



# HUMANS AND CLIMATE CRISIS

# The end of a singularly beautiful, calm spring day

For the political philosopher Darrel Moellendorf,  
climate policy is a question of global justice

By Rolf Wiggershaus

How can we recognise and assess the opportunities and dangers inherent in human agency? How should we deal with the repercussions of human actions? These questions underlie the research of Darrel Moellendorf, who teaches political philosophy at Goethe University. A conversation about climate change, ethics, justice, and the Anthropocene.

Many things dread and wonderful, none though more dread than mankind.« These words, which Sophocles penned for the chorus in *Antigone* in the fifth century BCE, have long since become aphoristic. In the last strophe of the chorus, the audience then hears, more as foreshadowing than as a genuine warning: »Cunning beyond fancy's dream is the fertile skill which brings him, now to evil, now to good.« That sounds rather like a glimpse into our own age, for which the atmospheric chemist Paul Crutzen proposed the name of the »Anthropocene«. Crutzen, who won the Nobel Prize for Chemistry in 1995 for his research on the thinning of the ozone layer, discovered something that was long so incomprehensible to him – and to other scientists, too – that he initially doubted the accuracy of his measurements, namely, »that just a few chlorofluorocarbons in the huge atmosphere could have such an effect.«

How should we approach these wondrous powers we have? How can we recognise and assess the opportunities and dangers entailed in human agency? Who becomes accountable for what as a result? Kant's old questions reappear here in a new and fresh guise: What can I know? What should I do? What may I hope? In short: What is it to be human? These questions have explosive potential when applied to the topic of »climate change«. We want to explore them in

conversation with Professor Darrel Moellendorf, who teaches international political theory and philosophy at Goethe University. His current research involves climate change and justice, the normative significance of the Anthropocene, and hope.

## Inequality in the age of climate change

In the late 1990s, global inequality and global justice became central themes for Darrel Moellendorf. Asked about authors who were important in bringing these issues to his attention, Moellendorf immediately names two: Dale Jamieson, professor of environmental studies and philosophy at New York University, and Henry Shue, professor emeritus of politics and international relations at the University of Oxford. »They are«, in Moellendorf's words, »the two philosophical grandfathers of climate research who published the first significant philosophy texts on the climate in the early 1990s.«

For Moellendorf, climate change and the increasing insight into its causes and effects brings a factor into play that increasingly highlighted problems of poverty, social inequality, and unequal development. As he describes »inequality in the age of climate change«, it means that »poor countries are particularly exposed and at risk – and, at the same time, they

The most adversely affected victims of the climate crisis live far away from the wealthy West, for example in Bangladesh, where the Padma river rose above its banks in July 2020 and thousands of people lost their homes.

have fewer resources to protect themselves and adapt than the wealthier nations do, the very nations that are mainly responsible for climate change.«

In this situation, the relevance of responsible and ethical political approaches and actions could grow. But has it grown? Moellendorf observes that international cooperation has long been made more difficult by strong competition between states. From the beginning of the international negotiations on reining in climate change, a certain scepticism has been evident among developing nations, who fear that such agreements might impede their economic progress. These countries assert their moral right to economic expansion. Since the publication of Moellendorf's book »The Moral Challenge of

Dangerous Climate Change« in 2014, the situation has broadly become even more grave, and that is why he has given his next book – to be published this year with Oxford University Press – the title »Mobilizing Hope«.

### **A right to sustainable development?**

Moeller sees a starting point for hope in the »right to sustainable development« formulated in the »United Nations Framework Convention on Climate Change« from 1992. »If you take that seriously«, he says, »it means that precisely because energy is so central to societies' developing, global energy policies should not increase the cost of development. If it is more expensive to produce renewable energy than to rely on fossil fuels, there must be some sort of subsidy for this from the highly industrialised countries.« Moellendorf argues that such an action would be appropriate in relations between civilised nations: »That would not be aid, but justice.« Such policies would allow developing nations to skip the stage of burning coal, which is particularly damaging to the environment, and move directly to using renewable energy sources.

These are moral considerations which assume that humanity is a species capable of using the global commons in a rational, sustainable manner. But the reality in highly industrialised countries, as Moellendorf points out, is that »certain political powers are interested in reaping returns for decades on their investments in fossil fuels. Australia, and China as well, provide countries that should be spared from both with coal-fired power stations and coal.« As the atmosphere is the shared property of all humankind, Moellendorf comments that continuing to allow business and political interests to unscrupulously dump emissions into the atmosphere – although we know better and have other options – amounts to abuse and wilful damage. Taking the right to sustainable development seriously demands the exact opposite and would counteract the short-sighted strategies driven by self-interest that undermine climate protection efforts.

### **Protecting the climate and adapting to change – Moral challenges at different levels**

There is a necessary distinction to be made between climate change mitigation and climate change adaptation, Moellendorf explains. The Paris Agreement signed in 2015 outlined a shared responsibility of all countries to avoid dangerous climate change. The long-term goal outlined was to limit the global increase in temperature to below 2°C more than pre-industrial values. In addition, every country presented its own climate policies. »There was no compul-

## IN A NUTSHELL

- The atmospheric chemist Paul Crutzen adopted and popularised the term »Anthropocene« for our age to express humankind's unprecedented power and responsibility.
- For the political philosopher Darrel Moellendorf, climate change is a factor that amplifies the gradient between wealthy nations and poorer ones. This underscores the urgency of a »right to sustainable development«.
- Strategies to mitigate and adapt to climate change present moral challenges at different levels. Mitigation efforts seek to limit the global increase in temperatures to below 2°C. Efforts geared towards adaptation can undermine international solidarity because the financial resources to overcome the impact of global warming are not distributed equally.
- In Moellendorf's opinion, encouraging and accelerating the transition to renewable energy can play a more decisive role in reducing greenhouse gas emissions than criticising economic growth per se. This approach can open opportunities for the developing world.
- Scepticism about the potential of climate protection strategies alone demands, from Moellendorf's point of view, that the deployment of geoengineering approaches (at least of the variants that aim to remove CO<sub>2</sub> from the atmosphere) should at least be contemplated.



sion«, according to Moellendorf, and »every country contributed its own agenda. That was the only way that the Paris Agreement was possible.« In the end, however, the commitments made were insufficient for achieving the jointly determined 2°C objective. There was no general allotment of the overall permissible carbon dioxide budget available to individual nations. Even now this has not happened, and the chances that it might happen practically shrank to zero when the United States abandoned the agreement, if not before.

As a result, adaptations to climate change like building levees and expanding air-conditioning in houses and transportation have become all the more important. Unfortunately, such projects require less cooperation between wealthy nations than protecting the climate itself, and the more short-term and geographically limited such projects are, the less cooperation they require. »Every rich nation that can protect itself and adapt to climate change in this way reduces the pressure for rich and poor nations to cooperate and the chances of achieving cooperation. There is a risk that poorer nations will be left to find the funds for adaptations on their own. The less we work together to mitigate climate change, the higher the bill for adaptation will be that many poorer nations may have to pay out of their own resources.« Two hopes remain in Moellendorf's eyes. One is based on the specifically human capacity to think and act in moral terms: The populations of

highly developed countries could see themselves as ethically obliged to support the populations of developing nations as a matter of justice. So far, however, this has not worked. The other hope is based on humans' capacity to ascertain and serve their own interests, as could happen when »the highly industrialised countries realise that no wall is high enough and no ocean deep enough to protect them from the problems in the developing world and the people fleeing them.«

Other hopes remain necessarily vague. Perhaps an international movement of young people who began thinking for the long-term at a young age will not be fobbed off with compensations and distractions in the face of mounting crises and increasingly tangible evidence for global warming.

#### **Without geoengineering, it is not achievable**

Moellendorf is not primarily concerned with criticising growth. While he agrees with the argument – made most prominently by the economist Amartya Sen – that we need an alternative, holistic form of growth that considers human development rather than just economic factors, the way the global economy is connected means that slowing economic growth in the highly industrialised countries now would also create difficulties for the developing world. Moellendorf thus considers it more important to develop policies that give the developing world cause to hope for a better future in which every-

**Paltry harvests: In Zanzibar (Tanzania), women collect seaweed used in cosmetics and medicine. Rising water temperatures attributable to climate change damage the seaweed, however, causing it to die prematurely.**

one can live a life of prosperity. This paradigm of »growth without fossil fuels« should, he believes, be introduced as soon as possible. It is currently still aspirational, no more than a »mere hope«.

And this brings us on to the topic of geo-engineering. A good six years ago, in 2015, Moellendorf gave listeners at a panel discussion on the topic of »Climate Change and Justice« in Bad Homburg something to reflect on. He commented at this time that there could be no alternative to an ambitious strategy and a truly global effort to end our reliance on fossil fuels, but that other strategies to deal with climate change would also be needed if emissions cuts alone did not suffice to achieve the objective of limiting global warming to 2°C or less. In that scenario, the hour of the climate engineers would strike, and it would be their turn to suppress the effects of rising global temperatures.



### About Darrel Moellendorf

**Darrel Moellendorf** is a professor of international political theory and philosophy at Goethe University with a focus on political theory and environmental, moral, and political philosophy. His philosophical research is driven primarily by the current problems of the world in which we live.

The projects he mentioned then ranged from reflecting sunlight back into space through the injection of aerosols into the stratosphere to pushing greenhouse gases deep underground. In Norway, for instance, a plant that captures carbon dioxide released from the ground in the process of drilling for natural gas and immediately pumps it back into the ground was developed at the end of the last millennium and has since evolved into a major project in the carbon capture and storage (CCS) business.

Today, Moellendorf's view of the situation has become even more clear-cut: »There is already too much CO<sub>2</sub> in the atmosphere. We must not only reduce our emissions to zero but also remove CO<sub>2</sub> from the atmosphere and bury it somewhere deep under the ground or the ocean.« Approaches like planting trees will not suffice to solve the problems, he believes, as there is not room enough on the Earth to plant enough trees and the existing space is also needed to grow food for all. Coping with the

destructive impact of the growing prosperity of industrialised societies cannot be achieved, he considers, without developing and testing new technological solutions. Diverse projections are being made and technologies being trialled, and Moellendorf urges those responsible to always consider the question of the extent to which they exacerbate or alleviate distributive injustices.

### Humankind is destroying its own »stage«

During the summer of 2020, yet another hot and dry summer, the *Süddeutsche Zeitung* reported that the earth had provided humankind with a stable backdrop for an unusually long favourable climatic phase lasting almost 10,000 years – the climate history equivalent, as it were, of an unusually pleasant and calm spring day. After almost two million years in which humans had existed as hunter-gatherers, the introduction of tillage and animal husbandry had ushered in the »neolithic revolution« and human civilisation in a story given the title »Man Makes Himself« in a book on the subject published by Australian prehistorian Vere Gordon Childe in 1936. The book has since been republished and updated several times, but does that title have a different ring to it now? At this juncture when humanity's once so solid stage has become rickety and started to collapse like a house of cards?

The philosopher Moellendorf sums up the problem in two pointed questions: If new technological capabilities make it possible to gradually replace or improve parts of a human – »Is that still a human being, or something else?« And if humans consider themselves capable of manipulating every aspect of their environment and proceed to do just that – »Does nature then still have a tangible existence independently of its configuration by humans?« Moellendorf considers the term »Anthropocene« appropriate for our age, but also fraught with deep meaning: »At the end of our conversation, we have reached the topic of the »Anthropocene«. The Anthropocene is an era that is utterly different from anything humans have experienced before: there are no longer any places on which they have not left their mark.« ●

### The author

**Dr. Rolf Wiggershaus** teaches at Frankfurt's University of the Third Age and works as a freelance author with a focus on society and nature.

wiggersh.r@t-online.de