

# Population, Development and Demographic Transition

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## **Population and Growth:**

Population may be simply defined as the head count of individuals in a defined geographical area at a particular time. It is like a still snapshot. The individuals in the definition can be human beings or any other being in the reference. But here we are concerned with the human population residing on the earth's surface. Population count is called as Census. In India Census takes place every tenth year. The first ever census was conducted in 1882. But, it was incomplete since it did not account for the complete population of India neither it was conducted synchronously. The first complete Census was conducted in the year 1891 and since then it is held every decade.

Increase or decrease of population is referred to as growth. It is positive when there is an increase and negative when there is a decrease. The human history of population growth has given us an experience that it grows exponentially. The estimated data on population suggests that, at the time of Christ we were around 200 to 300 million and increased to 500 million by 1650 AD. By 1850 world population was estimated to 1000 million. We doubled in 1930. A billion was added more in 1975. By 1987 we were 5000 million (UNPRB, 1998). We have now almost reached the 7000 million mark and are expected to add another billion by 2025.

## **Development:**

Development is a value positive concept. For different people it has different connotations. For economists it may mean GDP growth, for sociologists it may construe well-being, for politicians it may be poverty eradication and for a geographer it may simply mean removal of regional disparities.

However one thing is common and that is value addition to the existing achievements. Development once achieved cannot be undone. For e.g. once a child learns how to ride a bicycle he cannot forget it. Learning to drive is a development and it cannot be undone.

Every developmental aspect requires resources. Resources are the creative aspects of the environment. It is often said that resources are not made but they become. Every thing exists in nature. We mould things as per our needs. Resources are both conventional and non conventional types. A proper planning and judicious use of the resources are required for a balanced development. It is at this point that sustainability drops in. Sustainability means that we use resources for the development but at the same time we save them for the future generation.

## **Interface of Population and Development:**

The place where human being lives is the mother earth. It constitutes of the lithosphere, hydrosphere and the atmosphere. Land provides him the space to live, grow and flourish. Water is an essential component for his survival and production. Air is the unique component of earth in our solar system. Life is the product of the interface of these three spheres of earth. The interface of life and the inorganic earth creates the ecological balance.

Man is the master of all life forms. In the ecological pyramid he is ruling the biota. This has been possible due to his evolved brain. However, some scientists argue that man is now no more a part of the ecological pyramid because of the artificial use of the natural resources. Earlier man was simply a hunter and was prone to all forms of calamities. But now, he has modernised and is able to save himself from deadly diseases, epidemics, drought, floods and other minor form of natural disaster. Since the advent of agriculture he has been able to secure himself of chronic food shortages and after Green Revolution he has mastered the art of food production. The modern era of globalisation and scientific temper has helped him arrive at a better standard of living.

Man multiplies. Space and resources are limited. *Thomas Robert Malthus*, the English economist and demographer rightly assessed this situation way back in 1798. In his *An essay on Principle of Population* he suggested that fast increase in population absorbs all economic gains unless controlled by what he termed as preventive and positive checks such as epidemic, drought etc. He maintained that population if unchecked

tended to increase at a geometric rate (i.e. 1, 2, 4, 8, 16...) while subsistence increased at an arithmetic rate (1, 2, 3, 4, 5, ...).

*Karl Marx* realised the concept of labour productivity. More the earning hands more would be the production. But he was against the capitalistic mode of production.

Population and production follows a *logistic growth* pattern. It means, at the advent of any civilisation the growth of population is low because of the limited knowledge of survival and production. Once this difficulty is overcome the population grows with a rapid spurt. However after a certain period of time this growth gets stagnant by the constraints of resources.

**Demographic Transition**

The theory suggests that in the stages of development of any country there are initially higher birth and death rates but in the middle stage of development population expands drastically due to reduced death rates and increased birth rates. The developed country experiences reduced death and birth rates. However the model is primarily criticised on the ground that the replica of western European demography does not fit into the demographic situation of the underdeveloped and developing countries. A comparison is therefore made between the demographic history of Sweden (a developed country) and India (a developing country)

**Table 1: Birth Rate, Death Rate and Natural Increase, Sweden**

Year	Birth Rate (Per Thousand)	Death Rate (Per Thousand)	Natural Increase	Total Population (In Million)
1750	36	27	9	1.8
1810	33	26	7	2.5
1870	30	18	12	4.4
1930	14	12	2	6.3
1975	13	11	2	8.2

Source: Royal Ministry of Foreign Affairs, Sweden (1978) *The Biography of People: Past and Future Population Changes in Sweden, Conditions and Consequences.*

**Table 2: Birth Rate, Death Rate and Natural Increase, India**

Year	Birth Rate (Per Thousand)	Death Rate (Per Thousand)	Natural Increase	Total Population (In Million)
1901	49.2	42.6	6.6	24
1921	46.4	36.3	10.2	25
1951	41.7	22.8	18.9	36
1971	36.9	14.9	22.0	55
1991	28.5	9.2	19.0	84

Source: Census of India, *Handbook of Population Statistics* (1988), Table 35, P.99 and Census of India 1991

Analysis of the Tables 1 and 2 reveals that by 1920 to 1930, when the natural increase of Sweden started declining the natural increase of India was on the rise and it is only in 1991 that a decline is deciphered. Therefore, it is construed that the demographic transition models does not fit exactly in today's scenario but it is a helpful model in learning about the past socio economic situation of any country.

**Conclusion:**

Development is a necessary aspect. The initial state of under-population was detrimental for the existence of the society. The present state of over-population is burden for the natural environment. The need of the hour is to maintain optimum-population. Sustainable development, inclusive growth with human tolerance will help human and humanity survive far and longer. We cannot afford to put stress on natural environment for a longer duration because if we kill our environment it will retort sooner or later. Population control is necessary for saving the earth. Self discipline rather than State controlled discipline for population check should be the mantra.

**References**

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