

THE CRISIS OF DECLINING HUMAN FERTILITY



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INTRODUCTION: A CONFLICT OF IDEAS

In 2011 the world's population reached 7 billion. By about 2050, according to UN forecasters, that number will have increased by 1.1 billion, or perhaps more. Many consider any further rise to be highly undesirable, while others think the world's population is already too high. They believe a reduction of the world's population is urgently required to prevent 'overpopulation' and to contain what they imagine to be its negative effects, among which they include human induced climate change and unemployment.

This article argues that those who believe in the existence of a world wide population explosion have an inaccurate understanding of the facts, also that advocates of population reduction fail to consider the economic and social consequences for of declining populations.

This article was completed just after the publication of the report "Ageing in 21st Century" by UNFPA/HelpAge International.[1] This report pointed out that the combination of increasing numbers of elderly people in many countries, with declining fertility, in the context of an economic crisis, will present them with major challenges for maintaining current levels of healthcare and pensions.

This article shows that managing these and other challenges will become increasingly difficult, because declining fertility will, without compensating immigration, eventually reduce the size of the workforce and the tax base that governments need in order to operate. An accurate understanding of fertility trends is essential for a grasp of the problem.

The data for this article comes largely from United Nations sources.

CURRENT TRENDS IN HUMAN FERTILITY

In the last 12 years, according to the UN, the world's population rose by 1 billion. [2]. It is currently rising by about 78 million a year, or by about 1%. To understand the current and future trends in population throughout the world we need to examine the underlying trends in fertility, using the total fertility rate (TFR), which gives a national average for the number of children per couple. A

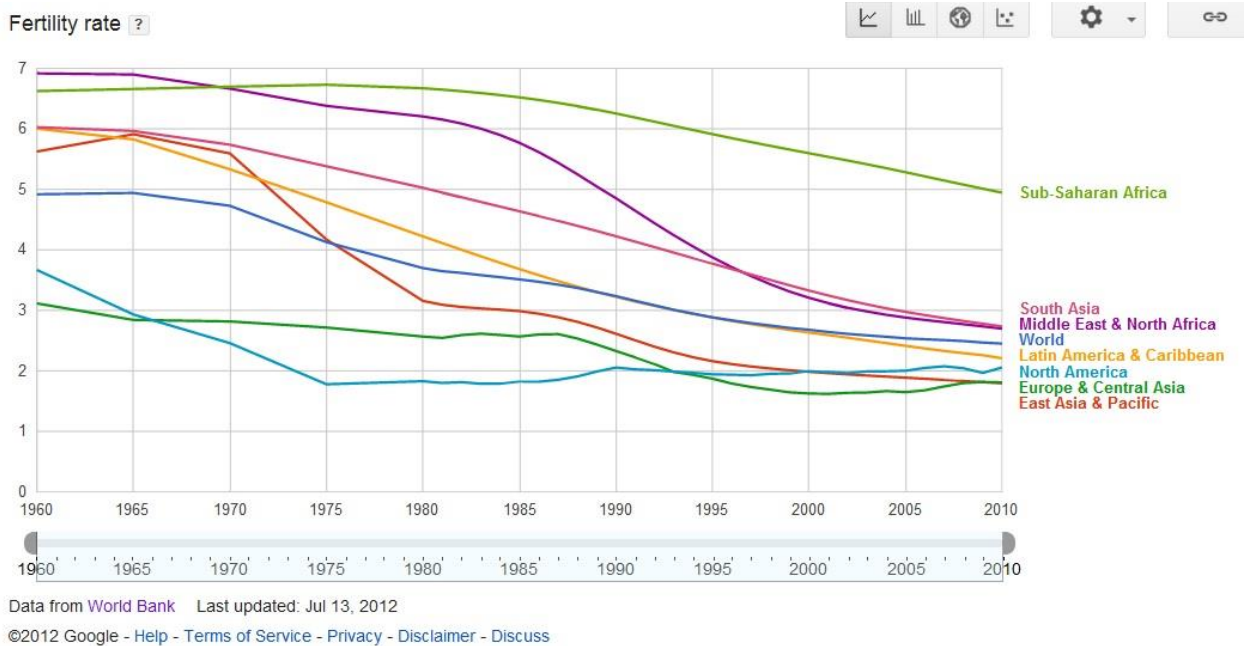
minimum TFR of 2.0 is needed for a generation to reproduce itself. But the replacement level is affected by death rates before and during reproductive age. To compensate for death rates this article has assumed replacement level for the TFR to be 2.2.

What are the main trends in the total fertility rate throughout the world?

1. THE WORLD TFR HAS FALLEN AND IS CLOSE TO REPLACEMENT LEVEL

In 2011 the TFR for the world as a whole was 2.46, having fallen from 2.59 in the previous five years. The UN suggests three rates in its fertility forecasting: high, medium and low. The low rate indicates the world TFR falling below 2.2 between 2015-20. The medium rate indicates that the TFR will not fall below 2.2 until about 2040-45. On present trends the low rate appears to be the most accurate.

Figure 1 shows significant falls in TFR in various regions. The poorest part of the world (Sub Saharan Africa) maintains a high but declining level of fertility. [3]



2. MANY COUNTRIES ALREADY HAVE A TFR BELOW REPLACEMENT LEVEL

	TFR	Population (millions)
China	1.55	1,343
United States	2.06	314
Brazil	2.16	206
Russia	1.43	138

Japan	1.39	127
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3. A MINORITY OF COUNTRIES HAVE A TFR ABOVE 2.7

Only 20% of the world's population lives in countries with a TFR above 2.7 [4], (0.5 above replacement level). Some examples are given below.

	TFR	Population (millions)
Pakistan	3.1	190
Nigeria	5.4	170
Philippines	3.2	104
Ethiopia	5.4	91

CASE STUDIES IN FERTILITY DECLINE – EUROPE, AFRICA, CHINA & INDIA

EUROPE

Europe's population, excluding Russia, was about 573 million in 2012, which accounted for 8% of world population. It recorded a very small yearly increase in total population, which was only caused by immigration. Without substantial immigration, Europe's population would be falling by nearly 1 million a year.

AFRICA

The continent of Africa contains 15% of the world's population. A third of Africa's population of 1 billion live in 13 countries with very high TFR's – 5.0 and over. But these countries account for only 5% of the world's population

CHINA

China's population at 1.3 billion is the largest in the world. In 2011 its TFR was 1.5. Births were about 16 million and deaths about 9 million. Abortions were about 10 million. Since 1978, the Chinese government has implemented a one-child policy, which includes compulsory abortion. The UN forecasts that China's population will fall by over 200 million by 2050 and by 2100 it will have fallen to 500 million, less than half of what it is today [5]. Chinese economists have observed that China

will “grow old before it grows rich”. The consequences of the one child policy for the future of China are potentially very serious.

INDIA

India is the world’s second largest country after China, with a population in 2011 of 1.2 billion. India’s TFR in 2011 was 2.6 and falling. In such a large country there are substantial regional variations, but in 2011 40% of the population was living in states with below replacement fertility [6], and on present trends the country’s TFR is likely to fall below replacement level within the next few years.

CASE STUDIES IN POPULATION DECLINE – JAPAN, RUSSIA & UK

JAPAN

Japan, until recently the world’s second largest economy, had about 1m births in 2011 but 1.1 million deaths. It also has about 1 million abortions each year. As net migration in Japan is zero the population of the country has been falling by about 100,000 a year. Projections by researchers at the National Institute of Population and Social Security Research suggest that by 2055 the number of people in Japan will have declined by about a third to just under 90m – a level last seen in 1955. [7] According to the Financial Times there is in Japan “a desperate shortage of Japanese people willing to care for the elderly” [8]

RUSSIA

Russia’s situation is more parlous than that of Japan. The Russian population is declining by about 700,000 per year because births at 1.6m are substantially lower than deaths at 2.3m, and net migration is only +40,000. The Russian government, responding to this demographic crisis, is eager to boost the level of births in Russia. Couples in Russia having a baby receive a lump sum state grant of £8,500.

UK

Lower fertility in the UK has led to a shortage of labour which has been met by substantial immigration. Without this the country’s working population would have fallen.

CONSEQUENCES OF LOWER FERTILITY

Today, western countries face the prospect of a shrinking number of taxpayers supporting an increasing number of dependants. This will inevitably lead to higher taxes and lower levels of healthcare and pensions. A declining population can also lead to lower economic growth and a declining standard of living. There are already over 10 million people in the UK over the age of 65, and the number is rising substantially every year.

Poor countries which lose their skilled labour to richer countries will also suffer. Poland for example, a poorer country than the UK, with a smaller population than the UK, and with a declining population, has lost over 2 million people through emigration since it joined the EU in 2004, many of them have moved to the UK.

Countries like the UK with below replacement fertility have faced a stark choice. Either they accept lower standards of living and care or pass the costs and consequences of their low fertility rate onto other countries from which they have attracted the immigrants needed to plug the gaps. But this policy cannot go on forever. There is a limit to the number of hard-working skilled immigrants a country like the UK can attract. Without restoration of a TFR above replacement level a country's social & economic system is endangered.

Scotland had a falling population from 1974 to 2002. This decline of nearly a quarter of a million led to some desperate soul searching. The result today is that Scotland has an official population policy. A key part of this policy is that Scotland wants to attract immigration, particularly young foreign-born graduates of Scotland's universities. The current Scottish government firmly opposes the Westminster government's desire to limit immigration.

Government plans in 2011 to reduce the levels of immigration of skilled workers into the UK from outside the EU are, according to some reports, already having negative consequences, particularly on organisations in the IT and life sciences sectors. A report produced for the City of London Corporation in November 2011 [9] stated that businesses in London were postponing plans for expansion and even considering moving operations outside the UK, because of the potential lack of immigrant labour. Businesses are opposed to reducing the number of immigrants, particularly skilled immigrants.

POPULATION EXPLOSION OR IMPLOSION?

Some population pundits say that that the world is suffering from a population explosion and that it needs to be reduced.

From the examination of world fertility trends, it does appear that much of the world is on the edge of a demographic crisis. The danger however comes not from a population explosion, but from a decline in fertility, which is leading more and more countries into a 'demographic winter'.

According to advocates of population reduction, there are too many births. Families with more than two children are described as "irresponsible and unethical". But a reduction in the number of births will reduce the number of taxpayers. Those advocating a reduction in population need to explain where the money is going to come from to sustain the welfare state. In China the one-child policy has led to what is now described as the "4/2/1/ problem" : 4 grandparents and 2 parents all depending on one child to support them in old age.

PRACTICAL REALITIES OF REDUCING POPULATION

Let us assume a project to reduce the world's population by just 5m per year, a number which is less than 0.01% of the current world's population. Even this apparently very modest objective would require births to fall from around 134 million per annum, which is their present level, to about 51 million - a massive reduction. A TFR of 1.0 would have to be achieved in order to meet this objective. In other words a world wide one child policy would be necessary.

Even if a one child policy could be introduced in every country in the world without substantial government coercion, the economic consequences of a global one child policy would be very damaging. China as we have seen is under significant threat from the consequences of its own one child policy. Chen Dening, Minister of Commerce, has stated that his country has only 10 years until labour shortages begin to appear. Other observers take the view that the tipping point has already been reached. South Korea and Taiwan anticipate the decline will begin to take effect in their countries in 2016.

SUMMARY & CONCLUSION – TRENDS IN FERTILITY, CAUSES & EFFECTS

Human fertility across the world has substantially declined in recent years. The world total fertility rate (TFR) has fallen significantly and in 2011 was close to replacement level. Nearly 50% of the world's population now live in countries with below replacement level TFR's. That number is likely to increase significantly in the coming years. The TFR for China, with the largest population in the world, is already substantially below replacement level. The TFR of India, the second largest country in the world, is likely to dip below replacement in the next few years. Falling fertility, if maintained, leads to falling working and total populations. Countries with falling populations already account for nearly 20% of the world population.

This rapid decline in human fertility has been made possible by contraception, sterilisation and abortion, the provision of which has been generously supported by government. In western countries lower fertility has been achieved without coercion but by simple appeal to the selfish nature of man. In China, decisions about fertility have been imposed on the population by the government.

In most parts of the world, there is little evidence of a world-wide population "explosion". The world's total population is currently increasing by 1% per year. According to the UN's low fertility population forecast the world's population will begin to fall between 2040-2045.

Declining human fertility and population reduction is already having severe consequences in some countries and the situation will continue to deteriorate. Rationing of healthcare, and indeed other state provided services such as education, will become a major political challenge.

Some countries, such as the UK, are already fighting the consequences of declining fertility. The effect of lower fertility over the last 40 years has meant that this country has found itself increasingly dependent on immigrants. But scouring the world for skilled immigrants, as advocated in 2012 by a government minister will not entirely compensate for the shortage of people caused by years of low fertility.

Without adequate fertility, countries will not have the taxpayers or the arms and legs to provide public services, such as teaching, healthcare or social care for the vulnerable or for the ageing population. If countries do not face up squarely to the reality of the crisis of declining human fertility, the crisis will hit them unprepared.

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