

# Neo-Malthusian Dilemma

In 1798, Thomas Robert Malthus published an essay on population growth containing some controversial views regarding population growth. Over the next decade, quarrels associated with his writing are now referred to as the “Neo-Malthusian Controversy” or Neo-Malthusian Dilemma.”

Malthus presented his theory through a very simple mathematical explanation. According to him, the population growth pattern is exponential. Population is not growing at a constant rate, each cycle of growth is bigger than the precedent. One woman usually gives birth to many kids who will eventually grow and to the same, and each one of these kids will do the same, and so on and so forth. On the other hand, resources such as food, for instance, grow at an arithmetical rate. The earth’s resources are available, and once they have been used, they will eventually be available again, but after a certain delay. The availability of resources is therefore constant, and even in the most favourable conditions, agricultural production can only increase at an arithmetic rate (Nick Middleton, 2013)

Population size and growth is associated with two factors: fertility and mortality. These natural increases have been evolving over the years, depending on economical and social aspects. In our evolving world, we consume more resources than ever and countries’ affluence is increasing rapidly. Recently, the period it has taken for the world’s population to double has decreased. This rapid increase in the global population alarms us and reminds us of Malthus's predicted population patterns. Malthus wrote that in a period of resource abundance, a population could double in 25 years. However, the margin of abundance could not be sustained as the population grew, leading to checks on population growth:

If the subsistence for man that the earth affords was to be increased every twenty-five years by a quantity equal to what the whole world at present produces, this would allow the power of production in the earth to be absolutely unlimited, and its ratio of increase much greater than we can conceive that any possible exertions of mankind could make it...yet still the power of the population being a power of a superior order, the increase of the human species can only be kept commensurate to the increase of the means of subsistence by the constant operation of the strong law of necessity acting as a check upon the greater power.

All this information is quite alarming but we still are not sure what the consequences of too many people on earth actually are. Well, obviously, the more people on earth, the more we need resources are in demand, and we now know that the earth gives us finite resources. Basically, human consumption is exceeding the carrying capacity of the earth. This could lead to overshoot. In population dynamics and population ecology, overshoot occurs when a population temporarily exceeds the long term carrying capacity of its environment. The consequence of overshoot is called a collapse, a crash or a die-off in which there is a decline in population density.

Is there a way for us, as a society, to approach this concern? Well, Malthus presented some solutions to alarming population growths. He argued that two types of checks hold population within resource limits: there are *preventive* checks and *positive* checks. The difference between the two rely on which natural increase their influence; fertility and mortality. According to Malthus, positive checks would increase death rates, for instance, elements such as famine, disease and warfare. Preventive checks, such as delaying the age of marriage or better literacy among citizens, would reduce the fertility rate. Basically, these checks that he is proposing can be summarized in a much broader sense: changing human behaviour.

There are also other ways of mitigating population growth's negative repercussions. Economic development can help in slowing population growth. Another interesting solution discussed in class is the reduction of poverty, especially for women. One's economic situation correlates with many other aspects in one's social life; education, lifestyle, nutrition and confidence. By having better income level, people have more chances of being more educated which would impact fertility and marriage age. Female literacy levels correlates negatively with total fertility rate (see scatterplot #2). Also, although it might be a little bit of a cornucopian argument, new technologies can attenuate population growth. Also, according to the IPAT formula, better technologies can reduce our impact on the environment. Finally, if population growth is inevitable, reducing our throughputs and outputs might be another solution. For example, producing less waste, having stronger environmental legislation, accentuate individual responsibility trough informing the population, tree planting, use of biogas are all examples of social actions addressed in class.

## Bibliography

Ebanks, G. Edward (1998) "Neo-Malthusian Dilemma: Latin America and the Caribbean," *PSC Discussion Papers Series*: Vol. 12: Iss. 8, Article 1.

Available at: <http://ir.lib.uwo.ca/pscpapers/vol12/iss8/1>

Boundless. "Malthus' Theory of Population Growth." Boundless Sociology. Boundless, 12 Sep. 2016. Retrieved 28 Oct. 2016 from <https://www.boundless.com/sociology/textbooks/boundless-sociology-textbook/population-and-urbanization-17/population-growth-122/malthus-theory-of-population-growth-689-9631/>

Middleton, Nick (2013). *The Global Casino: An introduction to environmental issues*. Fifth Edition.

Donald Rutherford, " Les trois approches de Malthus pour résoudre le problème démographique ", *Population* 2/2007 (Vol. 62) , p. 253-280

URL : [www.cairn.info/revue-population-2007-2-page-253.htm](http://www.cairn.info/revue-population-2007-2-page-253.htm).