GLOBAL CLIMATE CHANGE MID-TERM GRADE: C FINAL GRADE: B-

International Policy Domestic Policy

Global warming is the current flagship environmental issue. Just as with global cooling in the 1970s, acid precipitation in the 1980s, and ozone depletion in the early 1990s, global warming has become a source of near-hysterical pronouncements of imminent doom. On the other side, global warming skeptics have been equally adamant in arguing that anthropogenic emissions of greenhouse gases have little to do with climatic change, and that any warming that is occurring is probably beneficial.¹

The costs and benefits of global warming policy instruments depend to a considerable degree on how scientific questions are answered. Nonetheless, whether the consequences will produce net costs or net benefits is beyond the scope of this report. The present task is to assess the Bush administration global climate change policy given the uncertain state of scientific knowledge.

BACKGROUND

В

C+

The temperature of the earth is determined by a large number of factors, both natural and human-induced. Further, climate change is normal and constant. Earth has at various times been both considerably cooler and considerably warmer than at present. Over millennia, the primary factors responsible for climate appear to be changes in the earth's orbit, changes in the orientation of the earth relative to the sun, and changes in solar radiation. On a shorter time scale, volcanic activity, short-term changes in solar radiation (e.g., sunspots), and anthropogenic emissions can influence climate. Some anthropogenic emissions (known as greenhouse gases or GHGs) appear to contribute to warming, while others (such as SO₂) appear to have a net cooling effect.

Among the greenhouse gases pro-

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duced by humans, CO₂ appears most important because it currently accounts for approximately 60 percent of "extra greenhouse gases" and because it is expected to increase in the future (Lomborg 2001, 259-60). But gases such as methane, nitrous oxide, chlorofluorocarbons, and ozone cannot be ignored in a comprehensive global warming policy, particularly if the policy contains target emission levels. For example, over a 50-year period the radiative forcing (that is, the contribution to warming) per ton of methane and nitrous oxide is estimated to be, respectively, 20 and 280 times greater than a ton of CO₂ (Kahn 2005, 243).

To further complicate matters, a reasonable policy formulation should take into account the amount of carbon sequestered by oceans and vegetation. Current data on the timing and extent of carbon sequestration, the radiative forcing of alternative greenhouse gases, and the impact of natural forces versus anthropogenic emissions are piecemeal and unreliable.

These scientific issues make formulation of a comprehensive and efficient global warming policy extremely complicated. If the goal of this policy is to stabilize the earth's mean temperature, emission controls must take into account the natural forces that drive temperature.² If the objective is to remove human influence from the global-temperature-change picture, policy makers must have some idea of the relative contribution of human and natural forces and the relative contribution to global temperature of each emitted greenhouse gas, as well as the amount of natural carbon sequestration. Without this information, setting specific and inflexible emission goals is likely to be counterproductive.

THE MID-TERM REPORT

In the mid-term report, the Bush administration received an A- on international policy, a D on domestic policy, and a C overall. The high score on international policy was attributable to the administration's position on Kyoto. The D on domestic policy was based on concern that policies retained from the Clinton administration as well as programs that began with the Bush administration set the stage for mandatory greenhouse gas emission controls.

The report recommended Bush initiatives such as "unsigning" Kyoto, removing negative incentives for research and development and new capital investment, removing agricultural subsidies, and removing high tariffs that encourage energy-intensive production in the United States. During the last two years, the administration has taken no action on removing President Clinton's signature and has increased both agricultural subsidies and tariffs.

ASSESSING THE FULL FOUR YEARS

This report assesses the Bush administration's policy on global climate change over the past four years. The analysis is divided into two parts—international and domestic policy.

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INTERNATIONAL POLICY

The Bush administration inherited the Kyoto Protocol that President Clinton had signed but did not submit to the Senate for ratification (perhaps because the Senate had voted overwhelmingly not to ratify the accord if it were submitted). To put it mildly, Kyoto was poorly designed. Because it had no controls on emissions from developing countries and no feasible mechanism for monitoring emissions, Kyoto offered little prospect for reduced global emissions and remarkable opportunities for rent-seekingthat is, for gaming by governments and companies around the world to benefit themselves at the expense of others, producing net social losses.

For the United States, Kyoto contained substantial costs and no benefits. President Bush wisely announced that he would not submit it to the Senate for ratification, in the process characterizing the protocol as "fatally flawed" (Bush 2001). As noted in the mid-term report, the Bush administration deserves credit for its stand in opposition to Kyoto, especially in the face of considerable pressure from environmental groups and a general lack of understanding among voters of the consequences of U.S. approval.

On the other hand, the Bush administration did not take the actions required to remove President Clinton's signature from the Kyoto Protocol. As discussed in the midterm report, President Clinton's signature may be sufficient under international law to bind the United States to "refrain from actions that would undermine the Protocol's objective and purpose" (Ackerman 2002, 1). This issue takes on new importance as Russia moves toward ratification. With Russian ratification, the Kyoto Protocol reaches the 55 percent threshold required for implementation.

In other international venues, the Bush administration has continued to maintain a lower profile on global warming issues than the Clinton/Gore administration. This has served American interests. However, in voicing opposition to Kyoto, and in adopting a passive obstructionist role on greenhouse gas emission targets in meetings such as the Earth Summit in Johannesburg, the Bush administration has not effectively communicated the scientific and economic uncertainty that forms the rationale for its position.

Since rejecting Kyoto, the administration has attempted to divert attention from emission controls to trying to encourage economic development in emerging economies. The announced premise on which this effort is based is that wealthier economies pollute less. In a February 2002 speech in which the president announced his Clear Skies Initiative, he argued that developing countries (such as China and India) currently "account for a majority of the world's greenhouse gas emissions" and must share the burden of emission reduction. On the other hand, he argued that it would be unfair to condemn them to little or no economic growth by imposing "unrealistic" emission targets (Bush 2002). While the logic of promoting economic development over emission controls is sound, this administration has done little to facilitate growth in developing countries. Indeed, the administration's agricultural subsidy and

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tariff policies work in the opposite direction.

Finally, the Bush administration has often been perceived, both domestically and internationally, as serving narrow commercial interests as opposed to national or global environmental interests. The administration has done little to disabuse observers of that perception. Despite the virtue of some actions taken in the international arena, the Bush administration has failed on the public relations and advocacy fronts. Because of this failure, the continued failure to remove President Clinton's signature from the Kyoto protocol, and agricultural and tariff policies that reduce wealth creation and retard environmental improvements in developing economies, the administration earns a lower score on international policy than in the mid-term report.

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DOMESTIC POLICY

On the domestic front, the centerpiece of recent Bush administration policy is "Climate VISION," which stands for Voluntary Innovation Sector Initiatives: Opportunities Now. Advertised as a presidential public-private partnership, Climate VISION was launched by the Department of Energy on February 12, 2003, with the Environmental Protection Agency, Department of Transportation, Department of Agriculture and the Department of Interior as other participating agencies. Through this program, participating federal agencies work with industry trade groups to implement new practices, processes, and technology that reduce greenhouse gas emissions. To date, business associations representing twelve industry sectors, along with the Business Roundtable, have signed letters of intent under Climate VISION (U.S. Department of State 2003).

With Climate VISION the administration pledges to reduce the amount of greenhouse gases emitted per unit of economic activity by 18 percent over ten years. According to the administration, "This strategy will set America on a path to slow growth of greenhouse gas emissions, and as the science justifies—to stop, and then reverse that growth" (U.S. Department State 2004).

The important features of Climate VI-SION are voluntary participation and flexibility. It sets no mandatory emission targets, imposes no controls, and sets no technological standards. Instead, it depends on innovation and market forces to find ways to make emission reduction and carbon sequestration profitable.

The stick in Climate VISION is moral suasion. Polluters are "encouraged" to join this "public-private partnership." The carrot is tax incentives. The president has pledged \$4.6 billion over the next five years in tax incentives for hybrid and fuel cell vehicles, residential solar energy, and investment in noncarbon energy sources. He also proposes to include unspecified features in the next farm bill that will encourage farmers and forest landowners to increase carbon sequestration (Bush 2004).

The Bush administration has refused to

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regulate greenhouse gas emissions under the Clean Air Act. In 1999 a coalition of environmental groups petitioned the EPA to regulate CO_2 emissions under the Clean Air Act. Prompted by a 2002 suit to force a response, the EPA responded in August 2003 by denying that it has authority to regulate CO_2 . Importantly, the EPA ruled that CO_2 does not meet the Clean Air Act's definition of a pollutant.³

The mid-term report faulted the Bush administration for (1) retaining a destructive global warming policy from the Clinton administration and for (2) adding policies that set the stage for future regulation of emissions. The Bush administration has not totally cleaned up its act, but it has made progress. Climate VISION is long on fluff and short on substance, but it does several useful things. First, it acknowledges scientific and economic uncertainty regarding global warming and makes a case for moving away from targeted emissions. Second, it stresses flexibility, technological innovation, and private action.

On the downside, the flexibility and volunteerism embedded in Climate VISION provide grounds for environmental advocates to reject it as nonpolicy. That in turn has caused environmental activists to adopt strategies that bypass the administration and to lobby states for action.⁴ Congress is also stepping into the perceived policy void.⁵

The Bush administration deserves credit for not being bullied into adopting a domestic Kyoto. Instead, the administration has stalled where possible and proposed vague, voluntary approaches when forced out of stall mode. Importantly, Climate VISION acknowledges the virtues of giving private markets an opportunity to find ways to reduce the impact of anthropogenic greenhouse gases.

On the negative side, the Bush administration has not been effective in communicating to voters the rationale for its approach to global warming. That public relations failure creates fertile ground for more destructive future greenhouse-gas policy.

All things considered, the Bush administration has earned a grade somewhat higher than the D on domestic policy awarded in the mid-term report. The Bush administration has been more friendly to free market environmentalism on global warming policy than was Clinton/Gore.⁶ Accordingly, we set the end-of-term score for domestic global warming policy at C+.

Domestic Policy C+

THE FINAL GRADE

We give the Bush administration a Boverall. Unlike the Clinton administration, the Bush administration rejected Kyoto, acknowledged the importance of scientific uncertainty, placed some emphasis on assessing the net benefits of greenhouse gas abatement, and stressed the need to harness the creativity of private markets. Simply put, in global warming policy the Bush administration accomplished little from a free-market perspective but improved on the Clinton administration.

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RECOMMENDATIONS FOR THE NEXT ADMINISTRATION

At present, we lack both the scientific knowledge and the technology for government controls to reasonably address global warming. The next administration should adopt policies that harness the creativity of private actors to find solutions to these problems.

Reducing the use of fossil fuels and increasing carbon sequestration can be profitable. Policies with the greatest promise of success are those that allow firms to generate profits by reducing atmospheric greenhouse gases.

Reductions in capital gains taxes would increase returns to capital and stimulate replacement of existing capital with newer energy-conserving capital. Such tax reductions would also stimulate investment in new fuel-saving technology. The next administration should reduce capital gains taxes as part of its global warming policy.

Current U.S. regulatory practices include a plethora of rules and practices that discourage technological innovation. Ultimately, greenhouse gas emissions can be reduced at bearable costs only with new technology. The next administration should remove regulatory barriers that inhibit private technological innovation.

Current alternative fuels policies and nuclear regulation are counterproductive. Ethanol, which is heavily subsidized, adds to CO_2 emissions, and its subsidies should be eliminated. Solar, wind and geothermal technology have very limited potential for replacing fossil fuel-fired electric generation. Nuclear power has greater potential. An outdated regulatory structure currently prevents investments in nuclear generation. The next administration should remove those regulatory barriers.

Agricultural subsidies for U.S. producers depress world agricultural prices and retard economic growth by developing countries that are heavily dependent on agricultural exports. These subsidies also encourage farming practices that increase U.S. carbon emissions and reduce carbon sequestration. The next administration should include elimination of agricultural subsidies as part of its global warming policy.

In the final analysis, the global warming puzzle and the global warming problem will be solved only by the creativity of self-interested individuals. The new administration should pursue all conceivable avenues to remove impediments to this creative process.

NOTES

1. For a detailed history of the climate change debate, see Morris (1997).

2. Stabilizing earth's temperature is arguably not a real possibility. It is highly unlikely that varying anthropogenic emission could ever offset natural forces that produce climate change.

3. On June 22, 2004, a coalition of 11 states and 14 environmental groups filed briefs in the U.S. Court of Appeals challenging this ruling. For more details, see Earthjustice (2004).

4. At present, 28 states have either adopted or are developing strategies for greenhouse gas abatement. For a detailed,

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state-by-state discussion of these actions see Pew Center on Global Climate Change (2004).

5. Both states and environmental groups attempting to force federal action on controlling greenhouse gas emissions have resorted to legal action. Several states have also sued power companies over these emissions. For a discussion of the most recent legal actions see Earthjustice (2004). Congress has also ventured into the fray. Senators John McCain and Joseph Lieberman introduced a cap-and-trade global warming bill in 2003. That bill was only narrowly defeated and the authors vowed to bring it back in 2004. However, as 2004 draws to a close it appears tht will not happen. Three other global warming bills were introduced in the 108th Congress. For more details, see Parker (2003).

6. Of course, producing a more FMEfriendly global warming policy than Clinton/Gore is, at very best, a modest achievement.

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