The Use and Abuse of Global Warming: The Threat to Free Government

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This paper argues two propositions in support of a larger theme: First, even if the conventional alarmist version of extreme global warming turns out to be correct—the reasons to be skeptical of climate catastrophe will have to be left to another paper—the conventional remedies of environmentalists and the international community are a prescription for catastrophic bureaucratic expansion, centralization of unaccountable power, dirigiste economics, and wholesale political corruption. Second, even if the conventional alarmist version of global warming is true, it is already entering a trajectory of declining political and social salience for reasons best explained by Anthony Downs' "issue-attention cycle," about which more in due course. Four dollar a gallon gasoline, like hanging, concentrates the public mind effectively; everywhere the agenda of making energy more expensive and more scarce is suddenly on the defensive. If the current trend of cooling global temperatures continues for another few years, as some climate modelers now predict, the social and political momentum for major climate change policy will erode further.

However, the collapse of the "mother of all apocalypses"—Aaron Wildavsky's description of global warming—won't mean the end of the impulse to extend vast new political control over people and resources. Something else will come along. And to the extent that we experience climate change of an intermediate dimension, for whatever cause, or some other unforeseen problem that requires policy responses, we must come to grips with the central problem of contemporary environmentalism which is the larger theme of this paper, namely, environmentalism's indifference to, or incompatibility with, democracy and individual liberty. Environmentalism's hostility to markets has long been recognized and, despite some attempts at reform, remains largely un-remediated. Its increasing hostility to democracy and individual liberty on the margin is less recognized.

Environmentalism's indifference to or incompatibility with democracy and individual liberty comes to sight in several ways, starting with former Vice President Al Gore's call to have environmentalism become the "central organizing principle" of civilization, which by implication means replacing individual liberty and democratic self-government as the central organizing principle of post-Enlightenment civilization. A close reading of Gore and other leading environmental advocates will show that their arguments go well beyond placing the environment as a higher policy priority within existing legal and institutional frameworks. Taken seriously the dominant strain of modern environmental thought amounts to nothing less than what Machiavelli described as the dangerous and uncertain course of founding "new modes and orders" by which to live and be ruled. Gore is fairly explicit about this, writing that nothing less than a "wrenching transformation" of modern life will be sufficient to meet the crisis he sees.

Sometimes environmental advocates are explicit in their disdain for selfgovernment and free institutions. A few months ago a senior fellow at Britain's Policy Studies Institute, Mayer Hillman (author of *How We Can Save the Planet*), told a reporter that "When the chips are down I think democracy is a less important goal than is the protection of the planet from the death of life, the end of life on it. This [rationing] has got to be imposed on people whether they like it or not." (Hillman openly advocates resource rationing.) Another recent self-explanatory book is *The Climate Change* Challenge and the Failure of Democracy by Australians David Shearman and Joseph Wayne Smith. One of the authors (Shearman) argued recently that "Liberal democracy is sweet and addictive and indeed in the most extreme case, the USA, unbridled individual liberty overwhelms many of the collective needs of the citizens. . . There must be open minds to look critically at liberal democracy. Reform must involve the adoption of structures to act quickly regardless of some perceived liberties." Whom does Shearman admire and hold up as an example of environmental governance to be emulated? China—precisely *because* of its authoritarian government: "[T]he savvy Chinese rulers may be first out of the blocks to assuage greenhouse emissions and they will succeed by delivering orders. . . We are going to have to look how authoritarian decisions based on consensus science can be implemented to contain greenhouse emissions."² Separately Shearman has written: ""To retain an inhabitable earth we may have to compromise the eternal vicissitudes of democracy for an informed leadership that directs. There are countries that fall within this requirement and we should use them to initiate more active mitigation. The People's Republic of China may hold the key to innovative measures that can both arrest the expected surge in emissions from developing countries and provide developed nations with the means to alternative energy. . . China curbs individual freedom in favour of communal need. The State will implement those measures seen to be in the common good." (Perhaps the film version will be called "An Inconvenient Democracy.")

Other intellectual approaches to environmental governance are more diffuse but no less troubling for their implications. Despite the suggestive title, *The Green State: Rethinking Democracy and Sovereignty*, Australian political scientist Robyn Eckersley does not wish to give up explicitly on either democracy or sovereignty—in name at least. But the complicated and opaque premises and principles of the "ecocentric," transnational "green state" Eckersley envisions is represented as an explicit alternative to "the classical liberal democratic state, the indiscriminate growth-dependent welfare state, and the neoliberal market-focused state." Whatever Eckersley has in mind (the clarity of her ideas is in inverse proportion to the postmodern references and terminology of the book), it entails the end of democracy as we know it.

¹ A plan to save the planet – but is anyone willing to pay the price? (Andrew Forster) *Local Transport Today*, 6-19 December, 2007.

² http://www.onlineopinion.com.au/view.asp?article=6878 Separately Shearman has written: "To retain an inhabitable earth we may have to compromise the eternal vicissitudes of democracy for an informed leadership that directs. There are countries that fall within this requirement and we should use them to initiate more active mitigation."

³ http://www.dea.org.au/node/53

Former Vice President Gore's approach gets closer to the heart of the matter. There are no index entries in Gore's most serious work, Earth in the Balance, for "liberty," "freedom," or "individualism." Gore's sole reference to individual rights is not reassuring: "In fact, what many feel is a deep philosophical crisis in the West has occurred in part because this balance [between rights and responsibilities] has been disrupted: we have tilted so far toward individual rights and so far away from any sense of obligation that it is now difficult to muster an adequate defense of any rights vested in the community at large or the nation—much less rights properly vested in all humankind or in posterity." This is the language of the intellectual civil war that has been raging on the Left for many years now between what might be called the camp of "individual autonomy" and the camp of "communitarians"—communitarian being understood as a soft-focus label for socialism or statism. The communitarians understand that the language and philosophy of individual rights, or individual "autonomy" as it is understood by modern liberals (especially in the "liberation" sects such as feminists, gay rights activists, etc), is an impediment to the development of greater state authority. The communitarian challenge to contemporary liberalism takes explicit aim at Lockean liberalism, and is attempting to found a non-Lockean basis for the modern liberal state.

Eckersley provides the environmental context for this project:

By framing the problem as one of rescuing and reinterpreting the Enlightenment goals of autonomy and critique, it is possible to identify what might be called a mutually informing set of "liberal dogmas" that have for too long been the subject of unthinking faith rather than critical scrutiny by liberals. The most significant of these dogmas are a muscular individualism and an understanding of the self-interested rational actor as natural and eternal; a dualistic conception of humanity and nature that denies human dependency on the biological world and gives rise to the notion of human exceptionalism from, and instrumentalism and chauvinism toward, the natural world; the sanctity of private property rights; the notion that freedom can only be acquired through material plenitude; and overconfidence in the rational mastery of nature through further scientific and technological progress.⁵

Every traditional liberal or "progressive" understanding is up for grabs in this framework. This passage does not require much "parsing" to grasp its practical implications—the establishment of institutions and governing regimes that are not answerable to popular will, or that depend on transforming popular will. Eckersley make this clear in a passage about the "social learning" function of "deliberative democracy," which she describes as "the requirement that participants be open and flexible in their thinking, that they enter a dialogue with a preparedness to have their preferences transformed through reasoned argument." (Emphasis added.) This outlook gives new meaning to the old cliché about rulers selecting a different people to rule. When the artful academic terms are peeled

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⁴ *Balance*, p. 278.

⁵ Robyn Eckersley, *The Green State: Rethinking Democracy and Sovereignty* (Cambridge: MIT Press, 2004), p. 108.

⁶ Eckersley, p. 117.

away, "deliberative democracy" can be seen as the rough equivalent of substantive due process in modern liberal jurisprudence, with environmental values taking the place of the rigid, anti-democratic egalitarianism of substantive due process.

Over on our shores Vice President Gore regrets that global governance on behalf of the environment isn't "practical" at the present time, and James Speth, dean of Yale's School of Forestry and Environmental Studies and former aide to President Jimmy Carter, writes frequently about the need for more robust global governance on behalf of the environment, including a World Environment Organization akin to the World Trade Organization or World Health Organization. After citing approvingly the examples of the Federal Trade Commission and the Food and Drug Administration, Speth writes that "One can imagine a world environment agency like these federal regulatory agencies."

Paul Ehrlich, still very much with us after all these years, continues to argue openly for coercive global environmental governance; to his credit, he does not even go through the pretense of "redefining" democracy to justify governing without the consent of the governed. In one recent book Ehrlich writes: "Establishing new institutions specifically designed to develop politics with respect to consumption, population, and humanity's effects on the natural world would constitute a dramatic step toward resolving the human predicament." For the United States Ehrlich would like to see a Federal Environment Authority with vastly greater powers than today's Environmental Protection Agency; Ehrlich's model is the Federal Reserve, precisely because of its "insulated" autonomy and lack of accountability to the political process. There is no reason to suppose that global governance on behalf of the environment would be any different that global governance on behalf of avoiding nuclear war (the cause celebre of the 1950s and 1960s); that is, it would be government without the consent of the governed.

A few environmentalists on the left understand the profound defects of this approach to governance. Ted Nordhaus and Michael Shellenberger, self-described "progressives" and authors of one of the most challenging recent books on the environment, *Break Through: From the Death of Environmentalism to the Politics of Possibility*, recognize and lament the authoritarianism of conventional environmentalism. "Environmental tales of tragedy begin with Nature in harmony and almost always end in quasi-authoritarian politics," Nordhaus and Shellenberger observe. While environmentalists like Eckersley embrace the post-modern language of "privilege" to denigrate traditional liberal individual rights, Nordhaus and Shellenberger suggest the obvious irony that it is environmentalism that is making the boldest claim to be given the most privileged position in politics: "The problem is not simply that it is difficult to answer the question 'Who speaks for nature?' but rather that there is something profoundly wrong with the question itself. It rests on the premise that some people are better able to speak for nature, the environment, or a particular place than others. This

⁷ James Gustave Speth, *Red Kky at Morning: America and the Crisis of the Global Environment* (Yale University Press, 2004), p. 105.

⁸ Paul Ehrlich and Anne Ehrlich, *One With Nineveh: Politics, Consumption, and the Human Future* (Washington: Island Press, 2004), p. 309.

⁹ Ted Nordhaus and Michael Shellenberger, *Break Through: From the Death of Environmentalism to the Politics of Possibility* (Boston: Houghton Mifflin, 2007), p. 131.

assumption is profoundly authoritarian." Unfortunately Nordhaus and Shellenberger are a distinct minority on the left and among environmentalists, and have been attacked savagely for their heresies.

While global warming stands at the apex of the argument for global governance. we should step back and practice some "pattern recognition" of the impulse behind this, and its effects. Before there was global warming, there was the population crisis, which as far back as the early decades of the 20th century was put forward as the justification for heightened global governance and coercive, non-consensual rule. A brilliant new history of the population control movement, Fatal Misconception: The Struggle to Control World Population by Matthew Connelly of Columbia University, recounts a number of inherent traits that sound very familiar to anyone following today's climate campaign. In 1927, one of the first major international conferences on world population was held in Geneva. Albert Thomas, a French trade unionist, argued: "Has the moment yet arrived for considering the possibility of establishing some sort of supreme supranational authority which would regulate the distribution of population on rational and impartial lines, by controlling and directing migration movements and deciding on the opening-up or closing of countries to particular streams of immigration?" Connelly also describes the 1974 World Population Conference, which "witnessed an epic battle between starkly different versions of history and the future: one premised on the preservation of order, if necessary by radical new forms of global governance; the other inspired by the pursuit of justice, beginning with unfettered sovereignty for newly independent nations."¹² (Emphasis added.)

The Intergovernmental Panel on Climate Change (IPCC), the UN-sponsored body that is the juggernaut of today's climate campaign, finds its precedent in the 1927 World Population Conference, which spawned the International Union for the Scientific Investigation of Population Problems (IUSIPP). A bevy of NGOs, most prominently the International Planned Parenthood Federation (IPPF) and Zero Population Growth (ZPG) sprang into being, and worked hand-in-glove with the same private foundations (especially Ford and Rockefeller) and global financial institutions, such as the World Bank, that today are in the forefront of the climate campaign.

As Connelly lays out in painstaking detail, the momentum for population control programs, aimed chiefly at developing nations, proliferated despite clear human rights abuses and, more importantly, new data and information that called into question many of the fundamental assumptions of the crisis mongers. Connelly recalls computer projections and economic models that offered precise and "scientifically grounded" projections of future global ruin from population growth, all of which were quickly falsified. The mass famines and food riots that were predicted never occurred; fertility rates began to fall everywhere, even in nations that lacked "family planning" programs.

¹⁰ Nordhaus and Shellenberger, p. 102.

¹¹ Matthew Connelly, *Fatal Misconception: The Struggle to Control World Population* (Cambridge: Harvard University Press, 2008), pp. 70-71.

¹² Connelly, p. 313.

Hayward/Use and Abuse of Global Warming

The coercive nature of the population control programs in the field was appalling. India, in particular, became "a vast laboratory for the ultimate population control campaign," whose chilling practices Connelly recounts:

Sterilizations were performed on 80-year-old men, uncomprehending subjects with mental problems, and others who died from untreated complications. There was no incentive to follow up patients. The Planning Commission found that the quality of postoperative care was "the weakest link." In Maharashtra, 52 percent of men complained of pain, and 16 percent had sepsis or unhealed wounds. Over 40 percent were unable to see a doctor. Almost 58 percent of women surveyed experienced pain after IUD insertion, 24 percent severe pain, and 43 percent had severe and excessive bleeding. Considering that iron deficiency was endemic in India, one can only imagine the toll the IUD program took on the health of Indian women. ¹³

These events Connelly describes took place in 1967, but instead of backing off from coercive birth control programs the Indian government, under constant pressure from and with the lavish financial backing of the international population control organizations, intensified these kind of programs in the 1970s. Among other measures the Indian government adopted was the requirement that families with three or more children had to be sterilized to be eligible for new housing (which the government, rather than the private market, controlled). "This war against the poor also swept across the countryside," Connelly recounts.

In one case, the village of Uttawar in Haryana was surrounded by police, hundreds were taken into custody, and every eligible male was sterilized. Hearing what had happened, thousands gathered to defend another village named Pipli. Four were killed when police fired upon the crowd. Protesters gave up only when, according to one report, a senior government official threatened aerial bombardment. The director of family planning in Maharashtra, D.N. Pai, considered it a problem of "people pollution" and defended the government: "If some excesses appear, don't blame me. . . You must consider it something like a war. There could be a certain amount of misfiring out of enthusiasm. There has been pressure to show results. Whether you like it or not, there will be a few dead people." 14

In all over 8 million sterilizations, many of them forced, were conducted in India in 1976—"draconian population control," Connelly writes, "practiced on an unprecedented scale. . . There is not way to count the number who were being hauled away to sterilization camps against their will." Nearly 2000 died from botched surgical procedures. The people of India were finally able to put the breaks on this coercive utopianism at the ballot box: the Congress Party, which had championed the family planning program as one of its main policies, was swept from office in a landslide, losing

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¹³ Connelly, p. 227.

¹⁴ Connelly, p. 321.

141 of 142 contested seats in the areas with the highest rate of sterilizations. At least the people of India had recourse to the ballot box; the new environmental constitutionalism advocated today would surely aim to eliminate this remedy.

One reason why enthusiasms and programs maintain their forward momentum in the face of changing facts and circumstances is the culture of corruption that inevitably comes to envelope these kind of self-selecting leadership groups organized around a crisis. Connelly ably captures this seamy side of the story:

Divided from within and besieged from without, leaders created a "system without a brain," *setting in motion agencies and processes that could not be stopped*. The idea of a "population crisis" provided the catalyst. But this was a system that ran on money. Earmarked appropriations greased the wheels of balky bureaucracies, and lavish funding was the fuel that drove it forward. But so much poured in so fast that spending became an end unto itself. The pressure to scale up and show results transformed organizations ostensibly dedicated to helping people plan their families into tools for social engineering. . . Rather than accept constraints or accountability, they preferred to let population control go out of control. ¹⁵ (Emphasis added.)

The corruption extends to the personal level of the New Class that always directs these world-saving crusades, what Connelly calls "the new jet set of population experts."

The lifestyle of the leaders of the population control establishment reflected the power of an idea whose time had come as well as the influence of the institutions that were now backing it. . . Alan Guttmacher was in the habit of beginning letters to the Planned Parenthood membership with comments like "This is written 31,000 feet aloft as I fly from Rio to New York." He insisted on traveling with his wife, first class, with the IPPF picking up the tab. Ford [Foundation] officials flew first class with their spouses as a matter of policy. One wonders why Douglas Ensminger [the Ford Foundation's India officer] ever left his residence in Dehli—he was served by a household staff of nine, including maids. cooks, gardeners, and chauffeurs. He titled this part of his oral history "The 'Little People' of India." Ensminger insisted on the need to pay top dollar and provide a plush lifestyle to attract the best talent, even if the consultants he recruited seemed preoccupied with their perks. One of these strivers ran his two-year old American sedan without oil just so that the Ford Foundation would have to replace it with the latest model. . .

For population experts this was the beginning of constantly expanding opportunities. The budgets, the staff, the access were all increasing even more quickly than the population growth their programs were meant to stop. There was "something in it for everyone," Population Association of America President John Kantner later recalled: "the activist, the scholar,

¹⁵ Connelly, pp. 278-279.

the foundation officer, the globe-circling consultant, the wait-listed government official. World Conferences, a Population Year, commissions, select committees, new centers for research and training, a growing supply of experts, pronouncements by world leaders, and, most of all, money—lots of it."

Sounds rather like the moveable feast that is the IPCC's annual meetings, often held in hardship locales such as Bali, to press ahead with the climate campaign. The magnitude of the traveling circus of the climate campaign has come to dwarf the population crusade. Prior to the arrival of climate change as a crisis issue, the largest single U.S. government science research project was the acid rain study of the 1980s (the National Acid Precipitation Assessment Project, or NAPAP for short), which cost about \$500 million, and which concluded that the acid rain problem had been vastly overestimated. (Public opinion polls in the late 1970s rated acid rain the most significant environmental problem of the time.) Today the U.S. government is spending multiple billions each year on climate research—so much through so many different agencies and budget sources that it is impossible to estimate the total reliably.

With so much money at stake, and with careers having been staked to the catastrophic climate scenario, it is to be expected that the entire apparatus would be resistant to new information and reasonable criticism. This is exactly what occurred in the population crusade. When compelling critics of the population bomb crisis arose, people who might be called "skeptics" such as Julian Simon, the population campaign reacted by circling the wagons and demonizing their critics, just as global warming skeptics today are subject to relentless *ad hominem* attack. Connelly again:

Leaders of the population control movement responded to these attacks by defending their record and fighting back. They lined up heads of state, major corporations, and international organizations behind a global strategy to slow population growth. But they also worked more quietly to insulate their projects from political opposition by co-opting or marginalizing critics, strengthening transnational networks, and establishing more free-standing institutions exempt from normal government oversight.

This is exactly the playbook of the climate campaign currently under way. However, it is likely to follow the same trajectory as the population control movement—gradual decline in salience to the point that even the United Nations, in the early 1990s, officially downgraded the priority of population control. This is likely to happen to climate change even if dramatic climate change turns out to be true. This is because eco-crisis narratives tend to follow a familiar trajectory best analyzed more than 30 years ago by political scientist Anthony Downs.

8

Writing in *The Public Interest* in 1972, Downs put forward a framework he called the "issue-attention cycle," a five-step process through which nearly all issues pass:

Public perception of most "crises" in American domestic life does not reflect changes in real conditions as much as it reflects the operation of a systematic cycle of heightening public interest and then increasing boredom with major issues. This "issue-attention cycle" is rooted both in the nature of certain domestic problems and in the way major communications media interact with the public. ¹⁶

The five stages are: 1) The pre-problem stage, when a problem is identified but is not yet a subject of public or media attention; 2) Alarmed discovery and euphoric enthusiasm; 3) Realizing the cost of significant progress; 4) Gradual decline of intense public interest; and 5) The post-problem stage, when in retrospect the nature and dimensions of the problem look very different than at the beginning of the process. Clearly the public is at stage 3 of this process at the moment. Despite the intense public relations campaign and lavish media coverage (how many global warming catastrophe covers has *Time* magazine run in the last few years?) the latest annual Gallup survey on the environment shows that only 37 percent of Americans say they worry about global warming "a great deal," down from 41 percent last year, and, moreover, about the same as a decade ago. Americans rank global warming far down the list of their main environmental concerns, behind air and water pollution, toxic waste, and the loss of open space. An even more startling and counterintuitive finding was reported earlier this year in the journal Risk Analysis, which published the results of an extensive public opinion survey that found that the more people knew about the facts of global warming, the less concerned they were about the issue: "in sharp contrast with the knowledge-deficit hypothesis, respondents with higher levels of information about global warming show less concern about global warming."17 The authors were clearly troubled and dismayed by this finding, and struggled to explain it. The hypothesis that Americans may have reached a point of "crisis fatigue," of having "wolf" cried once too often by the environmentalists, and are therefore applying a proper discount to the climate campaign, is not considered. One or two more cold winters like the one just experienced and there will be a crisis among the climate alarmists that even the media won't be able to ignore.

Downs thought that the issue-attention cycle would be longer for environmental issues than other kinds of issues, such as poverty, race relations, and the space race of the 1960s, in part because of the diffuse nature of environmental issues—there's always a new scare to replace acid rain or the population bomb—but moreover because environmentalism would become institutionalized (remember—Downs wrote in 1972):

¹⁶ Anthony Downs, "Up and Down with Ecology: The 'Issue-Attention' Cycle," *The Public Interest*, Vol. 28 (Summer 1972), p. 39.

¹⁷ Paul M. Kellstedt, Sammy Zahran, and Arnold Vedlitz, "Personal Efficacy, the Information Environment, and Attitudes Toward Global Warming and Climate Change in the United States," *Risk Analysis*, Vol. 28, No. 1 (2008), p. 120.

Still another reason why the cleaner-environment issue may last a long time is that it could generate a large private industry with strong vested interests in continued spending against pollution. Already dozens of firms with "eco" or "environ" in their names have sprung up to exploit supposedly burgeoning anti-pollution markets. In time, we might even generate an "environmental-industrial complex" about which some future president could vainly warn us in his retirement speech! Any issue gains longevity if its sources of political support and the programs related to it can be institutionalized in large bureaucracies. Such organizations have a powerful desire to keep public attention focused on the problems that support them.

Two points should be drawn from Downs' analysis. First, as previously suggested, climate change is following the issue-attention cycle like most crises before it. It is highly likely that a decade or two from now we will look back on *An Inconvenient* Truth and Al Gore's Nobel Prize as the high water mark for climate hysteria, just as we today look back on Paul Ehrlich's *Population Bomb* as the high water mark of population hysteria. (Ehrlich's book was coincidentally published at the moment that global fertility rates peaked and began their dramatic secular decline.) Already there are signs that the media is about to lose interest in the story, in part because newsstand sales of the obligatory special "green" issues of fashion and news magazines in April of this year were dismal. The publishing trade journal *Portfolio* reported in June that "The New York" Times noted that the advertising industry is pulling back from green-themed marketing, having 'grasped the public's growing skepticism over ads with environmental messages." Time's Earth Day issue was the newsweekly's third-lowest-selling issue of 2008. Time ran its sixth cover story about global warming last April, but one of these days the editors of *Time* and other publications are going to grow bored with yet another "green" issue, just as the media grew bored with the AIDS crisis, civil rights, the NASA space program, and other once front-burner issues. "Suddenly Being Green Is Not Cool Any More," read a London *Times* headline in August.

Until something new comes along, the second point drawn from Downs remains troublesome: the institutionalization of the climate campaign, and the immense political momentum behind a narrow conception of the issue, means it will be with us for a long while yet, and is positioned to do significant damage to economic growth and political liberty. The IPCC and the NGO climate campaigners in the U.S. and Europe represent a fixed Maginot Line behind the view that humans are causing all or nearly all of observed climate change, despite growing evidence casting doubt on this proposition; that future warming will be of catastrophic dimension; and that the only possible remedy is the elimination of fossil fuel energy on a wholly impracticable time scale.

Even if we stipulate for the purposes of argument that the central claims of human causation of catastrophic climate change is correct, it does not necessarily follow that the chief remedy the climate campaigners are demanding—a substantial increase in government power over energy resources—would be effective, let alone compatible with democratic self-government and a market economy. So far most attempts to promote technological progress in energy supply have been special interest pork fests, such as the

corn ethanol subsidy, with other industry groups (wind energy, natural gas) lining up for a piece of the pork. The criss-crossing subsidies and tax breaks in being or proposed to provide an incentive for industry to innovate are likely to have the opposite effect, i.e., it will stifle bringing genuine innovations to the energy market as industry groups work the political marketplace rather than the open marketplace. But the instinct to control and the desire to reward constituency groups is overpowering. The climate campaigners seem amazingly unaware of how their alarm is being used to ratchet up traditional interest group pork barrel spending and political favoritism. A transition to a post-carbon world decades from now will come about more quickly and effectively by keeping energy markets open and unregulated, rather than subsidizing or picking particular energy technologies (such as ethanol), or making energy artificially more expensive for producers and consumers.

The climate campaign is also largely closed to thinking seriously about a resiliency strategy for climate change of any dimension, in either direction (what happens if we suddenly *cool*?), from any cause or combination of causes (i.e., human + natural). Even more resistance is found when the idea of "geoengineering" is broached. We have long known that particulates from large volcano eruptions cool the atmosphere; the 1992 eruption of Mt. Pinatubo in the Philippines was the first modern eruption whose effects were closely measured and studied. In the aftermath of Pinatubo, planetary temperatures were lowered by about 1 degree F for nearly two years. Could mankind deliberately mimic the climate effects of volcanoes by deliberately injecting particulates into the high atmosphere?

The idea is not new. The National Academy of Sciences, among others, studied the idea in the early 1990s, and in a coincidence of bad timing, produced a report just before Mt. Pinatubo erupted generally discounting the idea for its cost and but not categorically dismissing it. (The NAS study found that increasing the reflectivity of the Earth by just one percent would be enough to compensate for doubling levels of carbon dioxide in the atmosphere. Por the last several years, however, the idea has been virtually taboo in climate science circles—an example of how commitment to a particular policy regime (greenhouse gas emissions reductions) can constrain open scientific inquiry. *Rolling Stone* magazine, of all unlikely places, reported in Decemberb\2006 that when the subject came up at seminar of Stanford's Energy Modeling Forum held in Aspen last summer, it nearly erupted into a shouting match. The *New York Times* has also reported on the controversy.

A fresh round of scientific discussion on this idea emerged in 2006 when *Climatic Change*, a leading journal in the field, published an article by Nobel Prize-winning chemist Paul Crutzen speculating on the methods, practicalities, and costs of deliberately

²⁰ William J. Broad, "How to Cool a Planet (Maybe)," New York Times, June 26, 2006.

11

¹⁸ National Academy of Sciences (NAS), *Policy Implications of Greenhouse Warming: Mitigation, Adaptation, and the Science Base* (Washington DC: National Academies Press, 1992).

¹⁹ Jeff Goodell, "Can Dr. Evil Save the World?", *Rolling Stone*, December 2006: http://www.rollingstone.com/news/story/12343892/can_dr_evil_save_the_world.

injecting particulates into the atmosphere to reduce global warming. ²¹ (Crutzen won his Nobel Prize for his work in the 1980s on stratospheric ozone depletion, which was a crucial scientific step in the road to the Montreal Protocol.) Crutzen now believes that it would be technically easy and relatively inexpensive to place a layer of sulfate particles 10 miles up in the atmosphere, either through giant cannons or balloons; other advocates suggest high altitude aircraft would be sufficient. He concludes that as little as 1 million tons might be adequate; by comparison, coal-burning power plants in the U.S. emit more than 6 million tons a year of sulfur dioxide. His ideas have found backup from other leading climate scientists. Tom Wigley of the National Center for Atmospheric Research (NCAR) wrote favorably of the idea in *Science*. ²² And Stanford climate scientist Ken Caldeira, while "philosophically opposed" to the idea of geoengineering, conducted an extensive computer climate model run that generally backed up Crutzen's ideas. NASA held a two-day, closed-door workshop on the subject in November, and the EPA's National Center for Environmental Economics published a working paper discussing the subject. ²³

Caldeira's "philosophical opposition" to geoengineering is widespread. At the Aspen meeting, Yale's William Nordhaus reportedly objected that geoengineering would be enable more fossil-fuel use, which would be like giving methadone to a heroin addict. (This seems odd coming from the economist whose work has done more any other to highlight the adverse cost-benefit outcome of near-term emissions reductions.) And *Climatic Change* took the highly unusual step of publishing *five* separate editorial commentaries on how Crutzen's article should be understood. This is likely unprecedented in the history of scientific publishing. Ralph Cicerone, president of the National Academies of Science, made clear why in his editorial contribution: "various individuals have opposed the publication of Crutzen's paper, *even after peer review and revisions*, for various and sincere reasons *that are not wholly scientific.*" (Emphasis added.) Mark Lawrence of the Max Planck Institute in Germany concurred in his own Climatic Change editorial comment: "There was a passionate outcry by several prominent scientists claiming that it is irresponsible to publish such an article focused on a particular geoengineering proposal."

This kind of environmental correctness should be genuinely disturbing, as a preexisting policy agenda or preference should not be used as a reason to prevent research, let alone published scientific speculation from a Nobel laureate, from going forward. It is an example of exactly the kind of politicization of the subject that has led to so much popular distrust of climate science and policy gridlock over the last 20 years. There are

P.J. Crutzen, "Albedo Enhancement by Stratospheric Sulfur Injections: A Contribution to Resolve a Policy Dilemma?", *Climatic Change* (August, 2006); DOI: 10.1007/s10584-006-9101-y.
T.M.L. Wigley, "A Combined Mitigation/Geoengineering Approach to Climate Stabilization," *ScienceExpress*, September 14, 2006.

²³ Alan Carlin, "If Geoengineering Is the Best First Step Towards Global Climate Change Control, How Could It Best Be Implemented?", NCEE Working Paper Series, #07-04, January 2007. See also Alan Carlin, "Global Climate Change Control: Is There a Better Strategy than Reducing Greenhouse Gas Emissions?", 155 *Penn Law Review*, No. 6, June 2007.

²⁴ The five editorials were by: Mark Lawrence (Max Planck Institute), Lennart Bengtsson (Max Planck Institute), Ralph Cicerone (NAS), Michael MacCracken (Climate Institute), and Jeffrey Kiehl (NCAR).

numerous political problems with the idea, to be sure. It may require changes in international law to implement (a UN treaty forbids "manipulation of the environment" for military purposes). Does Russia really want its northern reaches to cool off again? (Of course, that is just as good a reason for Russia to decline to join a serious emissions reduction regime.) It appears that ideological resistance to the idea is breaking down. "People used to say, 'Shut up, the world isn't ready for this,'" Wallace S. Broecker, a geoengineering advocate at Columbia University, told the *New York Times*. "Maybe the world has changed."

The kind of hyper-politicization of climate change that can be seen in the resistance to considering geoengineering may be provoking a backlash in the scientific community. One straw in the wind was the bracing comments made by Mike Hulme, who is the director of the Tyndall Centre for Climate Change Research, and one of Britain's leading climate science figures. "I have found myself increasingly chastised by climate change campaigners when my public statements and lectures on climate change have not satisfied their thirst for environmental drama and exaggerated rhetoric," Hulme told the BBC in November. "It seems that it is we, the professional climate scientists, who are now the [catastrophe] skeptics. How the wheel turns. Why is it not just campaigners, but politicians and scientists too, who are openly confusing the language of fear, terror and disaster with the observable physical reality of climate change, actively ignoring the careful hedging which surrounds science's predictions? To state that climate change will be 'catastrophic' hides a cascade of value-laden assumptions which do not emerge from empirical or theoretical science." 25

The climate campaign will someday likely be a thing of the past, but the dynamic of enviro-authoritarianism is a permanent condition. And there is no shortage of prospective crises that can take its place. The defenders of liberty, democracy, and open markets will not lack for new challengers.

 $^{^{25}\,}http://news.bbc.co.uk/go/pr/fr/-/1/hi/sci/tech/6115644.stm.$