PROFITABLE CLIMATE PROTECTION

The impact of CO_2 emissions on climate change has been known for several decades. However, the global community has not yet managed to reduce it. Understanding the reasons behind this and what action must be taken are questions for the social sciences, as economic sociologist Jens Beckert explains. The Director at the Max Planck Institute for the Study of Societies also outlines directions for a more successful climate policy.

In 1988, NASA scientist James Hansen issued a strong warning to the US Congress about anthropogenic global warming. Hansen's statement brought the dangers of climate change to the attention of the general public. A few years later, Klaus Hasselmann, who played a key role in setting up the Max Planck Institute for Meteorology in Hamburg, used statistical methods to prove the human influence on the climate for the first time. For this work, he was awarded the Nobel Prize in Physics in 2021. More than three decades have now passed since the threat of climate change became widely known. During this time, however, annual global emissions of greenhouse gases from the combustion of fossil fuels have not decreased, but rather increased by around two-thirds. At the same time, the average global temperature has risen by almost 1.2 degrees Celsius compared to pre-industrial times, and last year an increase of almost 1.5 degrees was measured for the first time. The world is heading almost unchecked towards further significant global warming.

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VIEW POINT

JENS BECKERT

Jens Beckert is Director at the Max Planck Institute for the Study of Societies and Professor of Sociology in Cologne. He researches the social, cultural, and political conditions underlying the social order of markets. Against this backdrop, he also analyzes the reasons for the lack of incentives for societies to move towards a climate-neutral economy and why climate protection policy is often encountering resistance. He explores these questions in detail in his book *Verkaufte Zukunft*, which has been nominated for the German Non-Fiction Prize. The English translation of the book will be published under the title *How we sold our future* by Polity Press later this year.

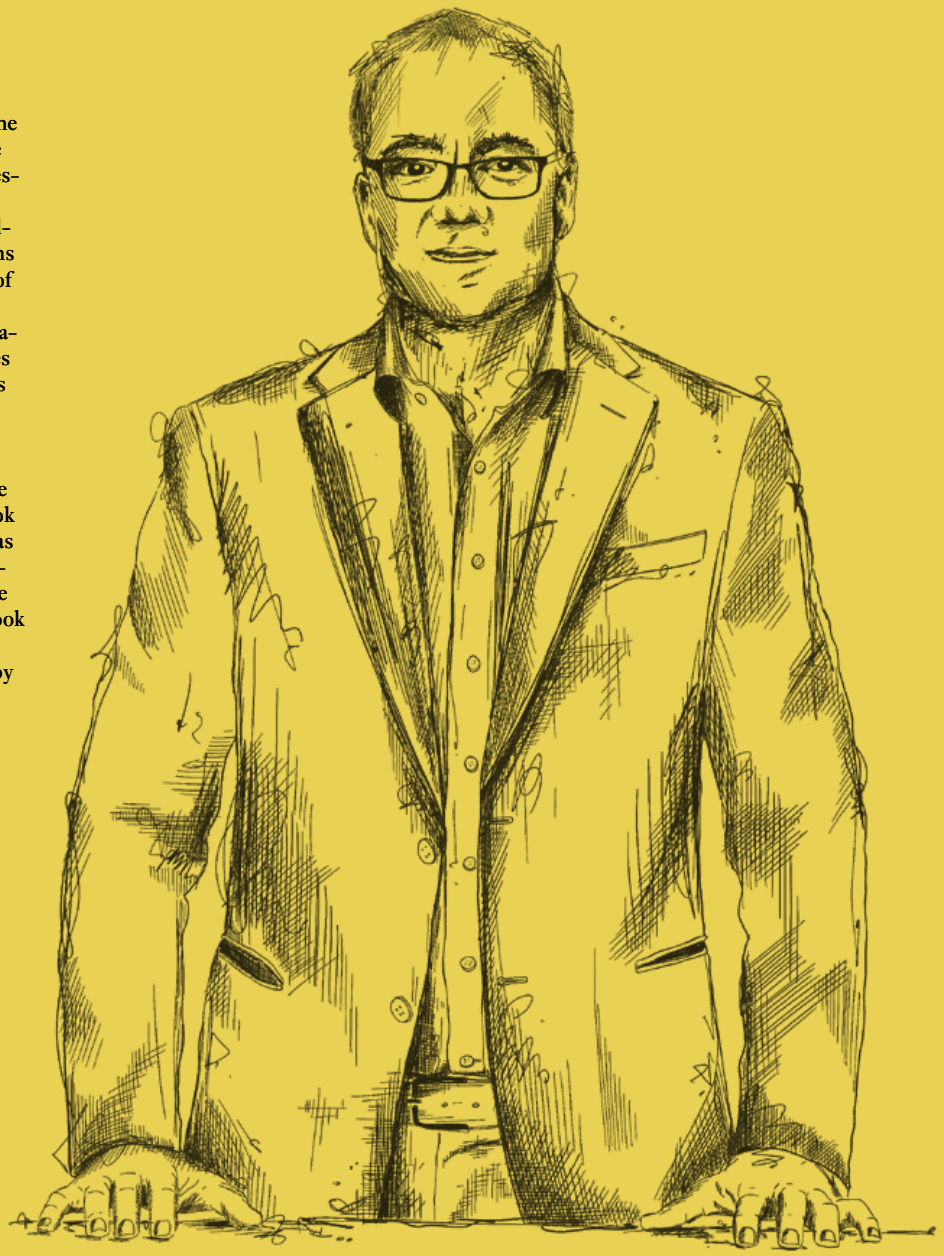

ILLUSTRATION: SOPHIE KETTERER FOR MPG

Forecasts by the United Nations and the International Energy Agency predict a total rise in temperature of 2.5 degrees Celsius, possibly even 3 degrees Celsius, by the end of the century. Although the consequences can be described in general terms, the specific effects on individual societies cannot be precisely predicted. Extreme weather events will increase, precipitation patterns will change, infectious diseases will spread, and densely populated coastal regions will be at risk from rising sea levels. The rapid destabilization of natural living conditions will cause considerable economic damage, exacerbate social and political tensions, and cause severe suffering for many people.

It is no longer possible to stop the predicted further rise in temperature. This is not least because more and more energy is needed in a global economy that is growing by three percent a year, and in view of economic, political, and cultural structures that are geared toward continuity and further growth. While the transformation of the energy supply has already begun, it is nevertheless moving too slowly to phase out the burning of fossil fuels in the decades ahead. Progress in saving energy and the expansion of renewable energies is lagging far behind what is required. Even if the increasing share of renewables in the electricity mix is being celebrated in Germany, across the globe only two percent of primary energy consumption is covered by wind and solar energy. Even in Germany, almost 80 percent of the primary energy used comes from fossil fuels. Populous countries such as India, Indonesia, and Nigeria are just getting started with the next phase of their economic development and will rely heavily on coal, oil, and gas.

IT IS WISHFUL THINKING TO BELIEVE THAT THE PARIS CLIMATE TARGETS ARE STILL ACHIEVABLE.

A largely defossilized energy supply is certainly conceivable at some point in the future. However, the transformation will take far longer than is permitted by the climate targets agreed in Paris. Assuming the combustion of fossil fuels peaks by the end of this decade, as projected, even if existing energy transition plans are implemented, oil, gas, and coal will still be burned in such large quantities until the middle of the century that the resulting greenhouse gas emissions will only be reduced by about a quarter – this according to the International Energy Agency.

These are sobering figures. What can be derived from this? First of all, this state of affairs needs to be recognized. It is wishful thinking to believe that the Paris climate targets are still achievable. Wishful thinking, which is understandable, but which also obscures our view of what is necessary.

After all, closing our eyes and believing that everything will work out in the end is simply an exercise in time wasting. It distracts from the obvious challenge; societies must prepare themselves to deal with the consequences of further global warming. Investments must be made in infrastructures that stabilize living conditions when the consequences of climate change become increasingly severe. Be it flood protection, the greening of cities, the expansion of disaster protection, the conversion of agriculture, or the protection of vulnerable population groups from high temperatures during heat waves, considerable investment is needed in public goods for collective welfare.

IT IS NOT POSSIBLE TO SLOW CLIMATE CHANGE WITHOUT TECHNOLOGICAL PROGRESS.

However, climate adaptation requires more than just the development of resilient material infrastructures. It also involves strengthening social resilience. If societies face more frequent losses in the future, this will lead to politically charged social tensions. How will the losses be distributed? How can social solidarity be maintained in the face of the costs arising from the increasing "unreliability of nature?" The writing is on the wall that climate change will become a significant further cause of social inequality and exacerbate social conflict. Climate change thus also represents a challenge for democracy, which is increasingly less able to alleviate social tensions through the distribution of an ever-expanding pie. Increasing tensions will also build up between the rich industrialized countries and the Global South. After all, these countries will have to bear the brunt of the ecological crisis, they have far fewer resources to protect their populations, and they bear no historical responsibility for climate change.

However, climate adaptation alone is not enough. The destructive and costly consequences of climate change can only be countered by eliminating its causes. The means of achieving this are well known: stop burning fossil fuel by expanding renewable energies and reducing energy consumption. Many of the technological prerequisites for transforming energy systems already exist. Nevertheless, there is a considerable need for further research. Only through research can new technologies be developed that enhance the efficiency of solar and wind power, reduce energy consumption, facilitate greater reuse of raw materials, and enable more cost-effective carbon capture during production or its removal from the atmosphere. It is not necessary to blindly believe in technological development as a panacea for the climate crisis to see that advancing scientific and engineering knowledge is crucial for mitigating climate change.

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Nevertheless, technological progress alone is not enough. The slow transition to renewable energies is partly due to technological limitations. But all too often, available technological possibilities remain unused. The failure of global climate protection over the past three decades clearly illustrates this point. In 2022, electric cars accounted for just two percent of the global fleet. Their share of new sales in 2023 was just under 16 percent. The targets for the ban on new registrations of combustion vehicles, if they exist at all, are constantly being postponed. The expansion of renewable energies is being delayed by lengthy planning procedures, high financing costs, material shortages, and resistance from the public. In both the Global North and the Global South, new coal, gas, and oil deposits are constantly being tapped, even though it is known that these must remain in the ground if global warming is to be stopped. Climate protection policy cannot succeed if existing knowledge is bypassed and technical possibilities are implemented hesitantly, if at all.

SOCIAL SCIENCES DEAL WITH INCENTIVE STRUCTURES – INCLUDING WHEN IT COMES TO CLIMATE PROTECTION.

The question of why societies are so far behind what is technologically possible is a topic to be addressed by the social sciences. It is the social sciences that deal with the power and incentive structures which determine the actions of companies, politicians, the electorate, and consumers – including in the context of climate protection. The social sciences address issues relating to social change, the functioning of political processes, dilemmas of collective action, the causes and consequences of social inequality, and the spread of new technologies. Understanding the precise social mechanisms that influence responses to the climate crisis is crucial for deriving political decisions that could enhance the efficacy of climate protection.

A look at the social sciences reveals how companies, which are guided by economic incentives, defend existing profitable business models, provided that the costs of the associated environmental destruction can be externalized. It is primarily the focus on profit and growth that makes capitalist economic systems too hesitant to take costly measures to protect the climate. However, organizations are also influenced by path dependencies; existing structures, employee skills, and culturally shaped routines determine how interests are perceived. Politicians are not prepared to make costly decisions for voters when the benefits – a less heated climate – are decades away. Citizens resist the costs of the energy transition and

defend existing lifestyles against change. Countries in the Global South want to pursue their path toward greater prosperity, even if it entails increasing greenhouse gas emissions. All of these are social science issues, encompassing questions about the political and social conditions required to alter existing behaviors.

The book *Verkaufte Zukunft* by Jens Beckert was published by Suhrkamp-Verlag. 240 pages, EUR 28

To make progress in climate protection, we must uncover the mechanisms that cause obstacles, while also understanding what can drive transformative actions. Below are a few examples. Companies can be persuaded to defossilize their business models by changing their incentive structures. This requires regulatory measures or subsidies, such as those created in Germany for the restructuring of the steel industry. Resistance to wind turbines among the local population is reduced if local people receive a share of the income from the electricity they generate. A climate levy that provides financial assistance to lower-income groups to offset the costs of transitioning to clean energy boosts acceptance for climate protection measures, especially among those who are typically skeptical of environmental policies. However, societies also have moral resources, which enable individuals to gain fresh perspectives and advocate for the collective good, even if it contradicts immediate personal gain. This is evident in the widespread support for climate protection seen in surveys, as well as in tangible changes in behavior, participation in social movements, and engagement in local climate initiatives.

Understanding these foundational aspects in detail can facilitate the closer alignment of political decisions with the imperatives of climate protection. The question of the conditions under which desirable decisions can be implemented politically is a matter for the social sciences. Their knowledge of social processes is an indispensable prerequisite for successful climate protection policy.