

# University of Barishal



**Course Title : Computer Fundamentals & Office Applications**

**Project On:** Overpopulation problem and reduces food production in Bangladesh

in the perspective of the Population theory of Thomas Malthus: A critical review

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**Projects On: Overpopulation problem and reduces food production in Bangladesh in the perspective of the Population theory of Thomas Malthus: A critical review**

**Content**

<b>Serial No</b>	<b>Contents</b>	<b>Page No.</b>
<b>01</b>	Introduction	3
<b>02</b>	Overpopulation as a Social Problem	3-4
<b>03</b>	Findings the causes of overpopulation in Bangladesh	4-5
<b>04</b>	Problems caused by Overpopulation: In the light of Malthusian theory of population:	5-6
<b>05</b>	Theoretical Framework: Malthusian theory of Population	6-11
<b>06</b>	Over population and reduces food production in Bangladesh :Analyzing in the Context of Bangladesh by the Malthusian theory of Population	11-12
<b>07</b>	Recommendations: In the light of Malthusian theory of Population:	12-13
<b>08</b>	Criticism	13-15
<b>09</b>	Concluding Remarks	15
<b>10</b>	References	16

## ##Introduction :

The socio-economic development of any country depends on the population of that country. Population inflation occurs when the population growth rate is higher than the country's resources and facilities. Bangladesh's population problem is one of the country's social problems. In simple words, we can say, if the overpopulation of a country disrupts the national economic development of that country, then it is called a population problem. In other words, we can say that the population problem is a population-related situation in which the population of a country cannot keep up with the resources of that country. Thomas Malthus was a demographer before he was ever considered an economist. He wrote a book entitled "An Essay on the principle of population" in 1798. In this book, he discussed on the population. In the definition of population problem, Thomas Malthus said, if the population of a country is more than the total food production of that country, it is called population problem. He also said that the population is growing at a rapid rate due to the increase in human fertility rate. But he added that food production could not grow rapidly due to the declining production system in the land. As a result, there comes a time when the size of population exceeds the amount of food. And then the country is overpopulated. Malthus said, Population expands by a geometric progression-1,2,4,8,16, 32 and so on and Food supply increases in an arithmetic progression -1,2,3,4,5,6 and, so on. The link between the population problem and food crisis in Bangladesh is completely consistent with Malthusian theory of Population. Which can be a real picture of the theory of Bangladesh's population problem. In this paper, I will try to discuss the rationale of Malthus's theory and the nature of food shortage with the overpopulation problem of Bangladesh.

## ##Over population as a Social Problem :

The total number of people permanently residing in a country is called population. And when this population disrupts the economic development and normal pace of life in the country, it is called population problem. Bangladesh is a country with very large population. In this country, the amount of arable land is insufficient compared to the population. However, under the pressure of high population, homesteads are being built on arable land. Food production is declining as arable land decreases. And in that case there is food shortage. It will not be wrong to say that overpopulation is the number one problem of Bangladesh. Economist Malthus, in his Malthusian theory of population, said, "Overpopulation is responsible for the extreme poverty and economic backwardness. He also said, Population expands by a geometric progression ;but food supply increases in an arithmetic progression. As a result, every 25 years the population of a land is doubling. of the country. If population growth continues at this rate, there will come a time when it will be impossible to provide the first basic need of the people, balanced food. An unbalanced environment will be created. Hunger, poverty, unemployment and crisis in quality of life will take

a more pronounced form". Analyzing the population problem of Bangladesh, it can be seen that Bangladesh is one of the most densely populated countries in the world. The country has a population of 1,125 people per square kilometer. Moreover, the rate at which the population is increasing every day is really alarming. If the population increases like this, soon a dire situation will arise in the country, The last census in Bangladesh was held from March 15 to 19, 2011. However, in 2022, the first Digital Census and Household Census 2022 activities project started from 15-21 June. According to the 2011 census, the total population of Bangladesh is 14 crore 97 lakh 72 thousand 364 people. According to the data of 2022 census 2022, the total population of the country is 16 crore 51 lakh 58 thousand 616 people. Out of which the number of women is 8 crore 33 lakh 47 thousand 206, the number of men is 8 crore 17 lakh 12 thousand 824 and the third gender is 12 thousand 629. On the other hand, according to the latest World Bank data of 2022, the population of Bangladesh is 165 million. So, from the statistical data it can be realized that Bangladesh is under severe overpopulation pressure.

### **##Findings the causes of overpopulation in Bangladesh:**

In the phase ,I will try to findings the causes of overpopulation in Bangladesh. These are given below-

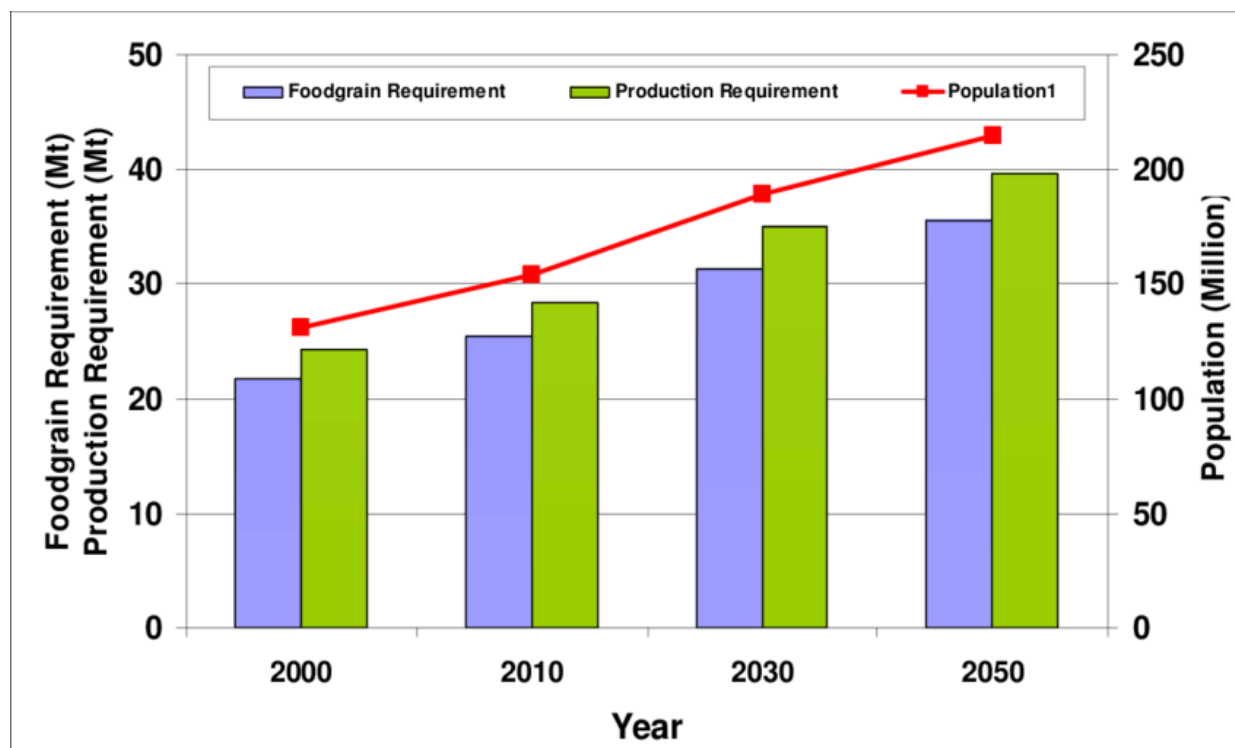
- **Illiteracy:** A large population of the country is still lagging behind in education. They are not aware of the evils of population growth due to lack of education .Therefore, more children are born. As a result, the population grew rapidly.
- **Child marriage:** Due to illiteracy, ignorance and religious views, parents in this country marry off girls especially at the age of less than eighteen. As a result ,young girls remain ignorant of proper birth control methods. As a result, they give birth to more children.
- **Polygamy:** A man can have more than one wife. As a result, more children are born and the population increases.
- **Climate:** As the climate of Bangladesh is mainly summer, the mothers here have more capacity to bear children than the mothers in the winter regions.
- **Diet:** Studies have shown that tapioca increase fertility in humans. The population of Bangladesh eats white national food such as rice, potato, wheat etc. So their reproductive capacity is also high.

- **Poverty:** According to medical science, poor or deprived people have higher fertility. Most people in Bangladesh live below the poverty line. As a result, the fertility rate is high among them and the number of child births is high.
- **Mortality Reduction:** Due to the advancement of medical science, the population death rate of this country has decreased. As a result, the rate of population growth is increasing as the infant mortality rate also decreases.
- **Concepts related to birth control:** Many people in Bangladesh do not want to accept birth control for religious and social reasons. As a result, more children are adopted and the population grows rapidly.
- **Old age Security:** Many parents in Bangladesh rely on children as security for old age. That's why, they adopt children at a higher rate. Also, many adopt multiple children in the hope of having a son.

## **##Problems caused by Overpopulation: In the light of Malthusian theory of population:**

Firstly, Malthus said that in his Malthusian theory of population that When a country's population growth rate has rising there we see that decrease food production. It's, Undoubtedly right in the perspective of Bangladesh. But he added that food production couldn't grow rapidly due to the declining production system in the land. As a result, there comes a time when the size of population exceeds the amount of food. And then the country is overpopulated. As proof of which we are currently seeing that the population in Bangladesh is increasing by 1.37%, but food production isn't increasing at that rate. Because food production has only increased by 0.88% due to the decrease in the amount of uncultivated land. As a result, Our country is facing food shortage. Four crore people of Bangladesh are still hungry. That is, one –fourth of the total population is still not guaranteed food security. This number is quite alarming in terms of achieving Sustainable Development Goal-2(SDG-2). This information was revealed in a joint study by the government and the United Nations Food Programmed. Malthus said that, Population expands by a geometric progression, such as 1,2,4,8,16,32 and so on. On the other hand, Food supply increases in an arithmetic progression, such as 1,2,3,4,5,6.....and so on. According to his analysis, the gap between the food supply and the population will continue to grow over time. I fully agree with Malthus that food production does not increase at the same rate as population increases. In the context of Bangladesh, food crop production is growing at a lower rate than population growth. Malthus's theory is proved by the statistics mentioned below-

**Figure:1.Population Growth Vs Food grain requirement and production of Bangladesh**



**By the statistics Malthusian theory are proofed in the perspective of Bangladesh**

## **##Theoretical Framework: Malthusian theory of Population:**

Malthus gave a theory about population growth. This theory is known as Malthusian theory of population. By the end of 18<sup>th</sup> century, population of Britain was growing rapidly. At that time, Thomas Robert Malthus, a priest and economist in England developed this theory fearing dire consequences of over population. Now, discussed this theory ;

### **Familiarity Of Robert Malthus:**

Thomas Robert Malthus was an English cleric, scholar and influential economist in the fields of political economy and demography. His identity is:-

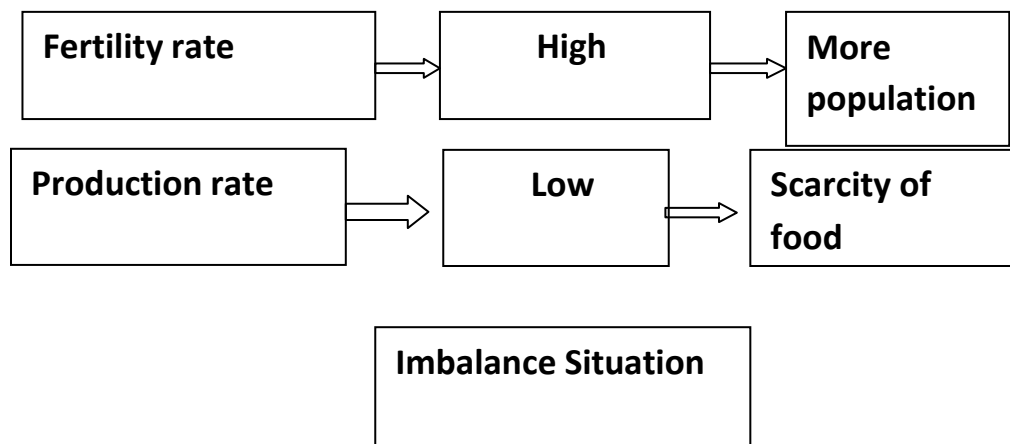
Sector	Details
Born	13/14 february,1766,England.
Died	23 December,1834(aged68),England.
Children	03
Spouse	Harriet Eckersley

Full Name	Thomas Robert Malthus
Field	Demography, Macro-economics and classical economics
Contributions	Malthusian Growth Model

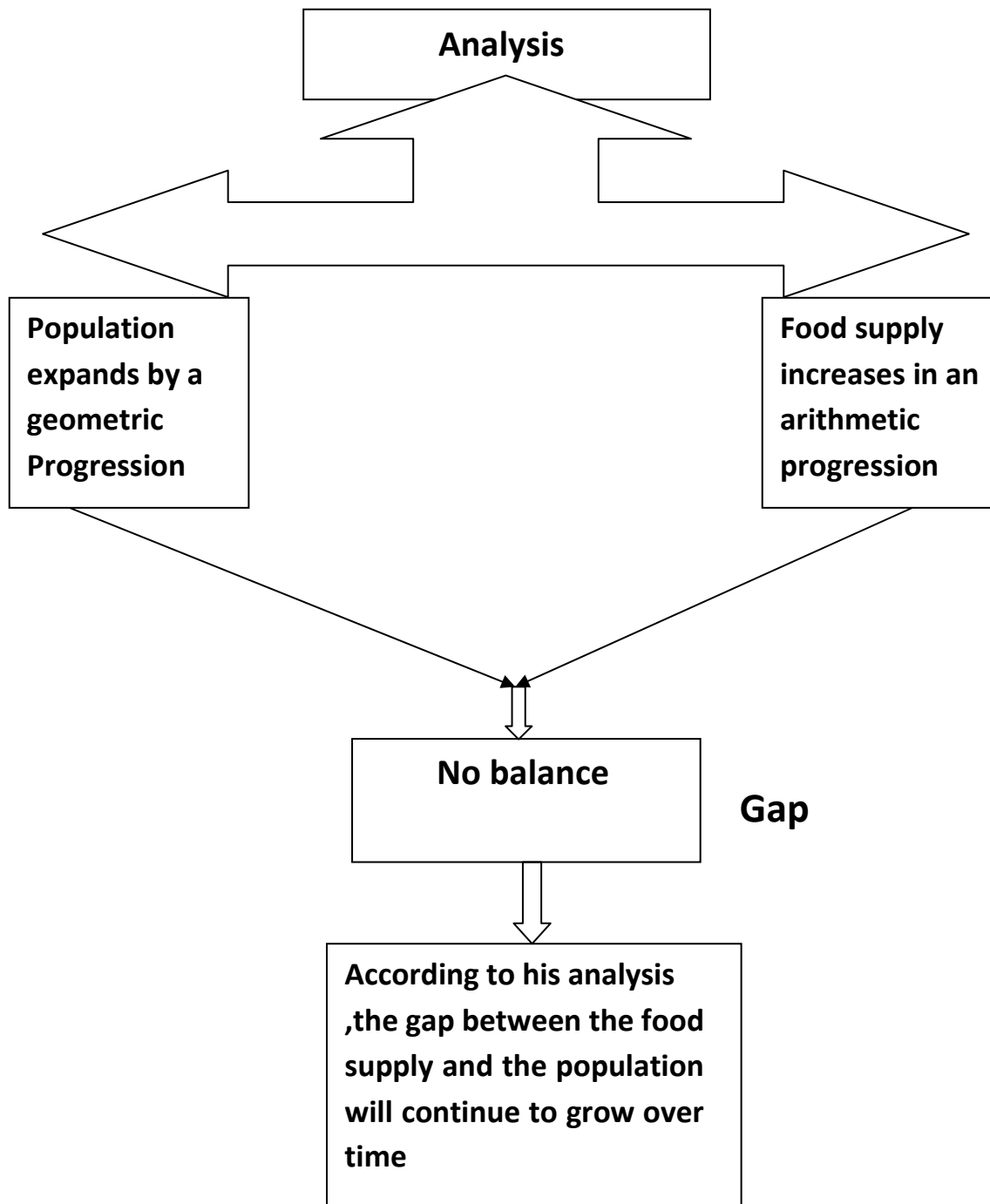
## Malthusian Theory

Malthus was a demographer before he was ever considered an economist .He wrote a book entitled “An Easy on the principle of population in 1798.In this book ,he discussed on the population .That means ,the Malthusian theory was developed in 1798.This theory is named after him.

- Naturally ,the population is growing at rapid rate due to the increase in human fertility rate .But he added that food production could not grow rapidly due to the declining production system in the land .As a result, there comes a time when the size of population exceeds the amount of food. And then the country is overpopulated. Thinking about this situation he said that every 25 years, the population of each country will double ,if no control is imposed on population growth. There is an imbalance situation;



- Malthus has tried to explained the above discussion with the help of an explanation .He suggested that;



- After Malthus analysis, he mentioned two ways to control the population .These are;



## • Preventive Measurement:

Preventive step based on desire of human being .Here population will be controlled by the human being and their activities.

**Ex:**

- Early marriage must be prevented and need to ensure late marriage .
- Polygamy should avoided .
- Birth control measures must be taken .etc

By taking such kind of measures we can control the population.

## • Natural Measurement:

If we can't control the population then nature controls population in the normal way. According to Malthus ,it is known as natural measurement.

**Ex:**

When the world becomes overpopulated then various events,(disaster, famine, war)reduce over population.

This method is not in human hands .It happens naturally, According to him, this method is more effective to control population.

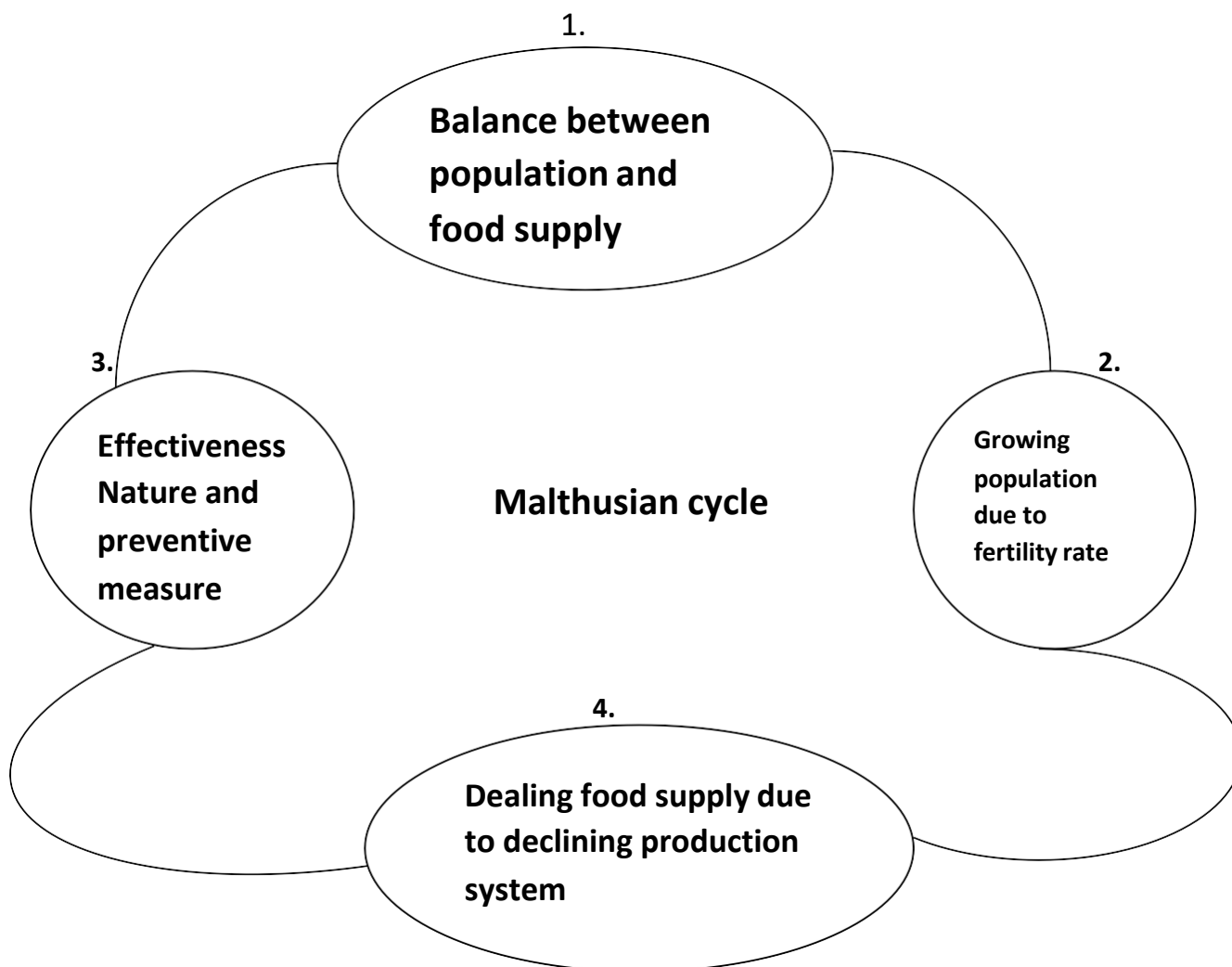
**Ex:**

There have been various war, pandemics in different parts of the world. Thousands to Millions of people have died because of these. Even, the global Covid-19 pandemic has killed many people. As a result, the population has come under the control.

- Malthus said that, the natural measurement is effective if the preventive measurement does not control the population .And at some point the growing population becomes extinct. This creates a balance between population and food supply.

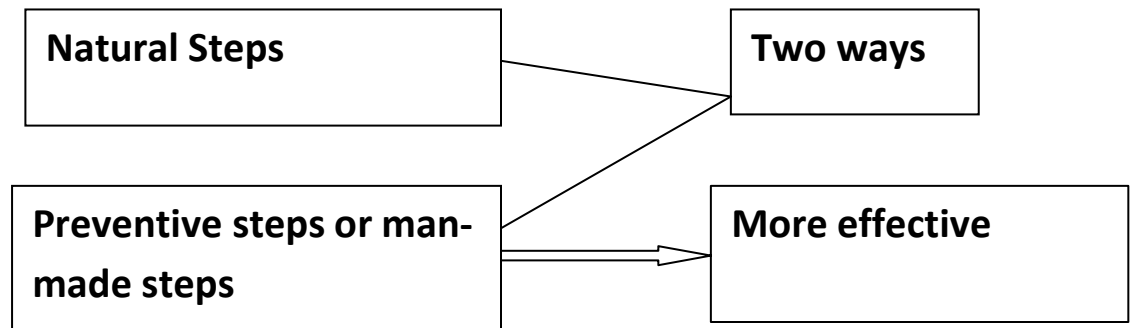
<p><b>Decision</b></p>
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Malthus speak to four main decisions or conclusions of population theory. These are show with the help of a cycle



Let there be a balance between population growth and food supply at first .As the population gradually increased, this balance was disturbed .That means population grows at twice than the rate of food production .In this case the natural or preventual measurement is effective to population control. As a result, the over population is wiped out. Then the balance between population growth and food supply is restored or re-balanced. Again the population increases and food supply decreases .Later, measurement came and re-balanced them. In this way, the above system continues to rotate. That's why ,it is called Malthusian cycle.

- ✓ Malthus suggested that, naturally can balance between population growth and food supply. But this is a very temporary measure. So, he more focused on the preventive measurement than natural measurement.



## ##Over population and reduces food production in Bangladesh :Analyzing in the Context of Bangladesh by the Malthusian theory of Population:

If the theory of Malthus is analyzed in the context of Bangladesh, it will be seen that it is reflected in this country. Malthus said, Naturally the population is growing at a rapid rate due to the increase in human fertility rate. But he added that food production couldn't grow rapidly due to the declining production system in the land. As a result, there comes a time when the size of population exceeds the amount of food. And then the country is overpopulated. Malthus also said that Population is growing at a geometric rate. That means the population is growing at twice the rate than the food supply. I fully agree with Malthusian theory of population in the context of Bangladesh. Now, I will discuss on Overpopulation and reduces food production in Bangladesh given below-

- **Food shortage:** According to Malthusian theory, food production increases but population increases at a higher rate than that observed in Bangladesh. As proof of this theory in Bangladesh, we are currently seeing that our population is increasing by 1.37% but food production isn't increasing at that rate. This is because food production increased by only 0.88% as the amount of fallow land decreased. Due to which, we are facing food shortage in our country.

1. Bangladesh is currently facing a severe food crisis as population growth rate is higher than food production. The current food deficit in the country is around 20-25 lakh tones.

2. A person needs at least 1.2 acres to 1.08 acres of land for their livelihood .But per capita land in Bangladesh is only 0.25 acres.
3. The people of Bangladesh do not seek birth control, through voluntary family planning. Therefore, the population is increasing rapidly in the country. For this reason, natural disasters such as famines, epidemics, quarrels, suicides, natural disasters, etc. described by Malthus almost always occur in the country.
4. Now birth rate and death rate are high in Bangladesh .Currently, the birth rate in the country is 18.9 per thousand and the death rate is 5.3 per thousand. Such high birth rate and death rate is a sign of overpopulation.
5. Currently, Bangladesh is facing a serious unemployment problem. About 33 percent of the total manpower in the country is currently unemployed.

From the above discussion, it can be seen that all the symptoms of overpopulation and as result of food shortage described by Malthus exist in the economy of Bangladesh.

### ##Recommendations:In the light of Malthusian theory of Population:

➤ **After Malthus analysis, he mentioned two ways to control the population .These are;**

- **Preventive Measurement:**

Preventive step based on desire of human being .Here population will be controlled by the human being and their activities.

**Ex:**

- Early marriage must be prevented and need to ensure late marriage .
- Polygamy should avoided .
- Birth control measures must be taken .etc

By taking such kind of measures we can control the population.

When the population can be reduced, the food shortage will be reduced. Because, as a result of high population, a large part of uninhabited land is used for building houses. When, Population declines, uncultivated land will increase and food production will increase.

- **Natural Measurement:**

If we can't control the population then nature controls population in the normal way. According to Malthus, it is known as natural measurement.

**Ex:**

When the world becomes overpopulated then various events,(disaster, famine, war)reduce over population.

This method is not in human hands .It happens naturally, According to him, this method is more effective to control population.

**Ex:**

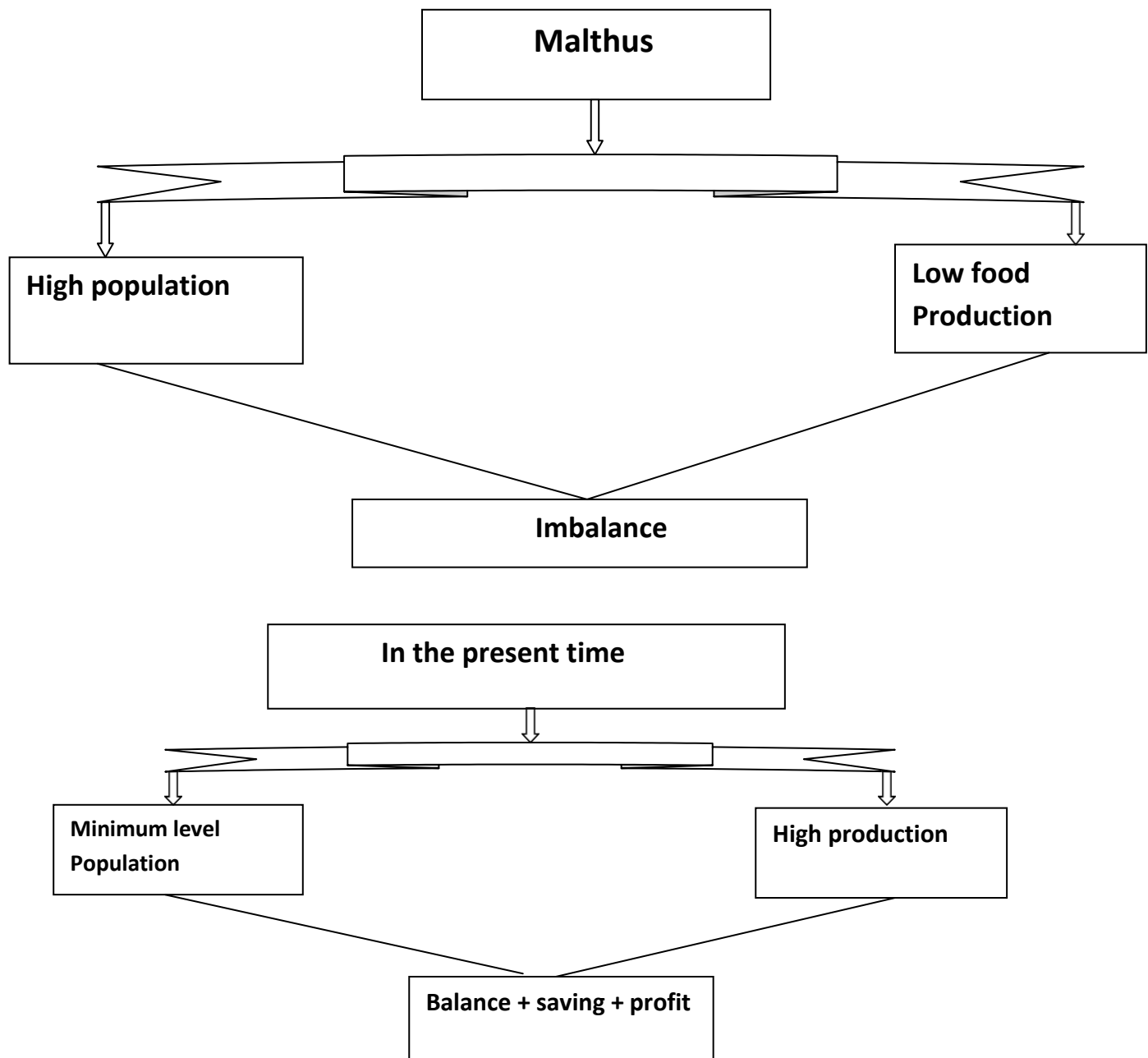
There have been various war, pandemics in different parts of the world. Thousands to Millions of people have died because of these .Even, the global Covid-19 pandemic has killed many people. As a result, the population has come under the control.

## ##Criticism:

Malthusian theory has been criticized in many ways. Karl Marx is one of the critics of Malthusian theory. However, the critique of this theory is discussed on the basis of four points. Such as :

1. Malthus argued that, population is growing at a geometric rate. That means the population is growing at twice the rate than the food supply. But in today's society, due to the improved way of life, there is a tendency to control birth rate among the people. As a result, the population is growing slowly not geometric rate.  
**Ex:** We have seen in geographic transition model that birth rates are lower in the modern society due to advanced technology, women empowerment, migration, better education and so on. Based on this context, Malthus theory isn't correct.
2. Malthus said that food production has increased at a mathematical rate. But in reality/today's society food production is increasing at a tremendous rate due to the advanced technology and modern agricultural equipment. So, this theory isn't correct in this sense.

**Ex:**



3. Malthus only compared population growth with food supply. But there are many properties of a country. He ignored the other total properties of a country. But it work be better if he compared population to whole properties of a country.

**Ex:** Our country is importing food from abroad in exchange for various resources. As a result, Bangladesh can easily supply food to its huge population.

4. Malthus has seen population growth in a horrible way. But is population growth always bad? Is there no good side to this? Of course there is good side. But he did not show it.

**Exit** we look at the context of Bangladesh, it can be seen that the population is high here. This high/extra population is working outside the country. Those who are sending remittances to our country. As a result, Our GDP is growing. In this view point, population is known as human resource.

## ##Concluding Remarks:

By analyzing the above data, we have come to the conclusion that Malthusian theory is fully applicable in the case of Bangladesh. Malthus said food grains increase at an arithmetic rate, but population increases at a geometric rate. It is true and observable in case of Bangladesh. Bangladesh is currently facing a severe food crisis as population growth rate is higher than food production. The current food deficit in the country is around 20-25 lakh tones. A person needs at least 1.2 acres to 1.08 acres of land for their livelihood. But per capita land in Bangladesh is only 0.25 acres. Now birth rate and death rate are high in Bangladesh. Currently, the birth rate in the country is 18.9 per thousand and the death rate is 5.3 per thousand. Such high birth rate and death rate is a sign of overpopulation. Currently, Bangladesh is facing a serious unemployment problem. About 33 percent of the total manpower in the country is currently unemployed. From the above discussion, it can be seen that all the symptoms of overpopulation and as result of food shortage described by Malthus exist in the society of Bangladesh.

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