

Interview

“What we need is a new concept of fairness”



Professor Ottmar Edenhofer, chairman on the Intergovernmental Panel on Climate Change (IPPC) and chief economist of the world-renowned Potsdam Institute for Climate Impact Research in an interview on global budget limits for CO₂ emissions, the pros and cons of emissions trading, and permanent flat rates for pollution rights.





Professor Ottmar Edenhofer takes up position. The acting director of the Potsdam Institute for Climate Impact Research wishes to equally distribute emissions rights on a global level.

Experts in the fields of economy and science worldwide are insistently demanding new parameters to be defined by politics – for example, in the financial sector. Which framework conditions should be set up for a more responsible handling of climate change?

There is a clear answer to that question: We need global emission trading. If we want to avoid a dramatic climate change, we have to limit the emissions of CO₂ from fossil fuels into the atmosphere to 850 gigatons for the rest of the century. Within the last ten years, we have already deposited 260 gigatons of CO₂ in the atmosphere. If we continue this habit, our limit will be reached in less than 30 years. This is why we need a global agreement on how much we wish to continue depositing in the atmosphere. This is the most important parameter of all. Without this agreement, everything else makes no sense.

How can emissions trading help? After all, it is said to be having a positive impact today already.

Within the context of a global carbon budget of 850 gigatons emissions rights should be issued. These rights have to be tradable. Because only

then will CO₂ be avoided, where easily possible and thus most economically sensible. In addition we need a new fairness concept: we must distribute emissions rights equally among all countries. In my opinion, the following is a fair proposal: every person on this planet should have the same carbon budget.

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How well is the concept of emissions trading working in areas where it is already being practiced?

We are definitely on the right track. Emissions will surely be reduced in the area of electricity. But here, too, we are dealing with a sustainability issue. Investors need to be clearly signaled that emissions must continue to drop even after the year

2020. From my point of view, this is an issue for this year's climate conference in Copenhagen in December. The climate conference needs to end with at least an agreement on how much we plan to deposit in the atmosphere within the next five decades. What should then become eminently clear is that we won't be able to stay within our carbon budget with an increase in efficiency alone. We need technological innovations – such as with CO₂ storage options and in the area of renewable energy. These innovations will only come about if CO₂ has a price, a price that sets the right incentive.

What is your opinion on the possibility of stabilizing CO₂ certificates at a price of approximately 40 Euros per ton – or, shall we say, setting a long-term flat rate for pollution rights?

Not very convincing. I believe it would be wrong to set a fixed price. The CO₂ price needs to continuously rise until the transition to a global economy that is emissions-free is completed. If we pretend to stabilize this price at a relatively low level, we won't reach our goal, and necessary investments in avoidance technologies – such as carbon capture and storage (CCS) – will remain undone (see p. 8, editor's note). However, I can imagine that a type of climate central bank could be able to even out major price fluctuations with market interventions. This way investments in risky technologies could be a little more secured.

Are CO₂ taxes a viable alternative?

If we knew everything there is to know about climate change, this solution would be correct. If you know everything about future climate changes, the technologies that are available, and also know how much CO₂ needs to be reduced, it doesn't matter whether you levy taxes and thus set a price or whether you control the amount of emissions by issuing certificates. It does make a difference if you can't precisely measure the costs of avoidance strategies or the oncosts of climate change. With the knowledge we have today, we can't make an accurate analysis of the damages due to climate change. We can make better assumptions regarding costs of avoidance strategies, as the required technologies are already available. This is the reason why even those economists in favor of an emission tax believe we won't be able to do without emissions trading in the long run.

To date, rich industrial countries are having the biggest impact on our climate. Yet threshold and developing countries are not far behind. Will aspiring countries such as China and India be able to accept the postulated emissions limits?

Here we will be confronted with major distribution challenges as developing countries wish to include historical emissions. But, more importantly, we need to agree on the fact that the atmosphere has limits regarding further deposits. We have limited space left for further CO₂ deposits and that space needs to be distributed even-handedly. Afterwards, the global economy has to be carbon-free, which is why we must accelerate the transition process. If we focus on developing according innovations and technologies we will be able to solve the distribution

conflict more easily. For that reason technological advancements are an essential requirement for climate protection.

What is the most important technological advancement for a global economy without CO₂?

More energy efficiency, carbon capture and storage, further promotion of renewables, and a moderate expansion of nuclear energy. In addition, state-of-the-art nuclear power plants must be developed that surpass the common light water reactors in discussion today. All measures could be part of a big economic stimulus program. ■



The person

Professor Ottmar Edenhofer, PhD, born in 1961, is one of the world's most renowned experts on economic aspects of climate change. He is one of the chairmen of the Intergovernmental Panel on Climate Change (IPCC) – founded by UNEP and the World Meteorological Organization (WMO). The economist and philosopher is also acting director at the internationally recognized Potsdam Institute for Climate Impact Research and tenured professor for Economics of Climate Change at the Technical University, Berlin.