Where do we stand?

» We are speechless and do not know how to overcome it in order to make reality comprehensible, to adequately describe the seriousness of the situation.

George Marshall. Book: Don't Even Think About It - Why Our Brains Are Wired to Ignore Climate Change. 2014

» An entire society is stuck between the feeling of impending catastrophe and the inability to admit this feeling.

Quote from Joanna Macy (1929 – 2025), Eco-philosopher, Activist and System Scientist.

» The human ability to act has far surpassed the ability to understand. As a result civilization is faced with a perfect storm of problems driven by overpopulation, overconsumption by the rich, the use of environmentally malign technologies, and gross inequalities.

Blue Planet Prize Laureates, Gro Harlem Brundtland et al. Environment and Development Challenges: The Imperative to Act. 2012

» We are facing a change that has nothing in common with the usual advances and transformations. This is due to the unintended side effects of technical progress. These have now become central risks that we are fundamentally unable to cope with.

Ulrich Beck, sociologist. Book: Risk Society - Towards a New Modernity. 1986

» The highly industrialised modern world has pretty much reached the end of its wisdom - be it the tangible climatic changes, the creeping increase in ecological destruction, the conflict between rich and poor, the collapsing social and healthcare systems, the empty state coffers, the seemingly unmanageable increase in unemployment, the rapid growth in mental and allergic illnesses.

We are at a turning point.

According to and translated from: Geseko von Lüpke. Book: Politik des Herzens. Nachhaltige Konzepte für das 21. Jahrhundert. Gespräche mit den Weisen unserer Zeit. 2015

» I cannot say whether things will improve when they change, but I can say this much: they must change if they are to be good.

Translated quote from: Georg C. Lichtenberg, Physicist and writer, 1742 – 1799

What are the rich doing?

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The past decades have brought unprecedented prosperity to many people. However, our planet and a huge number of people are paying a high price for this.

» This is the historic novelty of the current situation: As we run ever closer to the edge of the environmental envelope – the conditions within which our species can thrive – the development of the rich world systematically undercuts the conditions for survival of billions of people in the climate danger zone.

They are not so much exploited or bypassed as victimised by the climatic effects of *economic growth* taking place elsewhere. This violent and indirect entanglement is new in its quality and scale.

Adam Tooze. The climate emergency really is a new type of crisis – consider the 'triple inequality' at the heart of it. The Guardian 23.11.2023

» The pressure of the global middle and upper classes on our planet's vital ecological systems has now become so strong that a climatic and ecological destabilization of the Earth has begun. This destabilization endangers the ecological foundations of life, which include a stable climate, a functioning biosphere, sufficient availability of clean water, healthy soil and clean air.

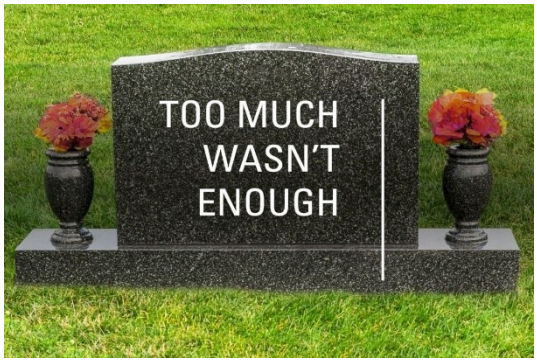
We need a discussion about sufficiency as a *«Strategy of the Enough»* - the hitherto neglected dimension of future policy.

Sufficiency as a «Strategy of the Enough» - A Necessary Debate. German Advisory Council on the Environment. 2024. PDF

» From «More» to «Enough»: Over the past fifty years, global resource use has more than tripled. Without urgent intervention, it is set to double again by 2060. That trajectory will push us well beyond planetary boundaries – undermining climate goals, destroying ecosystems, accelerating inequality and threatening future wellbeing for all.

What is needed is a shift from exploitive, growth-oriented economic models toward sufficiency, circularity, and intelligent and just provisioning systems.

Monika Dittrich and Peter Hennicke. Beyond efficiency: why sufficiency must lead the resource policy agenda. Earth4All. 29 July 2025



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» The question arises: What philosophy of life is behind the *insatiability* of us wealthy people who live so stubbornly and so dispassionately and morosely at the expense of others and the environment?

Translated from: Gabriela Simon: Mehr Genuss! Mehr Faulheit! Mehr Schlendrian! Die Zeit Nr. 42/1992

People in wealthy societies tend to turn a blind eye to the fact that our cherished way of life is recklessly jeopardising our descendants' chances of a good life.

» Living off the fossil fuel deposits of the carboniferous era for more than two centuries gave us a false sense of an open-ended and unlimited future where everything was possible and with little price to pay. We called this era the «Age of Progress». Climate change is now the bill come due.

Jeremy Rifkin, economist and journalist. Book: The Green New Deal. Why the Fossil Fuel Civilisation Will Collapse by 2028, and the Bold Economic Plan to Save Life on Earth. 2019

What are the major risks?

The global economic system, with its momentum that we humans can hardly control, is endangering our natural foundations of life and coexistence on Earth.

Even in the Global Risk Report 2022 of the World Economic Forum WEF, five of the six biggest global risks are ecological - *climate crisis, loss of biodiversity, water scarcity, environmental pollution, natural disasters* - and the sixth is weapons of mass destruction.

- Extreme weather events with great damage to property, infrastructure and human life.
- Governments and businesses fail to mitigate and adapt to climate change.
- Great loss of biodiversity and collapse of ecosystems with irreversible consequences for the environment, which leads to a severe depletion of resources for humanity and industry.

» We don't know how much carbon will be in the future atmosphere, we don't know what the tipping points will be or when the thresholds will be crossed. The biggest reason we don't know the future is simple: We have no idea what humans will do. If we continue to put greenhouse gases in the atmosphere, the risks increase. If we don't, the world will be safer.

It doesn't look likely that we will ever stop. But the science is clear: human beings are responsible for climate change, and human beings can choose to stop it. We're the first species in the history of Earth to be faced with this decision.

Kate Marvel. Book: Human Nature. Nine ways to feel about our changing planet. 2025

» The irreversibility of change in ecological systems in terms of restoration has simply not yet been understood:

If we reach these tipping points where the climate tips, where biodiversity tips, where the oceans tip, then we will have completely changed living conditions for humanity, for future

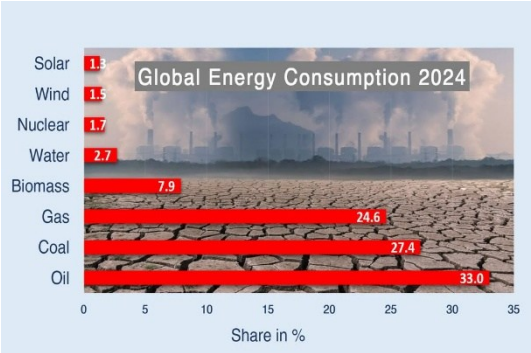
generations.

According to and translated from: Maja Göpel. Pressekonferenz Scientists for Future zu den Protesten für mehr Klimaschutz. 12. März 2019

Irreversibility: *The change cannot simply be reversed, even if the original cause is remedied.*

Tipping point: *A system, e.g. the climate, abruptly tips into a new state at a certain point.*

Where's the energy transition?



Data Source: Energy Institute. Statistical Review of World Energy 2025

Even in retrospect, the narrative of the energy transition is told as if we were switching from one energy system to another, but in fact the 'new' energy productions have not replaced the 'old' ones, but rather complemented them.

» After two centuries of 'energy transition' from wood to coal, from coal to oil, from oil to gas, and now to renewables, humanity has never burned so much oil and gas, so much coal and so much wood. Wood e.g. currently provides twice as much energy as nuclear fission, twice as much as hydroelectricity, and twice as much as solar and wind power combined.

According to: Jean-Baptiste Fressoz. Book. More and More and More. An All-Consuming History. 2025.

So when we seek solutions to the climate crisis and want to reduce CO_2 emissions, we must urgently address the consumption of raw materials, which is increasing despite all technological innovations.

What is the state of our basis of life?

Regardless of all our achievements, we owe our existence to a fertile soil layer of just 10 to 30 centimetres and the fact that it rains.

» Around one fifth of the Earth's surface is covered by forests, meadows, pastures and farmland. 8% is desert, mountains, glaciers, wasteland and urban areas, and a little over 70% is covered by water.

We are constantly losing fertile agricultural land through overuse, conversion, erosion, salinisation, compaction, acidification and contamination with heavy metals and pesticides. Over the past 150 years, almost half of the Earth's fertile soil has disappeared.

Source: UN - World Prospects: The 2015 Revision

» Agriculture and forestry produce around 25% of greenhouse gas emissions. This makes agriculture one of the most important sectors that needs to change if we want to emerge from the current environmental and climate crisis.

Another unsustainable feature is the increase in meat production.

According to: Ernst Ulrich von Weizsäcker et al. Book: Come on! Capitalism, Short-termism, Population and the Destruction of the Planet. 2017

» The production of meat and dairy products already takes up 70 - 80 per cent of global agricultural land *), although it only covers 18 per cent of humanity's calorie requirements and 37 per cent of its protein needs.

Poore et al., Reducing food's environmental impacts through producers and consumers. Science 360, 987-992 (2018)

**) Cultivation of animal feed and grazing land for animals*

» It is estimated that the productive capacity of about 4 million ha of rainfed agriculture, and 35 million ha of rangeland is reduced each year, and 12 million ha per year are lost due to land degradation.

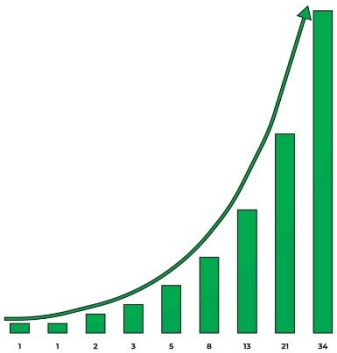
It is well established that a fundamental paradigm shift towards ecologically sustainable agricultural production and healthy food system is required worldwide to reverse

environmental degradation and climate extremes while regeneratively managing agricultural production within planetary boundaries.

Rockström J, Kassam A, Friedrich T, et al. Conservation agriculture: helping to return to within planetary boundaries. 2025. Global Sustainability, 9, e11, 1–27. https://doi.org/10.1017/sus.2025.10045

In addition, at least one third of the world's land and marine areas and inland waters are to be placed under protection by 2030. This was agreed by 188 countries at the 15th UN Biodiversity Conference in 2022 in a groundbreaking final declaration.

What are the consequences of exponential growth?



Exponential growth in key areas of society *) is triggering multiple crises in our time. We are clearly reaching our limits, because exponential growth also has a downside: sudden collapse and crash.

**) e.g. primary energy consumption, global economic power, world population, carbon dioxide, water consumption, fertiliser consumption, ocean acidification, plastic production, urban population, international tourism and many more.*

Our planet has capacity limits for air pollution, biodiversity, the extent of climate change, and other factors. These are boundaries that must be respected if we are to preserve the basis for human life. We have already crossed seven out of nine planetary boundaries.

Seven of nine planetary boundaries now breached - ocean acidification joins the danger zone. Potsdam Institute for Climate Impact Research. 24.09.2025.

We are at a crossroads: can we stabilise today's exponential trends and manage to continue developing well on a sustainable path, or will we carry on as before and accept increasing instability and accelerated decline?

» The more humans cross planetary boundaries and override natural regulatory mechanisms due to exponential growth processes, the more urgent it becomes to halt and stabilise these

processes in a timely manner by means of political action and collective control.

Translated from: Emanuel Deutschmann. Buch. Die Exponentialgesellschaft. Vom Ende des Wachstums zur Stabilisierung der Welt. 2025.

» Today, the principle of responsibility must first and foremost be used to slow down, protect, preserve and thus prevent developments that could lead to the demise of humanity.

Hans Jonas, philosopher. The Imperative of Responsibility. In Search of an Ethics for the Technological Age.1979

Are we ignoring the problems?

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No coming catastrophe has ever been studied as thoroughly as global warming. And none has ever been so thoroughly *ignored*.

The first World Climate Conference was held in Geneva back in 1979. World Climate Conferences have been held annually since 1995 and nonetheless global greenhouse gas emissions are still increasing every year.Never since modern measurements began in 1957 has the increase in global CO_2 concentrations been as great as from 2023 to 2024.

» At the 2021 climate summit in Glasgow, the states agreed to reduce greenhouse gas emissions by 45% by 2030, compared to 2010 levels. The aim was to limit global warming below 2°C.

However, studies on the effectiveness of the *existing* nationally determined contributions to reduce their emissions have now revealed: if they were implemented to this extent, global emissions in 2030 would not be lower, but around 9 % higher than in 2010.

According to United Nations – Climate Change. New Analysis of National Climate Plans: Insufficient Progress Made, COP28 Must Set Stage for Immediate Action. 14 November 2023

» The gap between the climate challenge and climate action, between ambition and commitment, is growing rapidly. This development justifies speaking of a *planetary emergency*.

Translated from: Hans Joachim Schellnhuber - Founding director and long-standing head of Potsdam Institute for Climate Impact Research PIK. Kurze wissenschaftliche Stellungnahme zur sich verschärfenden Klimakrise. WissenLeben 14.02.25

» For the young people who show up in the statistics as concerned or extremely concerned, the reports about the climate crisis are not nearly as depressing as the fact that these reports are *ignored*.

Translated from: Daniel Graf. Ja, Zukunftslust, verdammt! REPUBLIK 14.02.2023

» In a major international survey in 2021, 10,000 young people between the ages of 16 and 25 around the world were asked about their attitudes to climate change:

- More than half of young people believe that humanity is doomed due to climate change.
- More than a third of young people are reluctant to have children because of climate change.
- Climate anxiety and distress correlate with perceived inadequate government response and associated feelings of betrayal.

  Caroline Hickman et al. 2021. The Lancet Planetary Health. Climate anxiety in children and young people and their beliefs about government responses to climate change: a global survey.

What are the effects of extreme inequality?

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The inequality in income, resource use, CO_2 emissions, etc. between countries and also within societies is enormous.

Over 600 economists and scientists call in an open letter for a new «International Panel on Inequality», the creation of a body akin to the UN's Intergovernmental Panel on Climate Change (IPCC) to coordinate action against what it saw as disastrous effects on modern society.

Open letter. Economists and inequality experts support call for new International Panel on Inequality. November 2025

» The imbalances in the global division of labour lead to an outrageous level of dishonesty in the climate debate: the countries of the global South are held responsible for the overexploitation of their natural resources, even though the benefits largely accrue to the global North, which also makes the extractions possible in the first place with its technology and financial capital.

Beckert Jens. Book: How We Sold Our Future. The Failure to Fight Climate Change. 2025

Large parts of the global population have little share in economic growth, while economic value added largely benefits a small section of society. Their wealth has never been as great as it is today and is currently rising rapidly.

» The richest 1% of humanity is responsible for more carbon emissions than the poorest 66%, with dire consequences for vulnerable communities and global efforts to tackle the climate emergency.

Jonathan Watts: Richest 1% account for more carbon emissions than poorest 66%, report says. The Guardian, 20.11.2023. Data based on the report of Oxfam International. Climate Equality: A planet for the 99%. PDF

Billions of poorer people and the world's poorest people, who have contributed little or nothing to climate change and global warming, are exposed without any protection to the effects of climate change through drought, flooding and heat and are under existential threat.

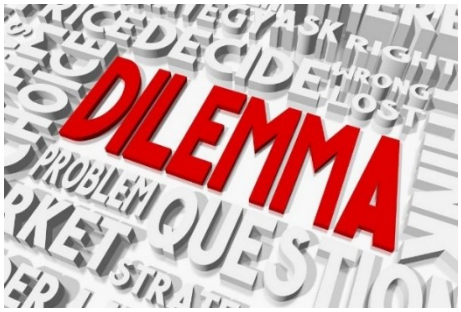
» It is understandable why CO_2 emission-reduction policies that ignore these vast inequalities are unlikely to gain widespread support and may meet with strong opposition.

Richard Wilkinson and Kate Pickett. From inequality to sustainability. Earth4all. 2022. PDF

» Without decisive action to drastically reduce socio-economic inequalities, there is no solution to the environmental and climate crisis.

Piketty Thomas. Book: Brief history of equality. 2022

What is our dilemma?



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» As long as man was small in numbers and limited in technology, he could realistically regard the Earth as an infinite reservoir, an infinite source of inputs and an infinite cesspool for outputs. Today we can no longer make this assumption.

K.E. Boulding. Earth as a Space Ship. Washington State University Committee on Space Sciences. 1965

» Today's belief and thinking patterns all come from the time of a world almost *empty* of people and are not suitable for today's world *full* of people.

Today, actually since the mid of the twentieth century, humanity lives in a full world. A hundred years ago there were around 1,700, by 1950 around 2,500 and today around 8,000 million people live on our planet.

The limits are tangible, palpable in almost everything people do. And yet the world continues to pursue a policy of growth, as if we were still living in the empty world of that time, when the abundance of natural resources on Earth seemed endless.

According to Weizsäcker v. Ernst Ulrich and Anders Wijkman. Book: Come on! - Capitalism, Short-Terminism, Population and the Destruction of the Planet. 2017

» Our institutions and governance have been designed for a world characterised by relative stability and progress, but they have not been designed to steer our society in times of rapid change, when widely held assumptions, such as the pursuit for growth, are turning against us. We need policymakers to take bold and ambitious action that embraces the urgency and interplay of overlapping crises while ensuring a truly just and inclusive transition.

Katy Wiese, Senior Policy Officer at the EEB. In: Andreas Budiman. The tricky path to financing our way out of the climate crisis. Meta from European Environmental Bureau EEB. April 5, 2023.

© andriano.cz | Shutterstock, [US] 2019

» All of us seem to be sleepwalking towards disaster with almost zero change in our consumption habits or lifestyle. Companies are walking back from their commitments, cheered loudly by their shareholders as they do so. Climate summits are falling short.

The tragic thing is that we have so many ideas, solutions, technologies and even the resources to address climate change substantially. What we lack is the leadership and collective will to implement them at scale and with speed.

Ravi Venkatesan. Social Entrepreneur and Writer. Post on LinkedIn. 30.12.2024

» In the fight against climate change, the dilemma here is obvious.
On the one hand, consumption in an economy dependent on fossil fuels increases CO_2 emissions and also causes other environmental damage, such as biodiversity loss. The more people consume, the greater the impact on the environment.

On the other hand, the social system is based - economically, politically, and culturally - precisely on this consumption and its continued growth.

Beckert Jens. Book: How We Sold Our Future. The Failure to Fight Climate Change. 2025

» In the race for «more», we lose sight of the fact that «better» is a completely different objective.

Translated from Maja Göpel. Book: Werte. Ein Kompass für die Zukunft. 2025