Give the climate issue back to the researchers

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Give the climate issue BACK TO THE RESEARCHERS

Seven years of uncertainty came to an end when the Kyoto Protocol was finally ratified. The agreement was negotiated in Japan in 1997, after which it was simply a matter of take it or leave it, according to Professor Pekka Kauppi of the University of Helsinki. The ball was well and truly in the court of the politicians, the civil servants, and the lobbyists. Now that the discussion has shifted to the climate agreement that will follow on from Kyoto, we need the critical input of the research community if we are to get a fair and effective agreement, says Kauppi.

Text: Pekka Kauppi and Peter Herring

The biggest benefit of the Kyoto Protocol, according to Professor Pekka Kauppi, a member of the United Nations' Intergovernmental Panel on Climate Change between 1993 and 2002, was the process itself.

"Politicians, the business community, and the man in the street got to grips with the climate question for the first time. Before that, it had largely been the preserve of researchers. It also taught researchers and academics something about the realities of the practical world as well."

Now that the Protocol has been ratified and is being implemented — and there is no longer a danger of a critical voice being interpreted as an effort to overturn the entire process and what it represented — it is time to cast a critical eye over what was agreed, he says.

Getting the timing right

"Perhaps the largest single weakness of the Kyoto Protocol is its timing. The Protocol was ratified in February 2005, yet sets out to define the parameters for a period extending back to 1990 and ends quite soon, between 2008 and 2012. The past is the past, and we can't do anything about that. However, it only leaves decision-makers a little over five years to achieve something, and that's not long."

Things would have been easier if the emissions reductions now agreed had been agreed, or had been on the agenda, in 1988 or 1989, says Kauppi.

"The basic structures underlying industry, housing, energy consumption, and transport can be best modernised when plants and energy systems come to the end of their useful life and need to be replaced. Only a small percentage of this infrastructure will come to the end of its life over the next five or so years, however."

Another problem with the Kyoto Protocol and the agreements signed in its wake, according to Professor Kauppi, is that they have set country-specific quotas — even for small countries depen-
dent on imports and exports, whose products can be used far away from where they were made and where the emissions released during their manufacture were generated.

"The Kyoto Protocol does not focus on the emissions burden on the end-consumer, but concentrates instead on statistics that take no account of the flow of goods contained in imports and exports."

One reason Finland has high, relative emissions is that its forest products and metal industries are energy-intensive export industries, he continues.

"You could say that people in Central Europe and Britain have outsourced the carbon dioxide emissions generated by their paper consumption to Finland, where much of the paper they use is made."

What's happening in the world's tropical forests?

Kauppi points to the calls being made to eliminate 'blind spots' like this.

"Osmo Soininvaara, Chairman of the Finnish Green League, for example, has argued that we should aim for a global trade in CO2 emissions in the next stage of international negotiations on climate policy. Eija-Riitta Korhonen, a member of the European Parliament, has suggested sector-specific solutions designed to encourage the development and adoption of low-emission technology."

Professor Kauppi also highlights the shortcomings in the Kyoto Protocol regarding the definition of carbon sinks.

"Protecting vegetation and other flora, and using timber resources more sustainably, have a role to play in supporting climate policy. Any new international climate agreement should definitely include some reference to tropical forests.

"Protecting these resources is very important in terms of sustainable development. The number of species in tropical forests is falling all the time as they are felled or 'managed'. The loss of forest cover in South America, Africa, and Asia is generating virtually the same quantity of CO2 emissions as the use of fossil fuels in the EU."

Putting the scientific community to work

One way forward, according to Professor Kauppi, would be to appoint an international group of scientists to evaluate the shortcomings of the Kyoto Protocol and to draw up a list of concrete proposals for controlling the greenhouse effect.

The United Nations' Intergovernmental Panel on Climate Change could be one such forum for doing this, he says, but it would probably not be the best solution, because its members are only part-time and the Panel does not really work as a team.

"One solution could be the International Institute for Applied Systems Analysis (IIASA), based in Austria. The IIASA created the RAINS, or Regional Air Pollution Information and Simulation, model used in Europe to fight the problem of sulphur and nitrogen emissions, and which enabled Europe to get the acidification problem under control and save billions in environmental protection costs. We need a similar model now to cut greenhouse gas emissions."

Another alternative, he says, would be to base an international group of researchers in the US, or split the work between a number of research centres around the world, including Tsinghua University in China and the Energy and Resources Institute in India.

"What's important is to set a clear agenda, set up an international team representing the best expertise available, and set a clear deadline. Nobody would have anything to lose, it wouldn't even cost much, and such a team could deliver its preliminary results in a year or so. Parallel to this, things could be pushed ahead on the political and diplomatic fronts as well."

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ter years of indecision on the subject, Russia finally ratified the Kyoto Protocol last autumn. This enabled the minimum of 55 signatory countries and 55% of the CO₂ emissions of industrialised countries set for the Protocol to be met, and it came into force in February this year. The US and Australia had announced earlier that they will remain outside the agreement, which establishes binding emission reduction targets for industrialised countries between 2008 and 2012. Developing countries have also signed the Protocol, but are not required to make cuts in greenhouse gases.

The next round of climate talks

The UN negotiations on post-Kyoto commitments and the next protocol are scheduled to start this year, and the plan is that they should lead to an agreement by 2008. The history of international negotiations on climate change shows, however, that this will be a time-consuming process, and three years could well be too short a time-frame to achieve consensus on something that affects everyone around the world.

The intention is to launch the first round of the post-2012 negotiations at the Montreal Conference on Climate Change (Eleventh Conference of the Parties to the UN Framework Convention on Climate Change, COP-11) in early December. The EU tried to launch debate on the post-2012 situation last December at the COP-10 conference in Buenos Aires, but this initiative, and all discussion on long-term climate policy, was rejected by the US amongst others. The majority of developing countries — headed by India, OPEC countries, and China — opposed any proposals that might impose emission limits on them in the future.

One can understand the reluctance of developing countries to take part in cutting emissions when one looks at the projected development of carbon dioxide emissions in the future. According to the IEA’s World Energy Outlook published in 2004, CO₂ emissions in developing countries are expected to more than double by 2030. The bulk of this rise will take place in China and India. If these emissions in the powerhouses of Asia are not limited, the world’s emissions will inevitably rise.