

CHAPTER - 6 : POPULATION IN INDIA



Fig. 6.1 : Population in India

Introduction :

India is a developing country. The rate of economic development of a country depends on its quantitative and qualitative growth which can be measured in terms of population, national income, per capita income etc.

Population refers to the number of people living in an area at a given point of time. Population of India is measured once in every ten years through a census survey. According to 2011 census, India's population was 121.02 crores. India ranks second in the world next to China.

India has 17.5% of the world population but it occupies only 2.4% of the world's land area. Population statistics are compiled and published by the Office of the Registrar General and Census Commissioner of India.

You should know :

Population Facts

- Kautilya wrote 'Arthashastra' in the third century B. C. It prescribed the collection of population statistics as a measure of state policy for taxation.
- A systematic and modern population census in its present form was conducted

between 1865 and 1872 in different parts of the country. However 1872 has been popularly labelled as the first population census of India.

- On 11th July 1987, world population crossed 500 crores. Hence, 11th July is observed as 'World Population Day'.

Source : Censusindia.gov.in

Stimulate your memory :

Find out the basic features of India's population that you have studied in Std. VIII and Std. X in the subject of Geography. (e.g. Sex Ratio, Density of Population, Age Composition, Urbanisation etc.)

Trends in Population Growth :

India's population is very large in size. It is growing rapidly. Information regarding the size, structure and other characteristics of India's population is obtained through Census Survey.

Table 6.1 reviews the trends in population growth:

Growth of Population in India

Year	Population (In Crores)	Average Annual Growth Rate (Percent)
1911	25.2	-
1921	25.1	-0.03
1931	27.9	1.0
1941	31.9	1.3
1951	36.1	1.3
1961	43.9	2.0
1971	54.8	2.2
1981	68.3	2.2
1991	84.6	2.1
2001	102.7	1.9
2011	121.02	1.4

Table 6.1

Source : Census of India Reports



- 1) **Marginal Decline in population (1911-1921) :** There was a marginal decline in population from 25.2 crores in 1911 to 25.1 crores in 1921. Thus, there was negative growth rate due to spread of epidemics such as influenza, cholera, plague, malaria etc.
- 2) **Year of Great Divide :** The decadal growth of population was negative during the period 1911 to 1921. After 1921, there was a continuous increase in population. Hence, then Census Commissioner of India had designated the year 1921 as the 'Year of Great Divide'.
- 3) **Positive growth rate (1931-1941) :** India recorded an annual growth rate around 1 to 1.3% during this period.
- 4) **Increase in population (1951 onwards) :** Between 1951 to 1971 population increased from 36.1 crores to 54.8 crores. This shows that after Independence, there was tremendous rise in population.
- 5) **Population Explosion (1971-2001) :** During this period, India experienced 'population explosion' because during these three decades, annual population growth rate was more than 2%.
- 6) **Slow down in population growth rate (2001-2011) :** There is an indication of slow down in growth rate of population from 1.9% in 2001 to 1.4% in 2011. This shows that the average annual growth rate is declining.

Theories of Population Growth :

1) **Malthusian theory of population growth :** Thomas Robert Malthus propounded this theory in his book, "An Essay on the Principle of Population" in 1798 and modified some of its conclusions in the next edition in 1803.

According to Malthus, population increases in geometric progression (2, 4, 8, 16, 32, 64 etc.) and food supply increases in Arithmetic progression (1, 2, 3, 4, 5, 6, 7, 8, 9 etc.), This creates imbalance between population and food supply.

Malthus states that correction of the imbalance can be done by introducing 'preventive checks' such as late marriage, moral restraint etc. He also mentions about 'positive or natural checks' such as natural calamities. Natural checks operate and wash out the excess population and thus balance is maintained. However, preventive checks are more dependable out of the two.

Concepts related to population growth :

- 1) **Birth rate :** Birth rate means the number of births occurring per thousand of the living population during a year. It is also known as fertility rate .
- 2) **Death rate :** The number of deaths per thousand of the living population during a year is called death rate. It is also called mortality rate.
- 3) **Survival rate :** The difference between the birth rate and death rate is known as the survival rate. This shows the actual rate of population growth.

$$\text{Survival rate} = \text{Birth rate} - \text{Death rate.}$$

2) **Theory of Demographic Transition :** The theory of demographic transition was given by A. J. Coale and E. M. Hoover, in the book, "Population growth and Economic Development in low-income countries" (1958).

According to this theory, every country passes through three stages of demographic transition. This theory explains the transition from high to low birth rates and death rates.

Stages of Demographic Transition :

The theory shows a three stage relationship between economic development and population growth. According to this theory, as a country advances economically, its population passes through three stages as follows :

A) **First stage (Low growth of population) :**

It is pre-industrialised and primitive stage. The birth rate and death rate both are very high. All underdeveloped countries



have passed through this stage. Social and economic conditions such as mass illiteracy, superstitions, mass poverty, orthodoxy, lack of medical facilities, spread of epidemics etc. led to low growth of population. Before 1921, India was in the first stage of demographic transition.

B) Second stage (High growth of population) :

Introduction of industrialisation and beginning of the process of economic development is the indicator of the second stage. Due to economic development death rate started falling rapidly, but the birth rate continued to remain high. This led to population explosion. All developing countries, including India are in the second stage of demographic transition. India is on the verge of entering into the third stage.

C) Third stage (Low or Stable population) :

Rapid industrialisation and urbanisation, result in the spread of education and consciousness about standard of living. With economic development, both birth rate as well as death rate tend to decline. All developed countries are in this stage.

Fig. 6.2 helps to understand the theory of demographic transition.

Birth rate and Death rate in India

Year	Birth rate	Death rate
1901	49.2	42.6
1911	48.1	47.2
1921	46.3	36.3
1931	45.2	31.2
1941	39.9	27.4
1951	41.7	22.8
1961	41.2	19.0
1971	37.2	15.0
1981	32.5	15.0
1991	29.5	9.8
2001	28.3	9.0
2011	20.97	7.48

Table 6.2

Source : Census of India Reports

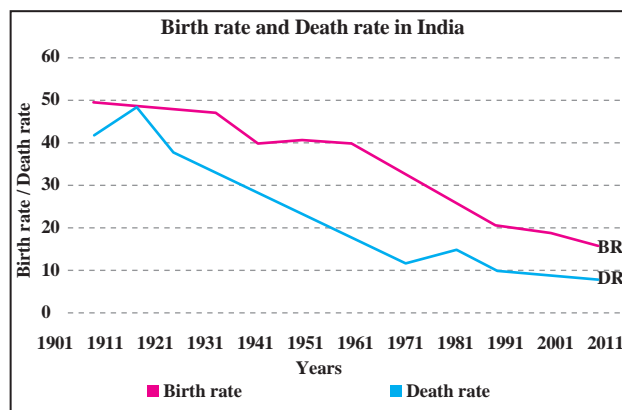


Fig. 6.2 : Demographic transition

Try this :

Based on the table 6.2, explain how demographic transition theory is applicable to India.

Population Explosion in India :



Fig. 6.3 : Population Explosion

Can you tell :

Observe Fig. 6.3 and draw inferences from it.

Population explosion is a situation where the growth of population is faster than the growth and development of the economy. Population explosion in India is due to a high birth rate followed by a low death rate.

Causes of high birth rate :

- 1) **Illiteracy** : The percentage of illiterates in the country is reasonably high. The attitude of illiterate people towards marriage and child birth has remained rigid. Low level of literacy among females is also responsible for a high birth rate.
- 2) **Universalization of marriage** : In India, marriage is considered as both religious and social obligation. Even with the spread of education, the attitude of people towards marriage remains unchanged at large.
- 3) **Age of marriage** : In India, the legal age of marriage is relatively lower compared to other countries. It is 18 years for females and 21 years for males. Low age of marriage has also resulted in a high birth rate.
- 4) **Preference for male child** : Many Indian parents are opting to continue having children until they have a son or desired numbers of sons. This is known as **son meta-preference**.
- 5) **Joint family system** : There is no individual financial responsibility in a joint family. Hence, existence of joint family is also responsible for high birth rate in India.
- 6) **Dependence on Agriculture** : Indian agriculture is driven by manpower. In India, there is overdependence on agriculture. More number of children in the family implies more labour force available for field work.
- 7) **Widespread Poverty** : Poor people prefer large families because they feel that more children means greater economic support.

- 8) **Lack of awareness about family welfare services** : Most of the people are ignorant about the availability of various means and techniques of family planning.

Find out :

Legal age of marriage for males and females in different countries.

You should know :

- **Underpopulation** : Natural resources exceed the population growth.
- **Overpopulation** : Population growth exceeds availability of natural resources
- **Optimum Population** : There is a balance between population growth and availability of natural resources.

Causes of low death rate :

- 1) **Improvement in medical and health facilities** : Due to widespread increase in medical and health facilities, epidemics like plague, cholera, malaria, small pox, tuberculosis etc. have almost been eradicated.
- 2) **Decline in Maternal Mortality Rate** : Over a period of time, death rate of women dying during maternity has declined due to improvement in medical facilities.
- 3) **Fall in infant mortality rate** : Due to better medical facilities there has been a decline in **infant mortality rate** from 146 per 1000 in 1951 to 64 per 1000 in 2002 and 47 per 1000 in 2011. Improvement in literacy among women has also resulted in better care for infants and as such there is a decline in infant mortality rate.
- 4) **Increase in literacy** : Better education will help the people to take care of their life and the needs of their children in a better way. Education has helped the people to come out of their blind faith, beliefs and ignorance.



5) **Use of nutritious food** : Education has created awareness about health and nutrition. Percentage of children and women dying due to malnutrition and ill health was quite high. These deaths are now brought under control by providing nutritious diet. e.g. Mid-day meal programme in schools.

6) **Disaster management** : The **National Disaster Management Authority (NDMA)** was constituted in 2005. This helps to mitigate all types of disasters thereby reducing the loss of lives.

7) **Other factors** : Education, social reforms, rapid urbanization, improvement in standard of living, publicity campaigns are also responsible for creating awareness among the people.

You should know :

Effects of population explosion

- Increased pressure on land
- Increased pressure on agriculture
- Pressure on infrastructure and basic amenities
- Imbalance between demand for and supply of food
- Inflation
- Environmental problems
- Social problems
- Low national income

Measures to check population explosion :

To control the problem of population explosion in India, the following measures need to be undertaken :

A) **Economic measures** : Economic measures can raise the standard of living of the people and help to reduce population growth. Some of the important economic measures are as follows :

- Expansion of industrial sector.
- Creation of employment opportunities.
- Removal of poverty
- Equitable distribution of income and wealth.

B) **Social Measures** : Population explosion is a socio-economic problem. It is related to illiteracy, superstition, orthodoxy, low status of women. The following are the social measures :

- Spread of education
- Improving the status of women
- Raising the minimum age of marriage

C) **Population Policy of India** : Population policy was implemented through the following programmes.



Fig. 6.4 : Small family

1) **Family Planning Programme** : It was launched in 1952 with the objective of reducing the birth rate. Family planning refers to planned parenthood. It is a measure in which birth of a child is determined by choice and not by chance. Family planning programme was not successful due to lack of awareness among the people, false religious beliefs and inconsistent policies of the government.

2) **Family Welfare Programme** : Family Planning Programme was renamed as Family Welfare Programme in 1979. It attempted to integrate family planning services with those of maternal, child health and nutrition.

3) **National Population Policy, 2000** : In the year 2000, the Government introduced National Population Policy (NPP) to control population and to improve its quality. Some of the important features of NPP, 2000 are :

- 1) Free and compulsory school education upto the age of 14 years.
- 2) Reduce infant mortality rate to below 30/1000 live births.
- 3) Reduce Maternal Mortality Rate (MMR) to below 100 per 1,00,000 live births.
- 4) Universal immunization of children against all vaccine preventable diseases.
- 5) Delayed marriage for girls, not earlier than 18 and preferably after 20 years of age.
- 6) Prevention and control of communicable diseases.
- 7) Achieve a stable population by 2045.

Population as a Human Resource

Introduction :

Population constitutes a nation's valuable resource. Nature's bounty becomes significant only when people find it useful. It is people with their demands and abilities that turn them into resources. Hence, human resource is the ultimate resource. Healthy, educated and motivated people develop resources as per their requirements.

Human resources like other resources are not equally distributed all over the world. They differ in their educational levels, age and sex. Their numbers and characteristics also keep changing.

The United Nations Development Programme (UNDP) has introduced the concept of 'Human Development' in 1990.

Human Development embraces enlargement of all human choices – economic, social, cultural or political. It is the enrichment of human lives which is the real wealth of the society.

Role of human resources in economic development :

- 1) Human development is an end while economic growth is a means to achieve this end. So, human conditions should be improved.
- 2) Human development can contribute to reduction in civil disturbances in a society and increased political stability.
- 3) Human development is concerned with widening not merely income choices but covering all aspects of human development

– economic, social, cultural or political.

- 4) Human resource development occurs through provision of educational facilities. Increase in literacy rate, especially among women, tends to reduce birth rate and infant mortality rate. This contributes to population control.
- 5) Human resource development contributes to improvement in life expectancy and literacy rate. This further improves the quality of life.
- 6) Human resource development helps to bring about research and development. It motivates research in various educational institutions.
- 7) Human development leads to increase in human productivity, i.e. investment in nutrition, health and education which results in higher productivity.
- 8) Concept of human development is universal by nature. It applies to less developed as well as highly developed countries. In short, human development embraces the entire society.

Do you know?

Population Education : It is essentially related to human resource development. It aims not only at creating awareness about the population but also with developing values and attitudes which take care of quality and quantity of population. According to UNESCO "Population Education is an educational programme which provides for a study of population situation of the family, the community, nation and world with the purpose of developing in the students rational and responsible attitude and behaviour towards the situation".

You should know :

Demographic Dividend : One of India's competitive advantages is its demographic dividend. Demographic dividend occurs when the proportion of working people to the total population is high. This indicates a high potential of human resources which can contribute to economic growth.



EXERCISE

Q. 1. Choose the correct option :

1) Stages of the theory of demographic transition.

- a) High birth rate and high death rate
- b) High birth rate and low death rate
- c) Low birth rate and low death rate
- d) Economic development

Options : 1) a and b 2) a and c
3) a, b and c 4) a, b, c and d

2) Incorrect reasons for population explosion in India.

- a) Illiteracy b) Universalization of Marriage
- c) Joint family system d) Upliftment in lifestyle

Options : 1) a and b 2) c and d
3) a, b and c 4) d

3) Remedies undertaken to check population explosion.

- a) To provide employment
- b) To improve women's quality of life
- c) National Population Policy
- d) Disaster management

Options : 1) d 2) a and c
3) c and d 4) a, b and c

4) Choose the correct option.

Group A

Group B

- 1) Year of Great Divide a) Stable population till 2045
- 2) A. J. Coale and E. M. Hoover b) 1921
- 3) Social Reforms c) Demographic Transition
- 4) National Population Policy, 2000 d) Spread of education

Options : 1) 1-d, 2-c, 3-a, 4-b 2) 1-b, 2-c, 3-d, 4-a
3) 1-b, 2-a, 3-c, 4-d 4) 1-c, 2-d, 3-a, 4-b

Q. 2. Give economic terms :

- 1) Increase in population is faster than economic growth and development.
- 2) Difference between birth rate and death rate.
- 3) Balance between natural resources and population growth.
- 4) Programme introduced to reduce the birth rate in 1952.

Q. 3. Identify and explain the concepts from the given illustrations :

- 1) There were 40 births per 1000 in country 'A' during a year.
- 2) In Mumbai city, public transport service is largely affected due to the growing population.
- 3) In country 'B', there are 15 deaths taking place per 1000 during a year.
- 4) For a certain period of time China had adopted the policy of 'One child per family'.

Q. 4. Answer the following :

- 1) Explain the causes of high birth rate.
- 2) Explain the causes of low death rate.
- 3) Explain the role of Human Resource in Economic development.

Q. 5. State with reasons whether you agree or disagree with the following statements :

- 1) India is experiencing population explosion.
- 2) Death rate is falling rapidly in India.
- 3) Optimum population contributes economic development of a country.
- 4) Human resources play an important role in economic development.
- 5) Birth rate is declining due to changes in the standard of living.

Q. 6. Solve the following :

- 1) Find out Q_3 from the given data.

(Use the population figures as numerical data)

- 2) Draw a population growth curve from the given data.

Year	Population (in Crores)
1951	36.1
1961	43.9
1971	54.8
1981	68.3
1991	84.6
2001	102.7
2011	121.02

(Source - Census reports)

