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Energy, Resources, and Science Issue Area Plan

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Foreword

As the investigative arm of the Congress and the nation's auditor, the General Accounting Office is charged with following the federal dollar wherever it goes. Reflecting stringent standards of objectivity and independence, GAO's audits, evaluations, and investigations promote a more efficient and cost-effective government; expose waste, fraud, abuse, and mismanagement in federal programs; help the Congress target budget reductions; assess financial information management; and alert the Congress to developing trends that may have significant fiscal or budgetary consequences.

To ensure that GAO's resources are directed toward the most important issues facing the Congress, each of GAO's 32 issue areas develops a strategic plan that describes its key issues and their significance, the objectives and focus of its work, and the planned major job starts. Each issue area relies heavily on input from congressional committees, agency officials, and subject-matter experts in developing its strategic plan.

The Energy, Resources, and Science Issue Area focuses its work on the following federal agencies:

•the Department of Energy (DOE), the Nuclear Regulatory Commission (NRC), the Federal Energy Regulatory Commission, and the Tennessee Valley Authority (TVA);

•the Department of the Interior (DOI), the Forest Service within the Department of Agriculture, the Army Corps of Engineers, as well as the National Marine Fisheries Service; and

•an array of science and technology-related agencies, including the National Science Foundation (NSF), the Department of Commerce's National Institute of Standards and Technology (NIST), the Patent and Trademark Office (PTO), the National Technical Information Service (NTIS), and the National Oceanic and Atmospheric Administration (NOAA).

The activities of these agencies account for federal expenditures that exceed $44 billion in net outlays for fiscal year 1995, generate revenues of about $10 billion a year, and affect many domestic and international issues. For example, issues involving DOE and related science and technology agencies—with billions of dollars invested in scientific and technical resources and a vast network of laboratories stretched across the country—pose significant implications for our nation's security, environment, and economic well-being. The land management agencies,

which include DOI, the Forest Service, and the Army Corps of Engineers, are responsible for about 650 million acres (roughly 30 percent of our nation's total surface area), 1.4 billion acres of ocean floor, and an infrastructure of roads, buildings, dams, and other facilities currently valued at about $200 billion.

Our work focuses primarily on assisting the Congress in examining the role of government in this broad area of responsibility, with particular emphasis on finding ways to promote a more efficient and cost-effective government. To accomplish this, reviews are directed toward

- examining the roles and missions of energy, natural resources, and science agencies with particular emphasis on determining whether certain programs and activities are working as intended and identifying the potential effects of transferring some of them to state and local governments or the private sector;

- identifying opportunities to increase revenues or achieve economies and efficiencies through better management practices;

- addressing the safety, security, and environmental implications of nuclear weapons and nuclear power in the post-Cold War era;

- helping the government fulfill its stewardship responsibilities to maintain an appropriate balance between conserving our nation's natural resources and promoting their productive use while providing public access; and

- assessing the results of federal investments in science and technology.

In the pages that follow, we describe our key planned work on these important issues. Because unanticipated events may significantly affect even the best of plans, our planning process allows for updating this plan to respond quickly to emerging issues. If you have any questions or suggestions about this plan, please call me at (202) 512-3841.

Victor S. Rezendes
Director
Energy, Resources, and Science Issues

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Table I: Key Issues

Issue	Significance
Examining roles and missions of energy, natural resources, and science agencies: How effective are federal programs and activities in these areas, and what would be the effects and implications of transferring specific ones to state and local governments or the private sector?	Programs and activities of energy, natural resources, and science agencies face an uncertain future. Budgetary constraints, a national consensus on the need for a smaller and more effective government, and the end of the Cold War all increase this uncertainty. These pressures raise basic questions about the need for a continued federal presence in particular activities and the effects of transferring some of them to state and local governments or the private sector.
Achieving economies and efficiencies through better management practices: Can greater economies and efficiencies be achieved by consolidating, restructuring, and better managing energy, natural resources, and science programs and activities?	The Department of Energy, as well as the four primary federal land management agencies—the National Park Service, the Bureau of Land Management, the Fish and Wildlife Service, and the Forest Service—are downsizing and restructuring their operations while seeking ways to reduce costs, increase efficiencies, and improve services to the public. Opportunities also may exist to increase revenues by obtaining a better return for the products and services they provide.
Addressing the consequences and implications of nuclear weapons and energy: Is the government dealing appropriately with the safety, security, and environmental legacies of nuclear weapons and nuclear power in a post-Cold War era?	Priority once given to producing nuclear weapons and building power plants has given way to an emphasis on maintaining the weapons stockpile; safeguarding and preventing the proliferation of nuclear materials and technologies in the United States and abroad; cleaning up, dismantling, and disposing of nuclear wastes; and restructuring the weapons complex to meet post-Cold War needs—while protecting the safety of workers and the public. These new priorities are costly and often controversial, take time, and come when the Congress is mandating downsizing and cost-cutting measures.
Maintaining stewardship and accountability for natural resources: Are government agencies fulfilling their legislative mandates to preserve and protect our nation's resources while promoting their productive use and providing appropriate public access?	The extent to which federal land management agencies comply with and are held accountable for current production and conservation laws and regulations is important to the Congress. Many of the related problems and issues, however, transcend the existing boundaries of federal agencies and require increased collaboration and consensus-building among federal and nonfederal stakeholders. Thus, new and broader approaches to problem-solving need to be tested and evaluated.

Table I: Key Issues

Objectives	Focus of work
•Identify the potential effects and implications of transferring certain programs and activities to the states or the private sector. • Assess implications of easing regulatory controls involving activities related to energy and natural resources. • Identify opportunities to eliminate, reduce, or restructure subsidies that work at cross-purposes or encourage waste and abuse. • Assess actions to reduce our nation's vulnerability to oil disruptions and related economic damage.	•Privatization of various federal roles and functions • Effects of deregulating utility industries • Roles and missions of DOE, NRC, PTO, NIST, and NOAA • Effects of federal energy and natural resource subsidies • Adequacy of national energy plans
• Recommend ways for energy, natural resources, and science agencies to reduce costs, increase efficiency, and improve services to the public. • Identify ways to eliminate overlap and duplication, consolidate functions, simplify procedures, and downsize programs and activities. • Help ensure an appropriate return to the government for the sale or use of federal resources or services. • Identify ways to increase revenues and reduce spending through "budget scrubs."	• Progress of DOE's contracting reforms • Opportunities to consolidate federal land management activities • Duplication and overlap of agency functions and activities • Potential sources of additional revenues, including user fees • Annual budget savings
• Identify more cost-effective ways to dismantle nuclear weapons, store nuclear materials, and clean up and dispose of nuclear waste. • Assess the effectiveness of programs to protect the health and safety of workers and the public. • Evaluate efforts to develop and maintain a nuclear weapons infrastructure that addresses current U.S. needs. • Determine whether U.S. arms controls and nonproliferation programs adequately serve post-Cold War security and safety needs.	• Cleanup and disposal of waste from civilian and defense nuclear sites • Environmental, health, and safety risks to workers and the public • Effectiveness of efforts to maintain an adequate nuclear weapons stockpile • Nuclear reactor safety and nonproliferation issues
• Evaluate options to provide good stewardship over public lands and natural resources while allowing appropriate access and use by public and private sectors. • Identify opportunities to improve agency compliance with existing production and conservation requirements. • Assess the effects of current conservation and protection laws and regulations on the ability of federal land managers to meet their stewardship responsibilities.	• Effectiveness of federal land management plans and decisionmaking • Barriers to federal and nonfederal collaboration and consensus-building and options to overcome them • Changes in programs, systems, and activities to improve compliance with laws and regulations • Sources of conflict among laws and regulations and options to mitigate or eliminate them

(continued)

Table I: Key Issues

Issue	Significance
Assessing the results and effects of federal investments in science and technology: Are federal investments in science and technology-related programs achieving their intended objectives, and are the government's priority-setting and evaluation measures credible and appropriate?	With a limited budget, the Congress and the administration are faced with the increasingly difficult challenge of finding better ways to prioritize and coordinate funding for science and technology-related programs (which are now scattered over 20 agencies) as well as to evaluate the results and effects of such spending. Critical decisions must be made on the proper balance between basic and applied research as well as among various competing needs and the appropriate role of government and industry collaboration to help maintain U.S. competitiveness in the global marketplace.

Table I: Key Issues

Objectives	Focus of work
• Identify ways to improve the federal process for establishing goals and priorities, evaluating the results of federally funded science and technology programs, and leveraging industry participation. • Assess the results and effects of specific science and technology programs. • Determine to what extent the government is funding science and technology programs that are either making little difference or that could otherwise be funded by industry. • Determine the effectiveness of patent office, technology transfer, and other federal information services that are designed to foster U.S. leadership in new technologies.	• Federal process for determining the nation's science and technology spending priorities • Effects of key federal investments in science and technology • Research activities at federal laboratories and universities • Progress in evaluating results and effects of scientific research • Effects of patent and technical information services in fostering technological leadership

Table II: Planned Major Work

Issue	Planned major job starts
Examining roles and missions of energy, natural resources, and science agencies	•Assess DOE's initiative to privatize its cleanup activities. •Identify issues surrounding the privatization of power marketing administrations. •Identify issues related to restructuring the electric power industry. •Review DOE's strategy for closing or consolidating its laboratories. •Identify energy subsidies that no longer serve their intended purpose. •Evaluate the effectiveness of DOE's national energy plan.
Achieving economies and efficiencies through better management practices	•Assess DOE's progress in implementing contracting reforms. •Identify potential savings in managing landlord functions at cleanup sites. •Determine the effectiveness of the National Park Service's concession reforms. •Evaluate the use of market-based incentives to manage the nation's forests. •Identify opportunities to make the national parks more financially self-sufficient. •Assess controls over collecting federal oil and gas royalties. •Conduct budget scrubs at DOE, NSF, NOAA, DOI, NIST, and other agencies.
Addressing the consequences and implications of nuclear weapons and energy	•Evaluate the effectiveness of DOE's efforts to store and dispose of plutonium. •Assess the cost-effectiveness of DOE's activities to clean up spent nuclear fuel. •Review NRC's progress in fulfilling its health and safety mission. •Identify the nation's tritium reserves and the need for a new source of tritium. •Assess the adequacy of DOE's and DOD's plans and controls over the stockpiles of nuclear weapons. •Evaluate the technical assistance activities of the International Atomic Energy Agency. •Assess efforts to decommission the nation's commercial nuclear reactors.
Maintaining stewardship and accountability for natural resources	•Evaluate the Forest Service's process for land management planning. •Assess the effectiveness of the planning processes that federal land management agencies use. •Identify economic and environmental issues associated with dredging the nation's harbors. •Assess options for managing the nation's commercial fisheries. •Assess progress in correcting deficiencies in the Trans-Alaska Pipeline. •Examine expenditures from the Exxon-Valdez Trust Fund.
Assessing the results and effects of federal investments in science and technology	•Evaluate the process to determine priorities for federal research. •Assess the success of the Small Business Innovation Research program. •Assess the results and effects of federal technology transfer activities. •Review the effects of federal investments in science and technology programs. •Determine the effectiveness of the Patent and Trademark Office's activities in fostering U.S. technological leadership.

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