Population, Sustainability, and Malthus: Crash Course World History 215

Crash Course: World History
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During Thomas Malthus' life, the curve of human population growth was beginning to slope upward. However, the increase in population was so gradual that all Malthus noticed of it were the outliers, the poor clinging to life. But the growth in the number of human beings was far more permanent than Malthus ever imagined. In fact, it was unstoppable. From 1750 to 1850, right when Malthus was alive, the number of humans on Earth grew by half a billion people: from about 800 million to 1.3 billion. By 1960, the population reached 3 billion. And since then, the world has added a billion humans roughly every 15 years. Sometime in 2009 or 2010, the United Nations estimated that the Earth's 7 billionth person was born.

Consider that contrast, at the very moment that Malthus was writing that it was impossible, human population was beginning it's rocket like acceleration. So what did he miss? Malthus should have looked past prominent disasters like the Irish potato famine and recognized that two major revolutions in food production were occurring while he was alive.

One of the reasons that he struck out so spectacularly is that, like many Western thinkers, he wasn't paying attention to China. Chinese farmers had altered their land, and used a number of inventions like dykes, paddle wheels, and bicycle chains, to grow rice in man-made paddies. It took a lot of labor, but it paid off. Especially when they discovered that by using the entrails and bones of the fish that swam in the water, they could get fertilizer. As a result, they could grow two rice crops in one year. Thus, the secret of China's greatness: food! And with the benefit of added surplus, fortunate people in China were able to free up their time to study and to invent. Yet, while the birth of this system had begun in the ancient past, additions to it continued throughout Chinese history and progressed straight through the Qing dynasty.

But agriculture was also changing in Europe during Malthus' lifetime. For example, Jethro Tull's seed press, the crop rotation system developed by Charles Townsend, and animal husbandry practiced by scientific farmers such as Robert Bakewell, who increased the size of his sheep by selective breeding. Therefore it seems impossible that Malthus could have missed this revolution, because he could probably witness it from his house in England. But from his perspective, that agricultural revolution had the opposite effect of what had happened in China. Instead of giving people more food, and more comfort, it seemed to Malthus that it was driving them to greater misery. That's because, for lots of Europeans, the agricultural revolution was largely about evictions.

The most important innovation of Europe's agricultural was largely invisible. It was the decision to treat land as private property. For most Europeans, the concept that individual humans could own, land was a foreign concept. Even as late as 1500, most of Europe conceived of land as rightly belonging solely to its creator—God. In turn, God's anointed on Earth— Kings and the Church— could parcel out packets of land to people they chose. But any land not specifically granted to a landlord, remained open to anyone who wanted to use it. This open land was called the commons. And in parts of Europe it made up more than half of the territory. But then around 1100 CE, British monarchs found themselves perpetually strapped for cash and they needed new taxes so in return for voting for tax increases and gifts, the crown granted enclosure acts to rich Englishman. Giving them the right to fence off the commons and claim it as their own. So the people who'd used that land to graze animals, or cut wood, or grow crops could be forced off of it. And for the first time, richer people could maintain miles of fenced in property to pasture their sheep or dig mines. Meanwhile the dispossessed, deprived of their opportunity to grow or hunt their own food, turned to beggary and theft, and to London—where they hired out their labor for wages.

So by the time Malthus was a young man, things weren't great for the poor and dispossessed. Only through historical hindsight, do we know that private property accelerated incentives to experiment with new methods of food production, which dramatically increased the amount of food produced. The lower food prices created by more food supply began to ease the cycle of misery that Malthus described, although only just barely. So in fact, agricultural innovations proved that Malthus was almost entirely wrong.

So, why is he still influential? I think because there's a very seductive logic to the idea that resources, especially food, are finite. We live on one planet that has a certain amount of arable land and surely at some point humans will suck up all of the resources. This is especially true in the age of global climate change. In 2014, the UN Intergovernmental Panel on Climate Change issued a report that warned of the potential for warmer temperatures to restrict food supplies in the face of growing demand. In fact, it claimed that rising temperatures had already diminished wheat production by 2% per decade. While demand for food was rising at 14% over the same period. Food prices, which had been declining steadily until 2007, have been volatile since then. Sometimes leading to famine other times to political unrest. And those are real problems that may yet prove disastrous. But other doom and gloom scenarios regarding population and food, most notably the 1968 book The Population Bomb, have proven wrong at least so far. In fact fewer people will die of starvation this year than died 500 years ago of starvation, even though we have far more people on Earth. And there's still lots of room to improve agricultural yields. But simply knowing that Malthus was wrong, isn't as interesting as thinking about why he was wrong. Malthus underestimated how successful we would be at adapting to environmental constraints. And he underestimated the role that technology and innovation could play in creating a world where more humans could live. Now of course that hasn't come without its costs - including climate change. And that's why I think Malthus remains so influential. Human existence is not a zero sum game. It is possible for me to benefit and other people also to benefit. But it's also true that many resources that we imagine as infinite - aren't.