



## World population growth: Status in 2010 and prospects

It had taken all of human history for the world's population to reach one billion – this happened in approximately 1810. Each additional billion followed more rapidly. In 1900, the global population stood at 1.6 billion. One hundred years later, it had almost quadrupled to 6.1 billion people. The sixth billion was reached in 1999, only 12 years after the fifth. In 2011, also 12 years later, we will reach the seventh billion. More than 85 percent of the population growth of the past 100 years took place in developing countries; of the expected population growth to 2050, 97 percent is projected to be in developing countries.


For the eighth billion, however, the UN Population Division projects that it will take 13 to 14 years. The speed of growth thus seems to be decelerating for the first time. Given these projections, global population growth could indeed end or nearly end in the 21<sup>st</sup> century.

Population growth has two faces: it is, on the one hand, a huge success story because humanity has been able to dramatically reduce infant and child mortality with modern knowledge, medicines and vaccines. There is, however, significant evidence that population growth beyond a “certain number” – which varies from country to country – entails undesirable social effects (e.g. decreasing quality of education), environmental costs (strained land and water resources) as well as economic consequences (e.g. reduction of capital formation).

The unfavorable social, environmental and economic consequences of population growth have led governments to invest increasingly in family planning. They started to provide broad access to reproductive health services, family planning information and safe means and methods for preventing unwanted pregnancies. This enabled parents to decide freely and responsibly on the desired size of their family and, equally important, to prolong the intervals between pregnancies and births to reduce health risks for mothers, their newborns and elder siblings.

Family planning programs fell on the most fertile ground and achieved the most impressive successes where reductions in infant and child mortality were highest, where progress in gender equality and female empowerment were significant and sustained, and where governments' spending priorities were aligned with the real social, economic and environmental problems. Future population growth vitally depends on sustained efforts in all these areas.

I hope you find this newsletter interesting and thank you for your continued support

A handwritten signature in blue ink, reading "Klaus M. Leisinger". The signature is fluid and cursive, with the first name "Klaus" and last name "Leisinger" clearly legible.

Klaus M. Leisinger

## Population growth in the 20<sup>th</sup> and 21<sup>st</sup> centuries

The 20<sup>th</sup> century was the period of the most momentous event in human history: we are not speaking here of the beginning of space travel and the first man walking on the moon, nor the development of modern pharmaceuticals, vaccines, and seed varieties, nor of the development of computer capacity and electronic information and communication technology; we are talking of population growth.

In 1900, the Earth was host to a total of 1.6 billion human beings. By 2000, the two figures 1.6 had simply changed places to 6.1. Of that growth, 85 percent took place in the

developing countries of Africa, Asia, Latin America, and Oceania. This astounding growth spurt resulted from the very rapid spread of modern disease prevention and treatment, along with a dramatic increase in agricultural productivity throughout almost the entire developing world. In Europe and North America, such developments had taken centuries, and their birth rates had declined along with increases in life expectancy so that population growth did not “take off.” In most developing countries, societies changed little as life spans rose, birth rates did not decline until later, if at all, and growth rates soared. The 20<sup>th</sup> century was truly the “century of population.”

As population growth began to gather pace, the large majority of governments in developing countries adopted policies, if only on paper, to slow it. India is credited with being the first country to do so, in 1952. To be sure, many countries have succeeded in lowering fertility to moderate levels (e.g., Ghana, Honduras, and India), and even to quite low levels (Brazil, Thailand, and Turkey). But for many others, progress has been much slower or nearly non-existent (Guatemala, Pakistan, and Uganda). Some countries enacted quite stringent measures for some time to reduce growth rates.

While we are still clearly in an age with the most rapid population growth in history, we can only imagine what growth might have been like had countries not addressed it.

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More than 85 percent of the population growth of the past 100 years took place in developing countries. Of the expected global population growth to 2050, 97 percent is projected to be in developing countries (see **Table 1** and **Chart 2**).

**Chart 1: Currently, global population adds another billion at record rates**



Source: Population Reference Bureau estimates and projections and United Nations Population Division, *World Population Prospects, The 2008 Revision*

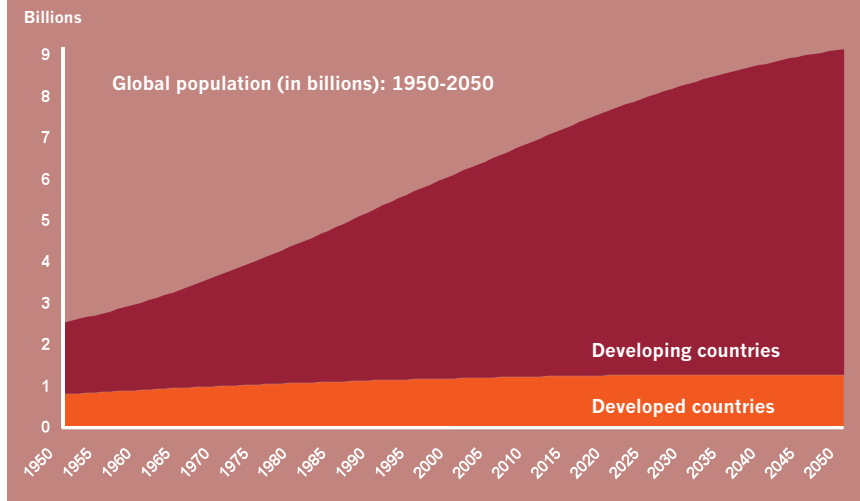
**Table 1: Population, 2010 and projected for 2025, and 2050 (billions)**

	2010	2025	2050	2050 as a multiple of 2010
World	6,892	8,108	9,485	1.4
Developed Countries	1,237	1,290	1,346	1.1
Developing Countries	5,656	6,819	8,159	1.4
Developing Countries (less China)	4,318	5,343	6,722	1.6
Least Developed Countries	857	1,172	1,710	2.0
Africa	1,030	1,412	2,084	2.0
Sub-Saharan Africa	865	1,207	1,831	2.1
Latin America/Caribbean	585	668	729	1.2
Asia	4,157	4,845	5,424	1.3
Oceania	37	45	58	1.6
North America	344	391	471	1.4
Europe	739	747	720	1.0
European Union	501	514	510	1.0

Source: 2010 World Population Data Sheet of the Population Reference Bureau

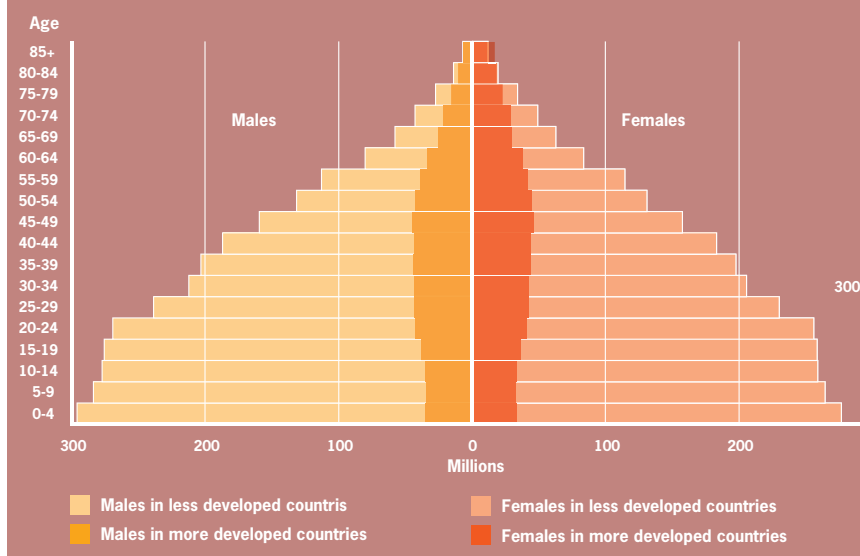
Any growth in the developed countries will likely be limited to North America, Australia, and New Zealand, and much of that growth will arise from immigration from developing countries.

**Chart 2: Global population growth is almost entirely concentrated in the world's poorer countries**



Source: United Nations Population Division, *World Population Prospects, The 2008 Revision*.

**Chart 3: The population in more developed and less developed countries (2010)**



Source: United Nations Population Division, *World Population Prospects, The 2008 Revision*

The population pyramids in **Chart 3** demonstrate a striking demographic difference between developing and developed countries: the former have much younger populations than the latter. The population below the age of 15 comprises 33 percent of the population of the developing countries (less China) and only 17 percent of the developed. In many sub-Saharan African countries, about 45 percent of inhabitants are below age 15, resulting in tremendous potential for population growth.

## Understanding population projections

It is customary, and quite understandable, for commentators and researchers to quote long-term population projections, such as those for 2050, with little thought given to the methodology leading to those projections or the certainty of them coming true. Population growth projections are not a foregone conclusion at all, especially if made for developing countries. They are a result of assumptions as to the future course of fertility, mortality, and migration based on past and current trends. Countries and international organizations issuing such projections are usually very diligent in making all assumptions transparent.

The present projection for developing countries is that birthrates will fall sustainably to two or fewer children per woman over time. This projection is based on the experience of the demographic transition that occurred in developed countries following their industrialization and urbanization, increasing incomes and higher education, especially that of females. Is this demographic transition model valid for countries with different cultural, social, religious and economic conditions? As mentioned earlier, it has occurred in some countries but not in others.

Currently, the total fertility rate (TFR)<sup>1</sup> of the developing countries stands at 3.1 children per woman (excluding the huge statistical effect of very-low fertility China) and at 4.5 in the 49 countries defined by the United Nations as the “least developed<sup>2</sup>.” That represents quite a significant change from the early 1950s when those TFRs were 6.1 and 6.6, respectively, but the process took 60 years. However, what has happened in the past is not the point.

Given that the future population size of developing countries will largely depend upon the future course of their fertility rates, one way to speculate upon the future is to look at what women themselves say about their reproductive choices. In Demographic and Health Surveys, a global program examining many aspects of reproductive health, this question is addressed in depth. When looking at the number of children women declared as their “ideal,” it is very informative to note that this number may change slowly or even not at all and is rarely 2.0 or less. In Egypt, for example, women gave 2.9 children as

<sup>1</sup> The TFR is the average number of children a woman would bear in her lifetime if the birth rate of a particular year were to remain constant.

<sup>2</sup> There are 49 least developed countries, the majority of which are in sub-Saharan Africa but including Bangladesh.



their ideal in the 1988 survey, and exactly the same figure during five subsequent surveys up to the most recent in 2008. And, as it happens, the TFR in Egypt is currently about 3.0. In Indonesia, the TFR has been below 3.0 since the early 1990s but is still only 2.4. The number of children given as ideal in Indonesia declined from 3.2 in 1987 to 2.8 in 2007. In Bangladesh, the ideal number of children was 2.5 in 1993-1994 and 2.3 in 2007. Thus, we can see that the desired number of offspring is slowly changing and that a further decline to European-like fertility levels is, at the least, in some doubt.

**Chart 4** illustrates the pattern of TFR change in selected developing countries with differing experiences. Nigeria and Uganda are fairly typical of sub-Saharan countries in that they continue to have high fertility rates, while Ghana and Bangladesh made rather smooth progress to 2.4 children. But the question regarding further progress towards two children or less is unanswered for now.

The world has undergone a number of demographic “revolutions” during its history and it is no different now. Global population growth could end or nearly end in this century, but many things will have to happen to bring that about. We could also see a world where there is no more hunger and poverty and all people have access to proper health and medical care. Today, only a minority of the world’s population is so privileged.

## Towards a rational optimism

What are the future global and regional development prospects? Interestingly, many intellectuals in our societies who personally saw nothing but socio-economic improvements in their and their children’s lives entertain pessimistic outlooks. Though the world is far from perfect, there is powerful evidence that substantial improvements in the quality of life of people all over the world will continue to unfold – as they did in the past.

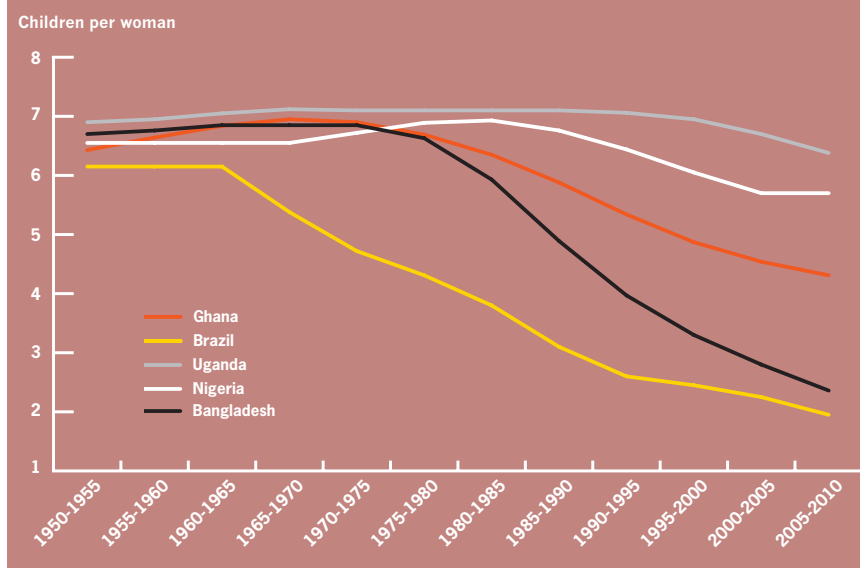
Matt Ridley, the author of the best-seller “The Rational Optimist” (HarperCollins 2010) reminds us that

“Since 1800, the population of the world has multiplied six times, yet average life expectancy has more than doubled and real income has risen more than nine times. Taking the shorter perspective, in 2005, compared with 1955, the average human being on Planet Earth earned nearly three times as much money (corrected for inflation), ate one-third more calories of food, buried one-third as many of her children and could expect to live one-third longer. She was less likely to die as a result of war, murder, childbirth, accidents, tornadoes, flooding famine, whooping cough, tuberculosis, malaria, diphtheria, typhus, typhoid, measles, smallpox scurvy or polio. She was less likely, at any given age, to get cancer, heart disease or stroke. She was more likely to be literate and have finished school. She was more likely to own a telephone, a flush toilet, a refrigerator and a bicycle. All this during a half-century when the world population has more than doubled (...) this is, by any standard, an astonishing human achievement.”

And 1955 was not a time of deprivation. It was in itself a record – a moment when the world was richer, more populous and more comfortable than it had ever been.

Given the development of science and technology and taking into account that the world is more connected than ever before, it is very likely that the pace of innovation will increase much faster than in the past and that economic evolution will raise the living standards of the great majority of people living in the twenty-first century to new heights, helping even the poorest people of the world to afford to meet their desires as well as their needs. The best years are still to come.

Chart 4: Fertility rate trends, selected countries



Source: United Nations Population Division, Demographic and Health Surveys, PRB estimates