

# Ottmar Edenhofer

## Climate science's honest broker

**The co-chair of the IPCC's working group on mitigation explains to Sonja van Renssen why scientists should be policy-relevant without being policy-prescriptive**

Ottmar Edenhofer says he has three jobs: teacher, scientist and honest broker between science and the public. The first offers him the greatest pleasure, the second a stimulating work environment and the third a set of unprecedented challenges.

The neat man in front of me is professor of the economics of climate change at the Technical University Berlin, deputy director and chief economist at the Potsdam Institute for Climate Impact Research (PIK), and co-chair of the working group on mitigation of the Intergovernmental Panel on Climate Change (IPCC).

The IPCC is the world's leading scientific authority on climate change and its work underpins the international climate negotiations currently under way in the UNFCCC. The famous 'two degrees target', the goal of limiting average global temperature rise to 2°C, is based on the IPCC's calculations that any more would probably trigger dangerous and irreversible climate impacts.

Speaking at a conference in Brussels in May, Professor Edenhofer makes an interesting point: "We also have to discuss the risks of different emission reduction scenarios." It is technically feasible to limit the rise of the atmospheric concentration of CO<sub>2</sub> to 400 parts per million, equating to a more than 70% chance of keeping warming to within 2°C. But this would require extensive bioenergy and carbon capture and storage (CCS) use, according to results from the EU's climate research project ADAM presented at the conference.

Dangerous climate change may be avoided, but at what cost, asks Professor Edenhofer. Extensive bioenergy use would have serious implications for land use and potentially large effects on food supply and price, biodiversity and, ultimately, greenhouse gas emissions and our resilience to climate change.

For the UN's December Copenhagen climate conference, additional scientific input may not be necessary, he says, but it is crucial in the medium term to assess the risks, opportunities and costs of actions against climate change.

At the same time, it is not the IPCC's role to tell policymakers what to do or how to do it, he continues. "There is always a risk or a temptation for scientists to transform themselves into truth-tellers," the professor says.

"I would say I try to resist this. My main task is to assess the scientific literature and then be policy-relevant without being policy-prescriptive. If I feel I should steer a community or a government, I should become a politician not a scientist."

He makes the point that while science can offer facts about how the climate is changing and estimates of how it could change in future, deciding on a policy mix is a normative judgment that depends on valuing the future.

"What we have to do is offer alternatives which are in accordance with value systems [in the world today].

Then the public and politicians have to decide what to do," he says. It is a political and moral, not a scientific decision, to decide on the acceptable risk of overshooting the two degrees target and to balance between efforts to mitigate and efforts to adapt to climate change.

Scientists' models contain value assumptions and these must be made explicit, says Professor Edenhofer, to offer policymakers the best available information. Clear and comprehensive

information has always been a driving force in Professor Edenhofer's career. As a young man of 18, he launched a public healthcare information hub in his home town that is still thriving.

"I was involved in the policy of the small village I lived in and I realised that stakeholders did not have the relevant information to make decisions properly. So I launched an enterprise that has survived over the last three decades. The most important difference was to provide relevant and proper information. Then the different parties came together to solve the problems."

Professor Edenhofer finds that the most challenging aspect of his role at the IPCC is to remain independent. He is lobbied by business, policymakers and NGOs, and says it can be hard to "really remain an honest broker who is able to understand all the alternatives". What he enjoys the most is "to think about the truth and also to think about issues like justice, and to deal with very bright, nice and committed people".

The Bavarian has one regret: "I would like to have a little bit more time with my wife and two kids." Several times now his son has said to him that the best thing that could happen would be for the IPCC to say it no longer wants him as its co-chair. But Professor Edenhofer is already thinking of the IPCC's next full review of climate change and its impacts: its fifth assessment report is due in 2014.

