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Global Warming Economics
Facts vs. Myths

By Iain Murray*

The ongoing debate over global warming is as much about economics as about climate science. Climate change mitigation strategies invariably carry costs that must be considered before any policy is implemented. The climate change mitigation policies being proposed by former Vice President Al Gore and some U.S. Senators fail to take those costs into account.

Unfortunately, such obliviousness to real costs dominates the climate change debate. Part of the blame for this must be placed on a series of myths that permeate the debate. The following debunks the central global warming policy myths, and proposes an alternative way forward.

Myth: The United States lags other countries in reducing its carbon dioxide (CO2) emissions.
Fact: U.S. carbon dioxide emissions have risen more slowly than those of other countries.

- ***Signatories to the Kyoto Protocol are not meeting their emissions reductions targets.*** Since the Kyoto Protocol was negotiated in 1997, every major developed country that undertook to reduce carbon emissions as prescribed by the treaty—with the aim of reaching 1990 levels—has increased them. The only exceptions are Germany—which is still rebuilding the former East Germany that was a haven for smokestack industries—and the small, homogeneous nations of Denmark and Sweden.[1]

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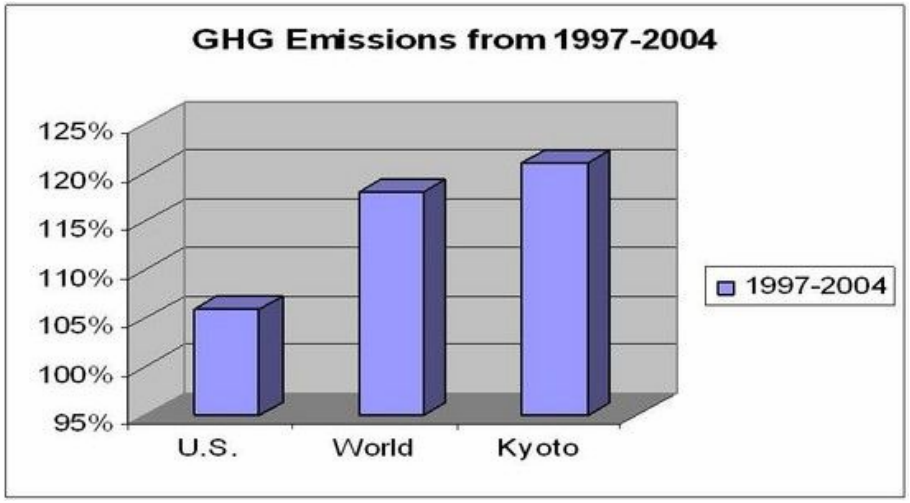
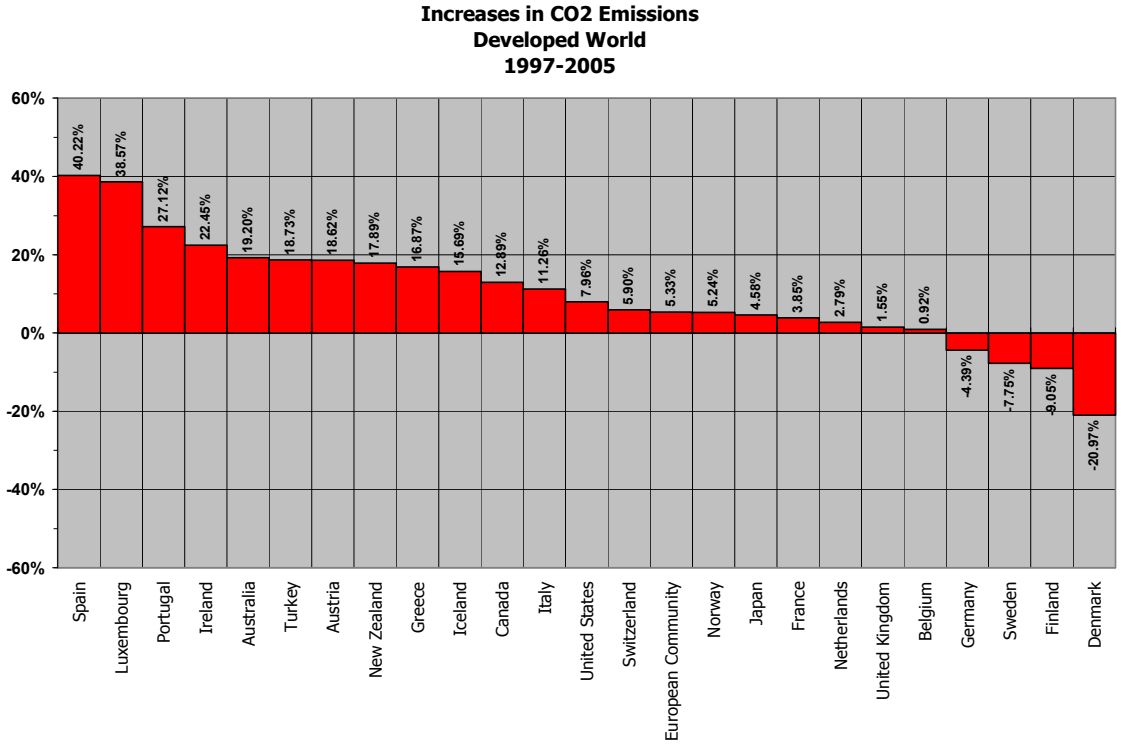


- ***U.S. emissions have grown more slowly despite strong economic and population growth.*** Since the Kyoto baseline year of 1990, U.S. population has increased by 22 percent, CO2 emissions by 15 percent, and economic output by 62 percent. With the same population and economic growth increases, Canadian emissions are up by 35 percent.[2]

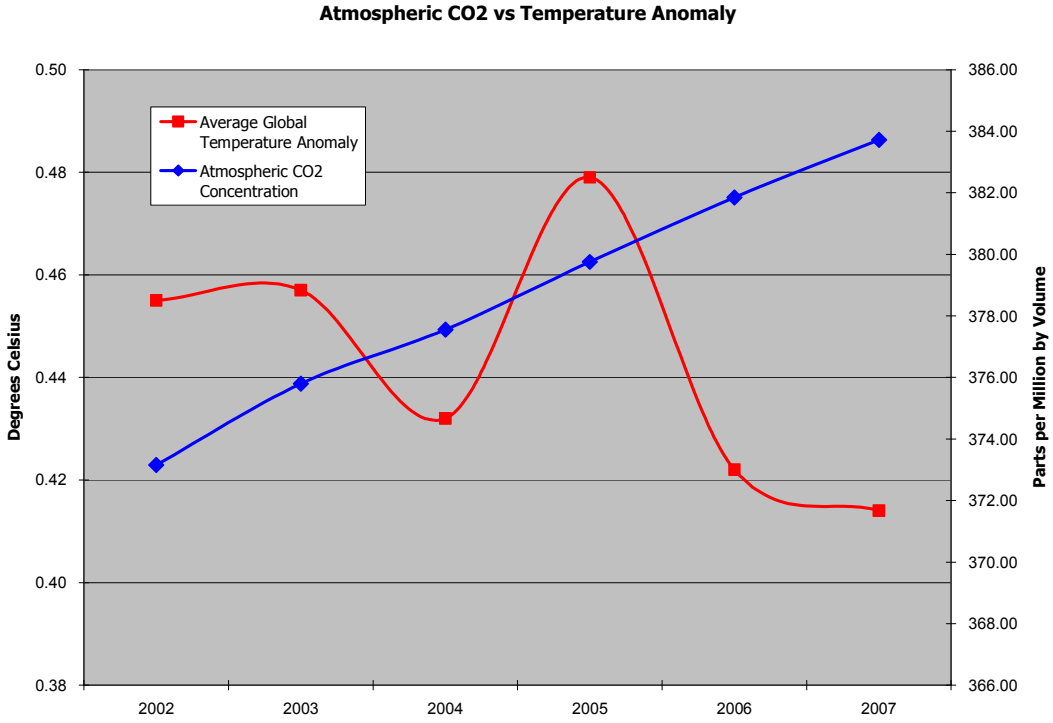


- ***Carbon dioxide emissions are rising fast in the developing world.*** China now emits more greenhouse gases than the U.S.; it has achieved that level faster than anybody ever expected thanks to strong economic growth.[3] Indonesia is now in third place.[4]

- ***Developing nations will not accept curbs on their growth through emissions restrictions.*** China and India have repeatedly and firmly stated that they will not accept mandatory limits on emissions. Other developing nations support them.

Myth: The carbon emissions-temperature link is well established.
Fact: The carbon emissions-temperature link is looking shaky.

- ***Temperatures have not risen in tandem with greenhouse gas concentrations.*** Atmospheric greenhouse gas concentrations have increased by 4 percent since 1997.[5] Temperatures have remained flat or declined since 2001.[6] No climate model predicted this plateau of temperatures.[7]

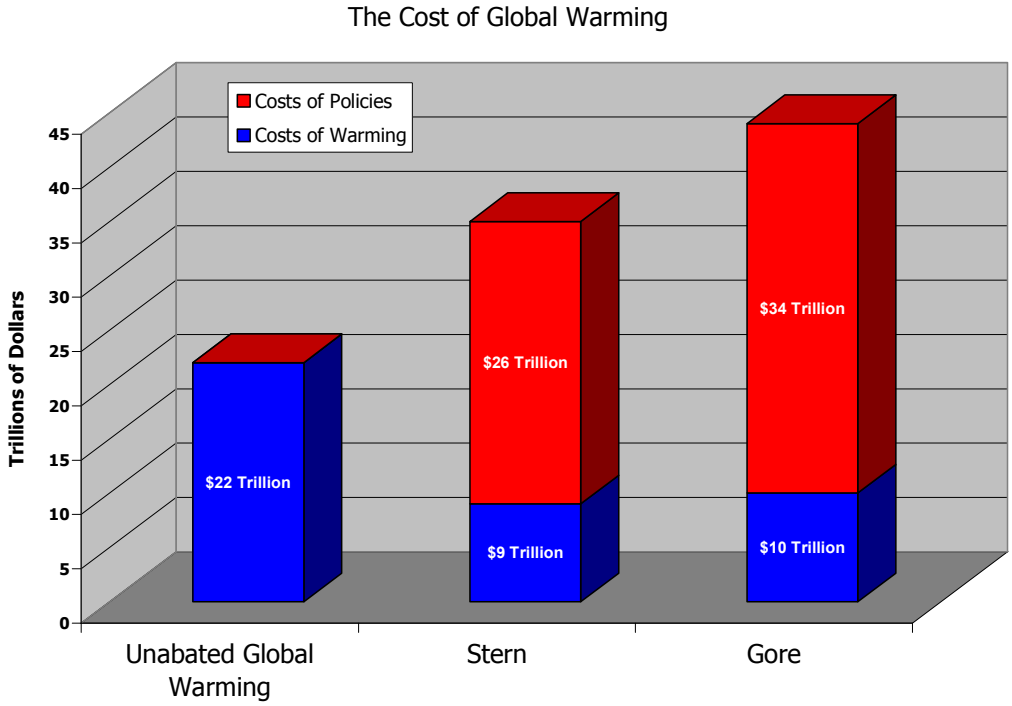


- ***Climate researchers are now looking at other causes for warming.*** The Hadley Center in the United Kingdom[8] and the Liebniz Institute in Germany[9] both have said recently that natural variations are currently overpowering greenhouse "forcing" as a cause of increased warming.

Myth: The costs of global warming policies can be feasibly borne, and may even pay for themselves in the long run.
Fact: The costs of global warming policies outweigh the potential costs of global warming.

- ***The* Stern Review *exaggerates costs irresponsibly.*** The *Stern Review on Climate Change*, commissioned by former Prime Minister Tony Blair's government, relies on outlier scenarios to arrive at alarming conclusions. It picks worst-case scenarios from the literature on the costs and benefits of global warming. It is not a reliable policy document.

- Dr. Richard Tol of Hamburg University, the leading expert on the social cost of greenhouse gases, estimates that the cost of carbon dioxide emissions at around $2/ton,[10] not the $86/ton used by Stern. Even at a higher estimate of $12/ton, this translates to just 12 cents on a gallon of gasoline.
- Dr. William Nordhaus of Yale estimates that 3°C of global warming would cost the world $22 trillion this century. Stern's recommendations, based on immediate deep reductions in emissions on the basis of intergenerational equity, would reduce that to $9 trillion, but at a cost of $26 trillion. Al Gore's package of measures, which calls on the U.S. to "join an international treaty within the next two years that cuts global warming pollution by 90 percent in developed countries and by more than half worldwide in time for the next generation to inherit a healthy Earth," would reduce warming costs to $10 trillion, at a cost of $34 trillion.[11]



- ***The Lieberman-Warner America's Climate Security Act would impose huge costs***. It would cost America alone up to $4.8 trillion by 2030. "Green jobs" purportedly created by the bill would be illusory—after some frictional transition, the Lieberman-Warner bill would cost at least 500,000 jobs by 2030.[12]

Myth: Experience shows that cap-and-trade schemes can achieve good environmental outcomes by harnessing market incentives.
Fact: Cap and trade does not work for reducing greenhouse gas emissions.

- ***Previous—debatable—successes of pollution trading schemes, such as for curbing acid rain or reducing nitrous oxide, are not comparable to greenhouse gas trading schemes because of their scale and extent.***[13]

- ***The European Union's carbon emissions trading scheme has not worked.*** The best analysis of the European Emissions Trading Scheme found the following:[14]
    - Phase I of the European Emissions Trading Scheme (ETS) failed to reduce emissions.[15]
    - Phase II has seen most—possibly all—emissions reductions taking place *outside* of the European Union.[16]
    - Around half the money spent on "offsets" under the scheme to date have been awarded to scams in the form of projects to clean up "exotic" greenhouse gases such as the rare but potent fluorocarbons.
    - There is still no real market for emissions permit trading, due to European governments favoring pet industries.
    - It is likely that Phase II will again fail to put a serious, meaningful price on carbon.
    - The problem of "carbon leakage," industries relocating outside Europe to avoid the costs imposed by the ETS, appears insurmountable.
    - Thefore, if the ETS does work, it will make the EU more dependent on Russian gas.
    - The ETS may well cancel out other climate policies. For example, if large-scale renewable power plants come online, the price of carbon may drop, increasing emissions elsewhere.
    - Given all this, prospects for a comparable global system look dim.

Myth: Carbon taxes are efficient and transparent.
Fact: Carbon taxes are more transparent than cap and trade, but still impose substantial costs.

- ***Cap and trade schemes hide costs; a tax makes costs transparent.*** Cap and trade schemes hide the political manipulation of the energy market from the consumer. They impose costs on industry that are passed on to consumers as higher prices. A tax makes clear where the extra costs come from.
- ***Carbon taxes create fewer market distortions than cap and trade.*** Although far from optimal, a tax is less liable to be gamed than an emissions trading scheme (which has great potential to create work for accountants).
- ***Carbon taxes would still impose significant costs.*** Carbon taxes would still encounter the problems of carbon leakage and suppression of domestic energy production.

Myth: Carbon tariffs can encourage developing countries to adopt carbon emission restrictions out of economic self interest.
Fact: Carbon tariffs risk provoking a global trade war.

- ***Carbon tariffs are trade barriers.*** developed nations imposing carbon tariffs on developing world imports would create a global regime of carbon-based protectionism, which would lead to a serious decrease in international trade, with all the costs that brings.
- ***Less trade means more poverty and greater exposure to natural disasters.*** Reducing world trade will increase global poverty, which would make developing nations much less resilient to extreme weather and other natural disasters.

- ***Carbon protectionism would increase international tensions.*** Developing countries will react with extreme anger at developed countries seeking to limit their options for development. Nothing good can come of this, and could encourage some developing nations to forge closer ties with regimes hostile to U.S. and Western interests.

Conclusion: "No regrets" policies offer a better option. A sensible climate policy would aim to increase resiliency, not undermine it. Rather than seek to reduce the level of warming by a few degrees—which would not make much of a difference, anyway—policy makers should encourage "no regrets" policies that will allow the world's poor to improve their situation, and thus acquire the resources they need to address any possible problems that could arise from global warming.

Notes

[1] United Nations Framework Convention on Climate Change, Time Series Data for Annex 1 nations, http://unfccc.int/ghg_data/ghg_data_unfccc/time_series_annex_i/items/3814.php.
[2] Emissions data from Energy Information Administration, http://www.eia.doe.gov/oiaf/1605/ggrpt/index.html
[3] Netherlands Environmental Assessment Agency, "China now No. 1 in CO2 emissions; USA in second position," June 19 2007, http://www.mnp.nl/en/service/pressreleases/2007/20070619Chinanowno1inCO2emissionsUSAinsecondposition.html
[4] "Indonesia is 3rd largest greenhouse gas producer due to deforestation," mongabay.com, March 26, 2007.
[5] National Oceanic & Atmospheric Administration, *NOAA Annual Greenhouse Gas Index*, http://www.esrl.noaa.gov/gmd/aggi/.
[6] Roger Pielke, Jr., "How to Make Two Decades of Cooling Consistent with Warming," Prometheus, The Science Policy Weblog, Center for Science and Technology Policy Research, University of Colorado. Figures for the five leading temperature series in degrees Celsius for 2001 to March 2008 are: UKMET -1.3 (+/- 1.8), NOAA 0.0 (+/- 1.6), RSS -1.5 (+/- 2.2), UAH -0.9 (+/- 2.8), GISS 0.2 (+/- 2.1), http://sciencepolicy.colorado.edu/prometheus/archives/climate_change/001425how_to_make_two_deca.html
[7] See Lucia Liljgren, "IPCC Projections Continue to Falsify," *The Blackboard: Where Climate Talk Gets Hot!,* http://rankexploits.com/musings/2008/ipcc-projections-continue-to-falsify/.
[8] Richard A. Kerr, "Humans and Nature Duel Over the Next Decade's Climate, *Science*, August 10, 2007, 317 (5839), 746.
[9] Noel Keenlyside et al, "Advancing decadal-scale climate prediction in the North Atlantic sector," *Nature* 453, May 1, 2008, pp. 84-88.
[10] Quoted in Bjorn Lomborg, *Cool It!,* Knopf, 2007, p.31
[11] William Nordhaus, *The Challenge of Global Warming: Economic Models and Environmental Policy in the DICE-2007 Model*, July 24, 2007.
[12] William W. Beach et al., "The Economic Costs of the Lieberman-Warner Climate Change Legislation," The Heritage Foundation, May 12, 2008, http://www.heritage.org/Research/EnergyandEnvironment/cda08-02.cfm.
[13] See Paul Georgia, "Market-Based Chimera: Emission Trading Fails to Deliver," *OnPoint* No. 41, Competitive Enterprise Institute, July 6, 1999, http://cei.org/gencon/004%2C01639.cfm.
[14] Open Europe, "Europe's Dirty Secret: Why the EU Emissions Trading Scheme isn't working," August 2007, http://www.openeurope.org.uk/research/etsp2.pdf.
[15] The First Phase ran from 2005 to 2007. It has since been amended owing to its failures.
[16] Phase 2 is intended to mirror the Kyoto Protocol's compliance phase, running from 2008 to 2012.