

A scientific agenda for climate policy?

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The complementary interests of climate scientists, national and international bureaucracies and politicians have so far determined the political dynamics of the global warming debate. But cracks are now beginning to appear.

CONTROVERSY continues to surround the Framework Convention on Climate Change, signed at the Earth Summit in Rio in 1992. While preparations are under way for the first meeting of the signatories to the convention, due to be held in Berlin next year, the scientific community, represented by the Intergovernmental Panel on Climate Change (IPCC), is already under fire for its delay in coming up with satisfactory advice.

Greater scientific certainty over climate change is unlikely until early in the next century. Indeed, there are doubts over whether we shall ever know enough about climate change in advance of the policy decisions needed to head off potential dangers. But policymakers continue to hope that, with sufficient funding, the appropriate scientific knowledge can be produced according to a timetable.

The climate treaty requires industrial countries to try to stabilize their national greenhouse gas emissions at 1990 levels by the year 2000. No binding targets beyond 2000 have been agreed; indeed, hopes are fading that this can be achieved globally. At Rio, the treaty was left deliberately imprecise to ensure both that the United States signed, and that the entire issue remain open to future research results.

Reductions in emissions have already been achieved, though primarily as a result of the recession and (for example in the former East Germany) deindustrialization. In some countries, the rapid replacement of coal and oil by less carbon-intensive fuels may be sufficient to achieve stabilization of emissions. But energy systems are difficult to turn around, and both development goals and sociopolitical expectations are slow to change.

The problem lies not with nature but with society. Given this fact, why have governments, despite their alleged concern over climate change, concentrated on funding research in the physical sciences to investigate the subject? Are these sciences driving policy — or vice versa?

Taking global warming seriously requires giving attention to issues such as the choice of fuels and technologies, energy pricing and investments¹. High economic stakes are involved. As a result, both the climate treaty and its underlying scientific debate have become swept up in global energy politics. The responsibility given to science is great — perhaps too much so for institutions increasingly

dependent on 'soft' contract research income.

Scientists naturally prefer to experiment with mathematical models of the Earth's various systems free of responsibility for policy². Uncertainty is their security. Indeed, some can already be seen withdrawing from policy involvement. For



Demonstration against the UK tax on heating bills—changing social attitudes make more difference than defining energy problems.

others, including the chairman of the IPCC, global warming has become the justification for a crusade against materialism and for a 'new organizing principle' — the preservation of the Earth. Yet global warming could not have entered international politics without the support of influential voices from the scientific community.

How and why did scientists create public concern in the first place? And why was this taken up — far too rapidly for many scientists — not only by environmentalists, but also by governments? The political energy needed to turn a research topic into a treaty with major implications was generated surprisingly quickly, even though it can still be argued that the treaty does little more than codify the research, data collection and monitoring needed to

underpin future national policies.

Much of the answer lies in shifts in the energy market in the 1980s. During this decade, both the Chernobyl accident and cheap fossil energy challenged forecasts of energy demand, and invited the involvement of energy interests in global politics. Energy prices generally collapsed in the middle of the decade and have remained low. This reversed the situation of the 1970s, when both the expansion of nuclear power and major research and development efforts on renewable energy technologies created major institutional interests. By the 1980s, these institutions found themselves under threat, and therefore began lobbying via well-established channels inside governments, leaving green rhetoric to the media, environmental groups and UN agencies.

Global warming can therefore be said to have gained its political relevance less from scientific evidence and speculation than from the unexpected collapse of fuel prices, which recreated an earlier world of cheap energy. A 60 per cent drop in oil prices occurred only months after scientists had made a sweeping statement on the possible dangers arising from growing fossil fuel consumption. The 'green' energy losers consequently tried to 'capture' the expected regulatory process, while coal (and to a lesser extent oil, for which substitution was harder) became the main villains.

So far, the oil industry, rather than nuclear power, has been the major winner. With expensive European coal likely to disappear altogether, and the former Soviet Union opening up its resources to the West, natural gas is replacing both coal and nuclear power in unregulated markets. Gas has become the 'rational' choice for generating electricity, with lower fuel and labour costs, reduced emissions, and the added bonus of avoiding further investments in costly acid rain abatement technologies, such as flue gas desulphurization.

Where this strategy aroused protests, the greenhouse effect was cited in justification. When the collapse of oil prices reduced tax revenue, the privatization of electricity became even more desirable. Individuals and firms were urged to invest in energy-saving measures, if only to reduce cost increases. 'No regret policies', rather than precaution, became the response to scientific uncertainty. As a result, policies could be rationalized as

