

GLOBAL POPULATION PAST AND PRESENT

According to a popular cliché, "There are more people living today than all the people that have lived in the past."

This cliché sounds plausible because we have been taught that ancient populations were very small and relatively few people have lived throughout all of history until modern times. Supposedly, the ancient earth was sparsely populated with nomads living in little isolated groups. This isolation would impose a simple lifestyle on mankind. **If ancient peoples were few and isolated, maybe ancient man was really primitive as evolution claims.**

The truth is completely opposite these popular conceptions. **Ancient populations were sometimes considerable.** Modern global population is probably less than the peak pre-Flood population, and is certainly less than the cumulative total of all people who have preceded us. In fact, there were probably population explosions in the Pre-Flood world and also immediately after the Flood. In contrast, there is no modern population explosion. Global population is rising, but at an ever decreasing rate. It will soon peak and then begin to drop.

I. WORLD POPULATION BEFORE THE FLOOD

Our modern view of population has shaped our view of the world's past population. We see rising population as a threat to the environment, but the truth is that the earth's environment is actually improving, not degrading.¹ Fears of over-population have colored our view of God's command in Genesis 1:28 – and repeated after the Flood in Genesis 9:1-3 -- to "multiply and replenish [fill] the earth." We insist that God could not have meant for this command to apply today, but people before the Flood evidently took this command literally and seriously.

Before the Flood, the earth had a large population. Genesis 6:11 says, "The earth also was corrupt before God, and the earth was filled with violence." This implies that the earth was also filled with people. **Calculations show that in 1656 years between creation and the flood,² global population could have been expected to rise into at least the tens or hundreds of millions.**

Suppose a 1% growth rate per year (a typical averaged growth rate in recent centuries), and 1656 years between creation and the flood. The simplest population growth formula starting from two people (Adam and Eve) is

$$P = 2(1 + r)^y \quad (1)$$

where P is the global population after y years, at a growth rate r. With r = 1% or 0.01, and y = 1656 years between creation and Flood, P, the global population in the year of the Flood, would be 28 million.

The pre-Flood population growth rate may have been considerably more than 1%, however. Jewish tradition credits Adam and Eve with 23 sons and daughters, and the existence of post-Flood fertility religions implies that procreation retained a high priority among the world's earliest peoples. **Thus pre-Flood world population was at least in the tens of millions.** This estimate is actually not very realistic, because the formula used to get it assumes only one generation alive at a time. In

fact generations overlap. Even with today's shorter life spans as compared with pre-flood longevity, three generations typically overlap at 25-30 years per generation

In a more realistic computation, generations may have been longer than now, given the average pre-flood lifespan in Genesis 5 of 905 years.³ We will take a pre-Flood "generation" to be 100 years.⁴ Thus the generations between the creation and flood would be 1656/100 = 16.56; the generations in the average pre-flood life span of 905 years - 905/100 = 9.05. The average number of children per family we will conservatively estimate as 5. The resulting global population P is

$$P = \frac{2(c^{n-x}-1)(c^x-1)}{(c-1)} \quad (2)$$

where n = generations between creation and flood = 16.56; x = generations in average life span = 9.05; and c = average children per family = 5.⁵ Using these conservative estimates, **the pre-flood population would have been 190 billion by the year of the flood – or of the order of 100 billion.**

This estimate may appear impossibly high, but as will be discussed below, **the earth's estimated maximum sustainable population today – its "carrying capacity" – is about 50 billion.** The fossil record shows that the pre-Flood earth had a more benign climate than today's world. There may have been 30 times more vegetation on the pre-Flood earth than in today's world, and a proportionately larger population of all life forms.⁶ **Thus a pre-Flood population of a few times today's carrying capacity is not unlikely after all.**

In any event, the global pre-Flood population was comparable to today's population if not larger. This might be surprising to us, but God made the earth "to be inhabited" (Isaiah 45:18). To the extent that pre-Flood man filled ("replenished") the earth with people (Genesis 1:28), he was fulfilling this command.

II. POPULATION BETWEEN THE FLOOD AND BABEL

After the Flood, all people migrated as a group to the plain of Shinar (Sumer) where they built the Tower of Babel (Genesis 11:1-4) and God caused the human race to disperse or "divide." This happened sometime between 99 and 338 years after the Flood.⁷ In Genesis 11 the earliest post-Flood patriarchs (Noah, Shem, Arpachshad, Shelah, and Eber) lived longer than 338 years, implying that **in the relatively short interval between the Flood and the dispersion from Babel, population growth was offset by a minimal death rate.**

The genealogy in Genesis 11 shows that lifespan shortened after the Flood. Families had children earlier, and the length of a "generation" approached 30 years. Putting the date of the Tower of Babel at 200 years after the Flood, we have about 7 generations of population growth.

Starting with 4 couples (8 Flood survivors), 5 children per couple, and a negligible death rate, after 7 generations the population $P = 4(5)^7 = 312,500$. After 9 generations, $P = 8$ million. **A global population of the order of 1 million at Babel is therefore entirely plausible.**⁸

III. WORLD POPULATION TODAY

A common myth is that the earth is overpopulated, and that there is a population explosion. **The earth is not overpopulated. It could support some 50 billion people:** "A diet based on 4,000 to 4,500 kilocalories of edible plant material [per day] could be provided for between 38 and 48 billion people," about 7 times the current population.⁹ Most people would get fat on a caloric intake as high as 4,500 kilocalories per day, so the earth's ability to support human life has not been pushed close to the limit.

There is no population explosion: "44 percent of the world's people live in countries where the fertility rate has already fallen below the replacement rate, and fertility is falling fast almost everywhere else."¹⁰ **Population growth rates are falling so fast that the U.N. predicts that global population will peak at some 8 to 9 billion in 2050.** Then a steep decline will occur, leading to the following forecast: "Unless people's values change greatly, several centuries from now there could be fewer people living in the entire world than live in the United States today."¹¹

In the mid 1990s the U.N. was forecasting a peak global population of some 11 to 12 billions to occur in about 2100. Demographers thought that population growth rates would fall off fairly slowly. However, population growth rates have declined faster than the U.N. expected, so the magnitude and timing of the peak population have been revised, as noted in the previous paragraph. **If population growth rates continue to fall faster than predicted, future forecasts of timing for peak population may be moved up even more, and the de-population of the earth may begin earlier than 2050.**

World population in 1850 was about 1 billion. By then the material benefits of the Industrial Revolution were becoming widespread, and human mortality rates plummeted. The plunging death rate coupled with no corresponding decline in fertility rates resulted in rising global population. By the 1960s, the global population was rising about 2% yearly. Even then, people had begun adjusting to the fact that they no longer had to plan for the premature death of most of their children. Since the 1960s the population growth rate has plummeted.

The rapid rise in global population from about 1850-1960 is most accurately seen as an adjustment to the better living brought about by the Industrial Revolution.¹² Since people are not mindlessly reproducing creatures like rabbits or insects, but are made in God's image, they have rationally adjusted fertility rates to factor in the lower post-Industrial Revolution death rate. **But unless the public is given reliable information, the adjustment will overshoot.**

A century from now there may be a genuine under-population crisis. Even now, certain parts of Europe most propagandized by the "zero population growth" mentality are facing the prospect of imminent population declines.¹³ This means destruction of the tax base, withering economic activity, a slow decay of social infrastructure, and a general impoverishment of those who remain.

Conclusions: Population is not exploding today, but did explode before the Flood and before the dispersion from Babel. Global

population before the Flood was higher than present population. **Population today is only a fraction of what the earth could sustain, and will peak in about 2050.** It will then begin to decline with disastrous consequences for world infrastructure – assuming current trends persist.¹⁴

Notes

- 1 J. Henry, "Environmental Collapse Is Not Happening," <creationconcepts.org>, 2006; Stephen Moore and Julian L. Simon, *It's Getting Better All the Time: 100 Greatest Trends of the Last 100 Years*, Cato, 2000.
- 2 J. Henry, "What Is the Age of the Universe?," <creation concepts.org>, 2001, discusses chronology, including the time between creation and the Flood. This period had no gaps; see J. Henry, "A Critique of Progressive Creationism in the Writings of Hugh Ross," *Creation Research Society Quarterly*, Vol. 43 no. 1, June 2006, pp. 20-21. **According to the Sumerian king list, the interval between creation and Flood was some 2000 years, in basic agreement with the biblical interval.** See J. Henry, "Biblical Perspectives on the History of Science," <creation concepts.org>, 2006; J. Henry, "Legends of the Creation, Flood and Babel," <creationconcepts.org>, 2006.
- 3 How representative are the lifespan figures in Genesis 5? Skeletal remains of early post-Flood humans (conventionally misinterpreted as "prehistoric" remains) show that **early post-Flood people aged more slowly than people today, and lived as long as several centuries** (Jack Cuzzo, *Buried Alive: The Startling Truth about Neanderthal Man*, Master Books, 1998, pp. 155-181, 218-219, 254-255; J. Henry, "More Legends of the Creation, Flood and Babel," <creation concepts.org>, 2006). The lifespans in Genesis 5 can be taken as actual longevities of people before the Flood.
- 4 In Genesis 5, the age of the first nine patriarchs at the birth of the son in the Messianic line was 117 years. But this son was not necessarily the first born, so we take a generation as somewhat less than 117 years, i.e., 100 years.
- 5 Genesis 5 lists the son in the Messianic lineage for each patriarch, followed by the fact that he "begot sons and daughters," i.e., at least two sons and two daughters were born besides the named son. This makes a minimum of 5 children for each family in Genesis 5. **Incidentally, social approval of small family size is a very modern trend. The historical norm has been social approval of large families.** In Prussia on the eve of World War II, for example, the average family size was 10 – father, mother and eight children.
- 6 J. Henry, "The Pre-Flood World," <creationconcepts.org>, 2007.
- 7 Genesis 10:25 says that Peleg's days "was the earth divided," i.e., the dispersion, or division, of people groups originating at Babel was in Peleg's lifetime. Peleg was born 99 years after the Flood and lived 239 years, to 338 years after the Flood (Henry, 2001, op. cit.)
- 8 Ancient fertility religions worshipped procreation, lending credence to the conclusion that early post-Flood population grew rapidly.
- 9 Roger Revelle, "Food and Population," *Scientific American*, Vol. 231 no. 9, September 1974, p. 168. **Only about 3% of habitable land is populated.**
- 10 Max Singer, "Demographics: The population Surprise," *Atlantic Monthly*, Vol. 284 no. 2, August 1999, p. 24.
- 11 Gregg Easterbrook, "Reproductivity: Overpopulation Is No Problem -- In the Long Run," *New Republic*, Vol. 221 no. 15, October 11, 1999, p. 22.
- 12 Depak Lal, *Unintended Consequences*, MIT, 1998, p. 229.
- 13 J. Simon, *The Ultimate Resource 2*, Princeton, 1996, p. 315.
- 14 It is possible that the global instability brought about by plummeting population will trigger end-time events ushering in the Anti-Christ. Of course, extrapolations several decades ahead should be taken *cum grano saltum!*