



The Great Dilemma

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Starting Position



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» No, it's not a climate crisis, but a societal crisis. And it has devastating consequences for the climate and nature - for the entire world as we know it today.

Translated from: Lars Hochmann. Economists4future - Verantwortung übernehmen für eine bessere Welt. 2020.

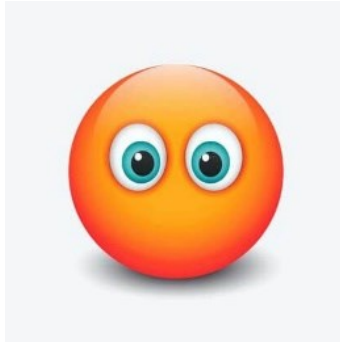
» An entire society is stuck between the feeling of impending catastrophe and the inability to admit this feeling.

Quote from Joanna Macy, environmental activist and scientist.

» 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. Don't Even Think About It - Why Our Brains Are Wired to Ignore Climate Change. 2014





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» When we have defeated nature, we will find ourselves on the *losing side*.

Translated quote from Konrad Lorenz, biologist and Nobel Prize winner.

» We engage in an experiment that is certain to fail. [...] The gigantic experiment is running worldwide and is based on the hypothesis that unlimited growth is possible on a limited planet.

Translated from: Harald Welzer: Alles könnte anders sein - eine Gesellschaftsutopie für freie Menschen. 2019.



» The goals for a sustainable development are set [UN Agenda 2030 with 17 goals]. However, we currently do not know the *conditions* under which humanity can implement the measures to achieve these sustainability goals globally.

Christian Berg. Sustainable Action. Overcoming the Barriers. 2020.

» Sustainability is on everyone's lips, in politics, business and in private life. Everyone has an idea of what the term means and sets different priorities. The term is therefore in danger of meaning «everything and nothing».

Translated from: Agentur für Forschung. 2019. Wahrnehmung von "Nachhaltigkeit" - Bericht zur qualitativen Studie. Mannheim, 05. September 2019

» Since the *ecological, economic and social* dimension of the principle of sustainability is to be realized simultaneously, the task resembles squaring the circle.

Translated from: Sabina Wölkner. Agenda 2030: Mut zur Nachhaltigkeit! Konrad Adenauerstiftung. 2019



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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 climactic effects of *economic growth* taking place elsewhere. This violent and indirect entanglement is new in its quality and scale.

Adam Tooze. Global conferences such as the upcoming Cop28 may seem like staid and ritualistic affairs. But they matter. The Guardian 23.11.2023

» 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. The Green New Deal. Why the Fossil Fuel Civilisation Will Collapse by 2028, and the Bold Economic Plan to Save Life on Earth. 2019



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Our way of life and our economy are causing major environmental impacts and the climate change and are increasingly endangering our livelihood and living together on Earth.

Even in the Global Risk Report 2022 of the World Economic Forum WEF, five of the six biggest global risks are *ecological* and the sixth is weapons of mass destruction.

For example:

- 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.



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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.

» 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.

» 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



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The *inequality* in income, resource use and CO₂ emissions between countries and also within societies is enormous.

» The inequality of the global labour division leads to an unbelievable hypocrisy in the climate debate, in which the countries of the global South are blamed for the overexploitation of their nature, although the benefits go to a large extent to the global North, which also enables the overexploitation in the first place with its technology and financial capital.

Translated from: Beckert Jens. 2024. Verkaufte Zukunft. Warum der Kampf gegen den Klimawandel zu scheitern droht.

» 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.

A report shows that in 2019 high-income countries (mostly in the global north) were responsible for 40% of global consumption-based CO₂ emissions, while the contribution from low-income countries (mostly in the global south) was a negligible 0.4%.

Africa, which is home to about one in six of the world population, was responsible for just 4% of emissions.

According to: 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%.

» It is understandable why CO₂ 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.

» It is completely comprehensible that a large part of the world's population finds economic growth, which after all means prosperity, more important than serious climate protection measures. The great task of civilisation is to solve this very conflict.

Translated from: Ernst Ulrich von Weizsäcker. So reicht das nicht! Was wir in der Klimakrise jetzt wirklich brauchen. 2022.



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

Piketty Thomas. 2022. Brief history of equality.



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» **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. 2017. Come on! - Capitalism, Short-Terminism, Population and the Destruction of the Planet.

» **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, the 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.

» **With regard to the fight against climate change, the dilemma is obvious.**

On the one hand, consumption in an economy dominated by fossil fuels increases CO2 emissions and also causes other environmental damage, such as loss of biodiversity. The more we 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 further increase.

Translated from: Beckert Jens. 2024. Verkaufte Zukunft. Warum der Kampf gegen den Klimawandel zu scheitern droht.

The public debate on climate change and sustainability is largely dominated by *greenwashing* on the one hand and *greenwishing* on the other.

This enables business, politics and civil society - against better judgement and by promises for the future - to delay tangible measures and carry on as before.





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» The way we live is a problem for our preservation as a society. [...]. Adapting our way of life means that our actions have to align more and more with the side effects they unintentionally generate. [...].

But it is not clear how this can be achieved. And because it's not clear, we have so many *strange* offerings on the market, from climate change denial to green capitalism.

Translated from: Pascal Blum. Zukunftsforscher Philipp Staab im Interview: Die Art und Weise, wie wir leben, ist ein Problem für unsere Erhaltung als Gesellschaft». Tages-Anzeiger. 22.04.2023

» We face *tremendous challenges* due to rapid population growth, the overuse of resources and associated pollution, the loss of biodiversity, and overall we are experiencing a gradual loss of our basis of existence.

Ernst Ulrich von Weizsäcker and Anders Wijkman. Come on! - Capitalism, Short-terminism, Population and the Destruction of the Planet. 2017

» **However, people must not be told the fairy tale that the climate targets are compatible with the conventional growth approach.**

Translated from: Günther Bachmann - Former Secretary-General of German Council for Sustainable Development. Interview 12.08.2021



Climate



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» Like when fever strikes, global warming is a symptom of a deeper malaise. Climate change is telling us loud and clear that our growth-based economy is unsustainable.

Margarita Mediavilla in: Khaled Diab. 2021. How Europe can grow without growing. European Environmental Bureau META.

» Even today, we are presumably much better at understanding the social consequences of climate change than the social conditions for limiting it.

Christian Berg. 2020. Sustainable Action. Overcoming the Barriers.

» For more than 6,000 years, the human race has learned to live within a relatively narrow band of environmental and climatic fluctuations. The mean annual temperature over that period has been around 13°C.

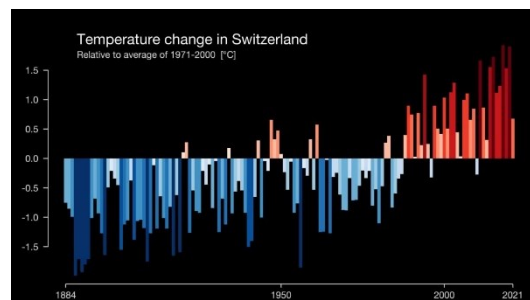
Currently, around 1% of the Earth's land surface - mainly in the hottest parts of the Sahara - has an average annual temperature of 29°C,

By 2070, almost a fifth of the Earth's land surface could reach these temperatures, and this could affect around 30% of the forecasted world population.

According to: Chi Xu et al. 2020. Future of the human climate niche. Proceedings of the National Academy of Sciences (PNAS) Vol. 117 | No. 21.

2022 was the warmest year in Switzerland since measurements began in 1864.

Source: MeteoSchweiz 2023: Klimabulletin Jahr 2022. Zürich



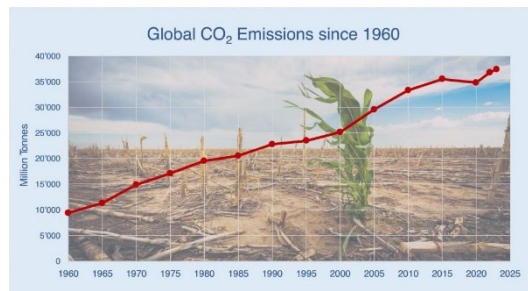
Website ShowYourStripes. Institute for Environmental Analytics. University of Reading

30 per cent of people in Switzerland currently do not believe so much in man-made climate change and 59 per cent say that the issue of climate change is now rather annoying.

Source: Helion Energiewende-Index, Helion Energy AG. Januar 2024.



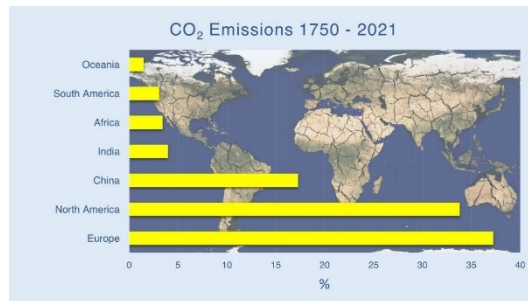
Global carbon dioxide emissions grew in 2023 to a new all-time high of 37.4 Gigatonnes.



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The historical differences in CO₂ emissions between the world's regions are large.

Source: Global Carbon Project 2023



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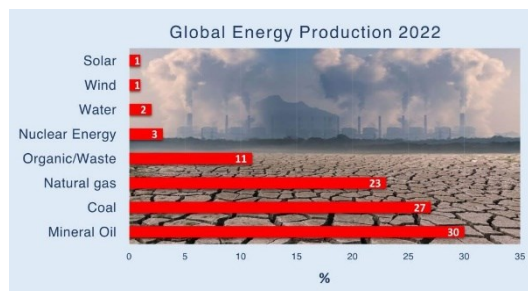
» In fact, China is now the largest anthropogenic CO₂ emitter. This is, however, largely due to goods produced in China but consumed elsewhere in the world.

If we attribute the emissions to where the consumption takes place, North Americans consume 22.5 tons of CO_{2e} per year per person, Western Europeans 13.1, Chinese 6, and South Asia just 2.2.

Abhijit V. Banerjee and Esther Duflo. 2019. Good Economics for Hard Times – Better Answers to Our Biggest Problems.

Fossil fuels currently generate around 80% of the primary energy consumed worldwide.

Source: International Energy Agency's World Energy Outlook 2023.



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» In stark contrast to the trickle of climate finance, fossil fuel subsidies have surged in recent years.

In 2022, total spending on subsidies for oil, natural gas and coal reached a record \$7 trillion [according to IMF]. That's \$2 trillion more than in 2020.

Chelsea Harvey and Zia Weise. The state of the planet in 10 numbers. Politico.eu. November 20, 2023



» Since the year 2000, global consumption of fossil fuels has risen by 45%. In a world with rising energy demand, more oil, gas and coal is being burnt, not less, regardless of the massive expansion of renewable energies - despite all the climate warnings.

Translated from: Beckert Jens. 2024. Verkaufte Zukunft. Warum der Kampf gegen den Klimawandel zu scheitern droht.

Resilient ecosystems

There is no prospect of achieving climate targets without protecting ecosystems *at the same time*. They are a prerequisite for ensuring long-term carbon uptake and storage.

Reducing greenhouse gas emissions alone is not sufficient.



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Major efforts are now needed to protect the natural carbon reservoirs such as **forests**, **soils**, **peatlands** and **oceans**, in order to simultaneously mitigate the rapidly advancing loss of biodiversity. Some 50 percent of man-made greenhouse gas emissions are absorbed by natural ecosystems on land and in the sea.

Soils are, after the oceans, the second largest natural carbon sink. Peatlands cover only 3% of the land surface but absorb twice as much carbon as all the world's forests combined.



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Climate change is also taking place above all in the oceans.

» In 2022, the world's oceans, as given by ocean heat content, were again the hottest in the historical record and exceeded the previous 2021 record maximum.

Cheng, L., Abraham, J., Trenberth, K.E. et al. Another Year of Record Heat for the Oceans. Adv. Atmos. Sci. (2023).

The oceans cover more than 70 per cent of the surface of the planet. They are becoming warmer and sea levels are rising. To date, the oceans have absorbed about a quarter of global CO₂ emissions. However, the oceans are becoming increasingly acidic as carbonic acid is formed during the absorption of CO₂.



» The lack of appropriate wastewater treatment and the release of pollutants from the manufacturing industry, agriculture, tourism, fisheries and shipping continue to put pressure on the ocean, with a negative impact on food security, food safety and marine biodiversity.

The ocean plays a crucial role in the achievement of the Sustainable Development Goals and the livelihoods of billions of people. We urgently need to change how we interact with it».

The Second World Ocean Assessment. United Nations. 2021.

The «climate decade»

» We think of climate change as slow, but it is unnervingly fast. We think of the technological change necessary to avert it as fast-arriving, but unfortunately it is deceptively slow, especially judged by just how soon we need it.

David Wallace-Wells. The uninhabitable earth. Life after warming. 2019

» We are entering the «climate decade». A ten year period where our collective actions will determine the kind of world our children and grandchildren will inherit.

The Climate Decade. Ten Years to Deliver the Paris Agreement. The GlobeScan-SustainAbility Survey. 2019

» The goal of *halving* global emissions by 2030 represents the absolute minimum we must achieve if we are to have at least a 50 per cent chance of safeguarding humanity from the worst impacts.

Christiana Figueres and Tom Rivett-Carnac. 2020. The Future We Choose - Surviving the Climate Crisis.



© Alexander Mak | Shutterstock, Inc. [US] 2021

» The primary challenge is to stop the flow of money to oil, coal and gas and to establish a clear path towards de-carbonization.

The «sustainability» of finance can be gauged by how far and how fast it shifts us away from the fossil fuel economy, rather than simply allowing the financial sector to develop new «green» markets alongside a core business that continues to bankroll climate change.

Oscar Reyes. Change Finance - Not the Climate. 2020.

» The climate crisis is not interested in the promise to be climate-neutral in 2050:

It doesn't matter *when* humanity stops burning coal, oil and gas, and thus blowing greenhouse gases like CO₂ into the atmosphere. It depends on *how much we burn in the meantime*.

If we do not make massive reductions by 2030 - that is, in less than 10 years - global warming will certainly exceed 2 degrees.

Translated from: Maria Stich. 18 Fakten über die Klimakrise, die jede:r wissen sollte. Perspective Daily. 27. März 2023

A successful climate policy can only be achieved if climate change mitigation and adaptation are implemented *simultaneously* and quickly.



Biodiversity



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The rapidly declining biodiversity on land and in the sea is a serious risk to the food security of future humans.

» While fossil records show that extinctions happen naturally, current extinction rates are estimated to be 100 to 1000 times higher today than what is considered natural.

Elizabeth Claire Alberts. Global biodiversity is in crisis, but how bad is it? It's complicated. Mongabay Series. 11. April 2022

» Biodiversity loss is directly attributable to five key global drivers, all linked to human activity:

- (1) Changes in land, freshwater, and sea use
- (2) Direct resource exploitation
- (3) Pollution
- (4) Spread of invasive alien species and disease
- (5) Climate change

Source: IPBES Intergovernmental Platform on Biodiversity and Ecosystem Services. 2019.

» Land use change linked to massive expansion of globalized, highly commercialized industrial agriculture is the main overarching driver of declining agrobiodiversity.

» Globally, the FAO [Food and Agriculture Organization of the United Nations] estimates that 75 % of crop diversity was lost in the 20th century. Historically about 7,000 plant species were cultivated for food, today only about 80 plant species make major contributions to food supplies at the global level.

In fact, half of all plant-based calories come from only three species - rice, maize, and wheat. And 93 % of global meat supplies come from just four animal species - pigs, poultry, cattle, and buffalo.

Looking ahead, restoring agrobiodiversity – the richness of what we cultivate, breed, consume, and conserve in the wild – is crucial to ensure resilient food systems against the backdrop of climate change.

Swiss academies factsheets Vol.15 No.1. 2020. Variety is the source of life: Agrobiodiversity benefits, challenges, and needs.



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» 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)

» Only if there is a fundamental change in the way we manage land can we reach the targets of climate-change mitigation, avert the dramatic loss of biodiversity and make the global food system sustainable.

WBGU German Advisory Council on Global Change. 2020. Rethinking Land in the Anthropocene: from Separation to Integration.

- (1) Global dietary patterns need therefore to converge around diets based more on plants.**
- (2) More land needs to be protected and set aside for nature. It is the most effective way of preserving biodiversity.**
- (3) We need to farm in a more nature-friendly, biodiversity-supporting way.**

According to: Tim G. Benton et al. Food system impacts on biodiversity loss. Three levers for food system transformation in support of nature. 2021



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» The oceans are home to an estimated one million animal and plant species. The phytoplankton in the oceans produce as much oxygen as all land plants combined.

Translated from: Greenpeace Schweiz. 2023. Wer atmet braucht das Meer.

» Driven by climate change, marine biodiversity is undergoing a phase of rapid change that has proven to be *even faster* than changes observed in terrestrial ecosystems.

Hodapp D. et al. 2023. Climate change disrupts core habitats of marine species. Global Change Biology, 00, 1–14.

» **Biodiversity is experiencing a dramatic, human-induced mass extinction worldwide [...]. This also greatly reduces the capacity of ecosystems to contribute to climate regulation and food security.**

WBGU German Advisory Council on Global Change. 2020. Rethinking Land in the Anthropocene: from Separation to Integration.



Environmental Policy



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» **The great fallacy of the environmental debate over the past 30 years has been the hope that an ecological turnaround can essentially be implemented with some *technological innovation programme within the existing economic order.***

The continuing impressive development of prosperity has not been able to slow down climate change, resource consumption or the loss of biodiversity - on the contrary, all these pressures have increased massively.

Translated from: Uwe Schneidewind. Die Grosse Transformation - Eine Einführung in die Kunst gesellschaftlichen Wandels. 2018

» Technological innovation is absolutely important [...]. It is vital, in fact. We're going to need all the innovations and efficiency improvements we can get to drastically reduce the resource and carbon intensity of our economy.

But the problem we face doesn't have to do with technology. The problem has to do with *growth*. Over and over again, we see that the *growth imperative* wipes out all the gains our best technology delivers.

Jason Hickel. Less is more. How degrowth will save the world. 2020



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» Today, Europe continues to consume more resources and contribute more to environmental degradation than many other world regions. We do not only have to do more; we also have to do things differently.

We now need completely different answers to environmental and climate issues than those of the past 40 years.

The European Environment - State and Outlook 2020. European Environment Agency. 2019

» [Because:] Problems can never be solved with the same way of thinking that created them.
Albert Einstein. 1946 - in light of the new threat of atomic weapons.

» The longer one tries to apply the solution strategies that fit yesterday's problems to today's problems, the bigger they become, the problems.





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» It is quite simply a fact that the current ways of life and economic activity have a comprehensive and deep impact on various ecosystems. Future generations [...] therefore face drastic and irreversible disadvantages.

To date, environmental and sustainability policy has far from succeeded in achieving a *sufficiently* strong reduction in ecological burdens.

Translated from: Institut für ökologische Wirtschaftsforschung (IÖW): Gesellschaftliches Wohlergehen innerhalb planetaren Grenzen, Texte 89/2018

» **Ecological modernism treats the climate crisis as a *technical* problem and uses it as the basis for its solutions. Electric motors instead of combustion engines, wind farms instead of coal-fired power stations - and the problem is solved, so the promise goes.**

Translated from: David Zauner. Klimagerechtigkeit heisst, die Machtfrage zu stellen. Klimareporter 30.03.2024

» The experience of recent decades shows that political intervention in the market has never been sufficient or even aimed at stopping climate change.

This is why we speak of the climate crisis as the biggest government failure of all time, which has been quietly taking place despite all the requirements of environmental law.

Translated from: Beckert Jens. 2024. Verkaufte Zukunft. Warum der Kampf gegen den Klimawandel zu scheitern droht.

» **We need a *policy shift* that does not treat sustainability as a possible by-product of an economic growth agenda, but aims directly at sustainable consumption, production and investment.**

Translated from: Maja Göpel. Unsere Welt neu denken - Eine Einladung 2020



Digitalization



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» **Digitalization and sustainability are often referred to as two megatrends that are shaping the economy and society. However, the two phenomena are very different:**

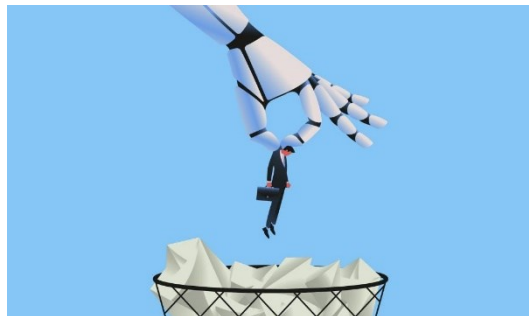
Digitalization is massively changing reality and influencing almost every aspect of our lives, while sustainability is a normative goal that *has not yet become a reality in most areas.*

Maike Gossen and Otmar Lell. Sustainable consumption in the digital age. A plea for a systemic policy approach to turn risks into opportunities. GAIA 32/S1 (2023): 71 – 76

» The combination of digital progress and capitalist ideology in a fully monetarised society obviously leads to a concentration of power among a few, mostly private, actors.

However, digitalization has contributed as much as nothing to solving the really big problems [...]. Because normally only ideas that can be made into money come onto the market.

Translated from: Jonas Lüscher, Writer - Interview in the newspaper Tages-Anzeiger, 06.01.2018



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» We will end up with «digital by default» unless we choose «digital by design».

We shouldn't view technology through the lenses of Big Tech where the role of algorithms is to replace humans [...].

We should start by valuing the outcomes that we want technology to help achieve such as reducing carbon and improving the returns to labour.

Mark Carney. Value(s) – Building a Better World for All. 2021.

» An alignment of the global digital revolution with the goals of sustainability [...] is hardly to be seen, even though many key players emphasise that they have acted for the benefit of humankind.

WBGU German Advisory Council on Global Change 2018. Digitalization: What We Need to Talk About.





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» The three main objectives of ecological sustainability are *decarbonisation*, *dematerialisation* and *renaturalisation*.

In theory at least, the growth of digital services can be compatible with the goals of ecological sustainability. But today's reality is far-removed from that ideal.

The consumption of energy and material is actually increasing as digitalisation expands. This situation will not change unless the majority of affected companies adopt the three ecological objectives as binding principles.

Ortwin Renn, et al. The opportunities and risks of digitalisation for sustainable development: a systemic perspective. GAIA 30/1(2021): 23–28

» Overall, digitalization processes today tend to act as «*fire accelerants*», exacerbating existing non-sustainable trends such as the overuse of natural resources and growing social inequality in many countries.

On the one hand, it must be plainly stated that the digitalization of business and everyday life has so far been marginally oriented towards sustainability aspects.

On the other hand, digitalization offers an enormous range of possibilities for supporting the Great Transformation towards sustainability.

German Advisory Council on Global Change. Towards our Common Digital Future. 2019.

»The enormous scope for shaping digitalisation as a formative force of the 21st century must be at the service of sustainable development, as the most pressing design task of the 21st century.

Wuppertal Institute (2021): Shaping Digital Transformation - Digital solution systems for the transition to sustainability: Study within the project «Shaping the Digital Transformation».



Growth



© M-SUR | Shutterstock, [US] 2018

» We have to face the growth dilemma that is:

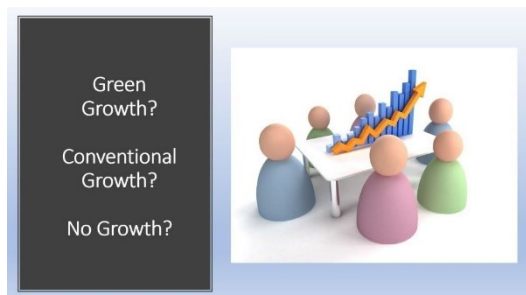
Giving up on growing our current economy means the *risk* of economic and social collapse.

Maintaining the conventional growth means the *risk* of destroying global ecosystems that are our basis of existence.

Tim Jackson. Prosperity without Growth - Foundations for the economy of tomorrow. 2016

» It's a dilemma: it does not work without growth, there is no completely green growth, and normal growth inevitably leads to ecological disaster.

Translated from: Ulrike Herrmann. Goodbye, Kapitalismus: So kann der Übergang zu einer neuen Wirtschaftsordnung gelingen. Perspective Daily 11. Januar 2021



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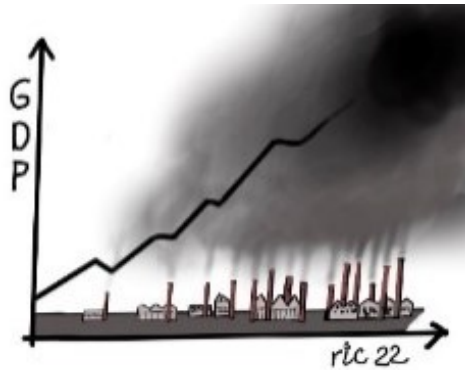
» Continued growth isn't a fairy tale, it's a necessity. But not *just any* growth.

The power of the market needs to be directed to achieving what society wants. That requires measures of income and welfare that reflect our values. [...] We need a world where we are no longer guided solely by measures like GDP *) [...].

Mark Carney. Value(s) – Building a Better World for All. 2021.

**) GDP stands for Gross Domestic Product and represents the total monetary value of all final goods and services produced and sold within a country during a period of time*





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» **We urgently need a *clear vision*, a *bold policy*, and a truly *robust strategy* to find the way out of the growth dilemma.**

The growth dilemma is barely taken into account by *the normal policy-makers* and is mentioned only marginally in public debate.

Tim Jackson. Prosperity without Growth - Foundations for the economy of tomorrow. 2016

» It is clear that there are no simple answers to this - none that could be proposed without proposing at the same time a transformation in the whole of the way we think, work and order our lives.

David Fleming, Surviving the Future: Culture, Carnival and Capital in the Aftermath of the Market Economy. 2016

» Three per cent growth means doubling the size of the global economy every twenty-three years [...]. This might be OK if GDP were just plucked out of thin air. But it's not. It is coupled to *energy and resource use* [...].

Jason Hickel. 2020. Less is More. How degrowth will save the world.



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The conventional reaction to the growth dilemma is *the call for decoupling* of economic growth from resource consumption, including harmful environmental impacts.

The decoupling is to be achieved with more *efficient production processes*. However, producing more efficiently means an increase in productivity and this enables further growth with additional resource consumption.

» In the capitalist economy, *all* efficiency gains are in principle transferred to new economic activities. This reinvestment of efficiency gains is precisely the economic principle on the basis of which growth and profits are achieved.

Translated from: Beckert Jens. 2024. Verkaufte Zukunft. Warum der Kampf gegen den Klimawandel zu scheitern droht.

We therefore cannot rely solely on *efficiency measures* and *technological innovations*. Because we have so far not succeeded in decoupling *global* economic growth from resource consumption in *absolute terms*.

» So far, global environment and climate policies have at best achieved *relative decoupling* *) between GDP and resource use respectively GHG emissions.



Helmut Haberl et al 2020. A systematic review of the evidence on decoupling of GDP, resource use and GHG emissions, part II: synthesizing the insights. Environ. Res. Lett. 15 065003

*) Relative decoupling of resource consumption and economic growth means that although resource consumption increases less strongly in a more sustainable but still growing economy, it still increases. In the case of an absolute decoupling, resource consumption would no longer increase despite a growing economy.

» In fact, over the past decade, some rich countries have reduced their CO₂ emissions while increasing their gross domestic product and hence achieved an *absolute* decoupling.

But, at the achieved rates, these countries would on average take more than 220 years to reduce their emissions by 95%.

Source: Jefim Vogel and Jason Hickel. Is green growth happening? An empirical analysis of achieved versus Paris-compliant CO₂ – GDP decoupling in high-income countries. www.thelancet.com/planetary-health Vol 7. September 2023



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» The gap between efficient production and efficient collection and recycling is gigantic.

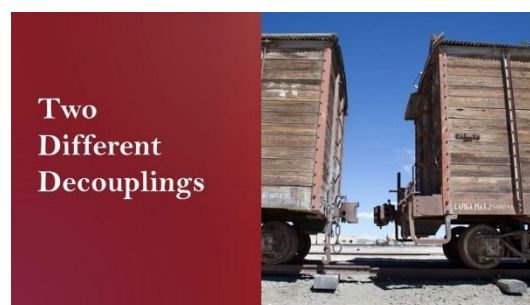
Translated from: Lea Hampel. Interview mit Abfall-Historiker Roman Köster. Wir sind ständig Komplizen der großen Müllmaschinerie. Süddeutsche Zeitung 16. November 2023

» Global use of materials is accelerating. It has more than tripled since 1970. Moreover, the global economy is only 9 percent circular. Just 9 percent of the 92.8 billion tonnes of material that enter the economy are re-used annually.

PACE The Platform for Accelerating the Circular Economy. The Circularity Gap Report 2019

» **Not only is there no empirical evidence supporting the existence of a decoupling of economic growth from environmental pressures on anywhere near the scale needed to deal with environmental breakdown, but also, and perhaps more importantly, such decoupling appears unlikely to happen in the future.**

Parrique T. et al. 2019. European Environmental Bureau. Decoupling debunked: Evidence and arguments against green growth as a sole strategy for sustainability.



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» Therefore, **two different decoupling tasks must be pursued:**

(1) decoupling the production of goods and services from unsustainable natural consumption and

(2) decoupling the satisfaction of human needs from the imperative to ever more consumption.

Maja Göpel. The Great Mindshift. 2016



» There will be no one simple solution for decoupling prosperity and the destruction of nature, but if we don't manage it, we will have to adapt to the new conditions. And they'll be tough.

Translated from an interview with Harald Lesch. Digitale Welten riechen nicht. GeoPlus 29.09. 2021

» But one thing is clear. If we are to live well, within the limits of a finite planet, we need a better conception of social progress than the one encoded in the myth of growth.

Tim Jackson. Post Growth. Life after Capitalism. 2021

We have the almost impossible task of satisfying the basic needs of what will soon be 9 to 10 billion people while *at the same time* respecting the Earth's ecological limits.



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In this context, it is to be kept in mind:

» **A minority of around 20 percent of the world's population, mainly people in rich countries but also the rich worldwide, currently accounts for around 80 percent of total global resource consumption.**

Multiple sources: The figures indicate the order of magnitude, but there are no exact data available.

» The richest 10 percent globally produce almost half of the climate-damaging emissions. One third of these 10 percent live in emerging countries.

Translated from: Interview with Irmis Seidl. Radio SRF 2 Kultur, Kultur-Aktualität. 9.9.2022



Economy



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The incentives in today's economic system are still *one-sidedly* promoting the exploitation of nature and man.

» A realistic assumption is that only very far-reaching changes in the economy, and even in human civilisation, can enforce a reasonably tolerable future for our planet.

Translated from: Ernst Ulrich von Weizsäcker. 2022. So reicht das nicht! Was wir in der Klimakrise jetzt wirklich brauchen.

» It is an *epochal contradiction* that the idea of sustainability and the hectic quarterly thinking emerged almost simultaneously in corporations: The conviction that politics and business should be laid out very long-term, and the compulsion to report higher profits from quarter to quarter.

Translated from: Roger de Weck. 2009. Nach der Krise – Gibt es einen andern Kapitalismus?



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» The world's leaders are correctly fixated on economic growth as the answer to virtually all problems, but they're pushing with all their might in the wrong direction.

Hence, we end up with global economic policy that was crafted to alleviate poverty but many decades later has morphed into a poverty trap, economically enslaving whole nations, destabilizing democracies, and «crowdfunding» environmental catastrophe.

We have watched the purpose of our economy morph from valuing our future to discounting it entirely.

Dixson-Declève S. et.al. 2022. Earth for All. A Survival Guide for Humanity. A Report to the Club of Rome.

» To detach Nature from economic reasoning is to imply that we consider ourselves to be external to Nature.

We may have increasingly queried the absence of Nature from official conceptions of economic possibilities, but the worry has been left for Sundays. On week-days, our thinking has remained as usual.



The fault is not in economics; it lies in the way we have chosen to practise it.

Partha Dasgupta. 2021. The Economics of Biodiversity: The Dasgupta Review. Abridged Version. 2021

» **The current economic organisation, which is based on uncontrolled capital movements without social and ecological targets, is often enough tantamount to a kind of neo-colonialism in favour of the richest. *Politically and ecologically, the development is untenable.***

Piketty Thomas. 2022. Brief history of equality.



© mipan | Shutterstock, Inc. [US] 2020

» The malaise in corners of finance can be remedied only by a combination of regulatory measures and true cultural change.

Market standards were poorly understood, often ignored and always lacked teeth. Too many participants neither felt responsible for the system nor recognised the full impact of their actions.

Bad behaviour went unchecked, proliferated and eventually became the norm.

Mark Carney. Value(s) – Building a Better World for All. 2021



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» Economic growth based on exploitation - the business model of the rich West for 400 years - has reached its limits. The exploitability of people and the ecosystems [...] leads to migration in millions and catastrophic environmental impacts.

Translated from: Philipp Blom. Was auf dem Spiel steht. 2017

» It is the conditions of any future economy that need to be redeveloped: For all the great achievements that we can look back on have only been at the price of not taking into account either the natural conditions or the living situations of people in other parts of the world.

Translated from: Harald Welzer. Alles könnte anders sein - Eine Gesellschaftsutopie für freie Menschen. 2019

» The ecological problems will increase and so will the social and economic upheavals. [...]

We need to ask ourselves what kind of economic system will serve the people and also maintain the ecological foundations. Today's does not.

Translated from: Interview with the economist Irmi Seidl. Der ökologische Umbau wird die Arbeitswelt verändern. Tages-Anzeiger. 15.02.2020



Sustainability



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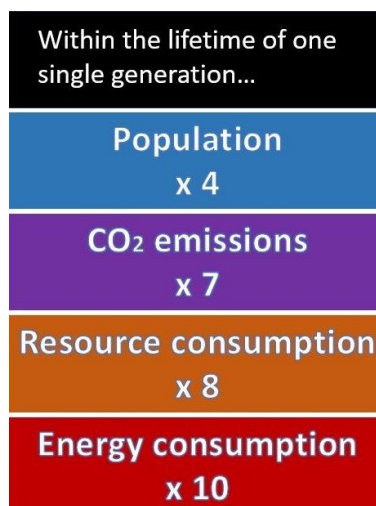
The question is not *how*? The question is *when* do we decide to do business more sustainably?

It isn't the goal of transforming our society towards a sustainable development that is *utopian*, but rather the view that today's non-sustainable development can simply be maintained.

[What are Pathways to Sustainability?](#)

Video | steps-centre.org

We are not on a sustainable path. Within the lifetime of one single generation the world population, global CO₂ emissions, resource and energy consumption increased at an unprecedented rate.



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Source: Christian Berg. 2020. Online presentation of the new report to the Club of Rome – Sustainable Action. Overcoming the Barriers.

Sustainable development is hardly conceivable without

- moving away from the predominantly linear economy towards a consistent circular economy,
- simultaneously cutting back on over-consumption,
- rapidly reducing CO₂ emissions and



- a fundamental change in the way we manage land.

We must move from the deeply internalized attitude of *competition* and *self-interest* to a basic attitude of *cooperation* and *common good*, if for example, we really want to curb global climate change.

17 Sustainable Development Goals UN Agenda 2030

The Sustainable Development Goals intend to guide world politics towards a sustainable development. This means that all states are called upon to solve the world's pressing challenges together.

The 2030 Agenda is not an instruction manual on how to achieve the 17 Sustainable Development Goals. Rather, it is a compass.

People should have relevant information and awareness of sustainable development by 2030 - all across the world.



[Agenda 2030](#)

» The UN warned that without better performance by the G20 countries, which are responsible for 75 percent of global CO₂ emissions, the UN Agenda 2030 for Sustainable Development will fail.

Above all, the *consumption behaviour* of the rich industrialised countries is the subject of criticism.

If, as forecasted, the world's population increases to 9.7 billion by 2050, humans and the planet will face many challenges. Asia's rise will undoubtedly also lead to a higher energy demand, more consumption and production.

This calls for a public discussion on a broad approach to sustainability. It is not a backward-looking «eco-agenda» but *overdue* reforms for economic modernization, climate protection and innovation.
Translated according to: Sabina Wölkner. Agenda 2030: Mut zur Nachhaltigkeit! Konrad Adenauerstiftung. 2019



Our dilemma as environmentally-aware affluent citizens



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» If we wealthy people want to protect the environment, all we have to do today - so we consumers are told - is to go to the supermarket. There are now sustainable and environmentally-friendly products everywhere.

We can therefore seemingly consume more and more without any worries and thereby even do something good for the environment. Almost no product from toilet paper up to cars is sold without the promise that one makes the world a little better.

«Buy me and make this world a little bit better» is the key message found among sustainable brand's marketing. It is argued that the market will fix the climate problem: One does not have to consume *less*, but only consume *in a different way*.

Now, however, the validity of this approach is being shaken daily by reports of the consequences of our actions.

What we consider *sustainable consumption* so often leaves behind poverty and environmental destruction elsewhere in the world.

Translated according to: Marcus Jauer. Tages-Anzeiger 10.12.2018 und Sebastian Schoep. Tages-Anzeiger 06.06.2019

[My ecological backpack](#)

Calculate my own resource consumption



© Rawpixel.com | Shutterstock, Inc. [US] 2018

Anyone who really wants to change something cannot get around thinking about the dogma of «ALWAYS MORE».

» No intelligent person still believes that the existing economic system and the level of consumption of the present can be continued for another one or two generations, a thought that would have been self-evident in 1900 or 1950. This makes it clear: we are at the end of something.

Translated from: Blom Philipp. 2020. Das grosse Welttheater. Von der Macht der Vorstellungskraft in Zeiten des Umbruchs.

» The idea that we can go on living as before is no longer credible. Always more and always better - that was in the past. In the end, renouncing *unlimited* consumption enhances the quality of life in other ways.

Translated from an Interview with Sociologist Andreas Reckwitz. Tages-Anzeiger 07.01.2023





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» **As restrictions on consumption are not even being sought due to the unwanted economic and social consequences, business and politics are focussing on a strategy of promises and consumers on symbolic substitutes.**

The order of the day is, for example, fewer cars, fewer cruises and smaller flats. But this will not happen. In the modern capitalist world, which is calibrated for economic growth and consumerism, a politically prescribed shrinking of the economy is simply not enforceable.

Translated from: Beckert Jens. 2024. Verkaufte Zukunft. Warum der Kampf gegen den Klimawandel zu scheitern droht.

» It is understandable that the idea of having to renounce some of the wealth you have gained causes anxiety. It helps to realise that a fulfilled life cannot be measured by the number of cruises taken or the size of your wardrobe.

Renunciation is often associated with loss, which leaves a gap forever. But where there are gaps, there is also space for something new.

There must be limits to renunciation where the basic provision of people's daily lives is jeopardised.

Translated from: Silvia Liebrich. Wir müssen lernen zu verzichten. Süddeutsche Zeitung. 30. Juli 2022.

» We do not have to renounce happiness, well-being and justice, but excessiveness, abundance, stress and consumption decadence.

Translated from: Stefan Brunnhuber. 2023. Die Kunst der Transformation. Wie wir uns anpassen und die Welt verändern.

» **In rich countries, renunciation means [...] actually nothing more and nothing less than refraining from ruining the planet and in return preserving the basis of life in the future. - That's a big word, of course. Couldn't it be a little bit smaller? Unfortunately not.**

Translated from: Maja Göpel. 2020. Unsere Welt neu denken. Eine Einladung.



Time is short



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» It is very urgent. System collapse is a real danger.

We face tremendous challenges due to rapid population growth, the overuse of resources and associated pollution, the loss of biodiversity, global warming and overall we are experiencing a gradual loss of our basis of existence.

Ernst Ulrich von Weizsäcker and Anders Wijkman - Come on! - Capitalism, Short-Terminism, Population and the Destruction of the Planet. 2017

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 six out of nine planetary boundaries. For example, we have warmed the atmosphere by around 1.5°C globally and are on our way to overstepping a variety of irreversible tipping points in the climate system.

[How we observe planetary boundaries](#)

Helmholtz Climate Initiative

» Given the *existential threat* of climate change, severe weather events, rising sea levels, loss of biodiversity, resource depletion and increasing economic inequality, we are reminded of the importance of developing a sustainable economy that balances economic issues with social and environmental responsibility.

Translated from: Swiss National Science Foundation. 73 NRP. Sustainable Economy. 2023

What is needed now is «pressure» on politics and decision-makers from below - from us citizens - for fundamental changes to protect us humans from this existential threat.



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» The burdens – from mounting government debts, underfunded pensions, inadequate health and social care to environmental calamity – that we are pushing on to the next generation are *unfair, inequitable* and *irresponsible*.

Mark Carney. Value(s) – Building a Better World for All. 2021.

**It's so easy to do nothin'
when you're busy night and day.**

Aus dem Song Desperation der Rock-Band Steppenwolf 1968

How will we explain this to the next generation if we don't do everything *now*, quickly and with determination, to preserve the basis of life on Earth and instead just carry on as before?



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How do I want to explain this to the children and grandchildren if I don't change my way of living *now*, quickly and with determination, for their benefit and instead simply continue to live as before?

