What to do now?



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We should take bold and ambitious measures to protect and preserve our livelihoods, while keeping a cool head. We need a prudent policy that is free from ideology, empty promises, false optimism and particular interests of a small elite.

Resource and energy transition



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» If we take the planetary boundaries seriously, then the environmental discourse may not be reduced to climate protection alone. Our economy as a whole needs to become more resource-light.

On a fundamental level, it is always about both a r*esource transition* and an e*nergy transition*.

The building blocks for sustainable development mainly consist of the following adjustments to our way of living, which are all closely linked:

Turnaround in prosperity and consumption
The question is how sufficiency - a "Culture of Enough" - is possible and how the formation of such a culture can be supported by politics with the introduction of framework conditions.

Energy turnaround
The goal of a revolution in our energy systems can only be achieved if the switch to renewable energy goes hand in hand with energy efficiency and energy sufficiency.

Resource turnaround
Only if resource consumption per capita is reduced by a factor of 4 to 5 will humanity remain within planetary boundaries in the long term.

Mobility turnaround
The change in mobility is closely linked to the energy turnaround and the resource turnaround and therefore needs more than just technological developments.

Nutrition turnaround
Today's food production is responsible for an important share of the burdens placed on global resources as well as CO_2 pollution. 30% of consumer-related environmental impacts in Europe are caused by our eating habits. Our consumption of meat and fish needs to be significantly reduced.

Urban turnaround
By the middle of this century, around 80% of the world's population will be living in cities. The nature of urban development is therefore of central importance for sustainable development as a whole.

Industrial turnaround
Two goals are paramount here: decarbonisation [Stop CO_2 - emissions] and the circular economy. This requires technological innovation, cooperation, and an innovative policy framework.

According to and translated from: Book: Uwe Schneidewind. Die Grosse Transformation - Eine Einführung in die Kunst gesellschaftlichen Wandels. 2018

Stop greenhouse gas emissions, slow down global warming



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A successful climate policy will only succeed if climate change mitigation *and* adaptation to climate change take place *simultaneously* and rapidly.

» Climate change should be of concern to *all*, who care about health, who care about economic stability and investment value and who care about intergenerational justice - which should be *every one of us*.

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

» Contrary to most problems, climate change is not complex, the causes well known, the necessary answers clear. The challenge we face is that we do not do what obviously should be done – urgently.

Theodor H. Winkler. 2019. Book: Living in an Unruly World – The Challenge we Face.

Transforming the economic system



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« 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.

The transition towards a more sustainable economy is a complex process, which needs disruptive innovations in many sectors and collaboration across disciplines as well as insights from practitioners, politicians and engagement with citizens.

Sustainability requires a transition towards a society and economy that are less vulnerable and more resilient in the long term.

Swiss National Science Foundation. 73 NRP. Sustainable Economy. 2023

« Getting humanity back within a safe operating space in this century may be complex and monumental, but like many other complex and monumental undertakings, it can be set in motion by a handful of well-chosen levers, by groups of committed people.

Those levers are in plain sight and waiting to be pulled. And they all reside in one sector: *the economy*. Key among them:

Creation of Citizens Funds
to distribute the wealth of the global commons fairly to all citizens.

Government intervention
(subsidies, incentives, and regulations) to accelerate the turnarounds**.**

Transformation of the international financial system
to facilitate rapid poverty alleviation in Most of the World.

De-risking investments
in low-income countries and cancel debt.

Investment
in efficient, regenerative food and renewable energy systems.

*Dixson-Declève S. et.al. 2022. Book - Executive Summary: **Earth for All. A Survival Guide for Humanity**. PDF*

Implement circular economy

» Waste generation is rising globally. People and businesses in the European Union alone produce more than 2 billion tonnes of waste per year, or 4.8 tonnes per capita.

Yet today, less than 10% of global economic activity is circular.

The circular economy aims to fix this by eliminating waste altogether. This can be achieved by extending the life and use of resources, materials and products, by rethinking and redesigning products and business processes.

Circular economy interventions can also halt global biodiversity loss and help the world's biodiversity recover by 2035 to the same levels as in 2000.

Circular Economy Overview 2023. European Investment Bank. PDF

Restructuring the financial sector



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« Clearly, the financial sector alone cannot solve the problem of climate change. It is not the role of the financial institutes to internalise the externalities of the real economy.

However, the financial sector can play a very important role as enabler, facilitator and steering act or in the transition to net zero. Channelling financial flows into the most sustainable practices with the lowest externalities plays a key role in the transition of the real economy.

Reiser M. and Müller Ch. Whitepaper - Climate Metrics: Do they really enable positive impact? INFRAS and inrate, January 2026

« Six major shifts in the finance sector can drastically transform how investments are scaled and allocated for a sustainably future.

If these transformations are achieved together, it will enable the fundamental changes needed for the planet and people to thrive.

Measure, disclose and manage climate- and nature-related financial risks.
Accurate disclosures are needed to allow financial institutions and governments to deploy capital efficiently and monitor and manage risks.

Scale up public finance for climate and nature.
The public sector can play a significant role in the protection of climate and nature by investing directly in climate initiatives and steering private markets.

Scale up private finance for climate and nature.
Meeting climate and nature goals also depends on the participation of the private sector.

Extend economic and financial inclusion to underserved and marginalized groups.
Our current economic and financial system have failed to be inclusive in sharing economic prosperity, resulting in historical inequities that have been perpetuated and sometimes worsened, further marginalizing already underserved groups.

Price greenhouse gas emissions and other environmental externalities.
One of the largest challenges to shifting investments to a more sustainable future is the lack of accounting for the negative external costs generated by the fossil-fuel industry and other high polluters that get passed into society.

Eliminate harmful subsidies and financing.
The public sector continues to provide significant financing and investment to fossil fuel industry via subsidies, financing from development finance institutions and fossil fuel investment from state-owned companies.

*Anderson Lee. **6 Shifts the finance system can make to build a sustainable future**. World Resource Institute. 03.06.2023*

» 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

Realigning the food system



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» 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.

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

It therefore applies:

Change dietary

Global dietary patterns need to converge around diets based more on plants.

Setting aside land for biodiversity

More land needs to be protected and set aside for nature. It is the most effective way of preserving biodiversity.

Adapting the way we farm the land

We need to farm in a more nature-friendly, biodiversity-supporting way.

Tim G. Benton etal. Food system impacts on biodiversity loss. Three levers for food system transformation in support of nature. Research Paper. The Royal Institute of International Affairs. 2021. PDF.

Protecting nature and people



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Pollution is now a substantial problem that endangers the health of billions, degrades the Earth's ecosystems, undermines the economic security of nations, and is responsible for an enormous global burden of disease, disability, and premature death.

Philip J. Landrigan etal. The Lancet Commission on pollution and health. www.thelancet.com Vol. 391 February 3, 2018

Climate change, biodiversity loss and global pollution must be halted in order to maintain the health of people and the planet. Health and environmental risks from emissions and the dumping of persistent wastes and chemicals in the air, soil and water should be prevented with a controlled *circular economy* and *emissions regulations*.

*German Advisory Council on Global Change WBGU. Factsheet No. 8, 2023. **Healthy living on a healthy planet**. PDF*

The multiple environmental crises require profound change. Policymakers and society need to rethink approaches to these issues and recognise how strongly human health and the environment are interconnected.

*SRU German Advisory Council on the Environment. **For a Systematic Integration of Environment and Health**. Summary 2023. PDF*

Cut down on overconsumption



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» 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*

The average annual CO_2 emissions produced by people on this planet are equivalent to those produced by the Swiss alone whilst on holiday.



© Thomas Soellner | Shutterstock, Inc. [US] 2018

Powerful status symbols have always determined our consumer behaviour and have a big impact on environment and climate.

Large living space

In Switzerland, for example, each inhabitant occupies an average of more than 40 square metres of living space - twice as much as in 1965.

The construction of these residential buildings means a large consumption of resources and entails a large increase in energy consumption in heating in winter and cooling in summer

and a large subsequent consumption, such as the purchase of furniture and many additional home furnishings.

« According to the Federal Statistical Office, the average German household now owns 10,000 items. 100 years ago, the figure was 180.

Translated from: Theresa Hein. Wann sind wir zu dem geworden, was wir haben? Süddeutsche Zeitung. 07.03.2024.

« Worldwide, construction accounts for one third of CO_2 emissions, 40 percent of final energy demand and 50 percent of material consumption.

Translated from: Interview von Christine Mattauch mit Lamia Messari-Becker. Ökologisches Wohnen darf kein Eliteprojekt bleiben. Süddeutsche Zeitung. 23. April 2022.

Big car

Since 1980, the average weight of a car has doubled.

Large consumption of meat

« The production of meat and dairy products already takes up more than 70 per cent of global agricultural land*), although it only covers 18 per cent of humanity's calorie 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*

Large number of long-haul flights

» Just 1 per cent of the world's population is responsible for half of all flight emissions and four-fifths of the world's population has never boarded an aircraft.

Stefan Gössling, Andreas Humpe. 2020. The global scale, distribution and growth of aviation: Implication for climate change.

» The average annual CO_2 emissions produced by people on this planet are equivalent to those produced by the Swiss alone whilst on holiday.

Stephan Gössling in an interview. Co-author of the study: Sun, YY et al. Drivers of global tourism carbon emissions. Nat Commun 15, 10384 (2024).

Decrease social and economic inequalities



© Sira Anamwong | Shutterstock, Inc. [US] 2018

The impact of global inequality has reached a magnitude comparable to that of climate change.

» No matter how you look at it: of the wealth generated by economic growth since globalisation, the poor have received a little, the very few rich have received an unimaginable amount, and the vast middle class has received little to nothing.
Translated from: Maja Göpel. Book: Unsere Welt neu denken. Ein Einladung. 2022

» Between 2019 and 2025, CEOs' salaries worldwide rose by 54% when adjusted for inflation. In contrast, employees' real wages fell by 12% worldwide.
Alex Maitland, Oxfam International, and Daniel Kostzer. Working for the rich. Oxfam and ITUC Media Briefing. May 2026.

» Energy use by the wealthiest 1% - notably through private jets, yachts, luxury vehicles, and oversized homes - produces more than twice the CO2 emissions of the poorest 50% of the world population combined.

The top 1.7% of energy users consume 33% of global energy, by contrast almost 3 billion people together use only 9% of global energy.
*N.Bento etal. **New demand goals for energy and climate resilience**. Science 392/6796 April 2026. 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

Overhaul the education system



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» The overhaul of education everywhere should build on two foundations: *critical thinking and complex systems thinking*. Arguably the biggest challenge in the world today is not climate change, biodiversity loss, or even pandemic. It is our collective inability to tell *fact from fiction**).

Most real-world systems are complex dynamic systems, whether ocean and climate or urbanization and stock markets. So, an education system that largely ignores these bedrock features until university is obsolete.

*Dixson-Declève S. et.al. 2022. Book - Executive Summary: **Earth for All. A Survival Guide for Humanity**. PDF*

**) Fact describes the world as it is. Fiction describes a world as someone imagines it to be.*

» The development of algorithms will be taken over by artificial intelligence. Our training should, therefore, be focussed on what is specifically human:

Social intelligence, creativity, unorthodox thinking, empathy, decision making in complex situations, interdisciplinary skills, moral and ethical questions and the resulting normative implications.

Theodor H. Winkler. Book: Living in an Unruly World – The Challenge We Face. 2019

» Utopian thinking should actually be practised at school. After all, the way knowledge is currently taught is driven by fear. Performance is scaled and compared, which creates the impression that there must always be a right and a wrong. Students are afraid of bad grades and memorise a lot in the short term. The entire education system restricts the creative mind. We train people to bring economic capital and do little to equip them with utopian capital.

Translated from: Katharina Erschov, Joana Hahn. Interview with utopian researcher Fátima Viera. Wo sind die Utopien hin? Süddeutsche Zeitung. 30. April 2025

Place digitalization at the service of global sustainability



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» We have various stages of industrialisation: mechanisation, electrification, computerisation and now we are in the digitalisation stage. The fifth stage is the ecologisation and the personalisation of our systems - and we need to get to this Industry 5.0 quickly.

It will not work without an economic transformation. We will move from *efficiency* to *sufficiency* and ask ourselves what and how much needs to be digitalised in order to develop a balanced life for people.

Translated from: Ivona Brandić, Professor for High Performance Computing Systems at TU Wien. Warum KI beim Thema Nachhaltigkeit nachsitzen muss. Profil 25. März 2025

» In order to achieve the UN 2030 Agenda's Goals, we need to fundamentally change the way we do business and consume. Although digitalization is hardly mentioned in the 2030 Agenda, it will greatly influence its implementation.

*WBGU German Advisory Counsil on Global Change. **Digitalization: What we need to talk about**. 2018. PDF*

» The enormous scope for shaping digitalisation as a formative force 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».