

# *The cost and futility of trading hot air*

*Why carbon 'cap-and-trade' is an immoral non-solution to a non-problem*

[A Response to the Environmental Defence Fund]

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*Here in the West, the so-called “war on global warming” is reminiscent of medieval madness. You can now buy indulgences to offset your carbon guilt. If you fly, you give an extra 10 quid to British Airways; B.A. hands it on to some non-profit carbon-offsetting company, which sticks the money in its pocket and goes off for lunch.*

*- Alexander Cockburn*

# *The cost and futility of trading hot air*

*Why carbon 'cap-and-trade' is an immoral non-solution to a non-problem*

The “Environmental Defence Fund” (EDF) has circulated a “Report<sup>1</sup>” that says the cost of controlling the “pollution that causes ‘global warming’” is “only pennies a day ... almost too small to measure.” The conclusions, summarized by EDF, are –



- **“We cannot afford to wait.** Further delay will greatly increase the costs of making necessary emissions cuts and will risk locking in irreversible climate change.” The “Report” says: “The scientific consensus is clear: Global ‘warming’ is real, and it is already happening. While nobody can be certain about the exact timing or location of its consequences, the possible severity of those consequences is becoming increasingly clear. Allowing greenhouse gas emissions to increase unchecked is an invitation to catastrophe. The potential consequences of warming include widespread famine, triggered by extreme drought in the major grain-producing areas of the world; the wholesale disappearance of the world's coral reefs; and sea levels rising by several meters over the course of a few centuries.” The “Report” concludes that we must act now to avoid “catastrophic climate change”.
- **“We can afford an aggressive cap-and-trade policy to tackle ‘global warming’.** The cost to the economy will be minimal -- less than one percent of U.S. gross domestic product in 2030. The “Report” says that the US economy will grow to “\$26 trillion by 2030, but, with a cap on the greenhouse gas emissions that cause ‘global warming’, the economy will reach the same level two to seven months later. It adds that job losses would be minimal; the new carbon market would create new jobs; that the manufacturing sector will lose a few jobs; that household consumption will fall by only one percent at worst; that increases in energy costs would be modest; and that overall costs would be small enough to permit expansion of programs to offset the burden for low-income households. The “Report” says that strict limits on ‘global warming’ pollution can harness the power and creativity of capital markets, and that cap-and-trade would work by “turning market failure into market success”. It assumes that if fossil-fueled energy were artificially made more expensive other technologies would emerge to replace it.

The “Report” is based not on theoretical demonstration nor on empirical observation but on computer models – an expensive and unreliable form of guesswork. It claims to be the first of its kind, but there have been one or two others like it, such as the now universally-discredited Stern Report<sup>2</sup>, which used the same unscientific rhetoric of “market failure” together with overstatements of the imagined consequences of anthropogenic “global warming” as a substitute for rigorous economic analysis. The conclusions of the “Report” are unsound, and computer models can be – and have been – deployed to demonstrate results diametrically opposite to those which the “Report” advances.

**“We cannot afford to wait, or ‘catastrophic climate change’ will occur”**

<sup>1</sup> [http://www.edf.org/documents/7815\\_climate\\_economy.pdf](http://www.edf.org/documents/7815_climate_economy.pdf)

<sup>2</sup> See Monckton’s journal published critique of the Stern Report:

[http://scienceandpublicpolicy.org/monckton\\_papers/apocalypse\\_no\\_the\\_stern\\_report\\_bad\\_economics\\_based\\_on\\_bad\\_science.html](http://scienceandpublicpolicy.org/monckton_papers/apocalypse_no_the_stern_report_bad_economics_based_on_bad_science.html)

Late in 2006 the “Institute for Public Policy Research”, a grandly-titled and extravagantly-funded pressure group in the UK, first proposed that the international Left should from then on declare that the science of “global warming” was settled. This proposal was accepted with alacrity by bodies worldwide such as the “Natural Resources Defense Fund” and the “Environmental Defense Fund”.

Not a single scientific authority or reference is cited in the “Report” for any of the supposed catastrophes arising from “global warming” that it mentions. However, peer-reviewed papers throughout the scientific journals refute such conclusions:

Not a single scientific authority or reference is cited in the “Report” for any of the supposed catastrophes arising from “global warming” that it mentions.

### *Catastrophe? What catastrophe?*

There is no scientific “consensus” in the peer-reviewed literature to the effect that “global warming” is an actual or potential “catastrophe”, still less that “allowing greenhouse-gas emissions to increase unchecked is an invitation to catastrophe”. A recently-published peer-reviewed paper (Schulte<sup>3</sup>, 2008) that surveyed 539 papers in the scientific journals containing the words “global climate change” and published between January 2004 and mid-February 2007 found that not a single paper provided any evidence whatsoever that “global warming” might be even potentially “catastrophic”. Only one of the 539 papers reviewed even mentioned the possibility of “catastrophe”, but without offering any evidence.

### *“Climate Change Is Real.” What reality?*

Next, the “Report” says, ““Global warming is real”. This point was well and bluntly addressed in the spring of 2006 in a letter from 61 leading scientists in climate and related fields to the Canadian Prime Minister<sup>4</sup>:

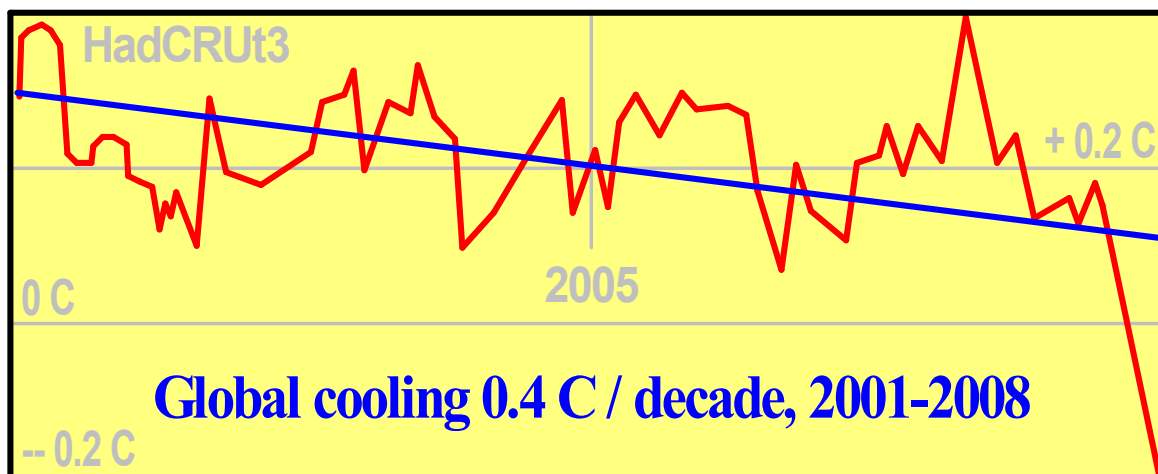
“‘Climate change is real’ is a meaningless phrase used repeatedly by activists to convince the public that a climate catastrophe is looming and humanity is the cause. Neither of these fears is justified. Global climate changes all the time due to natural causes and the human impact still remains impossible to distinguish from this natural ‘noise.’”

### *Warming? What warming?*

The “Report’s” assertion that the “possible severity” of the consequences of “global warming” is becoming “increasingly clear” is not and cannot be based on any scientific view. “Global warming” began at the end of the Maunder Minimum in 1700 and continued at a near-uniform rate of 0.5-0.7 degrees C (0.9-1.2 F) per century until 1998, when it paused. There has been no statistically-significant increase in mean global surface temperature since 1998. In the past six and a half years global temperatures have been *falling* at an impressive rate equivalent to 0.4 degrees C (0.7 F) per decade:

<sup>3</sup> [http://scienceandpublicpolicy.org/reprint/consensus\\_on\\_climate\\_change.html](http://scienceandpublicpolicy.org/reprint/consensus_on_climate_change.html)

<sup>4</sup> <http://www.lavoisier.com.au/papers/articles/canadianPMletter06.html>



**Unpredicted trend:** Since late 2001, the trend of global surface temperatures has been downward. “Global warming” paused in 1998; and, though it may resume in future years, the rate of warming is less than that which the models relied upon by the IPCC had projected.  
**Source:** Hadley Centre for Forecasting / Climate Research Unit, University of East Anglia.

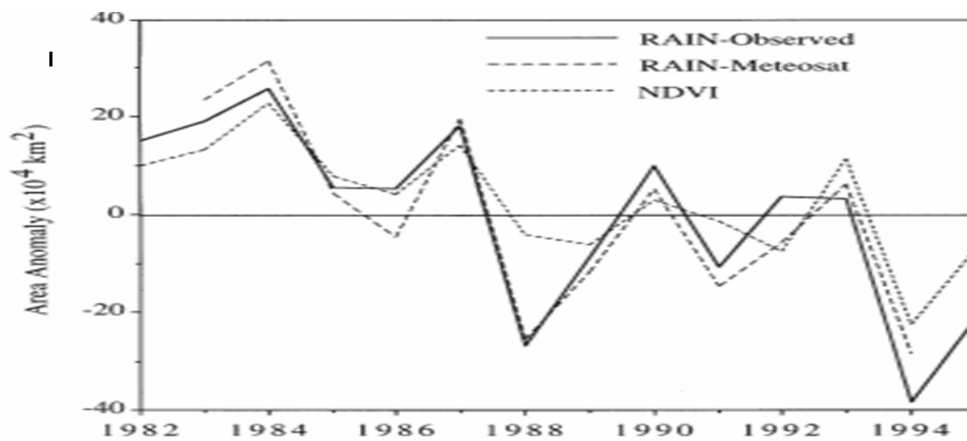
Carbon dioxide causes some warming: therefore, the upward trend in temperatures over the past 300 years, for which steadily-increasing solar activity was chiefly but not solely responsible, may well resume in future. However, the rate at which foreseeable increases in atmospheric carbon dioxide concentration will cause further warming is by no means “settled science”; and, as the above graph indicates, it is becoming increasingly clear with each passing year that the very high official estimates of climate sensitivity to anthropogenic CO<sub>2</sub> enrichment are proving to be exaggerations.

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For instance, Lindzen (2008) says that the failure of computer models accurately to predict the behavior of the tropical upper troposphere, a problem identified and quantified in Douglass *et al.* (2004, 2006, 2007), requires all of the IPCC’s estimates of climate sensitivity to be *divided by at least three*. If Professor Lindzen is right, then there is no “climate crisis”: a small, harmless, and beneficial warming rate will continue, and that is all. For a short account of the combined magnitude of this and other errors in the IPCC’s official calculations of climate sensitivity, see the **Technical Appendix**.

*Drought? What drought?*

The “Report” says widespread famine may be caused by droughts arising from “global warming”. However, the Clausius-Clapeyron relation mandates that, as the climate warms, the space occupied by the atmosphere is capable of carrying near-exponentially *more* water vapor. Therefore, in general, there will be fewer droughts. This effect has already been observed and reported. For instance, the Sahara has shrunk by 300,000 km<sup>2</sup> in the past quarter of a century (Nicholson, 1998, 2001).



**The shrinking Sahara:** Throughout the period of strong “global warming”, the Sahara’s extent shrank by 300,000 km<sup>2</sup>. **Source:** Nicholson (1998, 2001).

Nomadic tribes have been able to move back to areas of the Sahara that have not been settled within living memory. This is the very reverse of the pattern of “widespread drought” predicted by the “Report”. Indeed, the fact that the carrying-capacity of the atmosphere for water vapor becomes greater as the climate warms has been cited by health authorities such as the World Health Organization and the Department of Health in the United Kingdom as a (false) pretext for statements that warmer and hence wetter weather will increase the world’s standing water and will hence encourage the malaria mosquito to breed (though there is no scientific basis for this conclusion either).

Though the pattern of drought and flood has fluctuated in the past and will do so again in the future, there is no sound scientific reason to suppose that warmer weather will mean more droughts. The computerized guesswork of the models relied upon by the UN failed to predict the shrinking of the Sahara, and it provides no basis for concluding that drought will spread. There are fewer droughts in many parts of the world today than there was in the first half of the 20<sup>th</sup> century, when John Steinbeck wrote *The Grapes of Wrath*, in which he graphically described the severe droughts of that era in the Great Plains – droughts that have not occurred in the warmer weather since.

#### *Threat to corals? What threat?*

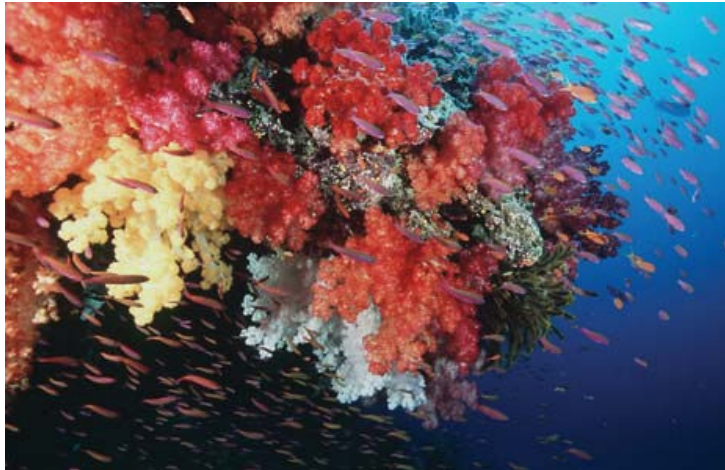
The “Report’s” assertion that all the world’s coral reefs are imminently threatened by “global warming” is also without scientific foundation<sup>5</sup>. Coral reefs are not threatened by warmer oceans<sup>6</sup>: most of them prefer warmer water. Corals first came into existence by algal symbiosis some 175 million years ago, in the Triassic era, and some say they date back 500 million years. For most of that period, global temperatures are thought to have been 7 degrees Celsius (12.5 F) warmer than the present. The corals not merely survived but thrived. To the extent that they are threatened at all, the threat is from pollution, and from dynamiting in aid of fishing.

The coral bleaching that was observed in 1998 was the consequence of the exceptional and sudden El Nino Southern Oscillation of that year, whose intensity had only two precedents in the previous 300 years. Both of the previous intense El Ninos also produced coral bleaching, and the corals readily survived it (Hendy *et al.*, 2004). Going back further, Precht and Aronson (2004) concluded that between 10,000 to 6,000 years ago extratropical North Atlantic sea surface temperatures were 2-3

<sup>5</sup> See “Coral Reefs”: [http://co2science.org/subject/c/subject\\_c.php](http://co2science.org/subject/c/subject_c.php)

<sup>6</sup> [http://www.ff.org/index.php?option=com\\_content&task=view&id=382&Itemid=77](http://www.ff.org/index.php?option=com_content&task=view&id=382&Itemid=77)

degrees C (3.5-5.5 F) warmer than at present and coral reefs flourished. They reported that the fossil record clearly demonstrates the ability of corals to expand their ranges poleward in response to global warming and to "reconstitute reef communities in the face of rapid environmental change." They also report that corals are expanding their territories: "There is mounting evidence that coral species are responding to recent patterns of increased SSTs by expanding their latitudinal ranges."



*Thriving corals: reefs are not threatened by "global warming"*

*Sea-level rise? What sea-level rise?*

Finally, the "Report" mentions the possibility of "sea levels rising by several meters over the course of a few centuries". This is true, but the implication that it arises chiefly from manmade "global warming" is entirely false. In the 10,000 years since the end of the last Ice Age, sea level has risen by 130 meters (400 feet): an average of 1.3 m (4 ft) per century. However, most of the world's land-based ice has long since melted, and nine-tenths of what remains – on the high plateaux of Greenland and Antarctica – is not at risk unless temperatures are sustained at least 2 degrees C (3.5 F) above today's for several millennia (IPCC, 2007). Indeed, in each of the past four interglacial periods neither Greenland nor Antarctica lost their ice sheets. Greenland, but not Antarctica, lost its ice sheet in the interglacial period 850,000 years ago: but temperatures in each of the interglacials of the past million years were at least 5 degrees C (9 F) higher than today's, entirely through natural causes.

There is, therefore, no scientific basis for the oft-repeated suggestion that "global warming" will melt so much ice that sea levels will imminently rise by Al Gore's imagined 20 ft. The IPCC has now reduced its estimate of the maximum sea-level rise to the year 2100 by one-third, from 0.88 m (3ft) to 0.59 m (<2ft), and nearly all of this projected increase, if it arises, will come not from melting ice but from thermosteric expansion – *if* the oceans continue to warm.

However, recent detailed surveys, such as Lyman *et al* (2006, revised 2007) show no statistically-significant warming at all. The oceans are 1100 times denser than the surface atmosphere, and they are as deep in some places as the troposphere is high: their thermal inertia, therefore, is immense. Moerner (2004), who has studied sea level throughout his distinguished, 30-year professional career and is recognized as the world's foremost expert, says there is no basis even for the UN's best estimate of a 0.43 m (17 in) rise in sea level to 2100. His own best estimate is that there will be little increase above that which was observed in the 20<sup>th</sup> century – just 8 inches.



The published literature – all of the papers cited above are peer-reviewed except the documents of the IPCC – demonstrates that there is no scientific basis for any of the alarmist propositions in the cited paragraph of the “Report” to the effect that there is a danger of imminent “catastrophe” arising from man-made “global warming”.

There is no long-term danger of catastrophe either: on the evidence of past interglacial records, inferred from temperature proxies derived from ratios of oxygen isotopes in samples of air trapped in Antarctic ice-cores (Petit *et al.*, 1999), the world is already overdue for the next Ice Age, so that after several further millennia, if not sooner, it is global cooling, not “global warming”, that will be the primary concern of humankind.

In short, none of the imagined disasters is at all likely to occur before the onset of the next Ice Age, even by natural causes – still less as a result of humankind’s activities. “Global warming” is not a global crisis. It requires no economic intervention by national governments, still less by supranational entities. Cap-and-trade is, therefore, unnecessary.

### **“We can afford an aggressive cap-and-trade policy to tackle ‘global warming’”**

The “Report” states or implies that “cap-and-trade” works well enough to make a difference to the climate; that it costs very little; and that it will not damage the US economy.

**The truth** is that “cap and trade” does not work. The European Union’s carbon emissions are *rising* yearly, while those of George Bush’s US are *falling* yearly. In the EU, “cap-and-trade” has already been tried twice and has spectacularly failed twice, at huge cost. The environmental result: nil. Europe’s emissions continue to rise. There have been similar failures elsewhere in the world. A recent analysis by the U.S. Environmental Protection Agency of the Lieberman-Warner bill projects that costs of electrical power and gasoline would rise very sharply. Gasoline would cost about 53 cents per gallon more in 2030 and \$1.40 per gallon more in 2050.

“For one thing, it [cap and trade] is in no sense the ‘market’ solution that it purports to be. It is essentially a government-controlled, administrative rationing system, in which the rations can subsequently be traded.

Nigel Lawson, the former UK Treasury Secretary, in his book *An Appeal to Reason – A Cool Look at “Global Warming”*,<sup>7</sup> dismisses “cap-and-trade” in a few crisp and characteristically perceptive paragraphs –

“If western governments, at least in Europe, are going to remain obsessed with the alleged need to cut back sharply on CO2 emissions by increasing the cost of carbon, what is the best means of achieving this? The route the politicians (but very few economists) prefer is known as “cap and trade” – a regime in which emissions, or some of them, are statutorily capped, and the emitters are then free to trade the emission permits which result from this system. The trouble is that both in theory and in practice (for it has, to some extent, been put into practice) it is a method that has little to commend it.

<sup>7</sup> [http://www.amazon.com/s/ref=nb\\_ss\\_gw/105-6637805-9850817?url=search-alias%3Daps&field-keywords=nigel+lawson&x=20&y=20](http://www.amazon.com/s/ref=nb_ss_gw/105-6637805-9850817?url=search-alias%3Daps&field-keywords=nigel+lawson&x=20&y=20)

“For one thing, it is in no sense the ‘market’ solution that it purports to be. It is essentially a government-controlled, administrative rationing system, in which the rations can subsequently be traded. It is rather as if, instead of seeking to cut back on smoking by taxing it, we were to allocate Soviet-style production permits to the cigarette manufacturers, which they were then permitted to buy and sell amongst themselves. Of course, for the market-makers and other middlemen who trade in the CO<sub>2</sub> emissions permits, it is indeed a market, and one which they will not hear a word said against: for them it presents a lucrative and – they hope – growing business opportunity.

“Among its many other drawbacks, cap and trade is arbitrary and distortionary, covering some emissions but not others (it is impractical, for example to extend it to the personal and household sector, including motoring). For those industries where it does apply, it is anti-competitive, since permits are issued to existing emitters, and not to new entrants, who have to purchase them from the market. In general, the administrative allocation system scores badly on transparency, and lends itself to lobbying, corruption, and abuse of one kind or another. This is even more pronounced in an international scheme, when each government is under pressure to allocate generously to its own national emitters. Another problem is that it injects an artificial volatility into the price of energy, making rational investment decisions more difficult – not least any decision to invest in low-carbon or non-carbon energy. And, inevitably, the ethereal nature of the commodity being traded makes it particularly hard to police.

“The only substantial emissions-trading scheme so far attempted, the European Union’s ETS, exhibits all these fundamental flaws – and indeed several more, as recent studies have shown. In practice, it has done nothing to reduce emissions, and has merely awarded subsidies to selected emitters. In theory, some of the disadvantages of the scheme could be avoided if the emissions permits were auctioned, rather than given away, but the design of an auction to cover all emitters – including the personal sector – and extending it internationally would be mind-bogglingly complex and contentious, if indeed it could be done at all. Which is why, for the new and allegedly improved second (2008-2012) phase of the ETS (the first phase is universally agreed, except by those who have made money out of it, to have been a farce), the EU has decided that 98.5% of the permits should be allocated and only 1.5% auctioned.

There are two other forms of governmentally-sponsored carbon trading. Both are impossible to supervise and continue to suffer from such widespread abuse that their net effect on the climate is probably an increase in total carbon emissions. First, the “Clean Development Mechanism” set up under the Kyoto Agreement allows developed countries bound by Kyoto targets to buy “certified emissions reductions” from developing countries rather than cutting its own emissions. The UN is supposed to declare that the reductions would not have occurred in any event and have not been offset by any increase in emissions somewhere else.

China and India have both exploited the Clean Development Mechanism to the full, and greatly to their profit, but without any environmental benefit whatsoever to our planet. Chinese and Indian producers

of chlorofluorocarbons, powerful greenhouse gases, are able to earn massive windfall profits by opening or buying plants designed to emit halocarbons – tens of thousands of times more potent than CO<sub>2</sub> as greenhouse gases – and then by receiving cash payments via the Clean Development Mechanism to close them down again. Since the payments are scaled to reflect the “global warming potential” of the greenhouse gases emitted by the plants, the profiteers by this scam are making billions. The profits – at the expense of the West – are so gross that the Chinese Communist regime now levies a special windfall tax on them, which it can then spend on paying the cost of its declared program of opening two or three new coal-fired, greenhouse-gas-emitting power stations every week (for the sheer scale of this program, see the Annual Statistical Communiqué of the “People’s” “Republic” of China, 2006). It is difficult to see any environmental merit whatsoever in this mechanism.

Secondly, the “Joint Implementation”, also established under the Kyoto Protocol, allows developed countries emitting below their Kyoto thresholds to sell “carbon credits” (cynically but accurately known on the financial markets as “hot air”) to others who cannot meet their own thresholds. However, the only Kyoto signatory emitting well below its threshold, which the Protocol defines as 5% less than actual 1990 emissions, is Russia, because the collapse of Communism brought thousands of State-subsidized heavy industries to a sudden end. Russia at first stood out against the Kyoto Protocol but, more recently, its leaders realized that it could profit by Joint Implementation to the tune of tens of billions at the expense of the West. Suddenly, it ratified Kyoto. Soon, the profits will roll in, and we will be paying.

There is also a private-sector scheme known as “carbon offsetting,” by which jet-setting celebrities like Al Gore can publicly parade the pretence that their extravagant, carbon-emitting lifestyle is not really adding anything to manmade greenhouse-gas emissions.

There is also a private-sector scheme known as “carbon offsetting,” by which jet-setting celebrities like Al Gore can publicly parade the pretence that their extravagant, carbon-emitting lifestyle is not really adding anything to manmade greenhouse-gas emissions. All they have to do is to buy the modern equivalent of the Indulgences sold for profit by unscrupulous pastors in the mediaeval Church. The Indulgences, coyly marketed under the name “carbon offsets”, are sold by various private scamsters, who craftily suggest to penitents that they can salve their consciences for, say, the carbon emissions arising from a transatlantic flight by paying as little as \$5 towards the planting of trees that may or may not take place, and might or might not have taken place anyway. Type “carbon offsets” into Google and look at almost any of the myriad scams on offer. Most of them are so transparently fraudulent that it is at first blush astonishing that prosecutions have not resulted.

For it is the unique, common characteristic of all forms of carbon trading – whether by cap-and-trade, the “Clean” Development Mechanism, the Joint Implementation, carbon offsets, or any other device in the panoply of international nonsense that has sprung into being so profitably for the scamsters and their allies among the international enemies of the West, and so expensively for the rest of us – that not only both parties to each transaction but also all of the States or supranational entities nominally supervising and regulating them have a direct and powerful vested interest in overstating both the scale and the significance of the transactions.

The emitter wishes to salve his conscience and receive absolution by pretending that he has done all that is necessary to make him and his household or enterprise fashionably (though unnecessarily, and climate-irrelevantly) “carbon-neutral”. The counterparty to the emitter’s transaction wishes to attract more business from penitents by suggesting to them that for unrealistically small sums they can be forgiven all their carbon sins. The regulators and legislators wish to demonstrate to their voters (in those countries – unlike the European Union, or Rhodesia – where voters still matter, and still retain the power to choose and to dismiss those who govern them) that they are playing a full and successful part in the great Sancho Panza crusade to “Save The Planet”.

No surprise, then, that notwithstanding all the rhetoric and all the activity and all the “Reports” about the desirability of carbon trading, the trend in worldwide carbon emissions continues relentlessly upward, and at an accelerating rate. Though “carbon offsetting” is indeed enriching the wealthy market-fixers, scamsters, and regulators, while further impoverishing the poor citizenry, it is not – back in the real world – actually offsetting any emissions of carbon dioxide at all: nor is it ever likely to do so.

For, even if the entire Western world were to close down its economies altogether, and revert to the Stone Age but without even the ability to light fires, the planned *growth* in emissions in India and China alone would replace the West’s entire emissions within little more than a decade.

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The central truth about “global warming” is that from here on it is the emerging tigers of Asia who will be the world’s dominant emitters. The West is no longer the chief problem, and no longer holds the solution in its own hands. We are bit-part players.

For the foreseeable future, therefore (setting aside the small decline that has recently occurred because the exceptionally cold winter of 2007/8 cooled the climate-relevant surface or “mixed” layer of the oceans and allowed that layer to take up unusually large quantities of CO<sub>2</sub> from the atmosphere), carbon dioxide concentrations in the atmosphere will continue to rise as they have throughout the half-century since modern gas-chromatograph measurements were first taken by the formidable Charles David Keeling on the shoulder of the Mauna Loa volcano in March 1958.

Therefore, it would not be responsible for the international community, or for any individual nation, to plan on any other basis than that by the end of this century there will be a great deal more carbon dioxide in the atmosphere than there is today. Not that that matters, for its effect on the climate will be negligible and generally beneficial – see the *Technical Appendix*.

Yet the principal objection to all forms of carbon trading, however elaborate and however piously intended, is not that it is inherently and inescapably fraudulent, nor that it is inevitably and ineluctably futile, but that it delivers no environmental benefit whatever in return for its *massive cost* – a cost which, as we shall see, falls almost exclusively upon the poorest while considerably enriching the richest. Carbon trading is Robin Hood in reverse, robbing the poor to enrich the rich. Abraham Lincoln

once said, “You cannot make the poor rich by making the rich poor.” You certainly cannot make the poor rich by making the poor still poorer: that is the chief economic effect of carbon trading.

The real reason why carbon trading is a wasteful menace that ought to be forbidden by law is that it is altogether unnecessary. It is unnecessary not only because, as we have seen, the world has not warmed for a decade and is not likely to warm at more than a minuscule, harmless, and beneficial fraction of the rate luridly but inaccurately projected by the IPCC and its self-serving adherents in the international *classe politique*. It is unnecessary, above all, because the iron economic law of supply and demand is already driving up the cost of all carbon-based fuels, altogether irrespective of any intervention by *etatiste* meddlers.

It is a truism that the supply of fossil fuels is finite. Also, it is demonstrable not only that the cost of exploration is rising as a proportion of the exploitable reserves discovered but also that the cost of extraction is rising as a direct result of the political risks consequent upon the location of most of those reserves in the territories of unstable, undemocratic regimes that are for various reasons implacably hostile to the free West.

However, it is demand-side pressure, more than supply-side scarcity, that is chiefly responsible for the recent galloping inflation in the prices of fossil fuels, notably gasoline, currently trading at 1000% of its world price little more than a decade ago. This hyperinflation in the cost of fossil fuels is chiefly driven by the sudden surge in demand from emerging nations such as India and China. And the more we use carbon trading to close down our own economies and destroy the jobs of our working people, the more we shall stimulate that already-burgeoning demand for carbon fuels in India and China.

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It is very likely that today’s oil price inflation, driven partly by limited and politically-uncertain supply but chiefly by ever-increasing world demand, will continue. Therefore, even if there were any imperative need for action to avert a “climate crisis” (which there is not: see the *Technical Appendix*), there would still be no need for national or international governmental action to drive up fossil-fuel prices any further: indeed, to do so would be particularly harmful to those on low incomes, and might dangerously deepen the present recession, without delivering any environmental benefit.

The deepening of a worldwide recession, though it is a mere inconvenience to the wealthy nations of the free West, has immediate and fatal consequences in the poorer nations, whose citizens are already starving as a direct result of the unscientific, now-discredited, bureaucratically-driven dash for biofuels<sup>8</sup>, and are now menaced not only by the galloping increases in fuel prices caused by the surge in international demand but also – and quite unnecessarily – by the threat from the international *classe politique* artificially to increase fuel prices still further by means of “cap and trade”.

In a crude attempt to circumvent and downplay the fact of fossil-fuel hyperinflation, the EDF’s Report” disingenuously tries to argue – as did the now-defunct Stern Report – that the cost of cap-and-trade is negligible and will not add anything much to fossil fuel prices. In one respect, this is true. The first

<sup>8</sup> See: [http://scienceandpublicpolicy.org/originals/biofuel\\_issues.html](http://scienceandpublicpolicy.org/originals/biofuel_issues.html)

collapse of the European Union's characteristically bureaucratic and extravagantly pointless cap-and-trade system was engendered by a huge fraud at the heart the system's very construction. Under the system as originally conceived – or, rather, misconceived – every member-State was allowed to set its own emission limits. As a result, almost every member-State except Britain, whose current crop of ministers and civil servants are lamentably inexperienced and out of their depth in international negotiations, set themselves emission limits that actually exceeded previous total emissions. No surprise, then, those emissions in the EU continued to rise notwithstanding the introduction of cap-and-trade, so that, within a very short time, emissions permits were trading at less than \$1 per tonne of CO<sub>2</sub>. This was indeed cheap – so cheap that it was comfortably exceeded by the monstrous bureaucratic handling charges involved in the trading, whereupon the scam collapsed.

The lesson to be learned from this typically incompetent failure on the part of the EU, whose officials are not subject to any effective democratic scrutiny, audit, or recall and who are accordingly not under any pressure to get things right, is this: if cap-and-trade is as cheap as the “Report” suggests, it will have no effect on carbon emissions. The corollary is that, if cap-and-trade actually reduces emissions, it can only do so if it is sufficiently expensive. Otherwise, as the failure of the EU scheme demonstrates, the environmental impact of “cap-and-trade” is actually negative: emissions rise, in a fine demonstration of the Law of Opposite Consequences: whenever a government attempts to interfere in the workings of the economy, even for beneficial purposes, it will be likely to trigger consequences that are not merely unintended but the diametric opposite of those that were, however piously, intended.

What, then, might the true cost of an effective cap-and-trade system be?

This question was recently examined in a detailed analysis of the Lieberman-Warner “Climate Security Act” by the American Council for Capital Formation and the National Association of Manufacturers, which concluded as follows –

- The CO<sub>2</sub> emissions allowance price needed to reduce energy use to meet the Bill's targets is estimated at \$55 to \$64 per metric ton of CO<sub>2</sub> in 2020, rising to between \$227 to \$271 per ton in 2030.
- The cost of the allowances raises energy prices for residential consumers by 26% to 36% in 2020, and 108% to 146% in 2030 for natural gas, and 28% to 33% in 2020, and 101% to 129% in 2030 for electricity. In short, a workable carbon trading scheme, even if it were necessary, could be expected to double the price of basic household energy.
- These and other increased energy costs will slow the US economy (at today's prices) by \$151 billion to \$210 billion in 2020 and \$631 billion to \$669 billion in 2030, causing job losses of between 1.2 million to 1.8 million in 2020 and 3 million to 4 million by 2030. If anything, these figures for job losses are conservative, since the calculation ignores any second-order or “knock-on” effects caused by the rapid and worldwide economic dislocation that “cap-and-trade” would cause.
- As manufacturing slows, the value of shipments will fall by 3.2 % to 4% in 2020 under the low and high cost cases; by 2030 the value of shipments will fall by 8.3 % to 8.5% under the two cases. The higher energy costs, lower economic activity and fewer jobs will in turn reduce average household income (at today's prices) by \$739 to \$2,927 in 2020 and by between \$4,022 and \$6,752 in 2030. Here too, the analysis is very much on the conservative side: for the sole consequence of the fatal self-inflicted wound of carbon trading on the economies of the free

West will be to transfer manufacturing activity and the jobs that go with it from our own shores to China, where no cap-and-trade system will be put in place, and where the carbon dioxide emitted per unit of electricity generated is far higher than in the West, as is the concomitant particulate pollution. In short, the inevitable consequence of introducing a cap-and-trade system in the West will be to *increase* the world's carbon emissions and its pollution, while pointlessly damaging our own economies.

The manufacturers' analysis, like the "Report", was performed using computer models, but coming to an opposite result, illustrating that the output of computer models is more likely to reflect the inclinations of their users than to reveal objective reality. If anything, however, the manufacturers' analysis of the Lieberman-Warner Bill errs very much on the side of understating the true costs of cap-and-trade schemes: for the analysis optimistically assumes that nuclear power will be readily available (notwithstanding the considerable political resistance to it that persists); that carbon capture and storage will be practicable and affordable (though the workability and cost of this technology has not yet been demonstrated); that wind and biomass technologies will work (notwithstanding that no unsubsidized wind-farm is profitable, and that even the UN has now abandoned its earlier recommendation of biofuels because of their significant contribution to the recent, sudden doubling of world food prices); and that low-cost offsets against carbon emissions will be obtainable (though there is no evidence that they will be).

In short, the inevitable consequence of introducing a cap-and-trade system in the West will be to *increase* the world's carbon emissions and its pollution, while pointlessly damaging our own economies.

The manufacturers' analysis also greatly underestimates the profound economic dislocation that will arise from the growing number of proposals to shut down up to 90% of the economies of the West. If any action were required to mitigate carbon dioxide emissions, over and above the inexorably-rising international prices that will mitigate them without the need for any governmental intervention, cap-and-trade would be one of the least efficient methods. Straightforward taxation of gasoline and of electricity would be far simpler.

Private-sector entities that would oppose additional taxation are being bribed, in effect, by the promise that if they ignore the scientific consensus to the effect that "global warming" will not be catastrophic (Schulte, 2008, *op. cit.*), they will be able to profit from the rigged market in licenses to emit.

Why, then, does the "Report" argue for the complex, costly, fraud-prone scheme that is cap-and-trade, rather than for simple, marginal-cost-free increases in energy taxes? The reason is purely political. Precisely because cap-and-trade is so complex, numerous middlemen are involved, each of whom will enrich himself at our expense. Also, energy-producing corporations that would oppose the increased taxation of their product can be persuaded to back cap-and-trade because the opportunities for fraud are so great that the corporations can devise ways of making very substantial profits, again at the expense of the ultimate user – you and me. Private-sector entities that would oppose additional taxation are being bribed, in effect, by the promise that if they ignore the scientific consensus to the effect that

“global warming” will not be catastrophic (Schulte, 2008, *op. cit.*), they will be able to profit from the rigged market in licenses to emit.

The “Report” by the Environmental Defense Fund not only echoes the Stern Report in artificially overstating the climate consequences of anthropogenic influence on the atmosphere, but also in artificially understating the costs of mitigation and artificially evaluating future costs by the use of a discount rate well below that which commercial entities would use: it also makes the naïve and scientifically-unjustifiable assumption that if carbon-based fuels are made more expensive new technologies to produce energy more cheaply will certainly emerge to replace them.

Without this speculative assumption, the entire “Report” collapses. Though it is self-evident that as the price of gasoline and electricity rises the rewards for those able to find or develop alternative sources of energy will correspondingly increase, there is no guarantee that affordable or workable new technologies will emerge to replace the old.

By the same token, one may not definitively assume that the higher carbon-fuel prices that are inevitable regardless of cap-and-trade will *not* lead to the rapid emergence of new energy technologies capable of replacing fossil fuels as they run to exhaustion. However, the following difficulties in new technologies are apparent:

**Wind farms** produce very small amounts of electricity, at enormous landscape and environmental cost, particularly to large game birds and to bats killed by the apparently-slow-moving but in fact very fast-moving blades. The variability of the wind requires all rated capacities to be divided by 4-6. Wind farms produce not a milliwatt when the wind is not blowing strongly enough, so that fossil-fueled power stations have to be kept in steam at all times to take up the load when the wind drops. Also, wind farms are chiefly located a long way from where the power they generate is needed, requiring expensive and unsightly transmission lines and causing substantial transmission losses. Worst of all, the load variability caused by wind fluctuations destabilizes any electricity grid to which the wind farms supply power, so that they cannot safely contribute more than a small percentage of total power supply even when the wind is blowing.

**Hydro-electric power** is already almost as fully developed as it can be: there is little scope worldwide for very large increases in hydro-electric capacity. Hydro power has killed more people per kWh than almost any other form of power generation, largely through the failure of dams.

**Wave-power** is still in its infancy, but it is already apparent that building wave-power generating sets strong enough to cope with the severe weather at sea will continue to be a severe drawback. Wave-power requires still longer transmission lines than wind-power, since it is by definition an offshore technology: transmission losses, therefore, will be formidable.

**Solar power** continues to be beset by problems converting solar energy to electrical energy. Though solar cells are steadily improving their efficiency, they are only useful in sunny climates and on a micro-generation scale. Larger solar collectors built in deserts suffer from extremes of temperature, exposure to wind, and sandstorms. Maintenance costs are high; reliability is low; transmission losses are substantial.

**Nuclear power**, in the post-Chernobyl climate of irrational fear, will not make a comeback soon, though the UK Labor Government, originally implacably opposed, now recommends it. Unless fast-breeder reactors can be made to work, the world’s supply of usable uranium will be exhausted in about



half a century, at about the same time as oil and gas. Attempts at nuclear fusion, both on the macro scale (tokamaks and tori) and on the micro scale (aneutronic fusion) have proven unsuccessful and little progress has been made after 40 years' research.

**Biofuels**, once recommended by the “global warming” alarmists, have disastrously doubled the price of staple foods and of agricultural land worldwide, and are already causing millions to starve. Also, it has now been calculated that the carbon emissions from the production and consumption of most biofuels is actually greater than that of gasoline, underlying not only the senselessness of biofuels but the need for governments to develop and enact science-based policies free from interference by scientifically-illiterate pressure-groups.

**Hydrogen fuel cells** are unreliable, expensive to produce and to maintain, and subject to a series of so-far-incurable scientific drawbacks that limit their usefulness.

**Electric vehicles** are slower than conventional vehicles, have a shorter range, and cause carbon emissions not significantly less than conventional vehicles, because the power that charges them comes from conventional power stations.

It is always possible to imagine entirely new space-age, high-tech solutions that might spring us free from dependency upon carbon-based fuels. However, it is naïve to assume, as the “Report” does, that such solutions will inevitably arise merely because cap-and-trade will increase still further the price of carbon fuels that are becoming daily more expensive in any event.

The danger in making such a naively hopeful assumption is that, if we destroy our own economies in the hope that some scientific *deus ex machina* will save us at the last moment, the lights will begin to go out all over the West – and soon.

The danger in making such a naively hopeful assumption is that, if we destroy our own economies in the hope that some scientific *deus ex machina* will save us at the last moment, the lights will begin to go out all over the West – and soon.

## Conclusion

If carbon trading works, it will not be cheap. If it is cheap, it will not work. Either way, it is unnecessary, both because “global warming” will not prove catastrophic and because the prices of carbon-based fuels are already rising on their own without State interference. It would accordingly be false to suggest that the cost of cap-and-trade to the economy – whether financially or in terms of jobs, household consumption, and growth – will be “minimal”.

Likewise, the artful notion that some of the additional revenues contributed to governmental coffers by the victims of carbon trading can be redeployed to alleviate the worst of its ill effects on the poorest households is, in economic terms, absurd.

Most proponents of cap-and-trade have a vested and often financial direct interest in taking advantage of their privileged positions to create and then to exploit a rigged market, where the State will ration the volume of emissions that may be traded and will, therefore, largely dictate the price, whether directly (as in the *dirigiste* EU), or indirectly. It is at best disingenuous to pretend that the cost to the victims of this or any rigged market will be negligible.

Likewise, the artful notion that some of the additional revenues contributed to governmental coffers by the victims of carbon trading can be redeployed to alleviate the worst of its ill effects on the poorest households is, in economic terms, absurd. For most households are poor: therefore, State subsidies to minimize the cost to the poorest households of the carbon trading that so greatly enriches those who rig and control the false market in hot air will also minimize what little environmental benefit might be expected from the scheme.

Above all, the self-inflicted economic wound of making the use of carbon fuels more expensive in the free West than in Communist China will merely transfer carbon emissions and jobs to the corrupt, polluting regime that already has the worst environmental record in the world, and will deploy the profits towards the continued expansion of its own network of uniquely dirty, coal-fired power stations, to the detriment of its own already-brutalized people, and to that of the environment, without any benefit to the climate whatsoever. Seen in this light, carbon trading – like biofuels before it – is lunacy.

Carbon trading is not merely futile – it is immoral, for it cannot but do harm to the poorest people in our community: the very people who are most deserving of our protection.

The lunacy is culpable. For there is a moral dimension. It is inhumane and cruel carelessly or callously to inflict upon the poorest in the nation a policy – however currently fashionable – that is not justified by any “climate crisis”, that would not have any effect on the climate even if there were a “crisis”, that would cost the poorest households their current right to affordable electrical power and transportation while at the same time transferring overseas the jobs upon which our working people depend for their livelihoods, and that is calculated – and perhaps even intended – to enrich the enemies of freedom among the international community while actually increasing the global carbon emissions that it was nominally intended to reduce. Carbon trading is not merely futile – it is immoral, for it cannot but do harm to the poorest people in our community: the very people who are most deserving of our protection.



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## TECHNICAL APPENDIX

### *The IPCC's overstatement of the effect of increased atmospheric CO<sub>2</sub> concentration on global temperature*

- *This short technical appendix provides first an empirical and then a theoretical demonstration that the IPCC and the computer models upon which it relies overstate substantially the (very limited) effect of anthropogenic CO<sub>2</sub> enrichment on global mean surface temperature. This illustrative analysis is confined to central estimates only: yet it compellingly demonstrates the magnitude of the IPCC's erroneous overstatement of climate sensitivity to anthropogenic greenhouse-gas enrichment of the atmosphere.*

#### **I: Empirical demonstration of climate sensitivity**

The Stefan-Boltzmann radiative-transfer equation (equation 1), not mentioned anywhere in the 2,500 pages of the IPCC's 2001 and 2007 reports, is the equation by which any change  $dF$  in net (outward minus inward) radiative flux at the tropopause may be converted to a consequent temperature change at the surface.

$$F = \varepsilon\sigma T^4 \quad \text{W m}^{-2} \quad (1)$$

where  $F$  is any radiative flux;  $\varepsilon$  is emissivity, such that  $\varepsilon = 1$  for blackbodies,  $\varepsilon = 0$  for whitebodies, and  $\varepsilon$  falls on the open interval  $(0, 1)$  for greybodies; and  $\sigma \approx 5.67 \times 10^{-8}$  is the Stefan-Boltzmann constant.

By a thought-experiment, remove the oceans and the atmosphere and assume that the Earth without them is a perfect blackbody, with emissivity 1: little error will result from this assumption. Then, using equation (1), we may evaluate the mean global true-blackbody surface temperature, taking total top-of-atmosphere solar irradiance as 1368 Watts per square meter, and dividing it by 4 to allow for the ratio of a disk to that of a sphere, so that  $F = 342 \text{ W m}^{-2}$ ;  $\varepsilon = 1$ ; so that

$$T = [F / (\varepsilon\sigma)]^{1/4} \approx [(1368/4) / (5.67 \times 10^{-8})]^{1/4} \approx 278.7 \text{ °K} \approx 5.5 \text{ °C}$$

Now, add back the atmosphere, ocean, forests etc., and measure today's mean global surface temperature. It is approximately 15 °C (NCDC, 2008; Hadley Centre/CRU, 2008; etc.). Accordingly, approximately 9.5 C of warming has occurred, notwithstanding the substantial cooling effect of the increase in the Earth's albedo (and the consequent reduction in outgoing longwave radiation) arising from reflection from clouds, and, to a lesser extent, of reflection from ice and from deserts and oceans.

Reduce the top-of-atmosphere solar irradiance by 31%, from 1368 to 944  $\text{W m}^{-2}$ , to allow for today's albedo. Then, without the warming effect of clouds, and without the greenhouse effect, mean global surface temperature would be –

$$T = [F / (\varepsilon\sigma)]^{1/4} \approx [(944/4) / (5.67 \times 10^{-8})]^{1/4} \approx 254 \text{ °K} \approx -19 \text{ °C}.$$

On this basis, a net warming of 34 °C has arisen compared with the Earth as a true blackbody. Almost all of this warming has arisen from natural causes. Of this warming of 34 °C, some 14 °C is attributable to heat retention by clouds (Houghton, 2006). The remainder of the warming – about 20 °C – is

attributable to the warming effect of greenhouse gases. Of this in turn, about two-thirds is attributable to water vapor, leaving  $\sim 7$  C of warming caused by CO<sub>2</sub> and all other greenhouse gases.

The question, therefore, is how much more warming additional atmospheric CO<sub>2</sub> concentration might cause. The IPCC considers that the forcing effect of CO<sub>2</sub> is approximately 5.35 times the natural logarithm of the bracketed term in equation (2), which is the proportionate increase in CO<sub>2</sub> –

$$\Delta F \approx 5.35 \ln(C/C_0) \quad \text{W m}^{-2}, \quad (2)$$

Thus, in the 50 years since Mauna Loa has kept records of CO<sub>2</sub> concentration the IPCC's central estimate of the CO<sub>2</sub> forcing is –

$$\Delta F \approx 5.35 \ln(C/C_0) \approx 5.35 \ln(385 / 315) \approx 1.1 \text{ W m}^{-2}.$$

We translate this CO<sub>2</sub> radiative forcing  $\Delta F$  to temperature by evaluating  $\Delta T$  as the product of three factors –

$$\Delta T = \Delta F \cdot k \cdot f \quad \text{°K}, \quad (3)$$

where  $\Delta T$  is temperature change,  $\Delta F$  is the radiative forcing,  $k \approx 0.31$  is the reciprocal of the Planck feedback parameter, and  $f \approx 3.1$  is the multiplier that allows for temperature feedbacks. Thus, if the IPCC's central estimates, and if it were to be assumed (and, again, little error in practice arises) that transient and equilibrium temperature responses to radiative perturbation of the climate are near-identical, then, using equation (3), the temperature of the past half-century should have risen by –

$$\Delta T = \Delta F \cdot k \cdot f \approx 1.1 \times 0.31 \times 3.1 \approx 1 \text{ °C}.$$

According to the official global temperature series, global mean surface temperature has risen over the period by  $\sim 0.5$  °C (NCDC, 2008; Hadley/CRU, 2008; etc.). However, McKittrick (2006, 2007) finds that the surface temperature series are biased by urban heat-island effects, concluding – and his paper has not been challenged in the literature – that global temperatures have risen by only half the rate indicated by the temperature series. Accordingly, temperature has only risen by 0.25 °C over the period. From this, one must deduct approximately 0.1 °C for the directly exothermic effects of human activities, leaving perhaps 0.15 °C, or one-sixth of the value predicted using the IPCC's central estimates, attributable to anthropogenic CO<sub>2</sub> enrichment. Thus, from 1998-2008, to summarize –

$$\Delta T \approx (0.5 / 2) - 0.1 \approx 0.15 \text{ °C}. \quad (4)$$

In these calculations, based upon the empirical temperature data, we have assumed, again without introducing significant error, that all anthropogenic forcings other than that from CO<sub>2</sub> broadly self-cancel (in the IPCC's analysis they are very slightly net-negative), that equilibrium and transient temperature effects are near-identical (Chylek, 2007), and that equilibrium ocean heat-uptake efficiency is zero. Empirically, therefore, on the evidence of the very small temperature change that has occurred, that the IPCC's central estimates of climate sensitivity should be divided by  $\sim 6$ .

## II: Theoretical demonstration of climate sensitivity

A theoretical demonstration for the magnitude of the appropriate reduction in the IPCC's central estimate of climate sensitivity will now be established. First, it will be necessary to reduce the CO<sub>2</sub> radiative forcing  $dF = 1.1 \text{ W m}^{-2}$  to take account of the failure of all of the computer models relied

upon by the IPCC properly to represent the behavior of the tropical mid-troposphere. The models have been programmed to expect that, in accordance with the Clausius-Clapeyron relation, the tropical upper troposphere will carry more water vapor as the climate warms, so that temperature increase in the mid-troposphere over the tropics will be thrice that at the tropical surface. However, the models misrepresent reality in two fundamental respects. First, as Lindzen (1990) first suggested and Spencer (2007) has subsequently confirmed, the tropical mid-troposphere actually becomes drier as the atmosphere warms, as a result of increased advection of moist air poleward from the tropical regions.

Secondly, Douglass and Knox (2004, revised 2006), subject to a challenge by Thorne *et al.* (2007), to which Douglass *et al.* (2007) is a definitive response, have demonstrated that there is already so much water vapor near the tropical surface that the space occupied by the tropical lower troposphere is already saturated with water vapor, preventing any significant terrestrial radiative forcing in the equatorial region where the preponderance of total outgoing longwave radiation might interact with the atmosphere. In accordance with the analysis of Douglass *et al.*, tropical mid-troposphere temperatures, far from rising at thrice the surface rate, have actually fallen over the past half-century. Therefore, Lindzen (2008), in a paper that stands unchallenged in the literature, has recommended that all of the IPCC's forcing estimates, including that from CO<sub>2</sub>, should be divided by three.

The IPCC also overstates the no-feedbacks climate sensitivity parameter  $k$ , having failed to adhere to the values recommended in the two papers which it cites in justification of its chosen value. Furthermore, the IPCC and its two cited papers fail to adjust both for the unequal latitudinal distribution of outgoing longwave radiation and for the near-absence of outgoing radiation at the Poles, caused partly by high albedo and partly by the very low azimuth angle of the Sun at high latitudes. Making these and other appropriate adjustments, according to a calculation by Dr. David Evans, reduces  $k$  from 0.31 °K W<sup>-1</sup> m<sup>2</sup> (IPCC, 2007) to 0.24 or thereby.

Since the feedback factor  $f$  is dependent upon  $k$ , and since there is no justification for the IPCC's unstated and unexplained 70% increase in the value of  $f$  since its 1995 report,  $f$  should not be more than 2 and could be as little as 1.5. Taking all of these adjustments into account, temperature change  $\Delta T$  over the past half-century in response to the increase in CO<sub>2</sub> concentration over the period is –

$$\Delta T = [\Delta F][k][f] \approx [5.35 \ln(385/315) / 3][0.24][1.75] \approx 0.15 \text{ } ^\circ\text{C}. \quad (5)$$

The theoretical result shown in equation (5), derived in accordance with the IPCC's methods appropriately adjusted, is in close correspondence with the earlier empirical result in equation (4) above, derived from the observed record of global mean surface temperature anomalies as adjusted to allow for the McKittrick heat-island effects and for the directly exothermic activities of humankind.

### III: Conclusion

The conclusion, in accordance with standard physical theory, is that the IPCC has overstated climate sensitivity very substantially, and that any temperature increase in consequence of anthropogenic enhancement of the greenhouse effect has been and will continue to be minuscule, harmless, and, on balance, beneficial. At CO<sub>2</sub> doubling compared with 1750, expected later this century, the further warming to be expected compared with today's temperatures is very likely to be less than 1 °C –

$$\Delta T = \Delta F . k . f \approx [5.35 \ln(550/385) / 3][0.24][1.75] \approx 0.8 \text{ } ^\circ\text{C}.$$

## APPENDIX II

# Climate Change Perspective for policy-makers

by

*Christopher Monckton of Brenchley*

**THATCHER'S RULE**, “You have to get the big ones right”, applies with the greatest force to those fields of policy where wrong decisions could kill millions. The international community too often gets the big ones wrong, and kills tens of millions, and does not care much.

The international community too often gets the big ones wrong, and kills tens of millions, and does not care much.

When the same lobbies that now demand action on climate change did so on DDT 35 years ago, they got the science as wrong then as now. Instead of restricting DDT to interior spraying of dwellings, they had it banned outright. Result: 30-50 million (and counting) needlessly dead of malaria. Dr. Arata Kochi of the WHO, announcing the end of the ban in 2006, said that too often politics predominated: now it was (and is) necessary for the science and the data to prevail.

With climate change, politics regrettably predominates. This time, there is a dangerous complication: politicized science. The surprisingly small group of scientists who started and still stir the “global warming” scare have undesirably close financial links with politicians and corporations. Yet the notion that “global warming” is so severe a threat that it demands major increases in taxation and regulation, coupled with deep, strategic cuts in the Western economies, would only be defensible if all of the following propositions were true –

- |  |                          |
|--|--------------------------|
| 1. “The scientists, politicians, and news media behind ‘global warming’ are honest”: | They are not;            |
| 2. “The debate is over and all credible climate scientists are agreed”:              | It is not; they are not; |
| 3. “Temperature today has risen exceptionally fast and above natural variability”:   | It has not;              |
| 4. “Changes in solar activity do not significantly impact today’s global warming”:   | They do;                 |
| 5. “Greenhouse-gas increases are the main reason why it is getting warmer”:          | They are not;            |
| 6. “The fingerprint of anthropogenic greenhouse warming is clearly present”:         | It is absent;            |
| 7. “Computer models are accurate enough to predict the climate reliably”:            | They cannot be;          |
| 8. “Global warming is to blame for present and future climate disasters”:            | It is not;               |
| 9. “Mitigating climate change will be cost-effective”:                               | It will not;             |
| 10. “Taking precautions, just in case, would be the responsible course”:             | It would not be.         |

Each of these ten conformist propositions, every one of which must be shown true before substantial policy changes can be considered advisable, is demonstrated to be questionable at best, false at worst.

There has been serious, serial scientific dishonesty, misrepresentation, and exaggeration. Increasing numbers of peer-reviewed papers are expressing open doubts about all of the main points of “global warming” theory. Today’s temperature is well within natural climate variability. The Sun’s activity is now declining from the recent 70-year-long solar Grand Maximum, during which the Sun was more

active, for longer, than at almost any similar previous period in the past 11,400 years. Climate models have exaggerated the effect of all greenhouse gases on temperature, and have also increased the feedback multiplier by more than half in a decade, without explanation or justification. The models do not accurately represent major features of the climate, and it has long been proven impossible to predict the long-run evolution of any mathematically-chaotic object, such as the climate, unless one knows the initial state of the object to a degree of precision that, with the climate, is in practice unattainable.

The surprisingly small group of scientists who started and still stir the “global warming” scare have undesirably close financial links with politicians and corporations.

Politicians and the media have flagrantly exaggerated the imagined effects on the climate of the comparatively mild warming to be expected as a result of anthropogenic greenhouse-gas enrichment. Sea level, for instance, will rise not by 20ft imminently, as a notorious “global warming” profiteer and film presenter has suggested, but by about 1ft over the next 100 years.

Economically, adaptation to changes as they slowly occur is many times more cost-effective than attempts at mitigation, which – for powerful political as well as scientific reasons – are doomed to fail. The “precautionary principle” – regulate now, just in case – has killed tens of millions in the recent past, and is both scientifically and economically unworthy of the name “principle”.

Conclusion: the climate may grow warmer, though much or all of the warming may be offset over the coming century by a very substantial decline in solar activity that is confidently predicted by the solar physicists; but the relatively small amount of warming to be expected will be generally beneficial.

Climate change is a non-problem, and the correct policy response to a non-problem is to have the courage to do nothing. There are many real environmental problems: climate is not one of them. And there are many real political problems, not the least of which is the imminent scarcity of fuels, minerals, and other essential commodities, nearly all of which are already increasing rapidly in price.

Climate change is a non-problem, and the correct policy response to a non-problem is to have the courage to do nothing.

Finally, the moral dimension is crucial. The policies advocated to mitigate climate change would condemn the Third World to remain abjectly poor, for unless all other countries cut their carbon emissions atmospheric concentrations will continue to rise even if the entire West shuts down and goes back to the Stone Age, but without even the ability to light fires. If the poorer countries remain poor, their populations will paradoxically continue to increase and, in the medium term, the global carbon footprint of humankind will be greater than if mitigation had not been attempted. It is the poor who have been the victims of unscientific but fashionable political decisions in the recent past: it is they who will die in their tens of millions if, yet again, an unscientific but fashionable political decision is taken by us and inflicted upon them. We must get the science right or we shall get the policy wrong. We have failed them before. We must not fail them again.

## APPENDIX III

### *Suggested Readings*

35 Inconvenient Truths: The errors in Al Gore's movie

<http://scienceandpublicpolicy.org/monckton/goreerrors.html>

Gore's 10 Errors Old and New

[http://scienceandpublicpolicy.org/monckton/gores\\_10\\_errors\\_old\\_new.html](http://scienceandpublicpolicy.org/monckton/gores_10_errors_old_new.html)

Environmental Effects of Increased Atmospheric Carbon Dioxide

<http://scienceandpublicpolicy.org/other/increasedco2effects.html>

Carbon Dioxide and Global Change: Separating Scientific Fact from Personal Opinion

[http://scienceandpublicpolicy.org/other/sherwood\\_and\\_craig\\_idso\\_examine\\_james\\_hansen\\_s\\_recent\\_senate\\_testimony.html](http://scienceandpublicpolicy.org/other/sherwood_and_craig_idso_examine_james_hansen_s_recent_senate_testimony.html)

Al Gore's United States Senate Environment and Public Works Committee Testimony

[http://scienceandpublicpolicy.org/other/al\\_gore\\_s\\_united\\_states\\_senate\\_environment\\_and\\_public\\_works\\_committee\\_testimony.html](http://scienceandpublicpolicy.org/other/al_gore_s_united_states_senate_environment_and_public_works_committee_testimony.html)

William Kininmonth examines Al Gore's An Inconvenient Truth.

[http://scienceandpublicpolicy.org/other/william\\_kininmonth\\_examines\\_al\\_gore\\_s\\_an\\_inconvenient\\_truth.html](http://scienceandpublicpolicy.org/other/william_kininmonth_examines_al_gore_s_an_inconvenient_truth.html)

Greenhouse Warming? What Greenhouse Warming?

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Biofuels: a solution worse than the problem they try to address?

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Antarctic Ice Loss: Is There Really a Problem?

[http://scienceandpublicpolicy.org/originals/artic\\_ice\\_loss.html](http://scienceandpublicpolicy.org/originals/artic_ice_loss.html)

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Peer review? What peer review?

<http://scienceandpublicpolicy.org/peerreview.html>

The "Unruly Sunne" cannot be ruled out as a Cause of Recent Climate Variation

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Current issues in Climate Science: Focus on the Poles

[http://scienceandpublicpolicy.org/sppi\\_originals/current\\_issues\\_in\\_climate\\_science\\_focus\\_on\\_the\\_poles.html](http://scienceandpublicpolicy.org/sppi_originals/current_issues_in_climate_science_focus_on_the_poles.html)

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The Government Grant System: Inhibitor of Truth and Innovation?

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Pseudoscientific elements in climate change research

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Polar Bear Population Forecasts: A Public-Policy Forecasting Audit

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Observed climate change in Colorado

[http://scienceandpublicpolicy.org/originals/colorado\\_climate\\_change.html](http://scienceandpublicpolicy.org/originals/colorado_climate_change.html)

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