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| 01. Cable | Re: 011435Z JUN 90 (3 pp.) | 6/1/90 | (b)(1) | C |
| 02a. Memo | To Richard Porter<br>Re: Memo (1 pp.) | 1/24/91 | (b)(1) | S |
| 02b. Form | Courier Receipt ang Log Record (1 pp.) | n.d. | (b)(3) | |



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**Office:** Domestic Policy Council
**Series:** Schulteiss, Dean, Files
**Subseries:** Subject Files
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**File Location:** Climate Change [2]

**Pinksheet Number:** ES804
**OA/ID Number:** CF00553-003
**Date Closed:** 2/21/2018
**FOIA/Sys Case #:** 2017-0310-F
**Re-review Case #:**
**P-2/P-5 Review Case #:**

Document No. _____ CA

# OFFICE OF CABINET AFFAIRS STAFFING MEMORANDUM

**Date:** 6-8-90 **Due by:** FYI

**Subject:** Cable re: British View on Climate Change

**From:** Holly Williamson

| | ACTION | CONCUR | FYI | | ACTION | CONCUR | FYI |
|---|---|---|---|---|---|---|---|
| ~~BATES~~ HOLIDAY | ☐ | ☐ | ☑ | JACKSON | ☐ | ☐ | ☐ |
| DANZANSKY | ☐ | ☐ | ☑ | MCBEE | ☐ | ☐ | ☑ |
| ADAIR | ☐ | ☐ | ☐ | SCHALL | ☐ | ☐ | ☐ |
| BUCHHOLZ | ☐ | ☐ | ☐ | WETHINGTON | ☐ | ☐ | ☐ |
| D'ANDREA | ☐ | ☐ | ☐ | WILLIAMSON | ☐ | ☐ | ☐ |
| DEWITT | ☐ | ☐ | ☐ | YALE | ☐ | ☐ | ☑ |
| DUGGAN | ☐ | ☐ | ☑ | _____ | ☐ | ☐ | ☐ |
| EVANS | ☐ | ☐ | ☐ | _____ | ☐ | ☐ | ☐ |
| FARRAR | ☐ | ☐ | ☐ | _____ | ☐ | ☐ | ☐ |
| HEIMBACH | ☐ | ☐ | ☐ | _____ | ☐ | ☐ | ☐ |

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# WHITE HOUSE STAFFING MEMORANDUM

DATE: 6/7/90 ACTION/CONCURRENCE/COMMENT DUE BY: --------

SUBJECT: "CABLE RE BRITISH VIEW ON CLIMATE CHANGE"

| | ACTION | FYI | | ACTION | FYI |
|---|---|---|---|---|---|
| VICE PRESIDENT | ☐ | ☑ | MCCLURE | ☐ | ☐ |
| SUNUNU | ☐ | ☑ | NEWMAN | ☐ | ☐ |
| SCOWCROFT | ☐ | ☐ | PORTER | ☐ | ☑ |
| DARMAN | ☐ | ☑ | ROGICH | ☐ | ☐ |
| CARD | ☐ | ☐ | UNTERMEYER | ☐ | ☐ |
| CICCONI | ☐ | ☐ | BOSKIN | ☐ | ☑ |
| DEMAREST | ☐ | ☐ | BROMLEY | ☐ | ☑ |
| FITZWATER | ☐ | ☐ | DELAND | ☐ | ☑ |
| GRAY | ☐ | ☐ | _____ | ☐ | ☐ |
| HAGIN | ☐ | ☐ | _____ | ☐ | ☐ |
| HOLIDAY | ☐ | ☑ | _____ | ☐ | ☐ |

REMARKS:

RESPONSE:

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James W. Ci
Assistant to th
and Deputy to th
Ext. 7

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**Collection:**

**Record Group:** Bush Presidential Records
**Office:** Domestic Policy Council
**Series:** Schulteiss, Dean, Files
**Subseries:** Subject Files
**WHORM Cat.:**
**File Location:** Climate Change [2]

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|---|---|---|---|
| **Date Closed:** | 2/21/2018 | **OA/ID Number:** | CF00553-003 |
| **FOIA/SYS Case #:** | 2017-0310-F | **Appeal Case #:** | |
| **Re-review Case #:** | | **Appeal Disposition:** | |
| **P-2/P-5 Review Case #:** | | **Disposition Date:** | |
| **AR Case #:** | | **MR Case #:** | |
| **AR Disposition:** | | **MR Disposition:** | |
| **AR Disposition Date:** | | **MR Disposition Date:** | |

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File –
Climate
Change

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# DRAFT TALKING POINTS
# ON GLOBAL CLIMATE

## I. FRAMEWORK CONVENTION ON CLIMATE CHANGE
## THE FIRST NEGOTIATING SESSION
[Source: Reinstein testimony 3-5-91]

o The United States hosted the first session of the negotiations for a framework convention on February 4-11, with one hundred and one countries from every region of the world and representatives from over 20 international organizations participating. 68 NGOs also participated.

o This session was the first of four or five sessions of the negotiations established under the auspices of the United Nations General Assembly by Resolution 45/212.

o We agreed to organize two working groups, one which will consider all sources and sinks of all greenhouse gases, and one which will consider mechanisms of implementation of the convention.

o We adopted on Rules of Procedure which emphasize decision making by consensus and which will allow for NGO participation.

o We also discussed ways to increase the participation of developing countries. The U.S. was the first country to contribute to a voluntary trust fund established to support the participation of developing countries.

o The U.S. helped to produce an informal paper outlining the scientific, technical and economic research needs which the convention should address.

o We also reached agreement on the important role the IPCC will play in responding to the technical needs of the negotiations.

## II. FRAMEWORK CONVENTION ON CLIMATE CHANGE
## FUTURE SESSIONS
[Source: Reinstein testimony, 3-5-91]

o The next session is tentatively scheduled for the first two weeks of June in Nairobi.

o The following sessions will meet in September, December, and in 1992, as necessary.

o The goal, as articulated in 45/212 is to complete the negotiations so that the framework convention will be opened for signature during the UN Conference on Environment and Development in June 1992 in Brazil.

## III. FRAMEWORK CONVENTION ON CLIMATE CHANGE NEGOTIATION PRINCIPLES

[Source: Reinstein testimony, 3-5-91]

o First, we believe we must take a comprehensive approach to climate change, one which considers all greenhouse gases and their sources and sinks.

o Second, we must not wait for all uncertainties to be resolved, but must pursue economically efficient and cost effect actions - already justified on other grounds - which will limit net greenhouse gas emissions.

o Third, we must continue to pursue aggressively scientific and economic research; systematic observation; collection, archiving and distribution of information; and technology development in order to resolve uncertainties and build a solid foundation for innovative responses.

o Fourth, we must recognize the special needs of the developing countries and design mechanisms for assisting them in securing the scientific and technical tools necessary for their fullest participation in a truly global effort.

o Fifth, any response must be global. An effective response will require that all nations participate and meet obligations that are appropriate to their circumstances.

## IV. ELEMENTS OF A FRAMEWORK CONVENTION

[Source: Reinstein testimony, 3-5-91]

o A framework convention could commit all nations to develop national strategies, similar to our Climate Change Strategy and National Energy Strategy, recognizing that the appropriate measures available to different countries will vary depending on their social, environmental, and economic circumstances.

o A framework convention should include a general commitment to promote financial assistance to developing countries to study and address climate change. Existing bilateral and multilateral financial-assistance mechanisms and, in particular, the newly established Global Environmental Facility in the world Bank are the appropriate mechanisms for providing such assistance.

o A framework convention could include technology transfer, which is essential to any effective global response. Implementation of technology transfer will need to be considered, in the context of specific commitments to action. Special efforts will need to be made to match appropriate technologies to needs.

o A framework convention should seek to remove barriers to effective commercial development and transfer of technology and should ensure that intellectual property rights are fully protected so as to provide the incentives necessary for continual development of new technology.

## V. COMPREHENSIVE APPROACH

o Why is a CO2 target alone inappropriate?
[Source: Reinstein Qs & As, House 3-5-91, Senate 2-21-91]

(1) We believe a comprehensive approach, addressing the sources and sinks of all greenhouse actions. concentrating on just one greenhouse gas ignores the possibility of other, more cost-effective responses aimed at other greenhouse gases. The focus of environmental concern should be the net effect on radiative forcing, not emissions of any one gas. In fact, CO2 is the weakest greenhouse gas per kilogram.

(2) Focussing narrowly on CO2 could unintentionally increase emissions of other greenhouse gases. For example, an early response to a CO2 target would be fuel-switching from coal to natural gas. This would reduce CO2 emissions but increase methane emissions from distribution leaks of natural gas. Methane is a much more potent greenhouse gas than CO2 and even small methane leaks can offset large CO2 reductions. This problem could be important in many nations.

(3) Any response to climate change must be global if it is to be effective. Most proposal regarding a CO2 target would impose that target on industrialized countries immediately but delay its application to developing countries. Yet emissions are growing much faster in the developing world. Imposing restrictions only on industrialized nations is likely to be undercut by the relocation of emissions intensive activities to other countries.

(4) Imposition of restrictions on a few nations could cause significant distortions in the international competitiveness of those nations.

(5) The economic consequences of such targets are extremely uncertain. Projections of emissions are heavily dependent on expected growth rates. Should economic growth prove to be faster than expect, emissions will probably also grow faster than expected and meeting a target could prove to be prohibitively expensive, with potentially serious consequences for the world economy, including the development aspirations of developing countries.

(6) Climate change will occur over the long term. Any response must be sustainable over the long term and encourage all nations to develop plans of action that will carry us beyond the turn of the century. Most targets and timetable, however, focus only on the next ten to fifteen years.

(7) The environmental benefits of such targets are unknown because of scientific uncertainties about the strength, rate, and timing of climate change from a given change in GHG emissions. Given such uncertainties, we believe a flexible approach which focuses initially actions justified for other reasons is prudent.

(8) Rigidly imposing identical obligations does not adequately recognize the diversity of national circumstances. We must instead seek ways to build on the unique strengths of individual nations in devising the international response to climate change.

o Why the comprehensive approach?

Policy formulations need to match the underlying ecological systems they address. The optimal design for the climate change convention, and for any policy responses, would be a "comprehensive" approach that addresses all relevant trace gases, their sources and sinks. This approach has been discussed by United States officials in several papers. [Source: A Comprehensive Approach to Addressing Potential Climate

Change, A Report of the Interagency Task Force on Comprehensive and Incentives Approaches to Climate Change, January 1991, p. 12]

o In keeping with its commitment to a comprehensive approach, the United States has undertaken a set of policy measures that together constitute a comprehensive approach, addressing several radiatively active trace gases (RATGs), sources and sinks, and will keep U.S. contributions to radiative forcing at 1987 levels through the year 2000. [Source: A Comprehensive Approach to Addressing Potential Climate Change, A Report of the Interagency Task Force on Comprehensive and Incentives Approaches to Climate Change, January 1991, p. 12-13]

o The international reality: integration of physical and social science is making clear that a comprehensive approach to the complex global system is essential, addressing all the relevant trace gases, their sources and sinks. [Source: A Comprehensive Approach to Addressing Potential Climate Change, A Report of the Interagency Task Force on Comprehensive and Incentives Approaches to Climate Change, January 1991, p. 12]

o In August the Intergovernmental Panel on Climate Change (IPCC) stated in its Overview: "A comprehensive strategy addressing all aspects of the problem and reflecting environmental, economic and social costs and benefits is necessary." [Source: IPCC Overview, August 1990, p. 14 and A Comprehensive Approach to Addressing Potential Climate Change, A Report of the Interagency Task Force on Comprehensive and Incentives Approaches to Climate Change, January 1991, p. 12]

o In November, the government ministers at the Second World Climate Conference (SWCC) declared: "We recommend that in the elaboration of response strategies, over time, all greenhouse gases, sources and sinks be considered int he most comprehensive manner possible." [Source: Ministerial Declaration of the SWCC, paragraph 14, and A Comprehensive Approach to Addressing Potential Climate Change, A Report of the Interagency Task Force on Comprehensive and Incentives Approaches to Climate Change, January 1991, p. 12]

o What is the comprehensive approach?

[Source: A Comprehensive Approach to Addressing Potential Climate Change, A Report of the Interagency Task Force on Comprehensive and Incentives Approaches to Climate Change, January 1991, p. 2]

o It is an approach to structure consideration of climate change issues --- scientific, economic, and policy -- on a comprehensive basis, addressing all the human interactions with the climate system.

o It stands in contrast to the "piecemeal" approach currently dominating discussion, which focuses narrowly on emissions of one gas, carbon dioxide (CO2), primarily from the energy sector, and omits other critical factors.

o It considers all of the significant human-influenced "radiatively active trace gases" (RATGs) that affect climate:

Carbon dioxide (CO2)
Methane (CH4)
Nitrous Oxide (N2O)
Chlorofluorocarbons (CFCs), Hydrochlorofluorocarbons (HCFCs), and related substances
Tropospheric Ozone (O3) and its precursors:
Nitrogen oxides (NOx)
Carbon monoxide (CO)
Volatile organic compounds (VOCs or NMHCs)

o It focuses on "net emissions" (sources less sinks), the important variable for determining atmospheric concentrations.

## VI. ACTIONS THAT ARE JUSTIFIED IN THEIR OWN RIGHT
[Source: Reinstein testimony, 3-5-91]

o Phasing out chlorofluorocarbons (CFCs) and other ozone depleting compounds that are also greenhouse gases faster than required by the Montreal Protocol.

o Encouraging energy efficiency and reducing greenhouse gas emissions by capping sulfur dioxide emissions at substantially reduced levels while allowing utilities the flexibility to meet this cap in the most economically efficient manner possible.

o Reducing air pollutants which are greenhouse gases or greenhouse gas precursors, such as volatile organic compounds and methane.

o Initiating a program to plant a billion trees a year.

o Speeding the adoption of energy efficient technologies and practices in homes and businesses.

o Promoting the use of, and research into, non-fossil fuel energy sources.

## VII. ROLE OF THE NATIONAL ENERGY STRATEGY IN THE GLOBAL CLIMATE

o The National Energy Strategy (NES) includes a number of actions that, although taken principally for other energy related reasons, will have significant environmental benefits, including curbing the buildup of future U.S. emissions of greenhouse gases. [Source: Reinstein testimony, 3-5-91]

o Greenhouse gas emission reductions would be produced by the National Energy Strategy. These reductions are achieved by: (1) greater use of renewable energy and nuclear power and improved energy efficiency in both the electricity and the transportation sectors; and (2) other actions already taken by the United States (for example, the Clean Air Act Amendments of 1990). With all of these initiatives, the United States' contribution to potential global warming would, in the National Energy Strategy scenario, remain at or below present levels for the foreseeable future. While the accuracy of any future projections diminishes as the time horizon under consideration lengthens, the National Energy Strategy will significantly reduce greenhouse gas emissions relative to any current policy baseline. [Source: Executive Summary, National Energy Strategy, p. 19]

o If no actions were taken, emissions in the U.S. from one important greenhouse gas, CO2, are projected to grow by 80% by the year 2030, according to one part of the NES scenario. Likewise, emissions of other greenhouse gases, such as methane, nitrous oxides and carbon monoxide, are projected to grow as well. [Source: Department of Energy Qs & As to Waxman 2-26-91 and Reinstein testimony, 3-5-91]

o Without the NES, greenhouse gas emissions, as measured in terms of global warming potential, are likely to increase by over 2.82 billion tons of CO2 equivalents. This would be a 38.4 percent increase over the 1990 levels by 2030. [Source: Department of Energy Qs & As to Waxman, Reinstein testimony, 3-5-91]

o Carbon monoxide and Carbon dioxide. After 2015, increased use of alternative fuels, energy efficiency, renewable and nuclear energy will result in these emissions leveling off and remaining stable through 2030. [Source: Department of Energy Qs & As to Waxman, Reinstein testimony, 3-5-91]

o Methane. NES actions as well as EPA's regulations controlling methane from landfills, will reduce methane emissions below current levels through 2015. Further after 2015 annual methane emission from energy sources will continue to decline. [Source: Department of Energy Qs & As to Waxman, Reinstein testimony, 3-5-91]

o Nitrogen oxide and volatile organic compounds, precursors to tropospheric ozone that could lead to potential warming are held to levels that are about the same or below the 1990 levels and decline from 2015 to 2030. [Source: Department of Energy Qs & As to Waxman, Reinstein testimony, 3-5-91]

## VIII. COMMITMENTS AND POLICES THAT OTHER NATIONS HAVE ADOPTED OR ARE PLANNING TO ADOPT TO REDUCE EMISSIONS OF GHGS

o Many other industrialized nations have announced their intention to stabilize CO2 emissions by the turn of the century. A few of these, like Austria, Australia, Denmark, Germany and new Zealand, have stated further that they hope to reduce CO2 emissions by the Year 205. The baseline year used varies somewhat between countries. Baseline year used varies somewhat between countries. some of these nations, such as France and Japan, have adopted per capita targets that allow for continued growth in their overall emission. All major CFC producers have also committed under the Montreal Protocol to phase-out their production of ozone depleting substances, which also contribute to climate change. [Source: Reinstein Qs & As 2-21-91 House of Representatives, 3-5-91 Senate]

o Canada proposes actions on several RATGs in several sectors, and terms the strategy a "comprehensive response" [Source: Canada's Green Plan (1990), p.97-108]. Other nations have announced proposals that address not only CO2 but also other RATGs. "Climate Change Policy in the Netherlands and Supporting Measures," Netherlands Ministry of Housing, Physical Planning and the Environment, D.G. for Environment, November 1990 (addressing CO2 sources and sinks, CFCs , and CH4); Cabinet Study Commission, Bonn, German, November 7, 1990 (addressing CO2 and CH4); "Action Program to Arrest Global Warming," Decision made by the Council of Ministers for Global Environmental Conservation, Government of Japan, October 23, 1990 (addressing CO2 sources and sinks, CH4, N2O). [Source: "A Comprehensive Approach to Addressing Potential Climate Change," A Report of the Interagency Task Force on Comprehensive and Incentive Approaches to Climate Change, footnote 6, p. 13.]

o None of these countries has set quantified emission targets for any of the other greenhouse gases, such as methane, or for total global warming potential, except Australia, Iceland, and Canada. Meeting their CO2 targets could still allow an increase in emissions of methane e and other greenhouse gases more potent than CO2. Moreover, no developing or Eastern European nation, other than Poland, has set any emission targets. This is particularly significant in that these countries will probably account for over half of the greenhouse gas emissions by early in the next century. [Source: Reinstein Qs & As 2-21-91 House of Representatives, 3-5-91 Senate]

o A review by EPA found that over twenty government have issued statements of intent to stabilize or reduce CO2 emissions by various target dates, most often the year 2000. Six countries intend to reduce CO2 emissions by 20 percent or more by 2005 or later years. The most aggressive targets have been set by Germany, which plans to achieve a 25 percent reduction by 2005 and an 80 percent by 2050 for both CO2 and methane. A few countries have made their intentions contingent on international agreement or on economic conditions. [Source: EPA Qs & As 2-19-91]

## IX. INVENTORY OF CO2 AND OTHER GREENHOUSE GASES, BOTH WORLDWIDE AND FOR THE US

o The Intergovernmental Negotiating Committee recognized a global emissions inventory as high priority need for the IPCC to pursue during the next year. The IPCC Bureau met on February 15, 1990 to discuss the issue and requested that the U.K. develop a plan for review by the full IPCC in March. EPA has provide over $150 thousand to support the development of a manual and workshop through the OECD. The Department of Energy h as also provided support. We expect that the report of February 18-21 workshop will enable the IPCC to move forward quickly during the coming months.
[Source: EPA Qs & As 2-19-91]

o The most important anthropogenic greenhouse gases worldwide, weighted according to their climate forcing potential are CO2 (approximately 55%), followed by methane (15%), chlorofluorocarbons (CFCs) (24%), and nitrous oxide (6%). Warming is also caused by the direct and indirect effects of other greenhouse gases such as carbon monoxide, and the interactive effects of other trace gases such as tropospheric ozone (produced by the chemical interactions of emissions of nitrogen oxides and volatile organic compounds) although the worldwide inventory is not yet accurate enough to compare their forcing potential to the gases above. [Source: IPCC, Climate Change: The IPCC Scientific Assessment, p.xx]

## X. US GLOBAL CLIMATE RESEARCH PROGRAM (USGCRP) FY 1992

o The highest priority scientific and policy-related issue for the USGCRP in FY 1992 is whether, and to what extent, human activities are changing or will change the global climate system.
[Source: Our Changing Planet: The FY 1992 U.S. Global Change Research Program, A Supplement to the US President's Fiscal Year 1992 Budget, p.9]

o The President's FY 1992 Budget requests $1186 million for the USGCRP. This represents an increase of $232 million, or 24.2 percent, over the FY 1991 level. [Source: Our Changing Planet: The FY 1992 U.S. Global Change Research Program, A Supplement to the US President's Fiscal Year 1992 Budget, p.3]

o The Committee on Earth and Environmental Sciences (CEES) relied on the results of the Scientific and Impacts Assessments of the Intergovernmental Panel on Climate Change (IPCC) in developing the FY 1992 Program. [Source: Our Changing Planet: The FY 1992 U.S. Global Change Research Program, A Supplement to the US President's Fiscal Year 1992 Budget, p.9]

o The USGCRP identified four high priority Integrating Themes for FY 1992:
(1) Climate Modeling and Prediction
(2) Global Water and Energy Cycles
(3) Global Carbon Cycle
(4) Ecological Systems and Population Dynamics
[Source: Our Changing Planet: The FY 1992 U.S. Global Change Research Program, A Supplement to the US President's Fiscal Year 1992 Budget, p.2]

o Using the integrating themes, the collective efforts of government and academic scientists focus on:
(1) Developing an improved predictive capability of the Earth as a coupled system with enhanced regional resolution.
(2) Improve the understanding of the water and energy cycles by focusing on the role of clouds, oceans, terrestrial ecosystems, and changes in sea level.
(3) Improve the understanding of the carbon cycle by quantifying sources and sinks, the processes that control them, and how the processes may influence and be influenced by global change.
(4) Improve the capacity to assess the effects of global change at regional scales on intensively managed and natural terrestrial and oceanic ecosystems.
[Source: Our Changing Planet: The FY 1992 U.S. Global Change Research Program, A Supplement to the US President's Fiscal Year 1992 Budget, p.2]

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SUBMISSION OF THE UNITED STATES

The United States welcomes this opportunity to provide its views on the elements to be included in a framework convention on climate change. We believe that the Legal Measures paper of Working Group III of the Intergovernmental Panel on Climate Change (IPCC) provides a good starting point for discussions within the Intergovernmental Negotiating Committee (INC). The work of the INC has also been facilitated by United Kingdom's submission of a draft framework convention that reflects the consensus elements of the IPCC Legal Measures paper in the form of a legal text. We offer the following views on elements that should be included in a framework convention on climate change:

Preamble

The IPCC Legal Measures paper and the UK draft convention contain many appropriate preambular clauses. In particular, the preamble should:

(a) acknowledge that climate change is a common concern of the international community;

(b) recall the relevant resolutions of the United Nations General Assembly, particularly resolution 45/212;

(c) recall relevant declarations, such as the Ministerial Declaration of the Second World Climate Conference, the Bergen and Noordwijk Ministerial Declarations, the Declaration of the 1990 Houston Economic Summit and principle 21 of the Declaration of the United Nations Conference on the Human Environment (Stockholm 1972);

(d) recognize the interdependence of environmental protection and economic growth, and the need to pursue strategies of global stewardship that advance both these goals;

(e) recognize, welcome and encourage measures that are being taken or have already been taken at the national, regional and international levels that help address issues of climate change, including relevant national actions and actions taken pursuant to the Vienna Convention for the Protection of the Ozone Layer, the Montreal Protocol on Substances that Deplete the Ozone Layer and other international agreements;



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PER DOS WAIVER, November 6, 2015
By MM NARA, Date 2/22/2018

(f) recognize that different nations have different social, economic and other circumstances, including different sets of net emissions, and will accordingly need flexibility in the choice of any response options;

(g) acknowledge the important scientific work that has already taken place, particularly that of the IPCC and other international bodies (e.g., the World Meteorological Organization (WMO), the United Nations Environment Program (UNEP), the International Council of Scientific Unions (ICSU), the International Geosphere-Biosphere Program (IGBP) and the Intergovernmental Oceanographic Commission (IOC));

(h) endorse further scientific research and systematic observation and further study of possible social and economic impacts of climate change, and of measures that might be used to address them;

(i) recognize that strategies to understand and address climate change will be most environmentally effective and most economical if they address all sources, sinks and reservoirs of greenhouse gases and their precursors comprehensively, are based on, and continually reevaluated in light of, relevant scientific, technical, and economic considerations, and are as equitable and economically efficient as possible.

(j) recognize that each greenhouse gas has a different impact on climate change, as well as other important impacts on the environment, all of which need to be taken into account in selecting sound response strategies;

(k) stress the need for all nations to participate in any international responses to climate change, in accordance with the means at their disposal and their capabilities;

(l) reaffirm that where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing measures, commensurate with the extent and likelihood of the adverse impacts and reflecting the costs and benefits of such measures, to understand, limit, reduce, facilitate adaptation to, and, as appropriate, prevent the adverse impacts of climate change;

Definitions

Following are definitions of terms used in this submission, which could be included in the convention:

"Climate" means the average weather (including its appropriate components, such as temperature, precipitation and wind) over a period of years, together with the natural variations of those components.

"Climate change" means the variation in the climate beyond what is attributable to natural variability.

"Impacts" means effects on human health, economic activity, social systems, water resources, agriculture, sea levels, and natural and managed ecosystems.

"Greenhouse gases" means gases which alter the radiative transmissive properties of the atmosphere, principally through impeding the emission of long-wave terrestrial radiation.

"Greenhouse gas precursors" means substances that interact in the atmosphere to produce greenhouse gases indirectly or that prolong the atmospheric lifetimes of greenhouse gases.

"Greenhouse gases and their precursors" means greenhouse gases and greenhouse gas precursors.

"Sinks" means all anthropogenic and biogenic activities and processes that remove greenhouse gases and their precursors from the atmosphere.

"Sources" means all anthropogenic and biogenic activities and processes that lead to greenhouse gases and their precursors being emitted into the atmosphere.

"Reservoirs" means storage media for greenhouse gases and their precursors.

"Net emissions" means emissions from sources minus removals by sinks.

"Greenhouse warming potential index ('GWP')" is an index that defines the time-integrated warming effect due to the release of a unit mass (1 kg) of a given greenhouse gas relative to that of carbon dioxide.

"Cooperative arrangement" means any arrangement whereby any group of two or more countries cooperates together to achieve the objectives of the convention or any subsidiary instrument.

General Obligations

The framework convention should provide mechanisms for developing the scientific, technical, economic and

environmental bases for formulating and implementing, as appropriate, measures to address the potential modification of climate caused by greenhouse gases and the possible adverse impacts therefrom. It should require the Parties to develop and pursue, in accordance with the provisions of the convention and to the extent deemed desirable in light of the scientific, technical, economic, and environmental bases outlined above, appropriate measures that prevent, limit, reduce, or facilitate adaptation to climate change. The Parties, in developing and taking such measures, should address the net emissions of all greenhouse gases and their precursors comprehensively, taking into account the best available greenhouse warming potential index ("GWP") and other environmental impacts of the gases. The framework convention should enable the Parties to fashion economically efficient and effective implementation, including through the use of cooperative arrangements. It should also recognize and encourage actions taken by nations that help address climate change, including national actions and actions under other international agreements.

To these ends, the Parties should:

(a) cooperate in systematic observations, research and information exchange to better monitor, understand, and predict changes in the global climate, their impacts, potential responses thereto and the costs and benefits of such responses;

(b) adopt measures which are justified ~~in their own right that~~ for a variety of reasons and which also ~~could~~ have ~~the~~ effect of limiting or adapting to the adverse impacts of climate change;

(c) develop and make public national inventories of net emissions, using an agreed methodology that is developed in light of the work of the IPCC;

(d) establish national strategies to address and facilitate adaptation to climate change and make public an accounting of the elements of the strategy and the effect of such strategy on net emissions;

(e) base any additional responses on thorough assessments, by the IPCC and other competent international bodies, of climate change and potential responses to that change;

(f) cooperate in promoting public awareness of climate change;

(g) encourage the development and transfer of relevant technologies, as well as the provision of technical and financial assistance, to facilitate the fulfillment by the developing countries of their obligations;

(h) cooperate with competent international bodies.

The article on general obligations should include a provision in which the Parties agree that, in developing and implementing measures pursuant to the convention or any subsidiary instrument, they should take into account other types of environmental impacts that such measures could have. In addition, the convention should provide the opportunity for Parties to meet their obligations under the convention and any subsidiary instrument through bilateral, multilateral or regional cooperative arrangements. The Convention and subsidiary instruments should also recognize and count the effect on net greenhouse gas emissions of relevant actions taken under national policy and other international agreements.

Institutions

The articles of the UK draft convention establishing a conference of the parties and a secretariat (UK draft articles 6 and 7) are generally acceptable. However, whereas the UK draft provides that the interim secretariat would be provided by UNEP, we believe that both UNEP and WMO should provide interim secretariat assistance.

Research, Systematic Observation, and Information Exchange

A strong program of research, systematic observation and information exchange must be a cornerstone of the framework convention. An aggressive effort to obtain better information is an environmentally essential strategy that will help the international community to tailor response strategies that are appropriate, effective and sustainable over the long term.

The research and systematic observation article (Article 3) and information exchange article (Article 4(1)) of the UK draft convention provide a good starting point for convention text on research, systematic observation and information exchange. The Parties' obligations should extend to scientific, economic and social research, and the Parties should consider both the social and economic costs and benefits of changes to the global climate and of potential responses to those changes. The information exchange provisions of the framework convention should include information on net emissions inventories, emissions and removal rates for various sources and sinks, means of measuring emissions and sink removal, and national strategies, including actions taken, costs, and effectiveness.

During the first meeting of the INC, scientists from several delegations held informal meetings, under the

chairmanship of Dr. A. Baede of the Netherlands delegation, to develop an inventory of priorities for research, systematic observations, assessments and information exchange. This informal work could provide a useful starting point for the preparation of annex to the framework convention concerning research and systematic observation and information exchange.

Assessment and Consideration of Response Measures

Specific commitments for emissions reductions should not be included in the framework convention, because of the need for flexibility in nations' choices of their own measures. Further, there is a real need for further analysis of the costs and benefits of international responses, at the same time that prudent steps may be taken by nations even in the face of great uncertainty. Accordingly, the framework convention should include an article on assessment and response measures that is modelled on Article 6 of the Montreal Protocol on Substances that Deplete the Ozone Layer and that requires the Parties to periodically assess the available scientific, technical, and economic information with respect to:

(a) the effects of emissions of greenhouse gases and their precursors on the climate;

(b) the possible impacts of such effects; and

(c) possible response measures that could be taken at the national, regional, and/or international levels.

As part of this work, the Parties should be required, as necessary, to update and to make public, using a standardized methodology developed in light of the work of the IPCC and other competent international bodies, national inventories of all sources and sinks of greenhouse gases and their precursors.

In light of this work, the Parties would be obligated:

(a) to update national, regional, and international strategies and policies to limit, reduce, facilitate adaption to, and as far as appropriate, to prevent the adverse impacts of climate change, in accordance with the provisions of the convention and any subsidiary instrument;

(b) to update programs for research, systematic observation, information exchange, and the development and transfer of technology and knowledge;

(c) to consider and undertake any additional action that may be appropriate in light of the purposes of the convention.

In the assessment and consideration of response measures, and in particular, in the development of national, regional and international response strategies, the Parties should take into account the best available GWP. In addition, the Parties should consider, in consultation with the IPCC and other relevant international bodies, whether the GWP should be revised at some future date.

Development and Transfer of Technology

Article 4(2) of the UK draft convention addresses the development and transfer of technology and is generally acceptable. It provides that the Parties, consistent with their national laws, regulations and practices, shall cooperate in promoting, directly or through competent international bodies, the development and transfer of technology and knowledge relevant to scientific and technical research. The UK draft provides for such cooperation through the supply of necessary equipment and facilities for research and monitoring and through appropriate training of scientific and technical personnel.

Settlement of Disputes and Compliance

We note the suggestion in the IPCC Legal Measures paper that dispute settlement provisions similar to those in the Vienna Convention for the Protection of the Ozone Layer might be employed in the framework climate convention. This suggestion is reflected in Article 11 of the UK draft convention and in Annex III thereto. We believe that it is important that all parties comply fully with the obligations that they undertake in the framework convention and any subsidiary instrument thereto. Dispute settlement provisions are one means of achieving such objective, as are other mechanisms, such as the compliance procedures developed by the parties to the Montreal Protocol. To be most effective, however, such procedures and mechanisms should be tailored to specific obligations contained in a given agreement. Accordingly, these questions should be considered after the INC has reached agreement on the substantive obligations to be included in the framework convention.

Final Clauses

The final clauses contained in the UK draft convention (Articles 8-10 and 12-21) are generally acceptable. However,

we believe that the procedures for entry into force of protocols, amendment of protocols, and withdrawal from protocols, as well as the provisions relating to the proposal, adoption, and entry into force of annexes to protocols, should be left to any such protocol. This would permit the Parties to tailor those provisions to any particular protocol.

THE WHITE HOUSE

WASHINGTON

March 4, 1991

MEMORANDUM FOR THE GLOBAL CHANGE STRATEGY TASK FORCE

FROM: D. ALLAN BROMLEY

SUBJECT: Review of the U.S. Submission of Elements to be Included in a Framework Convention on Climate Change

Attached for your review and comment is a draft of the U.S. paper describing the elements that the U.S. would like to have included in a Framework Convention on Climate Change. As you will recall, this was derived from the IPCC Legal Measures Paper of Working Group III, which was reviewed several times this past year through the DPC Global Change Working Group.

Please forward your comments or clearance to Nancy Maynard of my office by c.o.b., Thursday, March 7. 1991 (phone, 456-6202; fax, 395-3719).

UNCLASSIFIED when ~~confidential~~ attachment is removed

~~Confidential~~ Attachment

UNCLASSIFIED UPON
REMOVAL OF CLASSIFIED
ATTACHMENTS
MB 7/31/17

~~CONFIDENTIAL~~
DRAFT 2/28/91

SUBMISSION OF THE UNITED STATES

The United States welcomes this opportunity to provide its views on the elements to be included in a framework convention on climate change. We believe that the Legal Measures paper of Working Group III of the Intergovernmental Panel on Climate Change (IPCC) provides a good starting point for discussions within the Intergovernmental Negotiating Committee (INC). The work of the INC has also been facilitated by United Kingdom's submission of a draft framework convention that reflects the consensus elements of the IPCC Legal Measures paper in the form of a legal text. We offer the following views on elements that should be included in a framework convention on climate change:

Preamble

The IPCC Legal Measures paper and the UK draft convention contain many appropriate preambular clauses. In particular, the preamble should:

(a) acknowledge that climate change is a common concern of the international community;

(b) recall the relevant resolutions of the United Nations General Assembly, particularly resolution 45/212;

(c) recall relevant declarations, such as the Ministerial Declaration of the Second World Climate Conference, the Bergen and Noordwijk Ministerial Declarations, the Declaration of the 1990 Houston Economic Summit and Principle 21 of the Declaration of the United Nations Conference on the Human Environment (Stockholm 1972);

(d) note the measures that have already been taken at the national, regional and international levels, in particular those taken pursuant to the Vienna Convention for the Protection of the Ozone Layer and the Montreal Protocol on Substances that Deplete the Ozone Layer;



DECLASSIFIED
PER DOS WAIVER, November 6, 2015
By MM NARA, Date 2/22/2018

(e) acknowledge the important scientific work that has already taken place, particularly that of the IPCC and other international bodies (e.g., the World Meteorological Organization (WMO), the United Nations Environment Program (UNEP), and the Intergovernmental Oceanographic Commission (IOC);

(f) endorse further scientific research and systematic observation and further study of possible social and economic impacts of climate change, and of measures that might be used to address them;

(g) recognize that strategies to address climate change will be most effective if they address all sources, sinks and reservoirs of greenhouse gases and their precursors comprehensively, are based on relevant scientific, technical, and economic considerations, and are as equitable and economically efficient as possible.

(h) stress the need for all nations to participate in any international responses to climate change, in accordance with the means at their disposal and their capabilities;

(i) reaffirm that where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing measures, commensurate with the extent and likelihood of the threatened damage, to mitigate and, as far as practicable, to prevent the adverse impacts of climate change;

(j) recognize the special circumstances of developing countries;

Definitions

Following are definitions of terms used in this submission, which could be included in the convention:

"Climate" means the average weather (including its appropriate components of temperature, precipitation and wind) over a period of years, together with the natural variations of those components.

"Climate change" means the variation in the climate beyond what is attributed to natural variability.

"Impacts" means effects on human health, natural and managed ecosystems, water resources, agriculture, social systems, economics and sea levels.

"Greenhouse gases" means gases which alter the radiative transmissive properties of the atmosphere, principally through impeding the emission of long-wave terrestrial radiation.

"Greenhouse gas precursors" means substances that interact in the atmosphere to produce greenhouse gases indirectly or that prolong the atmospheric lifetimes of greenhouse gases.

"Greenhouse gases and their precursors" means greenhouse gases and greenhouse gas precursors.

"Sinks" means all anthropogenic and biogenic activities and processes that remove greenhouse gases and their precursors from the atmosphere.

"Sources" means all anthropogenic and biogenic activities and processes that lead to greenhouse gases and their precursors being emitted into the atmosphere.

"Reservoirs" means storage media for greenhouse gases and their precursors.

"Net emissions" means emissions from sources minus removals by sinks.

"Greenhouse warming potential index ('GWP')" is an index that defines the time-integrated warming effect due to the release of a unit mass (1 kg) of a given greenhouse gas relative to that of carbon dioxide.

"Market-based incentives" are mechanisms that apply market forces to achieve environmental policy goals.

"Cooperative arrangement" means any arrangement whereby any group of two or more countries cooperates together to achieve the objectives of the convention or any protocol thereto.

General Obligations

The framework convention should provide the scientific, environmental, technical, and economic bases for developing and implementing, as appropriate, strategies to address the potential modification of climate caused by greenhouse gases and the possible adverse impacts therefrom. It should require the Parties to develop and take appropriate measures, in accordance with the provisions of the convention and any protocol thereto, to limit, reduce, adapt to and, as far as practicable, prevent the adverse impacts of climate change.

The Parties, in developing and taking such measures, should address the sources, sinks and reservoirs of all greenhouse gases and their precursors comprehensively, taking into account the most recent IPCC greenhouse warming potential index ("GWP"), and should provide for economically efficient and effective implementation, particularly through the use of market-based incentives and cooperative arrangements.

To these ends, the Parties should:

(a) cooperate in systematic observations, research and information exchange to better monitor, understand, and predict changes in the global climate and potential responses thereto;

(b) adopt measures which are justified in their own right that could have the effect of limiting or adapting to the adverse impacts of climate change;

(c) develop national inventories of net emissions, using an agreed methodology developed by the IPCC;

(d) establish national strategies to address and adapt to climate change;

(e) base any additional responses on thorough assessments of climate change and potential responses to that change; and

(f) cooperate in promoting public awareness of climate change;

(g) encourage the development and transfer of relevant technologies, as well as the provision of technical and financial assistance, to facilitate the fulfillment by the developing countries of their obligations;

(h) cooperate with competent international bodies.

The article on general obligations should include a provision in which the Parties agree that, in developing and implementing measures pursuant to the convention or any protocol thereto, they should take into account the extent to which any such measures could cause other types of environmental degradation. In addition, the convention should provide the opportunity for Parties to meet their obligations under the convention and any protocol thereto through bilateral, multilateral or regional cooperative arrangements.

Institutions

The articles of the UK draft convention establishing a conference of the parties and a secretariat (UK draft articles 6 and 7) are generally acceptable. However, whereas the UK draft provides that the interim secretariat would be provided by UNEP, we believe that both UNEP and WMO should provide interim secretariat assistance.

Research, Systematic Observation, and Information Exchange

The research and systematic observation article (Article 3) and information exchange article (Article 4(1)) of the UK draft convention provide a good starting point for convention text on research, systematic observation and information exchange. The Parties' obligations should extend to both scientific and economic research, and the Parties should consider both the social and economic costs and benefits of changes to the global climate and of potential responses to those changes.

During the first meeting of the INC, scientists from several delegations held informal meetings, under the chairmanship of Dr. A. Baede of the Netherlands delegation, to develop an inventory of priorities for research, systematic observations, assessments and information exchange. This informal work could provide a useful starting point for the preparation of annex to the framework convention concerning research and systematic observation and information exchange.

Assessment and Consideration of Response Measures

Rather than specific commitments for emissions reductions, the framework convention should include an article on assessment and response measures that is modelled on Article 6 of the Montreal Procotol on Substances that Deplete the Ozone Layer and that requires the Parties to periodically assess the available scientific, technical, and economic information with respect to:

(a) the effects of emissions of greenhouse gases and their precursors on the climate;

(b) the possible impacts of such effects; and

(c) possible response measures that could be taken at the national, regional, and/or international levels.

As part of this work, the Parties should be required, as necessary, to update, using a standardized methodology developed by the IPCC, national inventories of all sources and sinks of greenhouse gases and their precursors.

On the basis of this work, the Parties would be obligated:

(a) to update national, regional, and international strategies and policies to limit, reduce, adapt to, and as far as practicable, to prevent the adverse impacts of climate change, in accordance with the provisions of the convention and any protocol in force for a Party;

(b) to update programs for research, systematic observation, information exchange, and the development and transfer of technology and knowledge;

(c) to consider and undertake any additional action that may be required for the achievement of the purposes of the convention.

In the assessment and consideration of response measures, and in particular, in the development of national, regional and international response strategies, the Parties should take into account the most recent IPCC GWP. In addition, the Parties should consider, in consultation with the IPCC, whether to recommend to the IPCC that the GWP be revised at some future date.

Development and Transfer of Technology

Article 4(2) of the UK draft convention addresses the development and transfer of technology and is generally acceptable. It provides that the Parties, consistent with their national laws, regulations and practices, shall cooperate in promoting, directly or through competent international bodies, the development and transfer of technology and knowledge relevant to scientific and technical research. The UK draft provides for such cooperation through the supply of necessary equipment and facilities for research and monitoring and through appropriate training of scientific and technical personnel.

Settlement of Disputes and Compliance

We note the suggestion in the IPCC Legal Measures paper that dispute settlement provisions similar to those in the Vienna Convention for the Protection of the Ozone Layer might be employed in the framework climate convention. This

suggestion is reflected in Article 11 of the UK draft convention and in Annex III thereto. We believe that it is important that all parties comply fully with the obligations that they undertake in the framework convention and any protocol thereto. Dispute settlement provisions are one means of achieving such objective, as are other mechanisms, such as the compliance procedures developed by the parties to the Montreal Protocol. To be most effective, however, such procedures and mechanisms should be tailored to specific obligations contained in a given agreement. Accordingly, these questions should be considered after the INC has reached agreement on the substantive obligations to be included in the framework convention.

Final Clauses

The final clauses contained in the UK draft convention (Articles 8-10 and 12-21) are generally acceptable. However, we believe that the procedures for entry into force of protocols, amendment of protocols, and withdrawal from protocols, as well as the provisions relating to the proposal, adoption, and entry into force of annexes to protocols, should be left to any such protocol. This would permit the Parties to tailor those provisions to any particular protocol.

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**Collection:**

**Record Group:** Bush Presidential Records
**Office:** Domestic Policy Council
**Series:** Schulteiss, Dean, Files
**Subseries:** Subject Files
**WHORM Cat.:**
**File Location:** Climate Change [2]

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| **Date Closed:** | 2/21/2018 | **OA/ID Number:** | CF00553-003 |
| **FOIA/SYS Case #:** | 2017-0310-F | **Appeal Case #:** | |
| **Re-review Case #:** | | **Appeal Disposition:** | |
| **P-2/P-5 Review Case #:** | | **Disposition Date:** | |
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(b)(4) Release would disclose trade secrets or confidential or financial information
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P-2 Relating to the appointment to Federal office [(a)(2) of the PRA]
P-5 Release would disclose confidential advice between the President and his advisors, or between such advisors [(a)(5) of the PRA]

THE WHITE HOUSE

WASHINGTON

January 23, 1991

MEMORANDUM FOR THE DOMESTIC POLICY COUNCIL

FROM: RICHARD W. PORTER
Executive Secretary

SUBJECT: Framework Convention on Climate Change

An options paper on questions relating to the negotiations for a framework convention on global change is attached. The paper has been prepared for the DPC by the Global Change Working Group chaired by Dr. Allan Bromley, Assistant to the President for Science and Technology and Director of the Office of Science and Technology Policy.

Due to time constraints, I am circulating this paper for your consideration in lieu of the usual meeting of DPC principals. By 9:00 a.m. Thursday, January 24, please provide: (1) the response you would recommend to each of the three questions; and (2) your comments and clearance on Appendix B (a document proposed for release at the first negotiating session outlining U.S. accomplishments relating to climate change).

I apologize for the short turn around, but it is dictated by several factors including the printer's deadline. Thank you for your cooperation under these circumstances.

Responses should be sent (Room 231, OEOB) or faxed (456-2223) to me.

Attachment

THE WHITE HOUSE

WASHINGTON

January 22, 1991

MEMORANDUM FOR THE DOMESTIC POLICY COUNCIL

FROM: The Global Change Working Group

SUBJECT: Framework Convention on Climate Change

ISSUE:

Negotiators representing the United States at the first negotiating session of the Framework Convention on Climate Change on February 4, 1991 require guidance on three issues:

(1) Aspects of the strategy U.S. representatives should follow during the negotiations;
(2) Whether we should press other nations to adopt the "comprehensive approach;" and
(3) Whether a document outlining U.S. accomplishments should be released at the first negotiating session.

BACKGROUND:

1. The General Situation.

Formal negotiations on a framework convention will take place, over the next 18 months, under the auspices of the United Nations General Assembly. Although differences exist regarding the purpose of the Convention, it is our understanding that the Convention should establish an institutional basis for international cooperation on climate change including the conduct of scientific research and the exchange of climate change information. It will also provide the legal and logistical structure for future protocols or annexes (if any) containing specific commitments. The Convention is expected to be ready for signing at the June 1992 U.N. Conference on Environment and Development in Brazil.

President Bush has invited other nations to meet in Washington for the first negotiating session. This is scheduled to take place February 4 to 14, 1991. The first negotiating session will focus on organizational and procedural issues. This paper provides background on the question of climate change and addresses three issues that need to be considered prior to the negotiations.

2. Previous International Action.

The World Meteorological Organization and the United Nations Environment Programme set up the Intergovernmental Panel on

Climate Change (IPCC) in 1987 as a vehicle to assess scientific information pertaining to climate change, impacts of such change, and possible strategies to assist in responding to potential changes. The U.S. participated in and accepted the activities of the IPCC.

At the Second World Climate Conference in November 1990, the IPCC adopted an interim report. This report addressed four major areas of climate change: (1) research; (2) the impacts of potential change; (3) response strategies; and (4) legal measures to implement response strategies, including possible elements of a framework convention on climate change. This report forms the basis for the negotiations.

The Second World Climate Conference agreed that the scientific conclusions set out by the IPCC reflect the international consensus of scientific understanding of climate change, including these key points:

- "Emissions resulting from human activities are substantially increasing atmospheric concentrations of greenhouse gases. These increases will enhance the natural greenhouse effect, resulting on average in an additional warming of the Earth's surface."

- "Without actions to reduce emissions, global warming is predicted to reach 2 to 5 degrees C over the next century, a rate of change unprecedented in the past 10,000 years."

- "The warming is expected to be accompanied by a sea level rise of 65 cm (+/- 35 cm) by the end of the next century."

- Substantial scientific uncertainty continues regarding the details of climate change. To narrow the uncertainties, on-going research is being conducted in high priority areas, such as oceans, clouds, carbon cycle, polar ice sheet, and sea ice.

Some policy makers do not share the certainty reflected by the predictions published in the IPCC report, because of the unsettled state of the scientific analysis.

3. <u>The Science of Climate Change</u>.

Studies show that concentrations of greenhouse gases have increased. However, the causes of this increase--including both natural and human factors, as well as the way these may affect regional climate patterns and the earth's temperature regulation process--continue to be unclear. Certain gases, such as carbon

dioxide, methane, nitrous oxide, and chloroflurocarbons (CFC's), increase the retention of heat in the atmosphere.

Natural processes are responsible for twenty times the amount of greenhouse gas fluctuations than those caused by human activities. For instance, even though nitrous oxide is emitted by the man-made process of burning fossil fuels and using nitrogen fertilizers, it is also emitted by the natural aerobic decomposition of organic matter in oceans and soils and by bacteria. Nevertheless, significant changes in atmospheric concentrations are being caused by human-related activities, largely reflecting increases in industrialization.

The earth adapts to changes in greenhouse gas concentrations through a complex system that naturally regulates global temperatures. One result of this natural regulatory process may be changing climate patterns and higher average temperatures. This system is not only affected by "sources" of greenhouse gas emissions, but also by "sinks" that sequester concentrations of these gases. The system also includes the radiation of energy into space.

Although scientific research on the relation between the emission of greenhouse gases and climate change has focussed on global warming, this is only one of several interrelated climate phenomena that may be affected by such emissions. Other climate phenomena that may be affected include the patterns and amounts of precipitation, the patterns and severity of storms, as well as the mean sea level. Each of these climate phenomena may involve significant fluctuations in temperature over wide regions of the earth's surface. It is important to note that the effects of climate change may vary by region. Changes in temperature and precipitation may cause adverse effects in some areas of the world while resulting in beneficial effects in other areas.

Computer models have been developed to predict the effects on climate of different concentrations of greenhouse gases. Nevertheless, these computer models are not yet able to reflect the natural system of temperature regulation with much accuracy. As a result, scientists are not able to agree on the magnitude, spatial distribution, and timing of any climate changes caused by increased concentrations of greenhouse gases and the effect of natural mitigating factors. The computer models are particularly poor guides to regional variations of climate changes. These changes are the basis upon which economic impact studies are made, and are key to the development of responsible policy decisions.

4. <u>The Economics of Climate Change</u>.

Cost-benefit analyses of proposals for reducing emissions compare the costs of such proposals with any benefits they would produce

by altering climate processes. These benefits would equal the total costs of projected climate changes (often called the costs of not acting) only for proposals that promise to stabilize the climate. Most emission limitations that have been proposed internationally would reduce natural and human emissions only slightly and would therefore have only a minor effect on climate processes.

Economic studies of climate change issues have only just begun and little is yet known. For example, there are few quantitative analyses of the cost of sea level rise. Nor has there been much study of the impact that future climate changes may have on the agriculture, forestry and fishing industries, which are sensitive to climate variations. These industries amount to only 3 percent of the U.S. GNP, but they represent a much larger part of the economies of developing nations.

Studies based on historical data regarding carbon dioxide emissions suggest that stabilization or small reductions would impose costs on the order of 1 percent of GNP for industrialized countries by the turn of the century and that those costs would rise over time. Other studies based on analyses of particular technologies suggest that, in principle at least, costs could be more modest. Advances in technology could lower baseline emissions, costs of reduction, and the tendency of costs to rise over time.

5. Energy Issues in Climate Change.

Even though human activities cause only a fraction of greenhouse gas emissions, international talks have focused on reducing man-made emissions, especially emissions from the use of fossil fuel. The U.S. produced almost 6 billion tons of carbon dioxide from fossil fuels in 1988. Because this was about 25 percent of all man-made carbon dioxide emissions world-wide, the U.S. has become a large target for criticism from other countries despite our positive record on overall greenhouse gas emission control. It is worth noting that the U.S. also produces about 25 percent of the world's GNP, so that its share of man-made carbon dioxide emissions compares with its share of production.

THE CLIMATE CONVENTION NEGOTIATIONS:

A framework convention establishes general obligations and procedures for carrying out these obligations. Specific commitments are usually included in subsequent annexes or protocols to a convention. Nevertheless, several countries are pressing to include specific obligations for targets and timetables for stabilizing emissions of certain gases in the convention or in protocols negotiated simultaneously with the convention.

We have taken the position that such commitments are premature and should be negotiated, if at all, only after signing a framework convention. Even then commitments should be made only if analyses demonstrate that they are necessary and will result in net benefits. The model is the Vienna Convention (March 22, 1985) on ozone depletion and the subsequent Montreal Protocol (September 16, 1987). We are uncertain of the level of support the U.S. will receive on our position and may have to reconsider if other countries fail to support us.

1. The Process.

The climate change negotiations will be carried out through the auspices of the Intergovernmental Negotiating Committee, serviced by a United Nations Secretariat. Following the first session here in Washington, most of the negotiating sessions will be held at U.N. facilities in Geneva, with one or possibly more sessions in Nairobi. Sessions will be one to two weeks in length, and will be held every three or four months through 1991. Sessions will be scheduled as needed in 1992. Jean Ripert of France is likely to be elected to chair the negotiations.

2. The U.S. Delegation.

The U.S. delegation for the first session will be headed by Curtis "Buff" Bohlen, Assistant Secretary of State for Oceans and International Environmental and Scientific Affairs. The alternate head of delegation will be Robert A. Reinstein, Deputy Assistant Secretary of State for Environment, Health and Natural Resources. Reinstein will function as negotiator for this and subsequent sessions. The negotiating team is expected to include 12-15 representatives of the agencies with relevant energy, environmental, scientific and economic expertise and interest in this issue. Federal government agency involvement with the framework convention is being coordinated by the Department of State. White House coordination of the negotiations is being provided by the Office of Science and Technology Policy.

3. Agenda for the First Session.

Although a draft agenda has not yet been circulated by the U.N. Secretariat, the following work-plan is anticipated for the nine-day session:

- Organizational matters (1 day);
- Initial country statements (2 days);
- Establishment of subgroups and preparation of the legal negotiating text (5 days); and
- Other matters such as defining the relationship between the IPCC and these talks (1 day).

Countries will propose text they wish to see included in the convention. Language not agreed to by all the parties will be bracketed. Little attempt will be made to resolve differences about the text during the first session.

The U.S. will propose several non-controversial provisions, particularly in the area of scientific and economic research and cooperation. More importantly, as discussed in question 2 below, the U.S. will seek to convince other countries that they should adopt the comprehensive approach in the text of the framework agreement.

A summary of other countries' positions on the global change issue and their approach to the framework convention negotiations is attached in Appendix A.

4. Elements for Possible Inclusion in the Framework Convention.

In addition to certain non-controversial elements of the framework convention identified by the IPCC, we expect several controversial elements to be proposed as well.

-- Targets and Timetables: Several countries will try to force a debate about targets and timetables for reductions of greenhouse gas emissions, particularly carbon dioxide emissions from the burning of fossil fuels, over the next 18 months. All other OECD countries, except Turkey, have made statements arguing that such obligations should be undertaken now, either as part of the convention itself or in protocols negotiated simultaneously with the convention.

-- The Precautionary Principle: Many countries will suggest putting an article on the "Precautionary Principle" into the framework convention. As yet, there is no commonly accepted definition of this principle. Some believe it merely reiterates the need to prevent pollution. Others hold that it imposes a burden of proof, i.e., that an activity cannot be undertaken unless proof can be shown that it will not harm the environment.

-- Financial assistance: Consistent with the Houston Economic Declaration, a general commitment to promote financial assistance for developing countries will be negotiated in the framework convention. Developing countries will undoubtedly propose that this include a commitment to provide "new and additional" funding, a commitment that we oppose. The United States will argue that the newly established Global Environmental Facility in the World Bank is the appropriate mechanism through which any multilateral assistance should be processed.

-- Development and transfer of technology: The developing countries have often called for technology transfer on a "preferential and noncommercial basis." Although this language

raises the problem of protection of intellectual property rights, there is a wide range of technologies for which this issue does not arise. U.S. negotiators intend to highlight the value of existing cooperation programs.

QUESTION 1: Should the following strategy be adopted to guide U.S. representatives at the first negotiation session?

1. Propose specific language on scientific cooperation and monitoring consistent with the comprehensive approach.
2. Oppose specific targets and timetables for greenhouse gas emission reduction--particularly carbon dioxide.
3. Oppose extreme statements of the "Precautionary Principle."
4. Oppose commitment to new and additional financial assistance.
5. Explore ways of promoting technology transfer that will be advantageous to the U.S., taking full account of market forces and the protection of intellectual property rights.
6. Highlight steps already taken to show U.S. commitment to act. (See Question 3 for further elaboration).

Over the past year, the U.S. has taken a prudent approach to the climate change issue. Other countries have been willing to commit themselves to specific targets and timetables for reducing greenhouse gas emissions with little regard, in some cases, for either the cost or the lack of information necessary to craft an effective plan.

The U.S. is widely perceived as entering these negotiations in an isolated position, since it is the only major developed country that has not committed itself to a timetable for achieving specific greenhouse gas reductions. Therefore, to buttress the prudence of our approach we will need to have a well-defined negotiating plan to take with us to the table in February.

The U.S. can bolster its position on targets and timetables by pointing out the scientific uncertainties as well as the likely costs, administrative complexities, and possible trade problems that could arise from the imposition of large taxes on the carbon content of fossil fuels--the primary means for achieving major reductions. We have solid economic and scientific research already under way and partially completed that could be used to back up this position.

To address the doubt expressed by other countries concerning the sincerity of our commitment on the climate change issue, we may wish to consider signals that would show the U.S. commitment to act. Indeed, we are already taking steps--albeit steps justified for other reasons such as energy security, clean air and other

environmental concerns--that address climate issues and that can be used to improve the U.S. bargaining position. (Question 3 sets forth a specific proposal in this regard).

Pros:

- This strategy highlights steps already taken that demonstrate U.S. leadership, and underscores the prudence of the U.S. approach for addressing global climate change.
- The positions outlined are consistent with past U.S. negotiations on the issue.
- The strategy emphasizes the importance of reliable scientific and economic research as the basis of any action.
- Avoiding specific commitments on timetables and levels of reduction until subsequent protocols provides more time to gather the scientific and economic data necessary to make informed decisions.
- The approach is supported by some other countries (including Canada and some developing countries) and by some environmental leaders.

Cons:

- This strategy may be considered a delaying tactic by other countries, by environmental groups and by the media.
- If our position is seen as too obstructionist, it may reduce our negotiating leverage on this issue.
- The media is likely to continue its criticism of the Administration on this issue.

QUESTION 2: Should U.S. negotiators press other nations to adopt the "comprehensive approach" in the Framework Convention?

Over the past year, the U.S. has actively promoted a "comprehensive approach" to greenhouse gases. Under this approach, all gases would be placed on an equal footing based on a scientifically determined "greenhouse potential index"--an index taking into account the intrinsic molecular greenhouse efficiency of each gas, its average residence time in the atmosphere and other relevant considerations.

This approach is preferable because: (1) other gases than carbon dioxide are greenhouse gases, some of which are less costly to

regulate (such as CFC's); (2) it would ensure that developing nations contribute to the international effort; (3) it lays the groundwork for a market approach (nationally and internationally) to reduce emissions at the lowest possible cost; (4) it avoids problems inherent in attempting to develop individual protocols for each greenhouse gas, and (5) it focuses attention on the potential for expanding sinks that sequester greenhouse gas emissions.

Pros:

- Promotes an innovative approach to the issue of climate change enhances U.S. leadership in the negotiations.
- Moves the climate change issue away from a narrow focus on carbon dioxide which places a disproportionate burden on energy and transportation sectors of the economy.
- It is a more valid approach, from a scientific perspective, than other approaches.
- Focussing on the total picture, including both sinks and sources, increases the flexibility of efforts to limit the effects of greenhouse gases.

Cons:

- Some countries may portray our strong support for this approach as a ploy for avoiding the reduction of carbon dioxide.
- May involve measurement requirements too sophisticated for some countries to handle.
- Scientific uncertainties regarding characteristics and behavior of some of the gases make it difficult to calculate exactly comparable indices at this time.
- Methods for monitoring and reducing emissions of greenhouse gases from sources such as forestry, bovine animals, and pipelines are still being developed.
- May become a tactical bargaining chip that could be used to pressure the U.S. into accepting targets and timetables.

QUESTION 3: Should a document be released at the first negotiating session outlining U.S. accomplishments that reduce greenhouse gas emissions?

Although we have opposed specific timetables and targets for reducing emissions, the U.S. has already taken steps that address

the possibility of global climate change, such as the global change research program, the Clean Air Act, phasing out CFC's, and the tree initiative. In fact our efforts are unmatched by any other country. Nevertheless, the U.S. was portrayed as anti-environment at earlier climate change conferences principally because of our lack, to date, of initiatives in the energy sector. This situation might change if attention is directed to our achievements. For this reason, we are developing a publication to highlight U.S. accomplishments which could be distributed at the first negotiating session.

The document could be framed as a U.S. "Action Plan" on climate change. While it would be comprised of steps already approved or on their way to being implemented, it is important not to frame the document solely as an "accomplishments" brochure, lest there be an attempt to discount actions already taken in order to press for future commitments. Similar brochures have been prepared and distributed by other countries at past conferences. A draft for such a document is attached in Appendix B.

Pros:

- The concrete steps taken by the U.S. compare well with the largely rhetorical policy pursued by critics of the Administration.
- A quality document would demonstrate our rigorous interest in the global climate change issue without breaking new policy ground.
- The U.S. would no longer be the only country without an "Action Plan."

Cons:

- Could become the focus of a negative campaign by being portrayed as papering over the U.S. unwillingness to make new international commitments.
- May raise questions about why the U.S. still refuses to endorse targets and timetables--if the U.S. is so close to achieving targets others only talk about, why does it continue to resist targets?
- Could provide fodder for manipulation by countries or interest groups with opposing views of the United States.

Attachments

# Country Targets and Timetables

## Australia

Cabinet announced target 11 October of stabilizing CO2, CH4, N20 at 1988 levels by 2000, reducing 20 percent by 2005, provided no net adverse effect on Australian competitiveness if other major developed nations do not take similar actions.

## Austria

Urged at February IPCC plenary that industrialized countries stabilize by 2000 as first step; no specific domestic target set.

## Belgium

Said at IEA meeting in July that it had begun taking actions that would lower emissions, but had not yet conducted the analysis necessary to justify establishing a target. Supported US position at Bergen.

## Brazil

President Collor noted in June World Environment Day speech the need for specific commitments for the stabilization and reductions of CO2 emissions per capita. He implied, but did not explicitly state, that he was referring foremost to the fossil fuel emissions of developed countries.

## Canada

Pledged in June to stabilize CO2 at 1988 levels by 2005.

## China

Strongly implies that it favors targets for developed countries, opposes them for LDCs. Projects substantial CO2 emissions growth.

## Denmark

National energy plan calls for 20 percent CO2 reduction by 2005.

## EC Commission

Favors stabilization of CO2 at 1990 levels by year 2000, significant reduction by 2005.

Finland

Urged at IPCC February plenary that industrialized countries stabilize by year 2000 as first step, no specific domestic target set.

France

Proposed in September a three-tiered global strategy to converge per capita CO2 emissions rates by early 21st century. Under this plan, France would stabilize its emissions at or below 2.0 tons per capita by 2000 (up to a 10 percent increase from current levels), provided that other major industrialized countries agree to stabilize their emissions.

Germany

Cabinet announced in June non-binding commitment to reduce CO2 emissions 25 percent from 1987 levels in former West German area by 2005.

India

Opposes targets for developing countries.

Israel

Opposes targets.

Italy

Supports stabilization of CO2 at 1990 levels by 2000 as part of EC-wide initiative. No domestic target set.

Japan

Announced action plan 19 October to stabilize CO2 emissions per capita at 1990 levels by 2000. Methane emissions will also be capped at current levels. Gross CO2, N20, and other greenhouse gas emissions will be stabilized by 2000 if feasible.

Malta

Supports targets and timetables; no domestic target set.

Mexico

Appreciates unilateral commitments by industrialized countries to stabilize emissions by 2000. Believes obligations should be equitably differentiated according to

countries' respective responsibilities for causing and combatting climate change and their level of development.

Netherlands

Parliament passed in September revised National Environmental Policy Plan, calling for stabilization of CO2 emissions at 1989-90 average by 1994-95, 3 to 5 percent reduction by 2000. Government officials describe commitment as binding.

New Zealand

Environment minister announced plans in September to reduce CO2 emissions 20 percent from 1990 levels by 2005.

Norway

National goal is stabilization at 1987 levels by 2000, provided other countries take similar actions.

Portugal

Opposes targets.

Saudi Arabia

Favors stabilization by 2000 target for industrialized countries; no domestic target set.

Spain

Would support EC stabilization target if scaled to current per capita emissions so as to be equitable among EC members.

Sweden

Parliamentary mandate to stabilize CO2 at 1988 levels. Supported call at IPCC February plenary for stabilization by 2000.

Switzerland

Urged at IPCC February plenary that industrialized countries stabilize emissions by year 2000 as first step; no domestic target set.

United Kingdom

Prime Minister Thatcher announced in May that the UK would enact a strategy to achieve a stabilization of CO2 emissions at 1990 levels by 2005, provided other major industrialized countries take similar steps.

USSR

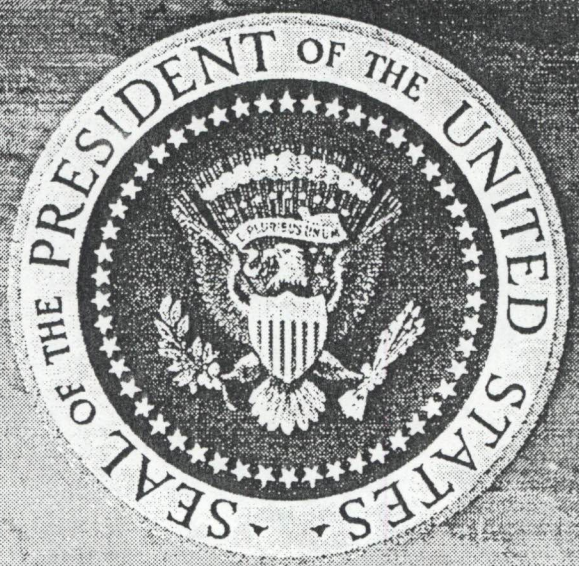
Opposes targets.

Venezuela

Opposes targets.

Note: Only the government of the Netherlands describes its target as binding.

# America's Climate Change Strategy




## An Action Agenda

# LEADERSHIP AND ACTION

President Bush has established the comprehensive strategy for action and leadership outlined on the following pages. This strategy flows from his commitment to economic growth and to responsible stewardship of our planet. It is built upon a series of actions which will have broad ranging benifits — from curbing air pollution, to conserving energy, to restoring forest lands — and which will help curb greenhouse gas emissions.

The U.S. believes that any successful global climate change strategy must be:

- ***comprehensive***, incorporating all relevant greenhouse gases, their sources and sinks;
- ***long term***, taking into account the full range of social, economic, and environmental consequences of proposed actions for this and future generations;
- ***flexibile***, built on many diverse actions (including market incentives) and readily adjustable as knowledge is improved through a robust research and development program; and
- ***integrated***, designed to involve all nations and dynamically reflect and incorporate each nation's unique circumstances into the development of a truly global response strategy.

The actions which are currently included in the U.S. Climate Change Strategy will result in U.S. greenhouse gas emissions in the year 2000 being equal to or below the 1987 level. In addition, the U. S. has essentially stabilized its emissions of carbon dioxide ($CO_2$) over the last 15 years despite a growth in economic output of about 50 percent. During this same period, global carbon dioxide emissions have increased substantially.

This U.S. Strategy for Climate Change includes many specific actions:

- eliminating stratospheric ozone depleting compounds which are also strong greenhouse gases;
- increasing forest greenhouse gas sinks;
- directly controlling various greenhouse gases and their precursors which are also air pollutants;
- reducing utility and other industrial emissions in a way that strongly encourages energy efficiency;
- encouraging energy efficiency in such areas as buildings, appliances, and lighting; and
- increasing the use of renewable and non-fossil sources of energy.

Integral to the U.S. Climate Change Strategy is the world's largest program of research and development:

- to increase our scientific understanding of climate change and to provide a sound knowledge base for making major public decisions.
- to develop and to accelerate the adoption of economically sound, environmentally beneficial, and energy efficient technologies.

In total, the U.S. proposes to invest over 2 billion dollars in these R & D efforts next year alone.

In August 1990, the Intergovermental Panel on Climate Change (IPCC) stated in its Overview: "A comprehensive strategy addressing all aspects of the problem and reflecting environmental, economic, and social costs and benefits is necessary." The President of the United States has established such a comprehensive strategy. The United States, today, is working to curb emissions, promote economic growth, and exercise leadership in meeting our shared responsibilities as stewards of the planet.

The United States is taking action.

# THE COMPREHENSIVE APPROACH TO CLIMATE CHANGE

The science and economics of human interactions with the global climate involve multiple trace gases affected by activities in every sector of human society. Each of these greenhouse gases is emitted from a variety of sources and is trapped or affected by "sinks" in different ways. Each gas has a different residence time in the atmosphere, a different ability to trap heat, and different potential impacts on the environment. What is important in addressing future climate change is the total and cumulative affect of all gases and all sinks.

In November, the government ministers at the Second World Climate Conference (SWCC) declared: "We recommend that in the elaboration of response strategies, over time, all greenhouse gases, sources, and sinks be considered in the most comprehensive manner possible ..."

The "Comprehensive Approach" has several advantages:

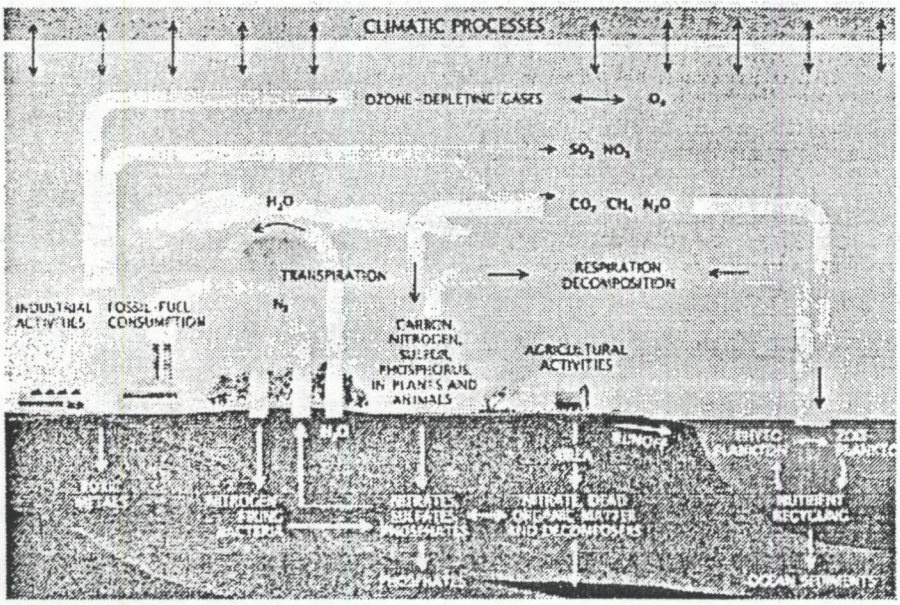
- It provides flexibility for each nation to develop a diverse, innovative, cost-effective mix of measures to meet its global responsibilities in a manner tailored to its own domestic circumstances; and
- It is designed to employ the results of integrated scientific and economics research on a comprehensive basis, using the results of our research investment to maximize benefits to the environment and humanity.

The relative benefit from a unit reduction in the net emissions of each greenhouse gas can be approximated by a measure of "global warming potential" based on the radiative behavior of the gas in the current atmosphere. The Intergovernmental Panel on Climate Change (IPCC) has calculated such a relative measure, giving carbon dioxide a value of 1 and expressing all other gases in terms of carbon dioxide equivalents. This "index" enables a comparison of the contributions of different gases, their sources and sinks. (See chart opposite)

The costs of achieving a given reduction in the added greenhouse effect will vary from gas to gas and will vary depending on which sources or which sinks of any given gas are affected. Using the Comprehensive Approach, maximum reduction in net emissions or atmospheric concentrations can be achieved for any given level of investment.

If emissions limits were designed to apply piecemeal to one greenhouse gas or economic sector, economic actors could simply adjust to such narrowly focused regulation by shifting to unregulated activities that could continue to contribute to potential climate change.

A comprehensive approach, on the other hand, matches the scientific, economic, and environmental nature of the whole climate system .



# THE BOTTOM LINE

Implimentation of President's Comprehensive Climate Change Strategy will result in United States greenhouse gas emissions in the year 2000 being equal to or below 1987 levels.

The specific actions which will contribute to this result include:

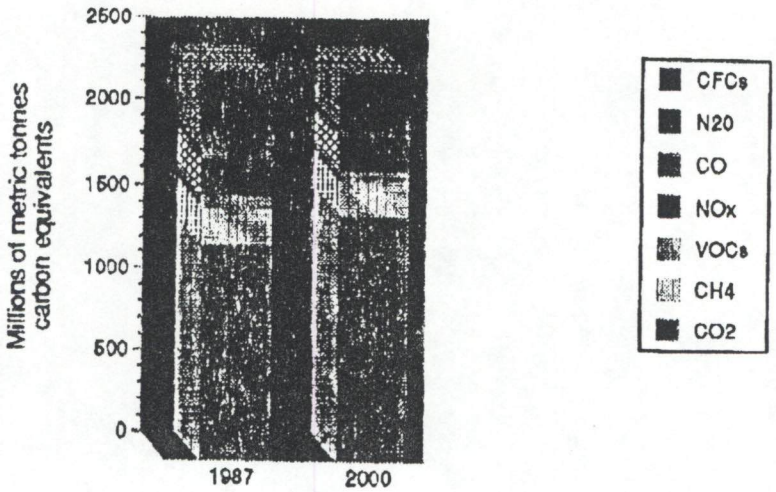
- Phasing out CFCs and other ozone-depleting compounds which are also greenhouse gases.
- Putting a permanent ceiling on sulphur dioxide emissions, at sharply reduced levels and allowing freedom of choice in meeting the ceilings, thereby encouraging energy efficiency and reducing greenhouse gas emissions. Under the recently enacted Clean Air Act Amendments, utilities were given the flexibility to make reductions by any means — a powerful incentive for energy saving measures.
- Reducing, under the Clean Air Act, air pollutants which are either greenhouse gases themselves (nitrogen oxides) or greenhouse gas precursors (volatile organic compounds, carbon monoxide and nitrogen oxides).
- Initiating a program to plant a billion trees a year and to make other forest improvements. (Enhancing sinks)
- Implementing a number of programs aimed directly at speeding the adoption of energy efficient technologies and practices in homes and businesses.
- Promoting the use of and accelerating research into non-fossil fuel energy sources, such as solar, nuclear, and alternative fuels.

The results of these currently planned U.S. actions are illustrated by Chart 1, which shows projected U. S. greenhouse gas emissions for the year 2000. The estimate is based on calculations made by the U.S. Environmental Protection Agency.

Chart 2 shows an alternative estimate based upon a different economic model prepared by researchers at Harvard University.

**Projected U. S. Greenhouse Gas Emissions**

(With Current Policy Commitments)
Based on IPCC CO2 Baseline Estimate



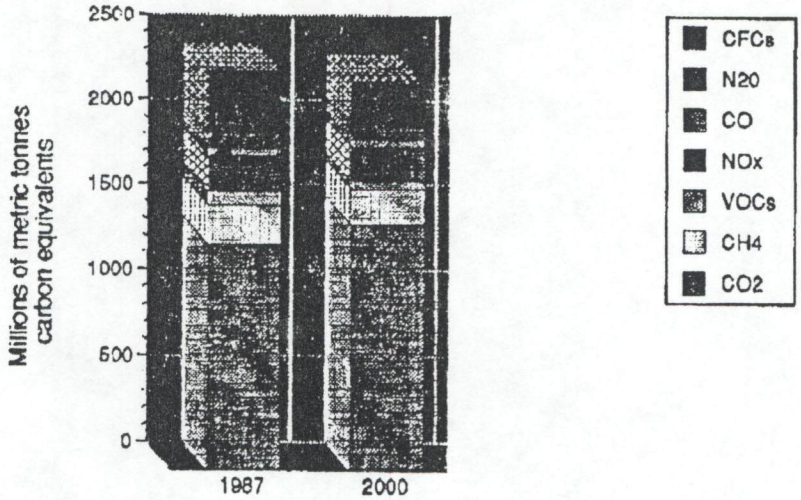

*From EPA, "The Cost of Reducing Greenhouse Gas Emissions in the United States", Presentation by Alex Christofaro, Director, Air and Energy Policy Division, December 4, 1990*

**CHART 1**

*The actions which are currently included in the U.S. Climate Change Strategy will result in U.S. greenhouse gas emissions in the year 2000 being equal to or below the 1987 level.*

## Projected U. S. Greenhouse Gas Emissions

(With Current Policy Commitments)
Based on Jorgenson/Wilcoxen (1990) Model




*From EPA, "The Cost of Reducing Greenhouse Gas Emissions in the United States", Presentation by Alex Christofaro, Director, Air and Energy Policy Division, December 4, 1990*

***CHART 2***

# PHASING OUT CFC's

The United States has long taken a leadership role in addressing the problem of stratospheric ozone depletion. In 1978 the U. S. banned the use of CFCs as propellants in spray can products. Such use was considered a low value use which could be forgone given the potential damage which it was believed that CFCs might be causing. All other countries, with one or two exceptions, continued to use CFCs as propellants.

At the London Meeting of Parties to the Montreal Protocol the U. S. supported a complete world-wide phase-out of CFCs, halons, and certain other ozone depleting substances such as carbon tetrachloride and methyl chloroform. The Protocol was amended to achieve that objective.

## BEYOND THE MONTREAL PROTOCOL

The U. S. has enacted legislative provisions in the recent Clean Air Act amendments which will phase down U. S. production and consumption of these ozone depleting compounds more quickly than the amended Montreal Protocol provisions. (See charts opposite)

For each and every one of these compound groups and gases, the Clean Air Act reduces the allowed U. S. production and consumption between now and the final phase-out date substantially below what the Protocol permits. (For example, see chart — regarding CFC production)

Between now and the phase-out dates the U. S., under the mandates of the Clean Air Act, must reduce U.S. production below what is permitted by the Montreal Protocol by the following amounts:

"Cumulative Near-term reductions in Clean Air Act Below the Montreal Protocol"

| | |
|---|---|
| Major CFCs | 19% |
| Halons | 32% |
| Other CFCs | 22% |
| Carbon Tetrachloride | 13% |
| Methyl Chloroform | 20% |

## THE U.S. IS AHEAD OF SCHEDULE

In addition to the more restrictive phase-out schedules required by the Clean Air Act, the 1989 Reconciliation Act enacted a tax on ozone-depleting chemicals during the period of phase-out. The tax rates for each compound are its ozone depleting potential (ODP) multiplied by $ 1.37 per pound in 1990 and 1991, $ 1.67 in 1992, $ 2.65 in 1993 and 1994, and an increase of an additional $ 0.45 in each year after 1994.

This tax has already helped to reduce U. S. CFC production in the 12-month period ending June 30, 1990 to 23 % below the levels permitted by the Montreal Protocol and other U.S. law.

While these actions by the United States are justified by their benefits relating to stratospheric ozone depletion, they are also very highly significant for climate change. CFCs, halons, and carbon tetrachloride are extremely powerful greenhouse gases, thousands of times more powerful than carbon dioxide. Methyl chloroform is also a strong greenhouse gas that is in wide use. (See discussion of Comprehensive Approach above)

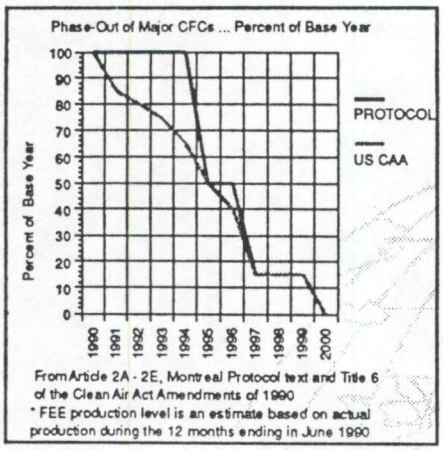



**CHART 3**

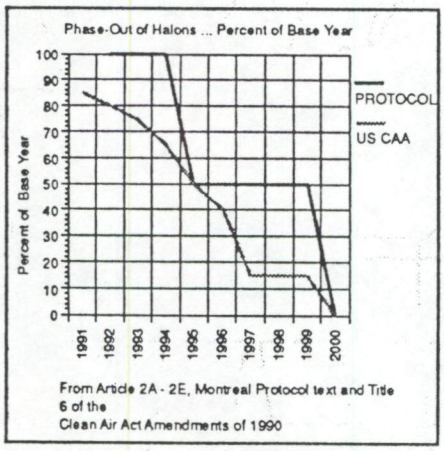



**CHART 4**

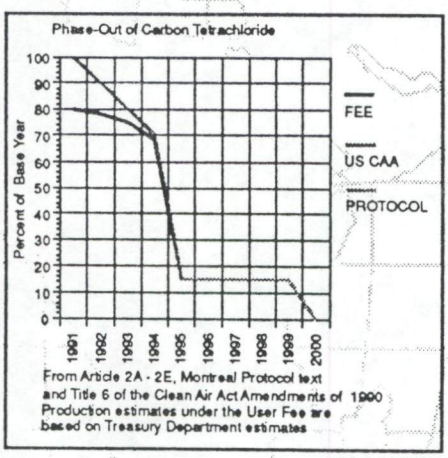



**CHART 5**

**CHART 7**

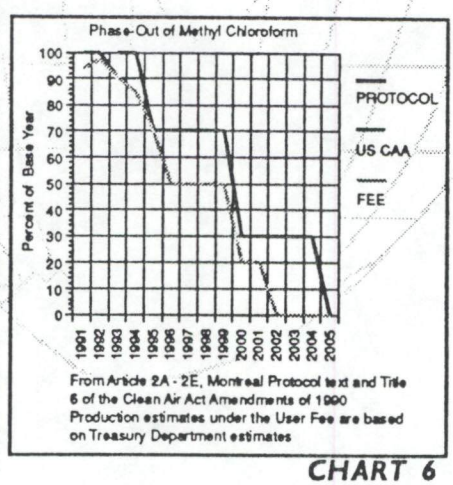
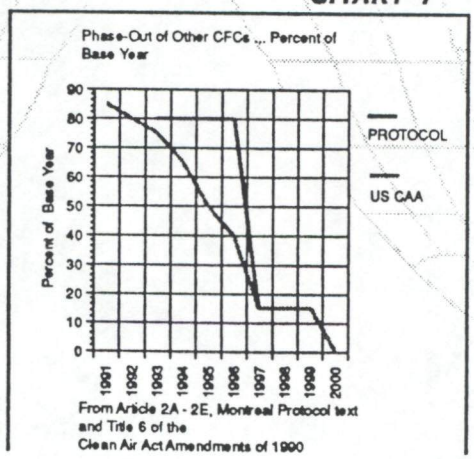



**CHART 6**



# THE 1990 CLEAN AIR ACT AMENDMENTS

The 1990 Clean Air Act Amendments, signed by the President in November 1990, will achieve substantial reductions of greenhouse gases and their chemical precursors, such as volatile organic compounds, carbon monoxide, and nitrogen oxides, in addition to reducing emissions of the more familiar pollutants such as sulfur dioxide. Moreover, the Act will result in direct carbon dioxide reductions due to more efficient electricity generation. When converted into equivalent units of carbon emissions and taken together, these reductions will amount to a 16% decrease in greenhouse gases from these affected sources between the years 1987 and 2000.

The most dramatic reductions will come from electrical utilities. Under the Act, utilities, which must reduce sulfer dioxide (SO2) emissions by 10 million tons below 1980 levels, are given flexibility to choose how to achieve these reductions. Utilities are thus free to choose cost-effective conservation measures to achieve compliance. This powerful conservation stimulus will sharply reduce carbon dioxide (CO2) emissions from this sector.

Further, the Act requires utilities to reduce their nitrogen oxide emissions by two million tons under the acid rain provisions. These provisions also contain strong incentives for both electric utilities and industrial sources to adopt advanced, energy effiecient technologies that will lower overall emissions, including carbon dioxide. The Act is also expected to induce oil-burning utilities to switch to natural gas, which produces fewer greenhouse gases than does oil.

Substantial reductions in either greenhouse gases or their chemical precursors will also result from new controls on stationary and mobile sources mandated by the new Act in order to bring cities into attainment of national air quality standards. A wide variety of stationary sources of volatile organic compounds will be required to reduce emissions by adding controls or by changing production processes. Newly tightened automobile emission standards will further reduce emissions of hydrocarbons, carbon monoxide, and nitrogen oxides, and new controls on gasoline evaporation will greatly cut volatile organic emissions. In addition, gasoline itself will be reformulated to reduce its volatility, thus reducing volatile organic emissions at the source.

The Act will dramatically expand the introduction of clean-burning alternative fuels into the U.S. transportation sector. Several large states and the fleets of America's major cities are expected to introduce fuels and vehicle technology which will emit fewer greenhouse gases. Beginning in model year 1994, new tailpipe emissions standards for hydrocarbons, carbon monoxide, and nitrogen oxides will be phased in. Auto manufacturers will also have to reduce refueling emissions. Gasoline volatility will be reduced and cleaner fuels will be required in the nine cities with the worst ozone problems and in 41 areas during the winter months when carbon monoxide standards are exceeded. A clean fuel car pilot program in California will use combinations of vehicle technology and cleaner fuels to meet tight standards. Twenty-six areas will have to limit emissions from centrally-fueled fleets of 10 or more vehicles.

Regulations are also being proposed under the new source performance standards of the Clean Air Act to require capture of pollutant gases which are given off by landfills. The purpose of the regulations is to capture air toxics and volatile organic compounds which are the chemical precursors of greenhouse gas ozone. Methane will also be captured and flared. Greenhouse gas emissions in the year 2000 will be reduced by an estimated 44 million tons of carbon equivalent.

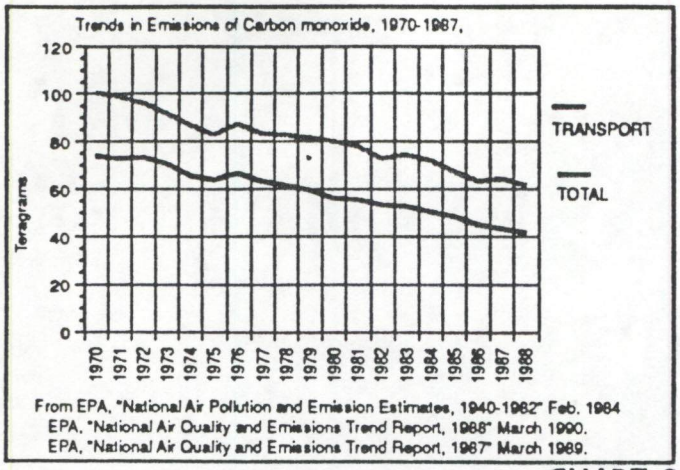



**CHART 8**

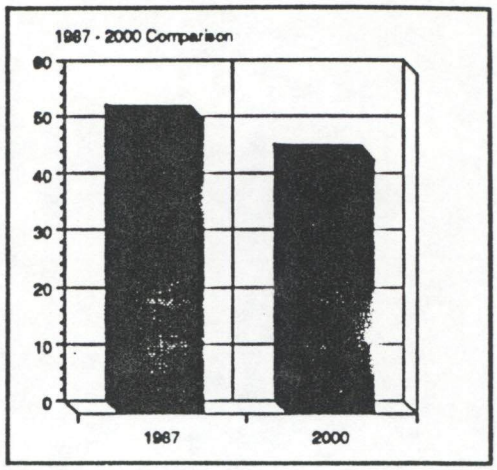



**CHART 9**

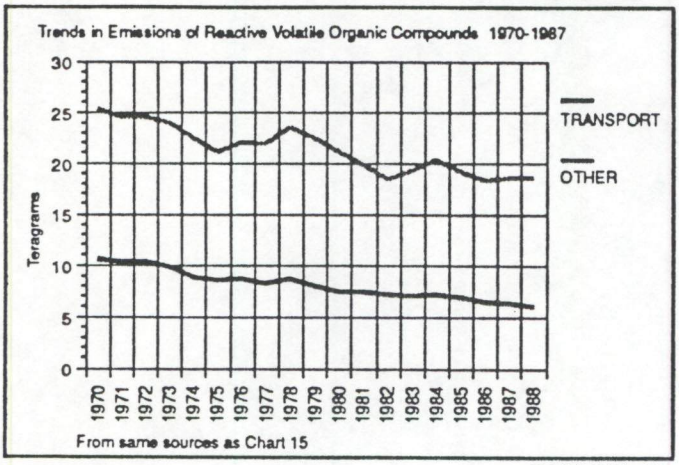



**CHART 10**

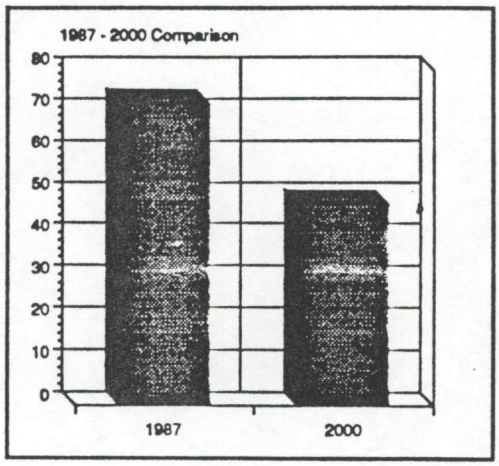



**CHART 11**

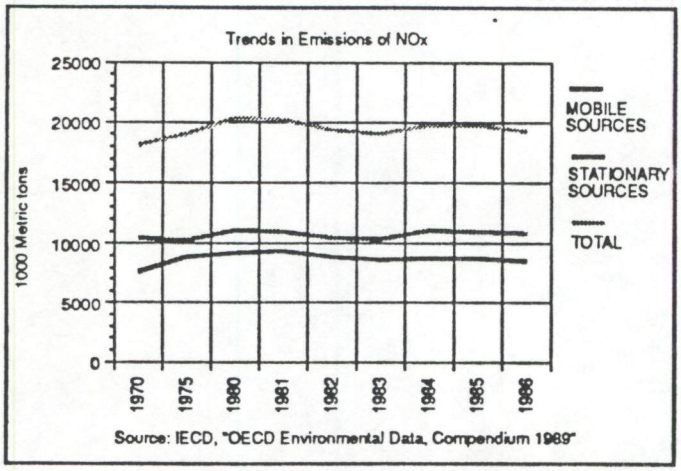



**CHART 12**

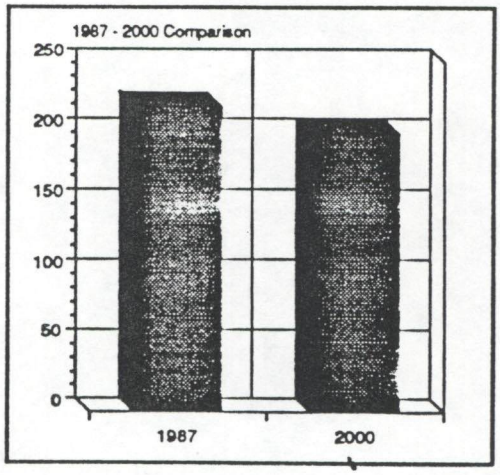



**CHART 13**

# ENHANCING NATURAL SINKS

The term "sinks" of greenhouse gases is meant to include human and natural activities, processes, and phenomena that remove greenhuose gases from the atmosphere or reduce their atmospheric lifetimes. Examples include forests, soils and oceans. The IPCC recognized the importance of sinks in a report of its Response Strategies Work Group (RSWG): "The RSWG reviewed potential measures for mitigating climate change...These measures include those which limit emissions from greenhouse gas sources (such as energy production and use), those which increase the use of natural sinks (such as immature forests and other biomass) for sequstering greenhouse gases, as well as those measures aimed at protecting reservoirs such as existing forests."

*Reforestation*

The President has included in both his FY 1991and FY 1992 Budgets a major, multiyear reforestation proposal to plant one billion trees per year on 1.5 million acres and to improve forest management practices on an additional 180,000 acres per year. This initiative will encompass cities and towns across America, as well as rural private, non-industrial forest lands. It comes in addition to reforestation which Federal agencies normally do on lands under their jurisdiction.

One purpose of this initiative is to improve the condition of private, non-industrial forest lands which are often now in poor condition due to low levels of management and investment. Improving these lands will increase benefits from soil protection, wildlife, wood products, and recreation.

This initiative will also have significant climate change benefits through the carbon which growing trees (sinks) remove from the air and store both as plant tissue and in the soil. The estimates of carbon removed from the atmosphere by the trees to be planted under the initiative are 9 million metric tons of carbon annually by the year 2000, growing to 50 million tons per year by 2010. (See chart 8)

*Global Forest Convention*

The President proposed at the Summit of Industrialized Nations in July 1990 at Houston to begin negotiations as expeditiously as possible on a global convention on forests, aiming for completion and signing by 1992.

The world's forests absorb carbon dioxide as well as provide many benefits in the form of timber and fiber, soil and water protection, wildlife habitat, recreation and other valuable outputs. They provide the habitat for some 80% of the planets remaining unknown and unspecified gene pool–a completely irreplacable and potentially enormously valuable heritage for all humankind. Temperate zone forests are being damaged by air pollution stresses and tropical forests are being rapidly lost.

The U.S. believes that the convention should emphasize market-based mechanisms and flexibility to achieve sound, sustainable forest use, to improve the health and vigor of forests, to encourage reforestation, and to increase the value of forests as sources of income and jobs.

Areas suggested for international cooperation and joint action include research and monitoring; education, training, and technical assistance; reforestation and rehabilitation; reform of the Tropical Forestry Action Plan; reduction of air pollution; bilateral and multilateral assistance; debt-for nature swaps; removal of harmful subsidies.

*To put the power of trees as "sinks" into perspective, consider the example of an acre of improved stock of southern pine planted on a high quality site in the southeastern U. S. In the 15th year after planting these trees would take up between 5700 and 6200 pounds of carbon per acre. While the amount taken up declines thereafter as the trees mature, additional carbon continues to be taken up.*
*(See chart 16)*

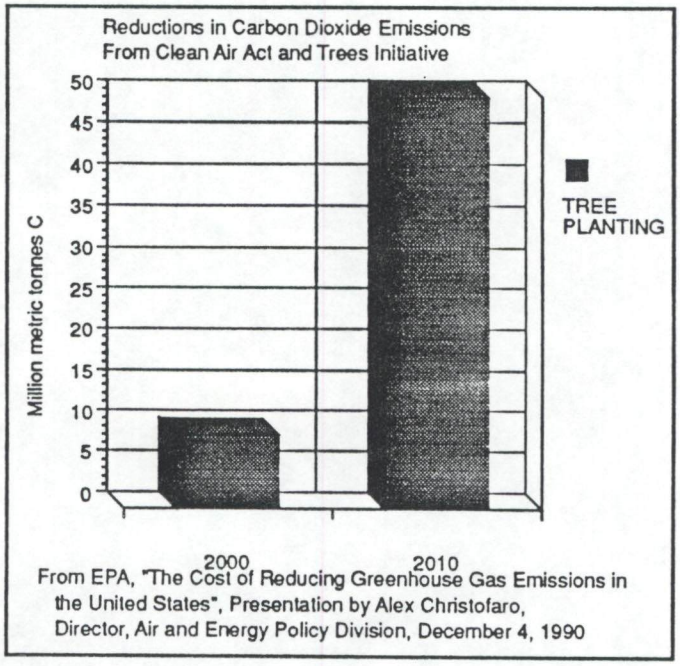



**CHART 15**

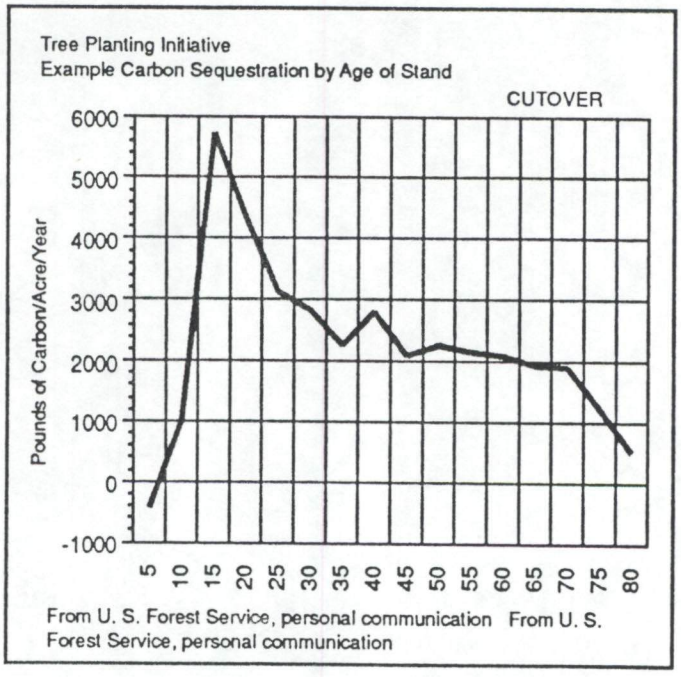



**CHART 16**

# ENERGY INITIATIVES: *Efficiency*

The Administration is currently developing and will announce shortly a National Energy Strategy that will further contribute to the greenhouse gas emissions reductions cited here. Certain National Energy Strategy initiatives have been included in some of the calulations in this document.

The U.S. strategy for action includes a number of other energy efficiency measures, in addition to the Clean Air Act's strong incentives to save and use energy efficiently due to the utility emissions cap and the flexibility in complying given to utilities.

*Level Playing Field Between Electricity Supply and Demand Reduction*

In some cases utilities can meet demands for energy services without any additional greenhouse gas emissions by investing in energy efficiency rather than by increasing electricity supply. Utilities in only 15 states are now fully able to recover costs from such investments, including energy saving measures as well as new supply. Absent such efficiency measures, new capacity requirements by the year 2000 are projected at more than 100,000 MW.

The U.S. will work with the States to identify regulatory barriers that discourage utility investment in energy efficiency. Utility planning techniques will be developed to consider all alternatives and their costs. The U.S. will provide training, information dissemination, and other types of technology transfer activities. These actions will reduce greenhouse gas emissions in the year 2000 by 9 million metric tons carbon equivalent.

***Encourage use of energy efficient building standards.***

Both the U.S. and the private sector have developed standards that would achieve 20-25% energy savings in buildings. They could save $5 billion over 20 years from the new buildings built in a single year.

The U.S. will promote voluntary use of these standards through training programs, design manuals and computer-aided design systems. It will encourage State and local governments to use the standards in their building codes. These actions to encourage adoption of the most energy efficient modern technology in residential and commercial building will reduce greenhouse gas emissions in 2000 by 8.2 million metric tons of carbon equivalent.

Use of the modern standard in public housing assistance programs will reduce greenhouse gas emissions by 800,000 metric tons carbon equivalent in 2000.

***More efficient new appliance standards***

Large appliances account for over two thirds of home energy usage, excluding space heating. In the past three years, the U.S. has imposed energy efficiency standards on many of the most energy-intensive appliances, including refrigerator/freezers, clothes washers, dryers, and dishwashers. These standards should achieve annual energy savings of 7-8% relative to projected use by the year 2000, and 14-15% relative to projected use by the year 2010.

The imposition of appliance standards has already resulted in a reduction of greenhouse gas emission. As older appliances are replaced with new, environmentally friendly models, the greenhouse gas reductions will increase dramatically. By the year 2000, DOE anticipates an annual reduction of 5.0 million tons of carbon equivalent from projected greenhouse gas emission due to these standards; the annual reduction will more than double to 10.6 million tons of carbon equivalent in 2010.

*Expand national energy audit capabilities and use:*

Industry, with some 350,000 separate establishments, uses 24.7 Quads of energy annually. Many options exist for low-cost quick payoff energy saving investments, but smaller firms often lack the information, expertise, and specialized resources to do energy audits of their plants.

The U.S. will increase its program to train engineers in energy audit and diagnostic methods from the current 13 engineering schools to 40 nationwide in the year 2000. This will reduce greenhouse gas emissions in the year 2000 by 6 million metric tons carbon equivalent.

*More efficient lighting in federal facilities:*

Twenty-five percent of federal agency energy use is for lighting of facilities. Budget constraints, lack of adequate information by facility managers, and restrictive procurement practices have slowed adoption of efficient new technologies.

The U.S. will identify energy savings options in Federal facilities. Project plans, procurement methods, and financing options will be developed to overcome the barriers to improve lighting efficiency. This will reduce greenhouse gases in the year 2000 by 1.4 million metric tons carbon equivalent.

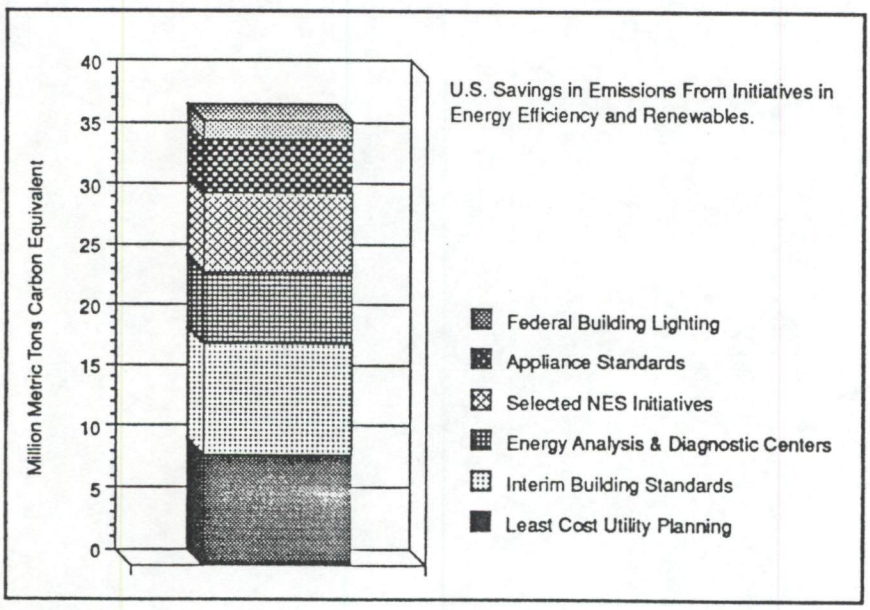



**CHART 17**

# ENERGY INITIATIVES: *Renewables and Non-fossil Fuels*

***Accelerate the transfer of photovoltaic technology to U.S. commercial production:***

Recent laboratory research has achieved photovalic efficiencies of over 30%. With such efficiencies and improved manufacturing, today's $4-5 prices per peak watt could be cut in half.

The U.S. will start an intensive effort with industry to understand potential improvements in photovoltaic processes. Industry joint ventures to provide practical solutions and maximize transfer of results will be encouraged. The U.S. will also provide cost-shared technical assistance to adapt manufacturing improvement techniques to specific processes. By the year 2000, greenhouse gas emission reductions will begin to phase in at 500,000 metric tons of carbon equivalent.

***Expand nuclear energy capacity:***

As the Nation enters the 1990s, nuclear power is the second largest source of U.S. electricity, providing almost 20 percent of America's electricity needs, and nuclear power causes no greenhouse gases.

Because of the availability of nuclear power the nation was able to avoid the use of large amounts of fossil fuels in 1989. In terms of the displacement of fossil fuels, nuclear power can take credit for reduced utility emissions of carbon dioxide–a major "greenhouse" gas–by 20 percent, or approximately 128 million tons. In overall terms, nuclear energy plants cut U.S. emissions of carbon dioxide by nine percent. Worldwide, nuclear energy reduced these emissions by more than seven percent

A comprehensive strategy for nuclear energy is being developed as a part of the National Energy Strategy and is supported in the President's Fiscal Year 1992 budget. This strategy includes:

- Developing advanced light water reactors that will incorporate passive safety features in a standardized (modular) design. This will reduce the time needed to license new plants, while assuring that safety issues are adequately addressed. The U.S. is currently supporting first-of-a-kind engineering work that will assist companies in their efforts to have the Nuclear Regulatory Commission certify the safety of standardized designs.
- Conducting research and devlopment on advanced reactor concepts with safety features that go beyond even the standardized designs ("to be intrinsically safe") currently before the Nuclear Regulatory Commission. High temperature gas cooled reactors use specially coated fuel elements that will not fail even under the high temperatures that could occur in an accident. Liquid metal reactors use liquid sodium as the heat exchange medium. Researchers have demonstrated that both reactor types can shut themselves down safely under conditions that would be extremely serious for present-day reactors.

- Reforming the nuclear licensing process through consolidation of the redundant aspects of the construction and operating licensing processess, without compromising nuclear safety concerns.
- Developing a long-term solution to the nuclear waste problem by developing a permanent repository, possibly an interim retrievable storage facility.

DOE is funding programs that are supporting growth in nuclear energy capacity and the life extension of many currently operating plants. According to analysis done for the National Energy Strategy, support from DOE is expected to result in adding new nuclear capacity by 2000 and to have On-line 264 GWe of new nuclear capacity, compared with 120 GWe today. Again, because nuclear power allows the nation to avoid the use of fossil fuels, such an expansion of nuclear use would result in yet a further substantial reduction in CO2 emissions.

***Increase transportation use of alternative fuels.***

Use of oxygenated fuels, such as ethanol, can reduce urban smog levels, tropospheric ozone, and emissions of CO2.

U.S. research has demonstrated the technical feasibility of the processes to produce ethanol from non-food domestic resources such as wood or herbaceous crops.

The U.S. will expand current research programs in alternative fuels to include cost-shared joint ventures aimed at reducing the cost of ethanol from non-food resource. This effort will be coordinated with industry vechicle and engine development programs.

# ENERGY INITIATIVES: *Conservation and Renewable R&D*

The U.S. is funding a large research and development program for conservation and renewable energy. In Fiscal Year 1992 this effort is increased by 18 percent to a level of $495 million.

In the long run, an adequate response to climate change will require the use of new technologies that conserve energy or that provide energy without causing greenhouse gas emissions. These technologies will be needed in all of the economy's sectors.

R&D for energy efficiency in transportation includes work on high temperature internal combustion engines, gas turbine engines, fuel cells and a new initiative for electric vehicles. Air transportation energy efficiency work includes research in hybrid laminar flow, composite materials, improved terminal operations, and improved air traffic control.

Alternative-fuel vehicle demonstration and a scale-up of a wood-to-ethanol process are being done. An initiative to address the problem of combustion emissions in waste-to-energy plants is being started.

Buildings energy efficiency research focuses on the interactions of energy systems, and the efficient use advanced window technologies and building materials to control light and heat entering a building.

Industrial energy efficiency R&D includes funding for more efficient steel, aluminum, and paper processes. A scale-up and test of the use of concentrated solar energy to detoxify liquid wastes will also be done.

The U.S. is proposing to initiate, in the fiscal year 1992 budget, a new joint auto industry—government consortium to develop a battery for electric vehicles. Improved batteries that could extend vehicle range to 120-200 miles could enable electric vehicles to capture as much as 20 percent of the market by 2030. Fuel-cell-powered electric vehicles offer the potential to achieve up to 50 percent efficiencies.

*Total FY 1992 funding for research in new enregy saving technologies is over $900 million.*

# TRENDS: *CO2 Emissions*

U. S. emissions in 1988 were only 2.7 % above the 1973 level, despite the fact that real U. S. GDP, in 1985 dollars, grew by 48 percent over that period.

A key unanswered question about responding to the climate change issue is how to achieve economic growth in developing countries and economic reform in formerly centrally-planned countries without massive increases in greenhouse gas emissions.

Chart 22 compares the recent U. S. emissions trend with countries which contain most of the world's population, have trends of rapidly growing CO2 emissions, and are likely to have substantial emissions-generating economic growth in the coming decades.

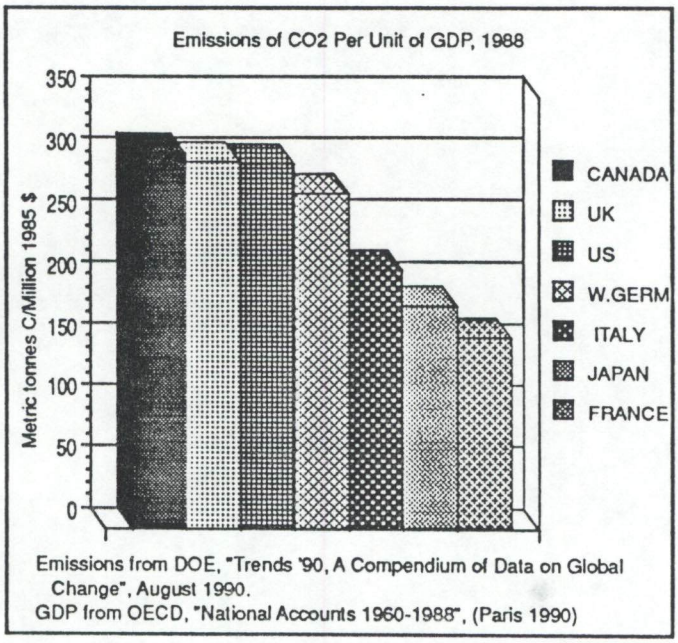



**CHART 19**

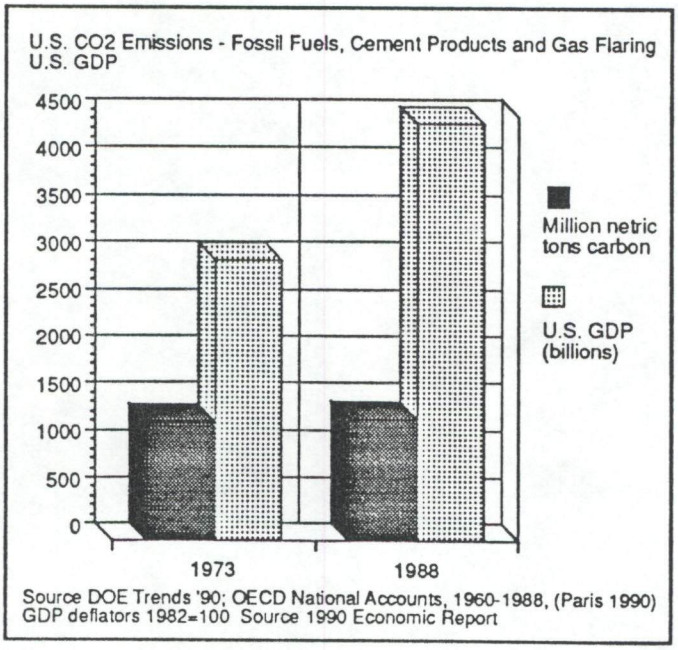



**CHART 20**

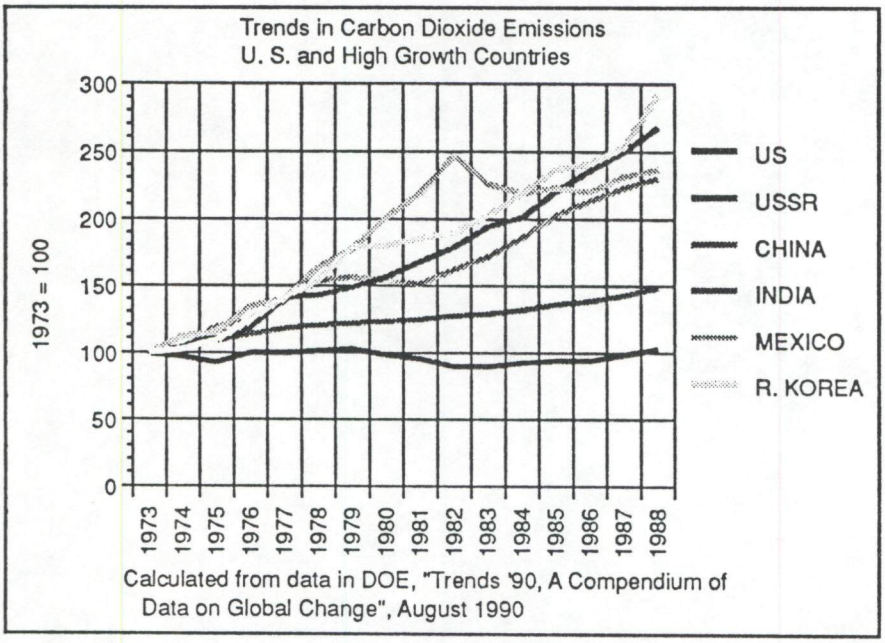



Chart 21 compares the U. S. trend to countries with substantial growth in emissions.

***CHART 21***

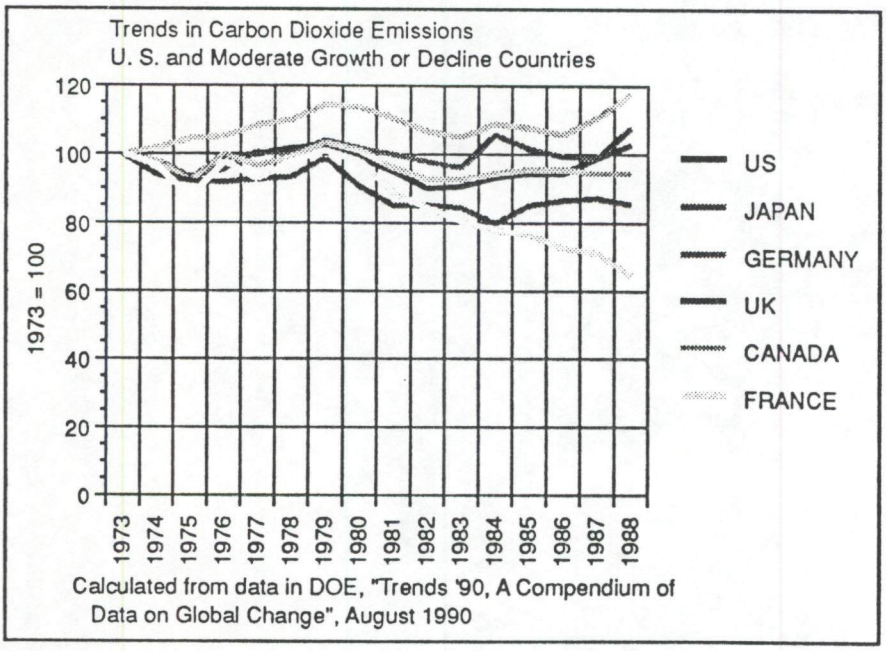



Chart 22 compares the U. S. trend to countries with moderate growth or decline in emissions.

***CHART 22***

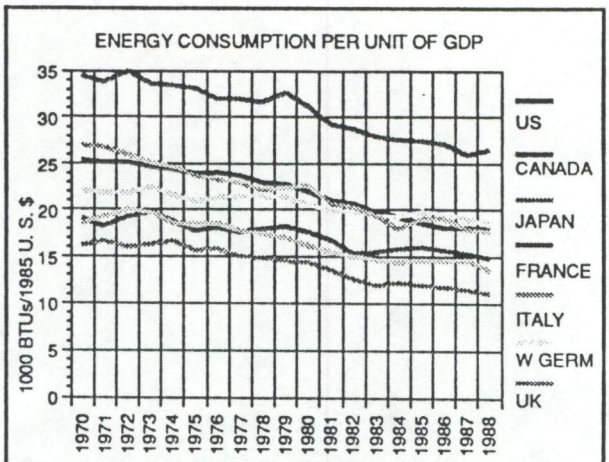
# TRENDS: *Energy Intensity*

Chart 23 compares United States energy consumption per unit of gross domestic product (GDP) with Canada, Japan, France, Italy, West Germany and the United Kingdom - the other G-7 countries.

However, as shown in Chart 24, the United States has improved its energy use/GDP ratio since 1970, averaging an annual improvement of 2 percent per year. In 1988 the U. S. used only 70.9 % as much energy per unit of GDP as it used in 1970.

The United States' rate of improvement in the industrial energy use/gross product orginating (GPO) ratio has been greater than most other G-7 countries, averaging close to 3 percent per year since 1975 (Chart 24).

Since the early 1970s, the United States has improved its heating efficiency on an energy used per square foot per degree day basis. The U.S. used in 1987 only 68.4% of the energy used per square foot in 1972. Today, U.S. energy use in dwellings per square foot per degree day is much lower than most other G-7 countries.




Total Consumption in Quads from International and Contingency Information Division, Statistics Branch, Energy Information Administration

GDP in 1985 $ from "National Accounts 1960-1988", OECD (Paris 1990)

**CHART 23**

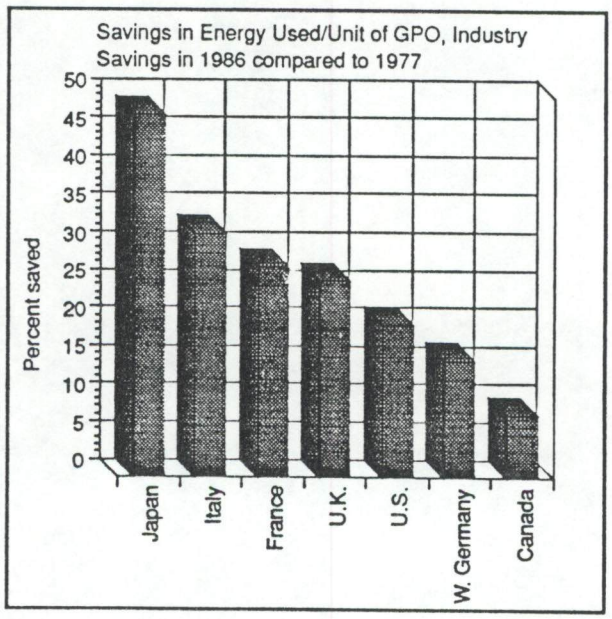



**CHART 24**

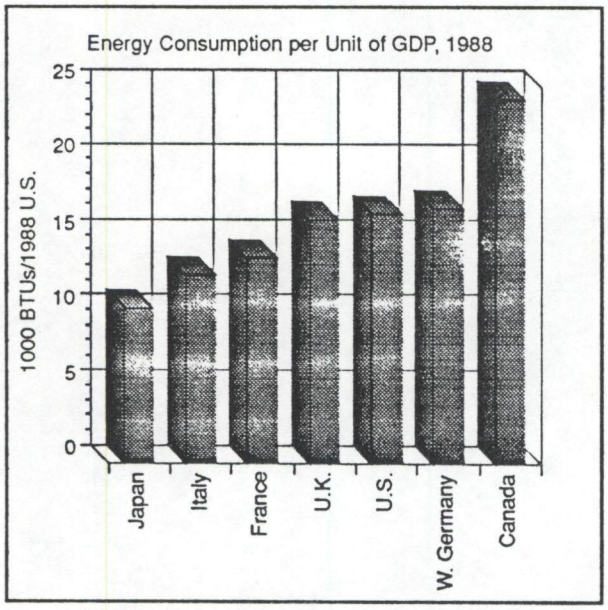

Energy Consumption per Unit of GDP, 1988
1000 BTUs/1988 U.S.
25
20
15
10
5
0
Japan
Italy
France
U.K.
U.S.
W. Germany
Canada

**CHART 25**

# TRENDS: *Transportation*

Population density in the United States is 5 to 10 times less than in many of the other G-7 countries. With such a low density, the U. S. spatial spread between work and home often makes mass transit systems impractical. Distribution of economic activities across a wide continent requires substantial energy consumption for moving people and freight long distances. (chart 30) Transportation energy consumption per capita (Chart 24) is highest in the United States and Canada and substantially lower in the G-7 countries with high population densities.

New car fuel efficiencies in the United States are now roughly even with those of most of the other G-7 countries (Chart 25), despite much more demanding U. S. emissions and auto safety standards. The U. S. 1987 miles per gallon ratio was 28.3, within a relatively narrow range from Japan at 27.7 to the United Kingdom at 31.8. The U. S. from 1973 to 1987 increased its new car fuel economy by 100 percent. (chart 26)

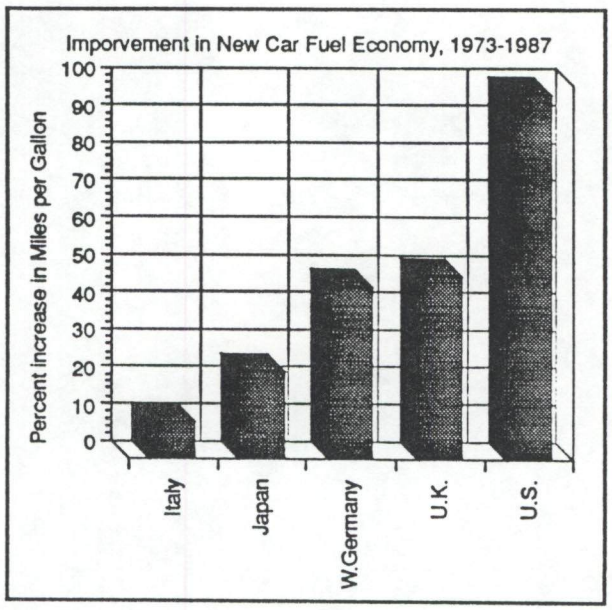
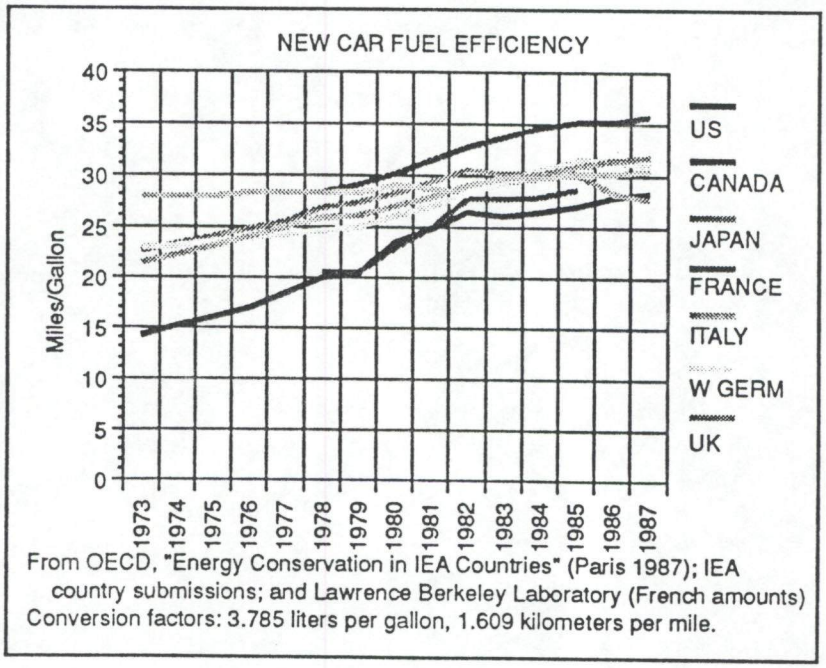
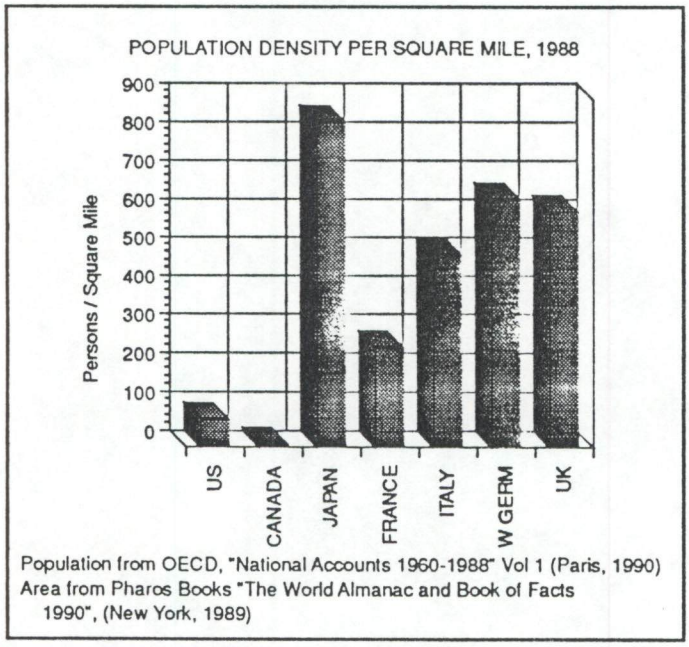



**CHART 28**

**CHART 29**




From OECD, "Energy Conservation in IEA Countries" (Paris 1987); IEA country submissions; and Lawrence Berkeley Laboratory (French amounts)
Conversion factors: 3.785 liters per gallon, 1.609 kilometers per mile.




Population from OECD, "National Accounts 1960-1988" Vol 1 (Paris, 1990)
Area from Pharos Books "The World Almanac and Book of Facts 1990", (New York, 1989)

***CHART 30***

# TRENDS: *Pollution Expenditures*

United States' declines in emissions of volatile organic compounds, carbon monoxide, CFCs, and, to some degree, the stabilization of carbon dioxide emissions over the period from the early 1970s to the present can be attributed to U. S. investment to protect and to clean up the environment. U. S. spending for all pollution control purposes over the period is shown in Chart 17. It has grown by 100 percent from 1972 to 1989.

U. S. pollution control spending has historically been larger compared to the country's Gross Domestic Product than spending by other countries for which data is available. Chart 18 shows pollution control spending as a percentage of Gross Domestic Product.

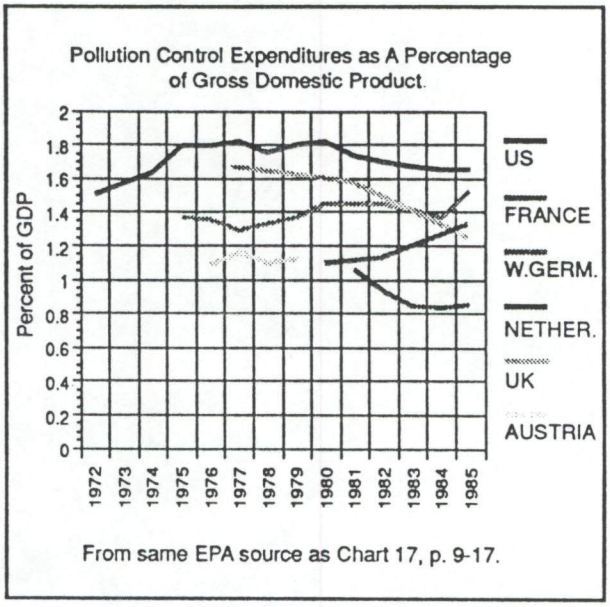



**CHART 32**

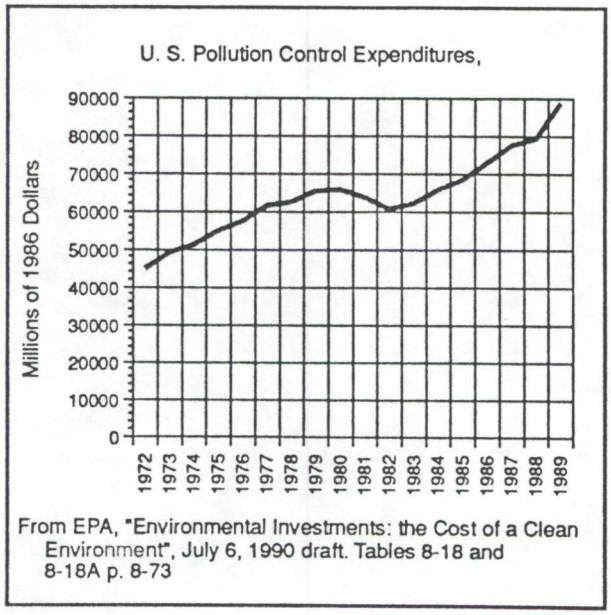



**CHART 33**

# GLOBAL CHANGE RESEARCH

The Intergovernmental Panel on Climate Change (IPCC) stated that, "To reduce the current scientific uncertainties in each of these areas (as listed below) will require internationally coordinated research, the goal of which is to improve our capability to observe, model, and understand the global climate system. Such a program of research will reduce scientific uncertainties and assist in the formulation of sound national and international response strategies".

The U.S. Global Change Research Program (US/GCRP) has been developed as a central component of the United State's approach to global change, and more specifically to address these IPCC identified uncertainties.

In FY 1992, the U.S plans to invest almost $1.2 billion in this Program, which virtually doubles the U.S. commitment to the research program of the US/GCRP since it was initiated in FY 1990 (see chart below).

U.S. scientists have lead the development of an international global change research program. Other countries have joined the U.S. in a coordinated research effort to address critical scientific uncertainties, through such international programs as the World Climate Research Programme ((WCRP) and the International Geosphere–Biosphere Programme (IGBP). The total international research program, for which the U.S. provides about 50% of the financial support, is coordinated through United Nations scientific bodies (i.e., WMO, IOC, and UNEP), through the International Council of Scientific Unions (ICSU), and through the recently established International Group of Funding Agencies for Global Change Research (IGFA).

The central task of the US/GCRP is to develop predictive understanding of the Earth's system's processes, particularly the climate aspects. It is the intent of the US/GCRP to provide leaders of government with the best possible scientific information as inputs to environmental policy decisions.

The highest priorities for the US/GCRP in FY 1992 are to:

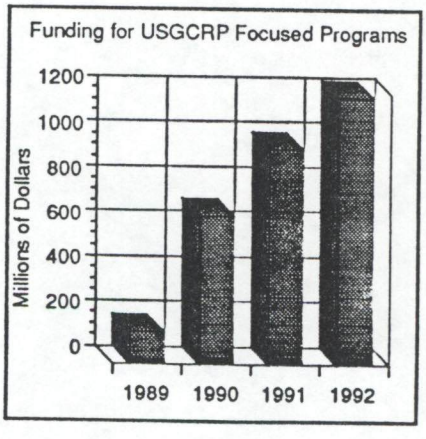
1. Enhance scientific research efforts that seek to *reduce the scientific uncertainties* identified during the IPCC scientific and impact assessments. Specifically, the USGCRP research will focus on understanding the processes affecting:

- *changing concentrations of greenhouse gases*, which are implicated in future global warming predictions;
- *clouds and radiative balance*, which strongly influence the magnitude of climarte change at global and regional scales;
- *oceans*, which influence the timing and patterns of climate change;
- *land–surface hydrology*, which affects regional climate change and water availability;
- *polar ice sheets*, which affect predictions of global sea level changes; and
- *ecological dynamics*, which are impacted by and respond to climate change.

2. Enhance scientific *research to support* the development and implementation of a *comprehensive approach* to greenhouse gas emmissions reductions, specifically a focus on:

- *sources and sinks of greenhouse gases*;
- *development of a quantitative index* of radiative forcing; and
- use of economic models to *generate future scenarios* that cover multiple greenhouse gases and multiple sectors.

The ultimate goals of the US/GCRP are to (1) Obtain a predictive understanding of the interactive physical, chemical, biological, geological, and social processes that regulate natural and human–induced changes in the total Earth system and, (2) Provide a strong scientific basis for national and international policy–making related to changes in the global environment and their regional impacts.



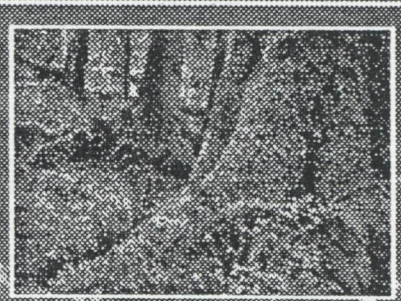
Master Graphic illustrating the
US/GCRP

# CLIMATE CHANGE: Comprehensive Approach

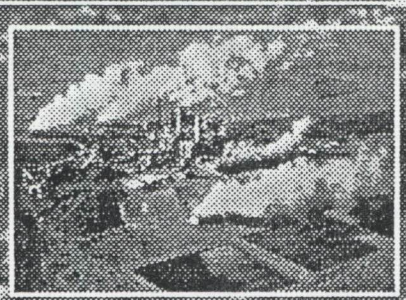
## Gases

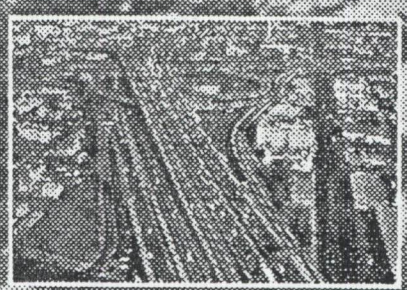
H2O CO2 CH4 COS

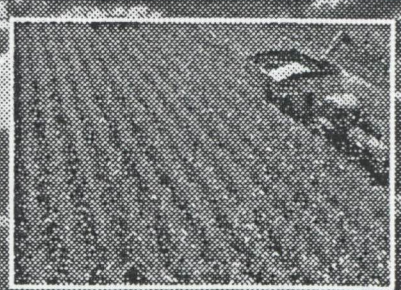
## Sinks



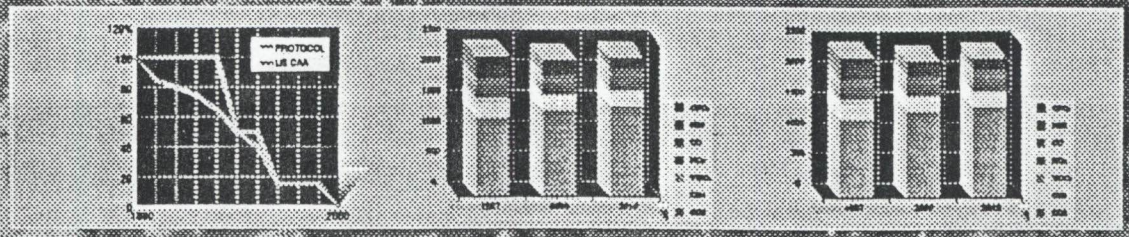
## Sources

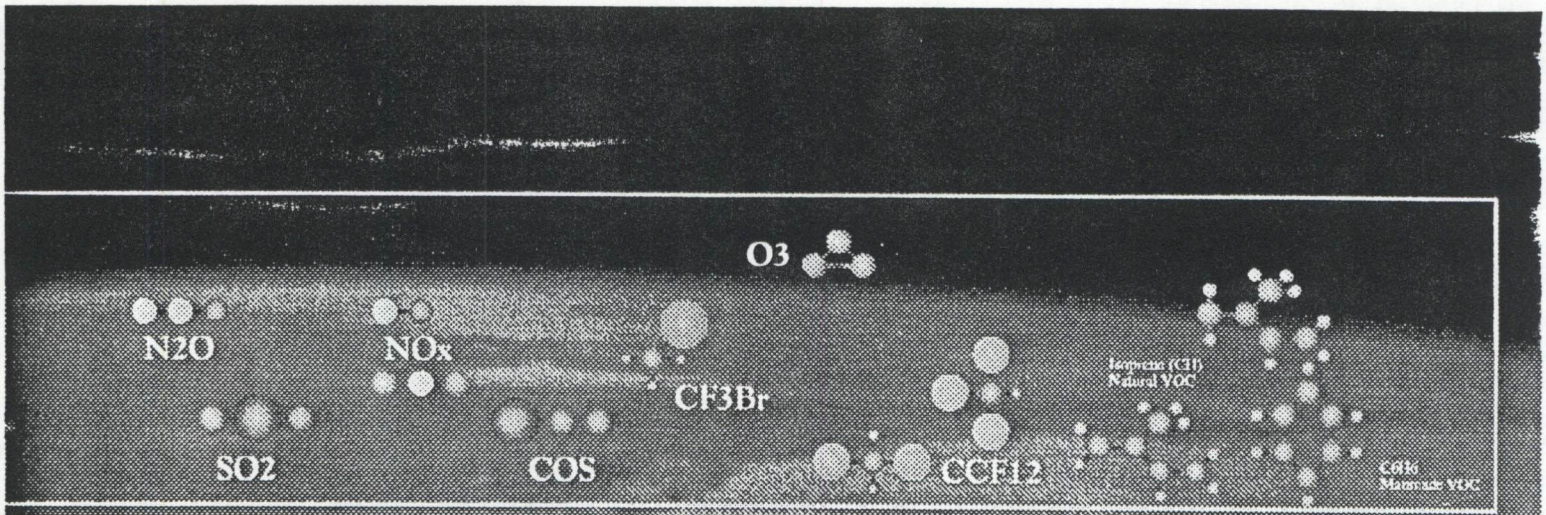


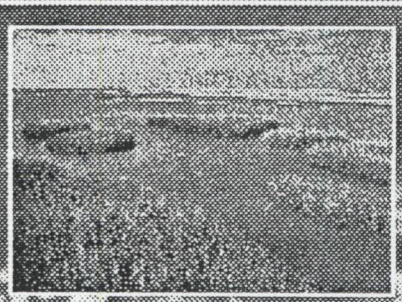


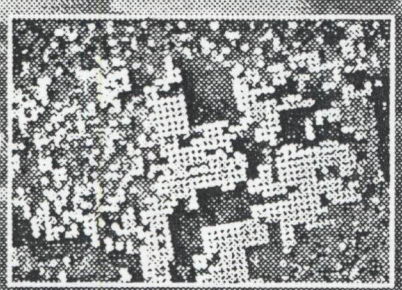


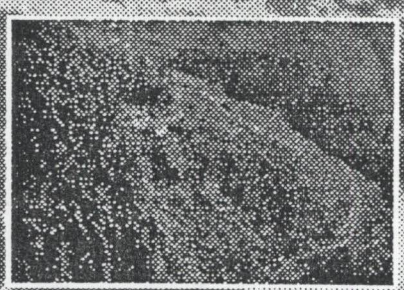
## Global Warming Potential Index









Industrial/
Factories

| GAS | Instantaneous Radiative Forcing per KG (rel. to $CO_2$) | Atmospheric Residence Years (estimated) | Relative Radiative Forcing Potential over Years | | |
|---|---|---|---|---|---|
| | | | 20 | 100 | 500 |
| $CO_2$ | 1 | 120 | 1 | 1 | 1 |
| $CH_4$ | 58 | 10 | 63 | 21 | 9 |
| $N_2O$ | 206 | 150 | 270 | 290 | 190 |
| CFC-11 | 3970 | 60 | 4500 | 3500 | 1500 |
| CFC-12 | 5750 | 130 | 7100 | 7300 | 4500 |

*Source: IPCC Scientific Assessment, 1990, Tables 2.9, 2.8*

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**Office:** Domestic Policy Council
**Series:** Schulteiss, Dean, Files
**Subseries:** Subject Files
**WHORM Cat.:**
**File Location:** Climate Change [2]

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| **Date Closed:** | 2/21/2018 | **OA/ID Number:** | CF00553-003 |
| **FOIA/SYS Case #:** | 2017-0310-F | **Appeal Case #:** | |
| **Re-review Case #:** | | **Appeal Disposition:** | |
| **P-2/P-5 Review Case #:** | | **Disposition Date:** | |
| **AR Case #:** | | **MR Case #:** | |
| **AR Disposition:** | | **MR Disposition:** | |
| **AR Disposition Date:** | | **MR Disposition Date:** | |

## RESTRICTION CODES

**Freedom of Information Act (FOIA) - [5 U.S.C. 552(b)]**

**(b)(1) National security classified information**
**(b)(2) Release would disclose internal personnel rules and practices of an agency**
**(b)(3) Release would violate a Federal statute**
**(b)(4) Release would disclose trade secrets or confidential or financial information**
**(b)(6) Release would constitute a clearly unwarranted invasion of personal privacy**
**(b)(7) Release would disclose information compiled for law enforcement purposes**
**(b)(8) Release would disclose information concerning the regulation of financial institutions**
**(b)(9) Release would disclose geological or geophysical information concerning wells**

**Deed of Gift Restrictions**

**C(1) Closed by Executive Order 13526, governing access to national security information**
**C(2) Closed by statute or by the agency which originated the information**
**C(3) Closed in accordance with restrictions contained in donor's deed of gift [formerly listed as only C]**
**PRM. Removed as a personal record misfile**

**Presidential Records Act - [44 U.S.C. 2204(a)]**

**P-2 Relating to the appointment to Federal office [(a)(2) of the PRA]**
**P-5 Release would disclose confidential advice between the President and his advisors, or between such advisors [(a)(5) of the PRA]**