
Homo sapiens should be red-listed

OPINIONS

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The global and national decline in fertility rates and total births indicates that the Homo sapiens species is on a trajectory that would be considered a crisis in any other species. It could end in self-extinction.



Carl Ruth, Mensch und Gorilla (1878) Gift of the heirs of C.J.J.G. Vosmaer, Leiden. Photo: Rijksmuseum/Public domain.

The self-extinction of *Homo sapiens* could become a reality, as the World Wildlife Fund (WWF) warns for other species. Species approaching a critical point of extinction are placed on WWF's Red List [\(1\)](#). In Norway, this applies to 2752 species. However, *Homo sapiens* does not appear on the Red List, either nationally or globally.

Too few children are being born

The world population has grown substantially over the past hundred years. Overpopulation, increased life expectancy and food shortages have therefore been the subject of political and societal debate. However, the world population is now growing at the slowest rate since 1950, and life expectancy is falling in many countries [\(2–6\)](#).

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For a two-sex species like Homo sapiens to maintain a stable population, each couple must produce two offspring for the next generation. Since only women give birth, each female of the Homo sapiens species must therefore have at least two children. Because infant mortality is low, the minimum fertility rate required is 2.1. All countries in Europe now have a fertility rate between 1.8 and 1.1 (Norway: 1.4), and Africa is the only continent with a fertility rate above 2.1.

The climate crisis and environmental degradation do not impact the fertility rate and life expectancy of Homo sapiens in the same way as other animal species. Individual choices play a greater role. However, environmental pollution may have reduced male sperm quality and reproductive ability (7). The age of first-time mothers has increased, and fertility has therefore declined. In 2023, nearly 10 % of births in Norway were the result of assisted reproduction (8). The employment situation is also important for whether women become pregnant (9), and has led to questions about whether the 'work-first' policy is contributing to the low birth rate. Many women and men are also reluctant to bring children into an uncertain world shaped by the climate crisis. The economic costs associated with having children can also be a deterrent.

Are we facing self-extinction?

The threat to the Homo sapiens population has received less attention than other species. The possibility of self-extinction of Homo sapiens has been highlighted in several quarters (10), but dismissed by many. From an economic perspective, it is argued that a fertility rate between 1.48 and 1.78 is ideal in high-income countries, as labour immigration offsets the population decline (11, 12). However, this ignores the fact that the population of Homo sapiens is correspondingly reduced in the countries the immigrants emigrate from. It also overlooks the possibility that the low fertility rate might continue, leading to fewer fertile women in each generation. With a fertility rate of 1.4 in Norway, and assuming a 50–50 gender distribution, only 0.7 girls would be born per woman. If each of these girls also has 1.4 children, the next generation would have just 0.49 fertile women, and so it continues. The combination of a low fertility rate and fewer fertile women would, after a few generations, reduce Norway's population to less than one-third of its current size.

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Against the backdrop of the climate crisis, a reduction in the world population might be desirable and could even offer economic and environmental benefits. If the population were to be halved over a few generations, emissions would return to the level 100 years ago. The climate crisis would be resolved, and climate measures could be redirected to other areas. After that, the fertility rate could be increased to 2.1 to stabilise the population at a desired level.

However, developments have shown that this may be difficult. China's fertility rate is currently 1.2 due to its strict one-child policy and it is now experiencing a serious population decline. Two children have therefore been permitted since 2015, and Chinese women are now being encouraged to have three. Nevertheless, 30 % say they do not want more than one child, and the population decline has become a major political issue (13). Russia and Japan, with fertility rates of 1.4 and 1.3 respectively – and minimal immigration – are in the same situation.

Homo sapiens – an endangered species

Homo sapiens and other species are facing an existential crisis. Homo sapiens should therefore be placed on the Red List as an endangered species. However, we have the ability to resolve this crisis on our own. Red-listing the species could help global leaders, institutions and individuals to better understand the seriousness of the situation and actively implement measures to reverse the trend before it is too late.

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