out Growths recorded in 2011. The number of census towns is just 147 less than Statutory Towns. The number of Urban Agglomerations and Out Growths is substantial in case of the country where still two-third of the total population lives in rural areas.

Table 15.5: India: Number of Urban Centres, 2011

Urban Centres	Number
Statutory Towns	4041
Census Towns	3894
Urban Agglomerations	475
Out Growths	981

(Source: Census of India, 2011)

More than 80 per cent of the urban population of the country is residing in 11 states of Maharashtra, Uttar Pradesh, Tamil Nadu, West Bengal, Andhra Pradesh, Gujarat, Karnataka, Madhya Pradesh, Rajasthan, NCT of Delhi and Kerala. Maharashtra leads with 50.8 million persons (13.48 percent of the total urban population of the country). Uttar Pradesh accounts for about 44.4 million, followed by Tamil Nadu 34.9 million, West Bengal 29.09 million and so on.

Goa is the most urbanised state with 62.17 percent urban population. Tamil Nadu, Kerala, Maharashtra and Gujarat have attained over 40 percent urbanisation.

Among the North-Eastern states, Mizoram is the most urbanised with 52.11 percent urban population.

Union Territories: The NCT of Delhi and the UT of Chandigarh are most urbanised with 97.50 percent and 97.25 percent urban population respectively, followed by Lakshadweep (78.07 percent) and Daman and Diu (75 percent).

States like Bihar, Assam, Odisha, Meghalaya and Uttar Pradesh continue to be at a lower level of urbanisation than the national average. Seventeen states in the country have lower urbanisation level than the national average. The state of Himachal Pradesh is the least urbanised state of the country. It has only 10.03 percent of its population living in urban areas (Table 15.6).

Table 15.6: India: Urban Population, 2011

State/U.T.	Total Population	Urban Population	Percentage
India	1210854977	377106125	31.14
NCT of Delhi	16787941	16368899	97.50
Chandigarh	1055450	1026459	97.25
Lakshadweep	64473	50332	78.07
Daman & Diu	243247	182851	75.17
Puducherry	1247953	852753	68.33
Goa	1458545	906814	62.17
Mizoram	1097206	571771	52.11
Tamil Nadu	72147030	34917440	48.40
Kerala	33406061	15934926	47.70
Dadra & Nagar Haveli	343709	160595	46.72
Maharashtra	112374333	50818259	45.22
Gujarat	60439692	25745083	42.60
Karnataka	61095297	23625962	38.67
Andaman & Nicobar Islands	380581	143488	37.70
Punjab	27743338	10399146	37.48
Haryana	25351462	8842103	34.88
Andhra Pradesh	84580777	28219075	33.36
West Bengal	91276115	29093002	31.87
Uttarakhand	10086292	3049338	30.23
Manipur	2855794	834154	29.21
Nagaland	1978502	570966	28.86
Madhya Pradesh	72626809	20069405	27.63
Jammu & Kashmir	12541302	3433242	27.38
Tripura	3673917	961453	26.17
Sikkim	610577	153578	25.15
Rajasthan	68548437	17048085	24.87
Jharkhand	32988134	7933061	24.05
Chhattisgarh	25545198	5937237	23.24
Arunachal Pradesh	1383727	317369	22.94
Uttar Pradesh	199812341	44495063	22.27
Meghalaya	2966889	595450	20.07
Odisha	41974218	7003656	16.69
Assam	31205576	4398542	14.10
Bihar	104099452	11758016	11.29
Himachal Pradesh	6864602	688552	10.03

(Source: Census of India, 2011)

India had 7933 towns in which 377 million people lived in 80.8 million households having a density of 3685 person per square kilometres in 2011.

Table 15.7: India: Number of Towns, Households, Population and Density, 2011

Name	Number of Towns	Number of Households	Population in Persons	Population per Square Kilometre
INDIA	7,933	8,08,88,766	37,71,06,125	3,685
Andaman & Nicobar Islands	5	36,021	1,43,488	NA
Andhra Pradesh	353	67,88,201	2,82,19,075	3,784
Arunachal Pradesh	27	70,367	3,17,369	3,593
Assam	214	9,85,594	43,98,542	3,491
Bihar	199	20,50,625	1,17,58,016	5,058
Chandigarh	6	2,34,033	10,26,459	9,371
Chhattisgarh	182	12,85,156	59,37,237	1,826
Dadra & Nagar Haveli	6	40,364	1,60,595	3,514
Daman & Diu	8	48,212	1,82,851	3,769
Goa	70	2,15,403	9,06,814	1,186
Gujarat	348	54,74,870	2,57,45,083	3,477
Haryana	154	18,13,768	88,42,103	4,475
Himachal Pradesh	59	1,70,770	6,88,552	2,542
Jammu & Kashmir	122	5,66,285	34,33,242	2,755
Jharkhand	228	15,25,412	79,33,061	3,273
Karnataka	347	54,10,370	2,36,25,962	3,928
Kerala	520	37,04,113	1,59,34,926	2,097
Lakshadweep	6	8,864	50,332	2,416
Madhya Pradesh	476	40,12,978	2,00,69,405	2,591
Maharashtra	534	1,12,06,781	5,08,18,259	5,588
Manipur	51	1,72,339	8,34,154	4,647
Meghalaya	22	1,17,486	5,95,450	2,105
Mizoram	23	1,17,041	5,71,771	974
Nagaland	26	1,18,511	5,70,966	2,345
NCT of Delhi	113	33,56,425	1,63,68,899	14,153
Odisha	223	15,47,833	70,03,656	2,090
Puducherry	10	2,07,432	8,52,753	5,517
Punjab	217	21,54,958	1,03,99,146	4,136
Rajasthan	297	32,16,243	1,70,48,085	2,570
Sikkim	9	35,718	1,53,578	4,015
Tamil Nadu	1,097	89,96,487	3,49,17,440	2,561
Tripura	42	2,38,974	9,61,453	2,453
Uttar Pradesh	915	77,62,093	4,44,95,063	5,884
Uttarakhand	115	6,31,889	30,49,338	3,381
West Bengal	909	65,67,150	2,90,93,002	5,676

(Source: Census of India, 2011)

The state of Tamil Nadu had the highest number of towns, almost 13.83 percent of the total towns of the country. It had 1097 towns which was followed by Uttar Pradesh with 915 towns, and West Bengal with 909 towns. Collectively these three states had 36.82 percent of total urban centres of the country. The state/Union Territory with the lowest number of towns was Andaman & Nicobar Islands. Six states/Union Territories had less than 10 urban centres. These were Sikkim, Daman & Diu, Chandigarh, Dadra and Nagar Haveli, Lakshadweep, and Andaman and Nicobar Islands (Table 15.7).

Haora (Howrah) district of West Bengal with 138 towns had the highest number of urban centres in a district in the country.

The country had 80.8 million urban households. The highest number of urban households was found in Maharashtra (11.2 million). The seven states shared within themselves 64.54 percent of the total households. These seven states were Maharashtra, Tamil Nadu, Uttar Pradesh, Andhra Pradesh, West Bengal, Gujarat and Karnataka. Bangalore (2.18 million) district had the highest number of urban households followed by Mumbai Suburban.

Maharashtra was the most urbanised state of the country. It had 50.8 million population which was 13.48 percent of the total urban population of the country. Seven states had 62.82 percent of the total urban population. These states were Maharashtra, Uttar Pradesh, Tamil Nadu, West Bengal, Andhra Pradesh, Gujarat and Karnataka. On the other extreme, there were seventeen states and union territories whose proportion of urban population to the total population was less than one per cent. Lakshadweep had the lowest share of urban population which was 0.01 percent. Mumbai Suburban was the highly urbanised district of the country followed by Bangalore district.

All the urban areas of the country had the population density of more than 974 persons per square kilometre. The highest population density was reported in NCT of Delhi (14153 persons per square kilometre). Chandigarh had the second highest population density of 9371 persons per square kilometre. The population density of North East Delhi district was 46867 persons per square kilometre. This was the highest in the country.

The spatial distribution of urban population as percent of total population displays a very different picture. One hundred forty eight (148) districts had urban population less than 11 percent, 210 districts had urban population between 11 to 22 percent, 117 districts had urban population ranging between 22 to 33 percent. Incidentally, the national average of 31.14 percent also fell within this class interval. The next class interval of 33-44 percent had the least number of districts (63) of all the five classes. The category of more than 44 percent had 103 districts. Fig. 15.2 displays the district-wise distribution of urbanisation levels in the country. The North South divide is clearly visible in the distribution of urban population. The Southern districts are more urbanised than the northern districts and the western part of the country is more urbanised than the eastern part. Himalayan states are least urbanised. The western coast is more urbanised than the eastern coast. Large number of districts of states like Uttarakhand, Uttar Pradesh, Bihar, West Bengal, Odisha, Andhra Pradesh, Jharkhand and Chhattisgarh are least urbanised with urbanisation level below 11 percent.

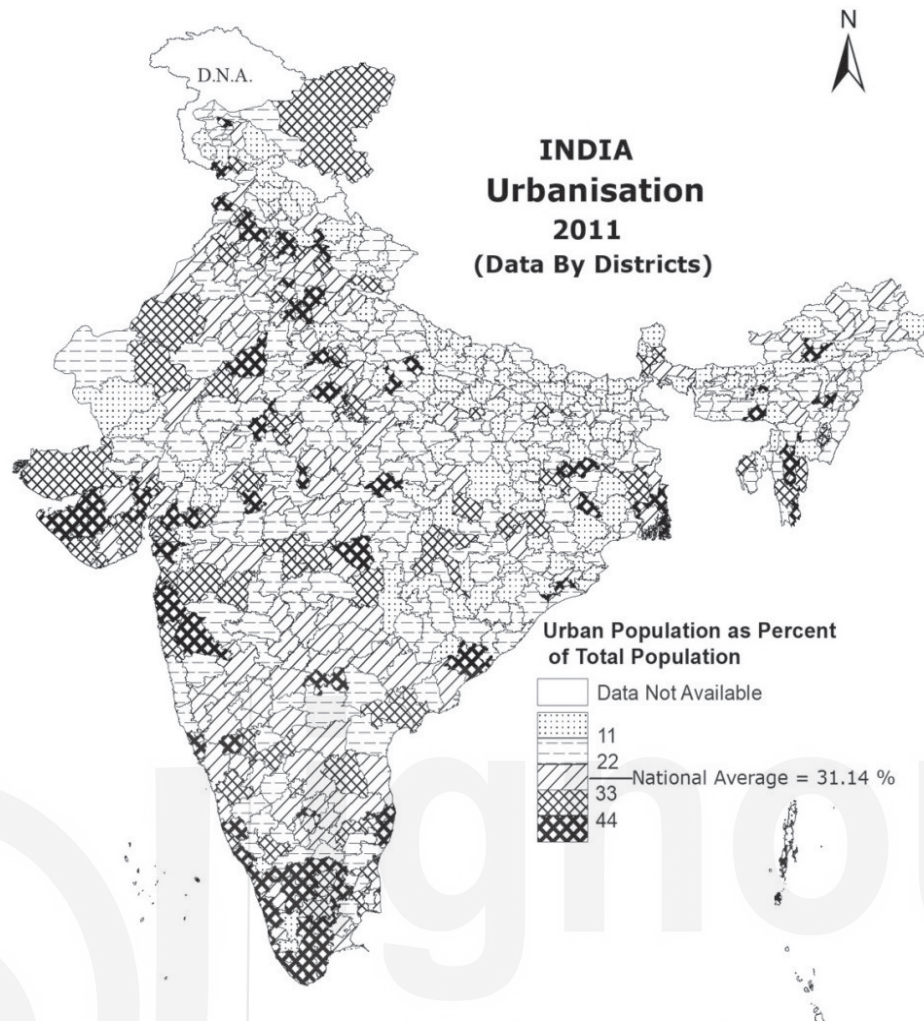


Fig. 15.2: India, Urbanisation.

Table 15.8: India: Towns and Villages Exception to the Census Definition of Urban and Rural Areas, 2011

States/Union Territory	Villages with Population more than 5000	Towns with Population below 5,000
India	23,335	498
Jammu & Kashmir	235	24
Himachal Pradesh	13	29
Punjab	371	18
Chandigarh	3	-
Haryana	715	8
Uttarakhand	117	14
NCT of Delhi	15	4
Rajasthan	952	10
Uttar Pradesh	3,978	26
Madhya Pradesh	614	11
Chhattisgarh	90	13
Bihar	4,345	9
Jharkhand	259	29
West Bengal	2,132	85
Sikkim	4	3
Assam	330	28
Arunachal Pradesh	1	9

Meghalaya	7	1
Manipur	46	7
Nagaland	31	2
Tripura	149	1
Mizoram	2	8
Odisha	205	29
Andhra Pradesh	2,405	6
Tamil Nadu	1,699	35
Kerala	943	8
Karnataka	1,000	14
Goa	15	8
Maharashtra	1,486	26
Gujarat	1,129	31
Puducherry	29	-
Dadra & Nagar Haveli	7	-
Daman & Diu	5	-
Lakshadweep	1	1
Andaman & Nicobar Islands	2	1

(Source: Census of India, 2011)

Although, the Census of India had defined the urban areas, but there are exceptions to this definition. At national level, we have 23,335 villages whose population is more than 5000 persons and on the other hand we have 498 towns whose population is less than 5000 persons. The largest numbers of such villages are found in Bihar, Uttar Pradesh, and Andhra Pradesh. Similarly, the states of West Bengal, Tamil Nadu, Gujarat and Himachal Pradesh had the towns without the requisite population of 5000 persons.

SAQ 4

Discuss the important causes of urbanisation.

15.6 SUMMARY

In this unit, you have learnt the following:

- Villages, towns and cities are inter-linked.
- The rural areas provide services, goods, resources and people to the urban areas.
- There are many forward and backward linkages which are of crucial importance for the sustainability of human settlements.
- Since the generation of employment opportunities in the rural areas is very low and with the mechanisation of agriculture also the unemployment rates in the rural areas have increased which results in rural-to-urban migration. This leads to urbanisation.
- These migrants have put an enormous pressure on urban infrastructure and services that are already under serious stress.
- It is urgent to eradicate rural poverty and to improve the quality of living conditions, as well as to create employment and educational

opportunities in rural settlements to curb large scale exodus of rural migrants to urban areas.

- So that the pace of urbanisation can be reduced and proper urban facilities like medicine, health, education, clean and pure water and sanitation can be improved in the urban areas.

15.7 TERMINAL QUESTIONS

1. What are the characteristics of rural and urban settlements?
2. What do you understand by rural settlements? Classify villages on the basis of their size of population and geographical area.
3. What do you understand by the word urban and what is the criterion adopted by government of India to classify a place into urban area?
4. What do you understand by urban agglomeration? Give a brief description about the different types of urban agglomeration (UA).
5. How can you classify town on the basis of functions? Classify towns based on functions given by different scholars.
6. What do you understand by the term urban sprawl? Give its characteristics in detail.

15.8 ANSWERS

Self-Assessment Questions (SAQ)

1. A dispersed settlement is made up of several houses, scattered or dispersed whereas a nucleated or compact settlement are clustered, linked by roads and the settlement itself may have a nearly circular or irregular shape.
2. These include fisheries along the coast, tribal people in the forest and farmers along the banks of rivers.
3. a) Tyrannopolis refers to a state when wide urbanisation predominates the scene of a country. Nekropolis means the ghost city or dead city as a result of war, famine, diseases and decay of culture.
b) Statutory towns include Town Panchayats, Nagar Palikas and others.
4. Among the important causes of urbanisation includes natural increase of population, rural to urban migration, employment opportunities, educational institutions and urban lifestyle etc.

Terminal Questions

1. Include the main characteristics of rural and urban settlements in your answer. Refer to Sections 15.3 and 15.4.

2. Your answer should include the meaning of rural settlements along with classification based on population size and geographical area. Refer to Section 15.3.
3. In your answer, define the term urban and criterion to classify a place into an urban area. Refer to Section 15.4.
4. Your answer should incorporate the meaning of urban agglomeration and a brief description of its types. Refer to Section 15.5.
5. Discuss the classification of town on the basis of functions as propounded by various scholars in your answer. Refer to Section 15.5.
6. Your answer should include the meaning of urban sprawl and describe its characteristics in detail. Refer to Section 15.5.

15.9 REFERENCES AND SUGGESTED FURTHER READING

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GLOSSARY

Age Structure	: The proportion of the total population in each age group.
Age-Dependency Ratio	: The ratio of persons in the ages defined as dependent (under 15 years and over 64 years) to persons in the ages defined as economically productive (15-64 years) in a population.
Age-Sex Structure	: The composition of a population as determined by the number or proportion of males and females in each age category. The age-sex structure of a population is the cumulative result of past trends in fertility, mortality and migration.
Age-Specific Rate	: Rate obtained for specific age groups (for example, age-specific fertility rate, death rate, marriage rate, illiteracy rate, or school enrollment rate).
Birth Rate (or crude birth rate)	: The number of live births per 1,000 population in a given year.
Demographic Transition	: The historical shift of birth and death rates from high to low levels in a population. The mortality decline usually precedes the fertility decline, resulting in rapid population growth during the transition period.
Demography	: The scientific study of human populations, including their sizes, compositions, distributions, densities, growth and other characteristics, as well as the causes and consequences of changes in these factors.
Dependency Ratio	: A dependency ratio is the ratio of people in a dependent age group (those under age 15 or ages 65 and older) to those in the economically productive age group (ages 15 to 64) of a population. For instance, a child dependency ratio of 0.45 means there are 45 children for every 100 working-age adults.
Dispersed Settlement	: It refers to the buildings of the settlement that are all spread out.
Dwelling	: A building to live in (like a house or flat).
Growth Rate	: The number of people added to (or subtracted from) a population in a year due to natural increase and net migration expressed as a percentage of the population at the beginning of the time period.
Infrastructure	: The basic services in a country such as roads, railways, water supply and telephone system.
Life Expectancy	: The average number of additional years a person could expect to live if current mortality trends were to continue for the rest of that person's life. Most commonly cited as life expectancy at birth.
Linear	: The buildings of the settlement are located along a road, rail

Settlement	or course of a river.
Migration	: The movement of people across a specified boundary for the purpose of establishing a new or semi-permanent residence. It has been divided into international migration (migration between countries) and internal migration (migration within a country).
Nucleated Settlement	: The buildings in the settlement that all form a cluster.
Population Density	: Population per unit of land area; for example, people per square mile or people per square kilometre of land.
Population Distribution	: The patterns of settlement and dispersal of a population.
Population Pyramid	: A bar chart, arranged vertically, that shows the distribution of a population by age and sex. By convention, the younger ages are at the bottom, with males on the left and females on the right.
Rural Area	: Countryside, where people live on farms, hamlets and small villages.
Settlement Hierarchy	: Settlements in order of size, with the largest one first.
Settlement	: A place where people live; it could be a hamlet, village, town or city.
Site	: The land on which a settlement is built on.
Situation	: The position of a settlement in relation to features such as rivers, hills and other settlements.
Total Fertility Rate (TFR)	: The average number of children that would be born alive to a woman (or group of women) during her lifetime if she were to pass through her childbearing years conforming to the age-specific fertility rates of a given year. This rate is sometimes stated as the number of children women are having today.
Urban Area	: A built up area, such as a town or city.
Urbanisation	: The process by which rural areas become urban.
Zero Population Growth	: A population in equilibrium, with a growth rate of zero, achieved when births plus immigration equal deaths plus emigration.