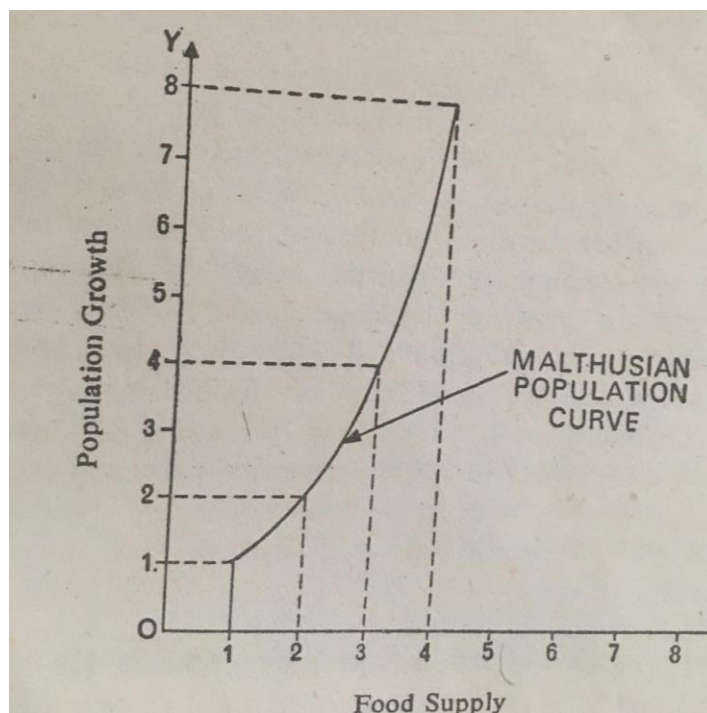


Validity of Malthusian theory of population in present time situation

More than two centuries ago (1798) Thomas Robert Malthus the father of the Demographer gave the pioneering theory on population growth in his book *An Essay on the Principle of Population*. The theory is based on the fact that the population growth is potentially exponential, it increases in Geometric Progression, for example, 2, 4, 8, 16, 32, 64, 128, etc, where 2 is the common multiple. On the other hand, the growth of the food supply or other resources must be linear; it amplifies following the Arithmetic Progression. Example: 2, 4, 6, 8, 10, 12, 14, etc where 2 is the common factor for addition. Now if we imagine a situation wherein 200 years the population growth if it is not checked undoubtedly over the strip food supply, it will lead to an imbalance between food supply and population growth.



Malthus believed that there will be nature's mechanism to keep the balance between food supply and population growth, which he named as "checks" – Preventive check and Positive Check. Positive Checks are painful, termed as "Malthusian catastrophe" which includes premature deaths like disease, hunger, war, epidemics, famines, and other natural calamities. Such positive checks will restore the balance between population and food supply. The escape of this fury of the positive check is the preventive check. Self-restraint and delaying marriage must be adopted by men to control the population and in turn the positive checks. Restricting marriage against persons suffering in disasters perceived as unproblematic.

His theory and perception were proved spectacularly wrong and it had evoked massive criticism. Of course, none of the mathematical propositions could have been taken and applied in any region of the world. Malthus did not anticipate that the pesticides, machinery, temperature control, and other technical advances would enable huge numbers of people to be very well fed. It has been thought that Malthus' predictions will never come true.

Was Malthus fundamentally wrong? Or was he ahead of his time?

During the COVID 19 disaster, we are reminded of Thomas Robert Malthus. World Health Organization has declared this deadly virus as a global pandemic during 2020-2021, a word that we rarely use. Should this be called a 'positive check' that Malthus has referred to? Yes, perhaps the world is undergoing a positive check, which is difficult to control because human beings have not taken enough measures to carry out preventive checks.

How and where exactly the coronavirus is infecting or will be infecting the human is not yet confirmed. But, as per the news, the outbreak started at Wuhan, a city in China's Hubei province. Most health experts articulate that, this novel coronavirus strain possibly originated in bats or pangolins. The first human transmission occurred in Wuhan, China. These animal species are a major source of diet in China might be for supporting its large population base. Now, we are impending what Malthus has emphasized, 'food' as the 'limiting factor'. This transmission means not enforcing safety measures. If it is a positive check, it is to control the outburst population and bring balance state that of supply of foodstuffs to population ratio.

It is pertinent to note that Malthus was criticized saying that calamities do not visit only the thickly populated countries. This is the tragic reality that a high population is making this positive check even more severe and controlling the spread is a gigantic task in densely populated countries. In India with a population density of 464 per square kilometer or in Bangladesh, 12 thousand per square kilometer this virus can spread like a fire.

It has been said that Malthus failed to understand the vast resources of the Earth and foresee the technology to utilize those resources. Yet I believe what Malthus understood was regardless of how large the resources are and how advanced the technology, they are still limited.

We got alarm calls again and again from Mother Earth but we sadly ignored them.

The Earth was calling for adaptation and mitigating strategies for its recovery for a long. Didn't the excessive pressures on the infrastructure like the sewage system, bus, train, medical facilities in developing countries remind us of the Malthusian fear? Didn't the pandemics like the Plague, smallpox or flu strike a chord of what Malthusian warning? How can we forget the Black Death, which took a couple of years to stretch across Europe and a disease that has killed possibly 2–4% of the population, or the multiple European wars of the centuries XVI and XVII and many other catastrophes? We have had many wars, diseases, and famine over the years but they barely are registered at most periods of history. As they were restricted to an area and didn't affect the planet at large, we could not understand the warning. Being civilized and technologically advanced, given recent pandemics and epidemics, we could still have performed our duties. We have got used to a very high level of invulnerability.

Lester Brown in the World watch Institute's 1995 report, State of the World, said, "Scores of countries with rapid population growth-among them Iran, Egypt, Ethiopia, Nigeria, and Mexico-will find themselves facing huge food deficits in the years ahead,". Paul Ehrlich, a famous apocalyptic predicted in 1968 that "massive famines" were likely in the 1970s. This didn't become true and the alarm continued.

Covid-19 is a wake-up call.

These make the Malthusian Theory of Population realistic today-

The Malthusian theory suddenly looks relevant today. The world's population has reached its largest figure of approx. 8 billion. Due to an increase in economic prosperity, most countries do not follow population control measures. This involves lots of many other issues, such as balanced regional development, controlling rural to urban migration, expanding cities at the cost of greenery, and developing smart cities, etc. Thus, the preventive checks that should be carried out by man are not only limited to controlling the population through family planning but also to control the pressure on the existing resources. Only then can positive checks be taken care of. Man-resource ratio should be given priority in planning. The Malthusian Theory of Population must remain a background to such planning and recommended policies.

The famous biologist Charles Darwin built his theory of natural selection based on Malthus' premise. Only assuming that Malthus was incorrect, and ignoring the scenario is no escape from his 'trap', today we will be rigorously mistaken to assume that the 'trap' has never existed, nor will it continue to exist

Conclusion:

Malthusian Theory of the population has value in the present time situation from a different point of view.

Malthus said about the Population Trap which shows a direct relationship between standard of living and population growth. Most of the demographers and economists criticize the Malthusian Trap theory that instead of a direct relationship between Population growth and standard of living, they have an indirect relationship. According to them, development is the best contraceptive.

According to Cannon, when the standards of living of the people increase they usually prefer a car over a baby. But Malthus was right if we give an eye to the poor segment of the society, with an initial increase in income or standard of living the no. of children will increase. It means in this society there has a direct relationship between standard of living and Population Growth. We have seen this in many of the downtrodden societies in India. In this society, children are assets instead of a burden for parents because the cost of the bearing of a child is very low, and also children become the source of income in this society.

We know Malthus was a religious-minded man and he preferred preventive checks like late marriage, moral restraint, etc instead of artificial birth control policy. We also criticize him from this point of view but most of the family planning program has failed in a poor society.

Planning programs are a success among elite societies. As a result, the no. of children increases in poor society who doesn't earn good income for health and education of their children. So, in this condition quantity increases and quality decreases.

Whereas among elite societies they can give good health and educational facilities to their children as they have a good earning source. Hence the quantity decreases but quality increases. Ultimately the result is that quantity of children is more than the quality of children.

It is a huge problem in most of the developing countries in the present time situation. Due to the lack of education and other necessities of people the crime rate and unemployment rate are increasing day by day.