

U.S. Climate Change Policy

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Good morning.

I am pleased to be here today to talk about U.S. climate change policy.

Let me first turn an overview of that policy.

U.S. Climate Change Policy Overview



- **Integrated into the broader context of development agenda:**
 - **Alleviation of Poverty;**
 - **Rule of Law;**
 - **Investment in People; and**
 - **Stable Economic Institutions.**
- **Reaffirms the U.S. commitment to the United Nations Framework Convention on Climate Change (UNFCCC).**
- **Recognizes the need to take near-term actions, while maintaining economic growth that will improve the world's standard of living.**
- **Grounded in the reality that addressing climate change will require the sustained effort by all nations over many generations.**
- **Promotes advances in climate science and accelerated development of transformational energy technologies.**

U.S. climate change policy:

- Is integrated into the broader context of development agenda: Alleviation of Poverty, Rule of Law, Investment in People, and Stable Economic Institutions.
- Reaffirms the U.S. commitment to the United Nations Framework Convention on Climate Change (UNFCCC).
- Recognizes the need to take near-term actions, while maintaining economic growth that will improve the world's standard of living.

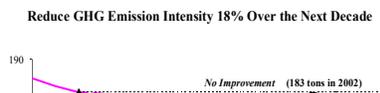
- Is grounded in the reality that addressing climate change will require the sustained effort by all nations over many generations.
- Promotes advances in climate science and accelerated development of transformational energy technologies.

President Bush's climate change policy has three basic components designed to address both the near-term and long-term aspects of climate change: (1) slowing the growth of GHG emissions; (2) laying important groundwork for both current and future action through major investments in science and technology, and institutions; and (3) promoting international cooperation.

U.S. Climate Change Policy Components



- **Slowing the Growth of Net Greenhouse Gas (GHG) Emissions.**
 - **National Goal: Reduce GHG Intensity by 18% Over 10-Year Period (2002-2012).**
- **Laying the Groundwork for Current and Future Action: Investments in Science and Technology.**
 - **Climate Change Science Program (~\$2 billion/year)**
 - **Climate Change Technology Program (~\$3 billion/year)**
- **Promoting International Cooperation.**



In February 2002, President Bush committed the United States to a comprehensive strategy to reduce the greenhouse gas intensity of the American economy (how much we emit per unit of economic activity) by 18 percent by 2012. Meeting this commitment will prevent the release of more than 500 million metric tons of carbon-equivalent emissions to the atmosphere.

The second component of U.S. climate change policy focuses on laying the groundwork for both current and future action—investments in science and technology. We need better science to promote better decision-making and better technology to slow GHG emissions growth. President Bush's Fiscal Year 2005 budget seeks nearly \$5 billion for climate change science and technology programs through the Climate Change Science Program (~\$2 billion) and the Climate Change Technology Program (~\$3 billion).

The third component is promoting international cooperation, which recognizes the importance of working with other nations to develop an effective and efficient global response to the complex and long-term challenge of climate change.

The United States is taking many actions to meet the President's intensity reduction goal.

Actions to Meet 10-Year GHG Intensity Reduction Goal



- **More than 60 Federal programs designed to help reduce emissions by more than 500 million metric tons of carbon- equivalent through 2012.**
 - Nuclear Power 2010
 - Fuel Economy Increase for Light Trucks (April 2003)
 - Clean Air Rules
- **Numerous U.S. Department of Energy (DOE) and U.S. Environmental Protection Agency (EPA) voluntary programs to help consumers and corporations reduce their GHG emissions.**
 - Climate VISION
 - SmartWay Transport Partnership
 - Climate Leaders
 - Voluntary Reporting of Greenhouse Gas Program
- **Incentives for carbon sequestration on America's farms and forests.**
- **U.S. Fiscal Year 2005 budget of more that \$5.2 billion for climate change programs and energy tax incentives strongly supports the near-term objective and as well future actions through major investments in science and technology.**

We have in place more than 60 Federal programs—some mandatory, some incentive-based, and some voluntary—designed to help reduce emissions by more than 500 million metric tons of carbon-equivalent through 2012, including the following examples:

Nuclear Power 2010 is a joint government/industry cost-shared effort to identify sites for new nuclear power plants, develop and bring to market advanced nuclear plant technologies, evaluate the business case for building new nuclear power plants, and demonstrate untested regulatory processes leading to an industry decision in the next few years to seek Nuclear Regulatory Commission approval to build and operate at least one new advanced nuclear power plant in the United States.

On April 1, 2003, the Bush Administration finalized regulations requiring an increase in the fuel economy of light trucks for Model Years 2005 - 2007, the first such increase since 1996. The increase from 20.7 miles per gallon to 22.2 miles per gallon by 2007 more than doubles the increase in the standard that occurred between Model Years 1986 and 1996. The new increased fuel economy standards will save approximately 3.6 billion gallons of gasoline over the lifetime of these trucks, with the corresponding avoidance of 31 million metric tons of carbon dioxide emissions.

The Clean Air Rules are a suite of actions that will dramatically improve America's air quality. Three of the rules specifically address the transport of pollution across state borders (the Clean Air Interstate Rule, Clean Air Mercury Rule and Clean Air Nonroad Diesel Rule). These rules provide national tools to achieve significant improvement in air quality and the associated benefits of improved health, longevity and quality of life for all Americans. Taken together, they will make the next 15 years one of the most productive periods of air quality improvement in America's history and result in a significant reduction of greenhouse gases.

Climate VISION is a voluntary partnership in which 13 industry sectors representing 40-45% of US GHG emissions and the Business Roundtable have committed to work to reduce greenhouse gas emissions in the next decade.

Climate Leaders is an EPA partnership encouraging individual companies to develop long-term, comprehensive climate change strategies. Under this program, partners set corporate-wide GHG reduction goals and inventory their emissions to measure progress. Over 50 major companies are now participating, including General Motors, Alcoa, BP, Pfizer, Staples, International Paper, IBM, Miller Brewing, Eastman Kodak, and Target.

SmartWay is a voluntary partnership between various freight industry sectors involving than 70 shipping, truck, and rail companies and EPA that establishes incentives for fuel efficiency improvements and greenhouse gas emissions reductions. By 2012, this initiative aims to eliminate 33-66 million metric tons of carbon dioxide emissions and up to 200,000 tons of nitrogen oxides emissions per year, and will result in fuel savings of up to 150 million barrels of oil annually.

The Voluntary Reporting of Greenhouse Gases Program, established by Section 1605(b) of the Energy Policy Act of 1992, provides a means for organizations and individuals who have reduced their emissions to record their accomplishments and share their ideas for action. In 2003, more than 230 entities reported nearly 2,220 projects to reduce or sequester greenhouse gases. Improvements intended to enhance the accuracy, reliability, and verifiability of greenhouse gas reductions measurements are being finalized.

The U.S. is employing near-term incentives for carbon sequestration to increase the amount of carbon stored by America's farms and forests. Under the 2002 Farm Bill, the U.S. will invest up to \$47 billion in the next decade for conservation measures on its farms and forest lands—including measures that will enhance the natural storage of carbon. The U.S. Department of Agriculture estimates that actions taken to date will sequester over 12 million metric tons annually by 2012.

President Bush's Fiscal Year 2005 budget of more than \$5.2 billion for climate change science and technology programs and energy tax incentives, also supports the near-term objective as well future actions through major investments in science and technology.

How have we done?

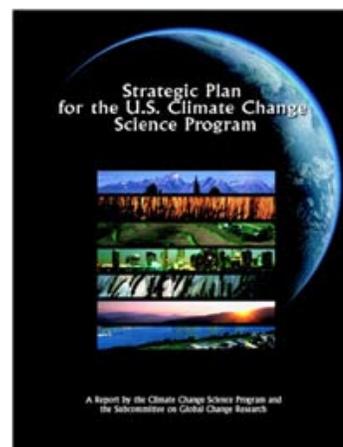
U.S. carbon dioxide and greenhouse emissions in 2003 were slightly below year 2000 levels. Over the three-year period 2000-2003, the population of the United States has increased by nearly 9.4 million, which is larger than the population of Sweden. And over that same three-year period, the GDP of the United States has increased by more than \$1.45 trillion, which is an amount larger than the 2003 GDP of China. So progress is being made.

The *Strategic Plan for the U.S. Climate Change Science Program* guides activities and priorities of the CCSP over the next decade. The document describes a strategy for developing knowledge of variability and change in climate and related environmental and human systems, and for encouraging the application of this knowledge. The plan was developed with extensive consultation with the scientific community, including a 1,300-person workshop hosted by CCSP in November 2002, with representatives from over 35 countries. The National Academies of Science gave the plan high marks as it “articulates a guiding vision, is appropriately ambitious, and is broad in scope. It encompasses activities related to areas of long-standing importance, together with new or enhanced cross-disciplinary efforts.”

Climate Change Science Program (CCSP)



- **World's Largest Climate Change Scientific Research Program**
- **~ \$2 Billion/Year**
- **Goals**
 - **Improve knowledge of climate and environment**
 - **Improve quantification of forces driving changes to climate**
 - **Reduce uncertainty in projections of future climate changes**
 - **Understand sensitivity and adaptability of natural and manmade ecosystems**
 - **Explore uses and limits of managing risks and opportunities**



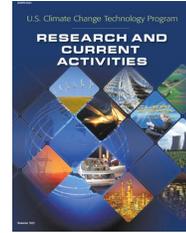
www.climatescience.gov

The Climate Change Technology Program (CCTP) coordinates and prioritizes the Federal government's nearly \$3 billion annual investment in climate-related technology research, development, demonstration, and deployment. It has six goals and includes a broad portfolio of technology options that address climate change in the near-, mid-, and long-term.

Climate Change Technology Program (CCTP)



- Ambitious Program of RD&D
- ~ \$3 Billion/Year
- Goals
 - Reduce emissions from energy use and infrastructure
 - Reduce emissions from energy use and infrastructure
 - Advance CO₂ capture and sequestration
 - Reduce emissions from non-CO₂ gases
 - Enhance measurement & monitoring
 - Bolster the contributions of basic science



www.climatechange.gov

Technology Options for the Near-, Mid-, and Long-Term

- | | |
|---|---|
| <ul style="list-style-type: none"> • Transportation • Buildings • Infrastructure (Grid) • Industry • Low-emissions fossil-based power and fuels • Hydrogen • Renewable energy and fuels • Nuclear fission | <ul style="list-style-type: none"> • Nuclear fusion • Geologic sequestration • Terrestrial sequestration • Ocean sequestration • Methane emissions • Other High GWP Gases • Tropospheric Ozone Precursors and Black Carbon • Measurement and Monitoring |
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President Bush has placed great emphasis on international cooperation, as shown by the quotes on this slide from his two major climate change policy addresses. The United States is engaged in extensive international efforts on climate change, both through bilateral and multilateral activities.

International Cooperation



- *“I am today committing the United States of America to work within the United Nations framework and elsewhere to develop with our friends and allies and nations throughout the world an effective and science-based response to the issue of global warming.”—President Bush, June 11, 2001*
- *“I will intend to work with nations, especially the poor and developing nations, to show the world that there is a better approach, that we can build our future prosperity along a cleaner and better path.”—President Bush, February 14, 2002*



The U.S. believes that to be most effective, international action must focus on broad development agenda, not climate change alone:

- Promote economic growth
- Reduce poverty/meet basic human needs
- Enhance energy security
- Reduce pollution
- Mitigate greenhouse gas emissions

Principles for Effective International Action



- **Action must focus on broad development agenda, not climate change alone:**
 - **Promote economic growth**
 - **Reduce poverty/meet basic human needs**
 - **Enhance energy security**
 - **Reduce pollution**
 - **Mitigate greenhouse gas emissions**

In particular, cooperation among developed and developing countries must combine action on greenhouse gases with larger and more urgent societal need for *increased* energy resources to fuel economic growth, reduce poverty, provide access to modern sanitation and clean water, and enhance agricultural productivity — and to do so in way that reduces pollution and improves energy security.

Today the United States is working with many nations from around the world to address climate change. Since June 2001, the United States has established bilateral climate partnerships with 14 countries and regional organizations that, together with the United States, account for almost 80% of global greenhouse gas emissions. Partnerships have been developed with Australia, Brazil, Canada, China, Central America (Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, and Panama), European Union, India, Italy, Japan, Mexico, New Zealand, Republic of Korea, Russian Federation, and South Africa, and now encompass well over 400 individual activities. Successful joint projects have been initiated in areas such as climate change research and science, climate observation systems, clean and advanced energy technologies, carbon capture, storage and sequestration and policy approaches to reducing greenhouse gas emissions.

U.S. Climate Change Bilaterals



The United States also places great emphasis on multilateral international partnerships as a way to leverage resources and improve the coordination of R&D activities. We remain fully engaged in multilateral negotiations under the UNFCCC, and have created or worked to revitalize a range of international climate initiatives within the last four years, including the following programs:

- Carbon Sequestration Program (CSLF)
- International Partnership for a Hydrogen economy (IPHE)
- Generation IV International Forum (GIF)
- Methane to Markets Partnership
- ITER
- Group on Earth Observations (GEO).

Innovative International Partnerships



- **Carbon Sequestration Leadership Forum (CSLF)**—17 members: Focused on CO₂ capture & storage technologies.



- **International Partnership for the Hydrogen Economy (IPHE)**—17 members: Organizes, coordinates, and leverages hydrogen RD&D programs.



- **Generation IV International Forum (GIF)**—11 members: Devoted to R&D of next generation of nuclear systems.



- **Methane to Markets Partnership**—14 members: Recovery and use of methane from landfills, mines, and oil & gas systems.



- **ITER**—6 members: Project to demonstrate the scientific and technological feasibility of fusion energy.



- **Group on Earth Observations**—57 members and more than 40 participating organizations: Design and operational implementation over the next 10 years of a new international, integrated, sustained, and comprehensive Earth observation system, the Global Earth Observation System of Systems (GEOSS).

In summary,

- The U.S. remains committed to the UNFCCC and to the mutual goals of sustainable development and economic growth.
- Addressing global climate change will require sustained effort involving all nations over many generations that:
 - Harnesses the power of markets and creativity of entrepreneurs;
 - Draws upon the best scientific research; and
 - Develops and deploys new transformational technologies over this century.
- The U.S. has an ambitious near-term goal to reduce the growth of its GHG emissions (18% by 2012).
- The U.S. is investing billions of dollars on climate change S&T for near-term and long-term.
- The U.S. is fully engaged internationally and leads major bilateral and multilateral climate change S&T initiatives—will continue to cooperate with all nations.
- Cooperation among developed and developing countries must combine action on GHGs with larger and more urgent societal needs for increased energy resources to fuel economic growth, reduce poverty, provide access to modern sanitation and clean water, and enhance agricultural productivity—and to do so in way that reduces pollution and improves energy security.

U.S. Climate Change Policy Summary



- U.S. takes the issue of climate change very seriously and remains committed to the UNFCCC and to the mutual goals of sustainable development and economic growth.
- Addressing global climate change will require sustained effort involving all nations over many generations that: harnesses the power of markets and creativity of entrepreneurs; draws upon the best scientific research; and develops and deploys new transformational technologies over this century.
- U.S. has an ambitious near-term goal to reduce the growth of its GHG emissions (18% by 2012), and is taking many actions to help meet that goal.
- U.S. is investing billions of dollars to address climate change—both in the near-term and long-term.
- U.S. is fully engaged internationally, is leading major bilateral and multilateral climate change science and technology initiatives, and will continue to cooperate with all nations.
- Cooperation among developed and developing countries must combine action on greenhouse gases with larger and more urgent societal needs for increased energy resources to fuel economic growth, reduce poverty, provide access to modern sanitation and clean water, and enhance agricultural productivity — and to do so in way that reduces pollution and improves energy security.