INTERNATIONAL

EIGHT BILLION AND GROWING

– The Global Population has Reached a New Milestone

Last fall, Earth's population hit eight billion.

How do we know that? The truth is, we don't. We can't know exactly how many people are on the Earth on any given day. We don't know how many babies were born or how many people died in any given moment.

The United Nations (UN) uses information collected from around the world to estimate the global population. In a **projection** based on that data, the organization declared November 15, 2022, the "Day of Eight Billion."

Whether or not the Earth hit this milestone on that day, as we cross the eight-billion threshold, paying attention to the way our population is growing and changing will help us plan.

Exponential growth

For the last 200 years, Earth's population has been growing **exponentially**. According to one *New York Times* article, it has "shot up in the shape of a hockey stick."

It wasn't until 1804 that the global population crossed the one-billion threshold. A little more than a century later, in 1927, the world reached two billion. The jump from two billion to three billion took around 33 years – the population hit that landmark in 1960. Since then, the time it takes to add a billion people to the world's population has grown even shorter. On October 31, 2011, Earth's population reached seven billion. That was only 11 years ago!

Longer lives

What are the reasons for this increasingly rapid growth?

The population grows when the number of people who are born is higher than the number of people who die. For most of human history, birth rates might have been high, but so were death rates.

However, over time, people have found ways to produce more food and create safer conditions to live and work in. There have also been huge advances in health care. For instance, fewer children—and mothers— now die during childbirth. Thanks to immunizations, fewer children die of once-common diseases. That means more people live to adulthood and have the chance to reproduce. We also know more about how to prevent illnesses by living a healthy lifestyle, and how to treat people who get sick. The result? Humans are living longer, healthier lives than ever before.

In 1950, the global average life expectancy at birth was 46.6 years. Now it's 72.8, and by 2050, it's expected to rise to 77.2 years.

Fewer children

Despite increasing longevity, however, the UN says that the growth rate is starting to slow. The organization predicts that the global population will peak in the 2080s, at around 10.4 billion people, and stay at that level until 2100, when it will begin to slowly decline.

Why? Because for decades, the global **fertility rate** has been falling. Most of the Earth is moving "toward longer lives and smaller families," said John Wilmouth, director of the UN population division.

DEFINITIONS

EXPONENTIALLY: growing or increasing very quickly
FERTILITY RATE: the average number of births per woman
PROJECTION: a calculation of the way that something will change and develop in the future

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The "replacement rate" of a population with low mortality is about 2.1 births per women. That is the number required for zero growth—for the population to stay roughly the same over time. Today, two-thirds of the global population lives in regions where the fertility rate is lower than this.

An aging population

Another reason why world population growth will soon start to decline? The global population is getting older.

Since people are living longer and fewer babies are being born, the percentage of people aged 65 or older is increasing. So is the length of time people are living past that age. In 1950, just over five percent of the population was over 65. Today, that number has risen to nearly ten percent, and it's expected to reach 16 percent by 2050.

As a result, in 2018, for the first time ever, there were more people around the world aged 65 or older than there were children under five, and the UN says this trend will continue. By 2050, there will be twice as many people 65 and older as there are children under five. By 2050, the number of people aged 65+ will be about the same as the number of children under 12.

This means that in most countries around the world, there will soon be more people reaching the ends of their lifespans than there are children to replace them.

Population centres

Over half the world's population (4.7 billion) currently lives in Asia. China and India are the world's most populated countries, with over 1.4 billion people each. China's population is no longer growing, and may start to decline soon, but India's is still growing. In April, India is expected to surpass China as the world's most populous country.

The fastest-growing region of the world is sub-Saharan Africa. Between 2022 and 2050, the UN predicts that the population there will almost double, and account for more than half of the world's population growth during this time period.

Did you know?

The populations of most **developed nations** today, including Canada, are growing only very slowly, or decreasing. This brings challenges including a smaller work force and increased pressure on the healthcare and long-term care systems. One solution is to try to attract immigrants from countries whose populations are still increasing.

Impact on the planet

As the global population continues to grow, there will be more pressure on the world's natural resources. More people create more demand for food, clean drinking water, and **amenities** such as gasoline and batteries.

Dr. Robert Huish, of the Department of International Development Studies at Dalhousie University, said we have "plenty of food, technology, resources, and money to sustain the global population onwards to nine billion." But we cannot keep living the way we do now. "The patterns we have put in place of using fossil fuels for 80 percent of our energy production need to change drastically," he added.

The countries with the most rapidly growing populations are not the ones consuming the most. According to the UN, wealthier countries tend to use the most material resources **per capita**—and to create the most greenhouse gas emissions.

A 2020 analysis by the Stockholm Environment Institute and Oxfam International looked at carbon emissions between 1990 and 2015. The carbon emissions of the richest one percent (about 63 million people) were more than double the emissions of the poorest half of humanity during those years.

We live in a world of "increasingly stark inequalities," said Dr. Huish.

That's why, according to UN Secretary-General António Guterres, it's important to stop and reflect on what it means to be one person in a world of eight billion.

"This is an occasion to celebrate our diversity, recognize our common humanity, and marvel at advancements in health that have extended lifespans and dramatically reduced maternal and child mortality rates," he said. "At the same time, it is a reminder of our shared responsibility to care for our planet and a moment to reflect on where we still fall short of our commitments to one another," he added. ★

Definitions

amenity: something that makes it comfortable or enjoyable to live or work somewhere

developed nation: a country that has a high quality of life, developed economy, and advanced technological infrastructure relative to other less industrialized nations

per capita: for each person