

Assumptions:

This theory is based on the following assumptions:

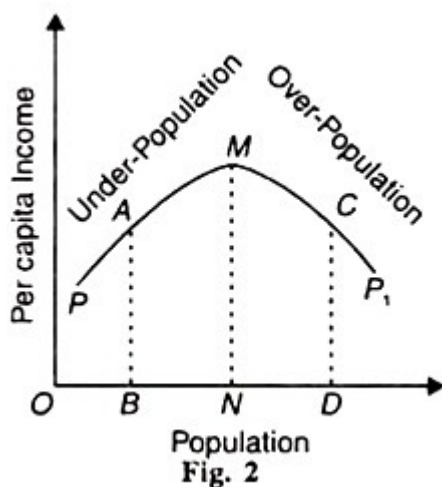
1. The natural resources of a country are given at a point of time but they change over time.
2. There is no change in techniques of production.
3. The stock of capital remains constant.
4. The habits and tastes of the people do not change.
5. The ratio of working population to total population remains constant even with the growth of population.
6. Working hours of labour do not change.
7. Modes of business organisation are constant.

The Theory:

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 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. This is illustrated in Figure 2.



In the figure, OB population is measured along the horizontal axis and per capita income on the vertical

axis. In the beginning, there is under-population and per capita income increases with population growth. The per capita income is BA population which is less than the maximum per capita income level NM. The ON size of population represents the optimum level where per capita income NM is the maximum.

If there is a continuous increase in population from ON to OD then the law of diminishing returns applies to production. As a result, the per capita production is lowered and the per capita income also declines to DC due to increase in population. Thus ND represents over-population. This is the static version of the theory. But the optimum level is not a fixed point.

It changes with a change in any of the factors assumed to be given. For instance, if there are improvements in the methods and techniques of production, the output per head will rise and the optimum point will shift upward.