

Optimum Population Theory

By

Ayesha Jamal

Assistant Professor

P. G. Department of Geography

R. D. S. College, B. R. A. B. U.

Muzaffarpur

The optimum level of population can be defined as a condition where individuals are getting highest possible per capita income, considering the available resources and given level of technology.

The optimum theory of population was propounded by Edwin Cannan in his book *Wealth* published in 1924 and popularised by Robbins, Dalton and Carr-Saunders.

The optimum theory of population was put forward as a reaction to the Malthusian theory of population. Malthus (1766-1834), in his famous book 'Essay on the Principle of Population' (1798), stated that, Population increases faster (in geometric progression) than means of subsistence (in arithmetical progression). However, the Malthusian Theory deals with the relationship between population growth and food supply, while the Theory of Optimum Population studies the relationship between population size and the production of wealth. Optimum population refers to a state where the size of the population is neither greater nor lower than the socially desirable level.

Definitions of Optimum Theory of Population:

The concept of optimum population has been defined differently by Robbins, Carr-Saunders and Dalton.

Robbins defines it as “*the population which just makes the maximum returns possible is the optimum population or the best possible population.*”

Carr-Saunders defines it as “*that population which produces maximum economic welfare.*”

According to Dalton, “*Optimum population is that which gives the maximum income per head.*”

Assumption of the Optimum Theory of Population:

- (1) With the growth of population, the ratio between total population and working population remains unchanged.
- (2) The hours of work and production per head of working population will remain constant.
- (3) A time may come when a country's population will increase with that of the available natural resources. Under such a condition, technical know-how and capital will not change. So, after some time, the law of diminishing returns begins to operate. When the combination of factors is not suited for production, it will be impossible to maximise production.

According to the exponents of the theory, from the national point of view, population should be treated as a labour force. Every increase in the labour force creates an opportunity to utilize the material resources available in the country.

Given these assumptions, the optimum population is that ideal size of population which provides the maximum income per head. Any rise or diminution in the size of the population above or below the optimum level will diminish income per head.

Given the stock of natural resources, the technique of production and the stock of capital in a country, there is a definite size of population corresponding to the highest per capita; income. Other things being equal, any deviation from this optimum-sized population will lead to a reduction in the per capita income.

If the increase in population is followed by the increase in per capita Population income, the country is under-populated and it can afford to increase its population till it reaches the optimum level. On the contrary, if the increase in population leads to diminution in per capita income, the country is over-populated and needs a decline in population till the per capita income is maximised.

Interpretation of the Optimum Theory of Population:

- (1) Population is the manpower needed to exploit the natural resources and thereby promote economic growth.
- (2) As long as the optimum point is not reached, the nation shall remain unable to exploit the natural resources to the maximum possible extent, i.e., properly and fully.
- (3) If the population crosses the optimum point, then the nation shall not get the maximum return. This is because the large population will create pressure on other resources. The burden on those resources will become disproportionate.
- (4) If the population is at the optimum point, the resources are properly and fully utilized. It gives the ideal combination of factors of production. Moreover, it helps in suitable division of labour, resulting in very high national gross production and per capita income. At the optimum point, external economies are fully utilized. As an empirical theory, the optimum theory is very scientific.

Optimum Population

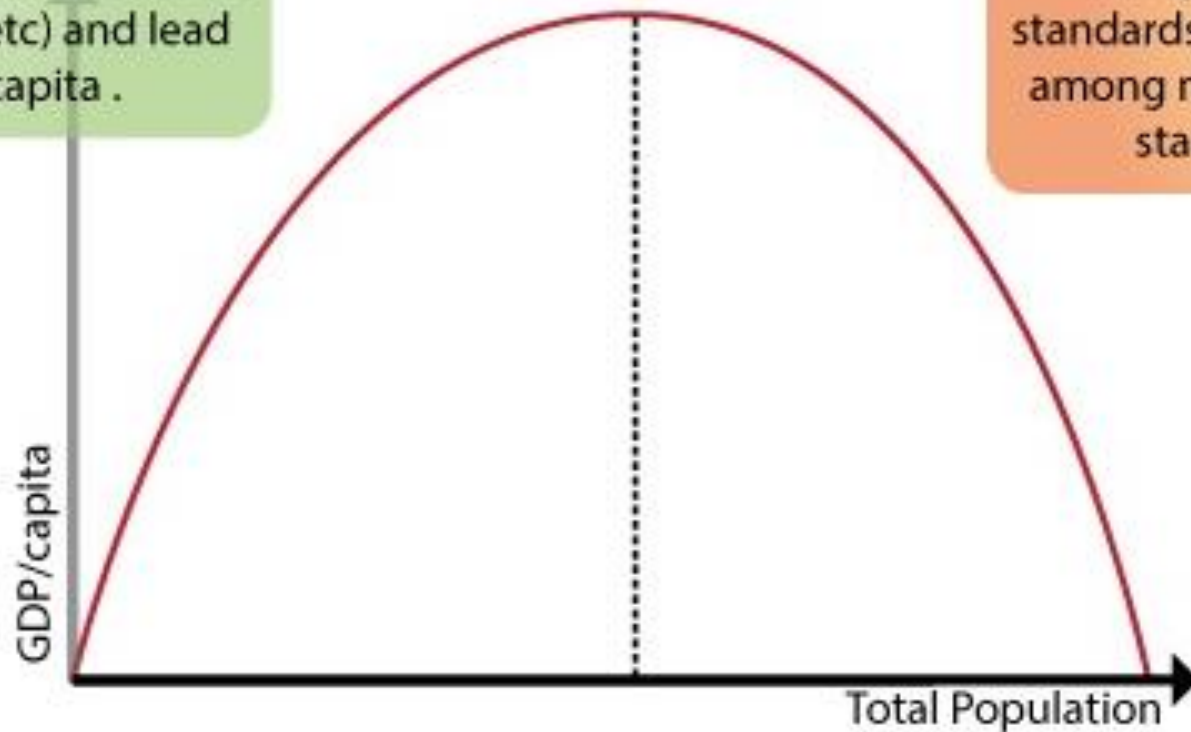
The population level at which the highest economic standard of living is achieved. The available resources are exploited effectively.

Under Population

Increases in the population level allow more effective exploitation of the resources available (food, energy, land etc) and lead to higher incomes per capita .

Over Population

Increases in the population level past the optimum point result in lower standards of living. Resources are shared among more people and the economic standard per capita declines



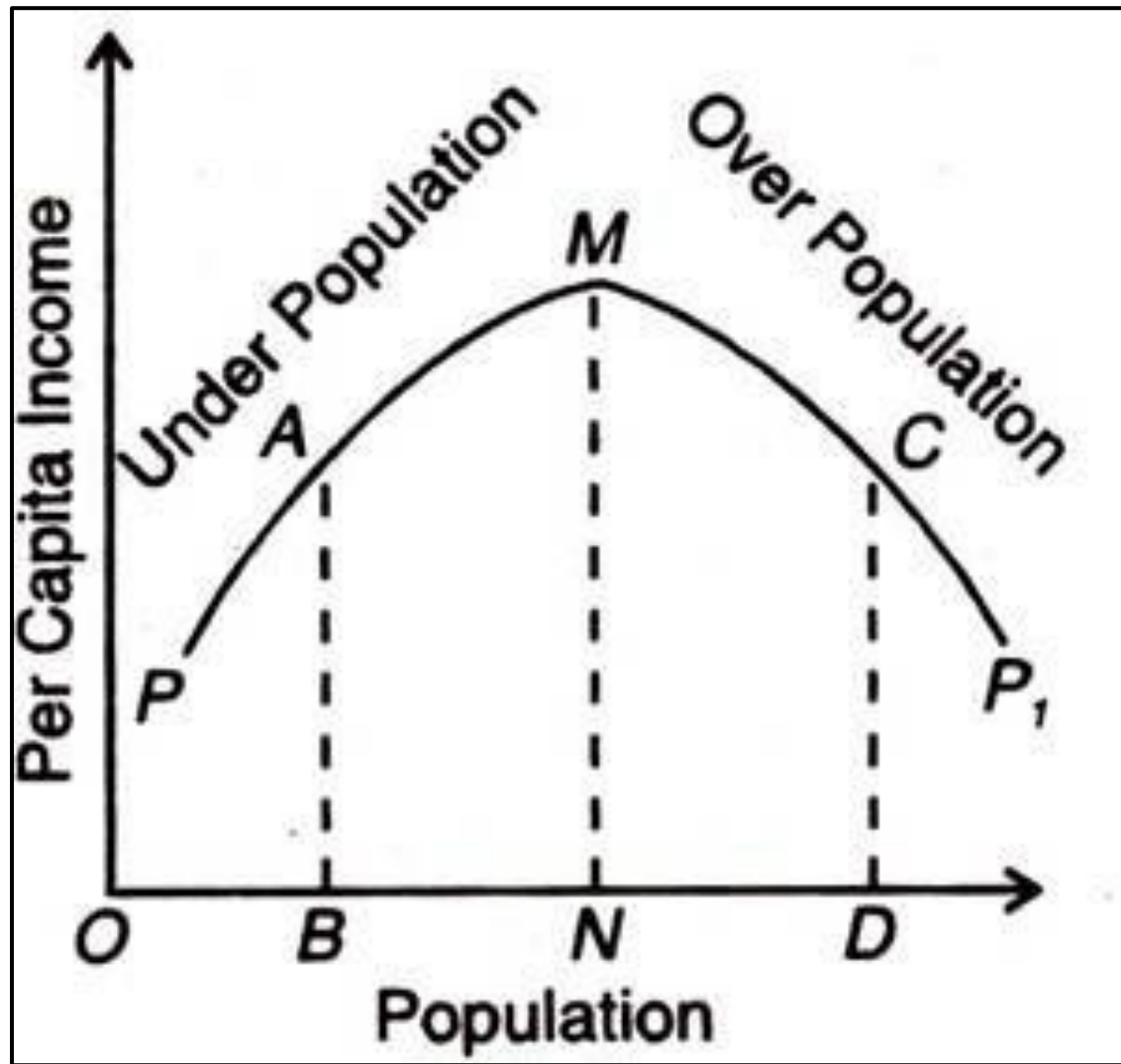
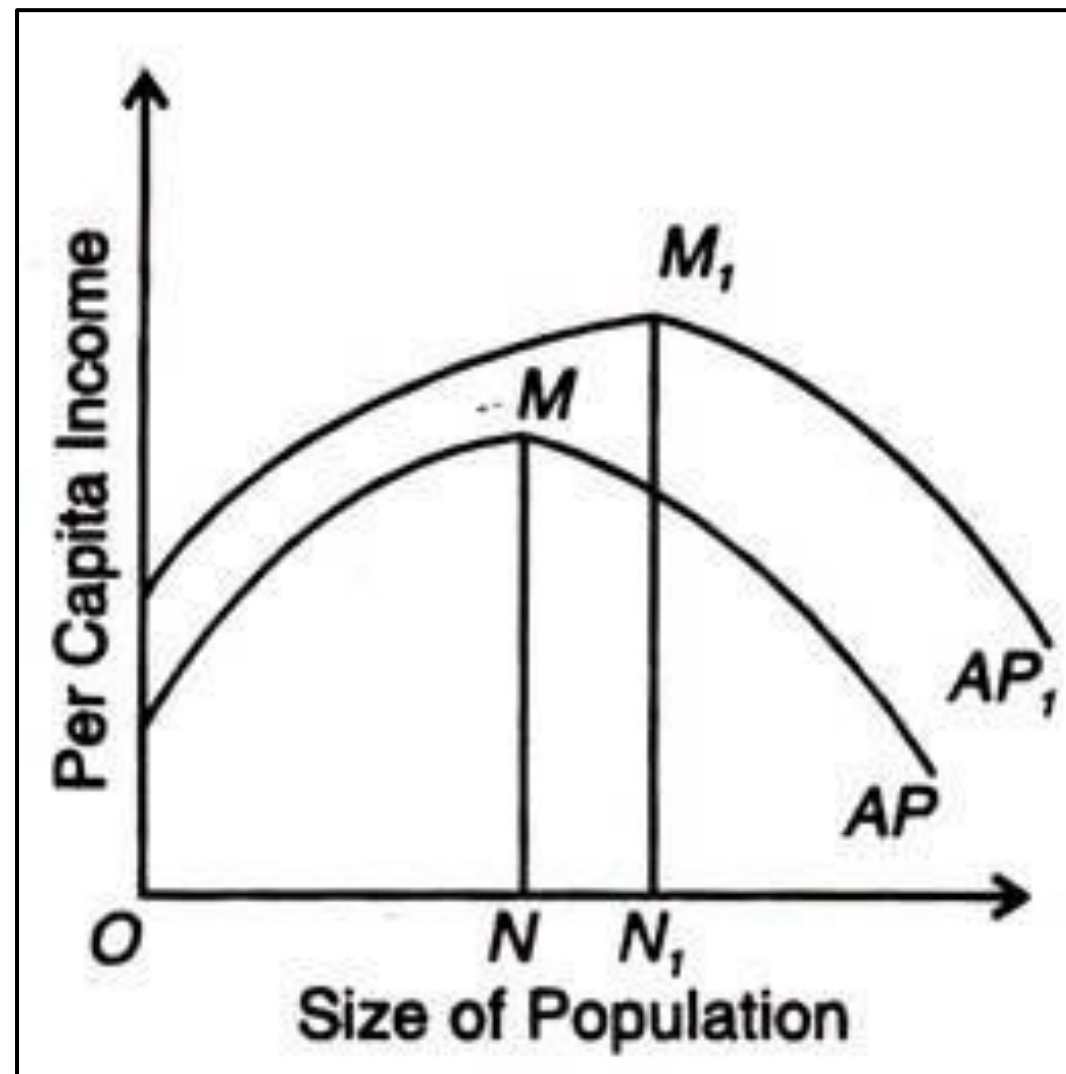


Fig. 1

Fig. 2



FEATURES OF OPTIMUM POPULATION:

- i. The population is neither too small nor too large. It is balanced between over population and under population.
- ii. The level of optimum population differs from country to country and from time to time.
- iii. At a given level of technology, it balances population with available resources
- iv. Optimum population is a dynamic population that changes with the changing quantity and quality of a country's available resources.
- v. An optimum population ensures or secures a maximum return per head.
- vi. An optimum population is the population that produces full employment.
- vii. The management or control of economy that has optimum population is very easy.
- viii. Optimum population also ensures the highest standard of living in a country.

Criticism of the Theory

Assignment – write down criticism of the theory, if you feel there are any.

References:

- <https://www.sociologydiscussion.com/demography/population-demography/optimum-theory-of-population/3078>
- <https://www.economicdiscussion.net/population/the-optimum-theory-of-population-with-diagram/4473>