### **Quadrant II - Notes**

**Course Code: ECG 103** 

Module Name: Malthusian theory of population

Module No: 21

## Malthusian Theory of Population

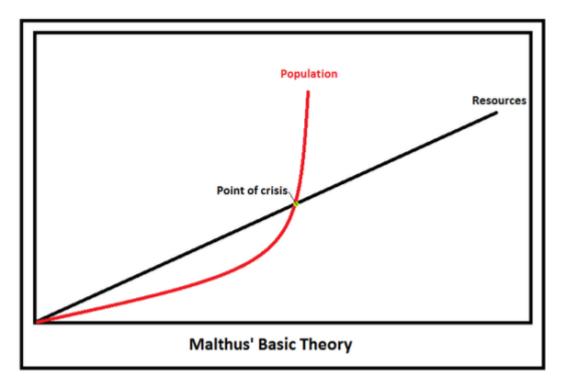
Thomas Robert Malthus (1766-1834) was the key figure to analyze the population statistics. His formulation on population was a landmark in the history of population theories. He generalized the relationship between population factors and social change.

In 1798, Malthus gave a theory on population. This theory is based on the observation of the western European population and society. His theory supported the capitalist system of economics and deterministic approaches to geography. In his theory, he explained the way in which nature controlled the population and neglected the role of technology and medical advancement to control the population. In his Essay on the Principle of Population (1798) Malthus argued that because of the strong attraction of the two sexes, the population could increase by multiples, doubling every twenty-five years. He contended that the population would eventually grow so large that food production would be insufficient.

The human capacity for reproduction exceeded the rate at which subsistence from the land can be increased. Malthus further wrote 'Population when unchecked increases in a geometrical ratio. Subsistence increases only in an arithmetical ratio.' Malthus contended that the world's population was growing more rapidly than the available food supply. He argued that the food supply increases in an arithmetic progression (1, 2, 3, 4, and so on), whereas the population expands by a geometric progression (1, 2, 4, 8, and so on).

According to him, the population could increase by multiples, doubling every twenty-five years. He said the gap between the food supply and population will continue to grow over time.

Even though the food supply will increase, it would be insufficient to meet the needs of the expanding population. Moreover, famine and other natural calamities cause widespread suffering and increase the death rate, which is nature's check against the population.



In brief, Malthus theory states that:

- 1. The population is necessarily limited by the means of subsistence.
- 2. Population invariably increases where means of subsistence increased, unless prevented by some very powerful and obvious checks.
- 3. These checks, and the checks which repress the superior power of the population and keep its effects on a level with the means of subsistence, are all resolvable into moral restraint, vice and misery.

Malthus based his above arguments on man's two basic characteristics essential to the maintenance of life:

- (i) The need for food, and
- (ii) the passion between sexes.

It was the second which led people to marry at a relatively early age and would result in such a large number of births that the population would double itself in few years if unchecked by misery and vice.

Malthus referred to two classes of checks which kept population down:

1. Positive means:

He spoke of famine (hunger), disease or war, pestilence and vicious customs about women.

2. Negative means:

He explicitly demanded artificial means of birth control and suggested as an alternative that the birth rate be decreased through preventive measures such as late marriage (postponing marriage until later age), moral restraint, and chastity (abstinence).

He contended that without such restraints the world would face widespread hunger, poverty and misery.

The 'positive' and 'preventive' checks which occur in the human population to prevent excessive growth relate to practices affecting mortality and fertility respectively.

Malthus saw the tension between population and resources as a major cause of the misery of much of humanity. He was not, however, in favor of contraceptive methods, since their use did not generate the same drive to work hard as would a postponement of marriage.

Malthus argued that positive and preventive checks are inversely related to each other. In other words, where positive checks are very effective, the preventive checks are relatively less effective and vice versa.

However, in all societies, some of these checks are in constant operation although in the varying magnitude of effectiveness. Malthus believed that despite these checks, the inability of increased food supply to keep abreast of population increase always results in some kind of a situation of overpopulation.

### Malthusian Theory of Population Population increases in Food increases in arithmetical geometrical progression 1, 2, 4, 8, progression 1, 2, 3, 4, 5, 6, 7, 8, 16, 32, 64, 128, 256 in 200 years. 9, in 200 years. Imbalance leads to over population Corrected by Preventive checks-late Positive checks-vice, marriage, chastity, moral misery, war, famine, floods, etc. restraint, etc.

## Criticism:

Malthus's views have been widely challenged on many grounds. The main criticisms about his theory are as under:

1. The validity of his two sets of ratios has been questioned by his critics. It is argued that the population has rarely grown in geometrical proportion and means of production have rarely multiplied in arithmetic progression.

Population growth is not always geometry series. Based on the historical data, the population is not get doubled in 25 years.

- 2. Malthus overemphasized the 'positive' checks and did not visualize the role of 'preventive' checks like contraceptives and family planning. Neo-Malthusists argued for the adoption of birth control within marriage. Human inventions in the fields of birth control, health and nutrition, and agriculture have helped to a great extent to strike a balance between human reproduction and food supply.
- 3. Malthus was also severely criticized for ignoring the role of changing technology and the consequent transformation in the socio-economic set-up of society. He did not fully appreciate the extent to which improved agricultural technology and crop fertilization could sustain a large population.

Neo-Malthusians agree that there are absolute limits on food supply, energy and other resources. Furthermore, they suggest that the problem is intensified by the disproportionate consumption of such resources by so-called developed (industrialized) actions. This formulation has been challenged by other researchers.

Yet none would deny that starvation is a very real fact even in 2012. According to the International Food Policy Research Institute, out of 79 countries, 65 come under the category of the alarming level of hunger. Burundi, Ethiopia, Chad, Eritrea, and Timor have been categorized as the five hungriest countries in the world. Around the world, we read many reports of starvation death, and malnutrition.

With such images in mind, a representative of the World Bank stated in 1981 that the 'ghost of Malthus is not buried yet'. Ironically gains in food supplies do not always lead to progress in the fight against starvation. It puts pressure on food prices that make it more difficult for the poor to buy the food they need.

- 4. Both the positive checks of hunger and disease referred to by Malthus do not operate today, except the terrible disaster sometimes caused by Tsunami, Katrina, Rita, and floods or rains in desert areas like Banner and Jaisalmer in August 2006. But the catastrophe of this nature in any part of the world is immediately rushed to the affected place from surplus areas all over the world. A marked decline in the death rate even in the developing countries is a significant factor in the context of the population spurt.
- 5. One of the principal weaknesses of Malthus' thought has been that he neglected the manpower aspect in population growth. He was a pessimist and dreaded every increase in population. He forgot, according to Cannan, that "a baby comes to the world not only with a mouth and a stomach, but also with a pair of hands." This implies that an increase in population means an increase in manpower which may tend to increase not only agricultural but also industrial production and thus makes the country rich by an equitable distribution of wealth and income. As rightly pointed out by Seligman "The problem of population is not merely one of mere size but of efficient production and equitable distribution." Thus the increase in population may be necessary.
- 6. Moreover, natural calamities referred to above have occurred in under-populated areas also and thus there was no causal relationship between positive checks and overpopulation.
- 7. Malthus also failed to realize even the biological limitations that a population cannot grow beyond certain limits.
- 8. Malthus a False Prophet: The Malthusian theory is not applicable to countries for which this was propounded. In western European countries, the bogey and pessimism of Malthus have been overcome. His prophecy that misery will stalk these countries if they fail to check the growth of the population through preventive checks has been proved wrong by a decline in birth rate, adequacy of food supply, and increase in agricultural and industrial production. Thus Malthus has proved to be a false prophet.

# **Applicability**

Despite these weaknesses, the Malthusian doctrine contains much truth. The Malthusian doctrine may not be applicable to Western Europe and England but its principal tools have become the part and parcel of the people of these countries. If these lands do not face the problems of over-population and misery, it is all due to the bogey and pessimism of Malthusianism.

In fact, the people of Europe were made wiser by Malthus who forewarned them of the evils of over-population and they started adopting measures toward it off. The very fact that people use preventive checks, like late marriage and various contraceptives and birth control measures on an extensive scale proves the vitality of the Malthusian law.

Even famous economists like Marshall and Pigou and sociologists like Darwin were influenced by this principle when they incorporated it in their theories. And Keynes, initially overawed by the Malthusian fears of over-population, later wrote about "Some Economic Consequences of Declining Population." Is it not the fear of Malthusianism which has created the problem of a declining population in France?

The Malthusian doctrine may not be applicable now to its place of origin, but its influence spreads over two-third of this universe. Excluding Japan, the whole of Asia, Africa, and South America come under its purview. India is one of the first countries to adopt family planning on the state level to control the population. Positive checks like floods, wars, droughts, diseases, etc. operate. The birth and death rates are high. The growth rate of the population is about 2 percent per annum.

The real aim of population policy is, however, not to avoid starvation but to eliminate poverty so as to raise output per head in an accelerated manner. Thus the Malthusian theory is fully applicable to underdeveloped countries like India. Walker was right when he wrote: "The Malthusian theory is applicable to all communities without any consideration of color and place. Malthusianism has stood un-shattered, impregnable amid all the controversy that has raged around it."

## Summary

### Malthusian Theory

- The population growth rate is higher than the growth of the resources.
- Population grow in geometric series: 1,2,4,8,16
- Resources or food grow in arithmetic series: 1,2,3,4,5,6
- In 25 years the population would be two times.
- If population growth is not prevented by man-made checks than positive checks may be arises.
- There will be a food crisis at some point in time.

#### Positive Checks on the population growth:

 The positive checks include famines, earthquakes, Tsunami, floods, drought, epidemics, Wars, etc. Nature plays up when the population growth goes out of hand.

### Preventive Checks on the population growth:

• The preventive measures such as late marriage, self-control, simple living, etc. help to balance the population growth and food supply.