

Important concepts in Demography

- Crude Birth Rate: The annual number of live births per 1,000 people.
- General Fertility Rate: The annual number of live births per 1,000 women of childbearing age (often taken to be from 15 to 49 years, but sometimes from 15 to 44).
- Age-Specific Fertility Rates: The annual number of live births per 1,000 women in particular age groups (usually 15-19, 20-24 and so on).
- Crude Death Rate: The annual number of deaths per 1,000 people.
- Infant Mortality Rate: The annual number of deaths of children less than 1 year-old per 1,000 live births.
- Life Expectancy: The number of years which an individual at a given age can expect to live at present mortality levels.
- Total Fertility Rate: The number of live births per woman completing her reproductive life, if her childbearing at each age reflected the current age-specific fertility rates.
- Gross Reproduction Rate: The number of daughters who would be born to a woman completing her reproductive life at current age-specific fertility rates.
- Net Reproduction Rate: The number of daughters who would be born to a woman according to current age-specific fertility and mortality rates.

DEMOGRAPHIC PROFILE OF INDIA

India comes next only to China as regards to the size of its population, but is seventh in the world as regards to the area. With 2.4 % of world's area and with 1.8% of world's income, India is maintaining 18% of world's population. It clearly indicates that there is excessive burden of population in India.

DEMOGRAPHY – CONCEPT AND THEORIES

- Demography is a statistical study of human population. It studies a variety of variables related to population like size, growth, distribution, density, composition and their spatial and temporal variations.

Demographics are the quantifiable statistics of the given population based on the study of demograpdemograpy.

Theory of Demographic Transition

Demographic Transition is credited to Frank W Notestein, who gave his theory in 1945. This theory was based on the data from western countries, which experienced a transition in demography from the stage of low birth rates and low mortality with a consequent declining population.

- According to this theory, all countries pass through stages of demographic transition, which is accompanied by industrialisation and economic development. Notestein gave the following stages of demographic transition.
- These four stages have been described below
- First stage
- Stage of high birth rate and high death rate

Birth and death rates are both high. Population growth is slow and fluctuating.

Reasons

Birth rate is high as a result of

- Lack of family planning
- High infant mortality rate
- Need for workers in agriculture
- Religious beliefs
- Children as economic assets.
- Death rate is high because of
- High levels of disease
- Famine
- Lack of clean water and sanitation
- Lack of healthcare
- War
- Competition for food from predators such as rats.
- Lack of education.

Second stage (early expanding)

- Stage of high birth rate and low death rate.

Birth rate remains high; death rate falls. Population begins to rise rapidly.

Reasons

Death rate falls as a result of

- Improved healthcare (e.g. Smallpox Vaccine)
- Improved hygiene sanitation
- Improved food production and storage
- Improved transport of food
- Decreased infant mortality rates.

Third stage

- Stage of declining birth rate and low death rate.
 - This stage is characterised by decline in birth rate, low death rate and low population growth (growth rate of population declines)
 - Birth rate starts to fall; death rate continues to fall. Population continues to rise.

Reasons

- Family planning available.
- Lower infant mortality rate
- Increased mechanisation reduces need for workers.
- Increased standard of living

Changing status of women.

Fourth stage (low fluctuating)

- Stage of low birth rate and death rate
 - In the fourth stage of demographic transition, a low birth rate and low death rate lead to a stationary or declining population.
 - It is called a stage of stationary population.

– Birth and death rates both are low. Population is steady or declining as in many Western European nations at present.

Demographic transition and population Growth

- Demographic transition is the transition from a stable population with high mortality and fertility to a stable population with low mortality and fertility during the transition, population growth and changes in the age structure of the population are inevitable.
- In India, the demographic transition has been relatively slow, but steady. As a result, the country was able to avoid adverse effects of too rapid changes in the number and age structure of the population on social economic development.

Optimum theory of population

This theory states that in every country, there is an optimum level of population. “The optimum population is that, which gives the maximum income per head.” if the population exceeds the optimum level, there is the problem of over population.

Population theory of Malthus

- Thomas Robert Malthus gave his ideas regarding population in his book ‘Essay, on the principle of Population. He argued that while food production could only increase in arithmetic progression, human population grow exponentially. Thus, he predicted a future when humans would have no resources to survive on.
- He supported ‘preventive’ and ‘positive’ checks on population growth such as late marriage. He was however, against birth control after marriage.
- Most modern economists disagree with Malthus since he neglected the possibilities from technology and the fact that a larger population increases the chances of someone achieving break through in technology.

Size and Growth of India’s Population

- India’s population increased rapidly in the post independence period. Between 1951 – 61, it increased by more than 7.82 crore or by nearly 21.6%, which exceeded its growth rate of the previous 40 years. This excessive rise in population is called population explosion.
- Since 1951, population has been increasing constantly. Between 1971 -81, growth rate of population was 24.8 % and between 1981 – 91, it was 23.8 %
- India’s population growth rate, has decelerated to 17.64 % in the decade 2001- 2011, the slowest rate of growth in this past century.

- Study of the growth of India's population can be divided into four periods of time.

Period of Stable Population (1891 to 1921)

- Between 1891 and 1921, rate of growth of population in India, was low. In these 30 years, population increased by 1.26 crore.
- It was so because in these years, calamities and epidemics, like famines, plague, malaria etc took a heavy toll of human lives. The epidemic in 1918, took a toll of 140 lakh human lives.

Period of Growth of Population (1921 to 1951)

- Since 1921, population has been increasing at a rapid rate. The trend of growth of population in India, since 1921, has been consistently on the rise. That is why Census commissioner has referred the year 1921 as year of Great Divide. This increase was higher than that of the previous thirty years.

1921 , the Year of Great Divide

- The year 1921, is a year of the great divide in the demographic history of India when mortality started to decline leading to acceleration in the rate of population growth. During the next three decades (1921 -51), the rate of population growth continued at a level of over 1% per annum. After independence, the rate of population growth accelerated considerably because of extension of public health services. The growth rate was at its peak in the period 1961 -81 with the population growing at a rate of 2.2 % per annum.

Period of population Explosion (1951 to 1981)

- In this period, population increased at a very fast rate. This period is called period of population explosion
- 1951 – 1961 in this period, growth rate was recorded to be 21.6%, which was highest for any decade before that.
- 1961 – 1971 This period witnessed an increase in population by 10 crore 90 lakhs, growth rate was 24.8 %

1971 – 1981 during this period, population in India rose to 68 crore 33 lakhs, Thus 13 crore 51 lakhs persons were added to the total size of India's population.

Period of High Growth with Definite Signs of slowing down (1981 to Present)

- 1981 – 1991 in this period, population went up to 84 crore 63 lakhs making addition of 16 crore in 10 years.
- 1991 – 2001 in 2001, the population of India went up to 102.90 crore. Thus, between the period 1991-2001, the population of India increased by about 18.07 crore.

- 2011 In 2011, the population of India was 121.02 crores. This represents an increase of 18.12 crore from the previous decade. This was the first time since census began, that the decadal population growth was lower than the previous decade.