

Welcome to this week's presentation and conversation hosted by the
Canadian Association for the Club of Rome,
a Club dedicated to intelligent debate and action on global issues.

Is Natural Population Decline a Concern?

Our speaker today is Dr Madeline Weld, president of the Population Institute Canada, which informs the Canadian public & policymakers about population matters. PIC advocates for the stabilization of Canada's population & support for international family planning. PIC's patrons include Sir D Attenborough, Dr J Goodall, Drs P & A Ehrlich, Dr D Suzuki, R Bateman, & Dr W Rees. Madeline has written much on population, including [*The 'Silent Lie' in the Coverage of Madagascar's Famine*](#), [*The Myth of Canada's Underpopulation: Lay It to Rest*](#), & [*Deconstructing the Dangerous Dogma of Denial*](#). She has a BSc (U Guelph, zoology), MS (LSU, physiology), & PhD (LSU, physiology), worked at U Ottawa (1984-01) & Health Canada (2001-15), was a director of Planned Parenthood Ottawa (1995-99) & of the Humanist Association of Canada (1999-03), was co-editor of *Humanist Perspectives* (2012-22), & was a founding director of Canadian Citizens for Charter Rights and Freedoms (2017-).

DESCRIPTION: Natural population decline is examined considering collisions with the neoliberal economic systems of perpetual growth. Further, the impacts of an aging population are considered.

The presentation will be followed by a conversation, questions, and observations from the participants.

CACOR acknowledges that we all benefit from sharing the traditional territories of local Indigenous peoples (First Nations, Métis, and Inuit in Canada) and their descendants.



Website: canadiancor.com

Twitter: [@cacor1968](https://twitter.com/cacor1968)

YouTube: [Canadian Association for the Club of Rome](https://www.youtube.com/channel/UC...)

2023 Jul 126 Zoom #157

IS NATURAL POPULATION DECLINE A CONCERN?

Madeline Weld

Population Institute Canada

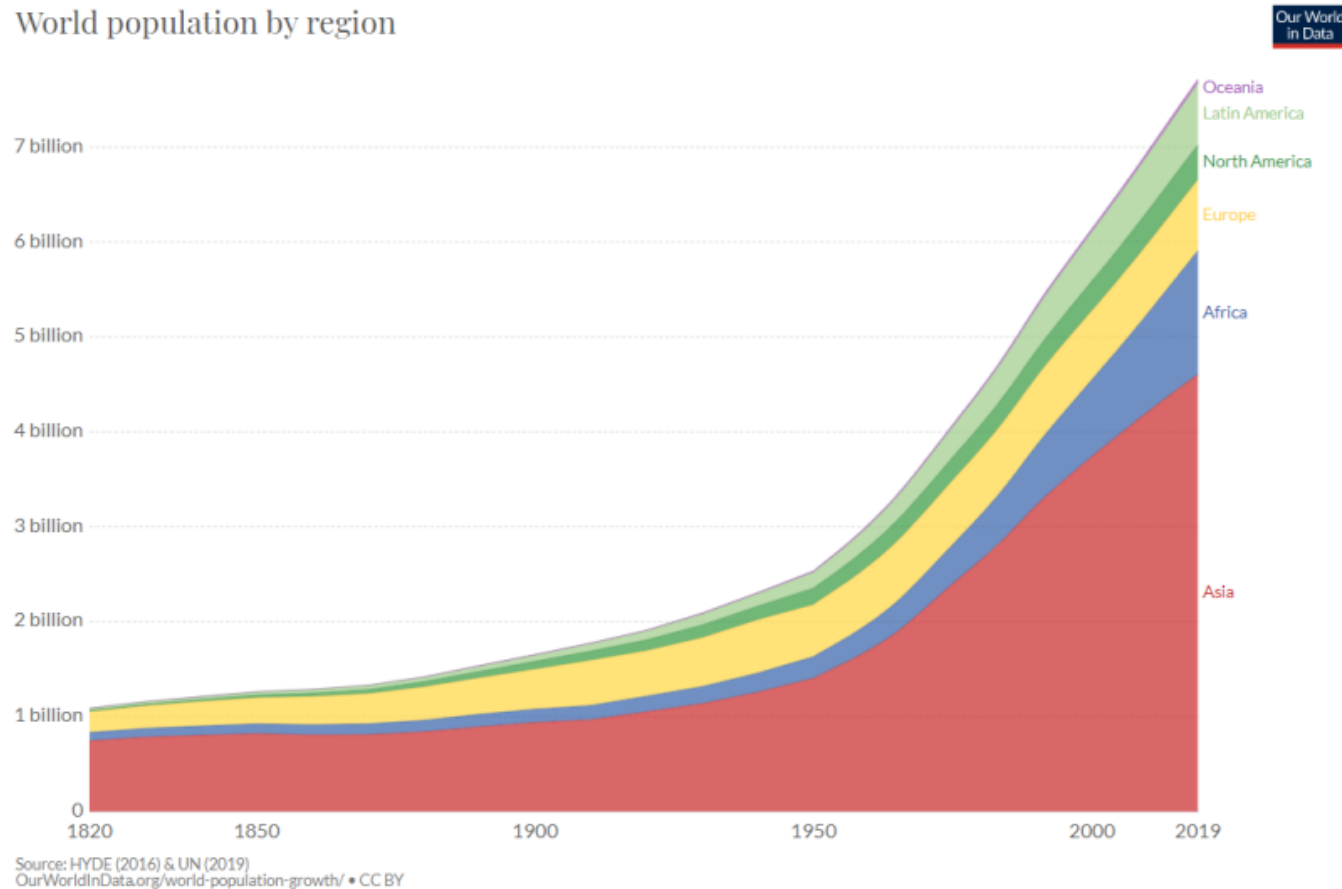
Presentation to the
Canadian Association for
the Club of Rome

July 26, 2023



Population Decline is an Inevitability

We went from 1 billion (1804) to 8 billion (2022) in ~218 years.



<https://bioage.typepad.com/.a/6a00d8341c4fbe53ef0240a4bc0292200c-popup>

Is 8 Billion a Sustainable Population?

Reasons to conclude that 8 billion is not sustainable:

- Loss of farmland, loss of topsoil, erosion
- Hundreds of millions without food security
- Deforestation
- Habitat destruction and loss of biodiversity
- Overfishing and collapse of some fisheries
- Water scarcity
- Pollution of land, water, air
- Depletion of non-renewable resources, including fossil fuels
- Much more, this list is incomplete



[Nataliya Vaitkevich, Pexels](#)

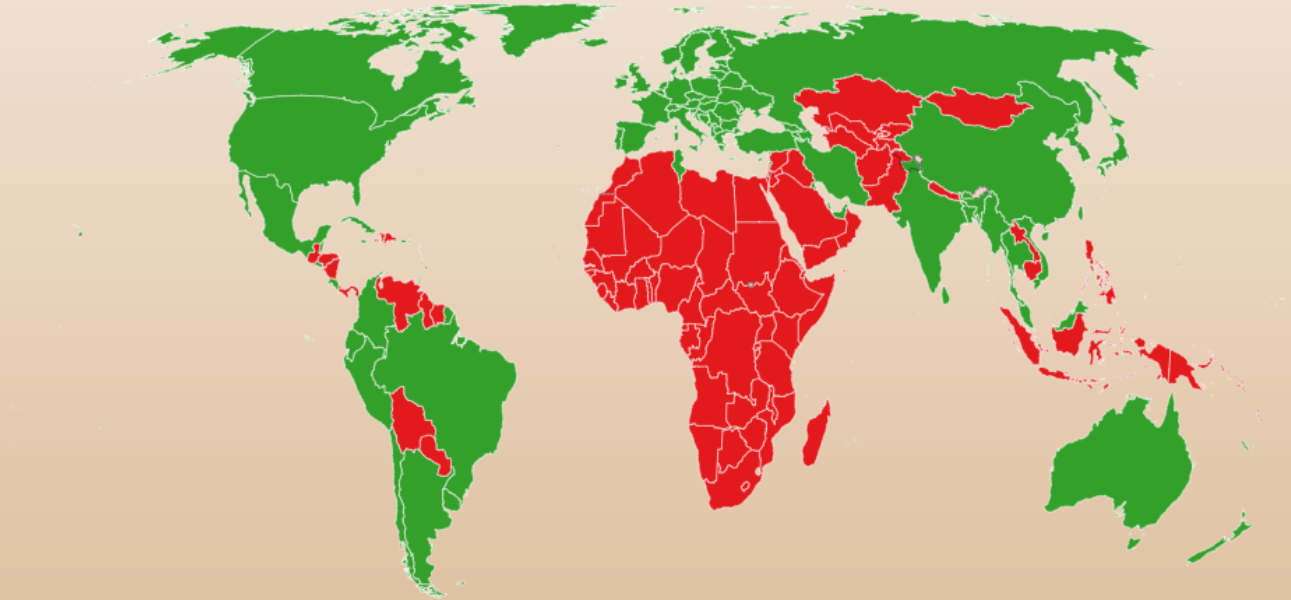
If the current population is not sustainable, then it must decline. The only question is how.

Will it be a “semi-controlled” contraction from our current level of overshoot, or will it be an even bigger plummet from a higher level of overshoot?

Things will go a lot better for us if we accept that population decline is necessary and inevitable. Regardless of what Elon Musk says, it is ecological collapse, not population collapse, that threatens civilization:

“[Population collapse](#) is a major risk to the future of civilization.”

The Total Fertility Rate is in Fact Approaching, At, or Below the Replacement Level in Much of the World



Total fertility rates:

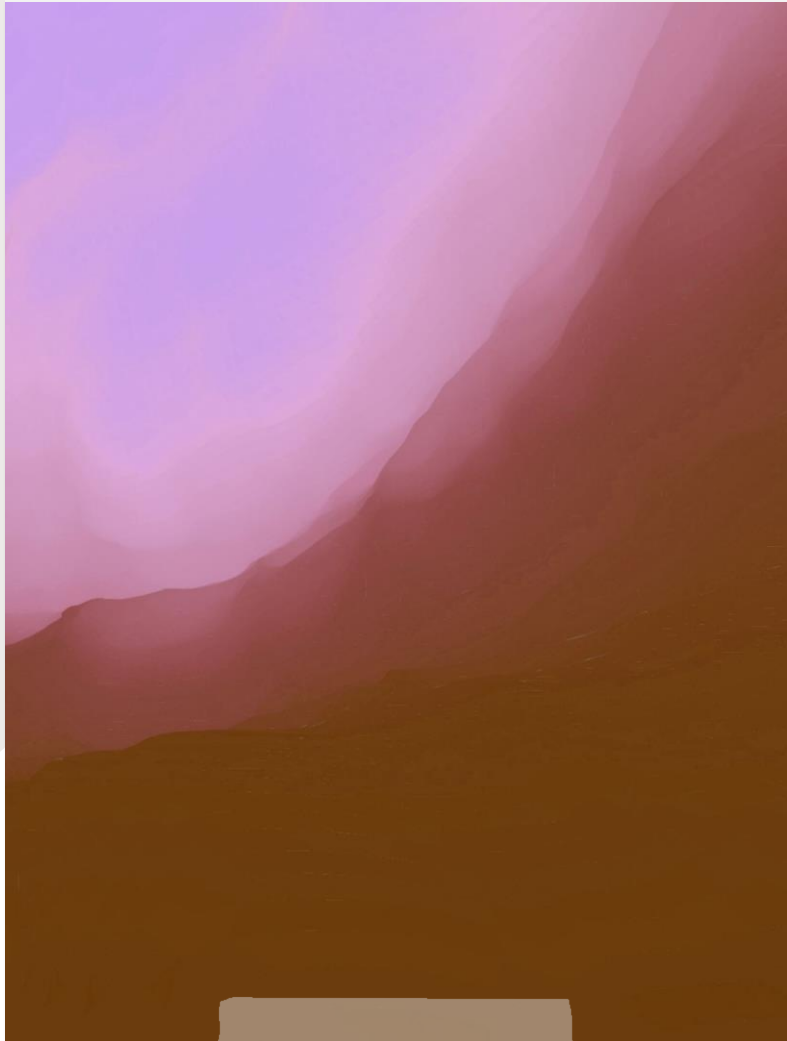
Green = below replacement

Red = above replacement

Many countries with TFRs below replacement are still growing because of the demographic momentum of the large number of young people.

Total Fertility Rate By the Numbers

- About 2.2 billion people live in countries with above-replacement fertility rates
- About 2.8 billion live in countries that have below replacement fertility rates but are still growing because of demographic momentum (India, Bangladesh, Brazil, Mexico, Iran, Vietnam, Turkey, Malaysia)
- About 800 million people live in countries that rely on immigration to keep growing (Germany Spain, France, UK, Canada, US)
- About 2.2 billion people live in countries that are already depopulating (Russia and eastern European countries, Japan, Italy, South Korea, Taiwan, Greece, Portugal, China)



Why is there even a concern about population decline?

It's because our entire economic paradigm is based on growth.

The people who fear decline have things backwards.

They think that population decline is an economic crisis that must be reversed, and we have to manage the environmental problems that arise from growth.

In fact, population decline is an environmental blessing, and we have to manage the economic problems that arise from degrowth.

Elon Musk thinks we won't have enough people to send to Mars.

What Are the Specific Concerns That Have Been Expressed About Population Decline?

The main concerns that have been raised are:

- There will be labour shortages
- The dependency ratio will become lopsided with an aging population: too many old people, not enough working-age people
- Current low or falling fertility rates will send populations in some countries into a spiral of permanent decline
- Countries will fall into a “low fertility trap” and be unable to escape
- Economic shrinkage will have unpleasant side-effects



Labour Shortages



Canada has alleged labour shortages despite over 30 years of mass immigration. The same can be said of other countries, including the US, the UK, and Australia. Labour shortages seem to be a permanent feature of economies based on perpetual growth. Automation and artificial intelligence take care of a lot of jobs that unskilled labour – and increasingly skilled labour – used to fill.

It's cheaper for some businesses to import unskilled labour than to pay resident citizens better wages with benefits. It's sometimes also cheaper to import labour than to train residents for skilled work. Why is cheap labour for businesses more important than good jobs for citizens?

Many labour shortages (and housing shortages) are artificially generated by mass immigration. We wouldn't be desperately short of medical workers, construction workers, and housing with a more sensible immigration policy.

The assertion that there are labour shortages is based entirely on the perspective of businesses. What if we took the perspective of working people?

An Example of “Labour Panic” from Forbes



“...a lack of young labor tends to drive up wages, sparking the movement of jobs to other places.” [But don’t we want people to have decent wages? This sounds economy-centred, not human-centred.]

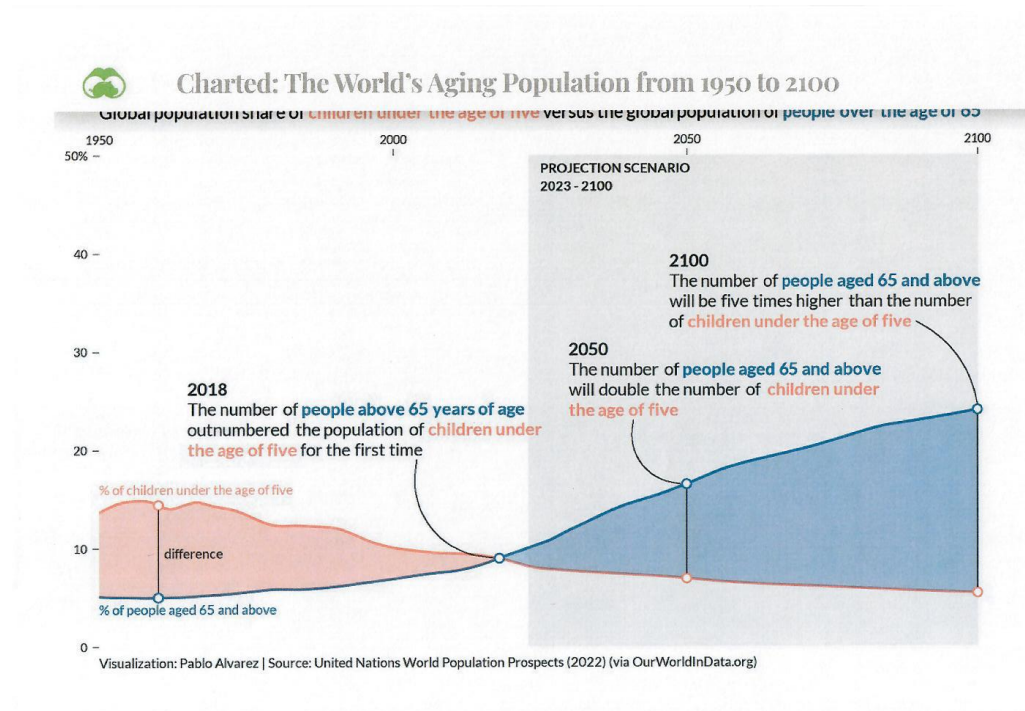
Forbes is also concerned about what happens to consumer markets and what it will do to economic growth because old people consume less than younger ones:

“Finally, there is the issue of consumer markets. Aging populations tend to buy less than younger ones, particularly families. One reason countries like Japan and Germany can’t reignite economic growth is their slowing consumption of goods. This challenge will become all the more greater as China, the emerging economic superpower, also slows its consumption. The future of demand, critical to developing countries, could be deeply constrained”

[Can’t shake the obsession with economic growth. Of course consumer markets will shrink with a shrinking population.]

Aging Population and Dependency Ratios

World's Aging Population 1950 to 2100:



UNDER 5 vs OVER 65

Relative percentages of people under the age of 5 (red) versus over the age of 65 (blue).

In 2018, over-65s outnumbered under-5s for the first time.

By 2050, the number of over-65s will be double the number of under-5s.

By 2100, there will be five times as many over-65s as under-5s.

<https://www.visualcapitalist.com/cp/charted-the-worlds-aging-population-1950-to-2100/>

How Catastrophic Will an Aging Population Really Be?

The dependency ratio is the number of working age people (14 to 65) versus dependent children (<14) and old people (>65).

The concern is that there won't be enough workers to support all the old people. There will be a rising tax burden to pay for pensions and healthcare.

- People don't suddenly become dependent at age 65.
- Many older people have savings and assets that they will leave to their children.
- Many old people engage in volunteer work and do useful things for free.

The dependency ratio may be a challenge, but the current model is outdated in its rigidity.

How Can Society Deal With A Population Top-heavy With Old People?

We already have some examples, most notably Japan. Japan is doing much better than countries with burgeoning populations of young people.

These are some things to consider:

- We could reduce our expenses on caring for old people by promoting healthy living, with less dependency on pills (sorry, Big Pharma).
- With fewer children, there will be savings on money spent by parents on raising children and private and government expenditures on childcare.
- Many countries, including Canada, offer an assisted death to people with a terminal or life-diminishing condition. This is something organizations (Choice in Dying; Dying with Dignity; and many others) have long been promoting. This does not mean Granny should be encouraged to get a MAiD (medical assistance in dying) just so Junior can get her inheritance sooner. (Some say Canada is too eager in promoting MAiD.)



An “Upside-down Pyramid” with More Old People Than Young Is the Inevitable Outcome of the Massive Population Expansion During the 20th and Early 21st Centuries

The world population rose from 1.6 billion in 1900 to 8 billion in 2022. Life expectancy has increased at both ends of life: more infants are surviving, and people are living longer.

But a population of 8 billion is not sustainable. It can decline by decreasing the birth rate, increasing the death rate, or a combination of the two.

Most would agree that decreasing the birth rate is preferable to increasing the death rate.

So, we just have to wait for the old people to die off because trying to keep the number of young people higher than the number of old people would be a [Ponzi scheme](#) of perpetual growth and ecologically impossible.





**However, Some Countries,
Steeped in the Growth Mindset,
Have Tried to Reverse
Population Decline with
Incentives. They Have Been
Spectacularly Unsuccessful**

Japan, Russia, and South Korea, among many others, have all tried to increase birth rates with incentives. All attempts failed or had only short-lived success.

South Korea has spent over \$200 billion in the last 16 years to increase fertility and has the lowest total fertility rate in the world, at 0.79 children per woman.

Instead of governments giving money to young couples to encourage them to have more kids while they're running in the rat race of an economy based on continuous growth, why not find ways to improve overall well-being by slowing things down?

<https://www.cnn.com/2022/12/03/asia/south-korea-worlds-lowest-fertility-rate-intl-hnk-dst/index.html>

Japan: An Example of a Country that Has Successfully Dealt with an Aging Population

Japan has had a decreasing population since 2010 and failed to get its birthrate up again. Its economy has not grown much since the 1990s, but the quality of life of its citizen is still good, and in terms of unemployment and inequality indicators, it is better than most European countries.

The UN says that by 2030, Japan will have more people over 80 than under 15. If you were a free-floating soul given the choice of being born in Japan or a country with a population growing rapidly due to high fertility, which would you choose?



Can Sub-replacement Fertility Rates Lead to a Spiral of Permanent Decline?

The concept of the “spiral of permanent decline” is that a population that has a sub-replacement fertility rate for generations will go into a spiral of decline from which it can't recover, and eventually dies out.

Rodent studies, most notably those of John Calhoun, have shown that when rodent populations in an enclosed area became too dense, the social and reproductive behaviour of the animals became dysfunctional, and even after population density had fallen, the stressed animals never recovered, and the population died out. It seems that the physiological changes induced by stress precluded recovery.

But if young people are choosing to have no children or only one child because modern life is so stressful, wouldn't it make more sense to make modern life less stressful, which would happen with a smaller population and a less frenetic pace of life (i.e., not forever-growth)?



DEATH SPIRAL DEMOGRAPHICS?

In February 2017, Forbes magazine had an article called “Death Spiral Demographics: the Countries Shrinking the Fastest.”

It was concerned that “...aging populations, with fewer young workers and families, threaten weaker economic growth, as both labour and consumption begin to decline.”

[Isn't contracting labour (i.e., population) and consumption (i.e., our collective ecological footprint) exactly what we need?]

Regarding shrinking population, Forbes says, “If this were just a European disease, it would not prove such a challenge to the economic future,” before discussing population decline in Asia.

[Disease? What about the disease of the way humanity is devouring the planet?]

Forbes: <https://www.forbes.com/sites/joelkotkin/2017/02/01/death-spiral-demographics-the-countries-shrinking-the-fastest/?sh=66199c3eb83c>

The Low Fertility Trap

The low fertility trap was postulated by Wolfgang Lutz and colleagues. They suggested that the combination of demographic, cultural and economic forces that had driven down fertility in Europe were becoming self-reinforcing and irreversible.

To which Norwegian economist Vegard Skirbekk answered with his book, “Decline and Prosper! Changing global birthrates and the advantages of fewer children.” Skirbekk argued that depopulating countries could continue to thrive by adjusting pension systems, health services and infrastructure.

Fertility rates fell during the Great Depression, then bounded back in the optimism of the post-war Baby Boom. In some future less overpopulated world where people lead lives with less stress, the fertility rate could very well recover.

Lutz’s Low fertility trap: https://www.austriaca.at/0xc1aa5576_0x00144e25.pdf

Vegard Skirbekk, Decline and Prosper: <https://www.population-europe.eu/research/books-and-reports/decline-and-prosper-changing-global-birth-rates-and-advantages-fewer>

Review of Skirbekk’s book: <https://overpopulation-project.com/decline-and-prosper-a-review-of-a-comprehensive-book-about-fertility-by-vegard-skirbekk/>

Economic Shrinkage Will Have Unpleasant Side Effects You Bet! So Will Environmental Collapse

In a 2020 article, the Financial Times cites John Maynard Keynes from a lecture he gave in 1937 titled, “Some Economic Consequences of a Declining Population.” Keynes was aware that overpopulation was going to be a problem but noted that economic and population decline could cause some upheavals.

FT: “Keynes’s main concern was weak demand for investment in a world where companies expect a falling population of customers. That, he feared, would lead to deficient demand and thus high unemployment. Demography was closely linked to Alvin Hansen’s original 1930s theory of “secular stagnation” — a situation of entrenched low growth and interest rates — which has been revived in recent years.”

FT citing Keynes: “With a stationary population we shall, I argue, be absolutely dependent for the maintenance of prosperity and civil peace on policies of increasing consumption by a more equal distribution of incomes and of forcing down the rate of interest.”

And: “I only wish to warn you that the chaining up of the one devil [population growth] may, if we are careless, only serve to loose another still fiercer and more intractable.”

<https://www.ft.com/content/c017334e-36bb-11ea-a6d3-9a26f8c3cba4>

Weren't We Being Careless with the Environment by Pursuing Economic Policies Based of Perpetual Growth?

Our current consumption level of renewable natural resources exceeds what nature can regenerate.

Our modern techno-industrial society is dependent on non-renewable natural resources (fossil fuels, minerals, metals) that are finite and can't be regenerated and that we extract from the Earth often at great financial and environmental cost.

No area on Earth is safe from human activities, not even the bottom of the oceans. There are now plans to engage in deep-sea mining.

What will happen to X billion people when their needs for survival exceed what the planet can provide?

Instead of fighting population decline, we should spend our energy to smooth the transition to a smaller population.

Why should economic growth be our primary goal anyway?

In 1972, the Rockefeller Commission on Population and the American Future said:

“After two years of concentrated effort, we have concluded that, in the long run, no substantial benefits will result from further growth of the Nation’s population, rather that the gradual stabilization of our population through voluntary means would contribute significantly to the Nation’s ability to solve its problems. **We have looked for, and have not found, any convincing economic argument for continued population growth.** The health of our country does not depend on it, nor does the vitality of business nor the welfare of the average person.”

A similar conclusion was reached by the Science Council of Canada in 1976:

“The Report draws attention to the way **a rapidly growing population would exacerbate the stresses caused by existing patterns of production and consumption.** It notes the probability of greatly increased pressures on Canada’s urban areas, transportation systems and related social and political institutions. Uncertainty about the extent of non-renewable—especially energy—resources is noted, and the potentially adverse effects of climatic fluctuation on Canada’s renewable resource base is considered.”

Rockefeller Commission: https://www.population-security.org/rockefeller/001_population_growth_and_the_american_future.htm

Science Council of Canada 1976 Report no. 25: <https://issp.uottawa.ca/sites/issp.uottawa.ca/files/report-no.-25-population-technology-and-resources.pdf>

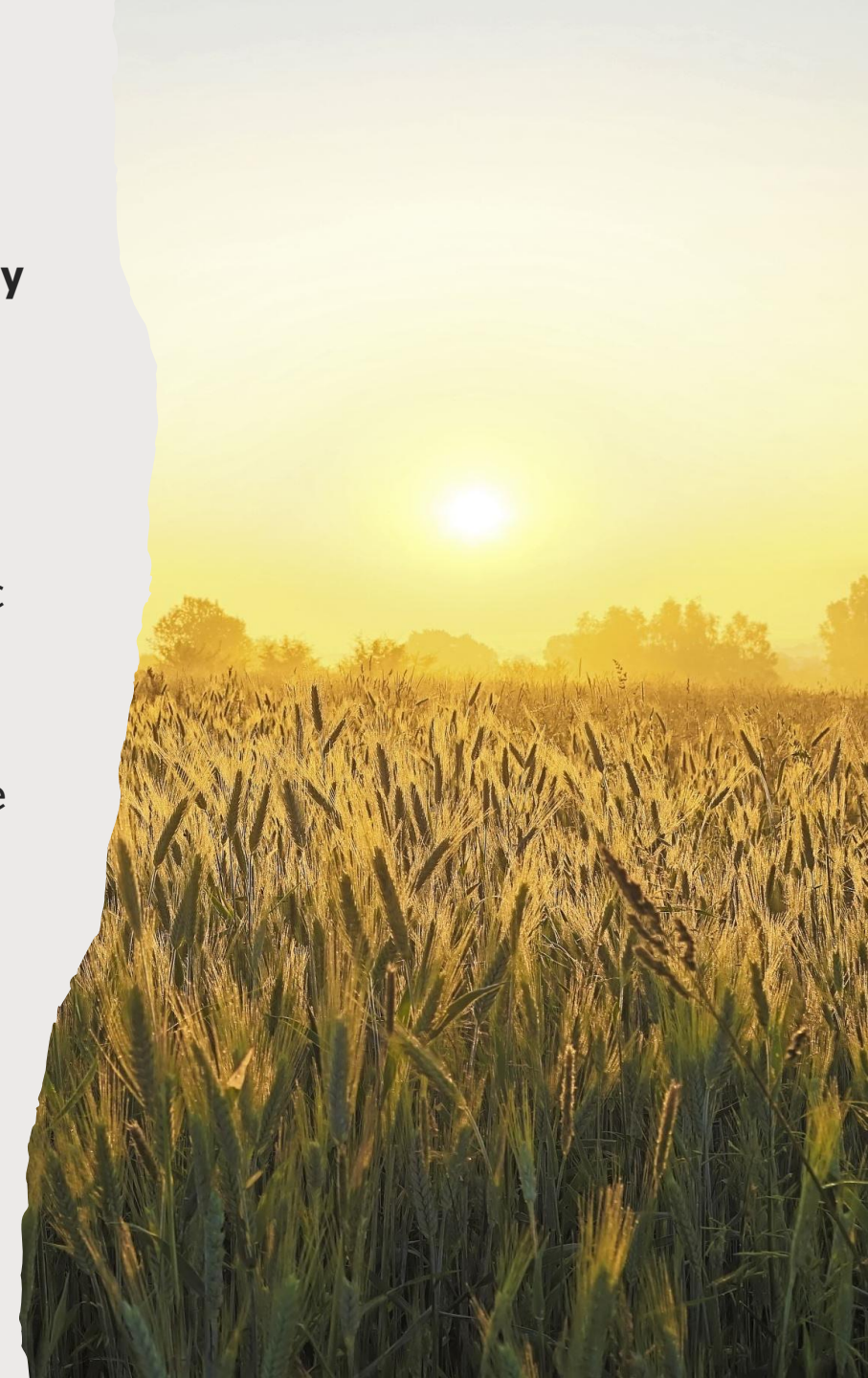
Partha Dasgupta On Economic Growth Brian Czech on the Steady State Economy

Partha Dasgupta: “Our continued search for growth is now actively reducing the overall wealth of the planet. How did economic theory come to discount the natural world as an important part of our economic wealth? Our theory of economic growth was developed when the field of ecology barely existed and nature was not included in economic modelling. But we have no excuse for continuing to do so today.”

Brian Czech advocates degrowth to a steady-state economy. He advocates not only for a decreasing GDP, but also for different values, fewer work hours, deliberately lower consumption, an attitude of enough versus one of perpetually more.

Partha Dasgupta quote: https://www.washingtonpost.com/business/how-much-more-economic-growth-can-the-planet-sustain/2022/09/29/e260bfdc-400f-11ed-8c6e-9386bd7cd826_story.html

Brian Czech and steady state economy: <https://populationmatters.org/news/2022/06/degrowth-the-steady-state-economy-and-population/>



Human Development Index and the Concept of “Uneconomic Growth”

Human Development Index: A value determined by aggregating a country’s score in a large assortment of indicators such as life expectancy, literacy rate, rural population’s access to electricity, GDP per capita, exports and imports, homicide rate, multidimensional poverty index, income inequality, internet availability and more. *The highest scoring countries have low population growth rates. The lowest scoring countries have high population growth rates.*

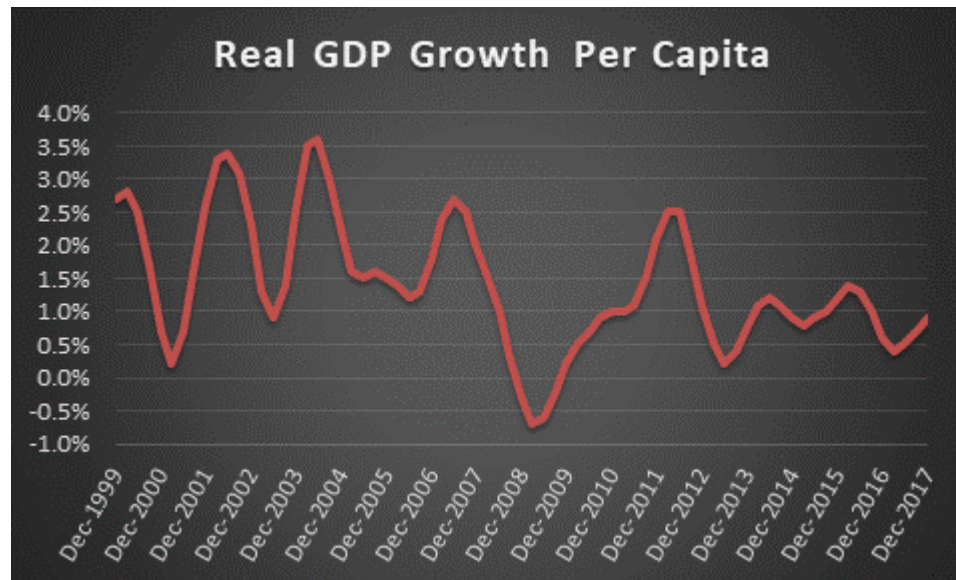
Herman Daly said economic growth could become uneconomic growth, that is “growth in production for which the marginal costs are greater than the marginal benefits, growth that in reality makes us poorer, not richer.”

Daly distinguished between growth and development. Development means something is getting better, which may or may not involve growth. In a developing child, growth is good. But growth is not always good. The GDPs in modern societies have been growing since the 1950s. But many indicators of well-being have been declining, including declining indices of personal happiness, growing income inequality, more addiction, higher incidence of family breakdown, less affordable housing and more homelessness, deteriorating infrastructure, less social cohesion, less trust of institutions and government, and more.

Human Development Index: <https://worldpopulationreview.com/country-rankings/hdi-by-country>
Herman Daly, Wealth, Illth and Net Welfare, 13 Nov 2011: <https://steadystate.org/wealth-illth-and-net-welfare/>

POPULATION AND PER CAPITA GDP

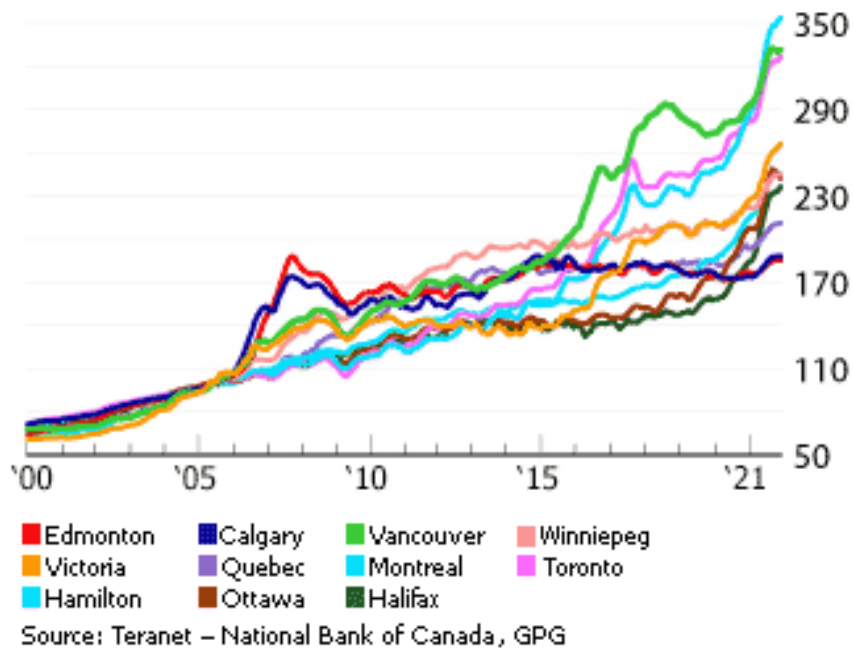
- Australia: Real per capita GDP growth averaged less than 1% between 1999 and 2017, during which time the population grew from 18.8 million to 24.6 million.



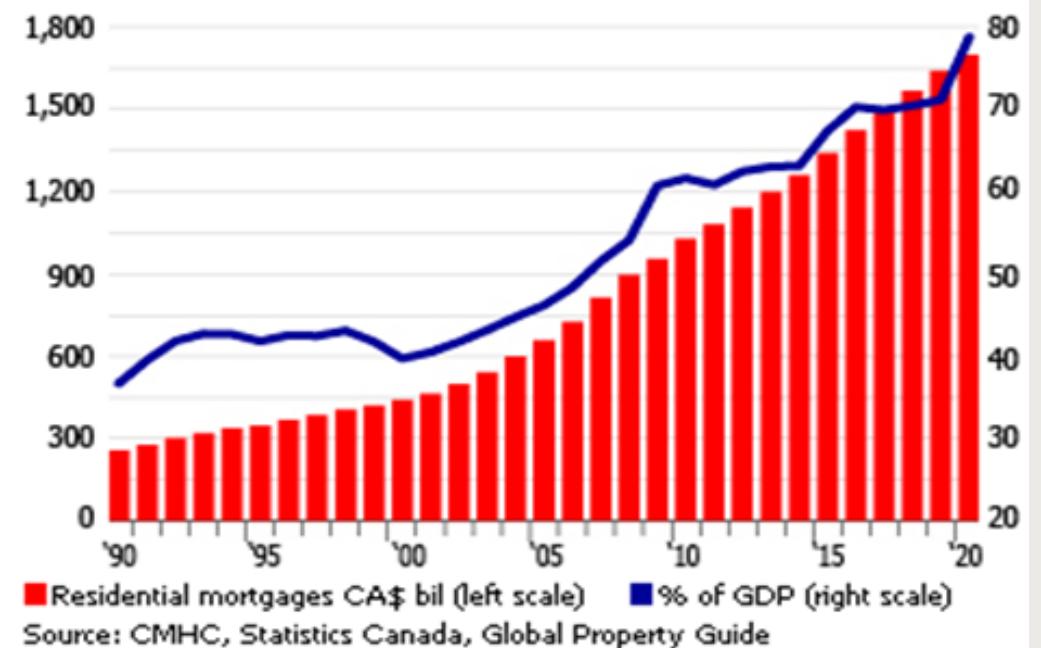
<https://www.narrowroadcapital.com/memos/the-economics-of-population-growth/>

CANADA'S GROWTH HAS AFFECTED WORKERS AND BANKERS DIFFERENTLY: WORKERS PAY MORE AND BANKERS GET MORE

House Price Index



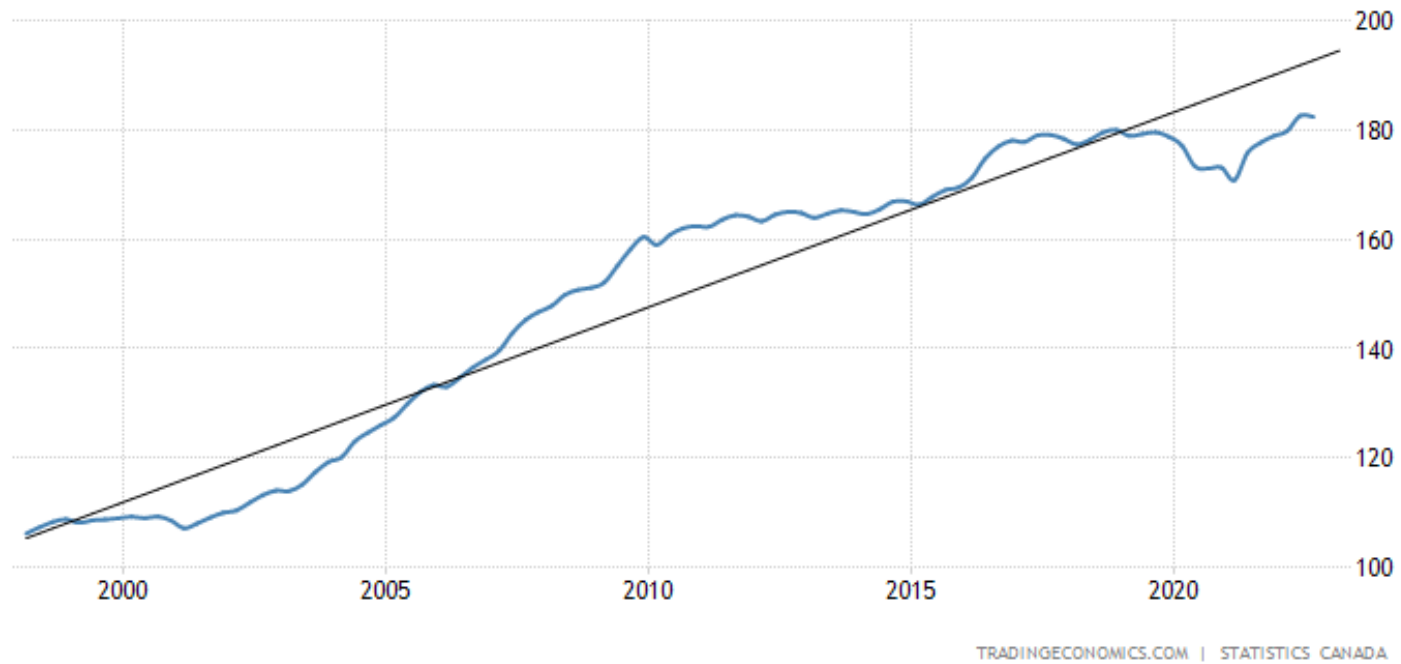
Total Outstanding Residential Mortgages



<https://www.globalpropertyguide.com/North-America/Canada/Price-History>

<https://sustainablesociety.com/current-issues/314-immigration-and-population-in-the-corporate-media#.ZDIZVnbMKUk>

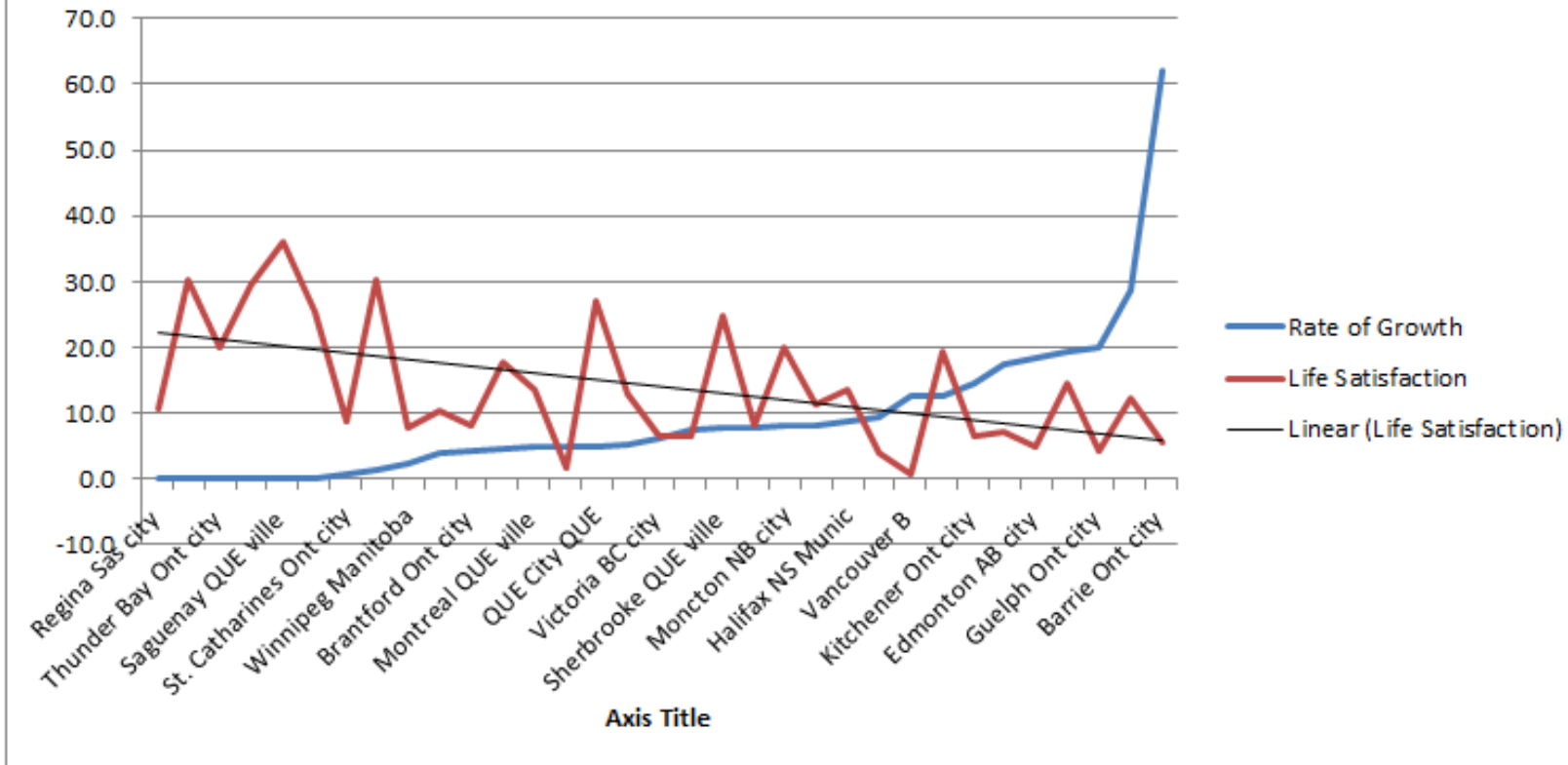
Debt levels in Canada



[Households Debt in Canada](#) between 1998 and 2022. source: [Statistics Canada](#)

(Click on 25Y in bar over chart at embedded link to see the graph shown above)

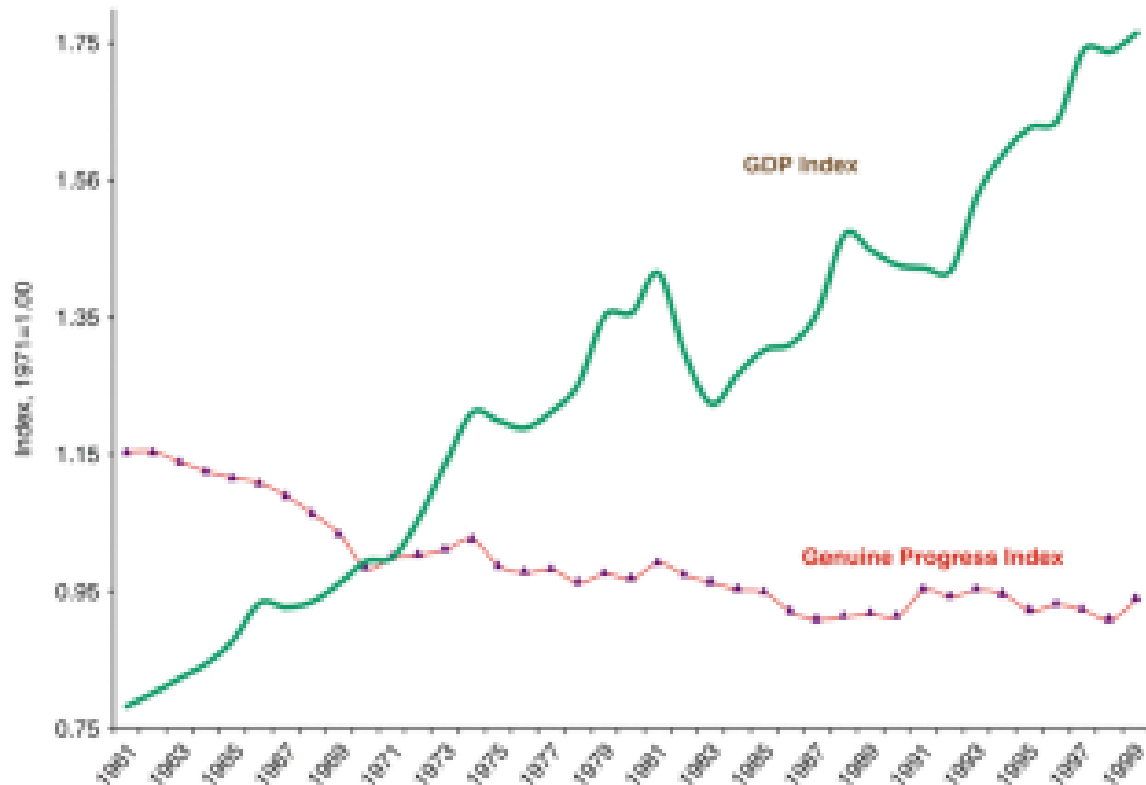
Life Satisfaction vs Rate of Growth of Canadian Cities



Graph from John Meyer, Canadians for a Sustainable Society

Life satisfaction data from: <https://www150.statcan.gc.ca/n1/pub/11-626-x/11-626-x2015046-eng.htm>

Alberta's Genuine Progress Indicator (GPI) System of Sustainable Well-being Accounts



Between 1961 and 1999, Alberta's GDP rose 2.4% annually. Its GPI fell between 1961 and 1987, and then remained stagnant.

[Reference:](#) Anielski, M., Griffiths, M., Pollock, D., Taylor, A., Wilson, J., & Wilson, S. (2001). Alberta sustainability trends 2000: The genuine progress indicators report 1961 to 1999. Edmonton, Canada: The Pembina Institute for Appropriate Development.

Biological diversity evokes happiness

More bird species in their vicinity increase life satisfaction of Europeans as much as higher income

Date: December 4, 2020

Source: German Centre for Integrative Biodiversity Research (iDiv) Halle-Jena-Leipzig

Summary: A high biodiversity in our vicinity is as important for life satisfaction as our income, scientists found. All across Europe, the individual enjoyment of life correlates with the number of surrounding bird species. An additional 10% of bird species therefore increases the Europeans' life satisfaction as much as a comparable increase in income. Nature conservation thus constitutes an investment in human well-being

<https://www.sciencedaily.com/releases/2020/12/201204110246.htm>



What metrics are used to show that a growing population increases quality of life?

- GDP has grown, but not per capita wealth
- Happiness levels do not increase in a big city
- Housing has become less affordable
- Access to nature had been reduced
- Debt levels are much higher (5x higher than 50 years ago)
- Equality levels are much lower (from 2nd highest place to mid-30s now)
- Job quality has declined

Summary and Conclusions

Rapid population growth in the 20th and early 21st centuries have brought us to a population of 8 billion

This population is not sustainable.

The only ways to reduce the human population to a sustainable level is to decrease births or increase deaths, or a combination of the two.

Reducing births is more desirable, therefore we will inevitably go through a period where the number of old people is very large.

This is not a crisis to be avoided but a transition that must be made. It is only a crisis if your Holy Grail is continuous economic growth.

Continuous population growth through fertility or immigration is Ponzi demography. It privatizes the profits and socializes the economic, social and environmental costs of growth.

Overpopulation leads to resource scarcity, resource degradation, ecological decline, conflict over resources, and the stresses of dense living.

If our leaders focused on human well-being instead of economic growth, population decline would not be so scary for them.





Thank You!