

Response to Pierre Friedlingstein et al *Update on CO₂ emissions (2010)*

Friedlingstein piece published online Nov 2010 in Nature Geosciences
<http://www.nature.com/ngeo/journal/v3/n12/pdf/ngeo1022.pdf>

Response requested by the Science and Media Centre

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The numbers in Pierre Friedlingstein's piece make absolutely clear the message we wilfully refuse to acknowledge. Despite the best efforts of engineering, business and policy the only historical precedent for reducing emissions in line with the Copenhagen Accord, EU and UK's commitment to 2°C is an immediate economic contraction – at least in the short term.

Climate change is a problem of emissions accumulating in the atmosphere. Consequently, whilst low carbon energy supply is a prerequisite of dealing with climate change it cannot deliver the rapid and urgent reductions necessary. Friedlingstein points to what we all know but are reluctant to accept, emissions correlate highly with GDP. Certainly in the longer term low and zero carbon energy is both viable and affordable. However, in the interim, if GDP growth is to return to rates of 4% to 5% per annum and even if recent trends of reducing carbon intensity doubled immediately, net emissions will continue to rise. However, as it stands, there is good reason to assume global carbon intensity will not continue to reduce, it may even increase as industrialising nations, fuelled principally by coal, become a still larger part of the global economy. This is a highly challenging and numerically

irrefutable problem that no amount of eloquent dismissal and head shaking can overcome. Time is the pivotal issue here. If we are serious about staying at or below a 2°C rise, the message is simple and brutal. In the immediate-to-short term emissions reductions can only be achieved at the expense of economic growth. Moreover, as equity is a central tenet of the Copenhagen Accord, radical and immediate de-growth strategies in the US, EU and other wealthy nations are necessary to compensate for economic growth and increasing emissions in the poorer nations. In the medium-to-longer term, as zero carbon energy supply comes to dominate, the role of economic growth could, from a climate change perspective, be revisited; whether any such return could be sustainable is another question.

Whatever we choose we need to be clear and candid about the situation we have got ourselves into and plan accordingly. Currently, we're heading for the worst of all worlds, aiming for 4°C whilst planning for 2°C. Friedlingstein's analysis makes clear the mitigation Emperor remains naked, and at the risk of mixing metaphors, until we're prepared to recognise such Rome will continue to burn and we'll continue to fiddle.