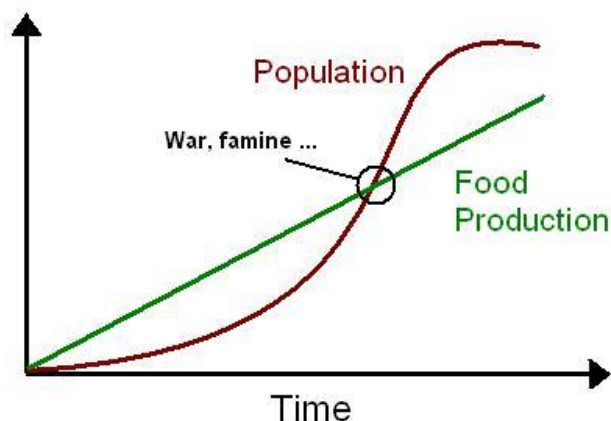
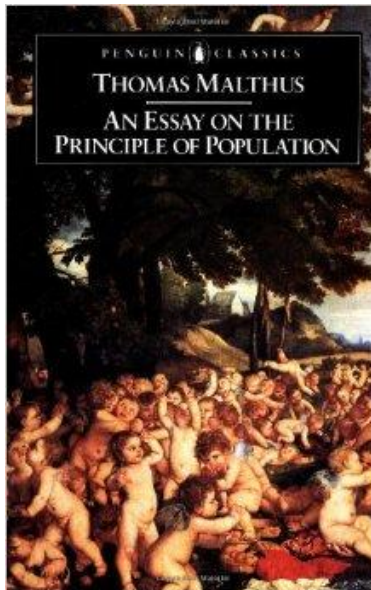


Global Sustainability: Do I hear echoes of Malthus?

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Thomas Malthus was an eighteenth century British clergyman who is remembered for this book, *Essay on the Principle of Population*. He postulated that the rise in population was geometric, whilst the increase in food production was linear, and eventually when the population exceeded the food supply, there would be famine, starvation and conflict which would dramatically reduce the population. In the jargon we are now so fond of, we call this a *hard landing*.



But this Malthusian apocalypse has been avoided for many decades, essentially by a huge migration of people from Western Europe to America and a rise in mechanisation and technology which allowed agriculture to become much more efficient. We have come to accept that economies can grow continuously, that population can grow and that wealth will increase. But if we consider the history of conflict, such as the colonisation of countries by European states, the geopolitics of oil in the Middle East, the reasons behind the Pacific war, we see that they are essentially driven by the simple idea, “I need it, you have it, I will take it from you”. In a broad sense this is a characteristic of capitalism (but we note that capitalism as virtues as well). I speak now from a divided Europe, troubled by housing refugees from conflict, and by ideas of rising xenophobia, protectionism and fear. The world has billions of people living very comfortable lives and billions more living in abject poverty. We should ask ourselves, is this a comfortable situation, indeed, is it morally right that we allow this to continue?

We now acknowledge that we are harming our future because of our production of CO₂ and its effects on climate. Often overlooked in this debate is the fact that resources are being depleted at a rate faster than their replacement. If everyone on earth lived in the style of the developed nations, we would already need the resources of three planets. So the vital questions that face us are, how many people can the earth sustain, and at what standard of living and how can we move to a sustainable position without conflict?

You may think that these issues are not the business of engineers and scientist. But they most definitely are. We need to properly understand these challenges to society, because, to a large extent, the success of technology has caused them and, certainly, technology has a vital role in solving them.

REFERENCES

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