

An emergent conspiracy: is the clamour for 'policy-based evidence' silencing science?

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September 27th was an important day in the climate change calendar with publication of the fifth scientific assessment in twenty-three years from the UN's Intergovernmental Panel on Climate Change (the IPCC). Despite the flurry of media interest, the report from leading climate scientists offered neither surprises nor solace to our fossil-fuel hungry world. In reality the implications of the science for policy-makers, business leaders and civil society has changed little since the first IPCC report in 1990. True, small adjustments and refinements have occurred, but this is a mature science with the blunt message as evident in the first report in 1990 as in the 2013 update – almost a quarter of century later

What then has changed since the fourth report in 2007? In just six years we have pumped an additional 200 thousand million tonnes of CO₂ into the atmosphere, with annual emissions now 60% higher than at the time of the first report in 1990. Atmospheric CO₂ levels have touched the symbolic 400ppmv (parts per million by volume) – a level not recorded for at least 800 000 years (three times longer than we have been on the planet).

Climate change is a cumulative problem

No other realm of science has undergone the painstaking levels of scrutiny to which climate science has been subject – and rightly so. The consequences for humanity, either in terms of radically reducing emissions or in adapting to unchecked climate change are profound, so getting the science right is essential. But two decades of unprecedented scrutiny have provided prescient conclusions that are as robust as science can reasonably be expected to deliver; the baton is now firmly in the hands of politicians, business leaders, engineers and wider civil society. The contemporary climate challenge is a too weighty and far-reaching issue to be solely the responsibility of any one group – we all have a role to play, actions to undertake and voices to be heard. Had political and business leaders demonstrated the foresight and courage necessary to address rising emissions at the time of the first IPCC report in 1990, then perhaps evolutionary and technocratic solutions could have delivered a low carbon future. But climate change is a cumulative problem, and a quarter of a century of squandered opportunity, rhetoric and half truths have left us now facing a challenge that is much more revolutionary than evolutionary. Whether we are equipped to respond effectively to the challenge or are approaching the end of our genomic *cul-de-sac* is not at all clear; but surely, if anything, the IPCC's latest report must be a call to arms?

The Government's record

Turning to the UK and the climate change aspirations of the current government; what policies are the self-avowed “greenest government ever” adopting to reverse the reckless growth in emissions? They have overseen record levels of investment in North Sea oil, offered tax breaks for shale gas (another high-carbon energy source), and are promoting UK interests in both oil from tar sands and companies preparing to drill beneath the Arctic. Against this backdrop, the Treasury is pushing for over thirty new gas-fired power stations, whilst the government supports further airport expansion and has dropped its 2030 decarbonisation target – all this alongside beleaguered plans for a few wind farms and weak energy efficiency measures.

Suppressed indignation

So what happened to the model of peer-reviewed science informing evidence-based policy and where is the vociferous indignation of those scientists who have committed their working lives to understanding climate change?

As it stands, policy makers are either running scared of the perceived wrath of the electorate or are choosing to listen to the sceptics' appealing messages of inaction rather than responding to the implications of the science. Similarly, business leaders fear both the ire of their shareholders and the unchecked forces of competition destroying any firm daring to go beyond incremental change. And as for the scientists, certainly there are a few brave heads raised above the parapet, candidly translating their analysis into the everyday language of politics and lifestyles. But most of us are remiss in this respect. Whilst over post-conference dinner drinks the atmosphere is of resigned melancholy, put us anywhere near a minister, CEO or journalist's microphone and we'll typically mutter platitudes of technological optimism and green growth.

Fear of ostracism

More disturbing still, even in our own academic domain, we seldom dare commit such thoughts to paper for fear of ridicule by our peers and being ostracised by the increasingly co-opted paymasters of university research. As the religious doctrine of the Catholic Church impeded the progress of heliocentrism, so the competitive market dogma of contemporary politics constrains the free expression of academics today.

Ultimately no single organisation, group or individual is to blame for our collective lethargy to respond to climate change. But whilst it was the research of diligent scientists that gave us early warning of the scale of the challenge a quarter of century ago, it is the timidity of scientists now to be candid about the profound political repercussions of their analysis that unwittingly supports the *tragedy of the commons* that is climate change today.