



TECHNICAL BRIEF

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IS INTEREST IN GLOBAL WARMING SUDDENLY POLITICALLY CORRECT?

BY
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Signs of the Times?

A week or so ago, former Vice President Al Gore won an Oscar for his documentary about global warming, *Inconvenient Truth*. While Gore's documentary did not cause the issue of global warming to float to the top of a list of issues about which American voters are expressing extreme interest, it is, without doubt, a sign of the times.

Senators Bernie Sanders (I-VT), Barbara Boxer (D-CA) and nine other senators introduced a bill on January 16th which would set bold targets for cutting heat-trapping pollution. Known as the Global Warming Pollution Reduction Act, the ultimate aim is to cut global warming emissions 80% below 1990 levels by 2050, consistent with the Kyoto protocol. Boxer is the chair of the Environment and Public Works Committee and has established global warming legislation as her top priority.

President Bush is on the global warming band wagon, too, mentioning global climate change as a serious challenge for the first time in his 2007 State of the Union speech and announcing his desire to reduce America's oil consumption by 20% by 2017, something that can only be done through development and use of reliable alternative fuels. He indicated to the congress that he would propose measures designed to combat global warming, break our national addiction to oil and invest in clean, renewable energy. While his proposed budget may not be quite consistent with the interest in energy that he articulated to Congress, his interest in "energy security" cannot be faulted. And his potential successors, McCain, Clinton and Obama, all support federal measures to curb climate change.

But it is not just Washington DC that is taking an interest in the topic. Twenty-nine states have already developed climate action plans and 14 states have already established greenhouse gas emission reduction targets. California's Governor, Arnold Schwarzenegger, announced last week that California's efforts at reducing global

warming could serve as a model for the U. S. Congress – California has acted to reduce greenhouse gas emissions 25% by 2020. Many analysts liken California’s measures as consistent with Kyoto targets – realistic but serious.

And that’s not all. Regional initiatives are gaining traction. Eight northeastern states are working on a regional greenhouse gas initiative, and 5 western states are prepared to sign a pact to address global warming issues.

Even local governments have gotten into the act. More than 400 mayors, representing over 60 million people in all 50 states, have signed the U. S. Mayors Climate Protection Act, announced Seattle Mayor Greg Nickels. These 400 mayors have pledged to lead their own communities to take action to significantly reduce greenhouse gas emissions in their own communities.

Denial Doesn’t Work.

None of these measures can be implemented too soon. The fact is that we as a nation, as individuals and as citizens of the world, have been ignoring cold, hard facts about global warming for a long time. We’ve allowed ourselves to do this by focusing on the debate about whether global warming is actually occurring. So long as we’re not sure it is occurring, we certainly don’t have to address it. But address it we must, for the debate is over and we can no longer simply deny the existence of global warming. There is global consensus that global warming has been observed over the past 50 years and the warming is attributable to human activities. *Even Exxon has admitted that burning fossil fuels contributes to global warming.*

As recently as five years ago, big business was solidly against environmental action to curb carbon emissions. But having to face a crazy-quilt of state, local and regional regulations, business is now in favor of carbon controls. In addition to the President, Al Gore, Barbara Boxer, Bernie Sanders and big business, other interest groups are jumping aboard the green train, including U.S. hawks, who object to the nation’s dependence on middle eastern oil; farmers, many of whom want to invest in ethanol development and production of raw materials for ethanol; and Evangelical-greens, who believe that man should take better care of the Earth that God gave us.

Just How Bad Is Global Warming?

If you haven’t seen *Inconvenient Truth*, you might be interested to know that global warming does not just result in the average temperature rising a few degrees – although in a typical Mississippi summer that’s enough. Climate change has some predictable and rather disturbing effects which include:

- increased severity of tropical storms, like Katrina
- increasingly frequent droughts, such as those currently affecting the southwestern US
- rainfall occurring during winter events instead of throughout the regular growing season
- rising sea levels
- disruption of climate-regulating ocean currents, such as the Gulf Stream, which contributes to our mild climate
- insect infestations such as the spruce bud worm, which is killing millions of trees in Alaska and Canada
- loss of biodiversity
- spread of disease.

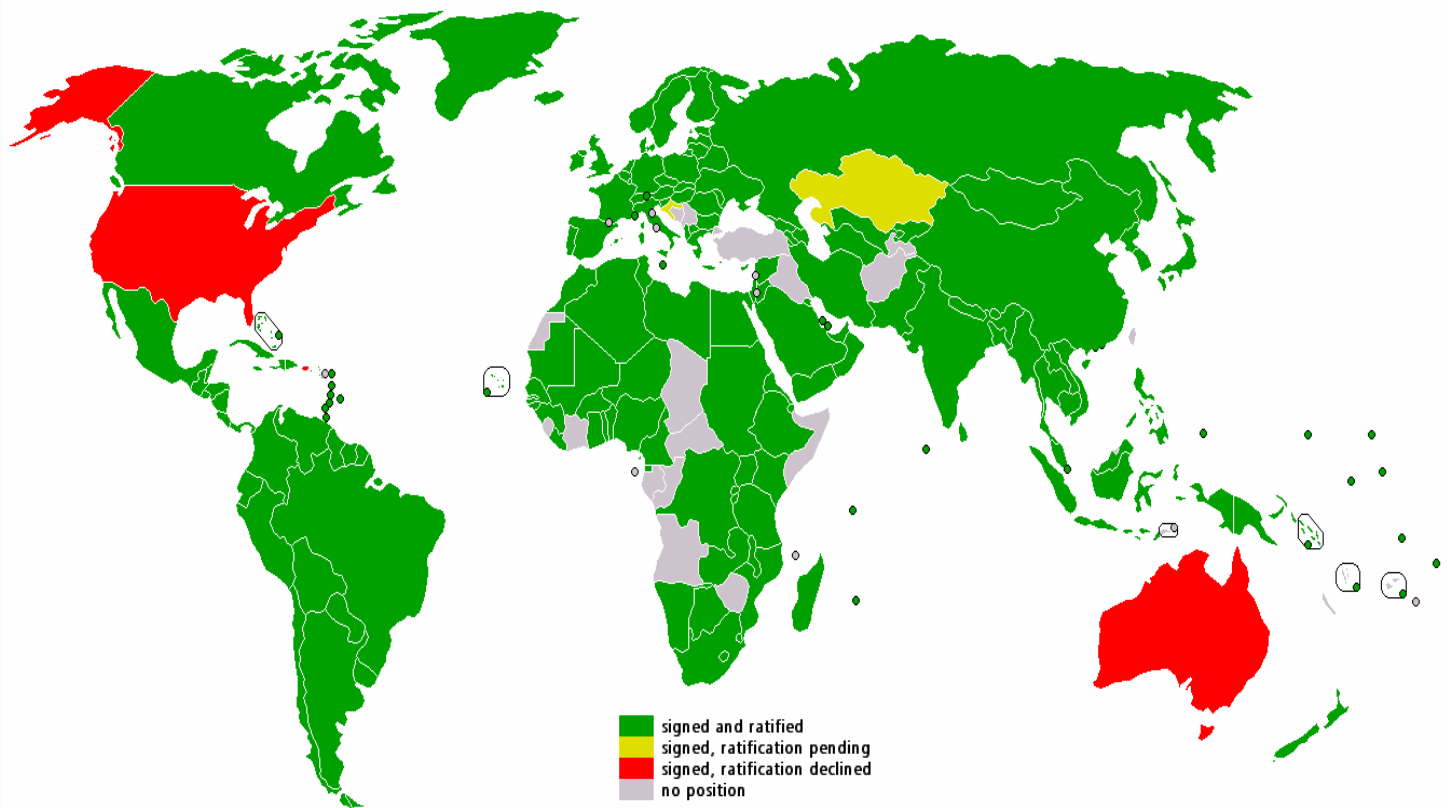
While the list of effects, typeset, is not as impressive as the documentary graphics in *Inconvenient Truth*, the effects of global warming have serious implications to business and the economy.

- Over the last century the average temperature has climbed about 1 degree Fahrenheit (0.6 of a degree Celsius) worldwide. During the last 50 years, arctic climes in Alaska, western Canada and eastern Russia have seen average temperatures increase as much as 4 to 7 degrees Fahrenheit (3 to 4 degrees Celsius), which is nearly twice the global average. Barrow, Alaska, the U.S.'s northernmost city, has experienced average temperatures that have risen 4 degrees Fahrenheit within the last 30 years.
- The spring ice thaw in the Northern Hemisphere occurs 9 days earlier than it did 150 years ago.
- The first fall freeze in the Northern Hemisphere occurs 10 days later than it did 150 years ago.
- The 1990s was the warmest decade experienced by the world since the mid-1800s, when record-keeping started. (Hottest years on record are now 1998, 2002, 2003, 2001 and 1997.)
- The United Nations' Intergovernmental Panel on Climate Change (IPCC) predicts that global temperatures will rise an additional 3 to 10 degrees Fahrenheit (1.6 to 5.5 degrees Celsius) by the century's end.
- IPCC predicts that sea levels will rise between 4 and 35 inches by century's end. The significance of this predicted rise is demonstrated by the fact that a 1.5 foot sea level rise in flat coastal areas would cause a typical coastline to retreat 150 feet, while worldwide over 100 million people live within 3 feet of mean sea level.

The US is the world's biggest producer of greenhouse gases. Not surprising. But in the short term, China may surpass the US. China is well on its way to becoming an international environmental powerhouse. Why else would Wal-Mart be there? And China is developing significant energy capacity. Unfortunately, China's principal power generating facilities burn coal – the world's dirtiest fuel. Within a decade, India may surpass China in greenhouse gas emissions. India, too, produces energy from dirty fuel. And significantly, under the United Nation's first steps to control greenhouse gas emissions, neither China nor India are required to curb their emissions.

Citizens of the World.

What is the Kyoto Protocol? It is an agreement that arose out of a meeting of the United States Framework Convention on Climate Change. The objective of the protocol is the stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Countries that ratify the Kyoto Protocol commit to reduce their emissions of carbon dioxide and five other greenhouse gasses or engage in emissions trading if they maintain or increase emissions of these identified gasses. The treaty was negotiated in Kyoto in December of 1997 and came into force on February 16, 2005 following Russia's ratification of the protocol on November 18, 2004. One hundred sixty-nine countries have ratified the agreement (covering over 60% of emissions from developed countries). The United States and Australia have not ratified the protocol.



The protocol contemplates financial exchanges, such as the EU Emissions Trading Scheme, or Clean Development Mechanisms – the development of alternative fuel sources which succeed in reducing emissions.

Can the US Make a Difference?

The US not only can make a difference, but it must. We have lived in a period subsequent to what is now commonly called the “Little Ice Age” . The last 10,000 years on the planet have provided environmentally stable conditions for its inhabitants.

International scientists have reached the conclusion, however, that man-made greenhouse gasses are threatening the earth’s environmental stability. And the threats are significant but uncertain and, for the most part, appear to be distant risks which will not affect us or our children.

Yet we are asked to invest GNP in finding ways to reduce the potential climatic catastrophe. And somehow, for some reason – and perhaps not too late – controlling greenhouse gas emissions has suddenly gotten to be in vogue. We must merge our politics with the momentum.

The fact is that America talks a lot about moral leadership. Global warming is a wonderful policy issue on which to focus this moral leadership. Global warming is, in fact, global. Every country has an interest in tackling global warming and every country has an interest in getting every other country to tackle the issue of global warming. It is just that it is a long-term problem and there seem to be other, more urgent issues facing the world in 2007. While we know, as a nation, that we have the resources to develop methods of reducing global warming for ourselves and others, and we know, as a nation, that we are in as good a position as other developed nations to invest a percentage of our GNP on this issue, will we join ourselves with the momentum that the issue of global warming is gaining? Will our leaders lead us? Will we attempt, at the state and local level, to lead them.

What is California Doing?

California has become the first state in the US to set limits on industrial greenhouse gas emissions. Governor Schwarzenegger developed a Climate Action Team to act upon a Climate Action Initiative by executive order. The order established greenhouse gas targets for California. The targets in California are as follows:

- By 2010, reduce to 2000 emission levels
- By 2020, reduce to 1990 emission levels
- By 2050, reduce to 80% below 1990 emission levels.

In addition to the targets, the Climate Action Team, led by the Secretary of California's Environmental Protection agency, is charged with implementing emission reduction programs and reporting to the Governor and the Legislature bi-annually, beginning March 2006.

Methodology of Reducing Emissions.

Economists have tried to put a figure on emissions reduction. But it is difficult to do. They have succeeded, however, in determining essential methodologies.

Strategists realize that one way to reduce emissions is to switch to alternative fuels. The principal alternative fuels available to the American market at the moment are ethanol or liquefied coal. Both have downsides. Ethanol is an inefficient substitute; there are heavy subsidies for production and high tariffs on foreign imports. Liquefied coal has extremely high carbon emissions.

The economists among us suggest efficient – and perhaps temporarily painful – solutions to climate change. One is the carbon tax. The other is a cap-and-trade system, similar to that developed by the EU.

The EU embraced a cap-and-trade system in an effort to meet the Kyoto targets for emission control. Known as EU's Emission-Trading Scheme, it sets limits on how much producers can emit, and then lets producers buy and sell (i.e., trade) emission credits. Either method makes the use of carbon an expensive proposition which will discourage carbon emissions and encourage the development of cleaner energy alternatives.

Most economists opine that the carbon tax is more efficient – it establishes a stable price that can be contemplated by the investment plans of producer businesses which are energy-hungry emitters.

But Americans hate taxes. And while we may be at a point to tax the cigarettes that make us ill and kill us by first or second-hand smoke, we do not seem to be at the point of taxing those energy sources which create our comfort level and support our mobile independence. So taxes may not be the most popular answer, although it is no doubt the simplest method of discouragement.

Cap-and-trade systems are a scheme to limit a company's emissions while allowing the companies to buy and sell permits to pollute. The emissions are limited – and in most schemes and incrementally reduced over a period of years.

The European Union's Emission Trading Scheme is a most impressive attempt to control greenhouse gas emissions. It is the world's largest multi-national plan and the largest (economically and geographically) integrated scheme of emission control. All 27



member states in the EU are participating. Under the scheme, each participating country has determined its current emissions, based on individual power plants in the country and other large industrial emitters. Working under the country's (and ultimately the power plant's or industrial emitter's) allocation, there must be a reduction in emissions or allowances can be purchased from entities who reduce their emissions and therefore have an excess of allowances. There are incrementally reduced allowances so that overall reductions in emissions are achieved over time.

During the EU's Phase I, carbon emissions are the focus. In Phase II, which runs from 2008 to 2012, all greenhouse gas emissions will be monitored and limited and aviation emissions will also be tacked. Additionally, the non-EU nations of Norway, Iceland, Liechtenstein and Switzerland are expected to join the trading scheme. Phase II anticipates an average cut of 17% below 2005 emission levels by the EU countries.

The US can learn from the mistakes made in EU's Emission Trading Scheme. For example, when the nations of the EU set their initial allocations, there were flaws. Namely, (1) the allocations were based on current usage, rather than a slightly more efficient usage and (2) the allocations were "grandfathered" or given to the entities, rather than being made available for purchase.

While initially in Europe the original permits were given away, evaluators of Europe's Emission-Trading Scheme recommend that, implemented in the US, companies should purchase their initial permits and then can trade in permits as their institutional development of methods to reduce emission allow them to operate with fewer. In other words, business can benefit economically both by finding a method of reducing emissions and then by selling their permits to pollute. Like having cake and eating it, too.

Of course, the EU model is not the only way to reduce greenhouse gas emissions. But the application of efficiencies is particularly suitable for attempts at emissions reductions because they encourage industries to approach the question of fuel with good 'ole American ingenuity.

Why not consider global warming the threat that it is, and put the strength and power of American industry at work to corral it? Subsidizing the development of alternative fuels is a method by which we can meet the desires of many factions of the American constituency. We can meet the needs of the "greens" and those interested in "energy security" like President Bush. Moreover, we can lead the world to climate security.

We can do it as a nation; we can do it as a state; or even as a municipality. But we need to do it. Global warming is real and its effects are already upon us.

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Lydia Quarles is a Senior Policy Analyst at the John C. Stennis Institute of Government, Mississippi State University. She received her *Juris Doctorate* in 1975 from Cumberland School of Law, Samford University, and her MA and BA from Mississippi University for Women, in 1972 and 1971 respectively, in political science and communication. After over a dozen years in the private practice of law in Alabama and Mississippi, she joined the Mississippi Workers' Compensation Commission as an Administrative Judge in 1993. Eight years later, in 2001, she was appointed Commissioner of the agency. In 2006, she resigned to join the Stennis Institute.

Quarles remains active in bar work, and currently chairs the Women in the Profession Committee, a standing committee of the Mississippi Bar. She also serves as co-chair of the Mississippi Supreme Court's "Gender Fairness Implementation Study Committee" and acts as the Chief Operating Officer of the Workers' Compensation Section of the Mississippi Bar. She is a fellow of the Mississippi Bar Foundation, a recipient of the Mississippi Bar's Distinguished Service Award, a member of the Mississippi School for Math and Science Foundation Board and a member of the MUW Alumni Board. Quarles was recently honored by the American Bar Association's Administrative Law and Regulatory Practice Section, receiving the Mary C. Lawton Award for lasting contributions to the Mississippi Workers' Compensation Commission in the areas of alternative dispute resolution and access for Hispanic workers.

In 2004, Quarles was named one of Mississippi's 50 Leading Business Women by the Mississippi Business Journal; the Journal recognized her service to the State as a Commissioner as well as entrepreneurial skills developed in her property management business in Starkville, Spruill Property Management, LLC

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