

Pandemics, climate change and other grand challenges

Citation for published version (APA):

Romme, A. G. L. (2022). Pandemics, climate change and other grand challenges: The pivotal role of containing population growth. *Academia Letters*, 2022, Article 5352. <https://www.academia.edu/81624290/>

Document license:

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Document status and date:

Published: 01/06/2022

Document Version:

Publisher's PDF, also known as Version of Record (includes final page, issue and volume numbers)

Please check the document version of this publication:

- A submitted manuscript is the version of the article upon submission and before peer-review. There can be important differences between the submitted version and the official published version of record. People interested in the research are advised to contact the author for the final version of the publication, or visit the DOI to the publisher's website.
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*Pandemics, climate change and other grand challenges:
The pivotal role of containing population growth*

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ABSTRACT

The ongoing explosion of the world population is a fundamental driver of the COVID-19 pandemic as well as the lack of progress in many Sustainable Development Goals of the United Nations. However, politicians and policymakers at both national and supra-national levels widely ignore this explosive population growth. This essay outlines the key challenges in developing public policies that explicitly address the need to contain global population growth—that is, to turn the exponential growth curve into a more incremental one. This is a highly sensitive topic on any political agenda, also due to its ethical and legal dimensions. But its sheer complexity and political sensitivity are not good reasons to avoid discussing it altogether.

Introduction

The ongoing explosion of the world population is a fundamental driver of the current COVID-19 pandemic as well as the lack of progress in many Sustainable Development Goals (SDGs). This explosive population growth is, however, widely ignored by politicians and policymakers. An exception is Helmut Schmidt, a former prime minister of Germany. In an interview in 2007 (ARD, 2007), Schmidt reflected on the past as well as the current century, observing that the 20th century was the bloodiest one in human history. He believed this would not repeat itself in the 21st century; in other words, he expected there will not be a third World War:

”But yes, for the first time in world history, since about 60-70 years, we’re growing and growing the number of people living simultaneously on this planet. When my father went to school in the year 1900, 1.5 billion people were living in this world. Today, 107 years later, we’re at 6.5 billion people and halfway through this century we’ll have 9 billion people. Halfway this century, China will alone have 1,6 billion people and India alone will have 1,6 inhabitants. This overpopulation of the earth has a series of effects that can only cause great concerns. One effect is that social and political unrests and riots are simply inevitable. People are no longer living *next* to each other. Regardless of whether they live in Shanghai, Cairo or Sao Paolo, people are living in buildings of 15 or 20 floors *on top* of each other. Another effect is that all of these 9 billion people not only want to cook food, but they also want to heat their houses when it’s winter, turn on the lights, drive a car, and millions of people want to fly to a vacation location. This means they’ll consume hydrocarbons and will emit carbon dioxide and other greenhouse gases in the atmosphere. Another consequence is that this mass of people, via television and the internet, got and will get hysterical; these are mass reactions. (...) The overpopulation, or one better calls it the *explosion* of the population, and the consequences thereof will determine the course of this century” (translated from German, based on ARD, 2007).

As such, Helmut Schmidt is one of few politicians that had the courage to explicitly identify the overcrowding of the earth as the main challenge to be addressed in the 21st century, which implies pandemics, climate change, poverty, migration, overconsumption and many other phenomena are merely symptoms of this root cause. It is also clear that at the time he was interviewed, Schmidt was a retired politician whose active career was completed several decades before. This suggests it takes a long time for (former) politicians and public policy makers to mature and be able to embrace a systemic perspective.

Explosion of World Population & Its Dramatic Consequences

Today, we are indeed witnessing a continued explosion of the world population (van Bavel, 2013). The population of 6.5 billion in 2007 (mentioned by Schmidt) exceeded 7.9 billion by November 2021 (United Nations, 2022). The term ‘explosion’ is thus an appropriate label: it took over 2 million years for the population on planet earth to reach 1 billion (around the year 1800) and subsequently only 200 years to grow to almost 8 billion. [Figure 1](#) provides an overview of the growth of the world population, in billions, over the past 12,000 years

(source: Wikimedia Commons). The UN expects the world population to keep growing, with an estimated population of 8.6 billion by 2030, 9.8 billion by 2050 and 11.2 billion by 2100 (United Nations, 2022).

As such, the explosion of the world population appears to be the single most important driver of what will happen in the remainder of the 21st century and beyond. Strategies to control population growth are implicit in several programs of the United Nations (2019), especially those in sexual and reproductive healthcare services as well as family planning and education. Notably, these programs have been somewhat successful in mitigating population growth, especially in African countries (Rosling, 2018).

However, many national governments continue to promote population growth by means of fiscal incentives, child benefit programs, and similar policies (Bradshaw et al., 1993; Bradshaw & Hirose, 2016; De Henau, 2022), also because the funding rationale of social security and retirement schemes in many countries assumes population growth. As observed earlier, the world population therefore continues to grow strongly (United Nations, 2022).

As such, the expected continuation of the exponential growth of the world population will drastically undermine and reduce the efficacy of measures addressing (future) pandemics, climate change, poverty, and most other sustainable development goals. Regarding the current COVID-19 and any future *pandemic*, virus pandemics will occur more frequently when growing numbers of humans and other species are sharing the same limited space on this planet (e.g., Van der Giessen et al., 2010; Romme, 2020).

Similarly, regarding *climate change* and *ecological footprint*, our planet cannot sustain the current levels of population growth and resource consumption (Cohen, 1996; IPCC, 2022). The simple truth here is that, for instance, a 50% reduction of the ecological footprint of the entire world population is more likely to be accomplished in 2050 if this population is 9.0 billion instead of the projected 9.8 billion people in that year. The United Nations (2021, p. 3) recently reported:

”The climate crisis, the biodiversity crisis and the pollution crisis persist, despite the pandemic. Concentrations of major greenhouse gases continue to increase despite the temporary reduction in emissions in 2020 related to lockdowns and other COVID-19 response measures. The world remains woefully off track in meeting the Paris Agreement. Biodiversity is declining, and terrestrial ecosystems are being degraded at alarming rates. Around the world, 1 million plastic drinking bottles are purchased every minute, and 5 trillion single-use plastic bags are thrown away each year.”

Moreover, any progress in the area of poverty, hunger, and various other sustainable de-

velopment goals is also halted or even reversed. Here, the UN (2021, p. 3) recently reported:

”Years, or even decades, of progress have been halted or reversed. In 2020, the global extreme poverty rate rose for the first time in over 20 years. Hundreds of millions of people were pushed back into extreme poverty and chronic hunger. The COVID-19 pandemic has interrupted one or more essential health services and poses major health threats beyond the disease itself. It has wreaked havoc worldwide on children’s learning and well-being, and women have suffered a disproportionate share of job losses and increased care work at home. The pandemic has exposed and intensified inequalities within and among countries. The poorest and most vulnerable people have a greater risk of becoming infected by the virus, and bear the brunt of the economic fallout. The crisis has threatened the livelihoods of 1.6 billion workers in the informal economy.”

Interestingly, the latter quote attributes the lack of progress in reducing poverty and hunger to the COVID-19 pandemic—although the latter appears to be another symptom of the same structural problem: the continued explosive growth of the world population.

Concluding Remarks

Therefore, the key challenge for national as well as supranational governments is to develop and implement public policies (e.g., regarding poverty, climate change, education, child benefits, pension systems) that explicitly address the need to contain population growth—that is, to turn the exponential growth curve into a dynamic trend that is much more incremental. This obviously is a highly sensitive topic on any political agenda, due to its ethical and legal dimensions. Its huge sensitivity also arises from the simple fact that global population growth is unevenly distributed across nations and continents. For example, Van Bavel (2013) compares the population growth of Belgium and the Philippines: in the year 1900, the populations of these two countries was similar in size, around 7 million people; but by 2000, the Belgian population had grown to 10 million, while the Philippines at the turn of the century already counted 76 million citizens. Since then, the Belgian population exceeded 11 million citizens and will likely rise to 12 million by the year 2050. The Philippines’ population “on the other hand will continue to grow to a staggering 127 million citizens by 2050, according to the demographic projections of the United Nations” (Van Bavel, 2013, p. 281).

Moreover, any policies to contain global population growth cannot be decoupled from choices made regarding the design of fiscal, social security, and other public systems. Over-

all, the sheer complexity and political sensitivity of policy measures for containing global population growth are not a good reason to avoid discussing it altogether.

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