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Report of the
**Auditor General
of Canada**
to the House of Commons

APRIL

Chapter 1
Natural Resources Canada—
Governance and Strategic Management



Office of the Auditor General of Canada

The April 2005 Report of the Auditor General of Canada comprises six chapters, and a Message From the Auditor General of Canada and Main Points. The main table of contents is found at the end of this publication.

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Chapter

1

Natural Resources Canada

Governance and Strategic Management

All of the audit work in this chapter was conducted in accordance with the standards for assurance engagements set by the Canadian Institute of Chartered Accountants. While the Office adopts these standards as the minimum requirement for our audits, we also draw upon the standards and practices of other disciplines.

Table of Contents

Main Points	1
Introduction	3
Fluctuations in the Department's scientific workforce	5
Reductions in base funding and increases in sunset funding	6
Recent initiatives	6
The Department's legislation is broad	7
The Department has interpreted its role in different ways	8
How Natural Resources Canada views its operations	8
Focus of the audit	10
Observations and Recommendations	11
Setting strategic priorities	11
Strategic planning documents are inconsistent	11
Governance processes need a more strategic focus	13
Sectors lack appropriate industry information for strategic planning	15
Human resources planning is inadequate	17
Information systems used for corporate oversight need improvement	19
Preparing for emergencies and assessing risk	19
The Department is not prepared for emergencies in all its responsibility areas	19
Risk assessment processes are inadequate	23
Economic information and analysis needs to be strengthened	24
Information for Parliament	26
The Department generally meets its annual reporting obligations	26
Performance reporting has several shortcomings	26
Conclusion	28
About the Audit	29



Natural Resources Canada

Governance and Strategic Management

Main Points

1.1 Natural Resources Canada has been working on a number of significant issues. However, the Department does not have a corporate strategic plan that addresses its legislative mandate and government priorities, is communicated to staff, and serves to align sector business plans. It needs good governance and management processes at the corporate level to focus its efforts. It also needs to improve its strategic decision-making and governance processes to help ensure that horizontal issues are managed consistently across the Department.

1.2 The Department is the federal lead in developing civil emergency plans for co-ordinating the federal response to emergencies in a number of areas related to natural resources. We found that the Department's operating sectors did not use a coherent framework for assessing risk and that the Department does not have appropriate emergency plans in all of its responsibility areas.

Background and other observations

1.3 The Department is faced with an aging, specialized workforce. Yet, it does not have a clear understanding of the competencies and capacities of its current workforce and those that it will need to acquire. We also found that the Department's information management systems lack consistent data that would allow effective corporate oversight.

1.4 Natural Resources Canada generally meets its statutory obligations with respect to its reporting requirements under the *Report on the State of Canada's Forests Regulations* and the *Energy Efficiency Act*. The Department needs to establish a more rigorous process that could help it move toward managing for results. Its performance reports need to address the Department's mandate and make its various frameworks for assessing performance easier to understand.

1.5 The Department has a very broad mandate, and it faces a number of significant challenges. These include funding levels that were cut by about 50 percent and then doubled over the last 10 years. Almost half of its funding is for short-term programs that expire in three to five years. In addition, many of its executives and technical specialists are eligible to retire. Recently, the Department has undertaken a number of important initiatives to deal with the issues it faces. It is important for the Department to have good strategic management systems and practices to ensure that it coherently deals with increasingly horizontal issues.

The Department has responded. Natural Resources Canada has indicated the actions it has under way or has planned to address the recommendations. Its detailed response follows each recommendation throughout the chapter.

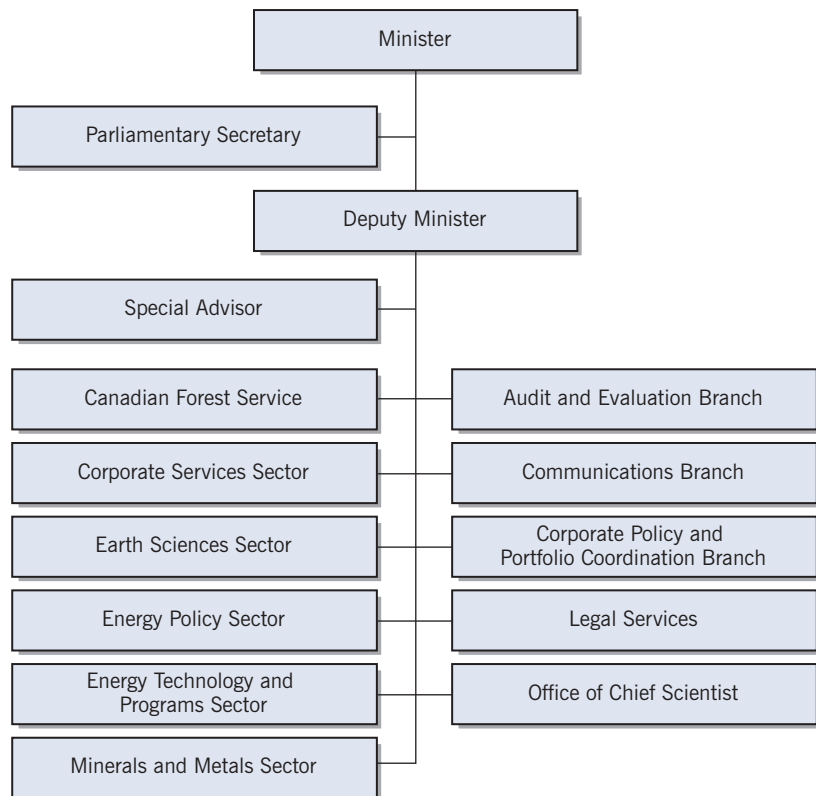
Introduction

1.6 Natural Resources Canada is a successor to the Department of Energy, Mines and Resources and an amalgam of previously separate and mainly science-based institutions, including the Canadian Forest Service, the Geological Survey of Canada, Geomatics Canada, and the Department of Mines.

1.7 The Department is organized along industry lines and comprises five operational sectors and a corporate services sector (Exhibit 1.1). It is the federal lead on forestry, energy supply and use, minerals and metals, and earth sciences, and it works closely with partners and stakeholders.

1.8 Canada’s resource industries are a vital part of the national economy, accounting for more than \$131 billion and more than 13 percent of the gross domestic product in 2002. Over one million Canadians are directly employed in the resource industries across Canada. Over 600 rural and remote communities, out of a total of nearly 6,000 such communities across Canada, rely on the resource industries for more than 50 percent of their economic base (Exhibit 1.2).

Exhibit 1.1 Natural Resources Canada organization chart



Source: Natural Resources Canada

Exhibit 1.2 Communities that rely on forestry, energy, mining, and metal fabrication, 2001

Resource-reliant communities	Communities (approximate)
Forestry	300
Energy	75
Mining and metal fabrication	125
Communities that rely on a combination of the above-noted resource industries	165
Total	665

Source: Natural Resources Canada

1.9 The Department faces a number of major horizontal, international, economic, and policy issues that can be broken down into three categories: supply issues, market issues, and environmental issues (Exhibit 1.3). Horizontal issues are those that affect more than one sector or federal department.

Exhibit 1.3 Major departmental issues

Supply issues

- Offshore oil and oil sands development
- Northern energy and pipeline development
- Aging electricity supply infrastructure (including nuclear energy plants in Ontario, Quebec, and New Brunswick)
- Depleting reserves of seven major Canadian metals (for example, copper and zinc)
- Energy infrastructure protection
- Alternative energy and demand issues, including energy efficiency

Market issues

- Regulatory harmonization
- Softwood lumber and U.S. market access
- International market access
- Resource taxation

Environmental issues

- Climate change
- New, foreign, invasive forest pests

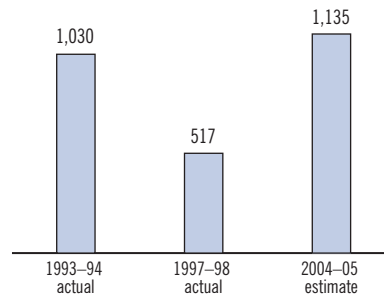
Source: Natural Resources Canada

Fluctuations in the Department’s scientific workforce

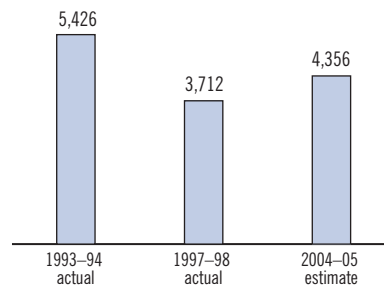
1.10 As a result of the government’s program review cuts, the Department’s expenditures were reduced by about 50 percent between 1995 and 1998, and its staff was reduced by about 30 percent. Reductions were distributed mainly among scientific (794) employees, management (79), and administrative (450) categories (Exhibit 1.4).

Exhibit 1.4 Departmental changes in expenditures and staffing

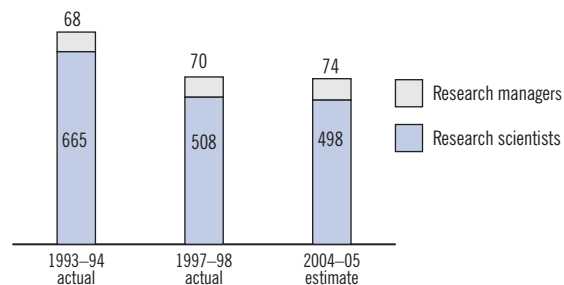
Expenditures (\$ thousands)



Full-time equivalent staff



Research scientists and managers



Source: Natural Resources Canada

1.11 As of September 2004, about 70 percent of the Department's staff are engaged in science and related scientific activities, including 498 research scientists and 74 research managers. The Department spends about 74 percent of its budget (excluding statutory payments) on science and related activities. (Statutory payments of about \$334 million comprised mainly transfers to provinces for offshore oil and gas development and contributions to employee benefit plans.) Following the government's program review, the Department focussed on its remaining in-house science activities, while maintaining some policy capacity and regulatory oversight.

1.12 The knowledge and expertise of Natural Resources Canada's workforce are vital to the effectiveness of its programming. Similar to many other knowledge-based organizations, the Department must confront the problem of an aging workforce.

Reductions in base funding and increases in sunset funding

1.13 The Department's resources have increased from the lower levels following program review. However, the increase in staff has been mainly the result of the introduction of temporary funding for special purpose and sunset programs. These programs have a short life-span, generally from one to five years. Natural Resources Canada estimates that these programs now comprise 62 percent of the Department's budget. Sunset programs have a number of impacts, including the following:

- Management attention is drawn from other work to manage the changing resources.
- It is often difficult or impossible to move scientific staff from one project to another in an unrelated field.
- Scientists are more difficult to recruit as they prefer to work for organizations with more assured funding.

Recent initiatives

1.14 In response to the challenges it faces, the Department has undertaken a number of important initiatives in the past two years.

- **Support services.** The Department completed a major study of support services (finance, procurement, information technology, communications, asset management, and human resources) and is in the process of implementing its recommendations. This involves the creation of a Shared Services Office to improve the effectiveness and efficiency of support services and to strengthen corporate administrative management.
- **Science management.** The Department created the Office of Chief Scientist in September 2003. It informed us that the Office is currently developing a vision document and an organizing architecture that will include governance structures, principles, guidelines, and management policies and processes for science and technology. The Department indicated that it is also considering theme-based networks as a means to

improve co-ordination of science and technology programs that address cross-cutting policy issues.

- **Information management.** The Department informed us that it has developed options for a departmental science and technology information system. Development of this system has been put on hold due to a Treasury Board decision on the potential development of a government-wide information system. In the meantime, the Department is developing a standardized template for the operational sectors to report science and technology information.
- **Human resources management.** Initiatives in the past year include the Policy Analysis Recruitment and Development Program. Through this program, the Department recruited university graduates to enhance its policy capacity.

The Department's legislation is broad

1.15 The Department's enabling legislation is set out in over 30 acts of Parliament. This legislative base has developed over more than 100 years. The four core acts are the *Department of Natural Resources Act*, *Resources and Technical Surveys Act*, *Explosives Act*, and *Forestry Act*.

1.16 The *Department of Natural Resources Act* sets out the main purposes of the Department. It requires the Minister of Natural Resources to

- co-ordinate, promote, recommend, and implement policies;
- assist in the development of Canadian scientific and technological capabilities;
- promote the development and use of remote sensing;
- develop codes and standards for surveys and natural resource products;
- gather, compile, analyze, co-ordinate and disseminate information;
- seek to enhance the responsible development and use of Canada's natural resources and the competitiveness of Canada's natural resources products;
- participate in the enhancement and promotion of market access;
- have regard for the sustainable development of Canada's natural resources and the integrated management thereof; and
- promote co-operation with governments and non-governmental organizations in Canada and internationally.

1.17 The remaining acts set out terms for energy policy; nuclear policy; management of Crown lands and boundaries; and regulation of the sale, use, and distribution of explosives; they also establish a foundation to fund sustainable development technology.

The Department has interpreted its role in different ways

1.18 In response to changing government priorities, the Department has focussed on different areas over time and interpreted its role as one or more of the following:

- knowledge provider, especially for the materials that compose Canada's earth;
- manager and promoter of science and technology;
- regulator;
- manager of developmental programs in the energy, forest, minerals, and metals sectors;
- investor in mega-energy projects; and
- promoter of energy efficiency.

1.19 Natural Resources Canada is responsible for developing and maintaining emergency plans related to a number of different areas. These include co-ordinating the federal response to energy shortages or major power failures (for example, the power outage of 14 August 2003 that affected Ontario and the Eastern United States), mine disasters, and emergencies associated with offshore oil and gas production.

1.20 The Department is jointly responsible with the National Energy Board for the federal role in the control and regulation of energy production, generation, processing, transmission, storage, sale, domestic distribution, and exports and imports. Indian and Northern Affairs Canada is responsible for the federal role in this area in the territories.

How Natural Resources Canada views its operations

1.21 Natural Resources Canada has the mandate to promote the sustainable development and use of Canada's mineral, energy, and forestry resources and to enhance the competitiveness of Canada's resources and products.

1.22 The Department's activities are extremely varied across its business lines. In particular, it deals extensively with three major sectors of the Canadian economy: energy, forestry, and mining. While there are common horizontal policy themes (for example, sustainability issues, regulatory issues, and climate change implications), the issues, opportunities, and challenges facing the three sectors are quite different from the perspective of

- commodity price cycles and markets associated with the sectors,
- their resource bases,
- the international orientation of the three sectors, and
- their stakeholder groups.

1.23 The Department works closely with industry and stakeholder groups associated with the three commodity sectors. Some of the specific initiatives that the commodity sectors have advanced include the following:

- **Canadian Forest Service.** The establishment of the Canadian Forest Innovation Council (with representation from industry and the provincial governments) and greater collaboration with provincial and territorial forestry ministers are intended to lead to more strategic and co-ordinated approaches to the forestry agenda.
- **Energy Policy Sector and Energy Technology and Programs Sector.** As part of the Energy Dialogue Mechanism, the Department is working closely with provincial officials and industry representatives to provide leadership on energy policy issues.
- **Minerals and Metals Sector.** The Kimberley Process brought together the governments of 50 countries, the diamond industry, and non-governmental organizations to curb the trade in conflict diamonds.

1.24 The fourth sector in Natural Resources Canada—the Earth Sciences Sector—provides unique and essential components of the science required to make informed economic, environmental, and social policy decisions for the current and future governance and development of Canada. In essence, the Sector serves as a science and information-based service provider to government and other stakeholders.

1.25 The Department's key planning challenge is to integrate the management of horizontal issues with sectoral strategies. Examples of horizontal policy issues that have received focus across the Department include the following:

- a framework for sustainable development;
- climate change mitigation and adaptation;
- regulatory affairs;
- innovation; and
- science and technology management.

1.26 Climate change has been a major focus of activity and new programs within the Department. Natural Resources Canada's role has been led by the Energy Policy Sector but has involved all sectors; the Department has also been part of a much larger government-wide effort, including shared planning and accountability systems.

1.27 The Department is supported in its horizontal operations by corporate units (including the Corporate Policy and Portfolio Coordination Branch, the Office of the Chief Scientist, and the Communications Branch) as well as horizontal management committees (for example, the Departmental Management Committee and the Strategic Policy Committee).

1.28 The Department's organization, planning activities, and management processes at the corporate level are structured to balance the Department's sector-specific responsibilities and activities with the need for sound

management of horizontal policy issues. These processes include the following:

- Natural Resources Canada’s corporate branches carry out broad planning and contextual strategic policy analyses that serve all the sectors.
- Each sector develops a tailored approach to strategic sectoral management and operations, consistent with its operational responsibilities and in keeping with the specific policy challenges and opportunities facing the sector.
- Horizontal departmental operations (including support services, science management, and human resource management) are also managed at the corporate level.
- Horizontal government-wide priorities (including climate change, the development of a sustainable development framework, regulatory reform, and water issues) are supported by both the sectors and the corporate branches.

Focus of the audit

1.29 Our audit objectives were

- to assess whether Natural Resources Canada’s governance mechanisms, management systems, and practices at the strategic level are adequate to support its Department-wide policy development, research, program, and other activities; and
- to determine whether the Department appropriately assesses and reports to Parliament the results and impacts of its efforts and meets its statutory reporting obligations.

1.30 Our audit focussed on the governance and management practices of Natural Resources Canada’s five operational sectors at the strategic level rather than the program level. Thus, we did not audit the Department’s programs such as climate change; nor did we audit interdepartmental initiatives. In order to review strategic management across the Department, we selected emergency preparedness for further testing. This activity is part of public safety and security, one of the Department’s five strategic outcomes.

1.31 We identified four lines of enquiry:

- strategic management and direction setting;
- integrated information management and decision making;
- aspects of human resources management; and
- performance measurement and reporting.

1.32 Some quantitative information in this chapter is based on data provided by Natural Resources Canada. We assessed these data through a process of analysis, comparison, and discussion. Unless otherwise indicated in this chapter, data provided by Natural Resources Canada should be treated as unaudited. More details on the audit’s objective, scope, approach, and criteria are included in **About the Audit** at the end of the chapter.

Observations and Recommendations

Setting strategic priorities

1.33 Each of the Department's five operating sectors has unique characteristics that include legislative responsibilities, stakeholders, and key issues. We would not expect one overall integrated business plan to serve the needs of all sectors. However, we would expect the Department to have a corporate strategic plan to provide guidance to the sectors and to clearly explain the Department's overall strategic priorities to parliamentarians and stakeholders.

1.34 The Department faces a number of challenges, including

- a severe workforce reduction followed by a rapid increase,
- an aging workforce, and
- a significant amount of its resources dedicated to sunset programs that make staffing more difficult.

In these circumstances, it is important that the Department have good strategic planning to help it allocate its scarce resources and adapt to its changing environment (Exhibit 1.5).

Exhibit 1.5 Elements of a good strategic plan

A good strategic plan

- is consistent with mandate and government priorities;
- considers factors such as external environment, risks, options, stakeholders, available resources, organizational strengths and weaknesses, and potential impacts;
- analyzes risks, options, and proposed courses of action;
- sets out organizational vision, priorities, objectives, and expected results;
- is communicated to staff; and
- is implemented throughout the organization.

Strategic planning documents are inconsistent

1.35 Natural Resources Canada does not have a corporate strategic plan. Instead, it uses two classified documents, a 2004 briefing document and a Vision Paper, to identify its organizational vision, priorities, and direction. Members of the Department's management committee, including the heads of the operational sectors, helped develop these documents. However, since these documents are not available to staff and other stakeholders, we looked at other authoritative documents—the sustainable development strategies, sector business plans, and the reports on plans and priorities—to see if they set out strategies consistent with the classified documents and communicated these strategies to staff and other stakeholders.

1.36 The Commissioner of the Environment and Sustainable Development noted in October 2004 that Natural Resources Canada was among the departments that have often performed relatively well in senior leadership,

with benefits including better sustainable development strategies and more decisive efforts to deliver on environmental commitments.

1.37 Sustainable development strategies are intended to influence change toward sustainable development. The Department's 2004 strategy was not intended to cover all areas of its responsibilities; therefore, in our view, the strategy cannot fulfill the role of a corporate strategic plan.

1.38 We found that each of the five operational sectors is responsible for establishing its own mission and ensuring it is consistent with relevant legislation and government direction. While this is necessary, the Department has no coherent approach for analysis across the sectors to ensure that they adequately address their legislative mandates or the priorities of Parliament, and to assist in the management of horizontal issues. As a result, sector mission statements did not state the results expected in coherent terms, with clear links to the Department's vision, legislated mandate, or government direction.

1.39 Our review found that one of the sector business plans had no mission statement, while others differed in what is expected, from "a provider of information" to "a sustainable development organization." A corporate strategic plan could help to provide a rationale to explain these differences.

1.40 We noted that one of the five operational sectors had systematically reviewed its legislative authorities to identify gaps, overlaps, and areas where it was not meeting its legislative requirements or where it was doing unnecessary work.

1.41 Government priorities can be derived from a variety of sources, such as the Prime Minister's mandate letter to the Minister, the Speech from the Throne, and budget documents. We found no consistency in the documents used by the five operational sectors to determine government priorities. Sector priorities were based on 10 different government documents from three different years. Three of the five operational sectors had determined individual strategic priorities, while two sectors had aligned their business plans to specific issues. As a result, there are inconsistencies in the 17 different strategic priorities formulated by the five operational sectors. For example, the Department's 2004 Sustainable Development Strategy states that sustainable development is central to its mandate. Thus, we would have expected the business plans of the five operational sectors to identify sustainable development as a priority and demonstrate how each sector would contribute to it. We found that only two of the five operational sectors' business plans referred to sustainable development. Public safety is the only common strategic priority identified across the Department.

1.42 Climate change is another key government priority relevant to the Department. Natural Resources Canada has many program initiatives related to climate change and has informed us that it is heavily involved in all aspects of this work—developing policy, facilitating stakeholder consultations, supporting international negotiations, and creating significant new knowledge capacity. An overall corporate strategic plan could help to clarify

the importance of this initiative and other key government initiatives to the Department.

1.43 Report on plans and priorities. We compared the strategic outcomes reported in the Department's report on plans and priorities with the five operational sector business plans. Two of the five operational sectors have aligned their business plans with these strategic outcomes, but the other three have not. Each sector determines how it will contribute to the attainment of these strategic outcomes. Sector business plans need to demonstrate alignment with the strategic outcomes in the report on plans and priorities to show how they will be achieved.

1.44 Natural Resources Canada needs a consistent methodology and needs to establish common terms of reference for developing its strategic priorities for each sector. Doing so will help the sectors interpret the Department's mandate and the government's priorities.

1.45 Recommendation. Natural Resources Canada should develop a corporate strategic plan to ensure that all sectors address key aspects of its legislation and government priorities. To do so, it should implement a systematic strategic planning process across all sectors.

Department's response. Natural Resources Canada agrees that a sound strategic planning process is an important tool to address government priorities. To that end, steps have been taken to strengthen the corporate planning activities of the Department, including placing a renewed focus on corporate planning within the newly restructured Strategic Policy Branch and the formulation of appropriate options for senior management consideration.

Governance processes need a more strategic focus

1.46 Good corporate governance is key in the development of corporate strategies. An effective governance mechanism ensures that strategies are reflected in organizational business plans and monitors the implementation of the strategies to assess their effectiveness. The Department has identified a need to improve its corporate governance.

1.47 In 2001 it reviewed its governance practices to clarify roles and responsibilities and to identify options to improve efficiency and effectiveness. The review reported on the concerns of members of the Departmental Management Committee (DMC). It found that "the DMC was not a strategic decision-making governance body but rather an exchange forum on management issues." Further, the review found that the managers of horizontal files generally needed to improve their understanding of roles and responsibilities. This report and our interviews with staff indicate that the DMC needs a more strategic focus.

1.48 The Department's 2003–04 *Report on Plans and Priorities* stated that it would review its departmental-level corporate governance system in 2003–04. As a first step, the DMC held three strategic retreats in 2003 and 2004. It reviewed horizontal issues and decided that the heads of the Corporate Services Sector and Corporate Policy and Portfolio Coordination

Branch would undertake additional work to develop a more strategic agenda for the DMC. As we completed our audit, the Department had yet to develop this agenda.

1.49 Executive performance agreements need improvement. To ensure that departmental and sector objectives are implemented, key objectives are included in the individual performance agreements that each senior executive enters into annually with his or her supervisor. The individual performance objectives and the assessment of related results comprise an important part of the governance structure. We found that executive performance agreements aligned well with the sectors' business plans. However, many of the performance agreements did not adequately address performance expectations. There was no process in place to discuss or share the performance agreements among the sector heads to ensure that the agreements adequately addressed horizontal issues involving more than one sector.

1.50 For example, a key commitment in the *2003–04 Report on Plans and Priorities* was to build a strong and diverse workforce. The Department indicated that this would require demographic analysis, forecasts of recruitment needs, an assessment of organizational health, and a need to monitor results. We found that the performance agreements did not contain any consistent description of the performance expectations related to this commitment. As a result, there was considerable variance in how the sectors had responded. One had plans for recruiting, learning, and career development in place, with appropriate milestones that are monitored regularly. Another had a draft plan, while a third had not yet assessed its staffing requirements.

1.51 Sector business plans. As discussed, we found significant differences in priorities established in the individual sector business plans. Business plans and priorities of the sectors are not structured to bring the resources of the Department together to work on cross-cutting issues. In order to promote internal coherence and address cross-cutting issues, the Department needs to employ a common strategy; or, at a minimum, it needs to establish common terms of reference for developing the strategies in the sector business plans.

1.52 Partially in response to this concern, Natural Resources Canada created the Office of the Chief Scientist. As we noted in paragraph 1.14, it is intended to bring consistency to the management of science and technology programs across the Department. Because the Office was just created in September 2003, it is too soon to assess its impact. There are other significant programs that cut across the Department that do not fall into the science and technology category. These programs are not reviewed and analyzed by an oversight body such as the Office of the Chief Scientist.

1.53 Co-ordinating mechanisms. The roles, responsibilities, authorities, and accountabilities of sector heads seem well understood, both individually and collectively. The roles, responsibilities, co-ordinating mechanisms, authorities, and accountabilities for horizontal issues are less clear within the Department.

1.54 Managers view co-ordination and collaboration as an essential element for the successful management of horizontal issues. While informal bilateral agreements between sector and branch heads exist for some horizontal issues, other horizontal issues are managed by specific responsibility centres such as the Corporate Policy and Portfolio Coordination Branch, Office of the Chief Scientist, Corporate Services Sector, Communications Branch, a Shared Services Office, or an Office of Primary Interest (a manager or group of managers tasked with a particular responsibility).

1.55 Only rarely are horizontal responsibilities and relationships formalized through written agreements that specify the mandate and resources that accompany the assignments. Individual and shared accountabilities are not well understood or effectively communicated to all parties. For example, we found that one sector's business plans indicated that it was spending about \$61.5 million annually to support two other sectors. However, there was no communication between the sectors to ensure that the work planned was a priority for the other sectors.

1.56 Recommendation. Natural Resources Canada should improve its governance processes. More specifically, it should

- clarify the mandates, resources, roles, and responsibilities for the managers of horizontal issues; and
- develop more strategic governance processes promptly to ensure that its strategies and actions are coherent and that they adequately address key aspects of its legislation and government priorities and are effectively monitored.

Department's response. Natural Resources Canada recognizes the need to improve its governance processes. The Department has undertaken an assessment of the Departmental Management Committee's (DMC) governance processes, and options have been developed for the consideration of the DMC.

Sectors lack appropriate industry information for strategic planning

1.57 One of the Department's roles (identified in its legislation) is to gather, compile, analyze, co-ordinate, and disseminate information on matters affecting Canada's natural resources. A key part of developing this knowledge requires information on the status of natural resource industries. Natural Resources Canada needs systematic, statistical, and economic forecasts for natural resource industries to enable it to assess sustainable development and develop its strategies. Not all sectors have adequate industry information.

1.58 We found that the Minerals and Metals Sector has some good practices that could serve as a model for others. Annually, it publishes the Canadian Minerals Yearbook, which is both a review and outlook. The data gathering process is the same from year to year, thus providing comparative trends, and it involves the sector's many commodity officers in conjunction with the Minerals and Mining Statistics Division. With delegated authority from Statistics Canada, the Minerals and Metals Sector collaborates with partners in planning, conducting, and co-ordinating a broad range of national surveys

in the mining industry. The Minerals and Metals Sector has actively involved provincial ministries in the approval process to help ensure that the data are complete and accurate and to help reduce duplication of efforts.

Downstream industries—Those industries closest to the consumer.

Upstream industries—Those industries closest to the resource.

There is no precise cut-off between these two categories; some industries could be a mix.

1.59 The Minerals and Metals Sector recently reviewed its legislative requirements for providing information and identified the need for the same degree of completeness and quality of data and analysis for the **downstream industries** (steel, automobile, and gas pipeline industries) as it currently has for the **upstream industries** (mining, smelting, and metal processing industries).

1.60 The Energy Policy Sector last published an outlook document, Canada Emissions Outlook: An Update, in 1999. It also uses energy supply and demand forecasts produced by the National Energy Board. While the Canadian Forest Service has conducted statistical and historical analyses, it has yet to develop an outlook for its upstream and downstream industries.

1.61 In 2003, Natural Resources Canada conducted a Department-wide study of the individual sectors' overall capacities to scan the external environment and conduct statistical and trend analyses. The sectors had varying capabilities in this regard (Exhibit 1.6).

Exhibit 1.6 Natural Resources Canada's self-assessment of its analysis capacity

Capacity for industry analysis				
	Forestry	Earth Science	Minerals and Metals	Energy
Scanning the environmental, statistical, and trend analyses	Medium	Low	High	High

Source: Natural Resources Canada

1.62 The Canadian Forest Service recently assessed what it is doing against what it believes it should be doing in the upstream and downstream forestry industries. It identified problems such as data gaps and inadequate human resources capacity in modelling, economic analysis, and policy development. For instance, the Canadian Forest Service lacks current data on domestic and international wood supply and international markets by product. While it has developed knowledge of specific issues, such as softwood lumber, it lacks in-depth analytical and technical ability.

1.63 The Energy Policy Sector is aware that its previous statistical and economic analysis model covered demand for energy but did not address supply. At the time of the audit, the Energy Policy Sector had recently acquired a new model and was working on producing an outlook document.

1.64 The Earth Sciences Sector is aware that it lacks the human resources capacity and data to conduct economic and industry analysis.

1.65 Natural Resources Canada needs to ensure that it has the information it needs to fulfill its legislative obligations and to inform its strategic planning. We found that some sectors had tried to obtain some information from sources outside the Department but were hampered by jurisdictional issues. Other sectors had not attempted to obtain information from outside the Department.

1.66 Recommendation. Natural Resources Canada should determine and obtain the industry information that it needs to support strategic decision making by producing it internally or obtaining it from outside sources.

Department's response. Natural Resources Canada recognizes the importance of industry information to support strategic decision making and has long been active in seeking out, on an ongoing basis, industry information from a variety of sources, both internally and from outside sources.

Human resources planning is inadequate

1.67 Part of the strategic planning process involves the analysis of required human resources and developing a strategy to acquire them. A recent study by the Department found general dissatisfaction within the Department with the extent and reliability of human resources information available from the corporate human resource information system. We found that the Department does not have the information it needs to determine what staff it needs to meet its business requirements.

1.68 Managers are aware that a substantial number of people will need to be replaced in the next five years. The demographic information (age, years of service, geographic distribution, and eligibility to retire by occupational group and level) gathered by the sectors from various sources varies significantly by sector in both the type of information and the level of detail available to develop a plan. One of the five operational sectors has an analysis and staffing plan that aligns staffing action with future business needs. Another sector has a draft staffing plan but has not assessed current competencies and aligned them with projected business needs. The three remaining operational sectors have only recently begun to analyze the skills and competencies required compared with those available.

1.69 Recruiting science and technology staff. In 2004, the Department conducted a resources demand analysis of its science and technology staffing needs. Analysis results indicated that in certain key areas, the percentage of science and technology staff aged 50 or over was between 35 and 40 percent.

1.70 More than 116 out of about 500 research scientists are eligible to retire immediately with a full pension. By April 2006, an additional 212 people in the Department will be eligible to retire; about half of those are scientists and technologists. While this study provided useful information about future retirements, it did not include information on current capacities and competencies or those needed to replace retiring staff.

1.71 Recruiting executive staff. Executive staff, primarily responsible for the leadership and direction of Natural Resources Canada, are also approaching retirement. A recent review of the executive category indicates that about 20 percent of about 120 staff will be eligible to retire in the next 18 months. However, the competencies required to replace executive staff have not been determined, and there is no succession plan.

1.72 Recruiting policy and economic analysts. Natural Resources Canada has a special recruitment program in place to strengthen its capacity to provide policy direction by hiring staff in the economic and social sciences service category. There are about 260 staff in this category at Natural Resources Canada. Between April 2001 and March 2003, 48 left. In 2004, the Department successfully recruited 22 qualified candidates with masters and doctoral degrees. The Department also has other recruitment programs aimed at meeting its needs in this area.

1.73 Natural Resources Canada has recognized the importance of human resources planning for the Department as a whole. However, it needs to develop a plan and process to collect and maintain information on the education levels, skills, and competencies for staff in the research, policy, and management categories, particularly in the groups just below the senior levels that will be drawn on to replace retiring staff. This information needs to be integrated with labour market data and an analysis of the Department's future needs in order to develop a recruitment and retention strategy that will ensure that Natural Resources Canada has the resources it needs to discharge its mandate.

1.74 Recommendation. Natural Resources Canada should

- document the competencies and capacities of its current workforce,
- develop a clear understanding of the competencies and capacities that it will need to develop or acquire to replace the large percentage of key staff eligible to retire in the next few years, and
- develop and implement a human resources plan that aligns the competencies required with future business needs.

Department's response. The Department agrees that it should develop and implement a human resources plan that aligns the competencies required with future business needs, recognizing the challenges implicit in the Department's dependence on sunset funding. The "NRCan 2005–2008 Strategies for the Management of Human Resources," approved by the Departmental Management Committee, identifies specific recommendations for the Department to develop an integrated approach to the management of human resources. The Department's strategies focus on the improvement of three significant areas: management/executive capacity, non-executive recruitment, and retention/well-being, as the Department prepares for the integration of human resources planning within the annual business planning cycle.

Information systems used for corporate oversight need improvement

1.75 We reviewed the information systems used by the five operational sectors and five regional offices for decision making and corporate oversight, primarily in relation to scientific projects. Regional offices report through the operational sectors. We found that the Department's information management practices are uneven and highly variable.

1.76 Each sector and regional office we reviewed has created its own budgeting system and project management system for research and development. While some systems were integrated with the departmental financial information system, others had to be manually collated to produce information on the status of research and development projects. The systems were not integrated, and the Department was not able to provide us with a complete list of ongoing research and development projects.

1.77 An important role of the Office of the Chief Scientist is to provide a framework for science and technology management. In order to achieve this, the Office needs consistent information across the sectors. The highly varied systems in use and the uneven data are currently inadequate to support the Office or to allow effective corporate oversight. Key information on research and development projects is needed across the sectors, including

- the number of projects completed in the last five years;
- the percentage completed on time, on budget, and on schedule;
- the results compared against objectives;
- the number of integrated projects and the processes by which they were integrated; and
- the number of “post-mortems” and lessons-learned sessions conducted.

1.78 **Recommendation.** Natural Resources Canada should improve its research project management systems to ensure that it has better-integrated information to support effective corporate oversight.

Department's response. The Department recognizes the need for improvements to its research project management systems. Following up on the Science & Technology (S&T) Information Needs and Options Analysis performed in 2003–04, a S&T Information System will be established to provide key information for all S&T activities within the Department at the sub-sub activities level of its Program Activity Architecture. The broad categories of information to be managed by this system can be categorized as operational information, performance information, resource information, and reach information.

Preparing for emergencies and assessing risk

The Department is not prepared for emergencies in all its responsibility areas

1.79 According to its March 2004 Performance Report, Natural Resources Canada spent \$31.7 million to provide Canadians with safety and security in the natural resource sectors. Activities in this area relate to

- meeting Canadians' safety and security needs;
- policy research and development and program support;

- regulation and assistance for the development of offshore oil industry; and
- regulation, research, and control of explosives.

1.80 Many of the Department's ongoing activities contribute to the safety and security of Canadians. We focussed on its responsibility for emergency preparedness to deal with hazards that are identified in legislation and government direction. We reviewed this responsibility to determine how emergency preparedness is managed across the Department.

1.81 The *Emergency Preparedness Act* establishes the requirement for Natural Resources Canada to have civil emergency plans for contingencies that are within or related to its area of accountability. A civil emergency plan developed pursuant to the Act is required, as appropriate, to provide for

- assistance and advice to provincial governments and, through provincial governments, to local authorities;
- federal-provincial regional plans; and
- the safety and welfare, during an emergency, of officers and employees of the government institution.

The Act also requires the Department to conduct training and exercises in relation to a civic emergency plan developed pursuant to the Act.

1.82 In 1995, the government established a policy for emergency preparedness and named Natural Resources Canada as the federal lead in the following areas:

- offshore oil and gas production and exploration in areas over which the Minister of Natural Resources has administrative authority (includes the Canada–Newfoundland and Canada–Nova Scotia oil and gas offshore accord area emergency plans);
- mine disasters;
- federal advice and assistance in combatting and containing fires, blights, disease, insect infestations, or other threats to Canada's forest resources;
- energy shortages or major power failures; and
- control and regulation, in collaboration with the National Energy Board, of the production, generation, processing, transmission, storage, sale, domestic distribution, and exports and imports of energy.

The Department informed us that this policy is out of date and is being revised. However, until it is replaced, it remains in effect. Government guidelines related to this policy are set out in Exhibit 1.7.

1.83 In 1996, the government designated Natural Resources Canada together with Industry Canada as the lead for developing emergency plans for contingencies resulting from, or in, a shortage of strategic mineral commodities.

Exhibit 1.7 Government guidelines for emergency preparedness plans

Emergency preparedness plans should provide for the following:

Other jurisdictional co-operation—Secure to the extent possible and desirable the co-operation and active support of the private sector, benevolent and volunteer organizations, territorial and provincial governments and, through the latter, local authorities.

Governance framework—Establish effective mechanisms of consultation, reporting, and overall direction and control, including other federal support departments.

Reactivation priorities—Establish and administer priorities for the repair, replacement, rehabilitation, or reactivation of lost or damaged resources or facilities.

Situational determination—Assess and determine regional and national requirements, in relation to available resources, for the supply of services and materiel.

Resource allocation—Establish and administer priorities to ensure the effective allocation of services and materiel in short supply, and establish and maintain programs to overcome the shortages.

Regional adaptation—Establish and manage administrative mechanisms or facilities necessary to permit the emergency response function to be effectively carried out in any region of Canada.

International obligations—Co-ordinate with relevant international organizations to deploy resources to other countries in response to requests for emergency assistance or to fulfill international commitments.

Worker safety and welfare—Ensure the safety and welfare, during an emergency, of federal employees and other responders working under departmental control.

Source: Summary of Departmental Planning Responsibilities for Emergency Preparedness, June 1995

1.84 The 1995 Federal Policy for Emergencies states,

The federal government intervenes in civil emergencies only when formally requested by a province or territory or when the emergency clearly impacts on areas of federal jurisdiction, such as fires or floods on federal lands. . . . When the federal government does intervene, unless a lead minister has been designated in advance, a minister, and hence department, may be named to assume the lead role and co-ordinate the collective effort of the federal government.

1.85 We reviewed Natural Resources Canada’s plans for emergency preparedness in its areas of responsibility. Our assessment of the essential elements for these plans is set out in Exhibit 1.8. We assessed the element as “fully met” when the plan explicitly addressed the element and included formal arrangements. Where a plan does not explicitly address the element and its arrangements, or where the references are vague, we assessed the element as “does not meet.” Two of the plans we reviewed were well-done and could be used as a model for developing plans in other areas of the Department’s responsibility. Other plans had some of the information required. The Department has no plans to address mine disasters or shortages of strategic mineral commodities.

Exhibit 1.8 Our assessment of the Department's emergency preparedness plans

Areas of federal lead	Other jurisdictional cooperation	Governance framework	Reactivation priorities	Situational determination	Resource allocation	Regional adaptation	International obligations	Worker safety and welfare
Natural Resources Canada's offshore oil and gas production and exploration emergency plan for the accord areas	●	●	●	●	●	●	○	●
Mine disasters	○	○	○	○	○	○	○	○
Federal advice and assistance in combatting and containing fires, blights, disease, insect infestations, or other threats to Canada's forest resources	○	○	○	○	○	○	○	○
Energy shortages or major power failures	◐	○	○	○	○	○	○	○
Control and regulation, in collaboration with the National Energy Board, of the production, generation, processing, transmission, storage, sale, domestic distribution, and exports and imports of energy	◐	◐	○	○	○	○	●	○
Emergencies resulting from, or in, a shortage of strategic mineral commodities (federal co-leader)	○	○	○	○	○	○	○	○

● Fully meets guideline requirements ◐ Partially meets ○ Does not meet

1.86 In the area of forest resources, the Department helped establish the Canadian Inter-Agency Forest Fire Centre that co-ordinates forest-fire fighting equipment across Canada. However, the Department was unable to provide us with plans to address the other requirements for forest resources.

1.87 In August 2003, large portions of Ontario and the Midwest and Northeast United States experienced an electric power blackout. Natural Resources Canada was appointed as the Canadian lead on the Canada–U.S. task force that was established to investigate the causes of the blackout and to find ways to reduce the possibility of future outages.

1.88 In spite of the 2003 blackout, at the time of our audit the Department was unable to provide us with plans to address energy shortages.

1.89 Since the blackout, the Department has attempted to assess the risks to electricity supply but has found the task very difficult as it must depend on the voluntary co-operation of electricity suppliers. There are no current federal regulations that would compel the industry to co-operate.

Risk assessment processes are inadequate

1.90 An important part of emergency preparedness is assessing the possible risks in any of the Department’s responsibility areas. Risk assessment is also required throughout the organization for strategic planning and management. A risk assessment process allows the Department to answer these questions:

- What is the threat?
- What is the probability of occurrence within a specified geographical area and a set time frame?
- What are the economic, social, and environmental impacts?

1.91 Risk assessments should be based on scientific and economic information and analysis. A standardized, systematic, and rigorous risk assessment system will provide the scientific basis to proactively manage threats, set priorities, develop plans, and allocate resources. In September 2003, the Department released “A Guide for Using Natural Resources Canada’s Priority Setting Model to Rate Management Initiatives.” It provides guidance for risk assessment, but it is too general to provide effective guidance for assessing risks and threats related to potential civil and national emergencies.

1.92 Each sector in the Department has dedicated resources to carry out scientific risk assessments. These assessments provide valuable information; however, sectors use different frames of reference in analyzing risks (Exhibit 1.9). This inconsistent approach makes it impossible for the Department to compare potential economic and social impacts across the sectors and best allocate departmental resources in either its day-to-day business or in the case of emergencies.

Exhibit 1.9 Examples of differing frames of reference

Hazard	Area analyzed to assess impact	Time frame used to analyze probable frequency of occurrence
Wildfires (Canadian Forest Service)	Four square kilometres	41 years
Explosives (Minerals and Metals Sector)	Administrative regions	2 years
Natural Hazards (Earth Sciences Sector)	All of Canada	Varies by hazard
Energy Infrastructure (Energy Policy Sector)	Company service area (for companies who have volunteered information only)	Frequency not considered

1.93 It is particularly important that the Department have information on emerging threats. While the sectors continue to develop valuable contacts and to identify new sources of information, this intelligence comes from a number of sources and is gathered informally. The information is not integrated into a formal risk assessment process.

Economic information and analysis needs to be strengthened

1.94 A good risk assessment should include analysis of the possible economic impacts that may result when potential threats actually occur. The quality and nature of the economic information that is used has a direct impact on the value of the completed risk assessment. We looked at examples of certain threats and found that the assessment of economic impacts of the threat could be strengthened. We found that when assessing economic impacts, the sectors considered a range of factors such as departmental liability, loss of reputation, overall personal injury and property damage, and future loss to society. However, the sectors did not consistently consider the same factors, and they have attempted to quantify the consequences in different ways.

1.95 More specifically, there was limited information on who would be at risk, the volume and value of the property at risk, and other values that might potentially be at risk, such as departmental liability or the general economy. Sources of economic information are not well developed, making it difficult to assess the economic impact of a threat.

1.96 Recommendation. Natural Resources Canada should develop plans and improve its risk analyses to deal with its responsibilities in emergency situations. In particular, the Department should

- develop, in co-ordination with other key stakeholders, emergency plans in the areas where it is required to respond to civil emergencies, particularly where it has the lead federal role; and

- re-examine its risk assessment guidance and apply risk assessment processes consistently across its five operational sectors, including applying a more coherent analysis of the economic impact of potential threats.

Department's response. Natural Resources Canada (NRCan) recognizes the importance of appropriate civil emergency plans. The document that identifies the responsibilities for federal departments, "Departmental Planning Responsibilities for Emergency Preparedness," has not been amended since its 1995 publication, despite significant changes to Canada's national security environment in the last decade. Natural Resources Canada has engaged Public Safety and Emergency Preparedness Canada (PSEPC)—the successor department to that which authored the 1995 document. PSEPC agrees that the 1995 planning document is outdated and has advised that it has launched a process to modernize Canada's emergency preparedness policy. NRCan will continue to work collaboratively with PSEPC in the development of appropriate emergency plans in the context of evolving federal policy.

The Department is strengthening its integrated risk management program to better integrate risk management into the Department's activities and, in so doing, it will develop further guidance for the sectors on the application of risk assessment methodologies and tools within NRCan.

The Department wishes to respond to the statements made in paragraphs 1.87, 1.88, and 1.89, to clarify the role and nature of NRCan's involvement in electricity reliability. The governments of Canada and the U.S. agreed in 1969 that the North American Electric Reliability Council (NERC) was to develop reliability standards for the electric system in Canada and the U.S., to monitor compliance with the standards, and to establish procedures for emergency support for electric utilities experiencing unanticipated reliability difficulties. This system was in place in August 2003, and it succeeded in restoring power to much of the blacked out region within hours and to the entire region within days. NRCan has since worked with the U.S. in a task force to analyze and report on the blackout. The task force made 46 recommendations to improve electricity reliability. NRCan, NERC, industry, regulators, and provincial governments, who have jurisdiction over electricity, are working together to implement these recommendations in Canada. Further, pursuant to Canada's commitments under the Smart Border Declaration, signed in December 2001, NRCan initiated a process with the U.S. to conduct vulnerability assessments of critical cross-border energy infrastructure. The pilot assessments of electricity generation and cross-border transmission infrastructure were completed in March 2004.

Information for Parliament

1.97 Natural Resources Canada is accountable for tabling four major annual reports in Parliament:

- Report on Plans and Priorities;
- Departmental Performance Report;
- Improving Energy Performance in Canada; and
- The State of Canada's Forests.

It is also required to table a report on its sustainable development strategy once every three years. We did not review the Department's performance against its sustainable development strategy.

1.98 We reviewed the 2001–02 and 2002–03 reports titled Improving Energy Performance in Canada; the 2002–03 and 2003–04 reports titled The State of Canada's Forests; the March 2003 and March 2004 departmental performance reports; and the reports on plans and priorities for 2003–04 and 2004–05. We also reviewed supporting documentation for the reports and interviewed responsible officials. We did not audit the data in the reports.

The Department generally meets its annual reporting obligations

1.99 Reports on the administration and enforcement of the *Energy Efficiency Act*. As soon as possible after the end of each fiscal year, Natural Resources Canada is required to report to Parliament on the administration and enforcement of the *Energy Efficiency Act*. The Act deals with the importation and inter-provincial trade in energy-using products (for example, refrigerators) and the promotion of energy efficiency and alternative energy sources. It also provides authority for the government to make regulations with respect to matters related to energy and energy-using products.

1.100 While the reports include substantial and detailed information and provide examples of good reporting practices, they could be improved in their timeliness and coverage (for example, regulatory coverage, enforcement provisions, and energy efficiency of imports).

1.101 Reports on the state of Canada's forests. Natural Resources Canada is required to report annually to Parliament on

- the state of the forests in Canada,
- the contribution of Canada's forests to the economy and environment of Canada, and
- the contribution of Canada's forests to the social-well-being of Canadians.

1.102 We found that the Department has generally met its reporting obligations and has improved the report and made it more useful to readers.

Performance reporting has several shortcomings

1.103 In the case of the departmental planning and performance reports, we expected the Department to produce adequate performance information, use this information to manage for results, and demonstrate good reporting of these results to Parliament.

1.104 No coherent process for performance management. Like many other departments, Natural Resources Canada has found it difficult to establish results at a corporate level and to manage its sectors to achieve those results. We found no systematic process that could help the Department move toward this at a Department-wide level. The Department's performance measurement framework, approved by the Treasury Board in 1999, comprises 5 departmental goals (or strategic outcomes), 16 short or medium-term objectives, and 35 performance indicators.

1.105 At the time of our audit, the Department was revising its performance measurement framework. It is too early to say whether the proposed changes will result in a better framework.

1.106 The Department's reports on plans and priorities and its performance reports are largely a sum of the sector plans and reports. In the two operational sectors that have aligned their business plans with the departmental plans, assessments of results achieved against the business plans have helped provide good information for the departmental reports. In the three other operating sectors, the lack of alignment with the departmental reports generally precludes good reporting.

1.107 Reports need improvement. The Department's performance reports set out a brief vision statement and five strategic outcomes. Because the reports do not include a statement of the Department's legislated mandate or of its mission, it would be difficult for parliamentarians to determine whether the Department's planned strategic outcomes are consistent with its mandate.

1.108 Although the reports link the Department's priorities to government priorities, they do not include a specific discussion of the contribution of the strategic outcomes to the government's priorities. Moreover, the reports do not include any discussion of risks or challenges to achieving the strategic outcomes identified by the Department.

1.109 In the reports on plans and priorities, each strategic outcome aligns with broad statements of commitments and key accomplishments. In the March 2003 *Performance Report*, the key accomplishments are described mostly in narrative form in terms of activities, outputs and, in some cases, outcomes. The March 2004 *Performance Report* also includes a chart that summarizes performance against each commitment made in the related Report on Plans and Priorities.

1.110 The Department made a commitment in its 2001–02 *Report on Plans and Priorities* to report on 35 performance indicators on a cyclical basis. That is, each performance report since 2001–02 has included data on a different grouping (about one quarter) of the 35 performance indicators. The March 2003 *Performance Report* did not explain the cyclical reporting. This lack of complete performance data and assessments against various frameworks makes it difficult for parliamentarians to get a complete picture of the Department's performance.

1.111 Recommendation. Natural Resources Canada should improve its performance measurement framework and reporting to provide parliamentarians with better information on the results and outcomes of its programs. In particular, it should

- develop a systematic process for linking performance targets at the corporate level with business plans; and
- improve its performance reports by including an analysis of its legislated mandate, linking the Department's priorities to government priorities and rationalizing its assessment of its performance against various frameworks.

Department's response. Natural Resources Canada agrees that it needs to better explain its performance measurement reporting at the corporate level. As part of the new Program Activity Architecture, the Department will provide a better linkage between corporate performance targets and the business plans of its program activities.

Natural Resources Canada will include mandate and mission information in all future reports on plans and priorities and departmental performance reports, and it will better explain the linkages between the government's and the Department's priorities.

Conclusion

1.112 In recent years, Natural Resources Canada has focussed on a number of major initiatives. However, we found that its strategic governance mechanisms, management systems, and practices need improvement.

1.113 The Department does not have a corporate strategic plan or a coherent Department-wide process to consider its legislated mandate and potential risks in the development of its strategies. Departmental strategies are not adequately reflected in the sectors' business plans and communicated throughout the Department.

1.114 In the one strategic priority that was consistently identified as a priority across the five operational sectors—public safety, we found little consistency in the sectors' analysis of their responsibilities for emergency preparedness or in the adequacy of how they dealt with it.

1.115 The Department does not have adequate systems for aligning qualified staff with current and future strategic needs, nor does it have a plan to ensure that it will maintain the human resources capacity it needs to deliver on its mandate and programs in the short term. We also found weaknesses in the information management systems for supporting oversight at the corporate level.

1.116 Natural Resources Canada generally meets its statutory obligations for key annual reports. However, we found that the Department needs to improve its processes for assessing performance information on its key activities and the results of its efforts and for reporting this information to Parliament.

About the Audit

Objectives

Our audit objectives were

- to assess whether Natural Resources Canada's governance mechanisms, management systems, and practices at the strategic level are adequate to support its Department-wide policy development, research, program, and other activities; and
- to determine whether the Department appropriately assesses and reports to Parliament the results and impacts of its efforts and meets its statutory reporting obligations.

Our more specific objectives were to determine whether Natural Resources Canada

- periodically reassesses the appropriateness of its activities; makes its strategic decisions with adequate consideration of legislated mandate, risks, options, stakeholders, and potential impacts, and communicates them effectively; and aligns its business plans with the departmental strategy;
- has appropriate systems and practices for selecting and terminating programs and research and development projects, and ensuring adequate oversight at the corporate level;
- aligns qualified staff with current and future strategic needs;
- uses performance information on its key activities to effectively monitor and manage its operations and report to Parliament on the achievement of its objectives; and
- meets its reporting obligations pursuant to the *Report on the State of Canada's Forests Regulations* and the *Energy Efficiency Act*.

Scope and approach

The audit focussed on Natural Resources Canada's current governance and management practices, systems, and procedures that are used to manage its policy analysis, regulatory, program, and science and technology business activities at the strategic level. Our audit covered the Department's industry-based sectors and its Earth Sciences Sector; the latter provides support to the industry-based sectors through its geoscience and geomatics activities.

The audit also included examining the information management and human resource planning activities of the Department's corporate branches: Corporate Policy and Portfolio Coordination Branch, the Office of the Chief Scientist, and the Corporate Services Sector.

Our audit process included interviews with about 140 management staff and key stakeholders. It also included extensive review and analysis of the following documents, systems, and practices:

- authorities, strategies, business plans, policies, estimates, directives;
- minutes and observations of internal management meetings and external advisory meetings;
- major management and control systems and procedures;
- departmental performance reports and reports on plans and priorities as well as newer, additional mechanisms for reporting, such as Internet links to auxiliary departmental information; and
- management accountability agreement commitments and evaluations.

We visited the following regional offices: Northern Forestry Centre, Edmonton, Alberta; Geomatics Canada, Edmonton, Alberta; Devon Pilot Plant, Devon, Alberta; Pacific Forestry Centre, Victoria, British Columbia; and Pacific Geoscience Centre, Victoria, British Columbia.

Criteria

The Department should have a strategic plan consistent with its mandate and government priorities that gives due consideration to factors such as external environment, risks, options, stakeholders, available resources, organizational strengths and weaknesses, and potential impacts. The strategic plan should align risks with strategic options, proposed courses of action, objectives, and expected results. It should be effectively communicated to staff and implemented throughout the organization.

The Department should have long-term plans and business plans with clear objectives, goals, and expected results consistent with its strategic plan. These plans should be used to manage for results.

The Department should have a risk management framework, systems, and practices that ensure that

- appropriate information is available for decision making on strategic priorities and resource allocations;
- business risks are managed;
- programs, initiatives, and projects are integrated;
- good project management practices are used; and
- corporate oversight of progress and results is adequate.

The Department should have appropriate human resource planning processes and strategies over a forecasted five-year period that

- analyze its current workforce (especially research, policy, scientific and management staff and their feeder groups) in terms of demographics, skills, and competencies;
- assess the future renewal requirements of the above-noted groups in light of their strategic direction;
- identify gaps in skills needed and currently available, now and in the future, and identify over-supply, if any, in current workforce;
- specify strategies and accountabilities for addressing the gaps or over-supply and include an action plan that integrates recruitment, retention, learning, and career development; and
- provide for reports to senior management on progress and updates of the human resource plan on a regular basis.

Natural Resources Canada should have a performance management framework and management practices that

- produce adequate performance information,
- use this performance information to manage for better results, and
- demonstrate good public reporting of these results to Parliament.

Natural Resources Canada should table a report on the state of the forests in Canada in each House of Parliament annually. The report should include information on the contribution of Canada's forests to the economy and environment of Canada, and the contribution of Canada's forests to the social well-being of Canada.

Natural Resources Canada should table a report as required by the *Energy Efficiency Act*, in each House of Parliament annually. The report should include information on

- the administration and enforcement of the provisions of the *Energy Efficiency Act*, during the preceding fiscal year and regulations made under that Act related to energy-using products; and
- the administration and enforcement of the provisions of the *Energy Efficiency Act*, during the preceding fiscal year and regulations made under that Act related to promotion of energy efficiency and alternative energy sources.

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Report of the Auditor General of Canada to the House of Commons—April 2005

Main Table of Contents

	Message From the Auditor General of Canada
	Main Points
Chapter 1	Natural Resources Canada—Governance and Strategic Management
Chapter 2	National Security in Canada—The 2001 Anti-Terrorism Initiative: Air Transportation Security, Marine Security, and Emergency Preparedness
Chapter 3	Passport Office—Passport Services
Chapter 4	National Defence—C4ISR Initiative in Support of Command and Control
Chapter 5	Rating Selected Departmental Performance Reports
Chapter 6	Indian and Northern Affairs Canada—Development of Non-Renewable Resources in the Northwest Territories

