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The science of slums

by Danny Dorling



With a population of around 70,000 people, Rocinha in Rio de Janeiro is the most populous favela in Brazil *Dominique landau*

The idea of the population bomb is a fallacy and
that the human population is checking its rise
without the need for a grand plan

The ‘population bomb’ is a solecism, a grammatical mistake, an absurdity. In 1968, it was a neologism, a newly coined phrase or doctrine; today, it appears antiquated as a term. Now simply ‘population’ without the suffix ‘bomb’ has a self-evident power. We should be ‘concerned about population’, we’re told – no longer scared out of our wits, as any sane person would be about a bomb, but concerned.

We became scared. We moved from five to six billion in just 12 years, during the year 2000. To be a little more precise, it was announced (by the statisticians relied upon for the figures used here) that there were 6,071,144,000 of us at that point. Later, their revised estimates suggested that we had actually hit that magic number earlier and that by 2000, we numbered 6,122,770,000 people; we just had not known it.

Was this due to cataclysmic growth? One sign that it might be was that by then, around one in six of us, some 927 million souls, were living in slums.

A simple observer who just looked at the totals would conclude that if human population growth were to continue at the pre-millennial rate of acceleration, then by 2050, there would be 13 billion of us; by 2100, 44 billion; by 2200, some 1,775 billion and by 2300, some 133,592 billion. I'm not making these numbers up; they are the 'constant projection' of the UN. The UN produces its ridiculous multi-billion figures partly to illustrate that what humans have just experienced is the equivalent to what happens when sewage floods a sea and there is an algal bloom. The 133 billion is what would happen if we were algae floating on an almost endless newly nutrient-rich ocean, but humans aren't algae, and our growth in numbers is slowing down.

KEEPING IT IN CHECK

We're slowing because we have to; it's simply that we're only just starting to see it and are surprised to find this slowdown happening without a grand plan. Those of us who think we're particularly clever and needed, those of us who understand ideas such as parabolas and derivatives, ask ourselves conceitedly: how did this happen without our help?

In the decade to the year 2000, there was a significant change in what's called the second derivative of population. Imagine you throw a cricket ball straight up into the air. Before it begins to fall back to Earth, it has to slow down, and before it can begin to slow down, it has to decelerate.

When it comes to a cricket ball, it's from the point that it leaves your hand that it starts to decelerate. When it comes to human beings, that point – the time at which the speeding up stopped, even though the total population continued to rise – was 1971, although that only started to become clear in the dozen years up to 1989. And so it wasn't until the 1990s that the first reports of optimism were released to an unbelieving world.

Before the 1990s, doom-mongering was normal. The world had good reason not to believe that a positive turning point was being reached. When you have just added a billion people in a dozen years or less, on top of another billion added in the 13 years before that, you get slums, you get fears of pandemic, you get a great many reports of the growth of shanty towns spreading out of control.

PESSIMISTIC OUTLOOK

To counter this diet of doom, it's worth beginning with the strongest evidence first. Evidence, that is, that all is not lost. This evidence concerns how poor is the record of those who forecast doom. The greatest failure came when the Reverend Thomas Robert Malthus wrote that essay claiming that the end was nigh when it came to the ultimate results of human population growth.

Malthus had little chance of realising the significance, but he was writing 300 years after the demographic shock of the discovery of the Americas, and the data he was looking at reflected a great deal of the influence of that event. He had

studied the population record of the larger part of just one small island (England), and determined that people would carry on multiplying like flies until they starved to death or killed each other in search of food.

Malthus was writing only as recently as when my great-grandfather's great-grandmother was alive, and he was proved wrong not long after I was born. He wasn't just wrong because he lacked imagination; he also cheated. It's now known that he even made up the correlation he used to try to suggest causation. Even writers who have some sympathy for Malthus – the ones who've read all the various revisions he made to his original essay – are prone to believe that there was something within the man that led him to pessimism: Lloyd T Evans, one of the world's best-known plant physiologists, suggested in 1998 that 'many projections of future world food supplies tell us more about the innate optimism or pessimism of the projectors, as expressed in the critical assumptions, than about what will actually happen. Moreover, the uncertainty principle may operate in that what eventually does happen may be influenced by policies adopted on the basis of economic projections.' Other commentators have been less kind. Malthus's intervention has been described as akin to something like a '200-year war against welfare'. He wrote six versions of his essay, the first in 1798 and the last in 1826, substantially changing its message as he revised it. Sadly, the damage, huge damage, was done by the first draft.

If it had not been Malthus, it would have been some other fool, but throughout this period, he remained wedded to the idea that population could only be checked by famine, disease or war; that European society wasn't improving; that most people weren't of great value, and that without strict oversight from members of the clergy such as himself, others were unable to control their sexual urges. He had issues.



A slum area in Manila, Philippines

POLITICAL INFLUENCE

It was the sexual hang-ups of an economist of the cloth that resulted in ideas of population control making their political debut in early-19th-century Britain. The Malthusian theory of population growth gave Britain's rising middle class exactly the moral insulation it needed to defend its selfishness. Terrible poverty was just about to tear through the country during the economic slump and the restructuring that followed the Napoleonic Wars of 1803–15.

Two decades further on, and 'Malthus's arguments were used to drive through the New Poor Law of 1834, which attempted to imprison in the workhouse anyone improvident enough to claim welfare,' according to a discussion paper produced by No One is Illegal. 'The workhouse system took decades to dismantle, and it presaged in some detail today's anti-immigrant system: notably its distinction between "deserving and undeserving", and its parallel, unaccountable, cut-price policing and judicial system.'

In the country of Malthus's birth and work, England, there's currently an attempt to reintroduce the old Poor Law, with local worthies deciding what assistance the poor are entitled to. There is also widespread antipathy towards immigrants; it's common to hear that England, in particular of all of the countries of the UK, is 'full up'. All this dates back to ideas first promulgated by the Reverend Malthus.

GOOD LIVING

If we were able – and foolish enough – to resurrect him, Thomas Malthus might be less shocked at finding himself alive than at finding himself alongside so many other living people and so many living so well. He would be most shocked to know that we are currently having so few children. He would be stunned to hear that if this fall in fertility carries on much longer, there is no reason to believe that the human population won't soon fall, and that this is, in fact, what many UN demographers believe. That the first population fall without a disaster is coming is as near to a demographic certainty as it's possible to get. Across the globe today, the average family consists of two parents and three children. Global average family size has never been so small and is falling rapidly. Already, across more than half the peoples of the planet, it's now normal to have fewer than two children per woman. People can and do control their urges to have children.

Malthus lacked the imagination to see it, and even had he been endowed with such powers, he was in no position to know how widespread and advanced contraception would become. And neither could he have easily foreseen the ascendancy of women. His puritanical views labelled women simply as temptresses, the first being Eve with her apple.

It's largely because women have become more powerful and better educated, and have stood up to men such as Malthus, that the central projections of UN demographers are for the average future family unit of today's children to be made up of two adults and two children. This is how the fall in fertility will result in a slowdown in the affluent world and how the fall will continue – through women gaining greater equality with men. In future, more women will have no children than will have four or more. Fewer will have three children than will have one. But we don't have to wait long to see that fall; it's already here in the world's richest countries and has been with us for some time.

A STABILISING FUTURE

Malthusian thinking is the science of slums. It sees in the rise of poverty and squalor evidence for Armageddon. This is evidence not just that poverty will always be with us, but that it will always grow as people breed. Such thinking includes no space to understand that there will come a day soon, maybe just within our lifetimes, when the first minute will pass in which more people die than are born that day, the first minute ever when this wasn't due to catastrophic disaster, mass famine or global epidemic – population falls not attributable to a Malthusian logic.

It's because of the novelty of the coming population stability that we have to travel back in time to consider the last few falls, or other omens, in order to try to appreciate just how different this time could be. The point that needs to be made most clear is that when the first non-Malthusian population fall occurs, everything changes. A new demographic transition will have taken place. Much of how we now live is a feature of the transition, including our slums, which are halfway houses for migrants travelling from the countryside to the city.

If you see aspects of a transition as normal, then the poor will always be with us and demographic growth will only be checked by disaster. If you see change as business as usual, then the slums will continue to grow.

Science works by observing that certain regularities are reoccurring. Science works better when it determines within what range those regularities are normal. A narrow science of the human condition is a science of slums. A wider science sees that the mechanical laws of our current times need not apply to the new epoch that is just beginning.

This is an edited extract from the book *Population 10 Billion*.