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Greenhouse gas 'plan B' gaining support

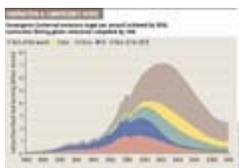
19:00 10 December 03

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The Kyoto protocol is dying a death of a thousand cuts. Last week, the US reiterated that it wants nothing to do with the sole international agreement designed to save the world from runaway global warming.

The European Union, Kyoto's main promoter, revealed that most of its members will not meet their treaty's obligations. And Russia once again seemed to be on the point of wrecking the protocol completely.

These blows follow a history of bureaucratic squabbling and political posturing by the protocol's signatories, and many observers now fear that it has been damaged beyond repair. So does the world have a plan B for bringing the emissions of greenhouse gases under control?



Contraction & Convergence model

The answer is yes, and it goes by the name "contraction and convergence", or C&C. The idea has been around for a decade, but lately it has been gaining ever more influential converts, such as the UK's Royal Commission on Environmental Pollution, the UN Environment Programme, the European Parliament and the German Advisory Council on Global Change, which last week released a report supporting the idea.

A source within the German delegation in Milan said this week that his government was taking the idea "very seriously indeed". Even observers outside the environmental establishment, such as the World Council of Churches, back the proposal.

Simple and fair

For the past two weeks, representatives from around the world have been in Milan, Italy, for COP9, the ninth annual meeting of signatories to the 1992 Framework Convention on Climate Change. Many of them now privately admit that C&C is what we have been waiting for.

While Kyoto has become a convoluted, arbitrary and short-term measure to mitigate climate change, C&C could provide a simple, fair, long-term solution. And above all, it is based on science rather than politics.

The "contraction" in C&C is shorthand for reducing the total global output of greenhouse gases. At the Earth Summit in Rio in 1992, the world's governments agreed to act to prevent dangerous climatic change. The Kyoto treaty was their first fumbling attempt to meet that pledge, and if implemented would set emissions targets for industrialised nations for the period 2008 to 2012.

But increasing numbers of delegates are viewing Kyoto as part of the problem, not part of the solution. Its labyrinthine rules allow nations to offset emissions with devices such as carbon-sink projects, and are so complex they are virtually unenforceable. Even if Kyoto becomes international law, it cannot be the blueprint for future deals beyond 2012. A new start is needed.

These delegates argue that it is time to get back to first principles to find a formula to fight the "dangerous" climate change mentioned in the Rio treaty. And there is an emerging consensus that "dangerous" means any warming in excess of 2 °C above pre-industrial levels; so far temperatures have risen by 0.6 °C.

Drastic cuts

To keep below the 2 °C ceiling will mean keeping global atmospheric concentrations of carbon dioxide,

the most important greenhouse gas, below about 450 parts per million. But because CO₂ and other greenhouse gases linger in the atmosphere for a century or more, staying below that ceiling will mean drastic cuts in emissions over the next 50 years.

The Royal Commission on Environmental Pollution has decided that a 60 per cent cut in global emissions by 2050 is needed, which the British government has adopted as its national target. But if the world is to manage such a transformation, then hard choices will have to be made.

And that is where the "convergence" part of C&C comes in. Industrialised nations have so far done most of the polluting. The US emits 25 times as much CO₂ per head as India, for example, but if pollution is to be rationed, that cannot carry on.

So under the C&C proposals, national emissions will converge year by year towards some agreed target based upon each country's population (see graph). In effect, by a target date that the Royal Commission and Germany's advisory council agree should be 2050, every citizen of the world should have an equal right to pollute.

Emerging technologies

The average global citizen is responsible for pumping just over a tonne of carbon into the air each year. To prevent dangerous climate change, while allowing for some population increase, the world has to reduce that figure to around 0.3 tonnes per head.

That target is not quite as daunting as it sounds. Emerging technologies for generating energy without burning fossil fuel and for increased energy efficiency suggest it is achievable within a few decades without serious damage to the world's economic health.

But because some nations will find it harder than others to meet their targets, especially early on, the C&C formula also embraces the idea of countries trading emissions permits. This is already part of the Kyoto formula, but with every nation in the world involved, and with far more stringent targets, it would be a much bigger business.

Many of the politicians and diplomats most intimately involved in negotiating the Kyoto Protocol targets six years ago have emerged as supporters of C&C in Milan. "We should not be fixated on Kyoto but on the climate change problem itself and what comes after Kyoto," said Raul Esatrada, the Argentinian diplomat who chaired the crucial Kyoto negotiations. And that, he says, is likely to mean C&C.

The chief climate negotiator for the US under President Clinton, Eileen Claussen, says that "almost any long-term solution will embody a high degree of contraction and convergence." She predicts it will become "an importance force in the negotiation".

Pollution for sale

On the face of it, C&C seems anathema to countries like the US, which would have to buy large numbers of pollution credits in the early years. But it does meet most of the criticisms made by the Bush administration of the Kyoto protocol.

In particular, Bush called it unfair that Asian trading competitors, as developing nations, had no targets. Under C&C every nation would ultimately have the same target. Some, such as China, already have per-capita emissions in excess of targets they might have to meet by mid-century.

But perhaps the greatest attraction of C&C is the complete break it would make from the horse-trading, short-term fixing and endless complications that have plagued efforts to bring the Kyoto protocol into effect. In 2002, the US shocked the world by refusing to ratify the treaty, and just last week the EU, its biggest cheerleader, admitted that only two member states, Sweden and the UK, were on course to meet the targets laid down in 1997.

As business grinds on in Milan, the bureaucratic tangles of the Kyoto protocol are becoming ever more convoluted as nations discuss matters such as whether rubber plantations might, like forests, count as a "carbon sink" for which they can claim credit.

Six years after the heady Kyoto night when 171 nations thought they had signed up to save the world, the disconnect between the science and the politics remains huge.

Fred Pearce

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