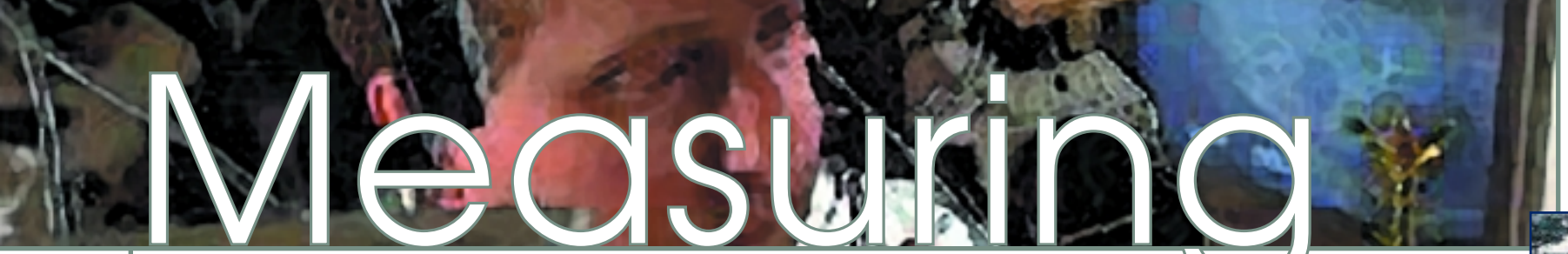


Measuring

the vision

On the first two pages of this document, readers were supplied with NRCan's vision of a sustainable future. We believe the actions identified within this document represent concrete steps to move Canada along the path towards this future. In this context, to advance sustainable development, Canadians and the international community need reliable and up-to-date information on the state of sustainable development.

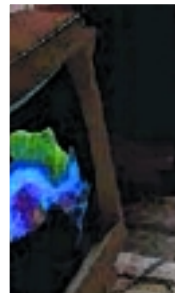
Sustainable development requires making informed policy choices based upon the integration of economic, environmental and social considerations into the decision making process. Indicators of sustainable development would communicate the results of implementing decisions and provide the foundation for continuous improvement in advancing sustainable development.

Developing adequate measurement tools with regard to the natural resources sector will help to ensure that NRCan and Canada are able to report to stakeholders on sustainable development. Without having a concrete set of indicators, it will continue to be difficult to monitor Canada's progress and to focus activities toward sustainable development.

Under the federal Policy Research Initiative Sustainability Project, NRCan and Statistics Canada are co-leading a project on sustainable development indicators, with the participation of ten other federal departments. This project has been set up to review and analyze the many national and international approaches to developing interlinked indicators for sustainable development. The project explores the potential applicability of selected activities and sets of indicators relevant to policy making in Canada. This project is contributing to the development of a set of national indicators of sustainable development, being developed by the National Round Table on the Environment and Economy, which the federal government committed itself to in the February 2000 Budget. It feeds into the *Knowledge and Information/Sustainable Development Indicators* theme that has been adopted by federal departments and agencies as a result of the Leaders' Forum of federal Deputy Ministers and leaders from industry and civil society, in April 2000.

For NRCan to continue to lead on sustainable development there is a need to demonstrate the capacity to provide the economic, social and scientific information to inform decision making regarding our natural resources. Currently the Department collects and provides information on economic, social and environmental indicators in a number of venues, and is in the process of developing sustainable development indicators within our various sectors. Providing Canadians with access to this information is a necessary step and it may prove the need to refine these indicators further.

In November 1999, NGOs, Aboriginal communities, academia, industry and government came together to build a framework for indicators of sustainable development for minerals and metals. A fair and open process contributed to a spirit of cooperation, resulting in a consensus on a common vision statement for minerals and metals production and use in Canada. Upon the conclusion of a consultation period, the steering committee with the aid of



a reconfigured multi stakeholder working group will develop a draft set of sustainable development indicators for minerals and metals.

Over the past year, NRCan has undertaken an extensive internal exercise to develop a national set of indicators for energy. Indicators have been developed that address the three components of sustainable development, with a focus on establishing indicators where there is overlap between the economic, social and environmental elements of sustainable development. External consultations over the fall of 2000 have confirmed the approach that has been taken.

An extensive user requirements study for the sustainable development policy community, conducted by the National Atlas of Canada, has suggested a series of requirements in order to make efficient use of geospatial information in support of the sustainable development policy process. The Atlas role in sustainable development rests upon how it presents comprehensive, consistent, integrative and authoritative national scale view of the physical, economic, environmental, social and cultural makeup of Canada.

In 1995 the Canadian Council of Forest Ministers' developed a framework of criteria and indicators for sustainable forest management. In 1997, Canada followed up on this framework by publishing *Criteria and Indicators of Sustainable Forest Management*, a document that described Canada's ability to report on sustainability. At their August 14, 2000 annual meeting, the Canadian Council of Forest Ministers (CCFM) released its "Criteria and Indicators of Sustainable Forest Management: National Status 2000" report, which illustrates Canada's continued commitment and scientific approach toward the sustainable management of its forests.

On an international level, providing such information, provides a window which allows Canada to report on the sustainable development of our natural resources to organizations such as the OECD. Our work in Criteria and Indicators, in Canada, and as Liaison Office for, and member of the Montréal Criteria and Indicators Process which involves twelve major temperate and boreal forest countries, can allow us to position Canada as a world leader in this area and increase our influence in promoting our international agenda. Furthermore, indicators can allow Canada and our domestic industries to demonstrate to the international community the good practices Canada has adopted.

By the end of 2003, Natural Resources Canada, through its indicator development and reporting, will be in a position to begin measuring progress against ***NRCan's Vision for a Sustainable Future***.

Appendix A

Measuring our Progress – NRCan's Performance Measurement Framework

NRCan has developed a Performance Measurement Framework (PMF) that articulates a clear set of goals, objectives and performance indicators. The performance indicators, which appeared in draft form in the 1997 *Sustainable Development Strategy – Safeguarding our Assets, Securing our Future*, have been further refined in consultation with our stakeholders. These indicators will help Canadians assess NRCan's progress in achieving its goals and objectives in the context of sustainable development and good governance and will provide the foundation for all departmental planning and reporting documents. In this regard, the framework addresses reporting and performance requirements of the department's Sustainable Development Strategy, the Federal S&T Strategy, and internal management practices.

Accountability at Three Levels

NRCan's work in promoting sustainable development can be assessed by stakeholders at three different levels.

At the most basic level, through regular reporting on action commitments, stakeholders will have a clear indication of whether the Department is meeting its commitments.

At the second level, through indicators and targets, NRCan's performance can be measured against the Strategy's objectives.

Finally, at a broader level, Canada's overall progress in the sustainable development of its natural resources can be assessed through indicators dealing with sustainable development practices in the areas of forest management, energy, and minerals and metals.

NRCan showcased its distinct approach to reporting on performance indicators in the Departmental Performance Report (DPR), which was tabled in Parliament in October 1999. Each indicator – one for each of the Department's five goals – reported on four elements (i.e., graphic representation, interpretation of graph, description of NRCan's contribution and next steps) to communicate NRCan's story. The information included a mix of numerical targets, directional targets (i.e., to maintain or improve on existing performance), and trend analysis and monitoring (i.e., when it is too difficult to attribute the Department's contribution to a 'macro' indicator, even though the indicator is of high importance to NRCan).

Building on the initial report of indicators, NRCan has prepared a schedule for reporting over the next three years. The following table presents NRCan's Performance Measurement Framework and also identifies a reporting date for each performance indicator – for publication and tabling in Parliament of NRCan's Departmental Performance Report. The schedule for reporting will inform Canadians of the time frame for assessing the department's progress in achieving its goals and objectives through the use of specific indicators.

Goal 1:
To provide Canadians with information to make balanced decisions regarding natural resources.

OBJECTIVES *As demonstrated by:*	PERFORMANCE INDICATORS	TARGETS AND APPROACHES	TABLING DATE*
1.1 Easily accessible and integrated knowledge on the state of Canada's landmass and natural resources, and the economic, environmental, and social dimensions of their use.	1.1.1 User satisfaction with relevance, accessibility and quality of information.	Maintain or improve current levels of use and satisfaction.	2001
	1.1.2 Public awareness of the importance and relevance of the natural resource sectors, its issues, and NRCan's S&T.	Maintain or improve awareness.	2001
	1.1.3 Adoption of NRCan-supported technology and practices.	Not applicable.	2002
1.2 Greater national and international cooperation and consensus on sustainable development issues, policies, goals and actions.	1.2.1 Participation in, and influence on, national and international multi-stakeholder approaches to SD issues.	Maintain or improve participation and influence.	2001
	1.2.2 Degree of leveraging by NRCan from shared S&T projects.	Maintain or improve total funds and in-kind support leveraged.	2001
1.3 Fiscal, regulatory and voluntary approaches that encourage the sustainable development of natural resources.	1.3.1 Participation in, and influence on, fiscal, regulatory and voluntary sustainable development initiatives.	Maintain or improve participation and influence.	2002
	1.3.2 Influence of NRCan's S&T-based recommendations on regulatory regimes.	Not applicable.	2003

Goal 2:
To provide Canadians with sustainable economic, social and environmental benefits derived from natural resources for present and future generations.

OBJECTIVES *As demonstrated by:*	PERFORMANCE INDICATORS	TARGETS AND APPROACHES	TABLING DATE
2.1 Greater economic opportunities and encouraging investment in innovative and higher-value uses of natural resources.	2.1.1 Economic influence of NRCan S&T.	Trend analysis and monitoring.	2002
	2.1.2 Employment levels and productivity in resource and resource-related industries.	Trend analysis and monitoring.	2001
	2.1.3 Contribution of the natural resource sector to the GDP.	Trend analysis and monitoring.	2001
	2.1.4 Capital investment in resource and resource-related industries.	Trend analysis and monitoring.	2002

* Tabling date indicates the year that the indicator will be reported in the Departmental Performance Report to Parliament.

Goal 2 continued ...

OBJECTIVES *As demonstrated by:*	PERFORMANCE INDICATORS	TARGETS AND APPROACHES	TABLING DATE
2.2 Expanded access to international markets for Canadian resource-based products, knowledge, technologies and services.	2.2.1 Value and percent of exports of resource-based products.	Trend analysis and monitoring.	2003
2.3 Increased capacity of communities to generate sustainable economic activity based on natural resources.	2.3.1 Number of shared projects and funds leveraged with rural, Aboriginal and northern communities.	Trend analysis and monitoring.	2001
	2.3.2 Employment level of Aboriginal peoples and northern residents in resource sectors.	Trend analysis and monitoring.	2003

Goal 3:
To provide Canadians with strategies that reduce environmental impacts in the natural resources sector.

OBJECTIVES *As demonstrated by:*	PERFORMANCE INDICATORS	TARGETS AND APPROACHES	TABLING DATE
3.1 Canada addressing its international Kyoto commitment to reduce greenhouse gases.	3.1.1 a) GHG emissions compared to Kyoto protocol b) GHG emissions to GDP ratio compared to other countries.	Canada's Kyoto protocol target is to reduce GHG emissions to 6% below the 1990 level between the years 2008 and 2012.	2001
	3.1.2 Trends in use of renewable energy.	Trend analysis and monitoring.	2002
	3.1.3 Trends in energy efficiency.	After the energy efficiency index has been developed a desired directional target will be stated and a quantitative target will be considered.	2001

Goal 3 continued ...

OBJECTIVES *As demonstrated by:*	PERFORMANCE INDICATORS	TARGETS AND APPROACHES	TABLING DATE
	3.1.4 GHG emissions from federal operations.	By the year 2005, reduce GHG emissions from federal operations by 20% below 1990 levels.	2003
	3.1.5 Progress towards the identification of impacts and adaptation measures.	To be determined.	2001
3.2 Science, technology and stewardship practices that reduce environmental impacts, conserve biodiversity, and increase the efficiency of resource development and use.	3.2.1 Environmental influence of NRCan's science, technology and stewardship practices.	Maintain or improve NRCan`s influence.	2001
3.3 Canada's environment safeguarded from the risks associated with natural resource development and use.	3.3.1 Progress towards addressing hazards associated with resource development and use.	Maintain or improve safeguards – hazard specific.	2002

Goal 4:
To provide Canadians with safety and security in the natural resources sector.

OBJECTIVES *As demonstrated by:*	PERFORMANCE INDICATORS	TARGETS AND APPROACHES	TABLING DATE
4.1 Canadians safeguarded from natural hazards.	4.1.1 Impact of NRCan`s S&T on the identification, mitigation and response to natural hazards.	Hazard specific.	2001
4.2 A national framework for spatial positioning, mapping and boundary maintenance.	4.2.1 User satisfaction with aeronautical charts, the Canada Lands Survey System and the Canadian Spatial Reference System.	Service standards exist in all 3 areas. Meet cycle deadlines 100% of the time. Maintain standards.	2001
4.3 Safe use of explosives and pyro-technics.	4.3.1 Accident and incident rate in the explosives and pyrotechnic industries in Canada.	Zero accidents, no incidents.	2002
4.4 Enhanced safety and security in Canada's natural resource sector.	4.4.1 Impact of regulatory frameworks for energy transmission, offshore development, and Canada's uranium and nuclear industry.	Improvements to regulations and guidelines.	2003

Goal 5:
To provide Canadians with a department that is efficiently and effectively managed.

OBJECTIVES *As demonstrated by:*	PERFORMANCE INDICATORS	TARGETS AND APPROACHES	TABLING DATE
5.1 Managing NRCan's resources responsibly.	5.1.1 Employee satisfaction with NRCan management practices.	Trend monitoring and analysis with corrective action as necessary.	2001
	5.1.2 Progress towards maintaining and enhancing NRCan's Program Integrity.	To be determined.	2001
	5.1.3 Savings realized from streamlining administrative processes, innovative service delivery, electronic commerce, improved facilities management, and information technology bulk purchasing and contracts.	To be determined on a project-by-project basis.	2003
5.2 Continuously improving NRCan products, services, and operations.	5.2.1 Implementation of recommendations from audits, evaluations, and other studies of NRCan management and operations.	To be determined.	2001
	5.2.2 Progress towards the implementation of leading-edge management practices.	Sector specific.	2003
5.3 Sustainable development in NRCan operations	5.3.1 Progress of the department`s Environmental Management System (EMS) towards the implementation of ISO 14000 series of standards.	By 2000, NRCan will be compatible with the ISO 14000 series of standards.	2003
	5.3.2 Progress towards the implementation of environmental health and safety audits and environmental assessment evaluation of NRCan operations.	100% implementation with action items stemming from findings of audit and evaluations.	2001
	5.3.3 Amount of solid non-hazardous waste from NRCan operations per capita per year.	By 2000, 50% reduction in solid non-hazardous waste from level measured in 1995-96 audits.	2002
	5.3.4 Portion of fleet converted to alternative fuels.	By 2004, 75% of fleet converted to alternative fuels where technically and operationally feasible.	2002
	5.3.5 Rate of purchasing by NRCan of green power.	10,000 MWH of power purchased per annum.	2001