

Climate change in a myopic world

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Introduction

As an academic whose employment and conscience are dominated by climate change it is easy to forget the UK is a peculiar little island. Within our shores not a day passes where the media isn't either bashing climate-science or predicting climate-induced apocalypse. Yet, across the North Sea, even our environmentally more progressive neighbours are not subject to this intensity of debate; perhaps our sea-faring nation's obsession with 'weather' explains the difference. Whatever the reasons, it is certainly rewarding to witness science so rapidly informing the climate debate. What is less welcome, however, is the subsequent economic capture of that debate and the almost sterile policy arising from it.

The challenge

Put simply, CO₂ is the principal greenhouse gas and, notwithstanding the current economic downturn, global CO₂ emissions are increasing at a rapid rate. More alarmingly, if international efforts to return global society to previous growth paths are successful, there is no indication that this rate is likely to change significantly in the coming decade or that global emissions will peak before 2020.

Current global emission trends and the absence of meaningful political leadership by even the more climate-progressive nations, suggests that

there is now very little hope of staying below the 2°C threshold between 'acceptable' and 'dangerous' climate change. In other words, according to our scientific understanding of the issues, there is a very high probability that the world will enter a prolonged period of what some have defined as "dangerous climate change". The sooner deep reductions in global CO₂ emissions can be achieved, the less we will venture into this "dangerous" and unpredictable territory.

Within the UK, there have been several important indicators that the Government is beginning to consider seriously the mitigation challenge. At a national level the lengthy energy review process and the more recent report by the Committee on Climate Change are evidence of such. Whilst at an international level the Treasury commissioned 'Stern review on the economics of climate change' demonstrated interest in the issue from ministries other than those with immediate environmental responsibilities.

Economic hegemony

The publication of Nicholas Stern's thorough and solemn review has, in many respects, served to catalyse both public and private concern over our escalating emissions of CO₂. Whilst the broad acknowledgement of climate change as a serious and urgent policy issue is certainly welcomed, I, and I suspect many climate scientists, see the response to the Stern report as another sad indictment of societies privileging of economics over science. For more than a decade dedicated climate scientists have attempted to provide public and private policy makers with reasoned and accessible arguments as to why our emissions of CO₂ should be curtailed substantially. Despite the wealth of such reports and papers from, for example, the Intergovernmental Panel on Climate Change and the UK's own Hadley and Tyndall Centres, it has taken a relatively narrow *financial* interpretation of the science to alert policy makers to the undesirable repercussions of a climate-induced collapse of existing human societies and ecosystems. In policy parlance, this is another example of science, and even society and nature, simply becoming subsets of contemporary market economics.

¹ <http://www.britishtscienceassociation.org/NR/rdonlyres/B794DBF2-E37A-4B9C-AC2C-770C4AE3F257/0/FinalversionspaMarch07.pdf>

If this were just the sour grapes of scientists wishing to be regarded with the reverence of economists it would be of little relevance to the climate change debate. However, not only does the severity of climate change only gain currency within policy realms when couched in terms of pounds, shillings and pence, but so, it appears, does the debate on how to control our CO₂ emissions. Policy makers refuse stubbornly to contemplate mechanisms for mitigating CO₂ emissions that cannot be demonstrated to, at best, not threaten short-term economic competitiveness and preferably offer early monetary returns. Again, the prevailing dominance of this accountant mentality would not be a concern if it could be reconciled with the direction and *scale* of the message emerging from the scientific and quantitative analysis of climate change. Unfortunately, there currently appears no scope for reconciliation, despite valiant attempts by some to characterise climate change and the mitigation of CO₂ in terms of win-win opportunities.

Unique scale

Whilst there are several important examples of where responses to looming environmental crisis were, at least in significant part, achieved at small economic cost or even on the basis of win-win (e.g. acid deposition and ozone destruction respectively), these are poor analogies for climate change and CO₂ emissions. Certainly there are technical and thereby commercial opportunities for providing low or zero CO₂ energy supply; similarly technologies are available for improving the efficiency of how we use energy. These opportunities, however, are dwarfed by three aspects of the scale of the problem, which collectively negate the appropriateness of analogies and consequently frame climate change as a problem unique to modern societies. Two of these scale issues clearly work in conjunction; the global pervasiveness of the fossil-fuel energy system and the quantity of fossil fuel that has, is and will likely be combusted. The other scale-related distinction between climate change and earlier 'environmental' problems arises from the substantial disjuncture between political timescales and those associated with the carbon cycle.

The dilemma

Consequently, we are today faced with a dilemma. Do we continue to pay lip service to the issue of climate change, and hope future generations will understand our preference for barely-veiled hedonism over stewardship? Or are we prepared to respond genuinely to the scale of the challenge we have brought upon ourselves? If it is the former, then we should carry on as we are, with a weakly-capped and leaky European Carbon Emissions Trading Scheme, the expansion of aviation with token green gestures, installing a few thousand wind turbines and the several nuclear power stations, buying the occasional hybrid car and swapping to energy efficient light bulbs, - all with a self-congratulatory, but ultimately insincere, pat on our own backs. If it is the latter, then we need to begin by revisiting the financial accounting model that has come to dominate our lives, and re-establish society's dominance over economics. Has the tripling of our economic wherewithal since the 1950s brought about a tripling in our sense of well being, do we really gain significant welfare benefits from our daily access to *mange tout*, and are the carbon emissions, noise and physical division of communities by busy roads adequately compensated by our easy access to private transport?

The scale of the challenge arising from our understanding of climate change will demand responses that, despite all our economic massaging, will incur substantial financial costs; - we can no longer have our short-term and narrowly-defined economic cake and eat it! However, once we escape the financiers' myopia we will be in a position to identify the myriad of indirect benefits that will accompany a coherent and comprehensive strategy to reduce substantially our emissions of CO₂. If we are prepared to exchange our current self delusion for a more honest recognition of the scale of the challenge, the message is one of hope not of despair, with a prosperous future measured, if at all, by a range of metrics of which money is just one.