

August 2005

CLIMATE CHANGE

Federal Reports on Climate Change Funding Should Be Clearer and More Complete



G A O

Accountability ★ Integrity ★ Reliability



Highlights of [GAO-05-461](#), a report to congressional requesters

Why GAO Did This Study

The Congress has required the administration to report annually on federal spending on climate change. The Office of Management and Budget (OMB) reports funding in four categories: technology (to reduce greenhouse gas emissions), science (to better understand the climate), international assistance (to help developing countries), and tax expenditures (to encourage reductions in emissions). The Climate Change Science Program (CCSP), which coordinates many agencies' activities, reports only on science. To measure funding, OMB and CCSP use budget authority, the authority provided in law to enter into financial obligations that will result in government outlays.

GAO was asked to examine federal climate change funding for 1993 through 2004, as reported by both agencies, including (1) how total funding and funding by category changed and whether funding data are comparable over time and (2) how funding by agency changed and whether funding data are comparable over time.

What GAO Recommends

GAO recommends, among other things, that OMB and CCSP explain any changes in their reports' content or format. GAO also recommends that OMB include data on existing climate-related tax expenditures. OMB agreed with most of GAO's recommendations and is studying the others. CCSP agreed with all of GAO's recommendations.

www.gao.gov/cgi-bin/getrpt?GAO-05-461.

To view the full product, including the scope and methodology, click on the link above. For more information, contact John B. Stephenson at (202) 512-3841, or stephensonj@gao.gov.

CLIMATE CHANGE

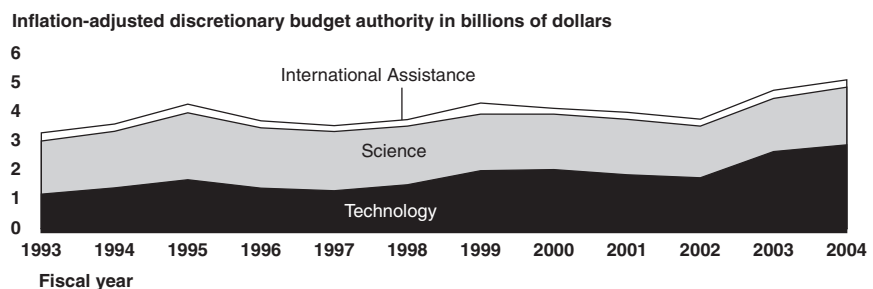
Federal Reports on Climate Change Funding Should Be Clearer and More Complete

What GAO Found

Federal funding for climate change increased from \$2.4 billion in 1993 to \$5.1 billion in 2004 (116 percent), as reported by OMB, or from \$3.3 billion to \$5.1 billion (55 percent) after adjusting for inflation. During this period, inflation-adjusted funding increased for technology and science, but decreased for international assistance. The share for technology increased (36 to 56 percent), while the shares for science and international assistance decreased (56 to 39 percent and 9 to 5 percent, respectively). However, it is unclear whether funding changed as much as reported because modifications in the format and content of OMB reports limit the comparability of funding data over time. For example, OMB reported that it expanded the definitions of some accounts to include more activities, but did not specify how it changed the definitions. Also, while OMB's totals for science funding were generally comparable to CCSP's totals, the more detailed data in CCSP reports were difficult to compare over time because CCSP introduced new categorization methods without explaining how they related to the previous methods. OMB officials stated that changes in their reports were due, in part, to the short timeline for completing them, and that it has not been required to follow a consistent reporting format from one year to the next. The Director of CCSP said that its reports changed as the program evolved. GAO was unable to compare climate-related tax expenditures over time because OMB reported data on *proposed*, but not on *existing* tax expenditures. For example, while OMB reported no funding for existing climate-related tax expenditures in 2004, GAO identified four such tax expenditures in 2004, including revenue loss estimates of \$330 million to develop certain renewable energy sources.

OMB reported that 12 of the 14 agencies that funded climate change programs in 2004 increased such funding between 1993 and 2004, but unexplained changes in the reports' contents limit the comparability of data on funding by agency. GAO found that OMB reported funding for certain agencies in some years but not in others, without explanation. For example, OMB reported funding of \$83 million for the Department of Defense in 2003, but did not list any such funding in prior reports. OMB told GAO that it relied on agency budget offices to submit accurate data.

Reported Federal Climate Change Funding by Category, 1993-2004



Source: GAO analysis of OMB data.

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Abbreviations

CBO	Congressional Budget Office
CCRI	Climate Change Research Initiative
CCSP	Climate Change Science Program
CCTP	Climate Change Technology Program
DOD	Department of Defense
DOE	Department of Energy
EPA	Environmental Protection Agency
GEF	Global Environment Facility
NASA	National Aeronautics and Space Administration
NIH	National Institutes of Health
NSF	National Science Foundation
OMB	Office of Management and Budget
USAID	United States Agency for International Development
USGCRP	United States Global Change Research Program

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United States Government Accountability Office
Washington, D.C. 20548

August 25, 2005

The Honorable John McCain
The Honorable John Kerry
United States Senate

The earth's average temperature has increased by about 1 degree Fahrenheit over the last 100 years. While this increase seems small, projected additional changes in temperature, as well as other aspects of the climate, may alter human social and economic activities. For example, changes in the frequency and intensity of rainfall, both possible effects of climate change, could impact crop yields in certain locations. For more than a decade, the federal government has funded programs to study the earth's climate and to reduce emissions of carbon dioxide and other greenhouse gases linked to climate change. According to the Office of Management and Budget (OMB), 9 of the 15 cabinet-level executive departments, along with 5 other federal agencies, received funding for climate change activities in 2004.

OMB, in annual reports and testimony before the Congress, reported climate change funding for 1993 through 2004 using four categories:

- **Technology**, which includes the research, development, and deployment of technologies and processes to reduce greenhouse gas emissions or increase energy efficiency. Funding for this category focuses on programs for energy conservation, renewable energy, and related efforts.
- **Science**, which includes research and monitoring to better understand climate change, such as measuring changes in forest cover and land use.
- **International assistance**, which helps developing countries to address climate change by, for example, providing funds for energy efficiency programs.

-
- **Tax expenditures** related to climate change, which are federal income tax provisions that grant preferential tax treatment to encourage emission reductions by, for example, providing tax incentives to promote the use of renewable energy.¹

Over the same time period, the administration also reported annually on funding specifically for climate change science, one of the four categories used in OMB reports. The Climate Change Science Program (CCSP)—a multi-agency coordinating group—is currently responsible for preparing the climate change science reports.

At your request, we examined (1) how total funding and funding by category changed and the extent to which data on such funding are comparable over time and (2) how funding by agency changed and the extent to which data on such funding are comparable over time. We also examined whether OMB and CCSP reports provided the data required by the Congress.

To determine how federal climate change funding by category and agency changed, we analyzed data from annual OMB and CCSP reports, as well as congressional testimony. To determine the extent to which the data on climate change funding were comparable, we analyzed and compared the contents of the reports. If changes in the reports were not explained, we asked responsible officials to explain the changes. To examine whether OMB and CCSP reports provided the data required by the Congress, we reviewed the reporting requirements, the legislative history of these requirements, and the data presented by OMB and CCSP in their reports. The term “funding” in this report reflects discretionary budget authority, or the authority provided in law to incur financial obligations that will result in outlays, as reported by OMB and CCSP in their reports.² Unless otherwise stated, we report funding in nominal terms (not adjusted for inflation), and all years refer to fiscal years. When we adjusted for inflation, we used a fiscal year price index that we calculated based on a calendar

¹The revenue losses resulting from provisions of federal tax laws may, in effect, be viewed as expenditures channeled through the tax system. The Congressional Budget and Impoundment Control Act of 1974, as amended, requires that the budget include the level of tax expenditures under existing law. Like the annual lists of tax expenditures prepared by the Department of the Treasury, this report considers only tax expenditures related to individual and corporate income taxes and does not address excise taxes.

²An OMB official stated that there is no mandatory budget authority for climate change programs.

year price index published by the Department of Commerce's Bureau of Economic Analysis. Unless otherwise specified, figures represent actual funding (not estimates), with the exception of 1993, 1994, and 2004, where we present estimated funding reported by CCSP because actual data are not available. For the purposes of this report, the term "agency" includes executive departments and agencies, and we use the term "account" to describe the budget accounts, line items, programs, and activities presented in OMB and CCSP reports. Throughout this report, we characterize all climate change science reports from 1993 through 2004 as CCSP reports, even though CCSP has been in existence only since 2002, and reports prior to 2002 were published by a predecessor organization. Totals and percentages may not add due to rounding. A more detailed description of our scope and methodology is presented in appendix I. For presentation purposes, we show federal climate change funding for 1993, 1997, 2001, and 2004 in report tables. Funding data for 1993 through 2004 are shown in appendixes II, III, and IV. We performed our work between July 2004 and August 2005 in accordance with generally accepted government auditing standards.

Results in Brief

Federal funding for climate change, as reported by OMB, increased from \$2.35 billion in 1993 to \$5.09 billion in 2004 (116 percent), or from \$3.28 billion to \$5.09 billion (55 percent) after adjusting for inflation, and funding increased for three of the four categories between 1993 and 2004. However, changes in reporting methods limit the comparability of funding data over time, and therefore it is unclear whether total funding actually increased as much as reported. We were unable to compare changes in the fourth category—climate-related tax expenditures—because OMB reported estimates for proposed but not existing tax expenditures from 1993 through 2004. Specifically, we found that:

- **Technology** funding increased from \$845 million to \$2.87 billion (239 percent), or from \$1.18 billion to \$2.87 billion in inflation-adjusted dollars (143 percent). The share of total climate change funding devoted to technology increased from 36 percent to 56 percent. However, we identified several ways that technology funding presented in OMB's more recent reports may not be comparable to previously reported technology funding. For example, OMB added accounts to the technology category that were not reported before or were presented in different categories, but it did not explain whether these accounts reflected the creation of new programs, or a decision to count existing programs for the first time. OMB also expanded the definitions of some

accounts to include more activities without clarifying how the definitions were changed.

- **Science** funding increased from \$1.31 billion to \$1.98 billion (51 percent), according to both OMB and CCSP, or from \$1.82 billion to \$1.98 billion in inflation-adjusted dollars (9 percent). However, its share of total climate change funding decreased from 56 percent to 39 percent. OMB and CCSP generally presented consistent climate change science funding totals from 1993 through 2004. CCSP reports also presented more detailed data, but these data were difficult to compare over the entire time period because CCSP periodically introduced new categorization methods without explaining how the new methods related to the ones they replaced. Specifically, from 1993 through 2004, CCSP used seven different methods to present detailed science funding data, making it impossible to develop consistent funding trends over the entire timeframe.
- **International assistance** funding increased from \$201 million to \$252 million (a 25 percent increase), but decreased from \$280 million to \$252 million in inflation-adjusted dollars (a 10 percent decrease). Moreover, its share of total climate change funding decreased from 9 percent to 5 percent. International assistance funding reported by OMB was generally comparable over time, although several new accounts were added without explanation.
- **Tax expenditures** were not fully reported by OMB for any year, even though climate-related tax expenditures amounted to hundreds of millions of dollars in revenue forgone by the federal government in fiscal year 2004. Although not required to do so, OMB reported *proposed* climate-related tax expenditures. However, OMB did not report revenue loss estimates for *existing* climate change-related tax expenditures. Whereas OMB reported no funding for existing climate change-related tax expenditures in 2004, the most recent federal budget listed four tax expenditures related to climate change in that year, including estimated revenue losses of \$330 million for incentives to develop certain renewable energy sources.

OMB and CCSP officials told us that time constraints and other factors contributed to changes in report structure and content over time. For example, OMB officials said that the short timeline for completing the report required by the Congress (within 45 days of submitting the upcoming fiscal year's budget for the three most recent reports) limited

OMB's ability to analyze data submitted by agencies. They also noted that each report was prepared in response to a one-time requirement and that they were not directed to use the same report format over time or explain differences in methodology from one report to another. The director of CCSP told us that changes to climate change science reports, such as the creation and deletion of different categorization methods, were made because CCSP was changing towards a goals-oriented budget, and categorization methods changed as the program evolved. The director also said that future reports will explicitly present budget data as it was reported in prior reports to retain continuity, even if new methods are introduced. Regarding tax expenditures, OMB officials said that they consistently included in the reports those proposed tax expenditures where a key purpose was specifically to reduce greenhouse gas emissions. They also stated that they have not included existing tax expenditures that may have greenhouse gas benefits but were enacted for other purposes, and that the Congress has not provided any guidance to suggest that additional tax expenditure data should be included in the annual reports.

OMB reported that 12 of the 14 agencies that received funding for climate change programs in 2004 received more funding in that year than they had in 1993, but it is unclear whether funding changed as much as was reported by OMB because unexplained modifications in the reports' contents limit the comparability of agencies' funding data. Reported funding for the Department of Energy (DOE), the agency with the most reported climate-related funding in 2004, increased from \$963 million to \$2.52 billion (162 percent), or from \$1.34 billion to \$2.52 billion after adjusting for inflation (88 percent). DOE and the National Aeronautics and Space Administration (NASA) accounted for 81 percent of the reported increase in funding from 1993 through 2004. However, because agency funding totals are composed of individual accounts, the changes in the reports' contents discussed earlier, such as the unexplained addition of accounts to the technology category, limit the comparability of agencies' funding data over time. For example, OMB reported Army, Navy, Air Force, and Defense-wide funding totaling \$83 million in 2003, and \$51 million in 2004, in accounts titled Research, Development, Test, and Evaluation, but did not report these accounts in prior years. OMB did not explain whether these accounts reflected the creation of new programs or a decision to count existing programs for the first time. Accordingly, there is some uncertainty about the Department of Defense's (DOD) climate change funding over time. OMB stated that it consistently reported funding data for the 3 years presented in each report and that there has been no requirement to use a

consistent format from one report to the next or to explain differences in methodology from one report to another.

We found that OMB reports presented information on budget authority, not—as required by the Congress—on expenditures and obligations. The Congress has required that information be provided on expenditures and obligations, the amounts actually spent or committed to be spent, while OMB reports generally have presented information on a different measure, budget authority, or the amount of funding provided by the Congress. OMB officials told us that they adopted their approach because the relevant congressional committees generally use budget authority. They told us that they continued to report on this basis because these committees have not objected to OMB’s approach. Currently, CCSP is responsible for reporting information relating to the federal budget and federal funding for climate change science, not climate change expenditure information. CCSP has fulfilled recent reporting requirements by providing budget authority information.

We are recommending that OMB and CCSP, from year-to-year, each use the same format for presenting data, to the extent that they are able to do so and remain in compliance with reporting requirements, explain changes in report content or format when they are introduced, and provide and maintain a crosswalk comparing new and old report structures when changes in report format are introduced. We are also recommending that OMB include data on existing climate-related tax expenditures in future reports. Finally, we are recommending that OMB request that the Congress clarify whether future reports should be presented in terms of expenditures and obligations or in terms of budget authority, and if the Congress prefers the former, OMB should request the necessary time to prepare reports on that basis.

We received oral comments from OMB on August 1, 2005, and written comments from CCSP in a letter dated July 28, 2005. OMB agreed with the recommendations relating to report content and format and said it was studying the other recommendations. CCSP agreed with all of our recommendations.

Background

In 1990, the Congress enacted the Global Change Research Act.³ This act, among other things, required the administration to (1) prepare and at least every 3 years revise and submit to the Congress a national global change research plan, including an estimate of federal funding for global change research activities to be conducted under the plan; (2) in each annual budget submission to the Congress, identify the items in each agency's budget that are elements of the United States Global Change Research Program (USGCRP), an interagency long-term climate change science research program; and (3) report annually on climate change "expenditures required" for the USGCRP.⁴ In 1992, the United States signed and ratified the United Nations Framework Convention on Climate Change, which was intended to stabilize the buildup of greenhouse gases in the earth's atmosphere, but did not impose binding limits on emissions. Five years later, the United States participated in drafting the Kyoto Protocol, an international agreement to specifically limit greenhouse gas emissions. The Protocol did not impose limits on developing nations' emissions, and its possible effect on the U.S. economy was the subject of numerous studies. Although the U.S. government signed the Protocol in 1998, it was not submitted to the Senate for ratification. In March 2001, President Bush announced that he opposed the Protocol.

In response to the requirements of the 1990 act, the administration reported annually from 1990 through 2004 on funding for climate change science in reports titled *Our Changing Planet*.⁵ From 1990 through 2001, the reports presented detailed science funding data for the USGCRP. Federal climate change science programs were reorganized in 2001 and 2002. In 2001, the Climate Change Research Initiative (CCRI) was created to coordinate short-term climate change research focused on reducing uncertainty, and in 2002, CCSP was created to coordinate and integrate USGCRP and CCRI activities. Since 2002, CCSP has been responsible for

³Pub. L. No. 101-606, 104 Stat. 3096 (1990) (partially terminated pursuant to the Federal Reports Elimination and Sunset Act of 1995, Pub. L. No. 104-66, § 3003 (1995)).

⁴The annual reporting requirement for climate change expenditures was terminated effective May 15, 2000. The reporting requirement had called for "(A) the amounts spent during the fiscal year most recently ended; (B) the amounts expected to be spent during the current fiscal year; and (C) the amounts requested for the fiscal year for which the budget is being submitted."

⁵To maintain consistency with OMB data, which are available from 1993 through 2004, we reviewed reported science funding from 1993 through 2004.

meeting the reporting requirement and has published the *Our Changing Planet* reports. The most recent report in this series was published in July 2004, and the next report is expected to be available in late-2005.

In March 1998, OMB, in response to a congressional requirement for a detailed account of climate change expenditures and obligations, issued a brief report summarizing federal agency programs related to global climate change. In August 1998, the Congressional Budget Office (CBO), in response to a request from the Senate Committee on the Budget, issued a more detailed report on the same topic. OMB produced another climate change expenditures report in March 1999, in response to a similar requirement. OMB's 1999 report and CBO's 1998 report both presented federal climate change funding using four categories: technology, science, international assistance, and tax expenditures. As we testified in 1999, these reports presented generally comparable information.⁶ In response to a request at that hearing, OMB provided climate change funding data for 1993 through 1998 for the hearing record.

Each year since 1999, the Congress has included a provision in annual appropriations laws requiring OMB to report in detail all federal agency obligations and expenditures, domestic and international, for climate change programs and activities. As a result of these reporting requirements, OMB annually publishes the *Federal Climate Change Expenditures Report to Congress*, which presents federal climate change funding for the technology, science, and international assistance categories, and tax expenditures. The climate change activities and associated costs presented in OMB reports must be identified by line item as presented in the President's budget appendix. OMB has interpreted this to mean that the data in the reports must be shown by budget account. For the last 3 years, the Congress has required that the administration produce reports for climate change expenditures and obligations for the current fiscal year within 45 days after the submission of the President's budget request for the upcoming fiscal year. OMB's most recent report was released in March 2005.

OMB reports include a wide range of federal climate-related programs and activities. Some activities, like scientific research on global environmental change by USGCRP, are explicitly climate change programs, whereas

⁶*Climate Change: Observations on the April 1999 Report on Climate Change Programs*, GAO/T-RCED-99-199, May 20, 1999.

others, such as many technology initiatives, are not solely for climate change purposes. For example, OMB reports included some programs that were started after the United States ratified the Framework Convention in 1992, and were specifically designed to encourage businesses and others to reduce their greenhouse gas emissions, for example, by installing more efficient lighting. OMB reports also included programs that were expanded or initiated in the wake of the 1973 oil embargo to support such activities as energy conservation (to use energy more efficiently), renewable energy (to substitute for fossil fuels), and fossil energy (to make more efficient use of fossil fuels), all of which can help to reduce greenhouse gas emissions, but were not initially developed as climate change programs.

Reported Federal Climate Change Funding Increased for Three of the Four Funding Categories, but Data May Not Be Comparable Over Time

Federal climate change funding, as reported by OMB, increased from \$2.35 billion in 1993 to \$5.09 billion in 2004 (116 percent), or from \$3.28 billion to \$5.09 billion (55 percent) after adjusting for inflation and also increased for technology, science, and international assistance between 1993 and 2004, as shown in table 1. However, changes in reporting methods limit the comparability of funding data over time, and therefore it is unclear whether funding increased as much as reported by OMB. Technology funding increased as a share of total funding over time, while science and international assistance funding declined as shares of the total because technology funding increased at a faster rate than the other categories. OMB did not report estimates for existing climate-related tax expenditures during this time period, although climate-related tax expenditures amounted to hundreds of millions of dollars in revenue forgone by the federal government in fiscal year 2004. OMB officials told us that changes in reporting methods were due to such reasons as the short amount of time available to prepare the report, the fact that the reporting requirement is not permanent law, but appears each year in appropriations legislation, and changes in administration policy and priorities.

Table 1: Reported Federal Climate Change Funding by Category, Selected Years

Discretionary budget authority in millions of dollars				
Category	1993	1997	2001	2004
Technology	\$845	\$1,056	\$1,675	\$2,868
Science	1,306	1,656	1,728	1,976
International assistance	201	164	218	252
Tax expenditures ^a				
Total	\$2,352	\$2,876	\$3,603	\$5,090

Source: GAO analysis of OMB data.

^aOMB did not report revenue loss estimates for existing climate-related tax expenditures from 1993 through 2004.

Technology

From 1993 through 2004, technology funding increased as a share of total federal climate funding from 36 percent to 56 percent, as reported by OMB. Over this time period, technology funding increased from \$845 million to \$2.87 billion (239 percent), or adjusted for inflation, from \$1.18 billion to \$2.87 billion (143 percent). For example, funding for energy conservation increased from \$346 million to \$868 million, and funding for renewable energy increased from \$249 million to \$352 million. Funding data for the seven largest accounts, which accounted for 92 percent of technology funding in 2004, are presented for selected years in table 2. Year-by-year data on technology funding are available in appendixes II and IV.

Table 2: Reported Technology Funding, Selected Accounts and Years

Discretionary budget authority in millions of dollar					
Agency	Account	1993	1997	2001	2004
Department of Energy	Energy Conservation	\$346	\$414	\$810	\$868
	Energy Supply - Fossil Energy Research and Development (R&D)	250	201	292	455
	Energy Supply - Renewable Energy	249	244	370	352
	Science (Fusion, Sequestration, and Hydrogen) ^a			35	333
	Energy Supply - Nuclear ^b			39	309
National Aeronautics and Space Administration	Exploration, Science, and Aeronautics				227
Environmental Protection Agency	Environmental Programs and Management		70	96	89
Other			127	33	235
Total		\$845	\$1,056	\$1,675	\$2,868

Source: GAO analysis of OMB data.

Note: Blank cells indicate that OMB did not report a value in the technology category for this account for this year.

^aSequestration can be defined as the capture and isolation of gases that otherwise could contribute to global climate change.

^bFor 2001 Energy Supply - Nuclear funding, we counted the Nuclear Energy Research Initiative and Energy Supply - Nuclear budget accounts as presented by OMB. OMB did not separately present these accounts for 2004, and included funding for the Nuclear Energy Research Initiative within the Energy Supply - Nuclear account.

We identified three ways that the figures on technology funding presented in OMB's three most recent reports may not be comparable to the figures presented in previous reports. First, OMB added accounts that were not previously presented. For example, OMB reported that NASA had \$152 million in funding for technology-related activities that included research to reduce emissions associated with aircraft operations in 2003. OMB did not report this account in the technology category in 2002. Additional NASA funding in the same account was reported in the science category in 2002 and 2003. Further, OMB reported that the Department of Commerce's National Institute of Standards and Technology received funding of \$40 million in 2003, to develop climate change measurement instruments and standards, among other activities. OMB did not report this account in 2002. About 47 percent of the reported \$918-million increase in technology funding from 2002 to 2003, the largest year-to-year increase of the time period we studied, was due to the inclusion of new accounts that were not previously reported. In addition, OMB included and removed some

accounts, without explanation, from reports in years other than 2003. For example, OMB reported combined funding of \$195 million in 1999, and \$200 million in 2000, for bio-based products and bio-energy at the Departments of Energy and Agriculture. No funding for these accounts was reported from 1993 through 1998 or from 2001 through 2004. In each of these cases, OMB did not explain whether the new accounts reflected the creation of new programs, a decision to count an existing program for the first time, or a decision to re-classify funding from different categories as technology funding.

According to OMB officials, these changes in report structure and content for technology funding, as well as similar changes in science and international assistance funding, were the result of time constraints and other factors. They told us that the short timeline required by the Congress for completing the report (within 45 days of submitting the upcoming year's budget for the three most recent reports) limited OMB's ability to analyze data submitted by agencies. They said that they must rely on funding estimates quickly developed by agencies in order to produce the report within the specified timeframe, and that the reports are often compilations of agency activities and programs, some of which may or may not have been presented separately in prior years. Moreover, these officials told us that the presentation of data has changed over time for a variety of other reasons, including changes in administration priorities and policy, changes in congressional direction, changes to budget and account structures, and attempts to more accurately reflect the reporting requirement as specified in the annual appropriations language. The officials also stated that in each report, they ensured consistency for the 3 years covered (prior year, current year, and budget year).

Furthermore, OMB officials told us that the presentation of new accounts in the technology category, as well as the international assistance category, was due to the establishment of new programs and the inclusion of existing programs. They told us that the account-by-account display in the reports has been changed over time as the CCSP and the Climate Change Technology Program (CCTP), a multi-agency technology research and development coordinating structure similar to the CCSP, have become better defined.

Second, OMB reported that it expanded the definitions of some accounts to include more activities, but did not specify how the definitions were changed. We found that over 50 percent of the increase in technology funding from 2002 to 2003 was due to increases in two existing DOE accounts: nuclear energy supply and science (fusion, sequestration, and hydrogen). OMB reported funding of \$32 million in 2002, and \$257 million in 2003, for the nuclear energy supply account.⁷ Further, OMB reported funding of \$35 million in 2002, and \$298 million in 2003, for the science (fusion, sequestration, and hydrogen) account. Although OMB stated in its May 2004 report that 2003 funding data included more activities within certain accounts, including the research and development of nuclear and fusion energy, the report was unclear about whether the funding increases for these two existing accounts were due to the addition of more programs to the accounts or increased funding for existing programs already counted in the accounts. Further, if new programs were counted in these accounts, OMB did not specify what programs were added and why.

OMB officials told us that the definitions of some accounts were changed to include more nuclear programs because, while the prior administration did not consider nuclear programs to be part of its activities relating to climate change, the current administration does consider them to be a key part of the CCTP.

Third, OMB did not maintain the distinction that it had made in previous reports between funding for programs whose primary focus is climate change and programs where climate change is not the primary focus. As a result, certain accounts in the technology category were consolidated into larger accounts. From 1993 through 2001, OMB presented funding data as directly or indirectly related to climate change. The former programs are those for which climate change is a primary purpose, such as renewable energy research and development. The latter are programs that have another primary purpose, but which support climate change goals. For example, grants to help low-income people weatherize their dwellings are intended primarily to reduce heating costs, but may also help reduce the consumption of fossil fuels. OMB did not maintain the distinction between the two kinds of programs for 2002, 2003, and 2004 funding data. For

⁷We counted the Nuclear Energy Research Initiative (NERI) account as Nuclear Energy Supply funding for 2002. The NERI account is counted in the aggregate Energy Supply – Nuclear budget account in OMB’s 2004 and 2005 reports, and is no longer presented separately.

example, OMB presented energy conservation funding of \$810 million in 2001, including \$619 million in direct research and development funding, and \$191 million in indirect funding for weatherization and state energy grants. In contrast, 2002 funding data presented by OMB reflected energy conservation funding of \$897 million, including \$622 million in research and development, \$230 million for weatherization, and \$45 million for state energy grants, but did not distinguish between direct and indirect funding. OMB presented energy conservation funding of \$880 million in 2003, and \$868 million in 2004, as single accounts without any additional detail.

OMB officials stated that they had adopted a different approach to reporting climate change funding to reflect the new program structures as the CCSP and CCTP were being established. They stated that the result was, in some cases, an aggregation of activities that may have previously been reported in separate accounts. According to the officials, the 2003 and 2004 data more accurately reflect the range of climate change-related programs as they are now organized. OMB included a crosswalk in its May 2004 report that showed 2003 funding levels as they would have been presented using the methodology of previous reports. While the crosswalk identified funding for accounts that were presented in previous reports, it did not identify new funding reported by OMB or specify whether such funding was the result of counting new programs, a decision to start counting existing programs as climate change-related, or shifts between categories. OMB officials told us that the reporting methodology has changed since the initial reports and that it may be difficult to resolve the differences because of changes in budget and account structure. Finally, they noted that each report has been prepared in response to a one-time requirement and that there has been no requirement for a consistent reporting format from one year to the next or to explain differences in methodology from one report to another.

Science

According to both OMB and CCSP, the share of total climate change funding devoted to science decreased from 56 percent in 1993 to 39 percent in 2004, even though science funding increased from \$1.31 billion to \$1.98 billion (51 percent), or from \$1.82 billion to \$1.98 billion (9 percent) after adjusting for inflation. For example, according to OMB, funding for NASA on activities such as the satellite measurement of atmospheric ozone concentrations increased from \$888 million to \$1.26 billion.⁸

OMB reported new science funding for 2003 and 2004 to reflect the creation of CCRI. Funding for CCRI increased from \$41 million in 2003, the first year funding for CCRI was presented, to \$173 million in 2004, and included funding by most of the agencies presented in table 3. We present funding for CCRI as a separate program to illustrate the new organization's role in increasing reported climate change funding. Table 3 presents funding as reported by OMB for the eight largest agencies and programs in the science category, which account for 99 percent of the science total for 2004. Year-by-year data on science funding are available in appendixes II and IV.

⁸The \$1.26 billion figure includes NASA's reported funding for the United States Global Change Research Program. NASA funding for CCRI is reported separately.

Table 3: Reported Science Funding by Agency or Program, Selected Years

Discretionary budget authority in millions of dollars					
Agency or program	Account	1993	1997	2001	2004
NASA ^a	Science, Aeronautics, and Technology	\$888	\$1,218	\$1,176	\$1,256
National Science Foundation	Research and Related Activities	124	166	181	185
CCRI	Various accounts for eight agencies				173
DOE	Science (Biological and Environmental Research)	118	109	116	102
Department of Commerce - National Oceanic and Atmospheric Administration	Operations, Research, and Facilities	66	60	93	82
Department of Agriculture	Agriculture Research Service and 4 other accounts	55	57	51	64
Department of Health and Human Services	National Institutes of Health (NIH)			54	62
Department of Interior - U.S. Geological Survey	Surveys and Research	22	26	27	28
Other		33	20	30	24
Total		\$1,306	\$1,656	\$1,728	\$1,976

Source: GAO analysis of OMB data.

Note: Blank cells indicate that OMB generally presented climate science funding with one account per agency.

^aBeginning in 2004, NASA funding reflects full-cost accounting, meaning institutional activities such as personnel and facilities (which had been held in separate accounts) are included. NASA's climate change funding varies based on changes in its budget for space observing platforms, the natural development cycle of its satellites, and revisions to mission profiles.

Science funding data from 1993 through 2004, as reported by OMB and CCSP, were generally comparable, although there were more discrepancies in earlier years than in later years.⁹ Science funding totals reported by CCSP from 1993 through 1997 were within 3 percent of the OMB totals for all years except 1996 and 1997. Science funding totals reported by CCSP in 1996 and 1997 were \$156 million (9 percent) and \$162 million (10 percent) higher than those reported by OMB. Over 90 percent of the difference for these years occurred because CCSP reported greater funding for NASA than OMB reported. CCSP stated in its fiscal year 1998 report that it increased its 1996 and 1997 budget figures to reflect the reclassification of certain programs and activities in some agencies that were not previously included in the science funding total.

Total science funding reported by OMB and CCSP from 1998 through 2004 was identical for 4 of the 7 years. The largest difference for the 3 years that were not identical was \$8 million in 2001, which represented less than 1 percent of the science funding total reported by OMB for that year. The other differences in total science funding were \$3 million in 2002, and \$1 million in 1999, and each represented less than 1 percent of the OMB science total for those years.

Science funding by agency, as presented by OMB and CCSP from 1993 through 1997, differed in many cases, with the exception of funding for the National Science Foundation (NSF), which was nearly identical over that time period. For example, CCSP reported \$143 million more funding for NASA in 1996 than OMB reported, and OMB reported \$24.9 million more funding for DOE in 1994 than CCSP reported. The greatest dollar difference related to NASA's funding in 1997. Whereas OMB reported funding of \$1.22 billion, CCSP reported funding of \$1.37 billion—\$151 million, or 12 percent more than the OMB amount. The greatest percentage difference related to the Department of the Interior's funding in 1993. Whereas OMB reported funding of \$22 million, CCSP reported funding of \$37.7 million—\$15.7 million, or 71 percent more than reported by OMB. Further, from 1993 through 1997, OMB did not report science funding by some agencies that were reported by CCSP. For example, CCSP reported that DOD's funding ranged from \$5.7 to \$6.6 million from 1993 through 1995, and that the

⁹CCSP's most recent report (July 2004) presents estimated 2004 funding, whereas OMB's most recent report (March 2005) presents actual 2004 funding. Whenever we compare 2004 science funding as reported by OMB and CCSP, we are comparing estimated 2004 funding presented in OMB's May 2004 report and CCSP's July 2004 report.

Tennessee Valley Authority received funding of \$1 million or less per year from 1993 through 1997, but OMB did not report any such funding.

OMB officials told us that data used for the 1993 through 1997 science funding comparison with CCSP were collected too long ago to be able to identify the differences. However, they stated that the data from early years were produced in a very short period for use in testimony or questions for the record. According to OMB, this quick turnaround did not allow time for a thorough consistency check with other data sources.

From 1998 through 2004, OMB and CCSP data on funding by agency were nearly identical. Both OMB and CCSP reported science funding for nine agencies over the entire 7-year period, for a total of 63 agency funding amounts. Of these, 52, or 83 percent, matched exactly. Of the 11 differences, there was one difference of \$8 million, one of \$2 million, and nine of \$1 million or less. The greatest difference from 1998 through 2004 was \$8 million in funding for the Department of Commerce in 2001, which was 9 percent of the Department of Commerce total, or less than 1 percent of total science funding as reported by OMB for that year.

In addition to presenting data on funding by agency and total science funding, CCSP included more detailed science data in its *Our Changing Planet* reports. CCSP used several ways of categorizing data on science funding in its reports, but the data were difficult to compare over the entire time period because CCSP periodically introduced new categorization methods without explaining how the new methods could be compared with the ones they replaced. Specifically, from 1993 through 2004, in addition to reported funding by agency, CCSP used seven different methods to present detailed science funding data, making it impossible to develop consistent funding trends over the entire timeframe. For example, CCSP presented climate change science funding from 1993 through 1998 by budget function, a method that presents funding by agency in categories such as energy, agriculture, and natural resources and environment. CCSP presented science funding data for 1998 by budget function and also by research element, a new categorization method that divided funding by major components of the earth's environmental systems, such as "Global Water Cycle" and "Atmospheric Composition." In subsequent *Our Changing Planet* reports, CCSP continued to use the research element categorization method to present science funding, but stopped using the budget function method without explaining how the two methods compared to each other. As a consequence, the detailed science funding trends presented by budget

function from 1993 through 1998 cannot be compared to funding presented by research element from 1998 through 2004.

From 1999 through 2004, in addition to funding by agency, CCSP used two categorization methods, but these methods changed, making comparisons over time difficult. The two other categorization methods employed by CCSP included research element, described above, and program by agency, which listed funding by specific programs within each agency. Both of these methods changed from 1999 through 2004. For example, the research elements used to categorize funding in 2000 included “Understanding the Climate System,” “Understanding the Composition and Chemistry of the Atmosphere,” “Global Water Cycle,” “Global Carbon Cycle,” “Understanding Changes in Ecosystems,” “Understanding the Human Dimensions of Global Change,” and “Paleoclimate: The History of the Earth System.” In contrast, the research elements that were used to categorize 2004 funding eliminated the “Paleoclimate” element and added a “Land Use” element.

Further, the program by agency categorization method became less detailed over time. For funding from 1993 through 2001, this method included comparable program descriptions and presented program-specific funding by agency. Reported funding for 2002, 2003, and 2004 generally continued this presentation style, but some agencies replaced the program-specific funding with less detailed funding categorizations. For example, from 1993 through 2000, CCSP presented detailed funding for certain NASA programs, including funding for the Earth Observing System, a series of satellites and advanced data systems designed to study clouds, atmospheric chemistry, and other processes. However, CCSP presented less detail for NASA’s funding from 2001 through 2004, and did not present funding by specific program over this time period. As a consequence, NASA’s funding for the Earth Observing System and other specific programs can no longer be identified in the CCSP reports. Similarly, CCSP presented less detail for NSF funding from 2002 through 2004.

The director of CCSP told us that changes to reports, such as the creation and deletion of different categorization methods, were made because CCSP is changing towards a goals-oriented budget, and that categorization methods changed as the program evolved. The director also said that future reports will explicitly present budget data as they were reported in prior reports to retain continuity, even if new methods are introduced. Another CCSP official told us that CCSP now works with OMB to ensure that consistent funding information is presented in *Our Changing Planet*

reports and OMB reports, and that, beginning with the fiscal year 2006 report (to be published in late-2005), CCSP will attempt to explain when and why changes are made to reporting methods.

International Assistance

From 1993 through 2004, international assistance funding decreased from 9 percent to 5 percent of total federal funding on climate change, as reported by OMB. Over the same time period, international assistance funding increased from \$201 million to \$252 million (an increase of 25 percent), but after adjusting for inflation, decreased from \$280 million to \$252 million (a decrease of 10 percent). For example, reported funding for the Department of the Treasury to help developing countries invest in energy efficiency, renewable energy, and the development of clean energy technologies, such as fuel cells, increased from zero in 1993 to \$32 million in 2004. Table 4 presents funding as reported by OMB for the three largest accounts in the international assistance category. Year-by-year data on international assistance funding are available in appendixes II and IV.

Table 4: Reported International Assistance Funding, Selected Accounts and Years

Discretionary budget authority in millions of dollars

Agency	Account	1993	1997	2001	2004
U.S. Agency for International Development (USAID)	Development Assistance	\$200	\$147	\$112	\$125
	Assistance for the Independent States of the Former Soviet Union			31	47
Department of the Treasury	Global Environment Facility ^a		14	41	32
Other		1	3	34	48
Total		\$201	\$164	\$218	\$252

Source: GAO analysis of OMB data.

Note: Blank cells indicate that OMB did not report a value in the international assistance category for this account for this year.

^aOMB did not include the Department of the Treasury's funding for the Global Environment Facility (GEF) in the international assistance category from 1994 through 2001. OMB presented GEF funding in the international assistance category from 2002 through 2004. To maintain consistency, we included GEF funding in the international assistance category from 1994 through 2004 for the purposes of this report.

International assistance funding reported by OMB was generally comparable over time, although some new accounts were added without explanation. For example, OMB reported climate change funding of \$2 million in 2003 and \$3 million in 2004 by USAID on the Andean

Counterdrug Initiative, but OMB did not report funding for this account in previous years. According to OMB, the Andean Counterdrug Initiative promoted carbon capture and sequestration by reducing illicit coca production in Peru. In its reports, OMB did not provide an explanation of whether such new accounts reflected the creation of new programs or a decision to count existing programs as climate change-related for the first time. OMB officials told us that the presentation of new accounts in the international assistance category was due to the establishment of new programs and the inclusion of existing programs. They told us that the account-by-account display in the reports has been changed over time as climate change programs have become better defined.

Tax Expenditures

Although not required to provide information on tax expenditures related to climate change, OMB reported certain information related to climate-related tax expenditures for each year. Specifically, it listed *proposed* climate-related tax expenditures appearing in the President's budget, but it did not report revenue loss estimates for *existing* climate-related tax expenditures from 1993 through 2004. Based on the Department of the Treasury's tax expenditure list published in the 2006 budget,¹⁰ we identified four existing tax expenditures that have purposes similar to programs reported by OMB in its climate change reports. In 2004, estimated revenue losses amounted to hundreds of millions of dollars for the following tax expenditures:¹¹

- \$330 million in revenue losses was estimated for new technology tax credits to reduce the cost of generating electricity from renewable resources. A credit of 10 percent was available for investment in solar and geothermal energy facilities. In addition, a credit of 1.5 cents was available per kilowatt hour of electricity produced from renewable resources such as biomass, poultry waste, and wind facilities.

¹⁰The Department of the Treasury reported 2004 tax expenditures in the Budget of the U.S. Government, Fiscal Year 2006 edition, Analytical Perspectives volume, chapter 19.

¹¹The Department of the Treasury calculated each tax expenditure estimate assuming other parts of the tax code remained unchanged. Because tax provisions can be interdependent, we do not report the mathematical sum of the revenue losses estimated for the four climate-related tax expenditures, and instead present this general gauge of the magnitude of revenue forgone for climate-related tax expenditures.

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- \$100 million in revenue losses was estimated for excluded interest on energy facility bonds to reduce the cost of investing in certain hydroelectric and solid waste disposal facilities. The interest earned on state and local bonds used to finance the construction of certain hydroelectric generating facilities was tax exempt. Some solid waste disposal facilities that produced electricity also qualified for this exemption.
 - \$100 million in revenue losses was estimated for excluded income from conservation subsidies provided by public utilities to reduce the cost of purchasing energy-efficient technologies. Residential utility customers could exclude from their taxable income energy conservation subsidies provided by public utilities. Customers could exclude subsidies used for installing or modifying certain equipment that reduced energy consumption or improved the management of energy demand.
 - \$70 million in revenue losses was estimated for tax incentives for the purchase of clean fueled vehicles to reduce automobile emissions. A tax credit of 10 percent, not to exceed \$4,000, was available to purchasers of electric vehicles. Purchasers of vehicles powered by compressed natural gas, hydrogen, alcohol, and other clean fuels could deduct up to \$50,000 of the vehicle purchase costs from their taxable income, depending upon the weight and cost of the vehicle. Similarly, owners of refueling properties could deduct up to \$100,000 for the purchase of refueling equipment for clean fueled vehicles.

OMB officials said that they consistently reported proposed tax expenditures where a key purpose was specifically to reduce greenhouse gas emissions. They also stated that they did not include existing tax expenditures that may have greenhouse gas benefits but were enacted for other purposes, and that the Congress has provided no guidance to suggest additional tax expenditure data should be included in the annual reports.

OMB's decision criteria for determining which tax expenditures to include differed in two key respects from its criteria for determining which accounts to include. First, OMB presented funding for existing as well as proposed accounts, but presented information only on proposed, but not existing, tax expenditures. Second, OMB presented funding for programs where a key purpose was specifically to reduce greenhouse gas emissions, as well as for programs that may have greenhouse gas benefits but were enacted for other purposes. However, OMB presented information only on

proposed tax expenditures where a key purpose was specifically to reduce greenhouse gas emissions.

Reported Funding for Most Agencies Increased, but Unexplained Changes in Report Content Limit the Comparability of Data Over Time

OMB reported that 12 of the 14 agencies that received funding for climate change programs in 2004 received more funding in that year than they had in 1993. However, it is unclear whether funding changed as much as reported by OMB because unexplained modifications in the reports' contents limit the comparability of agencies' funding data. From 1993 through 2004, climate change funding for DOE increased more than any other agency, from \$963 million to \$2.52 billion, for an increase of \$1.56 billion (162 percent). Adjusted for inflation, such funding increased from \$1.34 billion to \$2.52 billion, for an increase of \$1.18 billion (88 percent). The second largest increase in agency funding was for NASA, which received a \$660 million (74 percent) increase in funding over the same time period. NASA's funding increased \$310 million (25 percent) over this period after adjusting for inflation. The funding increases for these two agencies accounted for 81 percent of the reported total increase in federal climate change funding from 1993 through 2004. Conversely, USAID experienced the largest decrease in funding—from \$200 million in 1993 to \$195 million in 2004 (3 percent), or, in inflation-adjusted terms, from \$279 million to \$195 million (30 percent).

From 1993 through 2004, eight agencies' funding increased as a share of the total federal funding for climate change, while the other six agencies' funding decreased as a share of the total. DOE's funding increased at a faster rate than other agencies from 1993 through 2004, meaning its share increased more than the funding shares of other agencies. For example, DOE's share of total climate change funding increased from 41 percent in 1993, to 49 percent in 2004, for a share increase of almost 9 percent. The Environmental Protection Agency (EPA) experienced the next largest share increase from 1 percent of the total in 1993, to 2 percent of the total in 2004, for a share increase of 1 percent. By contrast, although NASA's climate change funding increased by \$660 million, its share decreased from 38 percent in 1993, to 30 percent in 2004, because its funding did not increase as fast as some other agencies, most notably DOE. Table 5 presents funding as reported by OMB for selected agencies. Year-by-year data on funding by agency are available in appendix III.

Table 5: Reported Climate Change Funding by Agency, Selected Years

Discretionary budget authority in millions of dollars				
Agency	1993	1997	2001	2004
DOE	\$963	\$968	\$1,665	\$2,519
NASA	888	1,218	1,176	1,548
NSF	124	222	181	226
USAID	200	147	157	195
Department of Commerce	66	102	93	144
EPA	26	99	146	127
Department of Agriculture	55	57	54	115
Other	30	63	131	216
Total	\$2,352	\$2,876	\$3,603	\$5,090

Source: GAO analysis of OMB data.

Unexplained changes in the content of OMB reports limit the comparability of agencies' funding data, and therefore it is unclear whether funding changed as much as was reported by OMB. Because agency funding totals are composed of individual accounts, the changes in the reports' contents discussed earlier, such as the unexplained addition of accounts to the technology category, limit the comparability of agencies' funding data over time. For example, OMB reported Army, Navy, Air Force, and Defense-wide funding totaling \$83 million in 2003, and \$51 million in 2004, in accounts titled Research, Development, Test, and Evaluation, but did not report these accounts for prior years. OMB did not explain whether these accounts reflected the creation of new programs or a decision to count existing programs for the first time. Accordingly, there is some uncertainty about DOD's climate change funding over time. Similarly, OMB reported funding for other agencies in some years but not in others, without explanation. For example, OMB did not report any funding for the Department of Transportation from 2000 through 2002, but reported funding of \$27 million in 2003, and \$9 million in 2004, for the development of hydrogen fuel cells.¹² OMB also presented \$10 million of funding for the Department of Housing and Urban Development in 1999 and 2000, but in no other years.

¹²OMB reported climate change funding for the Department of Transportation for research related to automobile safety ranging from \$3 million to \$13 million from 1995 through 1999.

OMB officials told us that agencies can be included in reports for the first time when new initiatives or programs are started, such as the CCTP. In some cases, those initiatives or programs are made up of entirely new funding but in other cases they may be additions on top of a small amount of base funding. These officials told us that agencies sometimes include data that were not previously reported when they requested funding for those initiatives, but they assured us that the data are reported consistently for the 3 years presented in each report.

OMB Reports Presented Information on Budget Authority Rather Than—as Required by the Congress—on Expenditures and Obligations

The federal budget process is complex, and there are numerous steps that culminate in the outlay of federal funds. Among the key steps in this process are the following, as defined by OMB:

- **Budget authority** means the authority provided in law to incur financial obligations that will result in outlays.
- **Obligations** are binding agreements that will result in outlays, immediately or in the future.
- **Outlays** are payments to liquidate an obligation. The Congress, in the Congressional Budget and Impoundment Control Act of 1974, as amended, has defined outlays as being the expenditures and net lending of funds under budget authority.

In simplified terms, budget authority precedes obligations, which precede outlays in the process of spending federal funds.

As noted above, since 1999, the Congress has required the President to submit a report each year to the Senate and House Committees on Appropriations describing in detail all federal agency obligations and expenditures, domestic and international, for climate change programs and activities. In response, OMB has annually published the *Federal Climate Change Expenditures Report to Congress* that presents budget authority information in summary data tables instead of obligations and expenditures, as the title of the report and the table titles suggest. For example, although the March 2005 report's summary table is entitled in bold as a "Summary of Federal Climate Change Expenditures," the table's data are presented in terms of budget authority. The only indication that the table presents budget authority information, rather than expenditures, is a parenthetical statement to that effect in a significantly smaller font.

OMB officials told us that the term “expenditures” is used in the report title and text because that is the term used most often in the legislative language. They also said that the reports present data in terms of budget authority because OMB has always interpreted the bill and report language to request the budget authority levels for each activity in a particular year. They stated further that, from a technical budget standpoint, expenditures are usually synonymous with outlays, and that one way to think of budget authority is that it is the level of expenditures (over a period of one or more years) that is made available in a particular appropriations bill. OMB views this as an appropriate interpretation of the congressional requirements since the Committees on Appropriations work with budget authority and not outlays. Moreover, OMB told us that the Appropriations Committees have never objected to its interpretation of “obligations and expenditures” as budget authority and that OMB has always identified the data provided in the table as budget authority.

We have several concerns with OMB’s approach. First, OMB’s approach of reporting budget authority does not comply with the language of the annual legal requirements to report on climate change “obligations and expenditures.” Second, in reviewing the legislative history of these reporting requirements, we found no support for OMB’s interpretation that when the Congress called for “obligations and expenditures” information, it actually meant “budget authority” information. Third, OMB’s interpretation is not consistent with its own Circular A-11, which defines budget authority as stated above, not as actual obligations and expenditures. Nonetheless, we recognize that it is not possible for OMB to meet the most recent reporting requirements because it must provide a report on climate change obligations and expenditures for the current fiscal year within 45 days of submitting the President’s budget for the following fiscal year (which must be submitted the first Monday of February). For example, the President submitted the fiscal year 2006 budget on February 7, 2005, so OMB’s report on fiscal year 2005 climate change expenditures and obligations had to be submitted in March 2005—approximately halfway through the 2005 fiscal year. However, complete expenditures data are available only after the end of each fiscal year. Thus, OMB could not meet both the timing requirement and report all actual expenditures and obligations in fiscal year 2005.

CCSP has also reported budget authority data in its *Our Changing Planet* reports. As noted above, CCSP, or its predecessor organization, initially was required to report annually on certain climate change “amounts spent,” “amounts expected to be spent,” and “amounts requested,” but this reporting requirement was terminated in 2000. Currently, CCSP is

responsible for reporting information relating to the federal budget and federal funding for climate change science, not climate change expenditure information. Since 2000, CCSP has fulfilled these reporting requirements by providing budget authority information in its *Our Changing Planet* reports.

Conclusions

The Congress has required the administration to provide reports on federal climate change spending, funding, and requested funding. From year to year there were numerous changes in the format and content of OMB and CCSP reports, but the reasons for such changes have generally not been well explained. Consequently, these reports—taken collectively—do not provide a fully comparable picture of funding or spending trends, and the Congress and the public cannot consistently track federal climate change funding or spending over time. Accordingly, it is unclear whether funding or spending has changed as much as was reported. Even though the agencies have not been required to follow a consistent reporting format from one year to the next, we believe the Congress would have better information for policy decisions if OMB and CCSP clearly explained changes in report content and format when they occurred and communicated how such changes affected trends over time.

Further, even though OMB is not required to include information on tax expenditures in its reports, it included certain information on *proposed* tax expenditures each year. In order to present a complete picture of federal resources supporting climate-related activities, we believe that OMB should also include information on *existing* tax expenditures. For the same reason, we believe that OMB should use the same criteria for determining what types of tax expenditures to include in its reports as it uses in determining which funding accounts to include.

We found that OMB reports presented information on budget authority, not—as required by the Congress—on expenditures and obligations. OMB is aware of this discrepancy because it uses the term “expenditures” in the reports’ titles and tables, but presents budget authority data. Although OMB asserts that this approach is sufficient because the Committees on Appropriations have not objected, and while we recognize that it is not possible for OMB to meet both the substantive and timing requirements for the reports, we believe that OMB should take the initiative regarding future reporting requirements and request that the Congress specify that the reports should include budget authority information or provide OMB with additional time so that it can report actual expenditures and obligations.

Recommendations for Executive Action

To better ensure that the Congress and the public can consistently track federal climate change funding or spending over time, we are making the following seven recommendations.

We recommend that OMB and CCSP,

- from year-to-year, each use the same format for presenting data, to the extent that they may do so and remain in compliance with reporting requirements;
- explain changes in report content or format when they are introduced; and
- provide and maintain a crosswalk comparing new and old report structures when changes in report format are introduced.

We also recommend that OMB

- include information on existing climate-related tax expenditures in its reports,
- use the same criteria for determining which tax expenditures to include as it uses for determining which accounts to include;
- request that the Congress clarify whether future reports should be presented in terms of expenditures and obligations or in terms of budget authority, and if the Congress prefers the former, OMB should request the necessary time to prepare reports on that basis; and
- if it continues to report budget authority rather than expenditures and obligations, clearly identify the information reported as budget authority throughout the report.

Agency Comments and Our Evaluation

We provided a draft of this report to the Director, OMB, and the Director, CCSP, for their review and comment. The Deputy Associate Director of OMB's Natural Resources Division provided oral comments on August 1, 2005. He said that OMB agreed with most of our recommendations. Specifically, he said OMB agreed with our recommendations regarding the format and content of its reports, and was studying the recommendations on its presentation of tax expenditure data and use of budget terminology.

The Director, CCSP, provided comments in a letter dated July 28, 2005, (see app. V). CCSP stated that the report presents a fair assessment of how CCSP documents and presents budget information, and agreed with all of our recommendations.

As agreed with your offices, unless you publicly announce the contents of this report earlier, we plan no further distribution until 30 days from its issuance. At that time, we will send copies of this report to the Director, CCSP; Director, OMB; and other interested officials. We will make copies available to others upon request. In addition, the report will be available at no charge on GAO's Web site at <http://www.gao.gov>.

If you or your staff have any questions about this report, please contact me at (202) 512-3841. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made major contributions to this report are listed in appendix VI,

A handwritten signature in black ink, reading "John B. Stephenson". The signature is fluid and cursive, with a long horizontal line extending from the end of the name.

John B. Stephenson
Director, Natural Resources
and Environment

Objectives, Scope, and Methodology

This report examines federal climate change funding from 1993 through 2004, as reported by OMB and CCSP to determine (1) how total funding and funding by category changed and the extent to which data on such funding are comparable over time and (2) how funding by agency changed and the extent to which data on such funding are comparable over time. To answer these objectives we analyzed annual reports and congressional testimony on climate change funding. If changes in the reports were not explained, we asked responsible officials to explain the changes. To examine whether OMB and CCSP reports presented the data required by the Congress, we reviewed the reporting requirements, the legislative history of the requirements, and the data provided by OMB and CCSP in their reports.

OMB presented federal climate change funding from 1993 through 1998 in testimony before the Congress, and from 1999 through 2004 in annual reports. The administration also reported annually from 1993 through 2004 on funding for climate change science, one of the four categories used in OMB reports. The term “funding” in this report reflects discretionary budget authority, or the authority provided in law to incur financial obligations that will result in outlays, as reported by OMB and CCSP in their reports. For each annual report, OMB and CCSP generally presented estimated funding for the year of the report, actual funding for the previous year, and proposed funding for the next year. For example, OMB’s July 2002 report includes actual funding for fiscal year 2001, estimated funding for fiscal year 2002, and proposed funding for fiscal year 2003. We analyzed the most recently reported actual funding (not estimates) reported by OMB and CCSP. The exceptions were 1993, 1994, and 2004, where we present estimated science funding for CCSP.¹

¹CCSP’s reports presented estimated funding for 1993 and 1994, and did not include actual funding amounts for these years. CCSP’s fiscal year 2006 report is expected to be published in late-2005.

We consolidated actual funding data presented in OMB and CCSP reports and testimony. OMB reports presented climate change funding in four categories (technology, science, international assistance, and tax expenditures), and reports prior to 2002 also distinguished between direct and indirect climate change funding.² We assembled a consolidated OMB account table (shown in app. IV) using the four category direct/indirect framework. We used OMB's 1999 testimony (which presented funding data from 1993 through 1998) as the baseline for the consolidated table, and analyzed OMB's annual reports to identify whether accounts listed in the reports matched those presented in the testimony. If the account matched an account from the testimony, we included the value for the existing account in the consolidated table. If the account was not presented in the testimony, we added the account to the consolidated table. We continued this process until the consolidated table presented in appendix IV included all the accounts reported by OMB from 1993 through 2004, and used a similar methodology to consolidate CCSP reports.³ We did not include accounts in the appendixes where OMB presented data on proposed, but not actual, funding. We calculated totals for some accounts using data presented by OMB in its reports. These accounts are labeled in appendix IV.

After consolidating the OMB and CCSP report accounts, we developed totals for funding by category and agency for each year. We presented category totals as developed by OMB, when available, and calculated category totals when no OMB total was available. To develop agency funding totals, we identified accounts in appendix IV associated with each agency and summed them. However, OMB stated, and our analysis confirmed, that the sum of the accounts for a category or agency may not match the category or agency totals presented by OMB in its reports. According to OMB, the differences in account sums and category and agency totals were due to removal of programs that were counted in more than one account or category. OMB officials said they were unable to

²OMB no longer maintains the distinction between direct and indirect funding in its reports. Indirect funding accounts, which had been labeled "other climate-related programs" in its reports prior to 2002, were consolidated into the technology category in 2003, with the exception of funding for GEF, which was included in the international assistance category. Based on how OMB re-categorized this funding, we present indirect funding from 1993 to 2001 as "indirect technology," with the exception of GEF, which we included in the international category for all years.

³We do not include a consolidated table for CCSP climate change science funding because OMB science funding information presented in appendix IV is generally comparable to the CCSP totals.

determine the effect of these double counts over time because they did not keep a single database with the report information for each year. Accordingly, we presented OMB category totals when they were available. If OMB did not present a funding category total, we calculated it by summing the accounts for each category. OMB presented agency funding totals for 2003 and 2004, but not for the other years. To ensure consistency over the entire time period, we calculated agency funding totals for all years by adding the accounts in appendix IV associated with each agency. In 2003 and 2004, the account sums we calculated and the agency totals presented by OMB were within \$1 million of each other in all cases but one, 2004 funding for USAID. According to OMB, \$6 million of USAID funding was presented in two different places in the report. Our methodology would have counted this \$6 million twice, so we adjusted the USAID total to reflect OMB's agency total. We did not adjust the agency totals we calculated in any other cases. CCSP reports already presented climate change science funding by agency. We then used the funding by agency, funding by category, and consolidated account tables to analyze funding trends over time and compare OMB and CCSP science totals. Funding by category is presented in appendix II, and funding by agency is presented in appendix III.

To identify existing tax expenditures aimed at promoting energy conservation and encouraging supply of renewable and alternative energy, we reviewed the list of tax expenditures developed by the Department of the Treasury for the fiscal year 2006 budget. We present the estimated 2004 revenue losses due to these tax expenditures as reported in the *Budget of the U.S. Government, Fiscal Year 2006 edition, Analytical Perspectives*, chapter 19.⁴

We determined that the data available in the OMB and CCSP reports were sufficiently reliable for our purposes because the reports were supplements to the budget (in the case of CCSP) or assembled from the budget (in the case of OMB). Unless otherwise specified, we report funding in nominal terms (not adjusted for inflation), and all years refer to fiscal years. When we adjusted for inflation, to put the data in fiscal year 2004 dollars, we used a fiscal year price index that we calculated based on the

⁴The Department of the Treasury also produces outlay equivalent estimates—the amount of budget outlays that would be required to provide the taxpayer with the same after-tax income as would be received through the tax expenditure. The outlay equivalent measure can be used to compare tax expenditures with spending programs on a more equal footing.

calendar year price index in the *National Income and Product Accounts Table 3.10.4: Price Indexes for Government Consumption Expenditures and General Government Gross Output, Line 34: Nondefense consumption expenditures*, published by the Department of Commerce's Bureau of Economic Analysis.

In this report, the term “agency” includes executive departments and agencies, and we use the term “account” to describe the budget accounts, line items, programs, and activities presented in the OMB and CCSP reports. For consistency, we characterize all *Our Changing Planet* reports from 1993 through 2004 as CCSP reports, even though CCSP has been in existence only since 2002, and prior reports were published by the USGCRP. Totals and percentages may not add due to rounding. For presentation purposes, we show federal climate change funding for 1993, 1997, 2001, and 2004 in report tables. Funding data for 1993 through 2004 are available in appendixes II, III, and IV.

We performed our work between July 2004 and August 2005 in accordance with generally accepted government auditing standards.

Climate Change Funding by Category as Reported by OMB

Table 6: Federal Climate Change Funding by Category as Reported by OMB, 1993-2004

Discretionary budget authority in millions of dollars												
Funding category	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Technology	\$845	\$1,038	\$1,283	\$1,106	\$1,056	\$1,251	\$1,694	\$1,793	\$1,675	\$1,637	\$2,555	\$2,868
Science	1,306	1,444	1,760	1,654	1,656	1,677	1,657	1,687	1,728	1,667	1,766	1,976
International assistance	201	186	228	192	164	186	325	177	218	224	270	252
Tax expenditures ^a												
Total	\$2,352	\$2,668	\$3,271	\$2,952	\$2,876	\$3,114	\$3,535	\$3,511	\$3,603	\$3,522	\$4,584	\$5,090

Source: GAO Analysis of OMB Reports.

^aOMB did not report revenue loss estimates for existing climate-related tax expenditures from 1993 through 2004.

Climate Change Funding by Agency as Reported by OMB

Table 7: Climate Change Funding by Agency as Reported by OMB, 1993-2004

Discretionary budget authority in millions of dollars

Agency	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Department of Energy	\$963	\$1,113	\$1,173	\$1,008	\$968	\$1,186	\$1,536	\$1,652	\$1,665	\$1,636	\$2,214	\$2,519
National Aeronautics and Space Administration	888	999	1,305	1,218	1,218	1,210	1,155	1,161	1,176	1,090	1,299	1,548
National Science Foundation	124	142	222	216	222	214	222	229	181	189	212	226
U.S. Agency for International Development	200	173	192	175	147	163	236	156	157	179	214	195
Department of Commerce	66	63	120	113	102	89	93	91	93	100	156	144
Environmental Protection Agency	26	73	124	114	99	103	126	124	146	136	124	127
Department of Agriculture	55	56	60	52	57	53	138	132	54	59	104	115
Department of Health and Human Services						35	40	47	54	56	61	62
Department of the Treasury	0	12	35	14	14	18	60	14	54	43	56	52
Department of Defense											83	51
Department of Interior	22	29	27	26	26	26	27	27	27	26	29	29
Department of Transportation			5	6	13	5	3				27	9
Department of State	1	1	1	3	3	5	7	7	7	7	6	6
Smithsonian Institution	7	7	7	7	7	7	7	7	7	6	6	6
Department of Housing and Urban Development							10	10				
Trade and Development Agency							16					
Total	\$2,352	\$2,668	\$3,271	\$2,952	\$2,876	\$3,114	\$3,535	\$3,511	\$3,603	\$3,522	\$4,584	\$5,090

Source: GAO Analysis of OMB Reports.

Note: Blank cells indicate that OMB did not report a value for this agency for this year.

Analysis of OMB Funding Report Accounts

Table 8: Analysis of OMB Funding Report Accounts, 1993-2004

Discretionary budget authority in millions of dollars

Account	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
TECHNOLOGY												
Direct Technology:												
Department of Agriculture							0	0	3	3	42	45
Agricultural Research Service							0		0		2	2
Rural Business Service												
Renewable Energy Program										0	22	23
Forest Service												
Forest and Rangeland Research							0	0	3		1	0
Research and Development - Inventories of Carbon Biomass											1	0
Natural Resources Conservation Service							0					
Carbon Cycle											1	1
Biomass Research and Development										3	14	14
Cooperative State Research, Education and Extension Service												
Biofuels/Biomass research; Formula Funds, National Research Initiative											3	5
Department of Commerce												
National Institutes of Standards and Technology											40	28
Industrial Technical Services - Advanced Technology Program											30	18
Scientific and Technical Research Services							0	2			10	10
Department of Defense												
Research, Development, Test and Evaluation, Army											45	15
Research, Development, Test and Evaluation, Navy											16	17
Research, Development, Test and Evaluation, Air Force											3	1

Appendix IV
Analysis of OMB Funding Report Accounts

(Continued From Previous Page)

Discretionary budget authority in millions of dollars

Account	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Research, Development, Test and Evaluation, Defense-wide											19	19
Department of Energy	595	753	829	683	658	729	890	980	1,050	1,519	2,099	2,390
Energy Conservation										897	880	868
Energy Conservation Research and Development	346	435	468	415	414	457	518	577	619	622		
State Energy Grants										45		
Weatherization										230		
Energy Supply	249	318	361	268	244	272	332	315	375	400	667	734
Nuclear Energy Research Initiative										32		
Energy Supply/Electricity											88	73
Energy Supply/Renewables	249	318	361	268	244	272	332	310	370	368	322	352
Energy Supply/Nuclear							0	5	5		257	309
Fossil Energy Research and Development							24	52	18	184	253	455
Sequestration Research and Development										32		
Greenhouse Gas Emission Reduction										152		
Science							13	33	35	35	298	333
Sequestration										35		
Energy Information Administration							3	3	3	3		
Environmental Protection Agency		43	102	96	86	90	109	103	123	115	102	110
Environmental Programs and Management		35	91	81	70	73	72	76	96	89	82	89
Science and Technology		8	11	15	16	17	37	27	27	26	20	22
Department of Housing and Urban Development												
Research and Technology							10	10				
Department of Interior											1	1
U.S. Geological Survey-Surveys, Investigations, and Research												
Geology Discipline, Energy Program											1	1

Appendix IV
Analysis of OMB Funding Report Accounts

(Continued From Previous Page)

Discretionary budget authority in millions of dollars

Account	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
National Aeronautics and Space Administration												
Exploration, Science and Aeronautics											152	227
National Science Foundation												
Research and Related Activities											9	11
Department of Transportation												
Federal Transit Administration											27	5
Capital Investment Grants											26	
Office of the Secretary of Technology												
Transportation, Policy, Research and Development											1	4
Research and Innovative Technology Administration												
Research and Development											0	1
Direct Technology Total	\$595	\$796	\$931	\$779	\$744	\$819	\$1,009	\$1,095	\$1,176	\$1,637	\$2,555	\$2,868
Indirect Technology												
Department of Energy	250	242	231	212	201	351	417	434	499			
Fossil Energy Research and Development	250	242	231	212	201	196	233	243	274			
Coal - Efficient Combustion and Utilization	186	166	144	120	101	105						
Natural Gas - Efficient Combustion and Utilization	64	76	87	92	100	91						
Energy Supply												
Nuclear Energy Research and Development						0	18	22	34			
Energy Conservation Research and Development												
Weatherization and State Energy Grants						155	166	169	191			
Biobased Products and Bioenergy												
							195	200				
Department of Agriculture												
Agriculture Research Service							86	76				
							44	46				
Cooperative State Research, Education, and Extension Service												

Appendix IV
Analysis of OMB Funding Report Accounts

(Continued From Previous Page)

Discretionary budget authority in millions of dollars

Account	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Research and Education Assistance							11	11				
Initiative for Future Agriculture and Food Systems								9				
Forest Service												
Forest and Rangeland Management							9	9				
Executive Operations							1	1				
Departmental Administration							a	a				
Alternative Agricultural Research and Commercialization							4					
Natural Resources Conservation Service												
Forestry Incentives Program							16					
Rural Development												
Rural Community Advancement Program							1					
Department of Energy							109	124				
Energy Supply												
Solar and Renewable Energy Research and Development							40	70				
Energy Conservation Research and Development							41	11				
Fossil Energy Research and Development							0	13				
Science (Basic Science)							27	30				
Partnership for a New Generation of Vehicles							73	64				
Department of Commerce			63	56	42	29	30	22				
Under Secretary for Technology/Office of Technology Policy							1	0				
Salaries and Expenses			0	1	1	1						
National Institutes of Standards and Technology							29	22				
Scientific and Technical Research and Services			7	7	7	6						
Industrial Technology Services			56	48	34	22						

Appendix IV
Analysis of OMB Funding Report Accounts

(Continued From Previous Page)

Discretionary budget authority in millions of dollars

Account	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
National Science Foundation												
Research and Related Activities			53	53	56	47	40	42				
Department of Transportation												
National Highway Traffic Safety Administration												
Operations and Research			5	6	13	5	3					
Indirect Technology Total	\$250	\$242	\$352	\$327	\$312	\$432	\$685	\$698	\$499	b	b	b
Technology Total	\$845	\$1,038	\$1,283	\$1,106	\$1,056	\$1,251	\$1,694	\$1,793	\$1,675	\$1,637	\$2,555	\$2,868
SCIENCE												
U.S. Global Change Research Program												
Department of Agriculture												
Agricultural Research Service	55	56	60	52	57	53	52	56	51	56	60	64
Cooperative State Research, Education, and Extension Services	17	18	24	24	26	27	26	28	29	30	35	36
Research and Education	11	12	10	10	12	7	7	9	4	9	8	16
Economic Research Service	1	1	1	1	1	1	1	1	1	a	0	0
Natural Resources Conservation Service												
Conservation Operations	2	2	2	2	1	1	1	1				
Forest Service												
Forest and Rangeland Research	24	23	23	15	17	17	17	17	17	17	17	12
Department of Commerce												
National Oceanic and Atmospheric Administration												
Operations, Research, and Facilities	66	63	57	57	60	60	63	67	93	100	98	82
Department of Energy												
Science (Biological and Environmental Research)	118	118	113	113	109	106	114	114	116	117	112	102
Environmental Protection Agency												
Science and Technology	26	30	22	18	13	13	17	21	23	21	22	17
Department of Health and Human Services												
National Institutes of Health						35	35	40	47	54	56	61
											62	

Appendix IV
Analysis of OMB Funding Report Accounts

(Continued From Previous Page)

Discretionary budget authority in millions of dollars

Account	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
National Institute of Environmental Health Sciences						4						
National Eye Institutes						9						
National Cancer Institute						21						
National Institute of Arthritis and Musculoskeletal and Skin Diseases						a						
Department of the Interior												
U.S. Geological Survey												
Surveys, Investigations, and Research	22	29	27	26	26	26	27	27	27	26	28	28
National Aeronautics and Space Administration												
Science, Aeronautics, and Technology	888	999	1,305	1,218	1,218	1,210	1,155	1,161	1,176	1,090	1,144	1,256
National Science Foundation												
Research and Related Activities	124	142	169	163	166	167	182	187	181	189	188	185
Smithsonian Institution												
Salaries and Expenses	7	7	7	7	7	7	7	7	7	6	6	6
U.S. Agency for International Development												
Development Assistance										6	6	0
U.S. Global Change Research Program Total	\$1,306	\$1,444	\$1,760	\$1,654	\$1,656	\$1,677	\$1,657	\$1,687	\$1,728	\$1,667	\$1,725	\$1,803
Climate Change Research Initiative												
Department of Agriculture											2	6
Agricultural Research Service											0	1
Forest Service												
Forest and Rangeland Research											1	5
Department of Commerce												
National Oceanic and Atmospheric Administration												
Operations, Research, and Facilities											18	34
Department of Energy												
Science (Biological and Environmental Research)											3	27

Appendix IV
Analysis of OMB Funding Report Accounts

(Continued From Previous Page)

Discretionary budget authority in millions of dollars

Account	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
National Science Foundation												
Research and Related Activities											15	30
National Aeronautics and Space Administration												
Science, Aeronautics, and Technology											3	65
Department of State												
International Organizations and Programs												1
Department of Transportation												4
Federal Highway Administration												
Federal Aid - Highways												4
U.S. Agency for International Development												
Development Assistance												6
Climate Change Research Initiative Total											\$41	\$173
Science Total	\$1,306	\$1,444	\$1,760	\$1,654	\$1,656	\$1,677	\$1,657	\$1,687	\$1,728	\$1,667	\$1,766	\$1,976
INTERNATIONAL ASSISTANCE												
Department of Energy							6					
Energy Supply												
Solar and Renewable Energy Research and Development							6					
Department of State												
International Organizations and Programs	1	1	1	3	3	5	7	7	7	7	6	5
Trade and Development Agency							16					
Department of the Treasury										43	56	52
International Development Assistance												
Global Environment Facility ^c		12	35	14	14	18	60	14	41	38	56	32
Debt Restructuring												
Tropical Forest Conservation									13	5		20
U.S. Agency for International Development							236	156	157	174	208	195
Development Assistance	200	173	192	175	147	163	169	109	112	116	140	125
Development Credit Authority							1	1	1			

Appendix IV
Analysis of OMB Funding Report Accounts

(Continued From Previous Page)

Discretionary budget authority in millions of dollars

Account	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Economic Support Fund							19	8		12	6	9
Assistance for the Independent States of the Former Soviet Union							35	34	31	30	48	47
Assistance for Eastern Europe and the Baltic States							12	4	13	11	8	7
International Disaster Assistance										4	4	2
Andean Counterdrug Initiative											2	3
International Assistance Total	\$201	\$186	\$228	\$192	\$164	\$186	\$325	\$177	\$218	\$224	\$270	\$252
Tax Expenditures^d												
Total Climate Change Funding	\$2,352	\$2,668	\$3,271	\$2,952	\$2,876	\$3,114	\$3,535	\$3,511	\$3,603	\$3,522	\$4,584	\$5,090

Source: GAO Analysis of OMB Reports.

Notes:

GAO calculated the total for shaded cells based on OMB data presented in its reports. Blank cells indicate that OMB did not report a value for the account for that year.

^aOMB presented funding of less than \$500,000 for this account

^bOMB did not distinguish between indirect and direct technology funding for this year.

^cGEF funding as presented by OMB for each year represents the portion of total GEF funding that is related to climate change.

^dOMB did not report revenue loss estimates for existing climate-related tax expenditures from 1993 through 2004.

Comments from the Climate Change Science Program



UNITED STATES DEPARTMENT OF COMMERCE
The Assistant Secretary of Commerce
for Oceans and Atmosphere
Washington, D.C. 20230

JUL 28 2005

Mr. John B Stephenson
Director, Natural Resources and Environment
United States Government Accountability Office
Washington, D.C. 20548

Dear Mr. Stephenson:

Thank you for the opportunity to review and comment on the General Accounting Office's draft report entitled: *Federal Reports on Climate Change Funding Should Be Clearer and More Complete* (GAO-05-461). The comments from the National Oceanic and Atmospheric Administration on the draft report are enclosed.

These comments were prepared in accordance with the Office of Management and Budget Circular A-50.

Sincerely,

A handwritten signature in cursive script that reads "James R. Mahoney".

James R. Mahoney, Ph.D.
Assistant Secretary of Commerce for
Oceans and Atmosphere

Enclosure

cc: The Honorable Carlos Gutierrez, Secretary of Commerce



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**NOAA/CCSP Comments on the Draft GAO Report Entitled
“Federal Reports on Climate Change Funding Should Be
Clearer and More Complete”
(GAO-05-461/August 2005)**

General Comments

The GAO report on federal reports on climate change funding presents a fair assessment of how the Climate Change Science Program (CCSP) documents and presents their climate budget information from 1993 to 2004. Regarding the “science” category (i.e., one of four categories that GAO used to track climate spending and the category that directly relates to CCSP), the report states that OMB and CCSP generally presented consistent climate change funding totals over the 11 years studied. The report also states that CCSP changed its reporting methods in 1998, prior to the inception of CCSP, which makes it difficult to compare funding categories between the 1993-1998 and 1998-2004 period.

CCSP remains committed to reporting on federal climate change spending in through its annual *Our Changing Planet* (OCP) reports in a manner that retains continuity from prior reports. We have noted that we will be including a goal-oriented budget in upcoming editions of OCP, but we will also continue to explicitly present budget data as it was in prior editions. In addition, we intend to enhance our communication with OMB to ensure that Congress and the public can consistently track federal climate change spending over time.

Recommended Changes for Factual/Technical Information

None

Editorial Comments

None

NOAA/CCSP Response to GAO Recommendations

The GAO states, “In order to better ensure that the Congress and the public can consistently track federal climate change funding or spending over time, we are making the following recommendations. We recommend that OMB and CCSP...”

Recommendation 1: “from year-to-year, each use the same format for presenting data, to the extent that they may do so and remain in compliance with report requirements.”

NOAA/CCSP Response: NOAA/CCSP agrees with this recommendation. CCSP, since it was announced in 2002, has been and remains committed to reporting on federal climate change spending in through its annual *Our Changing Planet* (OCP) reports in a manner that retains continuity from prior reports. OCP is a program report that described the plans and activities of CCSP as well as the Fiscal Year budget information in fulfillment of reporting requirements. In addition, we intend to enhance our communication with OMB to collaborate on our respective reports to the maximum extent feasible.

Recommendation 2: “explain changes in report content or format when they are introduced.”

NOAA/CCSP Response: NOAA/CCSP agrees with this recommendation. We have noted that we will be including a goal-oriented budget in upcoming editions of OCP, and we do plan to provide a brief explanation of the supplemental material. However, we will also continue to explicitly present budget data as it was in prior editions.

Recommendation 2: “provide and maintain a crosswalk comparing new and old report structures when changes in report format are introduced.”

NOAA/CCSP Response: NOAA/CCSP agrees with this recommendation, but expresses concern about its ability to improve upon the currently available financial analyses for the years before 2001. CCSP is unaware of additional financial information supplemental to the official financial reports already examined by GAO for the years before 2001.

GAO Contact and Staff Acknowledgments

GAO Contact

John B. Stephenson, (202) 512-3841

Staff Acknowledgments

In addition to the individual named above, David Marwick, Assistant Director, Anne K. Johnson, and Joseph D. Thompson made key contributions to this report. Also, John Delicath, Anne Stevens, and Amy Webbink made important contributions.

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