

CLIMATE MONEY

by Joanne Nova | July 21, 2009

Summary for Policy Makers

The US government has spent over \$79 billion since 1989 on policies related to climate change, including science and technology research, administration, education campaigns, foreign aid, and tax breaks.

Despite the billions: “audits” of the science are left to unpaid volunteers. A dedicated but largely uncoordinated grassroots movement of scientists has sprung up around the globe to test the integrity of the theory and compete with a well funded highly organized climate monopoly. They have exposed major errors.

Carbon trading worldwide reached \$126 billion in 2008. Banks are calling for more carbon-trading. And experts are predicting the carbon market will reach \$2 - \$10 trillion making carbon the largest single commodity traded.

Meanwhile in a distracting sideshow, Exxon-Mobil Corp is repeatedly attacked for paying a grand total of \$23 million to skeptics—less than a thousandth of what the US government has put in, and less than one five-thousandth of the value of carbon trading in just the single year of 2008.

By pouring so much money into a question have we inadvertently created a self-fulfilling prophesy instead of an unbiased investigation?

A dedicated but largely uncoordinated grassroots movement of scientists has sprung up around the globe to test the integrity of the theory and compete with a well funded highly organized climate monopoly. They have exposed major errors.

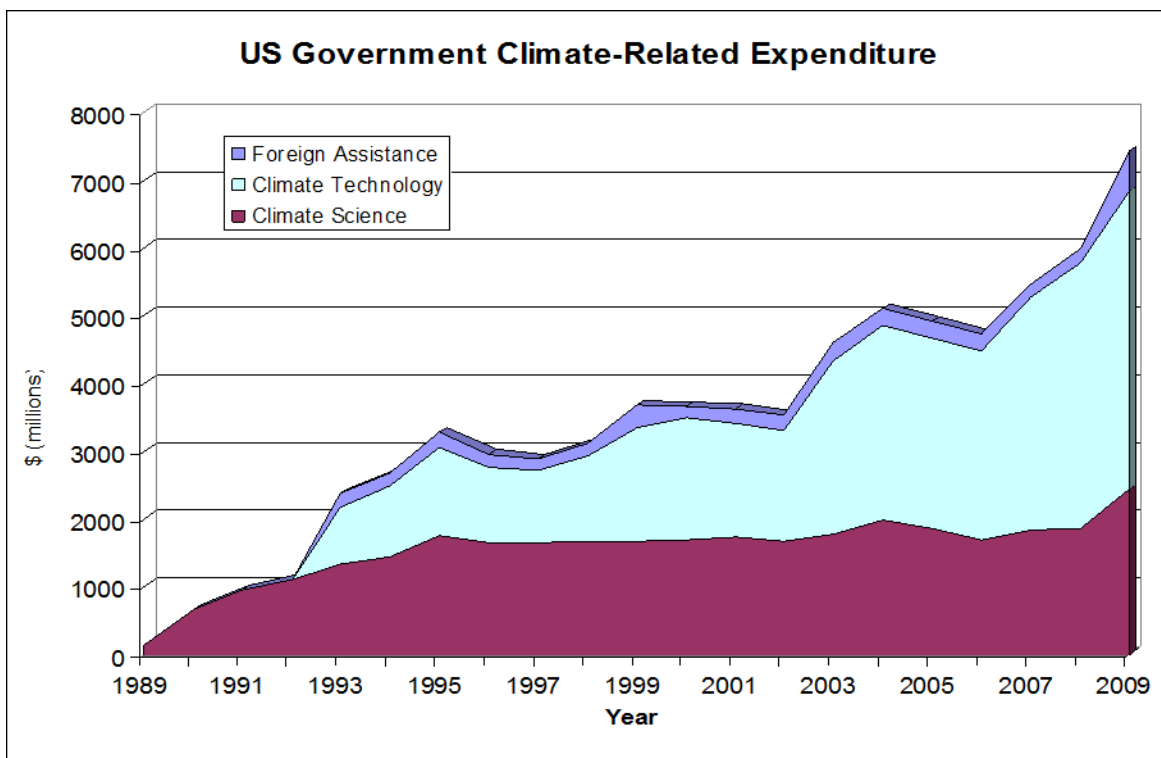
The large expenditure in search of a connection between carbon and climate creates enormous momentum and a powerful set of vested interests. By pouring so much money into a question have we inadvertently created a self-fulfilling prophesy instead of an unbiased investigation?

Can science survive the vice-like grip of politics and finance?

Billions in the Name of “Climate”

In total, over the last 20 years, by the end of fiscal year 2009, the US government will have poured in \$32 billion^{1 2} for climate research—and another \$36 billion^{3 4 5} for development of climate-related technologies. These are actual dollars, obtained from government reports, and not adjusted for inflation. It does not include funding from other governments on the global industry.

In 1989, the first specific US climate-related agency was created with an annual budget of \$134 million. Today in various forms the funding has leapt to over \$7,000 million per annum, around 50 fold higher. Tax concessions add to this. (See Appendix I for details and sources.)



This tally is climbing precipitously. With enormous tax breaks and rescue funds now in play, it's difficult to know just how far over the \$7 billion mark the final total will stand for fiscal year 2009. For example, additional funding for carbon sequestration experiments alone amounted to \$3.4 billion⁶ in the American Recovery and Reinvestment Act of 2009 (not included in the \$7 billion total above).

The most telling point is that after spending \$30 billion on pure science research no one is

The most telling point is that after spending \$30 billion on pure science research no one is able to point to a single piece of empirical evidence that man-made carbon dioxide has a significant effect on the global climate.

able to point to a single piece of empirical evidence that man-made carbon dioxide has a significant effect on the global climate.⁷

If carbon is a minor player in the global climate as the lack of evidence suggests, the “Climate Change Science Program” (CCSP), “Climate Change Technology Program” (CCTP), and some of the green incentives and tax breaks would have less, little, or no reason to exist. While forecasting the weather and climate is critical, and there are other good reasons to develop alternative energy sources—no one can argue that the thousands of players who received these billions of dollars have any real incentive to “announce” the discovery of the insignificance of carbon’s role.

US Government Spending	1989-2009 (Millions)
Science	32,508
Technology	36,136
Foreign Aid	3,506
Tax breaks*	6,919
Total	79,069

** 2003-2008, not including the multi-billion-dollar financial recovery packages of October 2008 and February 2009.*

By setting up trading networks, tax concessions, and international bureaucracies before the evidence was in, have we ensured that our understanding of the role of carbon in climate science would be sped up, but that our knowledge of every other aspect of climate science would be slowed down to an equal and opposite extent?

Monopolistic funding creates a ratchet effect where even the most insignificant pro-AGW* findings are reported, repeated, trumpeted and asserted, while any anti-AGW results lie unstudied, ignored and delayed. Auditing AGW research is so underfunded that for the most part it is left to unpaid bloggers who collect donations from concerned citizens online. These auditors, often retired scientists, are providing a valuable free service to society, and yet, in return they are attacked, abused, and insulted.

The stealthy mass entry of bankers and traders into the background of the scientific “debate” poses grave threats to the scientific process.

The truth will come out in the end, but how much damage will accrue while we wait for volunteers to audit the claims of the financially well-fed?

The stealthy mass entry of bankers and traders into the background of the scientific “debate” poses grave threats to

the scientific process. The promise of “trillions of dollars” on commodity markets—with all

* AGW: Anthropogenic Global Warming, or the Enhanced Greenhouse Effect

of that potential money hinging on finding that human emissions of carbon dioxide *have a significant role in the climate*—surely acts like blanket of mud over open dispassionate analysis.

All of this means we must be extra diligent in only focusing on just the evidence, the science, the empirical data. Illogic and unreason cloud a debate already loaded with bias. When there are so many incentives encouraging unclarity and overcomplexity, the simple truths need help to rise to the top. But who funds the counter-PR campaign—now that even Exxon has been howled out of the theater of science. There is hardly any money promoting Natural Causes of Climate Change, while billions upon trillions promote Unnatural Forces.

In this scientific debate, one side is gagged while the other side has a government-funded media campaign.

In this scientific debate, one side is gagged while the other side has a government-funded media campaign.

\$30 Billion makes for Monopolistic Science

***A trial without a defense is a sham
Business without competition is a monopoly
Science without debate is propaganda***

The scientific process has become distorted. One side of a theory receives billions, but the other side is so poorly funded that auditing of that research is left as a community service project for people with expert skills, a thick skin and a passionate interest. A kind of “Adopt an Error” approach.

Can science survive the vice-like grip of politics and finance?

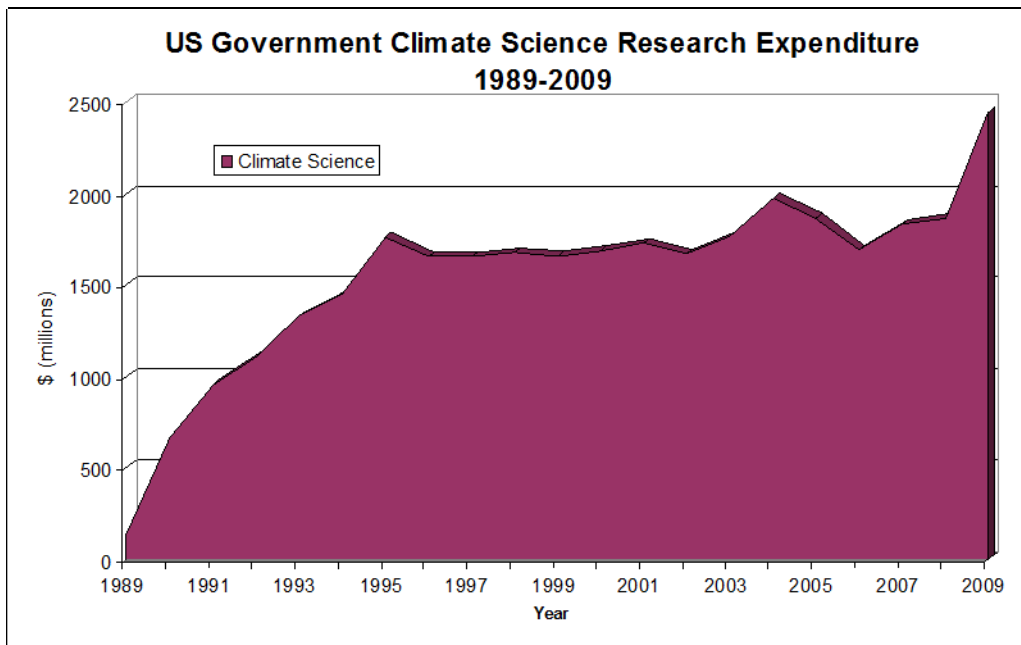
How serious are they about getting the data right? Or are they only serious about getting the “right” data?

Despite the billions of dollars in funding, outrageous mistakes have been made. One howler in particular, rewrote history and then persisted for years before one dedicated fact checker, working for free, exposed the fraud about the Hockey Stick Graph. Meanwhile agencies like the Goddard Institute of Space Studies, can't afford to install temperature sensors to meet its own guidelines, because

the workers are poorly trained and equipped to dig trenches only with garden trowels and shovels. NOAA “adjust” the data after the fact—apparently to compensate for sensors which are too close to air conditioners or car parks, yet it begs the question: If the climate is

the biggest problem we face; if billions of dollars are needed, why can't we install thermometers properly?

How serious are they about getting the data right? Or are they only serious about getting the "right" data?



The real total of vested interests in climate-change science is far larger than just scientists doing pure research. The \$30 billion in funding to the CCSP (graphed above) does not include work on green technologies like improving solar cells, or storing a harmless gas underground. Funding for climate technologies literally doubles the amount of money involved, and provides a much larger pool of respectable-looking people with impressive scientific cachet to issue more press releases—most of which have little to do with basic atmospheric physics, but almost all of which repeat the assumption that the climate will warm due to human emissions. In other words: a 30-billion-dollar cheer squad.

Lots of one-sided honest research does not make for fair debate

The scientists funded by governments don't need to be dishonest for science to become distorted. They just need to do their jobs. If we ask 100 people to look for lizards in the jungle, would anyone be surprised if no one sees the elephant on the plain? Few people are paid or rewarded for auditing the IPCC and associated organizations. Where is the Department of Solar Influence or the Institute of Natural Climate Change?

Thousands of scientists have been funded to find a connection between human carbon emissions and the climate. Hardly any have been funded to find the opposite. Throw 30 billion dollars at one question and how could bright, dedicated people *not find* 800 pages

worth of connections, links, predictions, projections and scenarios? (What's amazing is what they haven't found: empirical evidence.)

And scientists are human, they have mortgages and kids. If Exxon money has any pulling power, government money must also “pull”.

I can't say it better than Al Gore in *An Inconvenient Truth*:

It is difficult to get a man to understand something when his salary depends upon his not understanding it.

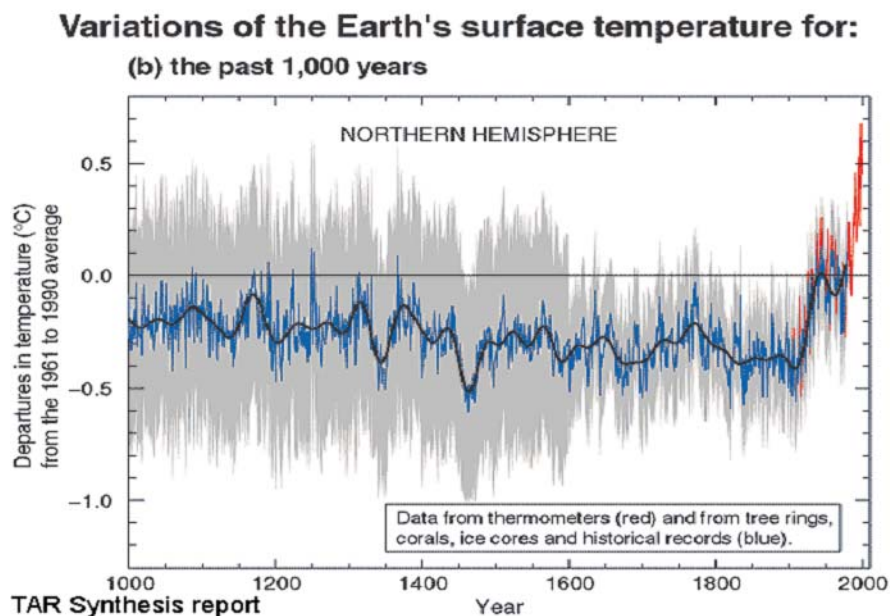
It is difficult to get a man to understand something when his salary depends upon his not understanding it. – Upton Sinclair, 1935

Ironically it was Al Gore himself who helped ensure there was copious funding for the U.S. Global Change Research Program (USGCRP) from 1993-2000. We've poured billions into focusing bright brains on one angle, one topic, one cause. That's a lot of salaries.

Billions for “the climate” but the auditing is left to unpaid volunteers

The best examples of unpaid auditing are the work of independent scientists Steve McIntyre⁸, and Anthony Watts. Here we have an ironic situation where skilled workers are providing a pro bono service to “assist” the largest single financial entity on the planet.

Steve McIntyre was trained in mathematics and worked in mineral exploration for 30 years⁹ (and despite claims to the contrary has never worked for the oil industry). Below is the Hockey Stick Graph from the 2001 IPCC Assessment Report.



The misleading “Hockey Stick” graph

McIntyre became suspicious of the Hockey Stick Graph because it was described in terms that reminded him of the Bre-X fraud. He is retired, and worked at considerable personal expense and without funding.¹⁰

McIntyre found embarrassing crippling flaws¹¹ in the Hockey Stick graph, a graph that wiped out centuries of recorded anecdotal history, archaeological finds, and data from almost every other source except unreliable “tree rings”. (Tree rings are also affected by rainfall, and nutrients.) McIntyre found that the graph Michael Mann had produced, which was used repeatedly through the IPCC 2001 report, was so poorly constructed statistically that it was possible to feed in random “red noise” data and it still produced a hockey stick shape. A true peer review ought to have picked this up. Instead the graph occupied center stage for three or four years until a determined skeptical individual demanded the data (which was misplaced, then inaccurate, then inconsistent) and checked the statistics.

McIntyre and Ross McKittrick went on to publish peer-reviewed papers.^{12 13 14} Wegman, and other independent statistical experts supported McIntyre and McKittrick.¹⁵ Craig Loehl assessed the same time period using proxies other than tree rings, and the reality of the Medieval Warming Period and the Little Ice Age stands out.¹⁶

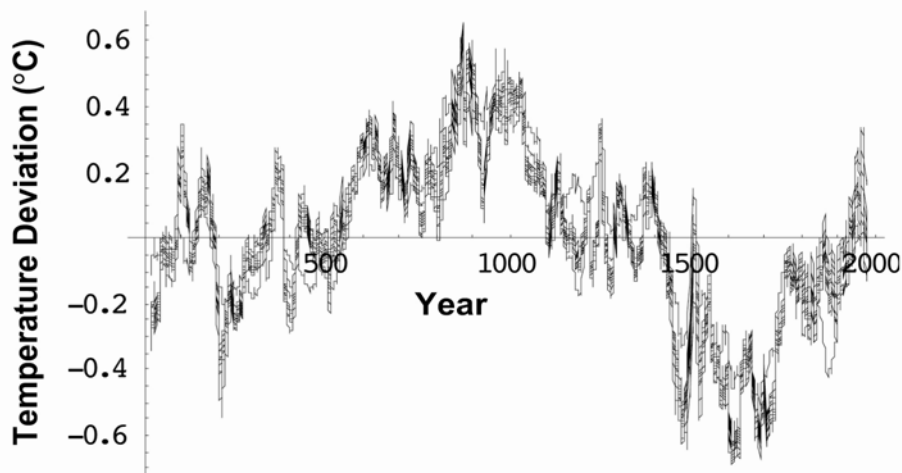


Figure 2. Sensitivity of result to individual series. Individual series were dropped and the mean recomputed, creating 18 mean series with 17 records in each, shown overlaid.

Combining 18 series of non-tree ring data from the last 2000 years clearly shows the Medieval Warming Period and the Little Ice Age, demonstrating just how blatantly misleading the “Hockey Stick” graph is.

Likewise Anthony Watts,¹⁷ a former television meteorologist, has amassed a group of 650 volunteers to photograph and record more than 800 temperature sensors used in the United States Historical Climatological Network (USHCN)¹⁸—something NOAA itself ought

to do. Despite receiving around \$4 billion per annum in funding¹⁹, NOAA doesn't do large scale site checks to make sure its sensors meet required standards.

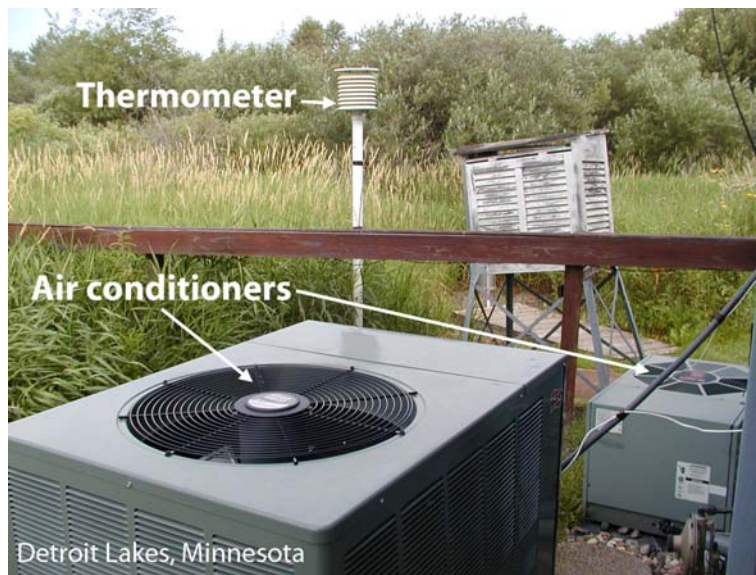


Figure 1: The majority of NOAA temperature sensors are sited near air conditioning outlets, car parks, buildings, and other artificial sources of heat.

These are not minor errors of placement that Anthony's team of volunteers has photographed. Recording stations are placed next to outlets of air-conditioning units (see Fig 1), above asphalt in car-parks, on scorching hot concrete roof-tops, and near heated buildings. They found that 89% of all stations checked so far fail to meet the National Weather Service's own siting requirements.²⁰

**89% of all stations checked
so far fail to meet the
National Weather Service's
own siting requirements.**

Again, the flaws are systematic. As sensors have been upgraded to electronically report the data, they have been installed by people equipped with only pickaxes and shovels. Where old sensors were once placed in the open over grass on the far side of a car-park, the new meters are electronic and need to be connected by cable to the building. Not surprisingly they have often ended up in less than ideal places much closer to buildings. Realistically, who would dig across an asphalt car-park by hand with a shovel to make a "trench" for the cable?

The team at NOAA prefers to use "mathematical adjustments" to compensate for the "urban heat island effect" and poor placement. If they were really interested in getting the data right, wouldn't they just rule out all the stations that aren't sited correctly until such time that they are fixed? Wouldn't they pay to hire excavators to dig trenches?

The monopolistic funding “ratchet”

There doesn't necessarily need to be a conspiracy. It doesn't require any centrally coordinated deceit or covert instructions to operate. Instead it's the lack of funding for the alternatives that leaves a vacuum and creates a systemic failure. The force of monopolistic funding works like a ratchet mechanism on science. Results can move in both directions, but the funding means that only results from one side of the equation get “traction.”

Ideas that question the role of carbon in the climate are attacked with a fine-tooth comb by large teams of paid researchers. If real flaws are found they are announced loudly and repeatedly, and if there are imagined or irrelevant flaws, these too are announced and sometimes with even more fanfare. But ideas that support the role of carbon in the climate are subject to a very different analysis. Those on Team-AGW check to see if they have *underestimated* the impact of carbon, or made an error so obvious it would embarrass “the Team.” Since there are few paid supporters of natural causes, or people who benefit from defending non-carbon impacts, there is no one with an *a priori* motive to dig deep for non-obvious mistakes. So the pro-AGW ideas may only be scrutinized briefly, and by unpaid retirees, bloggers running on donations, or government scientists working in other fields—like geologists, who have reason to be skeptical, but who are not necessarily trained in, say, atmospheric physics.

The intimidation, disrespect and ostracism leveled at people who ask awkward questions acts like a form of censorship. Not many fields of science have dedicated smear sites for scientists. Money talks.

Normally this might not be such a problem, because the lure of fame and fortune by categorically “busting” a well-accepted idea would attract some people. In most scientific fields, if someone debunks a big *Nature* or *Science* paper, they are suddenly cited more often; are the next in line for a promotion and find it easier to get grants. They attract better PhD students to help, are invited to speak at more conferences, and placed higher in the program. Instead in climate science, the reward is the notoriety

of a personal attack page on Desmog²¹, ExxonSecrets²² or Sourcwatch²³, dedicated to listing every mistake on any topic you may have made, any connection you may have had with the fossil fuel industry, no matter how long ago or how tenuous. The attack-dog sites will also attack your religious beliefs if you have any. Roy Spencer, for example, has been repeatedly attacked for being Christian (though no one has yet come up with any reason why that could affect his satellite data).

Ironically, the “activist” websites use paid bloggers. DeSmog is a funded wing of a professional PR group Hoggan and Associates²⁴ (who are paid to promote clients like David Suzuki Foundation, ethical funds, and companies that sell alternative energy sources like hydro power, hydrogen and fuel cells.)²⁵ ExxonSecrets is funded by Greenpeace²⁶ (who live

off donations to “save” the planet, and presumably do better when the planet appears to need saving).

Most scientific fields are looking for answers, not looking to prove only one side of a hypothesis. There are a few researchers who are paid to disprove the hypothesis of Global Warming, and most of them are investigated and pilloried as if they were a politician running for office. This is not how science works, by ad hominem attack. The intimidation, disrespect and ostracism leveled at people who ask awkward questions acts like a form of censorship. Not many fields of science have dedicated smear sites for scientists. Money talks.

Respected MIT climatologist Richard Lindzen²⁷ has spoken out against the pressure to conform and laments the loss of good researchers:

Sadly, this is only the tip of a non-melting iceberg. In Europe, Henk Tennekes was dismissed as research director of the Royal Dutch Meteorological Society after questioning the scientific underpinnings of global warming. Aksel Winn-Nielsen, former director of the U.N.'s World Meteorological Organization, was tarred by Bert Bolin, first head of the IPCC, as a tool of the coal industry for questioning climate alarmism. Respected Italian professors Alfonso Sutera and Antonio Speranza disappeared from the debate in 1991, apparently losing climate-research funding for raising questions.

The combination of no financial reward, plus guaranteed hostile scrutiny, and threats of losing employment would be enough to discourage many from entering the contentious side of the field or speaking their mind if they question the “faith.”

Finally, volunteers and isolated researchers lack infrastructure. Even though the mainstream theory is exposed to some verification, most scientists who find flaws don't have paid teams of public relations experts to issue multiple press releases or funding to put in the hours and months required to submit papers. So when a mistake is found, few people may hear about it outside the industry.

The monopolistic funding ratchet ensures that even insignificant or flawed analysis of factors that drive the climate can be supported longer than they should be, while real problems are belittled, ignored, and delayed.

The monopolistic funding ratchet ensures that even insignificant or flawed analysis of factors that drive the climate can be supported longer than they should be, while real problems are belittled, ignored, and delayed. In a field as new as climate science, many things can change over ten years. Progress in understanding the planetary climate has slowed to a crawl.

Where is the motivation to prove AGW is wrong?

How many experts would go out of their way to make their own expertise and training less relevant? With funding hinged on proving that carbon controls the climate and therefore that climate science itself is critically important, it's a self-sanctioning circle of vested interests. Yes, smart climate scientists are employable in other fields. But if voters suddenly realized carbon emissions had a minor role and humans have little influence, thousands of people would have to *change something* about their employment, and change is painful. In any industry, it's impossible to argue that the specialists would prefer to have half the funding and half the status. Most of them either won't get the next pay-rise, could lose their employment, or at least some spending power. They don't get the upgrade of equipment they want, or they just lose status, because, well, climatology is “important”, but if we *can't change the weather*, we are not inviting said experts onto our committees and to as many conferences.

We can assume most scientists are honest and hardworking, but even so, who's kidding that they would all spend as much time and effort looking to disprove AGW *as they do to prove it*? If your reputation and funding are on the line, you sweat, struggle and stay up late at night to figure out why you're right and they're wrong. Competition brings out the best in both sides.

Some claim that they trust the scientific process itself, and the right answers will prevail in the long run—which is probably true. But as John Maynard Keynes famously said: “*In the long run we are all dead.*” There are better ways than waiting for the post-mortem. *Science delayed is science denied.*

Science slowed is propaganda perpetuated.

The Exxon “Blame-Game” is a Distracting Side Show

Much media attention has relentlessly focused on the influence of “Big Oil”—but the numbers don't add up. Exxon Mobil is still vilified²⁸ for giving around 23 million dollars, spread over roughly ten years, to skeptics of the enhanced greenhouse effect. It amounts to about \$2 million a year, compared to the US government input of well over \$2 billion a year. The entire total funds supplied from Exxon amounts to less than one five-thousandth of the value of carbon trading in just the single year of 2008.

Apparently Exxon was heavily “distorting the debate” with a mere 0.8% of what the US government spent on the climate industry each year at the time. (If so, it's just another devastating admission of how effective government funding really is.)

As an example for comparison, nearly three times the amount Exxon has put in was awarded to the Big Sky sequestration project²⁹ to store just 0.1% of the annual carbon-

dioxide output³⁰ of the United States of America in a hole in the ground. The Australian government matched five years of Exxon funding with just one feel-good advertising campaign³¹, “*Think Climate. Think Change.*” (but don't think about the details).

Perhaps if Exxon had balanced up its input both for and against climate change, it would have been spared the merciless attacks? It seems not, since it has donated more than four times as much to the Stanford-based Global Climate and Energy Project (GCEP).^{32 33} Exxon's grievous crime is apparently just to help give skeptics a voice of any sort. The censorship must remain complete.

The vitriol against Exxon reached fever pitch in 2005-2008. Environmental groups urged a boycott of Exxon for its views on Global Warming.³⁴ It was labeled *An Enemy of the Planet*.³⁵ James Hansen called for CEOs of fossil energy companies to be “*tried for high crimes against humanity and nature.*”³⁶ In the next breath he mentioned Exxon.

Even *The Royal Society*, which ought to stand up for scientists and also for impeccable standards of logic, joined the chorus to implore Exxon to censor its speech.³⁷ The unprecedented letter from the 350-year-old institution listed multiple appeals to authority, but no empirical evidence to back its claim that a link with carbon and temperature was beyond doubt and discussion. The Royal Society claims that it supports scientists, but while it relies on the fallacious argument from authority how will it ever support whistle-blowers who by definition question “authority?”

While Exxon has been attacked repeatedly for putting this insignificant amount of money forward, few have added up the vested interests that are pro-AGW. Where are the investigative journalists? Money that comes from tax-payers is somehow devoid of corrupting incentives; while any money from Big Oil in a free market for ideas, is automatically a “crime”. The irony is that taxpayers' money is forcibly removed at the point of a gun[†], but Exxon has to earn its money through thousands of voluntary transactions.

Those who attack Exxon over just \$2 million a year are inadvertently drawing attention away from the real power play and acting as unpaid PR agents for giant trading houses and large banks, which could sit a little uncomfortably with greenies and environmentalists. After all, on other days, some of these same groups throw rocks at big bankers.

The side show of blaming Big Oil hides the truth: that the real issue is whether there is any evidence, and that the skeptics are a grassroots movement that consists of well respected scientists and a growing group of unpaid volunteers.

[†] This is not an exaggeration. Try “not paying” taxes.

Bigger Money is Moving In

Financial rescues and tax credits overwhelm the rest

New funding provisions made since the financial emergency of Sept 2008 are not included in the table above. It's difficult to assign the figures into strict financial years—yet the numbers are titanic, and reach potentially scale-changing proportions on the funding graph.

The financial recovery legislation that President Bush signed³⁸ on October 3 last year included the *Energy Improvement and Extension Act of 2008*³⁹ which contained about \$17 billion⁴⁰ in tax incentives for clean energy services.

Then in February 2009, the \$787 billion *American Recovery and Reinvestment Act*⁴¹ was signed into law, containing some \$110 billion⁴² in clean energy investments in the bill. Many of these “investments” defy easy categorization. For example, research into alternative energy has value regardless of whether carbon dioxide is a problem—though arguably there is less urgency. But expenses like the \$3.4 billion for carbon sequestration have no other purpose or use. They depend 100% on the assumption that carbon dioxide is a dangerous pollutant.

Bigger than Big Government—Big Banks

Even though the government has poured in around \$70 billion dollars of influence over the last 20 years, that pales in comparison with the rapidly growing force of carbon trading. According to the World Bank, turnover of carbon trading doubled from \$63 billion in 2007 to \$126 billion in 2008.⁴³

Not surprisingly banks are doing what banks should do: they're following the promise of profits, and hence urging governments to adopt carbon trading.⁴⁴ ⁴⁵ Even though banks are keen to be seen as good corporate citizens, somehow they don't find the idea of a non-tradable carbon tax as appealing. It might “help the planet,” but it won't help their balance sheets.

The potential involved in an entirely new fiat currency has banks and financial institutions “wholly in bed” with a scientific theory.⁴⁶

The potential involved in an entirely new fiat currency has banks and financial institutions “wholly in bed” with a scientific theory.

The 10-Trillion-Dollar Gorilla in the Kitchen

Commissioner Bart Chilton, head of the energy and environmental markets advisory committee of the Commodity Futures Trading Commission (CFTC), has predicted that within five years a carbon market would dwarf any of the markets his agency currently regulates: “I

can see carbon trading being a \$2 trillion market.”⁴⁷ “The largest commodity market in the world.”⁴⁸

Chilton puts it in perspective:

“It wouldn’t be as large as some of the financial markets — Treasury bills — but it would be larger than any physical commodity market.”⁴⁹

Carbon trading will be bigger than oil, and even the promise of a market that massive and lucrative represents a major vested interest.

New Carbon Finance, a London-based investment adviser that tracks the market, predicts the carbon market will reach \$3 trillion by 2020.⁵⁰

Richard L. Sandor, chairman and chief executive officer of Climate Exchange Plc, which owns the world’s biggest carbon dioxide exchange in London, sees an even larger market:

“We’re going to see a worldwide market, and carbon will unambiguously be the largest non-financial commodity in the world.” He predicted trades eventually will total \$10 trillion a year.”⁵¹

In other words, carbon trading will be bigger than oil, and even the promise of a market that massive and lucrative represents a major vested interest.

As Bart Chilton says:

“This issue is too important to our economy and to our world, and we need to get this right from the get-go.”

The “get-go” starts with the science. If there is no evidence that we need to curtail carbon, there is no need to trade it.

The Bottom Line is Still the Evidence

Even if monopolistic funding has affected science, the total amount of money paid to each side won’t tell us whether The Planet’s climate is warming or whether that warming is due to carbon-dioxide. The point of this paper is that the process of science can be distorted (like any human endeavor) by a massive one-sided input of money. What use would money be, if it didn’t have some impact?

The point of this paper is that the process of science can be distorted (like any human endeavor) by a massive one-sided input of money.

The danger of the distortion in the scientific process means that we need to focus closely on the question of evidence. This paper calls for more attention to be paid to empirical evidence, as well as ways to use incentives in science that help us discover how the natural world works in the most timely and efficient manner possible.

*It's time to get serious
about auditing science,
especially when it comes
to science which is used
to justify giant
government programs
and massive markets.
Who audits the IPCC?*

If George Bush was uncomfortable signing the United States of America up to global plans to reduce carbon emissions, possibly his greatest mistake was in not funding an Institute of Natural Climate Change with the responsibility of assessing the evidence for natural influences on the climate as well as to audit the scientific output of the IPCC and institutions like NOAA and NASA.

It's hard to imagine that we could pour in so much money to test one hypothesis and not have an effect. Monopolistic funding tests the fabric of the way we do science. It's time to get serious about auditing science, especially when it comes to science which is used to justify giant government programs and massive markets. Who audits the IPCC?



APPENDIX I

Fiscal Year	Climate Science <small>1,2</small>	Climate Technology <small>3,4,5</small>	Foreign Assistance <small>3,4, 52</small>	Tax Breaks <small>4</small>	Annual Total (not inc tax breaks)
1989	134				\$134
1990	659				\$659
1991	954				\$954
1992	1,110				\$1,110
1993	1,326	845	201		\$2,372
1994	1,444	1,038	186		\$2,668
1995	1,760	1,283	228		\$3,271
1996	1,654	1,106	192		\$2,952
1997	1,656	1,056	164		\$2,876
1998	1,677	1,251	186		\$3,114
1999	1,657	1,694	325		\$3,676
2000	1,687	1,793	177		\$3,657
2001	1,728	1,675	218		\$3,621
2002	1,667	1,637	224		\$3,528
2003	1,766	2,533	270	580	\$4,591
2004	1,975	2,870	252	500	\$5,097
2005	1,865	2,808	234	369	\$4,907
2006	1,691	2,789	249	1160	\$4,729
2007	1,832	3,441	188	1730	\$5,461
2008	1,864	3,917	212	* 1420	* \$5,993
2009	2,441	* 4,400	* 579	* 1160	* \$7,420
					Total**
TOTAL	\$32,508	\$36,136	\$3,506	\$6,919	\$79,069

*Estimate or request.

** The total includes all forms of spending and tax breaks.

References

- 1 Climate Change Science Program, Annual Report to Congress: *Our Changing Planet*, see table page 4. <http://downloads.climate-science.gov/ocp/ocp2009/ocpfy2009-8.pdf>.
- 2 Analytical Perspectives Budget of the US Government, Fiscal Year 2010. see page 31, Table 5-2. <http://www.whitehouse.gov/omb/budget/fy2010/assets/spec.pdf>.
- 3 1993-2005 GAO, *Federal Reports on Climate Change Funding Should be Clearer and More Complete* <http://www.gao.gov/new.items/d05461.pdf> Appendix II page 34.
- 4 OMB, Fiscal Year 2008. *Report to Congress on Federal Climate Change Expenditures*, Table 8 and Table 7. http://www.whitehouse.gov/omb/legislative/fy08_climate_change.pdf.
- 5 Atmospheric Sciences and Climate Change Programs in the FY 2009 Budget, p 1. AAAS. <http://www.aaas.org/spp/rd/09pch15.pdf>.
- 6 http://en.wikipedia.org/wiki/American_Recovery_and_Reinvestment_Act_of_2009
- 7 *There is No Evidence*, David Evans, http://scienceandpublicpolicy.org/originals/no_evidence.html

-
- 8 Climate Audit, Hockey Stick Studies page, http://www.climateaudit.org/?page_id=354.
 - 9 Steve McIntyre, Short Bio. <http://www.uoguelph.ca/~rmckitri/research/stevebio.doc>.
 - 10 Steve McIntyre, comment on Climate Audit. <http://www.climateaudit.org/?p=592#comment-18195>.
 - 11 *Casper and The Jesus Paper*, Bishop Hill, <http://bishophill.squarespace.com/blog/2008/8/11/caspar-and-the-jesus-paper.html>.
 - 12 *Corrections To The Mann Et. Al. (1998) Proxy Data Base And Northern Hemispheric Average Temperature Series*, Energy and Environment, Vol 14, No 6, 2003.
<http://www.climateaudit.org/pdf/mcintyre.mckitrick.2003.pdf>.
 - 13 McIntyre McKitrick, Critique of MBH98. <http://www.climateaudit.org/pdf/mcintyre.ee.2005.pdf>.
 - 14 Hockey Sticks, principal components, and spurious significance. Geophys Res Letters, Vol 32, 2005
<http://www.climateaudit.org/pdf/mcintyre.grl.2005.pdf>.
 - 15 The Wegman Report. http://www.climateaudit.org/pdf/others/07142006_Wegman_Report.pdf.
 - 16 Craig Loehl, A 2000 year reconstruction based on non-treering proxies, Energy & Environment Vol 18 No 7+8, 2007 <http://www.ncasi.org/publications/Detail.aspx?id=3025>.
 - 17 About, *Watts Up With That*: <http://wattsupwiththat.com/about/>.
 - 18 Surface Stations Project, <http://www.surfacestations.org/>.
 - 19 FY Budget Highlights, NOAA.
http://www.corporateservices.noaa.gov/nbo/FY09_Rollout_Materials/NOAA_One_Pager_FINAL.pdf.
 - 20 *Is the US Surface Temperature Record Reliable?* Anthony Watts.
http://wattsupwiththat.files.wordpress.com/2009/05/surfacestationsreport_spring09.pdf.
 - 21 *Lindzen wipes hands clean of oil and gas*. <http://www.desmogblog.com/lindzen-wipes-hands-clean-of-oil-and-gas>.
 - 22 <http://www.exxonsecrets.org>.
 - 23 <http://www.sourcewatch.org>.
 - 24 <http://www.hoggan.com/sustainability/desmogblog/>.
 - 25 http://www.hoggan.com/what_we_do/clients/.
 - 26 <http://www.greenpeace.org/usa/campaigns/global-warming-and-energy/exxon-secrets>.
 - 27 Wall St Journal "*Climate Of Fear*", April 12, 2006. <http://www.opinionjournal.com/extra/?id=110008220>.
 - 28 <http://www.greenpeace.org/usa/campaigns/global-warming-and-energy/exxon-secrets>.
 - 29 Big Sky Sequestration Project, http://www.netl.doe.gov/publications/press/2008/08059-DOE_Makes_Sequestration_Award.html.
 - 30 http://www.eia.doe.gov/cneaf/electricity/page/co2_report/co2report.html#table_1.
 - 31 The Australian: *Rudd advertising campaign on climate change cost \$13.9 million*, 7 Jan 2009,
<http://www.theaustralian.news.com.au/story/0,25197,24883515-11949,00.html>.
 - 32 *Exxon = oil, g*dammit!*, by Geoff Colvin, Fortune Magazine. April 23 2007.
http://money.cnn.com/magazines/fortune/fortune_archive/2007/04/30/8405398/index2.htm.
 - 33 <http://news.stanford.edu/news/2009/february25/exxon-022509.html>.
 - 34 *Environmental Groups Planning to Urge Boycott of Exxon Mobil* July 12, 2005.
<http://query.nytimes.com/gst/fullpage.html?res=9A04E4DF133DF931A25754C0A9639C8B63&sec=&spon=&scp=5&sq=Exxon%20skeptical%20climate&st=cse>.
 - 35 *Enemy of The Planet*, Paul Krugman, April 17, 2006.
<http://query.nytimes.com/gst/fullpage.html?res=9407EEDD173FF934A25757C0A9609C8B63&sec=&spon=&scp=3&sq=Exxon%20skeptical%20climate&st=cse>.
 - 36 *Are Big Oil and Big Coal Climate Criminals?* New York Times, June 23 2008.
<http://dotearth.blogs.nytimes.com/2008/06/23/are-big-oil-and-big-coal-climate-criminals/?scp=10&sq=Exxon%20skeptical%20climate%20royal%20society&st=cse>.
 - 37 Letter from Bob Ward of The Royal Society to Exxon, 4 Sept, 2006. <http://image.guardian.co.uk/sys-files/Guardian/documents/2006/09/19/LettertoNick.pdf>.
 - 38 Emergency Economic Stabilization Act of 2008, The Library of Congress. H.R. 1424, <http://thomas.loc.gov/cgi-bin/query/D?c110:6:./temp/~c1109OQL0p:>
 - 39 *Division B--Energy Improvement And Extension Act Of 2008* <http://thomas.loc.gov/cgi-bin/query/F?c110:6:./temp/~c1109OQL0p:e137069:>
 - 40 Clean Tech Advisory newsletter. *Congress Extends and Approves New Alternative Energy Tax Credits*.
<http://www.goodwinprocter.com/~media/256D1BFFA62A4145924B772DED1BE58A.ashx>.

-
- 41 Committee on Appropriations: American Recovery and Reinvestment Act, Conference Agreement, <http://appropriations.house.gov/pdf/PressSummary02-13-09.pdf>.
 - 42 *Congress Approves Clean Energy Provisions of Stimulus; Consistent with Apollo Economic Recovery Act*. <http://apolloalliance.org/feature-articles/clean-energy-provisions-of-stimulus-are-consistent-with-apollo-economic-recovery-act/>. Table 1, page 7.
 - 43 World Bank, *State and Trends of the Carbon Market, 2009*. http://siteresources.worldbank.org/INTCARBONFINANCE/Resources/State___Trends_of_the_Carbon_Market_2009-FINAL_26_May09.pdf.
 - 44 *Banks Urging US to adopt the Trading of Emissions*, James Kanter, Sept 26, 2009, <http://www.nytimes.com/2007/09/26/business/26bank.html?scp=1&sq=banks%20urge%20carbon%20trading&st=cse>.
 - 45 *Banks Seek Carbon Trading*. New York Times, Sept 26, 2007. Today in Business. <http://query.nytimes.com/gst/fullpage.html?res=980CE4D61630F935A1575AC0A9619C8B63&scp=4&sq=banks%20urge%20carbon%20trading&st=cse>.
 - 46 *Carbon Credits: Another Corrupt Currency?* Science and Public Policy Institute. http://scienceandpublicpolicy.org/images/stories/papers/originals/corrupt_currency.pdf.
 - 47 US Commodity Futures Trading Commission, Commissioner Bart Chilton: U.S. Regulators Gearing-Up for Climate Change, Chilton Says “Carbon Markets Need Sure-Footed Oversight” <http://www.cftc.gov/newsroom/generalpressreleases/2009/pr5648-09.html>.
 - 48 *Carbon as a Commodity*, Marianne Lavelle, Feb 24, 2009. The Centre for Public Integrity. http://www.publicintegrity.org/investigations/climate_change/articles/entry/1179/.
 - 49 *Bill on climate change offers hope to Wall St.*, The Hill.com. Brush and Snyder, May 20 2009. <http://thehill.com/business--lobby/bill-on-climate-change-offers-hope-to-wall-st.-2009-05-20.html>.
 - 50 <http://www.bloomberg.com/apps/news?pid=20601080&sid=aLM4otYnvXHQ>.
 - 51 <http://www.bloomberg.com/apps/news?pid=20601080&sid=aLM4otYnvXHQ>.
 - 52 2009 Estimate of foreign assistance for climate change, from Budget Highlights 2010. <http://www.reliefweb.int/rw/rwb.nsf/db900sid/MUMA-7RV8T3?OpenDocument>