

Population - The Increasing Numbers and Rising Problems

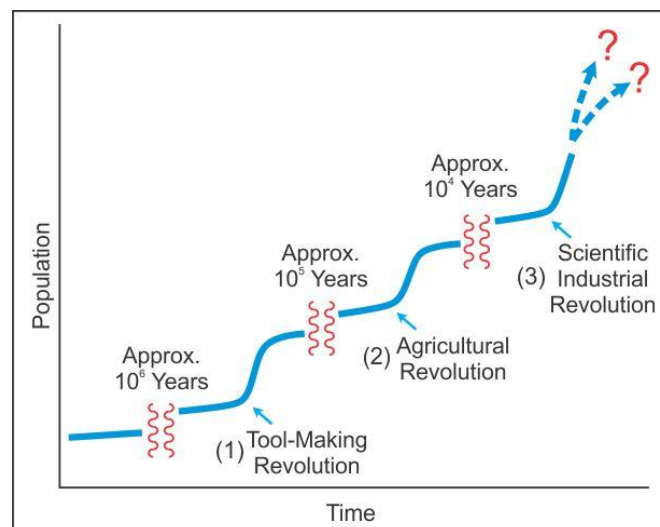
- The total world population about 50,000 years ago was approximately 1 million.
- About 10,000 years ago, the total world population had reached approximately 5.3 million.

World Population (some important dates and figures)	
11 July 1987	Population crossed the 5.0 billion mark
1995	Population was nearly 5.6 billion
12 October 1999	Population crossed 6 billion
11 July is observed as World Population Day .	
More than 1,00,000 babies are born every day.	

Rapid Rise in Population

1. Industrial Revolution	• Major phase in the growth of human population. • Rapidly growing industries made human life comfortable, with greater job opportunities and more production of food.
2. New Discoveries in Medical Sciences	• There were remarkable discoveries in medical science in the 20th century. • Antibiotics and vaccination were discovered for many diseases. • This resulted in a sharp decrease in deaths, and the rate of growth of population rose rapidly.

Three main revolutions in human culture are responsible for the growth of human population.



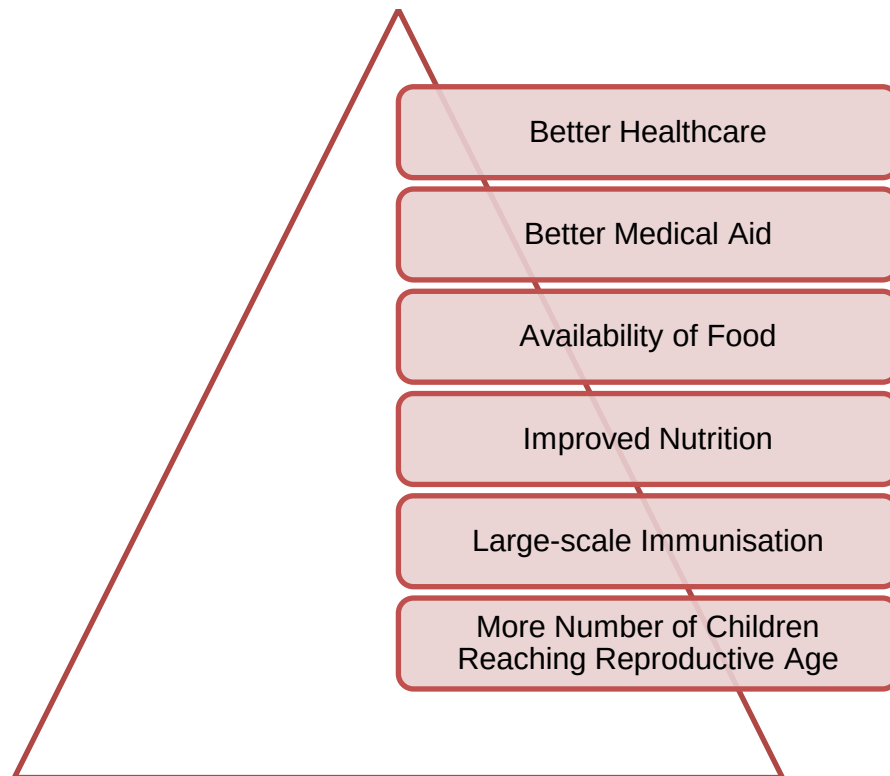
Each cultural revolution was followed by a rapid rise in population till it stabilised or rose very slowly.

Flattened curves: Stability in growth or a very slow rise.

Wavy gaps: Stability in growth or a very slow rise for very long periods of time.

Population Explosion – A Serious Global Concern

Six Main Reasons for a Sharp Rise in World Population in the Recent Past



With a fast-increasing world population, there are numerous problems

- Decreasing open spaces
- Shrinking of forests
- Increasing industrialisation causing air, water and soil pollution
- Rapid and intense shortage of drinking water and other resources
- Increasing health hazards

Population in India

- The trend of increasing population in India is alarming.
- A few years ago, it was estimated that India's population in 2001 would be about 760 million, but it has already crossed the 1 billion mark.

Factors Responsible for Population Explosion in India

- People from rural regions are illiterate and superstitious.
- More number of children in a family.
- High infant mortality results in more number of pregnancies.
- Poor standards of living and poverty provide no recreation other than sex.

Rising Population – Pressure on Natural Resources

1. Food	For an unchecked rise in population, food would be running short.
2. Land	- Man uses more and more land for cultivation and to build residential colonies, factories and industries. - Thus, usable land would become less and less available.
3. Forests	- Rise in population leads to deforestation. - Deforestation has led to serious problems such as droughts, flash floods, soil erosion and extinction of flora and fauna.
4. Water	- With an increase in population, the availability of clean and germ-free water for drinking purposes would become scarcer. - An increasing population leads to pollution of rivers, lakes, ponds etc.
5. Energy	Reserves of fossil fuels are fast depleting.
The increasing population would need more non-conventional resources. Resources such as solar energy, wind energy and tidal energy must be used by humans to minimise the use of conventional resources.	

Population Growth and Urbanisation – Serious Pressure on Resources

Urbanisation

The population is growing fast. Villages are turning into towns, and towns into cities and cities into megacities. This process is called **urbanisation**.

Rising Living Standards of Growing Population

- Use of household equipment such as high-end gadgets and better furniture
- Use of more clothes
- Use of different modes of conveyance such as bike, car, bus, taxi etc.

The above-mentioned factors lead to the overuse of natural resources. Some also lead to pollution.

Need to Check Exploitative Use of Resources

It is necessary for individuals to become conscious and contribute to the sustainable use of natural resources.

Sustainable development

It is a type of development which meets the need of the present without compromising on the ability of the future generations to meet their own needs.

Sustainable development can be achieved by

- Reduction in excessive use of natural resources
- Recycling and reuse of resources wherever possible
- More use of renewable resources such as solar energy, wind energy etc.

Rate of Population Growth

The rate of population must be reduced. It will lead to

- Less burden on decreasing resources
- Better health care
- Better education

A Few Statistical Terms

Demography	Statistical study of human population with reference to size, density, distribution and other vital statistics.
Population Density	The number of individuals per square kilometre at any given time.
Birth rate (Natality)	The number of live births per 1000 people of population per year.
Death rate (Mortality)	The number of deaths per 1000 people of population per year.
Growth Rate of Population	The difference between the birth rate and the death rate. • When the birth rate exceeds the death rate, the population grows. • When the birth rate is lower than the death rate, the population declines.

Need for Adopting Control Measures

When the population of a country increases beyond its means, it brings with it many problems such as

- Per capita income reduces
- Natural resources such as land, minerals, wood and fuels decrease
- General health goes down

The overall quality of life decreases with a larger population.

Population Education and Population Control

With the current growth in population, it is necessary to educate people about the need to control population growth and the steps which can be taken.

- Awareness should be created about population problems.
- People need to be aware about the advantages of having small families and the disadvantages of having many children.

Family Welfare

- Family welfare is represented by an inverted red triangle



- Offices and hospitals with this symbol displayed are known as **family welfare centres**.
- These centres provide help or advice about family planning.

Three aspects of family welfare are

- Family planning in terms of having a small family.
- Total welfare of the small family, including the diet and nutrition of the child and the pregnant mother.
- Subsequent care of children, such as immunisation and oral rehydration therapy, to ensure the survival of young ones.

Methods of Contraception

1. Hormonal Method	• Various hormonal preparations come in the form of tablets or pills commonly called contraceptive pills .	
2. Barrier Methods	I. Condom	• Used by men. • It prevents the sperms from being deposited in the vagina.
	II. Diaphragm	• It can be fitted deep in the vagina to prevent the entry of sperms into the uterus.
	III. Spermicidals	• These chemicals are placed in the vagina near the cervix to kill the sperms.
3. Intra-uterine Devices (IUDs)	• Lippe's Loop and Copper T are intra-uterine devices. • Commonly used in India. • They are fitted inside the uterus. • These devices do not stop fertilisation but prevent the implantation of the blastocyst.	
4. Surgical Methods	I. Tubectomy	• In women, the abdomen is opened and the fallopian tubes are cut or ligated, i.e. tied with a nylon thread. • This closes the passage of the ovum.
	II. Vasectomy	• In men, a small cut is made in the scrotum and the vas

		deferens is ligated. • A small piece between the two ligatures is removed. • Therefore, between the couple, it is recommended that the husband should be operated.
5. Induced Abortion		• It is also known as Medical Termination of Pregnancy (MTP). • If a woman becomes pregnant and the couple is not willing to have the baby, then the option of induced abortion is chosen. • Abortion is legally permitted and can be requested by any desirous female at any government hospital at no cost.