

PG SEM-II 2020
SUBJECT: GEOGRAPHY PAPER: GEO202 UNIT:GEO202.1
(POPULATION GEOGRAPHY)
TOPIC: Theory of Demographic Transition

Mr. PRANAY SANTRA (Asst.Prof.Dept. of Geography, Haldia Government College)

The theory of demographic transition or of population stages or of population cycle has many versions. It has been propounded by W.S. Thomson and F.W. Notestein. They explain the theory in three stages.

But the two famous versions are C.P. Blacker's five stages of population growth which have been explained here, and Karl Sax's four stages of population growth, namely, High Stationary, Early Explosive Increase, Late Explosive Increase, and Low Stationary. He does not explain Blacker's Declining Stage, while his four stages almost resemble Blacker's other stages.

Explanation of the Theory of Demographic Transition:

The theory of Demographic Transition explains the effects of changes in birth rate and death rate on the growth rate of population. According to E.G. Dolan, "Demographic transition refers to a population cycle that begins with a fall in the death rate, continues with a phase of rapid population growth and concludes with a decline in the birth rate."

The theory of demographic transition is based on the actual population trends of advanced countries of the world. This theory states that every country passes through different stages of population development.

According to C.P. Blacker, they are:

- (i) the high stationary phase marked by high fertility and mortality rates;
 - (ii) the early expanding phase marked by high fertility and high but declining mortality;
 - (iii) the late expanding phase with declining fertility but with mortality declining more rapidly;
 - (iv) the low stationary phase with low fertility balanced by equally low mortality; and
 - (v) the declining phase with low mortality, lower fertility and an excess of deaths over births.
- These stages are explained in the Fig. 1 (A) & (B) In the figure, the time for different stages is taken on the horizontal axis and annual birth and death rates on the vertical axis. The curves BR and DR relate to birth rate and death rate respectively. P is the population curve in the lower portion of the figure.

First Stage:

In this stage the country is backward and is characterised by high birth and death rates with the result that the growth rate of population is low. People mostly live in rural areas and their main occupation is agriculture which is in a state of backwardness. There are a few simple, light and small consumer goods industries.

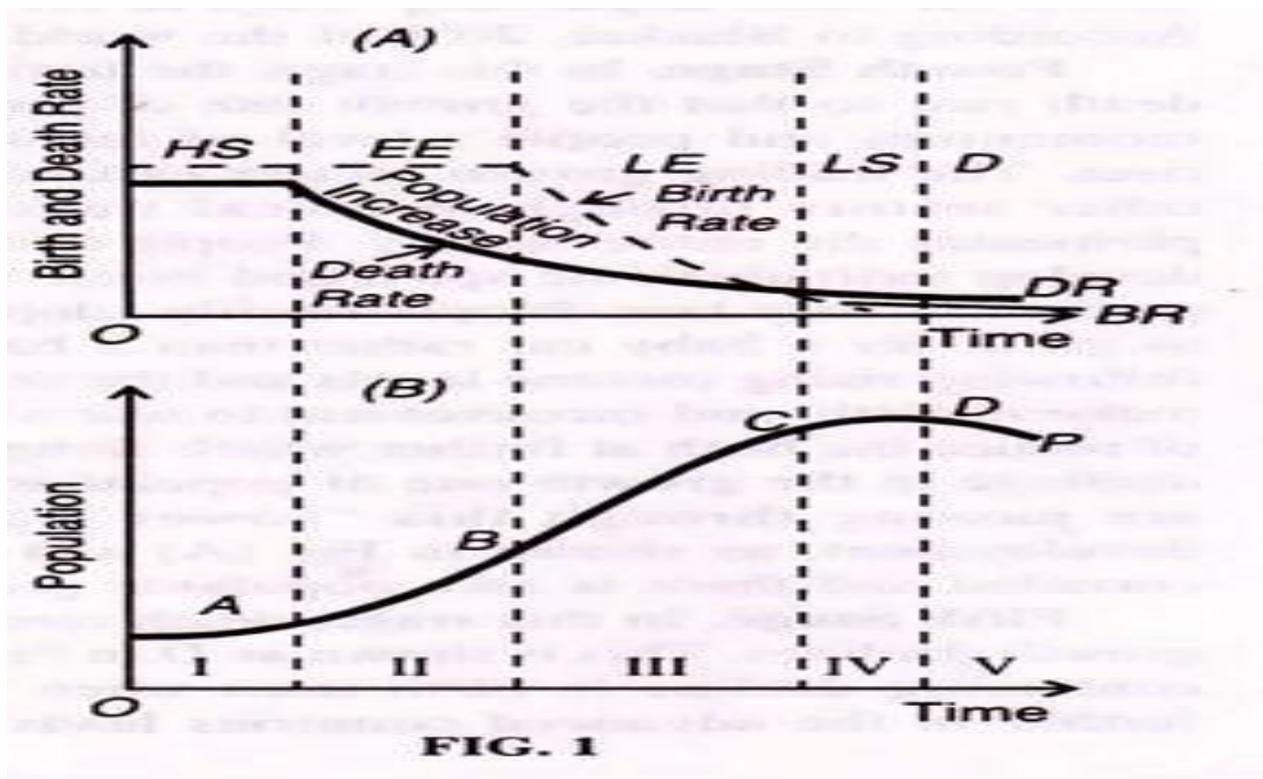
The tertiary sector consisting of transport, commerce, banking and insurance is underdeveloped. All these factors are responsible for low incomes and poverty of the masses. Large family is regarded as a necessity to augment the low family income. Children are an asset to the society and parents. The existence of the joint family system provides employment to all children in keeping with their ages.

More children in a family are also regarded as an insurance against old age by the parents. People being illiterate, ignorant, superstitious and fatalists are averse to any method of birth control. Children are regarded as God-given and pre-ordained.

All these economic and social factors are responsible for a high birth rate in the country. Along with high birth rate the death rate is also high due to non-nutritional food with a low caloric value, lack of medical facilities and the lack of any sense of cleanliness.

People live in dirty and unhealthy surroundings in ill ventilated small houses. As a result, they are disease-ridden and the absence of proper medical care results in large deaths. The mortality rate is the highest among the children and the next among women of child-bearing age. Thus the birth rates and death rates remain approximately equal over time so that a static equilibrium with zero population growth prevails.

According to Blacker, this stage continued in Western Europe approximately up to 1840 and in India and China till 1900. This is illustrated in Fig. 1 (A) by the time period HS- "High Stationary" stage and by the horizontal portion of the P (population) curve in the lower portion of the figure.



Second Stage:

In the second stage, the economy enters the phase of economic growth. Agricultural and industrial productivity increases, and means of transport develop. There is greater mobility of labour. Education expands. Incomes increase. People get more and better quality food products, medical and health facilities are expanded.

Modern drugs are used by the people. All these factors bring down the death rate. But the birth rate is almost stable. People do not have any inclination to reduce the birth of children because with economic growth employment opportunities increase and children are able to add more to the family income.

With improvements in the standard of living and the dietary habits of the people, the life expectancy also increases. People do not make any effort to control the size of family because of the presence of religious dogmas and social taboos towards family planning.

Of all the factors in economic growth it is difficult to break with the past social institutions, customs and beliefs. As a result of these factors, the birth rate remains at the previous high level. With the decline in the death rate and no change in the birth rate, population increases at a rapid rate. This leads to Population Explosion.

This is an “Early Expanding” (EE) stage in population development when the population growth curve is rising from A to B as shown in Fig. 1(B), with the decline in death rate and no change in

birth rate, as shown in the upper portion of the figure. According to Blacker, 40% of the world population was in this stage up to 1930. Many countries of Africa are still in this stage.

Third Stage:

In this stage, birth rate starts declining accompanied by death rates declining rapidly. With better medical facilities, the survival rate of children increases. People are not willing to support large families. The country is burdened with the growing population. People adopt the use of contraceptives so as to limit families.

Birth rates decline a initially in urban areas, according to Notestein. With death rates declining rapidly, the population grows at a diminishing rate. This is the “Late Expanding” stage as shown by LE in Fig. (A) and BC in Fig. (B). According to Blacker, 20% of the world population was in this stage in 1930.

Fourth Stage:

In this stage, the fertility rate declines and tends to equal the death rate so that the growth rate of population is stationary. As growth gains momentum and people’s level of income increases, their standard of living rises. The leading growth sectors expand and lead to an expansion in output in other sectors through technical transformations.

Education expands and permeates the entire society. People discard old customs, dogmas and beliefs, develop individualistic spirit and break with the joint family. Men and women prefer to marry late. People readily adopt family planning devices. They prefer to go in for a baby car rather than a baby.

Moreover, increased specialisation following rising income levels and the consequent social and economic mobility make it costly and inconvenient to rear a large number of children. All this tends of reduce the birth at further which along with an already low death rate brings a decline in the growth rate of population.

The advanced countries of the world are passing through this “Lower Stationary” (LS) stage of population development, as shown in Fig (A) and CD in Fig. (B). Population growth is curtailed and there is zero population growth.

Fifth Stage:

In this stage, death rates exceed birth rates and the population growth declines. This is shown as D in Fig. (A) and the portion DP in Fig. (B). A continuing decline in birth rates when it is not possible to lower death rates further in the advanced countries leads to a “declining” stage of population.

The existence of this stage in any developed country is a matter of speculation, according to Blacker. However, France appears to approach this stage.

Criticisms of the Theory of Demographic Transition:

Despite its usefulness as a theory describing demographic transition in Western Countries, it has been criticised on the following grounds:

1. Sequences of Stages not Uniform:

Critics point out that the sequences of the demographic stages have not been uniform. For instance, in some East and South European countries, and in Spain in particular, the fertility rates declined even when mortality rates were high. But in America, the growth rate of population was higher than in the second and third stage of demographic transition.

2. Birth Rate not declined initially in Urban Areas:

Nolestein's assertion that the birth rate declined initially among urban population in Europe has not been supported by empirical evidence. Countries like Sweden and France with predominantly rural populations experienced decline in birth rates to the same extent as countries like Great Britain with predominantly urban populations.

3. Explanations of Birth Rate decline Vary;

The theory fails to give the fundamental explanations of decline in birth rates in Western countries. In fact, the causes of decline in birth rate are so diverse that they differ from country to country.

Thus the theory of demographic transition is a generalisation and not a theory.

Not only this, this theory is equally applicable to the developing countries of the world. Very backward countries in some of the African states are still in the first stage whereas the other developing countries are either in the second or in the third stage. India has entered the third stage where the death rate is declining faster than the birth rate due to better medical facilities and family welfare measures of the government.

But the birth rate is declining very slowly with the result that the country is experiencing population explosion. It is on the basis of this theory that economists have developed economic-demographic models so that developing countries should enter the fourth stage.

One such model is the Coale-Hoover model for India which has also been extended to other developing countries. Thus this theory has universal applicability, despite the fact that it has been propounded on the basis of the experiences of the European countries.

Conclusion to the Theory of Demographic Transition:

The theory of demographic transition is the most acceptable theory of population growth. It does not lay emphasis on food supply like the Malthusian theory, nor does it develop a pessimistic outlook towards population growth. It is also superior to the optimum theory which lays an exclusive emphasis on the increase in per capita income for the growth of population and neglects the other factors which influence it.

The biological theories are also one-sided because they study the problem of population growth simply from the biological angle. Thus the demographic transition theory is superior to all the theories of population because it is based on the actual population growth trends of the developed countries of Europe. Almost all the European countries have passed through the first three stages of this theory and are now in the fourth stage.