Thomas Malthus published *An Essay on the Principle of Population* in 1798

Predicted that the global population would one day expand to the point where it could not produce enough food to feed everyone

He predicted this would happen *before 1900*

**Why this idea?**

* UK was engaged in the Industrial Revolution and people were being born at a high rate
* Britain was moving from stage two to stage three on the DTM
	+ Malthus saw massive migration to the cities and enormous population growth
* Malthus saw that food production grew over time, but slowly linear
	+ Meanwhile, human population grows exponentially

**What Happened, Instead?**

* Agricultural technology was going to boost food production in multiples in the 1800s
	+ By 1900, inventions such as the internal combustion engine, artificial fertilizers, pesticides, irrigation pumps, the tin can, and the refrigerator would increase food production/storage
* A large volume of food would be added to global production and supply
	+ Food production has continued to stay ahead of population growth

**Genetics**

* In the early 1800s, Gregor Mendel was the first to research/write about genes and plant reproduction
	+ Genetics did not make an impact on global food production until the 1950s, and genetically modified food did not enter the markets until the 1980s
* When asked why Malthus was wrong, do not mention genetics, since that has only affected food production in the recent years

**Neo-Malthusians**

Neo-Malthusians are more recent theorists who warn that a Malthusian catastrophe could still occur. You might think that things don’t seem too bad now and that within a generation or two, the global population will level off. Won’t we just come up with new technologies to meet future food demands?

* Three Important Points are made by Neo-Malthusians:
1. **Sustainability-** When the world does reach 10 billion people, there may be problems keeping up with food demand over the long-term
	* Many agricultural regions already have significant ecological problems
		+ Soil erosion and soil nutrient loss and in arid regions, depletion of irrigation sources and soil salinization
2. **Increasing Per Capita Demand-** The amount of food consumed per person is increasing
	* First World consumers consume around eight times more the amount of food and resources that a Third World consumer consumes
		+ As Third World countries develop, more food and resources are consumed
3. **Natural Resource Depletion**- Theorists like Paul Ehrlich have also warned about our over-consumption of other resources such as timber, minerals, energy, and other nonrenewable resources
	* We need to conserve and look for alternatives so that we can stretch out supplies over time

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| Name of Model: |
| Person who developed the model/theory: (short bio) |
| Premise: (What is the model supposed to explain?) |
| Function: (How or when is the model used?) |
| Illustration: (Draw the model or symbols to demonstrate the key ideas) |
| Strengths of this model: |
| Weaknesses of this model: |
| Effectiveness of the model for predicting geographic outcomes. Does it still apply today? When or where and with what modifications? |