

Theories of Population Growth

Part 1: Pop. Ecology

Population ecology is the study of how the environment affects population factors (size, distribution, age-sex composition etc...)

There are three categories of this:

Underpopulation (too few people to properly utilise environment or resources.)

Optimum population (the ideal population for environmental constraints)

Overpopulation (too many people – an area's **Carrying Capacity** is exceeded.)

Over the last few hundred years, anthropologists & demographers have sought to understand the limitations of our rapid population growth. In this resource, we aim to contextualise these if you're required to talk about them in an exam.

Part 2a: Malthus

Key Term: This is the maximum population supported in an environment sustainably before the environment becomes degraded.

Before we begin, a history lesson:

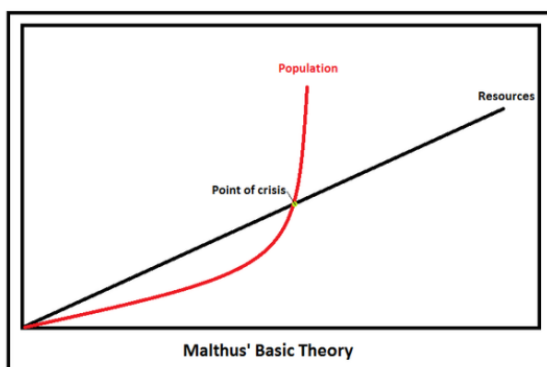
In the late 18th Century, Thomas Malthus, an English economist, and demographer wrote the article you can see on the right 'An Essay on the Principle of Population.' At the time, there was significant concern at the pace of growth of populations and the comparative inability for agricultural (food) systems to keep up. It was a counterargument to thinkers such as William Godwin and Marquis de Condorcet, who believed in the 'human perfectibility and potential for endless societal improvement.'

Malthusian theory is quite simple in reality. This essentially states that "population increases exponentially, but resources only increase linearly" therefore at some point we won't be able to produce enough food to support our growing population. This will lead to populations to fall in what is known as a '**Malthusian catastrophe**'.

He also states independently that the population will decrease due to a number of **preventative** and **positive checks**, including:

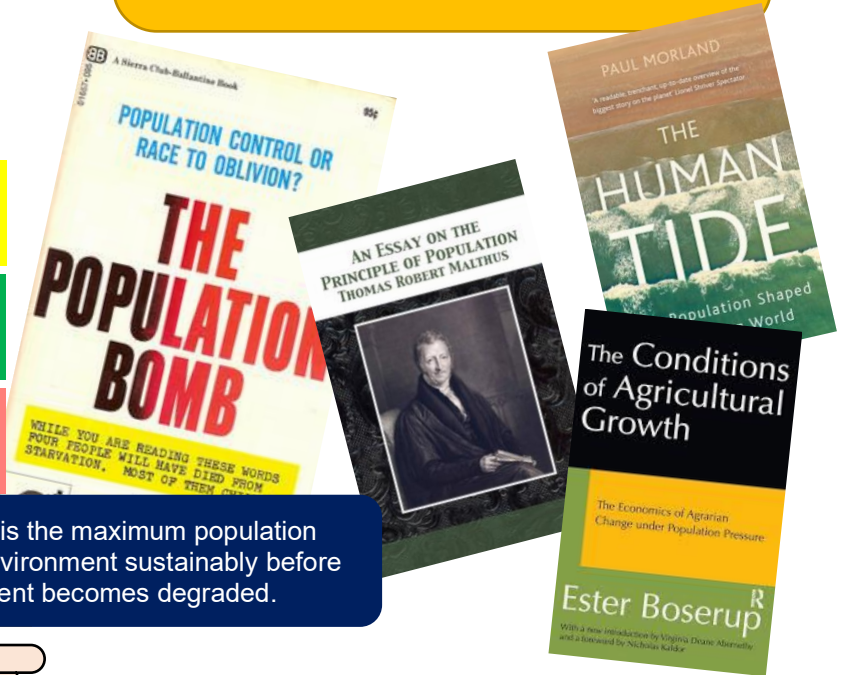
Positive – disease, famine, conflict

Preventative – a cultural choice to lower population by having fewer children.



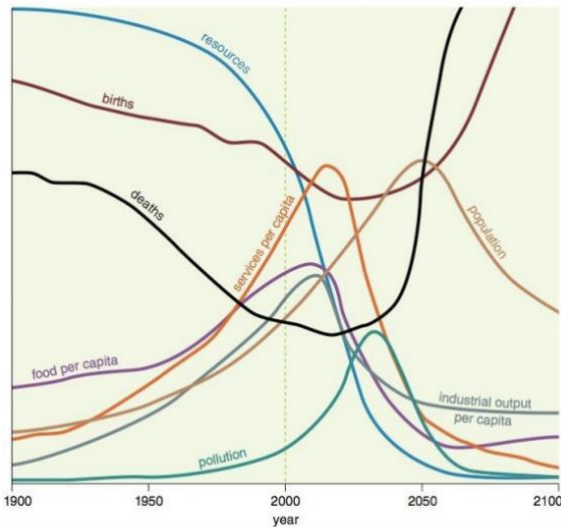
Neo-Malthusian perspectives

Probably the most prominent contemporary version of Malthus is **Paul Ehrlich's the population bomb (1968)**. This book was supposed to stoke fear of worldwide famines due to overpopulation (none of which really materialised). Unlike Malthus, Ehrlich didn't really see any means of avoiding this catastrophe, which was a common view in the 60s and 70s.



resource bank > 3.2.4.5 population & the environment

Part 2b: The Club of Rome



Think of this as **Malthus pro max**. Whilst in analysis there are some merits to his observations (plus things were obviously very different in 1798) such as his understanding of preventative and positive checks, a widespread agricultural collapse has never occurred under his terms.

However, there might be other factors which would help to influence one of these events. This could include pollution, resource availability etc... and eventually lead to excess deaths.

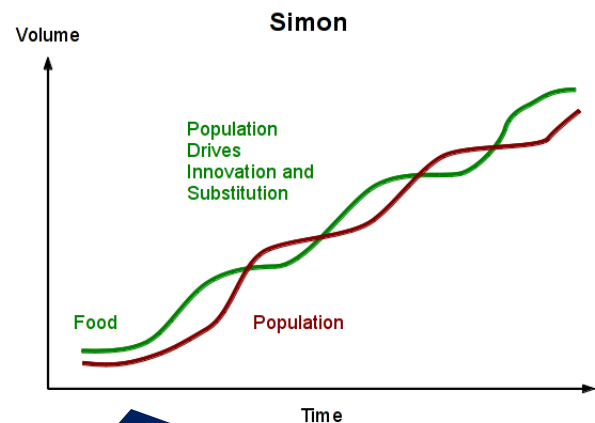
Read More:

<https://www.library.dartmouth.edu/digital/digital-collections/limits-growth>

Part 3: Non-Malthusian Theories

Whilst uncontrolled population growth theoretically would result in one of these 'Malthusian' situations, the reality on the ground is obviously somewhat different in practice.

Why? Well, simply **our population doesn't grow exponentially** – there are **cultural controls** which prevent this from occurring in reality; and also, we innovate as a society, coming up with **new and creative ways to increase resource availability** (such as food). A good example of this is the **Green Revolution** (across much of Asia in the mid 20th century) which involved the development of advanced high-yielding crop varieties as well as synthetic fertilisers and pesticides. We ultimately are the 'ultimate resource' coming up with creative ways to sustain ourselves in practice.



TOP TIP If you're referring to these, you can call them **Boserup / Simon's theories!**

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