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EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF SCIENCE AND TECHNOLOGY POLICY
WASHINGTON, D.C. 20506

February 26, 1992

MEMORANDUM FOR CARL BRETSCHER

FROM: NANCY G. MAYNARD

SUBJECT: Senate Appropriations Committee Report

Attached for your review is the report requested by the Senate Appropriations Committee in the area of global change. The request was as follows:

"The Committee continues to be concerned about global change. The fiscal year 1992 budget for global change research is over $1,000,000,000, yet a very small fraction is directly related to policy needs and potential environmental and energy strategies. The Committee directs OSTP to review the current research in light of these policy needs to determine if an adequate balance exists. Additionally, since the United States has agreed to participate in both international research efforts and discussions concerning potential responses to global change, the report should similarly assess the U.S. role in this international arena. It should be submitted by April 1, 1992.

attachment

The current research program, the U.S. Global Change Research Program (USGCRP), has as its stated goal, "... to help establish the scientific understanding and the basis for national and international policymaking related to natural and human-induced changes in the global Earth systems..." "Our Changing Planet: the FY 1991 Research Program" clearly states that the highest priority near-term scientific and policy-related issues for the USGCRP is whether, an to what extent, human activities are changing, or will change, the global climate system. The objective of the research program is to meet policy needs related to the causes of global climate change.

There is, however, another component of policy that has not yet been developed into a national research program. This aspect related to the development of measures within the US to either mitigate greenhouse gas emissions or adapt to what ever changes take place. The policy relationships are obviously several and clearly related to the US "no regrets principle". To initiate this multi-agency planning and assessment activity in support of global climate change issues, OSTP through the Federal Coordinating Council for Science, Engineering and Technology (FCCSET) Committee on Earth and Environmental Sciences (CEES) has established a Working Group on Mitigation and Adaptation Research Strategies (MARS). This working group is still evolving the scope and structure of its national research program. It has, however, initiated the process of coordinating the diverse mitigation and adaptation program development activities of each Federal agency and of serving as a forum for research and assessment planning discussions. In 1991, MARS identified more than 10 million in research programs focused directly on solving problems associated with mitigation and adaptation. These programs are in such agencies as Department of Energy, Environmental Protection Agency, and U.S. Department of Agriculture but also include many other agencies. We anticipate updating the directory of research this coming summer. It is important to note that these agencies, as well as others, have larger programs initiated to meet national needs that will continue to contribute results of these programs to the US "no regrets" approach to mitigation and adaptation. One of the major objectives of MARS is to encourage or catalyze strong linkages between Federal research laboratories and the private sector research laboratories. Thus, through cooperative research agreements, new knowledge, new technologies, as well as the assessments of social and economic costs and benefits, can be made available as quickly as possible.

More recently, OSTP has further identified the need to support the economic assessment of global change, and building on the 1990"White House Conference on Economics Related to Global Climate Change", has established a new Economics Subcommittee in CEES. This Subcommittee supports research activities in the USGCRP, and supports economic assessments of mitigative and adaptive strategies as they are developed among the various Federal agencies. For FY 1993, the Federal research program on the Economics of Global Change has a proposed budget of $12.7 million. This is an increase of $8 million or nearly triple the funding level of 4.7 million appropriated for FY 1992.

Regarding US participation in international global change, the US is a full member in many international programs including, among others, the Greenland Ice Sheet Project II, Tropical Ocean Global Atmospheric Program, and the Global Atmospheric Chemistry

Program. In addition, OSTP, representing the President, has undertaken planning of a regional institute on global change, specifically the Inter-American Institute for Global Change Research, to be established in mid-1992. This is coincident to the Global Change System for Analysis, Research and Training initiative for regional research centers. USGCRP members are also participating in providing scientific input to international negotiations on ozone layer protection and avoiding human-influenced climate change.

Finally, regarding the involvement of the US in international discussions concerning potential responses to climate change, such involvement is maintained at several international and intergovernmental levels. For example, within the Intergovernmental Panel on Climate Change (IPCC), the US has chaired the Responses Strategies Working Group with a focus on strategies to limit and mitigate greenhouse gases in the areas of Energy and Industry, Agriculture, Forestry and Other Human Activities; as well as adaptation to climate change under the Coastal Zone Management. The US agencies have committed considerable financial resources and time of top level scientists and agency policy advisors to support these activities. The resulting assessment reports are now providing basic policy guidance to governments throughput the world. Likewise, the update of the IPCC report has been fully incorporated into the deliberation and debate of the Intergovernmental Negotiating Committee (INC) on the Framework Convention on Climate Change. It is our opinion that the US involvement in the IPCC has significantly enhanced the international process of technology assessment and policy debate.

US scientists also are fully involved in the development of the science assessment and its updates as well as the assessment of potential impacts of climate change.

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF SCIENCE AND TECHNOLOGY POLICY
WASHINGTON, D.C. 20506

April 1, 1992

Dear Madam Chair:

In its report (S.Rpt. 102-107) accompanying the Departments of Veterans Affairs and Housing and Urban Development, and Independent Agencies Appropriations Act for FY 1992, the Senate Appropriations Committee requested from OSTP a report on global climate change research. Specifically, the Committee wrote:

> "The Committee continues to be concerned about global change. The fiscal year 1992 budget for global change research is over $1,000,000,000, yet a very small fraction is directly related to policy needs and potential environmental and energy strategies. The Committee directs OSTP to review the current research in light of these policy needs to determine if an adequate balance exists. Additionally, since the United States has agreed to participate in both international research efforts and discussions concerning potential responses to global change, the report should similarly assess the U.S. role in this international arena. It should be submitted by April 1, 1992."

I am pleased to submit this report to the Committee. The current U.S. Global Change Research Program (USGCRP) has as its stated goal: ". . . to help establish the scientific understanding and the basis for national and international policymaking related to natural and human-induced changes in the global Earth systems . . . ." The annual USGCRP reports, titled "Our Changing Planet," clearly state that the highest priority near-term scientific and policy-related issues for the USGCRP to address are whether and to what extent human activities are changing or will change the global climate system. Thus, the research effort supported through the USGCRP provides for accumulating the necessary knowledge base on which judicious policy can be made. The integrated assessment component of the USGCRP is designed to provide regular and up-to-date analysis of global change information, including its socio-economic dimension, to policy makers.

Another relevant policy component is related to the development of measures within the U.S. to either mitigate greenhouse gas emissions or to adapt to whatever changes take place. For this, OSTP, through the Federal Coordinating Council for Science, Engineering, and Technology (FCCSET) Committee on Earth and Environmental Sciences (CEES), has established a Working Group on Mitigation and Adaptation Research Strategies (MARS). This working group is developing the scope and structure of the program. It has initiated the process of coordinating the diverse mitigation and

adaptation program development activities of each federal agency and of serving as a forum for research and assessment planning discussions. In 1991, MARS identified more than $10 million in research programs focused directly on solving problems associated with mitigation and adaptation. These programs are in such agencies as the Department of Energy, the Environmental Protection Agency, and the Department of Agriculture, as well as many others. We anticipate updating this directory of research later this year. It is important to note that these agencies, as well as others, have larger programs initiated to meet national needs that will indirectly continue to contribute to mitigation and adaptation research. One of the major objectives of MARS is to encourage or catalyze strong linkages between federal research laboratories and private sector research laboratories. Thus, through cooperative research agreements, new knowledge, new technologies, and assessments of social and economic costs and benefits can be made available as quickly as possible.

More recently, OSTP has stressed the need to support a sustained effort on the economics of global change and, building on the 1990 "White House Conference on Scientific and Economics Research Related to Global Change," is establishing a new Economics Subcommittee in CEES. This Subcommittee will coordinate research activities and economic assessments of mitigative and adaptative strategies as they develop among the various federal agencies. For FY 1993, the Administration has proposed a budget of $12.7 million for research on the economics of global change. This budget represents an increase of $8 million over the FY 1992 level, or nearly triple the $4.7 million appropriated for FY 1992.

With regard to U.S. participation in international global change research and other activities, the U.S. is a full member in many international programs, including the Greenland Ice Sheet Project II, the Tropical Ocean Global Atmospheric Program, the Global Atmospheric Chemistry Program, and other programs. In addition, OSTP, representing the President, has undertaken planning of a regional institute on global change, specifically the Inter-American Institute for Global Change Research, to be established in mid-1992. This is consistent with IGBP's START initiative on the Global Change System for Analysis, Research, and Training Initiative for developing a world-wide network of focused regional global change research efforts. USGCRP members are also participating in providing scientific input to international negotiations on ozone layer protection and avoiding human-influenced climate change.

Finally, with regard to U.S. involvement in international discussions concerning potential responses to climate change, such involvement is maintained at several international and intergovernmental levels. For example, within the Intergovernmental Panel on Climate Change (IPCC), the U.S. has chaired the Response Strategies Working Group, which focuses on strategies to limit and mitigate greenhouse gases in the areas of energy and industry, agriculture, forestry, and other human activities, as well as on strategies to adapt to climate change. The U.S. agencies have committed considerable financial resources and the time of top scientists and agency policy advisors to support these activities. U.S. scientists are also fully involved in the development and updates of scientific assessments, including assessments of the potential impacts of climate change.

These assessment reports are now providing basic policy guidance to governments throughout the world. Likewise, the update of the IPCC report has been fully incorporated into the deliberation and debate of the Intergovernmental Negotiating Committee (INC) on the Framework Convention on Climate Change. It is our opinion that the U.S. involvement in the IPCC has significantly enhanced the international process of technology assessment and policy debate.

Thank you again for your interest in these matters.

Sincerely yours,

D. Allan Bromley
Director

The Honorable Barbara Mikulski, Chair
Subcommittee on Veterans Affairs, HUD,
and Independent Agencies
Committee on Appropriations
United States Senate
Washington, D.C. 20510

cc: The Honorable Jake Garn
Subcommittee on Veterans Affairs, HUD,
and Independent Agencies

Critical Technologies

Assigned to: Industrial Technology
Due to DAB/ADs: February 26, 1992
Due to OMB: March 4, 1992
Due to Cmte: April 1, 1992

"The Committee recently received the report of the National Critical Technologies Panel. The report listed critical or emerging technologies and fully discussed their significance. The Committee is concerned, however, that a detailed Federal strategy and plan that respond to the needs for development and deployment of these technologies is (sic) still not in place. To this end, the Committee directs OSTP to provide a detailed plan for such implementation. The plan should include Agency roles and budgetary estimates that convey an appropriate Federal commitment, and recommendations for action to stimulate the private sector. The Committee requests a report be submitted by April 1, 1992."

FCCSET and Interagency Initiatives

Assigned to: FCCSET, in conjunction with appropriate ADs
Due to DAB/ADs: November 25, 1991
Due to OMB: December 4, 1991
Due to Cmte: January 1, 1992

"The Committee is pleased to see the leadership of OSTP in utilizing the (FCCSET) to establish interagency coordination for several important research agenda. Notable to date have been initiatives on global change research, high-performance computing and communications, and education and human resources. The Committee is pleased to see the recent report 'Maximizing Human Potential: The Decade of the Brain,' identifying progress and opportunities in brain research. The Committee urges OSTP to continue its role in coordinating potential new initiatives including advanced materials, biotechnology, and brain research. The Committee directs OSTP to prepare a report discussing the development of the initiatives that are being prepared for fiscal year 1993, and the prospects for future initiatives. The report should be submitted by January 1, 1992."

Global Change Research

Assigned to: International/Environment
Due to DAB/ADs: February 26, 1992
Due to OMB: March 4, 1992
Due to Cmte: April 1, 1992

"The Committee continues to be concerned about global change. The fiscal year 1992 budget for global change research is over $1,000,000,000, yet a very small fraction is directly related to policy needs and potential environmental and energy strategies. The Committee directs OSTP to review the current research in light of these policy

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF MANAGEMENT AND BUDGET

TO: Carl Bretscher 6 pages 3261

FROM: Jack Fellows
202-395-3935/FAX-4817

DATE: March 20, 1992

REMARKS: Global Change Report

We did not have any comments on this package. The CEES did have a few (attached). I read through the CEES comments. I thought their suggested paragraph A was pretty good. You should use your judgement.

NATIONAL SCIENCE FOUNDATION
WASHINGTON, D.C. 20550

OFFICE OF THE
ASSISTANT DIRECTOR
FOR GEOSCIENCES

FACSIMILE COVER SHEET

FROM: HASSAN VIRJI PHONE: 202/357-9715 DATE: 18 MAR

TOTAL NO. OF PAGES 6 FAX NO. 202/357-9629

SUBJECT: COMMENTS ON OSTP RESPONSE ON GC ISSUE

TO: JACK FELLOWS FAX NO. ADDRESS: OMB

JACK:

1. HERE ARE COMMENTS, MOSTLY EDITORIAL, ON THE DRAFT RESPONSE.

2. WHILE THE REVISED DRAFT IS A FAIR AND FACTUAL SUMMARY, IT DOES NOT CONVINCINGLY (IN MY VIEW) DEFLECT THE THRUST OF THE SENATE COMMITTEE'S CONTENTION THAT "A VERY SMALL FRACTION is DIRECTLY RELATED TO POLICY NEEDS". MY SUGGESTED ADDITION, PARA "A" IS AN ATTEMPT TO DO THIS. BASIC ARGUMENT SHOULD BE: The U.S. recognizes that making judicious policy on global change issues must be predicated on a sound knowledge base - the USGCRP focus on IPCC (ie. international consensus) based research priorities aimes to do that. It is ∴ appropriat to devote a significant fraction of $ to this

COMMENTS:

DRAFT

March 13, 1992

Dear Madam Chair:

In its report (S.Rpt. 102-107) accompanying the Departments of Veterans Affairs and Housing and Urban Development, and Independent Agencies Appropriations Act for FY 1992, the Senate Appropriations Committee requested from OSTP a report on global climate change research. Specifically, the Committee wrote:

> "The Committee continues to be concerned about global change. The fiscal year 1992 budget for global change research is over $1,000,000,000, yet a very small fraction is directly related to policy needs and potential environmental and energy strategies. The Committee directs OSTP to review the current research in light of these policy needs to determine if an adequate balance exists. Additionally, since the United States has agreed to participate in both international research efforts and discussions concerning potential responses to global change, the report should similarly assess the U.S. role in this international arena. It should be submitted by April 1, 1992."

I am pleased to submit this report to the Committee. The current U.S. Global Change Research Program (USGCRP) has as its stated goal: "... to help establish the scientific understanding and the basis for national and international policymaking related to natural and human-induced changes in the global Earth systems ...." The annual USGCRP reports, titled "Our Changing Planet," clearly state that the highest priority near-term scientific and policy-related issues for the USGCRP to address are whether and to what extent human activities are changing or will change the global climate system. (Ψ) ADD SENTENCE -SEE ATTACHED, PARA "A"

~~There is, however, another component of policy that has not yet been developed into a national research program. This aspect~~ policy relevant ~~further~~ that is related to the development of measures within the U.S. to either mitigate greenhouse gas emissions or to adapt to whatever changes take place. ~~The policy relationships are obviously several and clearly related to the principles behind U.S. policy. To initiate this multi-agency planning and assessment activity in support of global climate change issues,~~ For this, OSTP, through the Federal Coordinating Council for Science, Engineering, and Technology (FCCSET) Committee on Earth and Environmental Sciences (CEES) has established a Working Group on Mitigation and Adaptation Research Strategies (MARS). This working group is ~~still evolving~~ developing the scope and structure of ~~its national research~~ the program. It has, ~~however,~~ initiated the process of coordinating the diverse mitigation and adaptation

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research — ↓ indirectly

More recently, OSTP has stressed the need to support a sustained effort on the economics of global change, and building on the 1990 "White House Conference on Economics Related to Global Climate Change," has established a new Economics Subcommittee in CEES. This Subcommittee will coordinate research activities and supports economic assessments of mitigative and adaptative strategies as they are developed among the various federal agencies. For FY 1993, the Administration has proposed a budget of $12.7 million for research on the economics of global change. This budget represents an increase of $8 million over the FY 1992 level, or nearly triple the $4.7 million appropriated for FY 1992.

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and Independent Agencies
Committee on Appropriations
United States Senate
Washington, D.C. 20510

cc: The Honorable Jake Garn
Subcommittee on Veterans Affairs, HUD,
and Independent Agencies

PARA "A"

(4) Insert at end of para 3, page 1:

Thus, the research effort supported through the USGCRP provides for accumulating the necessary knowledge base on which judicious policy can be made. The integrated assessment component of the USGCRP is designed to provide regular and up-to-date analyses of global change information, including its socio-economic dimension, to the policy makers.

RESPONSE TO OSTP

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Response:

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