

CARL SAGAN HAD IT RIGHT — BILLIONS AND BILLIONS AND BILLIONS

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Putting World Population Growth Statistics in Context — and Finding Solutions to the Problem

When we talk about world population growth statistics, we get into very large numbers with many confusing zeroes at the end. While lots of 0's may bring back fond memories of our days of test scores and playing hooky from school, they do nothing to help us understand a factual sentence like: "The earth's population is projected to rise from 6,400,000,000 in 2004 to 8,900,000,000 in 2050."

That means we will likely increase world population by 2.5 billion people in the next half-century, but how do we put such a large number in context to make it easier to grasp? Does population growth just mean a few more people at the next block party, or will the teeming masses start falling off the edge of whatever cliff they're closest to?

In this article, we'll try to make sense of world population growth statistics, and then we'll discuss why this increase in global population is significant.

WORLD POPULATION GROWTH —

THE STATISTICS AND TRENDS IN CONTEXT

For simplicity's sake, we'll assume the population increase between now and 2050 will be linear. (Experts predicts that population growth will be faster in the early part of the period than in the later part, but for our purposes, working with an average increase will be fine.) Remember, we're talking about the NET population growth—the number of new people born minus the number who die.

If we convert the total population growth of 2.5 billion for the first half of the 21st century to an annual rate of growth, we can expect 54 million additional people per year to occupy the planet. That large a number still seems pretty hard to relate to, though, so if we take it down to a per-day figure—which would be 149,000 net additional people per day—it's

more understandable because we can compare it to figures we're familiar with. For instance, 149,000 is two or three football stadiums worth of people (depending on the stadium capacity). Maybe that doesn't seem like so many people at first, but remember how shocked we were when we were told about the death toll from the December 2004 Asian tsunami—several hundred thousand people died. Yet today we're adding that many new people to the planet's population every two days.

CURRENT WORLD POPULATION GROWTH

In 2005, the actual global population growth rate is estimated to be 76 million additional people per year.

SOURCE:

Earth Policy Institute

So, should we be cold, calculating statisticians who see that a high number of deaths from a natural disaster or, say, the one million people who die each year from malaria don't matter because we've got so many new humans coming down the population-growth conveyor belt anyway? No, of course not. One of our top goals as a society should be to reduce and eliminate suffering wherever and whenever possible.

Does this leave us with the seemingly conflicting goals of keeping humanity's numbers at a reasonable (sustainable) level vs. not wanting people to suffer and die?

WORLD POPULATION GROWTH — THE PROBLEM

Before we discuss how we can support reducing world population growth and still be humanitarians, let's recount why population growth is a problem in the first place.

The earth is a "closed system," meaning that we have to recycle or store all of the wastes we produce, and until we establish the Mars Alfalfa and Mining Colony, we only have one planet's worth of land and water to provide resources for agriculture, energy, and other needs. How well we do at these two factors—resource use and pollution management—basically depends on two factors:

the number of people on the planet; and

the average amount of resources available (per person) and the average amount of pollution produced.

In basic terms, the average global standard of living is directly related to the resources available. The health of the planet (in terms of pollution) is related to how much stuff, on average, each person uses. The total impact we have on the planet, therefore, is roughly the total number of people times the average standard of living. (This basic concept is sometimes called "ecological footprint.")

THE GOOD, THE BAD,

AND THE TECHNOLOGY

Technological improvements factor into how efficiently and effectively we use our resources and manage our pollution, but overall, technology tends to cause just as many problems as it solves.

The world's current population is already estimated to be unsustainable at today's rates of consumption and pollution, and another 2.5 billion people over the next half-century—all rightly striving to raise their standards of living—will only exacerbate the problem.

Since none of us is clamoring for a decreased standard of living, we must assume that the other side of the equation, population, is where we can most realistically expect to act to keep our Closed-System Earth in balance.

WORLD POPULATION GROWTH — SOLUTIONS

Once we recognize the fact that overpopulation is a problem and that increasing standards of living around the world will add to our resource-use and pollution-management challenges, it's tempting to start thinking that disease, poverty, and premature death are unfortunate but necessary (as long as they happen to someone else, of course). We must resist any such temptation and work toward better solutions.

We should:

continue to strive to reduce suffering by combating disease and poverty around the world;

continue to improve resource efficiency and pollution control so that standards of living can rise without negative impact;
and

keep human population to numbers that are sustainable.

On the population front, that means:

making sure people around the world have access to family planning services;

empowering women in developing countries economically, socially, and legally in a manner that results in them having an equal say (with their husbands) in reproductive decisions;

modifying school curricula to include information on population levels and implications for the future;

reforming tax laws in a way that encourages couples to have no more than two children. (They would still be able to have as many kids as they want, but the tax code would no longer subsidize more than two.)

People are a good thing, but population growth without limit is not. The US and all developed countries should reinvigorate their international efforts to slow population growth. The future of the world depends on it!

Know someone who's feeling crowded by overpopulation?

Send this World Population Growth article.

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