

Demographic Transition Theory

How Science and Technology helped population Growth?

The Steam engine replaced human and animal energy and also provided mechanised energy of water and wind. This increased agricultural and industrial production.

Immunisation against epidemics and other communicable diseases, improvement in medical facilities and sanitisation contributed to a rapid decline in death rates throughout the world.

W.S. Thompson (1929)

Frank W. Notestein (1945)

Key words

Birth Rate (BR): number of live births per year per 1000 of the population.

Death Rate (DR): number of deaths per year per 1000 of the population.

Infant Mortality Rate (IMR): numbers of deaths of children below one year of age per 1000 of live births.

Life Expectancy: the average age at which people die.

For India (census 2011, 66 years)

Britain (77.2) and Japan (80)

Rate of Natural Increase (RNI):

Excess of births over deaths per thousand of population excluding immigration.

Definition.

The theory postulates a particular pattern of demographic change from a high fertility and high mortality to a low fertility and low mortality when a society progresses from a largely rural agrarian and illiterate society to a dominantly urban industrial, literate and modern society.

Rural Agricultural Illiterate \Rightarrow Urban Industrial Literate

HYPOTHESIS

- (i) The decline in mortality comes before the decline in fertility.
- (ii) The fertility eventually declines to match the mortality.
- (iii) Socio-economic transformation of a society takes place simultaneously with its demographic

Transformation.

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 birth rate."

Stages of Demographic Transition.

Thompson and Note Stein divided Demographic Transition into 3 Stages.

According to Karl Saxe

Stage I: (High stationary) : High and fluctuating high birth and death rates, slow population growth.

Stage II: (Early Expanding) Stage of high birth rate and low death rate.

Stage III: - (Late Expanding) : Stage of declining birth rate and low death rate and slow population growth.

Stage IV: (Low Fluctuating) : Stage of low birth rate, low death rate, and stationary population.

First Stage

Birth and death rates high.

Growth rate of population is low.
Rural population.

Agriculturally dominant backward society.

Low population density.

The tertiary sector is underdeveloped.

Low income, and poverty.

Large family size.

Children are an asset.

People are illiterate and superstitious.
Lack of medical facilities and cleanliness.

Child mortality rate is high.

Second Stage.

Agricultural and industrial productivity increases.

Transport development, Education expands.

Better medical and health facilities.
Birth rate is almost stable.

The life expectancy increases people don't make any effort to control the size of family because of the presence of religious dogmas and social taboos towards family planning.
Birth rate remains at the previous high level.

Population increases at a rapid

State population explosion.

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

Birth rate declines.

Death rate declining rapidly.

Better medical facilities.

The survival rate of children increases.

The country is burdened with the growing population.

People adopt the use of contraceptives to limit families.

Birth rates decline initially in urban areas, according to Blacker. With death rates declining rapidly, the population grows at a diminishing rate.

According to Blacker, 20% of the world population was in this stage in 1930.

Fourth Stage

The fertility rate declines and tends to equal the death rate.

that the growth rate of population is stationary.

Level of income increases.

Standard of living improves.

Education expands and permeates the entire society.

People discard old customs.

Individualistic spirit.

Men and women prefer to marry late.

Adopt of family planning devices.

Decline in the growth rate of population.

Anglo-American, West

European countries,

Australia, New Zealand,

Singapore, Hong Kong and Japan.

Criticism of the Theory

- Sequences of stages not uniform:
critics point out that the sequences of the demographic stage 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.

(ii) Birth rate not declined initially in Urban Areas: Notesteins 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.

(iii) Explanations of Birth rate decline vary: The theory fails to give the fundamental explanation of decline 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.

CONCLUSION

The theory of demographic transi-

tion 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.

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 through the first three stages of this theory and are now in the fourth stage.