

10 DOWNING STREET

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Bush Is Urged to Fight Threat of Global Warming

By PHILIP SHABECOFF
Special to The New York Times

WASHINGTON, Jan. 5 — The National Academy of Sciences urged President-elect George Bush today to place the threat of a significant increase in global temperatures high on his agenda because "the future welfare of human society" is at risk.

The academy urged Mr. Bush to seek alternatives to coal, oil and other fuels whose air pollutants are a main cause of the predicted global warming.

"We believe that global environmental change may well be the most pressing international issue of the next century," the academy said. "The United States is well-positioned to play a leadership role in coping with and gaining an international consensus on this difficult issue."

Papers on 'Critical' Issues

The appeals were highlights of a paper on environmental policy, one of four sent to Mr. Bush today by the sciences academy and its sister organizations, the National Aacademy of Engineering and the Institute of Medicine. The other papers issued by the private, federally chartered organizations, among the nation's most prestigious scientific institutions, deal with the space program, AIDS and the role of the science and technology adviser to the President.

The academies called the topics "a few critical national and global issues to which science and technology were central" and in which Presidential leadership will be essential.

Dr. Frank Press, president of the National Academy of Sciences, said today's papers were the first set of recommendations the academy has offered to an incoming President.

Goals for Space

The paper on space progams called on Mr. Bush to set long-term national goals, something it said has been absent since after the National Aeronautics and Space Administration's Apollo program, which put men on the moon.

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The academies suggested that such goals might include a space station to establish the feasibility of manned probes to Mars and other destinations.

The paper also called for a two-tiered space program budget. A basic budget of about \$10 billion a year would insure the nation's basic "competence" in space, including adequate launching vehicles, satellites that measure earth resources and scientific research. The other budget would be for long-term special programs, such as the space station and exploration of Mars, projects that could cost \$3 billion to \$4

The National Academy of Sciences says society is at risk.

billion in peak years.

In an effort to improve management, the academy suggested that some NASA operations be turned over to private organizations, which could offer highly qualified scientists and engineers higher salaries.

The scientific groups said that stemming the "agonizing epidemic of AIDS" would require Presidential leadership, including effective use of a newly legislated but not yet established National Commission on AIDS to develop policy.

The academies, largely iterating their past recommendations, noted, that an estimated 1 million to 1.5 million people in the United States are infected with the virus and 200,000 Americans are expected to die of AIDS in the next four years. They called for a comprehensive plan, using private and public resources, to assure payment for medical care.

Call for Anti-Bias Law

They also urged the President-elect to propose legislation to prohibit discrimination against AIDS victims and to "initiate a forceful program for the treatment of substance abuse" and to prevent the spread of the AIDS virus

among drug abusers.

Cautioning that the next President will face many important and complex issues that involve science and technology, the academies urged Mr. Bush to raise the status of the adviser on science and technology in the White House to the rank of assistant to the President or even Cabinet level.

Besides making judgments on scientific decisions affecting areas like military preparedeness, the environment and international trade, the science adviser should be able to identify and attract superior candidates for scientific positions and work to assure that scientific priorities are reflected in the budget and carried out.

One thing the President's science adviser should not be, the paper cautioned, is "a political partisan who bends technical argument to support positions based on ideology."

More Urgent Tone

Although the National Academy of Sciences has issued studies on global warming and climate change before, today's paper took a more urgent tone.

In a letter to Mr. Bush accompanying the paper, the academies said "the problem of environmental change is now widely recognized as one of growing urgency that will require responses by your Administration."

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"Embedded in the diverse manifestations of this problem — global warming, ozone depletion, tropical deforestation and acid deposition — are enormous challenges to science and engineering, to your Administration and to the world community of nations," the letter stated.

The scientists also appeal for long-term goals in space.

Although the "full long-term implications" of changes in the global environment caused by human activity are still unclear, "there is a growing perception that the future welfare of human society is to an unknown degree at risk," the paper said, adding, "our current scientific understanding amply justifies these concerns."

Problem of Fossil Fuels

The paper called on the Presidentelect to adopt measures to slow the pace of environmental change and reduce the risk of environmental damage by "prudent" policy, including actions to reduce the combustion of fossil fuels like coal and oil. Carbon dioxide from such combustion is believed to be trapping radiation from the sun and causing Earth to warm through a process commonly called the greenhouse effect.

Pollution from these fuels also damages regional air quality and is a contributor to acid precipitation that, the paper said, is damaging lakes in New England, Canada and Scandanavia.

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Ways should be sought, it said, to reduce the use of fossil fuels without impeding economic growth. Alternatives include using energy more efficiently, using more natural gas, the "cleanest" fossil fuel, and the development of new technologies such as solar energy and safe nuclear reactors.

Ozone Problem Addressed

The paper also urged deeper reductions than called for by international treaty in the production and use of industrial chemicals that are widely believed to be depleting ozone in the atmosphere that shields Earth from harmful ultraviolet radiation from the sun.

Technologies exist, the paper said, to reduce pollution from power plants and other sources that produce acid preciptation. But it cautioned that some of these technologies could increase the amount of carbon dioxide in the atmosphere. But it said that acid rain and the difficulties of dealing with it are now "sufficiently understood" and that remedial action should not be delayed for further study.