

No sustainable paradigm is attainable without gradual population reduction

People must become aware that having fewer or no children is a crucial element to achieving sustainability

Álvaro J. de Regil

The purpose of a truly democratic ethos is to imagine a successful transition to a new, truly sustainable paradigm for humans and non-humans to end a system consuming unsustainable amounts of energy and the planet's resources and producing unsustainable quantities of CO₂. This system also generates gross worldwide inequality, producing tremendous social injustice by exploiting and destroying thousands of communities and their habitats. This is why, in geological terms, according to the latest stratigraphic evidence, we endured the unsustainable Anthropocene Epoch, driven by our capitalocentric system of unrelenting consumption.¹



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Consequently, a successful transition means we must reverse, if it is still possible, or limit the damage we have already inflicted on the planet and end global inequality. Scientists consistently report that to accomplish this, we must not transgress the nine planetary boundaries, which requires radically veering away from our current trajectory. In the last three years, the IPCC Report on Mitigation of Climate Change confirmed that the strongest drivers of CO₂ emissions

Continuing on a path of growth puts us on a doomed trajectory.

¹ John Bellamy Foster and Brett Clark: [The Capitalinian: The First Geological Age of the Anthropocene](#) — The Jus Semper Global Alliance, October 2021.

from fossil-fuel combustion in the past decade are GDP per capita and economic and population growth.² Hence, continuing on a path of growth puts us on a doomed trajectory. So far, *“Total net anthropogenic GHG emissions have continued to rise during the period 2010–2019, as have cumulative net CO2 emissions since 1850”*.³ Moreover, we must remember that climate change is only one of the nine Earth System Boundaries (ESBs) all living organisms need to reproduce and enjoy sustainable lives. In 2009, climate change, biodiversity loss and the nitrogen cycle boundaries

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already crossed the safe operating space.⁴ In the 2023 update, *“Seven of the eight globally quantified ESBs have been crossed and at least two local ESBs in much of the world have been crossed, putting human livelihoods for current and future generations at risk”*.⁵ As these studies attest, planetary sustainability has not only been compromised by human activity in what is increasingly called the

Capitalocene in geological terms, but it is rapidly getting worse as we cross more ESBs and continue equating progress with growth.⁶

It follows that no sustainable alternative would allow remaining with the current system of unrelenting growth in consumption. Thus, we must drastically reduce our consumption of energy and all other resources simply because we cannot have a system requiring an infinite consumption of resources on a planet with finite resources. Technological Prometheism will not overcome the planetary limits to consumption. We cannot change the laws of nature, specifically the Second Law of Thermodynamics or Entropy Law, which is the taproot of economic scarcity. In essence, we cannot order the planet how to behave the way we want. As Georgescu-Roegen explained, *“were it not for this law, There would be no economic difference between material goods and Ricardian land. In such an imaginary, purely mechanical world, there would be no true scarcity of energy and materials. A population as large as the space of our globe would allow could live indeed forever.”*⁷

Consequently, the only way to achieve planetary sustainability is not to consume the planet’s resources faster than it needs to replenish them, and we must do it with equity. How can we accomplish this? We do it by transitioning to a safe, just and sustainable paradigm centred on caring for our planet, which I have called Geocratia (*“Government by the Earth”*).⁸ Accomplishing this requires rethinking our societal structures to transform cultural values and habits to radically replace capitalism and its consumerism. Thus, affluent sectors must drastically reduce global consumption levels and ecological footprints, for only the wealthy, North and South, are responsible for our planetary crisis. As of 2015, the rich countries of the Global North were collectively responsible for 92% of excess emissions.⁹ Thus, globally, we will be decreasing our consumption with equity if we lift billions of people from poverty while the wealthy drastically reduce their consumption. If we drastically cut production/consumption, we will drastically cut energy use

² Lecocq, F. et al., 2022: Mitigation and development pathways in the near- to mid-term. In IPCC, 2022: Climate Change 2022: Mitigation of Climate Change. Contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [P.R. Shukla, J. Skea, R. Slade, A. Al Khourdajie, R. van Diemen, D. McCollum, M. Pathak, S. Some, P. Vyas, R. Fradera, M. Belkacemi, A. Hasija, G. Lisboa, S. Luz, J. Malley, (eds.)]. Cambridge University Press, Cambridge, UK and New York, NY, USA. doi: 10.1017/9781009157926.006

³ IPCC, 2022: Summary for Policymakers [P.R. Shukla et al. In: Climate Change 2022: Mitigation of Climate Change. Contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [P.R. Shukla et al., Cambridge University Press, Cambridge, UK and New York, NY, USA, page 6. doi: 10.1017/9781009157926.001.

⁴ Johan Rockström et al: A safe operating space for humanity. Nature 461, 472–475 (2009). <https://doi.org/10.1038/461472a>

⁵ Johan Rockström et al: [Safe and Just Earth System boundaries](#). – The Jus Semper Global Alliance, April 2024.

⁶ Carles Soriano: [“Anthropocene, Capitalocene, and Other ‘-Cenes,”](#) – The Jus Semper Global Alliance, March 2023.

⁷ Nicholas Georgescu-Roegen: “Energy and Economic Myths.” Southern Economic Journal 41, no. 3 (1975): 347-81. Accessed April 27, 2020. doi:10.2307/1056148. P 353.

⁸ Álvaro J. de Regil: [Transitioning to “Geocratia – “the People and Planet and Not the Market Paradigm](#) – First Steps — The Jus Semper Global Alliance, May 2020.

⁹ Jason Hickel: [Degrowth Is About Global Justice](#) – The Jus Semper Global Alliance, August 2022.

and our footprint. This is a new quality of well-being design, where we must transition from the current trajectory of consuming the equivalent of 2,4 planets by 2050 to sustainably consuming one planet annually.¹⁰

Essentially, to drastically cut our ecological footprint, we must steer towards a degrowth trajectory in production/consumption¹¹ until reaching a stationary or steady-state economy of no growth that is sustainable, just and safe for people and planet.¹² Hence, the approach to follow is ecocentric and ecosocialist: degrowth with equity. No other perspective can deliver a safe and just transition to new societal structures, for it is the only one advocating a degrowth trajectory indispensable to cutting production/consumption with equity replacing capitalism, given its inherent unsustainability. A fascinating study shows how democratic ecosocialism is the only approach arguing that sustainability cannot occur without decoupling the economy from growth.¹³

This is where the population variable comes into place, for the size of the world's population is also a key element to assess in the transition that we must embark on if we want a sustainable future. The IPCC's mitigation report repeatedly

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establishes in several chapters that the two drivers of carbon dioxide are economic and population growth.¹⁴ Indeed, scientists' warnings point to population, economic growth, and affluence as drivers of planetary unsustainability.¹⁵ It follows that population size is inextricably linked to the ideal of achieving a sustainable and dignified ethos for all living beings. Consequently, the very complex and ethical issue of population must be addressed by asking people to consider that for a successful trajectory of degrowth in energy consumption, decreasing the world's human population is paramount. Unquestionably, in a genuinely democratic ethos, such as Geocratia, people will always have the right to decide if they want to contribute to our effort of saving our home by having fewer or no children, but they must become aware that reducing population size is a crucial element in our effort.¹⁶

One study shows that reducing extreme poverty, which requires increasing ecological footprints, has a negligible impact on global greenhouse emissions.¹⁷ While this may be true, transitioning from the current unsustainable capitalistic paradigm does not pursue just ending extreme poverty but ending capitalism's structures of exploitation and depredation to achieve social and planetary justice, which means transitioning to lift billions of people from all poverty levels to a new ecosocial system where everyone lives frugal but comfortable and enjoyable qualities of life, as in Geocratia. This implies that the ecologic footprint of these segment will necessarily increase exponentially.

Let's look at how this would work out. In Geocratia, people will enjoy a universal basic income plus remunerations for their community work and far more personal time for leisure, aesthetics, and communal and cultural activities. People will have free education, healthcare and social services. This lifts billions of dispossessed out of poverty permanently. But, as a result, their consumption levels and ecological footprint will increase substantially, sometimes manifold, from

¹⁰ Global Footprint Network, A Time for Change, Annual Report 2008.

¹¹ Jason Hickel: Less is More - How Degrowth Will Save the World (Penguin Books, 2020).

¹² Herman Daly: A Steady-State Economy: Sustainable Development Commission, UK (24 April, 2008).

¹³ Thomas Wiedmann, Manfred Lenzen, Lorenz T. Keyßer and Julia K. Steinberger: [Scientists' Warning on Affluence](#) — The Jus Semper Global Alliance, December, 2022.

¹⁴ IPCC, Climate Change 2022: Mitigation of Climate Change, chapters 1, 2, 3, and 5.

¹⁵ Thomas Wiedmann et al: "Scientists' Warning on Affluence" — The Jus Semper Global Alliance, December 2022.

¹⁶ Álvaro J de Regil, "Is Population Crucial for Degrowth?" Jus Semper Global Alliance, September 2022. See also Philip Cafaro, "Population in the IPCC's New Mitigation Report," Jus Semper Global Alliance, December 2022.

¹⁷ Philip Wollburg et al: Ending extreme poverty has a negligible impact on global greenhouse gas emissions – *Nature* **623**, 982–986 (2023). <https://doi.org/10.1038/s41586-023-06679-0>

what they were under capitalism. Yet, this is possible because, as illustrated in Chart 1, the affluent would cut their per capita hectare consumption by as much as three-fifths, whilst poor people—Global South and North—would increase it by as much as threefold. A recent study found that the wealthiest 10 per cent of the world's population was responsible for 52 per cent of the cumulative carbon emissions between 1990 and 2015, depleting the global carbon budget by nearly a third, while the poorest 50 per cent were responsible for just 7 per cent of cumulative emissions, and used just 4 per cent of the available carbon budget.¹⁸ Thus, achieving sustainability is possible if we cut consumption with equity. The chart illustrates what we must do to cut our energy production-consumption by at least one-

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third by 2050 and how this trend might diminish our global consumption

while achieving the equity outcome a living remuneration represents by 2060.¹⁹ Moreover, research shows we can enjoy life with much less per-capita energy consumption (Milward-Hopkins, J., 2020).²⁰ This is true as long as we end our consumeristic lifestyles.

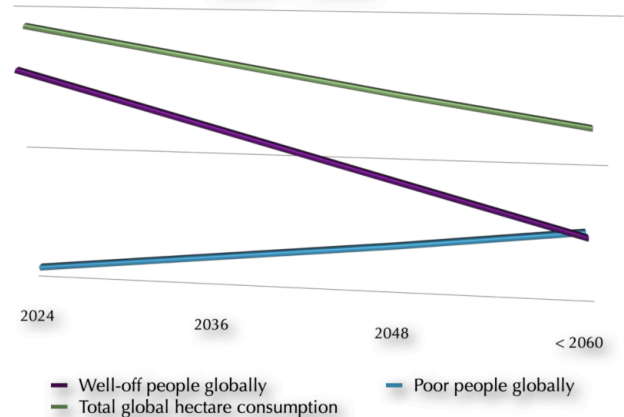


Chart 1. Hectare consumption per capita 2024 - < 2060
Source: Chart plotted by author.

Nonetheless, even if humankind can achieve a Geocratic paradigm, where billions of people (currently 8 billion) enjoy frugal but comfortable and dignified lives, the planet has finite resources. No matter how efficient and fair the new paradigm is, the notion of unlimited billions of people consuming the earth's resources frugally is not sustainable. Let's imagine that, beginning today, miraculously, we cut our consumption and achieve social justice and planetary sustainability. Everybody is happy because the new system finally fulfils all our real needs while consuming less than the planet can replenish in a year. Let's also imagine that we currently consume only 90% of the planet's capacity to replenish its resources and that through technological efficiencies, despite the Jevons paradox rebound effect, we reduce our consumption rate to 85% of the planet's capacity.²¹ Well, if the human population keeps growing, no matter how fair we distribute all resources and how much we increase our efficiencies, eventually, the planet will not be able to provide all the resources frugal societies across the world would need as they keep growing for the simple reason that the laws of nature make our home, planet Earth, finite. This is an axiomatic fact that cannot be negated. If, on the other hand, we cannot achieve a Geocratic paradigm, our planet will be able to sustain much less than the current population. Capitalism would accelerate and deepen the planetary rift by transgressing its boundaries, with more consumption and depletion of its resources as the affluent segments continue increasing their consumption while the rest continue enduring more deprivation and destitution until we reach our final demise.

Assuming we save our planet, how many billions of people are sustainable? Latouche claims that we crossed the threshold of no sustainability in the 1960s when the world population was three billion, based on the assessment of

¹⁸ Oxfam, "[Confronting Carbon Inequality: Putting Climate Justice at the Heart of the COVID-19 Recovery](#)," September 21, 2020, 2.

¹⁹ GFN, [A Time for Change](#), Annual Report 2008.

²⁰ Millward-Hopkins J, Steinberger JK, Rao ND, et al. Providing decent living with minimum energy: a global scenario. *Global Environmental Change*, 65, 2020, 102168.

²¹ The Jevons Paradox materialises when new technologies increase efficiency and—under a market logic—increase demand due to a rebound in consumption levels.

biomass availability for renewable energies.²² Georgescu-Roegen considered in 1975 that the planet was already overpopulated.²³ Three relatively recent works also concluded that two to three billion people might be sustainable globally. However, according to these studies, this would be true only if people made dramatic environmental improvements in existing modes of consumption and production.²⁴ This is a very complex question that needs much more research and reflection to answer it with confidence, but that three recent studies attempt to determine the capacity of the planet to sustain humans under capitalism tells us, all the more so, that only by ending it and transitioning to a Geocratic paradigm today's 8 billion would be sustainable.

There are also several questions taking us into an ethical conundrum that communities must democratically resolve in our quest for long-term sustainability. How can we take care of the growing mass of elders if we cut the size of the rest?

As the first step to imagining what must be done to address our planetary existential crisis, we must internalise these facts if we want to stop the enormous existential risk that we are facing.

How will we feed the younger and the older segments if they keep growing on a planet with limited resources? How will we address the bioethical issue of our innate right to procreate if the planet cannot physically sustain us? What we know for sure is that no sustainable paradigm is attainable without gradual population reduction. We also know that if consumption decreases dramatically for the affluent—

directly responsible for our planetary crisis—and increases meaningfully for the dispossessed, the global human ecological footprint will decrease substantially because the affluent segment generates the vast majority of consumption. Thus, as the first step to imagining what must be done to address our planetary existential crisis, we must internalise these facts if we want to stop the enormous existential risk that we are facing, which is happening much sooner than what scientists predicted. Then, we should reflect on how to organise a global movement to change the system, which is the only way out of our imminent ecological existential risk.

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²² Serge Latouche: Serge Latouche: La apuesta por el decrecimiento, Icaria – Antrazyt 2006, p.129-131.

²³ Lénergie et les mythes économiques”, retaken in *La Décroissance*, quoted by Franck-Dominique Vivien, *Le Développement Durable*, op. quote p. 101.

²⁴ Dasgupta P (2019) Time and the Generations: Population ethics for a diminishing planet. Columbia University Press, New York, NY, USA. Lianos P and Pseiridis A (2016) Sustainable welfare and optimum population size. *Environmental Development and Sustainability* **18**: 1679–99. Tucker C (2019) *A Planet of 3 Billion*. Atlas Observatory Press, Washington, DC, USA.

❖ **About Jus Semper:** The Jus Semper Global Alliance aims to contribute to achieving a sustainable ethos of social justice in the world, where all communities live in truly democratic environments that provide full enjoyment of human rights and sustainable living standards in accordance with human dignity. To accomplish this, it contributes to the liberalisation of the democratic institutions of society that have been captured by the owners of the market. With that purpose, it is devoted to research and analysis to provoke the awareness and critical thinking to generate ideas for a transformative vision to materialise the truly democratic and sustainable paradigm of People and Planet and NOT of the market.

❖ **About the author:** Álvaro J. de Regil is the Project initiator and Executive Director of The Jus Semper Global Alliance since 2003. At a broader level, his work is currently centred on advancing a "people and planet" paradigm. As part of this transformative concept, he is active in the areas of labour rights, business and human rights, no-growth / degrowth / steady-state economics, basic income and the drastic reduction of humanity's environmental footprint on our planet as the only way to achieve real sustainability of life on our home: planet earth.



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