

Towards Departmental Stewardship Planning in the Saskatchewan Government

Insights from Other Stewardship Planning and Related Efforts in Canada and Abroad

REPORT

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EXECUTIVE SUMMARY

The *Green Policy* and *Integrated Environmental Monitoring Sections* of Saskatchewan Environment contracted the International Institute for Sustainable Development (IISD) to conduct background research in support of proposed Departmental Stewardship Planning for the government of Saskatchewan.

Departmental Stewardship Planning is an action to support the goal of *Shared Responsibility, Integration and Accountability* as set out in the government of Saskatchewan's new Green Strategy. To implement stewardship planning, Saskatchewan Environment is creating a planning committee comprised of Saskatchewan Environment, the Cabinet Planning Unit (CPU), Saskatchewan Finance, Saskatchewan Watershed Authority, Saskatchewan Highways and Transportation and Saskatchewan Property Management to develop a stewardship planning template and to discuss how stewardship planning might be incorporated into the existing strategic planning process.

This report presents examples for this planning committee which we believe to be insightful toward stewardship planning and which we had relatively easy access to given prior experience with or knowledge of. A second research report will be prepared which targets specific examples requested by the planning committee in the process of developing a stewardship planning template.

A discussion paper on Departmental Stewardship Planning was prepared by Saskatchewan Environment in August 2005. This paper identified two important modes by which governments have an influence on the environment and sustainable development:

- **Internal operations** of the various provincial government departments. This could include such potential actions as Purchasing of Goods and Services (e.g., Green Procurement), Managing Waste, Conserving Water, Managing Departmental Lands and Water, Reducing Energy Use, Greening the Vehicle Fleet, Empowering Staff; and
- **External influence** - The second mode of potential departmental influence on the environment and sustainable development is via its legislation and policy which directly and indirectly influences the management of millions of hectares of Crown land as well as the management of millions of hectares of privately owned land.

We researched examples of stewardship planning and related initiatives in Canada and abroad which are relevant to these two modes of influence.

Stewardship Planning for Internal Operations

A 2003 report on good environmental stories for North Americans demonstrated that stewardship planning for the internal operations of governments makes business sense. The report found that the procurement of environmentally friendly products “can lower waste management fees, lower hazardous material management fees, reduced spending on pollution prevention (Five Winds International 2003).” Several examples from local, state and federal government departments in the United States were presented including (from Five Winds International 2003):

- “The US Department of Defense’s Aberdeen Proving Ground (APG) now purchases environmentally preferable paint that costs \$1.76 less per gallon. In addition, APG saves

the costs of reporting, handling, storing and disposing unused paint as a “hazardous material.”

- Lee County’s Fleet Management Department in Florida, USA, no longer generates hazardous waste by purchasing alternative vehicle fluids and cleaners. The county saved \$16,800 each year by eliminating hazardous waste disposal fees (this amount is equivalent to approximately \$1400 saved per vehicle managed).
- The Port of Seattle, for example, cleaned up procurement procedures for aviation maintenance materials by eliminating products without Material Safety Data Sheets and dropping redundant chemicals. As a result, dangerous waste disposal costs were cut 90 percent in two years.
- Bank of America’s green procurement program in 1997 reduced the number of vendors it dealt with and while also reducing paper consumption. The latter initiative is credited with savings estimated at \$14 million in 1999.
- Multnomah County in Oregon, USA, reduced its annual power consumption and saved \$335,000 on its electric bill—equivalent to 15 percent of the County’s electricity bill—by replacing outdated technology with energy-efficient equipment, including Energy Star products.
- Interface Inc. has used life-cycle studies and supply-chain communication to enhance performance of its product, improve material efficiency and reduce operational costs.
- New York City Transit estimates an annual savings of \$60,000 by installing photovoltaics on its Stillwell Avenue intermodal terminal and thus avoiding purchase of energy from the grid.
- Daimler Chrysler’s life-cycle management and full cost tracking of materials and substances have resulted in an estimated cost avoidance and savings of \$22M while avoiding sending 400 tons of waste to landfill.
- Cape May County in New Jersey, USA, saved \$45,000 by reducing its use of chemical insecticides and herbicides. Potential savings also exist for reducing the use of many pesticides.
- In the Pentagon, enhanced indoor air quality is expected to increase worker productivity by 6 percent and thus save \$72 million dollars per year.”

To gain insights on stewardship planning for the internal operations of a government department we researched government efforts in the United Kingdom, Canada, and Manitoba along with public and private sector sustainability reporting frameworks and processes (Global Reporting Initiative, PotashCorp, New South Wales). A summary of these initiatives are provided in the table below.

Initiative	Description
<p><i>United Kingdom: The Framework for Sustainable Development on the Government Estate - 2002</i></p>	<p>Aim:</p> <ul style="list-style-type: none"> ▪ Setting challenging cross-government targets in all key operational areas ▪ Gaining clear and tangible commitments from all Departments to deliver targets (30 government-wide targets) ▪ Allowing Departments flexibility in terms of the mechanisms they use to deliver targets ▪ Providing support to Departments through guidance and up to date examples of best practice on the Framework website <p><i>The Framework for Sustainable Development on the Government Estate</i> includes nine categories: Overarching commitments; Travel; Water; Waste; Energy; Procurement; Estates management; Biodiversity; Social impacts.</p>
<p><i>Canada:</i></p>	<p>Designed to:</p>

<p><i>Sustainable Development in Government Operations - 1999</i></p>	<ul style="list-style-type: none"> ▪ coordinate the federal effort to green government operations ▪ encourage the reporting of concrete results among the departments and agencies <p>The initiative covers seven categories including: Energy Efficiency; Human Resources Management; Land Use Management; Procurement; Vehicle Fleet Management; Waste Management; Water Conservation and Wastewater Management.</p>
<p><i>Manitoba: Sustainable Development Procurement Goals</i></p>	<p>Guidance document was prepared in 2003 entitled “Reporting on Sustainable Development Activities & Accomplishments in Manitoba Government Departmental Annual Reports.”</p> <p>The 2003 procurement guidelines present five goals which relate to stewardship of internal operations:</p> <ul style="list-style-type: none"> ▪ Education, Training and Awareness ▪ Pollution Prevention and Human Health Protection ▪ Reduction of Fossil Fuel Emissions ▪ Resource Conservation ▪ Community Economic Development
<p><i>Global Reporting Initiative (GRI)</i></p>	<p>The GRI is a multi-stakeholder process and independent institution whose mission is to develop and disseminate globally applicable Sustainability Reporting Guidelines (GRI 2005).</p> <p>The framework for sustainability reporting that emerged from this initiative includes four categories: Economic; Social; Environmental; Governance and management systems. Under the four aspects are 39 specific aspects of stewardship, each with example indicators.</p>
<p><i>Saskatchewan: PotashCorp Sustainable Development Report</i></p>	<p>In 2005 PotashCorp issued its third sustainability report entitled <i>Beyond the Boardroom</i> using the GRI reporting guidelines.</p> <p>PotashCorp received the 2004 Award of Excellence for sustainability reporting in the Canadian Institute of Chartered Accountants annual Corporate Reporting Awards.</p>
<p><i>New South Wales Public Accounts Committee Recommendations for Departmental Sustainability Reporting</i></p>	<p>Received information about the sustainability reporting actions being undertaken by individual NSW government agencies and the benefits flowing from these actions.</p> <p>Recommendation #1. That a whole of government framework for sustainability reporting be introduced for the New South Wales public sector</p> <p>Recommendation #2. That a common framework be used for assessing the sustainability of the internal operations of agencies (Table 2-6).</p>

Some interesting insights to note regarding the above initiatives include:

- The UK’s Sustainable Development on Government Estate program sets government wide specific and time-bound targets for 30 actions under nine stewardship categories.
- Canada’s Greening Government program while similar in structure to the UK program does not set government wide targets, with the exception of *The Federal House in Order* (FHIO) initiative where “eleven departments and agencies that account for 95 percent of federal emissions have agreed to collectively meet a target of reducing GHG emissions within their operations by 31% from 1990 levels to 2010 (FHIO 2005).”

- The province of Manitoba, via the Manitoba Sustainable Development Act, requires each department to produce a report on its sustainable development activities which is to be made public through the departmental annual report to the Manitoba Legislature.
- An important feature of PotashCorp's corporate wide sustainability reporting is its systematic site specific reporting. For each of its potash, nitrogen and phosphate sites (of which there are approximately 20), a subset of the economic, social, environmental and governance performance measures are reported on.
- The Public Accounts Committee of New South Wales recommended that their "Treasury consider adapting budget reporting processes, specifically the 'Results and Services Plan' methodology, so that results can include integrated social, economic and environmental outcomes."

Canada's Sustainable Development in Government Operations initiative provides some useful insight into the importance of linkages with existing planning and budgeting systems. The 2005 Report of the Commissioner of the Environment and Sustainable Development – Office of the Auditor General – highlighted that "there are no mandatory reporting frameworks for Green Procurement in government-wide context." The consequences of this lack of integration with existing systems is an observation from the Commissioner that "most of the eight departments and agencies [audited] are not following a clear plan for greening their procurement" and "none of the sustainable development strategies of the eight organizations [audited] included an overall picture and plan for green procurement."

Related to the types of stewardship planning actions carried out by governments, it was interesting to see that despite the vast number of actions/indicators of stewardship planning described for the different case studies researched in this report, the actions were typically clustered around a small number of categories, ranging from 5 to 9 categories. The Canadian categories provide a good flavour for what these categories typically consisted of, namely: Energy Efficiency; Human Resources Management; Land Use Management; Procurement; Vehicle Fleet Management; Waste Management; Water Conservation and Wastewater Management.

Related to this, the UK's Sustainable Development on Government Estate program provided some interesting insight toward the need for simplicity. Despite having one of the most comprehensive planning and reporting systems for stewardship planning in the world, the UK's focus on as many as 30 different target-bound actions across their nine stewardship planning categories could have been the source for critical comments cited in the 2005 Sustainable Development in Government report relating to organizational capacity – "many of the personnel who prepare the data for the SDiG report are severely under-resourced. We have seen little evidence that the majority of Departments have invested in adequate support in terms of data collection and monitoring systems, capacity, or have established clear lines of senior level accountability for performance against the Framework." This comment highlights the need to match carefully the scope of stewardship planning actions with potential organizational capacity. But the comment also speaks to the fact that the UK's the "SDiG reporting process, on the whole is not integrated with other Departmental reporting mechanisms."

Stewardship Planning for External Influence

With regard to stewardship planning for departmental policies, programs and plans (a department's external influence), we researched frameworks for departmental sustainable development strategies in Canada (federal and province of Manitoba), frameworks for strategic government assessment (environmental, sustainability), and a few sustainability assessment

frameworks that are used in the planning stages (seven questions to sustainability, multi-perspective analysis). Additionally, we provide some information on processes used by governments to assess environmental risk associated with departmental activities. This information is summarized below.

Initiative	Description
<p><i>Departmental Sustainable Development Strategies for Canada’s federal Government</i></p>	<p>1995 Guide to Green Government outlining departmental strategy components:</p> <ul style="list-style-type: none"> ▪ Departmental Profile ▪ Issue Scan - Assessment of the department's activities in terms of their impact on sustainable development ▪ Consultations ▪ Goals, Objectives and Targets ▪ Action Plan
<p><i>Reporting on Sustainable Development Activities in Manitoba Government Departments</i></p>	<p>Via the Manitoba Sustainable Development Act, government departments are required to report on their activities related to the following sustainable development principles and guidelines:</p> <ol style="list-style-type: none"> 1. Integration of Environmental and Economic Decisions 2. Stewardship 3. Shared Responsibility and Understanding, 4. Prevention 5. Conservation and Enhancement 6. Rehabilitation and Reclamation 7. Global responsibility 8. Efficient Uses of Resources 9. Public Participation 10. Access to Information 11. Integrated Decision Making and Planning 12. Waste Minimization and Substitution 13. Research and Innovation
<p><i>Oregon: Oregon Benchmarks</i></p>	<p>“Measure progress towards Oregon’s strategic vision, Oregon Shines (Government of Oregon 2005).” The strategic vision has three goals: quality jobs for all Oregonians</p> <ul style="list-style-type: none"> ▪ safe, caring and engaged communities, and ▪ healthy, sustainable surroundings. Benchmarks are organized into seven categories: economy, education, civic engagement, social support, public safety, community development and environment. <p>The Oregon Measures include 90 indicators under eight categories, namely: Economy, Education Report, Civic Engagement, Social Support, Public Safety, Community Development, Environment, Home and Contents</p> <p>Used for a broad array of policymaking and budget-related activities. State agencies are required to link their key performance measures to the measures. Oregon Benchmark’s 2005 progress report is entitled “Achieving the Oregon Shine’s Vision: the</p>

	2005 Benchmark Performance Report – Report to the Oregon Legislature and the People of Oregon.”
<i>Strategic Environmental Assessment in the Canadian Federal Government</i>	<p>Step-by-step guide for Strategic Environmental Assessment developed and used by Foreign Affairs Canada.</p> <p>Includes identification of environmental impacts of cabinet proposals related to positive or negative impacts related to: Air quality; Water quality/quantity; Land use; Climate change; Biodiversity; and Natural Resources</p>
<i>Swiss Sustainability Assessment</i>	To evaluate effects of draft legislation, concepts and projects in terms of the three dimensions of sustainable development and to indicate potential deficiencies early enough in the process to influence the direction taken.
<i>Other Sustainability Assessment frameworks</i>	<ul style="list-style-type: none"> ▪ <i>Seven Questions to Sustainability</i> – assessment framework developed in a multi-stakeholder process by the Mining, Minerals and Sustainable Development Initiative - North America. ▪ <i>Multi-perspective Analysis</i> – a proposed strategic sustainability assessment framework to be applied at the conceptual policy development stage.
<i>Environment Outlooks (forward looking policy analysis)</i>	<ul style="list-style-type: none"> ▪ Necessary for incorporating the inter-generational principle into decision making. ▪ Techniques such as environmental trends projections and more involved scenario analysis techniques and models as used in global assessments such as the Global Environmental Outlook and the Millennium Ecosystem Assessment can be useful stewardship planning tools.
<i>Risk Assessment Related Approaches</i>	<ul style="list-style-type: none"> ▪ <i>Swiss Relevance Matrix</i> – tool used in the Swiss Sustainability Assessment approach ▪ <i>Canada departmental issue scan</i> – used by federal departments to identify how activities related to five federal sustainable development principles ▪ <i>United Nations Global Environment Outlook – Integrated Environmental Assessment</i> – Driving forces, pressure, state, impact, response analytical framework which could have potential applicability for assessing departmental environmental risks.

Some interesting insights from the above studies include:

- Canada’s Guide to Green Government describes “how each department intends to reduce the impacts of internal operations, as well as promote sustainable development through its policies and programs. Departments are encouraged to develop long-term as well as interim targets, with updates on progress provided every three years.”

- Manitoba's departmental reporting requirements list 30 possible actions under 13 sustainable development principles and guidelines.
- Oregon state agencies are required to link their key performance measures to the Oregon Benchmarks.
- A government wide template for SEA in the federal Canadian government has not yet been developed; however, some departments have developed internal guidelines such as that prepared by Foreign Affairs Canada (DFAIT 2003).
- The Swiss government is one of the few governments globally that is advanced in strategic sustainability assessment techniques.
- Approaches exist to aid departments in assessing the impact of their activities on the environment and sustainable development (e.g., Swiss relevance matrix, Canada's departmental issue scan).
- The integrated environmental assessment approach of the United Nations Environment Program - Global Environment Outlook process has applicability in stewardship planning in two forms: qualitative and quantitative tools for conducting forward looking policy analysis necessary for inter-generational consideration; and as a potential departmental environmental risk assessment tool.

Sustainable development strategies and action plans are one of the key mechanisms for guiding the economic, social and environmental stewardship of governments. Although this research focused on Canada at the federal and provincial level, a 2004 survey of national sustainable development strategies in 19 countries carried out by IISD revealed that many innovative approaches and tools for strategic and co-ordinated action for sustainable development have been developed and applied over the past decade (Swanson et al. 2004)¹. The innovations can be seen in all aspects of the sustainable development strategy process and in all the countries studied, including leadership, planning, implementation, and monitoring and learning, and with respect to specific cross-cutting management aspects of co-ordination, and participation.

However, despite the progress made, it was evident that most countries were only at the early stages of learning toward effective strategic and co-ordinated action for sustainable development. From the analysis of 19 countries it was concluded that few countries were acting truly strategically. Two of the key challenges cited in the report included (from Swanson et al. 2004):

- ***“Co-ordination of strategy objectives and initiatives with the budgeting process.***
Sustainable development challenges us to re-think our existing policy initiatives as well as to develop new ones to address key issues. This also includes re-thinking our expenditure and revenue generation processes. Yet the overarching vision and specific objectives created through a national sustainable development strategy process still have little influence on national budget expenditures or revenue-generating processes. Most national sustainable development strategies simply remain at the periphery of government decision-making. Until finance ministries or departments play a central role in the sustainable development strategy process, the process of strategic management to ensure the sustainable progress and development of nations on the one hand, and fiscal priority setting and national expenditure and revenue generation on the other, will not be fully integrated.

An interesting example that begins to address this challenge was observed in Mexico where the current approach is to integrate sustainable development principles directly into its existing national development planning process, rather than creating a separate

¹ The statements that follow are excerpts from the Swanson et al. (2004) report.

strategy process parallel to the national expenditure and revenue-generating process. Additionally, the Philippines narrowed the distance between the sustainable development strategy and the national budgeting process by establishing the National Economic Development Authority as the lead agency for the Philippine Council for Sustainable Development.

- ***The feedback mechanism – including monitoring, learning and adaptation.*** While most nations have statistical offices that monitor various aspects of our economy, society and environment, only a few countries have developed an integrated set of indicators to allow analysis of the inherent trade-offs and inter-linkages among the economic, social and environmental dimensions of sustainable development. Even more elusive to detect from the research were formal and informal approaches and tools to learn from this type of integrated monitoring and to make critical and necessary adaptations. We manage what we measure. Until we systematically monitor integrated sets of sustainability indicators, and employ a mix of formal and informal approaches and tools to learn and adapt accordingly, nations will not be acting strategically.

In addressing these challenges, among the 19 countries studied the U.K. appeared as a consistent innovator through such approaches and tools as national sustainable development indicators and reporting; sustainable development audit committees and spending reviews; a Task Force for national strategy revision; and sustainable development research networks.”

1. OVERVIEW OF PROPOSED DEPARTMENTAL STEWARDSHIP PLANNING UNDER SASKATCHEWAN'S GREEN STRATEGY

This section highlights initial thinking on stewardship planning by Saskatchewan Environment, and provides some background information on Saskatchewan Green Strategy – of which stewardship planning is a component of, and on the province's existing Accountability Framework and departmental business planning process.

1.1 Sask. Environment Discussion Paper

A discussion paper on Departmental Stewardship Planning was prepared by Sask. Environment in August 2005. This paper highlighted two important modes of potential influence on the environment and sustainable development. The first is the *internal operations* of the provincial government. Including Crown corporations, the provincial government is Saskatchewan's largest single economic enterprise employing thousands of people, operating hundreds of buildings and facilities, spending millions of dollars in annual purchases of goods and services, and running a fleet of hundreds of motor vehicles.

The second mode of potential influence on the environment and sustainable development is via its legislation and policy which directly influences the management of millions of hectares of Crown land as well as indirectly influences the management of millions of hectares of privately owned land. This second mode could be referred to, for purposes of this report, as *external influence*.

The August discussion paper also proposed that the overall stewardship planning objectives should include:

- Lessening the environmental impact of government in the province, seeking the appropriate balance between economic and environmental considerations;
- Stimulating green economy by supporting green industry initiatives; and
- Demonstrating government's commitment to sustainability and profiling "green" actions.

The discussion paper suggested that to assist departments and agencies with assessing and mitigating their environmental impact as we grow the economy, a reduction in the following should be aimed for:

- Energy consumption;
- Waste production;
- Water consumption; and
- Impacts on native flora and fauna.

Based on a review of the August discussion paper, there appear to be three key components of departmental stewardship planning: namely, internal operations; external influence; and monitoring, reporting and continuous improvement. The key points from the discussion paper for these three areas are highlighted below.

1.1.1 Internal Operations

The August discussion paper introduced a variety of possible actions that could be taken by departments to achieve the four stewardship objectives. These actions, as they relate to internal operations include:

- Purchasing of Goods and Services (e.g., Green Procurement)
- Managing Waste
- Conserving Water
- Managing Departmental Lands and Water
- Reducing Energy Use
- Greening the Vehicle Fleet
- Empowering Staff

1.1.2 External Influence

In addition to the above actions, the discussion paper lists the *Greening of Policies, Legislation, Plans and Budgets* as another action that could be undertaken to achieve the four stewardship objectives, and this particular action relates to the external influence that a department has on the environment in Saskatchewan – that is, actions that go beyond the internal operations of the department.

1.1.3 Monitoring, Reporting and Continuous Improvement

With regard to continuous improvement the discussion paper highlights a number of actions. These include the development and monitoring of performance indicators for the actions mentioned above, along with reporting on the annual progress to the provincial government and to the public. Additionally, the discussion paper notes that government initiatives should be profiled where possible to encourage private sector action.

A key point in relation to monitoring, reporting and continuous improvement comes from Saskatchewan's desire to incorporate an environmental stewardship component into departmental strategic planning guidelines. This places stewardship planning within the existing architecture of existing business planning and reporting in the government Accountability Framework of the government of Saskatchewan. This is not only ideal from an efficiency perspective, it is an effective means to integrate stewardship planning into the activities of provincial government departments and agencies.

1.2 Saskatchewan Green Strategy

The proposed departmental stewardship planning is a component of the recently released Saskatchewan Green Strategy (Sask. Environment 2005).

The vision for Saskatchewan as articulated in the Green Strategy is...

“one of strong economic growth, vibrant communities and a healthy environment. Saskatchewan people are acting together to achieve improved human health and education, a thriving sustainable economy, all supported by a diverse and enduring environment.”

The Green Strategy’s framework is comprised of three goals:

- **“Innovation Toward Sustainability** - Within twenty-five years, Saskatchewan will have achieved a vibrant economy and a cleaner environment while satisfying human needs to improve our quality of life by using the best practical science and technology to foster innovation, economic growth opportunities and competitiveness as well as environmental sustainability.
- **A Respected and Protected Environment** - Within twenty-five years, Saskatchewan will be a national leader in conserving, protecting and restoring the health and diversity of ecosystems to ensure healthy air, water, soil, biodiversity and ecosystems for the well-being and prosperity of current and future generations.
- **Shared Responsibility, Integration and Accountability** - Starting now, governments of all levels, communities, businesses, schools, volunteer organizations, youth and citizens will participate and share in the responsibility for a society that is economically, socially, culturally and environmentally sustainable.”

A series of strategic outcomes are listed for each of the above goals. For each of the strategic outcomes a list of potential areas for action is provided. The third goal listed above (shared responsibility, integration and accountability) lists four strategic outcomes and twelve potential areas for action as summarized in Box 1-1 below. Stewardship plans for government is a potential area for action for the first strategic outcome listed in Box 1-1 related to *Leading by Example*.

Box 1-1. The third goal of the Saskatchewan Green Strategy – Shared Responsibility, Integration and Accountability

Strategic Outcome: *Leading By Example* – the government of Saskatchewan is a leader in managing its operations in a sustainable manner.

Potential Areas for Action:

- Green codes of practice

- Stewardship plans for government
- Strengthened compliance and enforcement

Strategic Outcome: *Informed and Engaged Citizens* – a public that is knowledgeable about the environment and committed to action to reduce our everyday environmental impact

Potential Areas for Action:

- Education
- Incentives to make it easier to act green
- Demonstration and recognition of application of sustainability
- Engagement of youth to champion sustainability

Strategic Outcome: *Intergovernmental Engagement* – Saskatchewan engaged in moving towards sustainability by thinking globally, planning regionally and acting locally

Potential Areas for Action:

- Bilateral Agreements with other jurisdictions
- Working collaboratively across governments to achieve sustainability

Strategic Outcome: *Measuring, Reporting and Accountability* – Government is accountable for reporting progress on moving to a sustainable society

Potential Areas for Action:

- Integrated monitoring
- Sustainability reporting
- Environmental commissioner

1.3 Saskatchewan Government Accountability Framework

The government Accountability Framework of Saskatchewan Finance² requires all departments and agencies to prepare annual performance plans outlining their long-term goals and objectives, as well as a series of performance measures (including baseline data), which assist in government decision-making, and help Saskatchewan citizens monitor government progress.

The components of the Accountability Framework in Saskatchewan are illustrated on Figure 1-1. The framework also covers key cross-government strategies – of which there are currently two: the Kids First Strategy and the Safe Water Drinking Strategy. All departmental documents for this process are readily accessible via the Internet.

² See <http://www.gov.sk.ca/finance/accountability/default.htm>

Accountability Framework

A managing for results approach begins with a *strategic planning process* that seeks to define each organization’s desired objectives or outcomes over the longer term and articulate them in a concise and meaningful way. *Performance management* is a method for regularly assessing progress towards these stated objectives. Performance management also includes an assessment of the risks that might impact an organization’s ability to achieve its stated goals and objectives, and more in-depth evaluations of program effectiveness as required. *Reporting* back on the actual results achieved, compared to the original expectations identified, provides the means to gauge progress, informs the development of future plans and leads to improved performance.

Saskatchewan’s Accountability Framework, depicted below, illustrates these three key components:

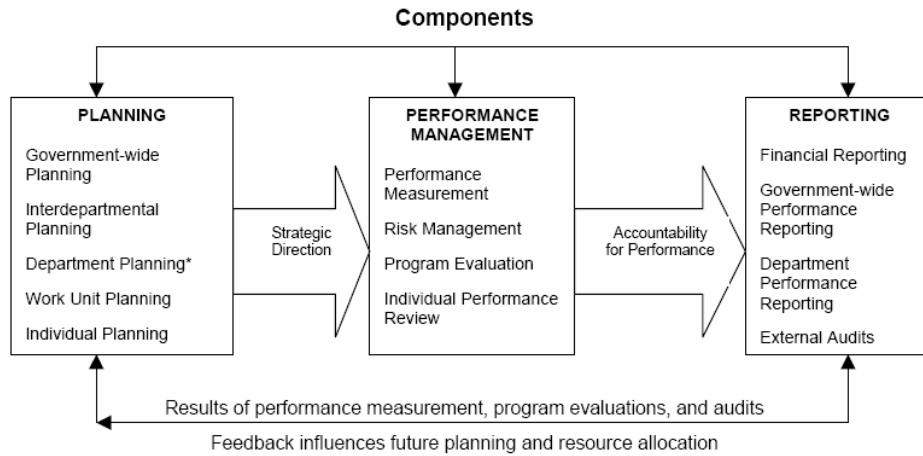


Figure 7-1. Saskatchewan’s government Accountability Framework (from Saskatchewan Finance 2005).

Saskatchewan Finance provides guidelines for the preparation of departmental performance plans. The content requirements for the 2006-07 planning and budget cycle are summarized on Table 1-1.

Table 1-1. Content requirements for annual departmental performance plans, 2006-07 (from Saskatchewan Finance 2005a).

MAJOR SECTIONS	APPROXIMATE LENGTH
Minister's Message <i>[not required in fall submission]</i>	1 page
Who We Are ⁽¹⁾	2 pages
Plan at a Glance <i>[optional for the fall submission]</i>	1 to 2 pages
2006-07 Financial Overview <i>[not required in fall submission]</i>	1 page
Trends and Issues	2 pages
Changes from 2005-06 Performance Plan <i>[more detailed required in the fall submission – see page 1]</i>	If required – ½ page
Goals, Objectives, Actions and Measures	6 to 14 pages
For More Information	½ page

⁽¹⁾ For key cross-government strategies the title for this section should be "About the *name of strategy*" e.g., "About the Safe Drinking Water Strategy".

Goal 1 – xxxxxx [Sub-heading]

Objective 1 – xxxxxx ³ [Sub-heading]

- Narrative around the objective

Key Actions for 2006-07 [Sub-heading]

- List key actions

What are we measuring? [Sub-heading for each measure]

- State performance measure
- Narrative around each measure - describe the measure and explain its relevance to the objective; discuss the agency's level of influence and identify other factors that will impact on measurement results

Where are we starting from? [Sub-heading – for each measure]

- Show the latest available data and indicate the date of the data

2. STEWARDSHIP PLANNING INSIGHTS FOR INTERNAL OPERATIONS

A number of governments have initiated “stewardship” programs for purposes of greening their internal operations, and a few of these are summarized below. Additionally, the field of corporate social responsibility/sustainability/accountability reporting has evolved considerably over the past fifteen years, and a few key examples are summarized, both for public and private sector corporations to provide useful frameworks for the development of a stewardship planning template for the Saskatchewan government.

2.1 Key Insights from Government Stewardship Examples

We summarize below the efforts of three governments in leading by example; the United Kingdom; Canada; province of Manitoba.

2.1.1 *United Kingdom - Sustainable Development in Government Report*

In December 2005, the Sustainable Development Commission (SDC) of the United Kingdom provided a commentary of the 2005 Sustainable Development in Government (SDiG) report (UK SDC 2005). In 2002, the central government of the UK, including executive agencies, “began developing a systematic framework for monitoring its progress in reflecting sustainable development objectives in the management of its own estate.”³ *The Framework for Sustainable Development on the Government Estate* (UK 2005) establishes common targets across government for key aspects including energy and waste against which departments report annually. At this point in time the SDC notes that the framework is primarily environmentally focused, while targets for social and economic performance are “largely absent.”

The government estate in the UK “employs more than 695,000 people and includes buildings which cover an area of over a quarter million hectares.” The SDC notes that the “sheer scale of these operations means that the government has the potential to make a huge, positive impact on society, public expenditure (at a central and local level) and the environment, whilst simultaneously helping to deliver on its own sustainable development objectives.”

The overarching aim of the Framework is to increase the contribution that all Departments make to sustainable development by:

- Setting challenging cross-government targets in all key operational areas
- Gaining clear and tangible commitments from all Departments to deliver targets

³ Although, they had been publicly reporting on its progress since 1999. “Estate” used in this context refers to its building, land, etc.

- Allowing Departments flexibility in terms of the mechanisms they use to deliver targets
- Providing support to Departments through guidance and up to date examples of best practice on the Framework website

The Framework for Sustainable Development on the Government Estate includes nine categories which are listed below.

- Overarching commitments
- Travel
- Water
- Waste
- Energy
- Procurement
- Estates management
- Biodiversity
- Social impacts

Each of these categories is described in detail on the governments website⁴ which includes a description of the relevance to the UK's national sustainable development strategy and headline indicators, a listing of targets, guidance documents and a description of progress to date. Table 2-1 provides an overview of the specific targets which also provides a good description of the meaning and intent of the nine categories.

Until this year the UK central government reported its own performance against the framework which was coordinated by the Sustainable Development Unit in the Department of the Environment, Food and Rural Affairs (Defra). In 2005 the SDC took over the role as watchdog in order to provide an independent assessment. For this effort the SDC contracted Pricewaterhouse Coopers to develop the report and assist with data collection and analysis.

⁴ <http://www.sustainable-development.gov.uk/delivery/integrating/estate/estate.htm>

Table 2-1. The UK Framework for Sustainable Development on Government Estate (from UK 2005)

Framework Category	Description and Targets
Overall commitments	<ul style="list-style-type: none"> ▪ A1 - identifying significant impacts (To be completed by 31 October 2002 and posted on Departmental websites) ▪ A2 - Publishing delivery plans (All Departments should, within 4 months of announcement of each suite of targets in the Framework, make public a strategy showing how they plan to deliver targets) ▪ A3 - Environmental management systems (All main offices* by 31 March 2004. All other offices/sites by 31 March 2006) ▪ Social impacts (under development) ▪ A4 - By October 2002 all Departments are asked to review their arrangements for public reporting of their sustainable development impacts ▪ A5 By April 2003 all Departments should ensure they have arrangements to: report publicly on their key sustainable development impacts, including their performance against targets in this Framework verify their performance data
Travel	<ul style="list-style-type: none"> ▪ B1 - reduce road transport vehicle carbon dioxide emissions by at least 10%, to be achieved through any combination of: ▪ B2 - Require at least 10% of all fleet cars to be alternatively fuelled. ▪ B3 - Reduce single occupancy car commuting by 5%.
Water	<ul style="list-style-type: none"> ▪ C1 - All Departments which have not already done so to consider joining the Watermark project by September 2002. ▪ C2 - Where the Department is sole occupier (or is billed for water service charges) to reduce water consumption in office buildings: 7.7 m3 per person per year by 31 March 2004 7 m3 per person per year for all new buildings and major refurbishments where design commences after 2002. ▪ C3 – By 2002 identify non-office sites on their estates where there are likely to be opportunities for significant water savings. ▪ C4 – By 2002 make arrangements to provide available data on significant non-office sites to Watermark, or, if data is not currently available, establish monitoring arrangements with them.
Waste	<ul style="list-style-type: none"> ▪ D1 - By October 2004, each Department will draw up and publish a sustainable waste management strategy. This should include steps to implement the waste hierarchy. ▪ D2 - By October 2004*, each Department will draw up and publish a sustainable waste management strategy. This should include steps to implement the waste hierarchy. ▪ D3 - From the date that total site waste arisings have been calculated, Departments should reverse the upward trend in waste arisings, through progressive reduction by at least one per cent per annum in total waste arisings generated, and where possible extend this to each type of waste arisings generated. For those Departments that currently have no waste arisings data, site data must be calculated by December 2006 and reported in the following reporting period. ▪ D4 - As soon as the recycling / composting figures from target D2 have been established at a site or unit of establishments, Departments should increase these rates by at least five per cent per annum, with an aim of reaching a 75 per cent recycling / composting rate overall. Where possible this should be extended to each type of waste arisings generated. ▪ D5 - All Departments to include clauses to minimise and, where possible, avoid impacts of waste in all relevant waste management contracts initiated three months after the publication of standard Government contract clauses.

<p>Energy</p>	<ul style="list-style-type: none"> ▪ E1 - Government Departments to reduce absolute carbon, from fuel and electricity used in buildings on their estate, by 12.5 per cent by 2010-11, relative to 1999-2000. ▪ E2 - Government Departments to increase the energy efficiency of the buildings on their estate, measured in terms of kWh of (1) fuel and (2) electricity use per square metre of buildings floor area, or estate area*, by 15 per cent by 2010-11, relative to 1999-2000. ▪ E3 - Government Departments to source at least 10 per cent electricity from renewable sources by 31 March 2008*. ▪ E4 - Government Departments to source at least 15 per cent of electricity from Good Quality Combined Heat and Power by 2010. ▪ E5 - By March 2006 Government will develop a long-term strategy, up to 2020, for sourcing renewable energy on the Government Estate. ▪ E6 - Departments to include clauses to ensure opportunities are identified and measures taken for reducing carbon emissions and collecting energy data (by fuel type), as far as practical, in all estate management contracts* initiated from August 2004.
<p>Procurement</p>	<ul style="list-style-type: none"> ▪ F1 - By 1 December 2005 each Government Department* will draw up a Sustainable Procurement Strategy, or review that which is already in place ▪ F2 - Where it is legitimate and in accordance with the Joint Note on Environmental Issues in Purchasing, Government Departments should include clauses relating to environmental considerations in all contracts for goods, works and services initiated on or after the publication of Departmental strategies for this Part. ▪ F3 - Government Departments should develop and implement an appropriate training and awareness programme on sustainable procurement
<p>Estates Management</p>	<ul style="list-style-type: none"> ▪ G1 - By 1 December 2005, each Department will draw up an estates management strategy, or review that which is already in place, to fully incorporate significant issues for sustainable development. These should include: <ul style="list-style-type: none"> ▪ measures adopted to address any significant impacts identified. ▪ where relevant, the themes and related targets detailed in this document on: <ul style="list-style-type: none"> ○ construction and demolition; ○ adaptation to climate change; ○ refrigerants, ozone depleting substances and those with a high global warming potential; ○ heritage; ○ disposal of property; ○ contaminated land. ▪ all other themes and commitments set in the other Parts of the Framework. ▪ G2 - Where appropriate, Departments will include clauses relating to sustainable development issues in all estates management and construction tender specifications and contracts initiated on or after 1 December 2005.
<p>Biodiversity</p>	<ul style="list-style-type: none"> ▪ H1 - By October 2003, Departments to ensure that they have comprehensive methods for identifying significant impacts for biodiversity as part of their environmental management systems or otherwise have integrated this into management of their estate. ▪ H2 - Where there are significant impacts for biodiversity, Departments will: (a) conduct audits of their estate to identify nationally and locally important habitats and species and where necessary conduct site-based surveys. (b) assess the impact of activities on biodiversity at each site. This should be achieved for 40% of sites identified as being significant for biodiversity by October 2004 and 80% of sites identified by October 2006. ▪ H3 - Departments who own or manage sites identified as being significant for biodiversity, to develop management plans/actions for

	<p>nationally and locally important habitats and species, and identify opportunities for biodiversity enhancement on other areas of land through their delivery plans (a) for the 40% of sites identified in H2 by October 2005; and, b) for the 80% of sites identified in H2 by October 2007*</p> <ul style="list-style-type: none"> ▪ H4 - Departments that own SSSIs to achieve at least 68% by 2006 and 95% favourable or unfavourable recovering condition status on sites by 2010. ▪ H5 - All Departments to include clauses to minimise, and where possible, avoid impacts and take measures to enhance biodiversity in: (a) New grounds/building maintenance contracts*, and (b) New build, refurbishment or leasing contracts. Initiated from October 2003.
Social Impacts	<ul style="list-style-type: none"> ▪ I1: By 31 March 2006, each Department will draw up a strategy that sets out the way in which it will identify, assess and monitor significant social impacts that arise from the management of its land, buildings and operations. The strategy should also include procedures to ensure that proposals to significantly change the way in which land and buildings are managed take account of potential impacts on staff and local communities.

2.1.2 Government of Canada – Sustainable Development in Government Operations

An analogous system to the UK in Canada is the Sustainable Development in Government Operations (SDGO) initiative designed to coordinate the federal effort to green government operations and encourage the reporting of concrete results among the departments and agencies. The initiative was launched in 1999 and is led by three departments including Environment Canada, Natural Resources Canada and Public Works and Government Services Canada.

The initiative is also referred to as Greening Government and is so titled on its website.⁵ The initiative covers seven categories including:

- Energy Efficiency
- Human Resources Management
- Land Use Management
- Procurement
- Vehicle Fleet Management
- Waste Management
- Water Conservation and Wastewater Management

These categories are summarized in more detail in Table 2-2. Information support is provided for each of these categories on the Greening Government website including: reporting guidelines; programs and committees; best practices, tips and facts, tools, success stories, and useful links.

An eighth category is included covering Environmental Management Systems which describes a framework for departments to address the priority areas. Federal government departments and agencies must develop an environmental management system, and the Commissioner of Environment and Sustainable Development mandates these departments and agencies to model their EMS after the ISO 14000 series of environmental standards. This was identified as a crucial part of greening government as the 28 federal government departments and agencies manage close to 40,000 leased and owned facilities.

For example, Environment Canada manages both from the individual “facility level” (“bottom up”) in relation to managing air emissions, energy, halocarbons, hazardous materials, land use, solid waste, spills, storage tanks and water, and from the “department level” (“top-down”) in relation to contaminated sites, fleet management and green procurement. An interdepartmental committee on *Performance Measurement for Sustainable Government Operations* developed a guidance document to help departments track performance toward greening their operations (EC 2005). The framework is similar in structure to the framework presented above and includes the following categories:

⁵ <http://www.greeninggovernment.gc.ca/default.asp?lang=En&n=9697C298-1>

- Contaminated Sites
- Hazardous Waste
- Water Efficiency
- Solid Waste Management
- Ozone Depleting Substances
- Fleet Management
- Energy used in Federal Facilities
- Green Procurement
- Storage Tanks
- Releases
- Wastewater

Specific, measurable and time-bound targets across departments are not set for each category, as was seen previously for the UK government. In Canada, each department sets its own targets in the EMS related section of its departmental Sustainable Development Strategy (an overarching strategy covering both internal operations and external influence – to be covered in more detail later in this report). The Commissioner of Environment and Sustainable Development monitors and reports on progress toward these overall strategies and additionally, the Commissioner “conducts audits and special studies on the federal government’s performance in areas such as climate change, ozone depletion, management of toxic substances and greening government operations (CESD 2005).”

Government wide targets however, have been established for greenhouse gas emissions from government facilities through *The Federal House in Order* (FHIO) initiative. Through this initiative, the “eleven departments and agencies that account for 95 percent of federal emissions have agreed to collectively meet a target of reducing GHG emissions within their operations by 31% from 1990 levels to 2010 (FHIO 2005).”

Table 1-2. Categories for Greening Government in the Federal Canadian Government

Category	Description
Energy Efficiency/Buildings	<ul style="list-style-type: none"> ▪ Energy (decrease consumption, increase use of renewable energy; see the Federal House in Order Initiative for targets)) ▪ Air emissions ▪ Ozone depleting substances ▪ Buildings/real property (see the Environmentally Responsible Construction and Renovation Handbook for guidelines) ▪ Polychlorinated biphenyls
Human Resources	<ul style="list-style-type: none"> ▪ Employee awareness ▪ Training <p>Note: this category is not included in the collective reporting guidelines because it is part of the environmental management activity of the other categories</p>
Land Use	<ul style="list-style-type: none"> ▪ Stewardship of land (e.g., aesthetics, natural features and biodiversity) ▪ Contaminated sites (identification, classification and assessment of sites to manage risks to human health and the environment) ▪ Spills/releases (comply with regulations and guidelines, minimize releases, respond appropriately to emergencies, enhance awareness) ▪ Storage tanks (tank management programs to collect information, maintain and upgrade tanks; maintain inventories; audit practices; improve awareness and training) ▪ Landfill management (greenhouse gas reductions through waste reduction, the capture and use of landfill gas provides other benefits such as limiting odours, controlling damage to vegetation, reducing owner liability, reducing risk from explosions, fires and asphyxiation, and smog while providing a potential source of revenue and profit) ▪ Pesticides (promote sustainable pest management strategies that reduce their reliance on pesticides and the risk associated with their use)
Procurement	<ul style="list-style-type: none"> ▪ Reduction of consumption (reduce the consumption of resources in order to reduce the generation of waste, to minimize environmental, health and financial risks, and to reduce costs) ▪ Green purchasing (purchasing environmentally responsible office products and supplies as well as adopting pollution prevention criteria when purchasing goods and services are examples) ▪ Eco-labelling (purchasing from products labeled by Environment Canada’s Environmental Choice® Program or Natural Resource Canada’s ENERGYSTAR®) ▪ Contracting ▪ Green meetings (following Environment Canada’s Instructions for Greening Meetings and the Government of Canada Green Procurement Network)
Vehicle Fleet	<ul style="list-style-type: none"> ▪ Greenhouse gases (see the Federal House in Order initiative for targets)

	<ul style="list-style-type: none"> ▪ Alternative fuels/hybrid and energy efficient vehicles ▪ Leadership actions (reducing the number of vehicles in their fleet; choosing vehicles that best-fit the needs of their department; using low-sulphur gasoline; promote anti-idling around federal departments and agencies and their surrounding streets) ▪ Off-road vehicles (Environment Canada intends to proceed with the development of emissions control programs for off-road engines, under Division 5 of the Canadian Environmental Protection Act (1999))
Waste	<ul style="list-style-type: none"> ▪ Solid waste (reduction, reuse, recovering, recycling, composting or any disposal of solid waste including office waste) ▪ Hazardous waste
Water Conservation and Wastewater	<ul style="list-style-type: none"> ▪ Water conservation ▪ Wastewater management

2.1.3 Manitoba Government – Sustainable Development Procurement Goals

Manitoba's Sustainable Development Act "requires each department to include information in its annual report about the progress made in incorporating sustainable development into its activities (Section 12(1)(c))." Additionally, Section 12(2) of the Act requires "establishment of procurement guidelines which were adopted in December 2000. The procurement guidelines require each department to produce a report on implementation which is to be made public through the departmental annual report to the Manitoba Legislature."

The procurement guidelines present five goals which relate to stewardship of internal operations:

- Education, Training and Awareness
- Pollution Prevention and Human Health Protection
- Reduction of Fossil Fuel Emissions
- Resource Conservation
- Community Economic Development

A guidance document was prepared in 2003 entitled "Reporting on Sustainable Development Activities & Accomplishments in Manitoba Government Departmental Annual Reports." This guidance document elaborates on activities to report on that relate to each of the five procurement goals. These activities, along with an elaboration of each procurement goal are summarized in Table 2-3.

Table 2-3. Guidelines for Reporting on Sustainable Development Procurement Goals and Activities – Government of Manitoba (from Manitoba Government 2003).

Goal	Description	Possible Activities to Report On
<p>Education, Training and Awareness:</p> <p><i>A department would need to ensure a culture that supports sustainable procurement practices exists within their department by: (see adjacent description)</i></p>	<p>a. <i>increasing awareness about the benefits of Sustainable Development Procurement among departments, employees and vendors; and</i></p> <p>b. <i>expanding the knowledge and skills of procurement practitioners and end users.</i></p>	<p>a. number of tenders with sustainable development criteria;</p> <p>b. number of vendors made aware of sustainable development benefits during fiscal year;</p> <p>c. number of sustainable development training courses developed and/or participated in;</p> <p>d. number and proportion of employees who have received sustainable development procurement training.</p>
<p>Pollution Prevention and Human Health Protection</p> <p><i>A department would need to protect the health and environment of Manitobans from possible adverse effects of their operations and activities, and provide a safe and healthy working environment by: (see adjacent description)</i></p>	<p>a. <i>reducing their purchase and use of toxic substances; and</i></p> <p>b. <i>reducing solid waste sent to landfill from Government of Manitoba owned or leased facilities occupied by the department.</i></p>	<p>a. total value of purchases of substances designated as toxic;</p> <p>b. total number of environmentally friendly replacement products introduced;</p> <p>c. proportion of solid waste diverted from landfill;</p> <p>d. reduction in annual amount of solid waste sent to disposal;</p> <p>e. number and percentage of buildings subject to/with waste reduction programs; and</p> <p>d. number of construction, renovation and demolition projects with waste diversion programs.</p>
<p>Reduction of Fossil Fuel Emissions</p> <p><i>A department would need to reduce fossil fuel emissions of their operations and activities by:</i></p>	<p>a. <i>reducing both consumption and emissions of vehicle fuels; and</i></p> <p>b. <i>as a substitute for regular fuels, increase their use of ethanol-blended fuels and alternative energy sources.</i></p>	<p>a. number of vehicles by type;</p> <p>b. reduction in annual amount of consumption and emissions of vehicle fuels;</p> <p>c. total vehicle fuel purchase by type;</p> <p>d. percent of Ethanol fuel purchase; and</p> <p>e. number and percent of alternative fuel vehicles.</p>
<p>Resource Conservation</p> <p><i>A department would need to reduce their use and consumption of resources in a sustainable and environmentally preferable manner</i></p>	<p>a. <i>reduce the total annual consumption of utilities including natural gas, electricity, propane, fuel oil and water in all leased or owned Government of Manitoba buildings and premises occupied by the department; and</i></p> <p>b. <i>within the context of reduced resource use,</i></p>	<p>a. number and percent of facilities subject to; water and energy savings audit;</p> <p>b. number and percent of facilities having completed or undergoing a water and energy savings audit;</p> <p>c. number and percent of facilities having completed or undergoing a water and energy savings retrofit;</p>

Goal	Description	Possible Activities to Report On
<i>by:</i>	<i>increase the proportion of environmentally preferable products and environmentally preferable services used by the department.</i>	<ul style="list-style-type: none"> d. amount and percentage of water and energy saved; e. total value of purchases of environmentally responsible goods and services; and f. total number of environmentally preferable products and services used by government.
<p>Community Economic Development</p> <p><i>A department would need to ensure that their procurement practices foster and sustain community economic development by:</i></p>	<ul style="list-style-type: none"> a. <i>increasing the participation of Aboriginal peoples and suppliers in providing for the department's goods and services needs;</i> b. <i>assisting in the development and growth of local environmental industries and markets for environmentally preferable products and services; and</i> c. <i>increasing the participation of small businesses, community based businesses and Co-ops in the department's procurement opportunities.</i> 	<ul style="list-style-type: none"> a. total value of Aboriginal Procurement Initiative goods and services purchased; b. total number of Aboriginal Procurement Initiative vendors used; c. total value of Environmental Industries goods and services purchased; d. total number of Environmental Industries vendors used; e. total value of Community Economic Development Businesses goods and services purchased; and f. total number of designated vendors used.

2.2 Key Insights from Corporate Sustainability / Social Responsibility / Accountability Reporting

As societies we manage what we measure, and we measure what we care about. Frameworks used for corporate reporting on social responsibility / sustainability / accountability can provide useful insight into focal areas for stewardship planning efforts. These reports reflect what a corporation, be it private or public, believes is important to manage, influenced both by its own needs and the needs of those who are impacted by its business operations and products.

This section explores some of the frameworks used in the field of corporate reporting. The field itself is in a constant state of evolution. What was once a focus on environmental reporting in the early 1990s has evolved today into reporting on collective economic, social and environmental performance. This type of reporting has several names, most notably corporate social responsibility, corporate sustainability, and public accountability reporting.

Corporate Sustainability Reporting

A report of the economic, social and environmental performance of corporation. Based on the principles of sustainable development, namely: "...take account of the interrelationships between people, resources, environment, and development" and "development that meets the needs of the present without compromising the ability of future generations to meet their own needs (WCED 1987)"

Corporate Social Responsibility Reports

"business' commitment to contribute to sustainable economic development, working with employees, their families, the local community, and society at large to improve their quality of life (WBCSD 2005)."

Public Accountability Statements

Under the Bank Act, Canadian banks are required to issue a Public Accountability Statement (PAS) for clients and other interested stakeholders, to outline a bank's contribution to the economy and to Canadian society.

The evolution of corporate reporting has been pressured by the need to meet global priorities and stakeholder information needs and the pace at which this evolution occurs is dependent on the level of time and effort that can be awarded. A 1993 report prepared by SustainAbility, IISD and Deloitte Touche Tohmatsu developed the concept of the states response. Figure 1-2 illustrates this concept. Stages 1 and 2 are characterized by short environmental statements and policies. These first efforts gradually evolve through an emergence of annual environmental reporting, through to reporting on economic, social and environmental performance, and finally to a reporting on the linkages among the three dimensions of reporting.

Many of the larger private and public sector organizations have arrived at the later stages of reporting as depicted on Figure 1-1. One example is PotashCorp in Saskatchewan which has been awarded top honours for corporate sustainability reporting in Canada by the Canadian Institute of Chartered Accountants. PotashCorp, like many other corporations, are basing their efforts on the guidelines for sustainability reporting put forth by the Global Reporting Initiative. The reporting frameworks of the PotashCorp and the GRI are summarized below to provide insight into focal areas for departmental stewardship planning in the Saskatchewan government.

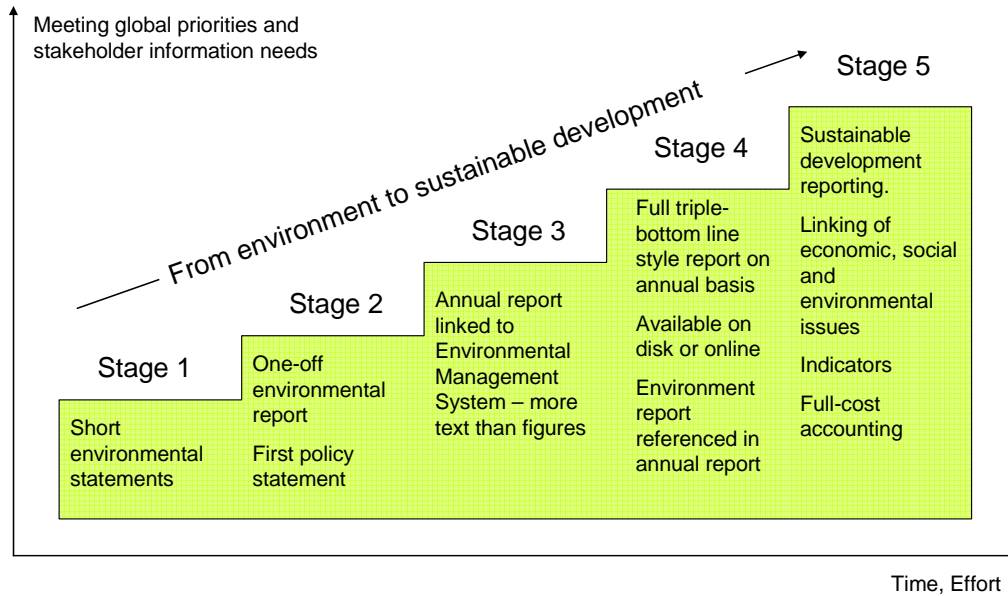


Figure 1-1. The evolution of environment and sustainable development reporting

2.2.1 Public Reporting Guidelines

Aligned with the evolution in reporting illustrated on Figure 1, public reporting guidelines have evolved from a focus on environmental reporting to reporting on sustainable development (e.g., the triple-bottom-line). In 1993 the Public Environmental Reporting Initiative (PERI) was created by a number of companies from different industry sectors. The initiative provided a tool for organizations to produce a balanced perspective on their environmental policies, practices and performance. The framework that emerged from this environmental reporting initiative included the following categories:

- Organizational profile
- Environmental policy
- Environmental management
- Environmental releases
- Resource conservation

- Environmental risk management
- Environmental compliance
- Product stewardship
- Employee recognition
- Stakeholder involvement

A few years later, the Global Reporting Initiative (GRI) was created to develop a common framework for sustainability reporting. The GRI is a multi-stakeholder process and independent institution whose mission is to develop and disseminate globally applicable Sustainability Reporting Guidelines (GRI 2005).

The framework for sustainability reporting that emerged from this initiative includes four categories:

- Economic
- Social
- Environmental
- Governance and management systems

Within these four categories are several aspects and each aspect has a list of recommended indicators associated with it. Table 2-3 lists the aspects for each category of the reporting framework. Over 700 organizations worldwide have used the GRI reporting framework for their reporting efforts. While the vast majority of these organizations are private sector companies, public agencies are also beginning to use the reporting framework. Table 2-4 lists these agencies.

Table 2-3. Reporting Framework of the Global Reporting Initiative

Category	Aspect
Economic	<ul style="list-style-type: none"> ▪ Customers ▪ Suppliers ▪ Employees ▪ Providers of Capital ▪ Public Sector
Social	Labour practices and decent work <ul style="list-style-type: none"> ▪ Employment ▪ Labour/Management Relations ▪ Health and Safety ▪ Training and Education ▪ Diversity and Opportunity Human Rights <ul style="list-style-type: none"> ▪ Strategy and management ▪ Non-discrimination ▪ Freedom of Association and Collective Bargaining ▪ Child Labour ▪ Forced and Compulsory Labour ▪ Disciplinary Practices ▪ Security Practices ▪ Indigenous Rights Society

	<ul style="list-style-type: none"> ▪ Community ▪ Bribery and corruption ▪ Political contributions ▪ Competition and pricing Product Responsibility <ul style="list-style-type: none"> ▪ Customer health and safety ▪ Products and services ▪ Advertising ▪ Respect for Privacy
Environmental	<ul style="list-style-type: none"> ▪ Materials ▪ Energy ▪ Water ▪ Biodiversity ▪ Emissions, Effluents, and Waste ▪ Suppliers ▪ Products and Services ▪ Compliance ▪ Transport ▪ Overall
Governance Structure and Management Systems	Structure and governance Stakeholder engagement Overarching policies and management systems

Table 2-4. Listing of Public Agencies Using GRI Reporting Framework

Public Agencies - Report Accessible	Country
Architectural Services Department, HKSARG - GRI not specified	China
ASOCIACION CHILENA DE SEGURIDAD (ACHS)	Chile
Australia Commonwealth Department of Family & Community Services (FaCS)	Australia
Greater Vancouver Regional District	Canada
NHS Purchasing and Supply Agency	United Kingdom
Public Agencies - Report not accessible	
Bundesministerium für Land- und Forstwirtschaft, Umwelt und Wasserwirtschaft	Austria
City of Tampere - no engl	Finland
Department of the Environment and Heritage (DEH)	Australia
Development Bank of Japan	Japan
New Zealand's Ministry for the Environment	New Zealand
UK Ministry of Defence	United Kingdom
Selected Private Companies - Canada - Report Accessible	
Potash Corp	Canada
Alcan	Canada

Suncor	Canada
Royal Bank of Canada	Canada

2.2.2 Potash Corp, Saskatchewan

In 2005 PotashCorp issued its third sustainability report entitled Beyond the Boardroom. This report details PotashCorp's "economic, social and safety, health and environmental performance in 2004, and outlines sustainability goals for the future." For its reporting efforts in the previous year, the Canadian Institute of Chartered Accountants (CICA) presented PotashCorp with "Awards of Excellence for its website and annual report, and the overall Award of Excellence for Canada's best corporate reporting program. Annual reports, sustainability reports, websites and corporate governance materials of 113 companies traded on the Toronto Stock Exchange were evaluated. CICA also awarded PotashCorp its 2004 Award of Excellence for sustainability reporting."

Like many other organizations, PotashCorp uses the GRI reporting framework to help focus how it reports on its progress toward social responsibility and sustainability. Appendix 1 lists the performance indicators tracked by PotashCorp for economic, social, environmental performance, and governance structures and management systems performance.

The performance indicators, in addition to providing data and trends on a multi-dimensional corporate performance, provides the foundation for future corporate planning and goal setting related to sustainable development. In other words, the sustainability report is also a planning tool for the corporation. For each of the GRI categories, PotashCorp assesses its performance "relative to the previous years targets and sets new goals and targets for the coming year to improve performance." These targets are listed in Appendix 1 following the performance indicators.

An important feature of PotashCorp's corporate wide sustainability reporting is its systematic site specific reporting. For each of its potash, nitrogen and phosphate sites (of which there are approximately 20), a subset of the economic, social, environmental and governance performance measures are reported on. An example of a site-specific sustainability report is shown in Table 2-5.

Table 2-5. Site-specific performance measures for the Allan Potash Mine in Saskatchewan

Performance Trends			
	2002	2003	2004
Annual Production (tonnes KCl)	863,520	933,971	1,344,017
Employment			
# of employees	272	270	285
Average tenure (years)	21.7	21.7	19.4
Gender ratio (% female/total employees)	3.0%	3.0%	3.0%
Absenteeism rate (% hours absent)	7.0%	5.4%	6.1%
Employee training provided (hrs per employee)	54	55	110
Safety Performance			
Lost-Time frequency (per 200,000 hrs)	1.7	0	0
Recordable frequency (per 200,000 hrs)	8.6	4.5	3.6
Greenhouse Gas Emissions			
GHG emissions (000 tonne CO ₂ equivalent)	64.3	62.8	81.2
Normalized GHGs (GHGs/tonnes production)	0.07	0.07	0.06
NPRI Air Pollutants (tonnes)			
Nitrogen oxides	49.8	53.9	68.4
Carbon monoxide	42.4	43.4	58.5
Particulates (dust)	312.7	300.3	352.1
Volatile organic compounds	56.6	53.9	71.1
Waste to Land (000 tonnes)			
Waste salt to storage	1,293	1,079	1,696
Clay waste	120	130	177
Salt in brine injection well	259	647	645
Water Use (000 cubic meters)			
River water	1,233	1,317	1,653
Environmental Expenditures (\$Cdn)			
Operating expenditures	\$1,060,000	\$1,080,000	\$2,750,000
Capital expenditures	\$905,000	\$15,000	\$0
Energy			
Energy costs (\$Cdn)	\$8.8 million	\$12.2 million	\$14.9 million
Energy use (TJ)	1,405	1,514	1,890
Energy efficiency (GJ/tonne production)	1.6	1.6	1.4
Procurement			
Local purchasing (\$Cdn)	\$18.3 million	\$22.5 million	\$20.2 million

2.2.3 New South Wales, Australia

In November 2005 the Public Accounts Committee of the state of New South Wales, Australia released its report on Sustainability Reporting in the New South Wales Public Sector. As part of this report, the committee conducted study tours in Canada and abroad

and in addition “received information about the sustainability reporting actions being undertaken by individual NSW government agencies and the benefits flowing from these actions. The inquiry sought to understand the extent of sustainability reporting, how it is supported and how robust and effective it is (NSW-PAC 2005).”

The committee tabled seven recommendations to the government of New South Wales. These recommendations are tabled in Box 2-1. The committee noted that “during the inquiry, many witnesses urged the adoption of a whole of government approach to sustainability as well as sustainability reporting within this State (Recommendation 1).” Additionally, the committee recommended that the “NSW Treasury consider adapting budget reporting processes, specifically the ‘Results and Services Plan’ methodology, so that results can include integrated social, economic and environmental outcomes (Recommendation 5).”

The committee recommended (Recommendation 2) that a common framework be used for assessing the sustainability of the internal operations of agencies (Table 2-6). A detailed listing of the indicators monitored under each aspect are included as Appendix B. They reported that “most if not all of the social, environmental and economic indicators identified below are reported on by the NSW Government agencies undertaking sustainability reporting that gave evidence to the Committee. They are also being reported by agencies at the Commonwealth Government level undertaking sustainability reporting, specifically Department of Family and Community Services and Department of Environment and Heritage.”

Table 2-6. Framework for assessing the sustainability of internal operations of agencies – Recommendation of the Public Accounts Committee, Government of New South Wales.

Social	Environmental	Economic	Public Sector Process
Workforce compensation	Environmental management system	Payroll	Defining and explaining sustainable development
Workforce retention	Energy Use	Purchasing	Aspects of public policy addressed
Workforce Planning	Greenhouse gas emissions	Contract management	Organizational goals for sustainable development
Workplace diversity	Vehicles in fleet	Debt	Management
Diversity in management structures	Travel	Liability management	Decision-making
Workplace democracy	Paper consumption	Investment in infrastructure	Implementation and assessment
Workforce training	Waste and recycling	Donations and sponsorships	Stakeholder engagement
Occupational Health & Safety	Water use		
Participation in the community	Land use		
Client satisfaction			
Anti-corruption			

Box 2-1. Recommendations of the Public Accounts Committee – New South Wales, Australia – Sustainability Reporting in the NSW Public Sector (NSW-PAC 2005).

RECOMMENDATION 1: That a whole of government framework for sustainability reporting be introduced for the New South Wales public sector, and that the framework should include:

- the development of Sustainability Action Plans to encourage integration and annual reporting by agencies of social, environmental and economic dimensions in their internal operations and their sustainability impact and influence upon the broader community;
- mandated sustainability reporting for all agencies, phased in according to a clear timetable and process;
- clear guidance and directions provided to agencies as to the Government's expectations of their role in sustainability reporting; and
- an annual whole of government sustainability report to Parliament.

RECOMMENDATION 2: That

- (a) the set of common indicators at Appendix Three be considered as the basis of indicators for internal agency operations and
- (b) individual agencies are encouraged to develop specific indicators addressing the sustainability effects of agency outcomes, in accordance with government guidelines.

RECOMMENDATION 3: That

- (a) the Premier's Department be the central government agency coordinating development of the government's whole of government sustainability reporting framework and approach; and
- (b) the Premier's Department be resourced appropriately to provide the guidelines, focus, people and skills to fully develop the framework; request agency Sustainability Action Plans; and collate individual sustainability reports and other necessary information from agencies to provide an annual whole of government sustainability report to Parliament.

RECOMMENDATION 4: That

- (a) NSW government agencies' sustainability reports should become an integral part of their annual reports to Parliament,
- (b) central agency guidelines for annual reporting should be reviewed and re-issued to reflect this shift in focus and
- (c) a key result of the whole of government approach to sustainability reporting should be an annual report to the Parliament on the sustainability of the NSW public sector, collated and researched by the Premier's Department.

RECOMMENDATION 5: That NSW Treasury consider adapting Budget reporting processes, specifically the 'Results and Services Plan' methodology, so that results can include integrated social, economic and environmental outcomes.

RECOMMENDATION 6: That the Premier's Department, in its coordination role for sustainability reporting, consider the use of targets and benchmarks to assist in providing feedback to agencies for improved performance.

RECOMMENDATION 7: That the Government consider the need for sustainability reports to be audited, and as it would be the most efficient for the State's dedicated professional auditing agency, the NSW Audit Office, to do this, then the powers of the Auditor-General should be appropriately enhanced.

3. STEWARDSHIP PLANNING INSIGHTS FOR EXTERNAL INFLUENCE

Stewardship planning as it relates to the internal operations, or “estate” of government represents only part of the impact (positive or negative) that government can have on the environment and sustainable development. Albeit, the larger the internal operations/estate of the government, the larger the potential impact. But it is typically smaller in comparison to the impact that public policies, programs and plans have on economic, social and environmental conditions in a community, province or country.

As the Public Accounts Committee of the New South Wales government so aptly remarks on their internal related measures, “these ‘operational’ indicators represent only the internal operational component of sustainability reporting recommended by the Committee for NSW public sector agencies. As indicated in the recommendations, individual agencies should also be required to develop indicators of their sustainability influence in the community as a part of their Sustainability Action Plans.”

The August 2005 discussion paper on Stewardship Planning prepared by Sask. Environment highlighted that external influence of government on the economy, society and the environment occurs through the public policies, legislation, plans and budgets that each department delivers as part of their service to the public.

There appear to be two main mechanisms by which governments are acting to ensure that the above services contribute to the overall enhancement of the environment and sustainable development, namely: strategic assessment aimed at individual policies, programs and plans; sustainable development strategies/action plans aimed at higher level strategic and coordinated action. Key insights from these and other mechanisms are introduced below.

3.1 Key Insights from Sustainable Development Strategies / Action Plans

A sustainable development strategy or action plan goes beyond a focus on the internal operations of an agency. The content of the strategy is tied to a desired change in the state of the environment, society and the economy that is under the jurisdiction of the respective government. It is essentially a holistic lens on the public policies and program services that a government department delivers and proposes to deliver to the public. The holistic lens can be incorporated directly into the annual departmental business plan, as is being proposed by the government of New South Wales, or it can serve as an overarching guide to business planning / reports on plans and priorities, such as in the case of the federal government of Canada.

Research conducted in 2004 by IISD on national strategies for sustainable development in 19 countries suggests that the latter approach has limited impact on what is actually delivered by departments. However, the research also suggests that there are few

examples of the former (e.g., where sustainable development is used as the framework for developing departmental business).

The question of how to incorporate the holistic lens is a critical strategic question that needs to be addressed at the outset. However, for purposes of this research report, the frameworks used to develop the holistic lens are the focus to help inform the development of a template for departmental stewardship planning in the Saskatchewan government.

For this purpose it is helpful to look at frameworks used for creating departmental sustainable development strategies in Canada as required under the Auditor Generals Act, and for reporting on sustainable development activities in Manitoba as required under the Manitoba Sustainable Development Act.

3.1.1 Departmental Sustainable Development Strategies for Canada's federal Government

In 1995, the Government released *A Guide to Green Government*, which outlines the federal government's expectations for the content of each Strategy, as well as the process for its development (Box 1).⁶ The Guide was signed by all Cabinet Ministers, and states that "achieving sustainable development requires an approach to public policy that is comprehensive, integrated, open and accountable." (Government of Canada 1995).

A Guide to Green Government also outlines five key objectives with respect to sustainable development, which are intended to serve as a common starting point for departmental Strategies, and to serve as a foundation from which additional and more concrete commitments can be established. The five objectives are (Government of Canada, 1995):

- Sustaining natural resources: sustainable jobs, communities and industries;
- Protecting the health of Canadians and of ecosystems;
- Meeting international obligations;
- Promoting equity; and
- Improving quality of life and well-being

The departmental commitments, presented in the form of goals, objectives, targets and actions, constitute the bulk of each strategy. The commitments describe how each department intends to reduce the impacts of internal operations, as well as promote sustainable development through its policies and programs. Departments are encouraged to develop long-term as well as interim targets, with updates on progress provided every three years.

Despite the guidance provided by the Treasury Board Secretariat, departments and agencies that have been tabling SDSs have not consistently followed the recommended

⁶ This statement and the following paragraphs on the *Guide to Green Government* are excerpts from a case study prepared by Stratos Inc., available at http://www.iisd.org/pdf/2004/measure_sdsip_canada.pdf.

reporting format. Departments have had difficulty in identifying relevant and measurable commitments, and have often failed to demonstrate understanding of sustainable development in the context of their mandate. Later attempts to provide additional guidance on the development and content of sustainable development strategies have not been successful in remedying the relatively low level of buy-in from government departments.

Box 3-1. Recommended Elements of Departmental Sustainable Development Strategies (Government of Canada, 1995)

Departmental Profile

- Identification of what the department does and how it does it

Issue Scan

- Assessment of the department's activities in terms of their impact on sustainable development

Consultations

- The perspective of clients, partners and other stakeholders on departmental priorities for sustainable development and how to achieve them

Goals, Objectives and Targets

- Identification of the department's goals and objectives for sustainable development, including benchmarks it will use for measuring performance

Action Plan

- How the department will translate its sustainable development targets into measurable results, including specific policy, program, legislative, regulatory and operational changes

3.1.2 Reporting on Sustainable Development Activities in Manitoba Government Departments

Section 1.1.3 of this research report presented Manitoba's Sustainable Development Act and the guidelines for departments to report on sustainable development activities. The procurement goals were presented in this section, but in addition to these goals, there were 13 other principles and guidelines which departments are asked to report on. These principles and guidelines apply both to the internal operations of the department and its external influence within Manitoba, nationally and globally.

The sustainable development principles and guidelines include the following:

1. Integration of Environmental and Economic Decisions
2. Stewardship
3. Shared Responsibility and Understanding,

4. Prevention
5. Conservation and Enhancement
6. Rehabilitation and Reclamation
7. Global responsibility
8. Efficient Uses of Resources
9. Public Participation
10. Access to Information
11. Integrated Decision Making and Planning
12. Waste Minimization and Substitution
13. Research and Innovation

To meet the intent of these principles and guidelines, each department would need to carry out its function, both internally and externally, in a manner consistent with the intent of the principle or guideline. A summary of the intent of each of the 13 principles and guidelines is summarized in Table 3-1.

Table 3-1. Sustainable development principles and guidelines for departmental reporting in Manitoba (government of Manitoba 2003).

Principle or Guideline	Description
1. Integration of Environmental (Social, Health) and Economic Decisions	<i>To meet the intent of Principle # 1, a Department would need to ensure:</i> a. <i>its economic decisions and activities adequately reflect environmental, human health and social effects; and</i> b. <i>its environmental and health decisions, activities and initiatives adequately take into account economic, human health and social consequences.</i>
2. Stewardship	<i>To meet the intent of Principle # 2, a Department would need to ensure:</i> a. <i>its plans, policies and decisions ensure the economy, the environment, human health and social well being are managed for the equal benefit of present and future generations; and</i> b. <i>its decisions are balanced with tomorrow's effects.</i>
3. Shared Responsibility and Understanding	<i>To meet the intent of Principle # 3, a Department would need to ensure:</i> a. <i>it takes responsibility for sustaining the economy, the environment, human health and social well-being and be accountable for its decisions and actions in a spirit of partnership and open cooperation with all Manitobans;</i> b. <i>its decisions and activities reflect Manitoba's shared common economic, physical and social environment;</i> c. <i>it understands and respects differing economic and social views, values, traditions and aspirations in its decision making and activities; and</i> d. <i>it considers and reflects in its decisions and activities the aspirations, needs and views of the people of the various geographical and ethnic groups in Manitoba, including aboriginal peoples to facilitate equitable management of Manitoba's common resources.</i>
4. Prevention	<i>To meet the intent of Principle # 4, a Department would need to ensure:</i> a. <i>its activities and decisions and legislation anticipate, and prevent or mitigate, significant adverse economic, environmental, human health and social effects, and</i> b. <i>have particular careful regard to its decisions and actions whose impacts are not entirely certain but which, on reasonable and well-informed grounds, appear to pose serious threats to the economy, the environment, human health and social well-being.</i>
5. Conservation and Enhancement	<i>To meet the intent of Principle # 5, a Department would need to ensure:</i> a. <i>its activities and decisions maintain the ecological processes, biological diversity and life-support systems of the environment;</i> b. <i>that renewable natural resources are harvested on a sustainable yield basis;</i> c. <i>that those persons who have been allocated provincial resources make wise and efficient use of them; and</i> d. <i>its programs and activities enhance the long-term productive capability, quality and capacity of natural ecosystems.</i>

6. Rehabilitation and Reclamation	<p>To meet the intent of Principle # 6, a Department would need to ensure:</p> <ul style="list-style-type: none"> a. it actively endeavours to repair or have repaired damage to, or degradation of, the environment; and b. that the Department builds into its future allocations of and plans for the use of resources the requirement to rehabilitate and reclaim areas and resources which may be damaged.
7. Global Responsibility	<p>To meet the intent of Principle # 7, a Department would need to ensure:</p> <ul style="list-style-type: none"> a. it thinks globally when acting locally, recognizing there is economic, ecological and social interdependence among provinces and nation; and b. it works cooperatively, within Canada and internationally, to integrate economic, environmental, human health and social factors in decision making while developing comprehensive and equitable solutions to problems.
8. Efficient Uses of Resources	<p>To meet the intent of Guidelines # 1, a Department would need to:</p> <ul style="list-style-type: none"> a. encourage and facilitate development and application and use of systems for proper resource pricing, demand management and resource allocation together with incentives to encourage efficient use of resources; and b. employ full-cost accounting to provide better information for decision makers.
9. Public Participation	<p>To meet the intent of Guideline # 2, a Department would need to:</p> <ul style="list-style-type: none"> a. use and establish forums which encourage and provide opportunity for consultation and meaningful participation in departmental decision making processes by Manitobans; b. provide due process, prior notification and appropriate and timely redress for those adversely affected by departmental decisions and actions; and c. strive to achieve consensus amongst citizens and the department with regard to decisions affecting them.
10. Access to Information	<p>To meet the intent of Guideline # 3, a Department would need to:</p> <ul style="list-style-type: none"> a. improve and refine economic, environmental, human health and social information related to natural resources and the environment; and b. provide and promote the opportunity for equal and timely access to its information by all Manitobans.
11. Integrated Decision Making and Planning	<p>To meet the intent of Guideline # 4, a Department would need to:</p> <ul style="list-style-type: none"> a. encourage, facilitate, establish and ensure its decision making and planning processes are efficient, timely, accountable and cross-sectoral; and b. incorporate into its decision making and planning an inter-generational perspective of future needs and consequences.
12. Waste Minimization and Substitution	<p>To meet the intent of Guideline # 5, a Department would need to:</p> <ul style="list-style-type: none"> a. encourage and promote, within and outside of the Department, the development and use of substitutes for scarce resources where such substitutes are both environmentally sound and economically viable; and b. reduce, reuse, recycle and recover the products the Department uses in its daily operations and encourage, promote and facilitate the 4 Rs in society generally.
13. Research and	<p>To meet the intent of Guideline # 6, a Department would need to:</p>

Innovation	<i>a. encourage and assist in the research, development, application and sharing of knowledge and technologies which further economic, environmental, human health and social well-being.</i>
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3.1.3 Oregon Benchmarks

Oregon Benchmarks is a process which “measure progress towards Oregon’s strategic vision, Oregon Shines (Government of Oregon 2005).” The strategic vision has three goals:

- quality jobs for all Oregonians
- safe, caring and engaged communities, and
- healthy, sustainable surroundings.

The Oregon Measures include 90 indicators under seven categories, namely:

- Economy
- Education Report
- Civic Engagement
- Social Support
- Public Safety
- Community Development
- Environment

The measures are designed to “help to provide the long view perspective in solving economic, social and environmental problems. In addition, Oregon Benchmarks are used for a broad array of policymaking and budget-related activities. Oregon state agencies are required to link their key performance measures to them.” Its 2005 progress report is entitled “Achieving the Oregon Shine’s Vision: the 2005 Benchmark Performance Report – Report to the Oregon Legislature and the People of Oregon.”

A complete listing of the Oregon Measures is provided in Appendix C.

3.2 Key Insights from Strategic Assessment in Government

Strategic Environmental Assessment is a screening tool used by some governments to assess the environmental impacts of proposed policies, programs and plans before they are submitted to cabinet for approval. The Canadian government has such an assessment tool, as do many countries in the European Union. Similar to corporate reporting, strategic assessments are evolving to more holistic assessments to include the social and economic impacts of policies, programs and plans. Such assessments are being referred to as *Strategic Sustainability Assessment* as in the case of Switzerland, or *Integrated Policy Appraisal* as in the case of the United Kingdom.

3.2.1 Strategic Environmental Assessment in the Canadian Federal Government

One of the key drivers for integrating sustainable development considerations into departmental plans and priorities is the *Cabinet Directive on the Environmental Assessment of Policy, Plan and Program Proposals*. The *Directive* requires that government departments and agencies incorporate environmental considerations (i.e. through Strategic Environmental Assessment) in their reviews of policy, plan and program proposals. As of January 1, 2004, departments and agencies are also required to prepare a public statement with respect to the results of a strategic environmental assessment, and are to report on both the positive and negative environmental effects of government proposals (Canadian Environmental Assessment Agency, 2004). Despite this requirement, SEAs are conducted sporadically, and the lack of enforcement from central government has limited consistent application of SEA for government proposals.

A government wide template for SEA has not yet been developed. Some departments have developed internal guidelines such as that prepared by Foreign Affairs Canada (DFAIT 2003).

Box 3-2. Step-by-step guide for Strategic Environmental Assessment developed and used by Foreign Affairs Canada

The following questions from section 2 of the guidelines are intended to assist policy officers in determining whether a proposal submitted to cabinet will have environmental impacts:

- 2.1 What are the intended outcomes of the proposal?
- 2.2 Are any of outcomes identified in 2.1 expected to have associated environmental impacts, either positive or negative?
 - **Air quality** - Could the proposal lead to changes in air quality? " Air" includes, for the purposes of analysis, local and regional air quality as affected by pollutants, including sulfur dioxide, nitrogen oxides, carbon monoxide, carbon dioxide and persistent organic pollutants.
 - **Water quality/quantity** - Could the proposal lead to changes in water quality or quantity? " Water" encompasses both freshwater and oceans, and includes both quality and quantity.
 - **Land use** - Could the proposal lead to changes in land use? " Land" encompasses both soil quality and land use.
 - **Climate change** - Could the proposal lead to climate change? The major greenhouse gas emissions that effect climate change are carbon dioxide, methane, nitrogen oxides, chlorofluorocarbons and halons.
 - **Biodiversity** - Could the proposal lead to changes in Biodiversity? Biodiversity refers to the number of species and encompasses all types of living organisms, including animals, plants and microorganisms. Activities can affect biota directly, or indirectly as in the case of soil erosion or changes in land use.
 - **Natural Resources** - Could the proposal lead to changes in the use or management of renewable and/or non-renewable natural resources? Renewable and non-renewable natural resources include forest, mineral and energy resources.
- 2.3 What is the significance of the positive and/or negative environmental impacts?
- 2.4 Can the environmental impacts identified in 2.2 be mitigated if negative, or enhanced if positive? If so, note the mitigation and/or enhancement options.
- 2.5 If mitigation and/or enhancement options are proposed, is a monitoring or follow up process recommended to ensure that the measures undertaken are effective?

- 2.6 Based on the foregoing information, is a more detailed environmental assessment warranted?
- 2.7 Summarize the environmental impacts of the proposal. This statement may be used for the " Environmental Considerations" section of the MC or TB submission.

When considering whether an environmental impact is significant or not (step 2.3 above), the following factors are considered:

- What is the magnitude of the impact?
 - is something being completely destroyed, or is the impact creating an inconvenience?
 - is an entire population or species involved?
- What is the geographical extent of the impact?
 - is the impact in one small area or global?
- What is the duration, rate and frequency of the impact?
 - will this impact last for a long time repeating itself every day or for an extended period, or is this a one time impact?
- Is the impact irreversible?
 - can the impact be remediated with ease or is an ecosystem component lost forever;
- What is the ecological context of the impacts?
 - is this a unique or important component of wildlife, or is a common and plentiful species.
- What is the degree of risk/uncertainty associated with the impact?
- Will the scale or timing of a program result in significant implications for the environment?

3.2.2 Swiss Sustainability Assessment

In response to Measure 22 in the Swiss National Sustainable Development Strategy, guidelines on completing “sustainability assessments” have been written (available in English on www.are.ch). The concept of sustainability assessment is to evaluate effects of draft legislation, concepts and projects in terms of the three dimensions of sustainable development and to indicate potential deficiencies early enough in the process to influence the direction taken.

The guidelines are already well accepted within the Department of Environment, Transport, Energy and Communication (DETEC). Ultimately, it is hoped that these guidelines can be used throughout the Swiss government in other sectors (Wachter 2004). The sustainability assessment procedure developed by the DETEC is summarized on Figure 3-1.

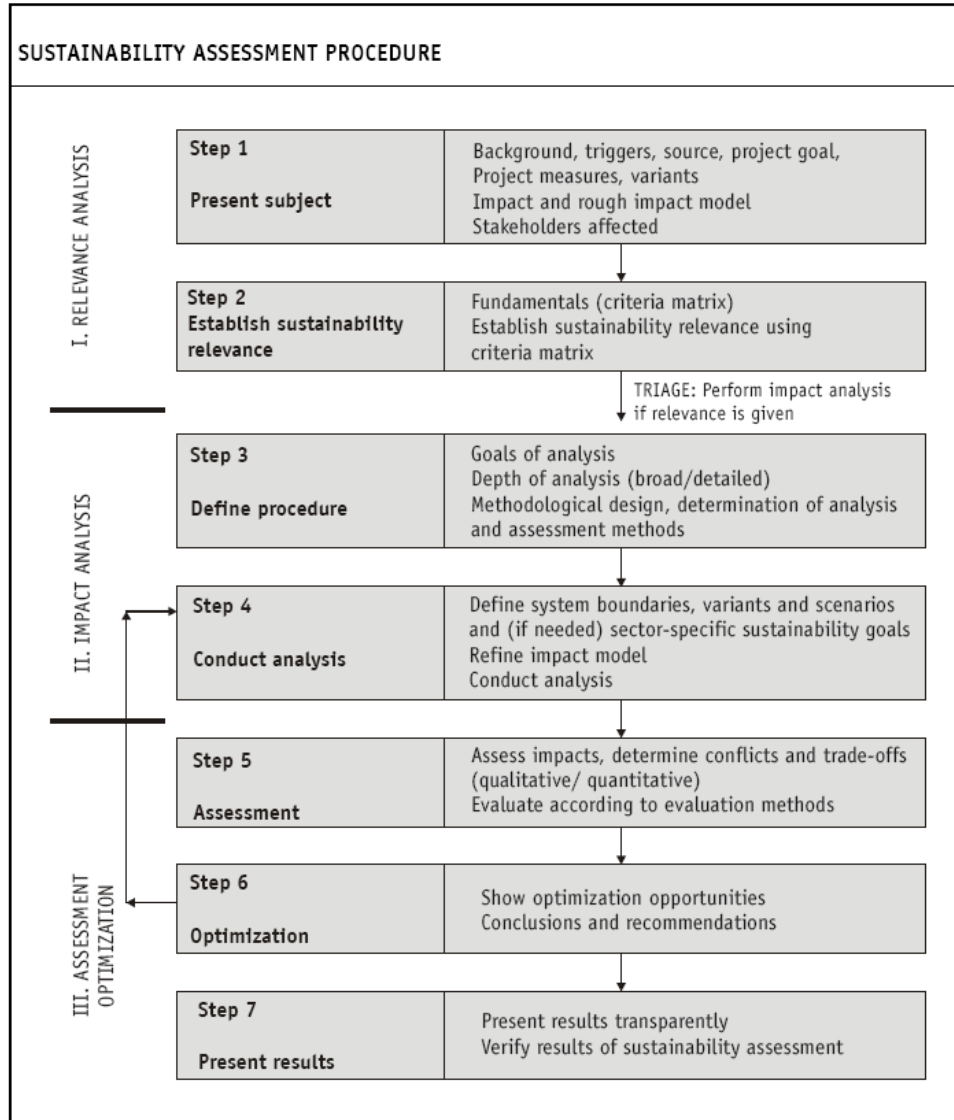


Figure 3-1. Swiss sustainability assessment procedure (from ARE 2004)

Step 2 involves establishing the sustainability relevance of the federal project. A uniform criteria matrix is used for this step which compares the potential impacts of the federal project to 15 criteria developed by the Swiss Federal Council for the National Sustainable Development Strategy. These criteria are listed in Table 3-2 below.

Table 3-2. Criteria of the Swiss Federal Council for the National Sustainable Development Strategy (ARE 2004).

Environment	Economy	Society
Env1 Biodiversity	Eco1 Per-capita GDP	Soc1 Education, learning ability
Env2 Climate	Eco2 Efficient infrastructure and services	Soc2 Health, welfare, security

Env3 Emissions	Eco3 Value-adding investment rate	Soc3 Liberty, independence, individuality
Env4 Landscape/cultural & natural landscape	Eco4 Long-term sustainable national debt	Soc4 Identity, culture
Env5 Water	Eco5 Resources efficiency	Soc5 Values
Env6 Materials, organisms, waste	Eco6 Competitiveness	Soc6 Solidarity, community
Env 7 Energy	Eco7 Workforce potential	Soc7 Openness, tolerance
Env 8 Soil, area, fertility	Eco8 Innovation, high-performance research	Soc8 Social security, poverty rate
Env9 Environmental risks	Eco9 Regulatory framework	Soc9 Equal opportunities, equality, participation

Depending on relevance a score from 0 to 3 is assigned. An example table developed for the European Union structural funds is illustrated on Table 3-3.

Table 3-3. Example relevance matrix used by the Swiss (ARE 2004)

ESTABLISHING RELEVANCE USING THE FEDERAL COUNCIL CRITERIA – EXAMPLE OF THE EU STRUCTURAL FUND					
Environment		Economy		Society	
Areas of natural importance, biodiversity	••	Income, employment	••	Health, security	••
Renewable resources	••	Productive capital	••	Education, identity	••
Non-renewable resources	••	Competition, innovation	•••	Culture, values	•
Water, soil, air, climate	••	Market mechanisms	•	Legal security, equality	••
Environmental disasters, risks	•	Public-sector enterprises	•	Solidarity	•••

3.2.3 Other Sustainability Assessment Frameworks

There are a variety of other frameworks and procedures that have been developed for assessing the sustainability of projects and policies. Two of these are introduced briefly below: the Seven Questions to Sustainability developed by IISD for the mining sector; and Multi-perspective Analysis compiled by Swanson (2002) as input into the Integrated Development Planning program being pursued by the Government of Saint Lucia.

The Seven Questions to Sustainability

The Mining Minerals and Sustainable Development (MMSD) project completed in 2002 was a two-year independent process initiated by nine of the world’s largest mining companies in an attempt to understand the mineral sector’s role in the global transition to sustainable development and to recommend an agenda for change to align the industry with this transition. The MMSD project was one of the largest attempts at a multi-stakeholder process in any global industrial sector.

The MMSD project’s North American initiative developed a sustainability assessment tool for existing and proposed mining projects. The Seven Questions to Sustainability as

it is referred to, provides a framework to assess the contribution of mining and minerals activities to sustainable development (Figure 3-2).



Figure 3-2. The Seven questions to sustainability (MMSD 2002)

Development of the Seven Questions to Sustainability (7QS) Assessment Framework was motivated by a desire to apply the ideas of sustainability in a practical way on the ground—in a way that is meaningful to explorer, mine manager, mill superintendent, community leader or public interest group⁷. To address this challenge, MMSD – North America convened a work group of 35 individuals representing a broad range of interests and charged them with developing a set of practical principles, criteria and/or indicators that could be used to guide or test mining/minerals activities in terms of their compatibility with concepts of sustainability.

Work on this front began with a review of 10 recent initiatives from government, the mining industry, non-government organizations, indigenous people and the financial services sector. Authors of seven of these contributions were at the table. After significant deliberation, seven topics were identified that were deemed essential for consideration. For each of these, a question was crafted to be applied to any given project or operation.

From the Seven Questions falls a hierarchy of objectives, indicators and specific metrics. Simultaneously, the starting point for assessing the degree of progress is provided by an “ideal answer” to the initial question. In this way a single, initial motivating question—is

⁷ This paragraph and those that follow are excerpts from IISD’s website available at <http://www.iisd.org/natres/mining/7qs.asp>

the net contribution to sustainability positive or negative over the long term?—cascades into progressively more detailed elements which can be tailored to the project or operation being assessed.

Multi-perspective Analysis

Similar in intent as strategic environmental and sustainability assessment, Swanson (2002) proposed *Multi-perspective Analysis* as an informal process that occurs even earlier on in the planning cycle than strategic assessment – at the conceptual stage – that helps development policy makers, strategists and planners to systematically think in multiple perspectives and therefore, help to promote the sustainability of development efforts.

More specifically, *Multi-perspective Analysis* was proposed as an informal list of questions that are created by and to help policy-makers, development strategists and program/project planners think in multiple perspectives. An example list of questions compiled by Swanson (2002) is presented in Table 3-4 and includes economic, social, environmental, cultural, spiritual, political, spatial and temporal perspectives.

The analysis tool was proposed to the government of St. Lucia as one integration element in their proposed *Integrated Development Planning (IDP)* program, an overarching program designed to “*a holistic, dynamic and participatory approach to development planning which seeks to integrate and coordinate economic, cultural, social, environmental, demographic, financial and spatial dimensions into the planning process to ensure effective and sustainable use of the available human, financial and natural resources for the common good (St. Lucia 1998).*”

The key challenge identified was how to introduce *Multi-perspective Analysis* in a manner that would not undermine the natural learning process. That is, one cannot simply one day demand that line ministries create development policies, strategies and plans that systematically consider multiple perspectives. Rather, the long-term viability of integrating multiple perspectives into the development planning process must be accomplished in a manner that: (1) allows line ministries to understand and appreciate the value of multiple perspectives; (2) builds legitimacy and support, both internally and externally; and (3) is within the constraints of operational capacity. The natural learning process therefore requires that the design and implementation of the integration effort be a parallel and learned process carried out from the inside, rather than a separate and prescriptive process, imposed from the outside by expert consultants.

Saint Lucia was faced with an economic downturn in the fall of 2002 owing to declining tourism revenues post 9/11 and to challenges in the banana trade industry. As such, funding for progress toward the proposed *Integrated Development Planning (IDP)* program was substantially cut back. At the time of this writing, there had been no further development or implementation of *Multi-perspective Analysis* as a tool within the IDP program.

Table 3-4. Example questions for a *Multi-perspective Analysis* assembled from various sustainability assessment frameworks (compiled by Swanson 2002)

ECONOMIC PERSPECTIVE

- **Physical:** Are infrastructures and technologies that enable economically efficient production understood and maintained or improved?^a
- **Macro:** Are effective and equitable organizations and institutions that contribute formally and informally to economic activity understood and maintained or created?^a and
- **Micro:** Are individual skills, knowledge, health and motivation understood and maintained or improved such as to enable access to diverse, productive and satisfying work and participation in other economic activities?^a

SOCIAL PERSPECTIVE

- **Human capital:** Are the skills, abilities, health and education of people in the community understood and maintained or improved?^b
- **Social capital:** Are the bonds, bridges and links of a community (i.e., the relationships of friends, families, neighborhoods, social groups, businesses, governments and their ability to cooperate, work together and interact in positive, meaningful ways) understood and maintained or improved?^b
- **Cultural capital:** Are the traditions, attainments and learned behaviors of a group of people understood and maintained or improved?
- **Spiritual capital:** Are the values and belief systems of a community understood and maintained or improved?

ENVIRONMENTAL PERSPECTIVE

- **Supply:** Are non-renewable resources depleted at a faster rate than allows for the development of appropriate substitutes?^a
- **Biodiversity:** Is the ecological basis for the diversity and productivity of natural systems understood and maintained and, where possible and appropriate, enhanced or restored?^a
- **Carrying Capacity:** Do emissions into air, soil and water exceed the capacity of natural systems, as determined by application of the precautionary principle, to disperse absorb, recycle or otherwise neutralize harmful effects?^a

POLITICAL PERSPECTIVE

- **Support:** Does this idea have internal/external political support? Who internally will support/oppose this idea?
- **Legitimacy:** Who internally and externally needs to be involved to make this idea legitimate? Has this individual/party been contacted?
- **Localization:** Have decisions been taken as close as possible to and with the people and communities most directly affected?^c

SPATIAL PERSPECTIVE

- Do I understand how the above perspectives may change when viewed locally, regionally, nationally and globally?
- **Management:** Is the appropriate scale for analyzing, strategizing and planning political (i.e., community, district, state, country) or ecological (i.e., watershed, coastal zone)?

TEMPORAL PERSPECTIVE

- **Historical:** Do I understand and appreciate the historical context of my idea?
 - **Present & Future:** Do I understand how these perspectives may change when viewed 5 years, 50 years and 100 years from now?
-

Sources: ^a Adapted from (Cheltenham Observatory 2001); ^b Adapted from (Sustainable Measures 2001); ^c Adapted from (MMSD 2002).

3.3 Environmental Outlooks (Forward-Looking Policy Analysis) as a Stewardship Planning Tool

The inter-generational principle of sustainable development places a demand on the development of policies, plans and programs for forward looking analysis. While many government finance departments do require financial outlooks typically of one year for budget estimates purposes, progress toward sustainable development requires that policy development consider the impacts (positive or negative) on both future and current generations.

For example, the government of Manitoba's Stewardship principle (#2, Table 3-1) requires government departments to ensure that "*its plans, policies and decisions ensure the economy, the environment, human health and social well being are managed for the equal benefit of present and future generations; and its decisions are balanced with tomorrow's effects.*"

Accomplishing the above requires policy tools that consider inter-generational timeframes. Such tools could include the setting of not only short-term policy targets, but medium and long-term targets as well. Additionally, systematic analysis of policy alternatives using scenario techniques can help sustainable development efforts considerably.

One example is the forward looking analysis (e.g., scenario analysis) methods used in global environmental assessments such as the Global Environment Outlook or the Millennium Ecosystem Assessment under the United Nations Environment Program. IISD's Measurement & Assessment program co-authored a training manual for the Global Environment Outlook program which covered simple scenario analysis techniques (e.g., environmental trend projections) and more complex modelling techniques using the Stella and PoleStar models (UNEP and 2000). IISD is currently coordinating an international team to update this training manual designed to help governments carry out integrated environmental assessments at the national and sub-national level.⁸ Included in this manual is a module specifically for building capacity on quantitative and qualitative scenario analysis, which should be available the summer of 2006.

3.4 Key Insights from Risk Assessment Frameworks

The August 2005 discussion paper on Stewardship Planning created by Sask. Environment highlighted that risk assessment would play an important role in helping "departments and agencies need to first consider the current extent of their environmental footprint and then create multi-year stewardship plans that tackle these issues, emphasizing those that create the greatest environmental risk."

⁸ The revised training manual is scheduled for completion in summer 2006. An international team of 9 lead authors and over 25 supporting authors is undertaking the revision, coordinated by IISD's Measurement and Assessment Program. The previous version of the training manual can be viewed at <http://www.iisd.org/publications/pub.aspx?id=310>.

The examples presented in Section 3 on external influence provided some insight into methodologies for assessing this risk. The Swiss *sustainability assessment* referred to this as a relevance matrix (Table 3-3) which applied relative rankings to a list of economic, social and environmental criteria identified as important in the Swiss National Sustainable Development Strategy. This type of matrix approach is common to most environmental impact assessment processes.

A component of departmental sustainable development strategies prepared by federal departments and agencies in Canada includes an issue scan which “involves a self-assessment of the department's policies, programs and operations in terms of their impact on sustainable development (Government of Canada 1995).” A set of broad objectives for sustainable development were put forth as a guide to departments in this issue scan and included the following:

- Sustaining Our Natural Resources - Sustainable Jobs, Communities and Industries
- Protecting the Health of Canadians and of Ecosystems
- Meeting Our International Obligations
- Promoting Equity
- Improving Our Quality of Life and Well-being

There does not appear to be a standard approach across the federal government for carrying out these issue scans, and given that there is no overarching national sustainable development strategy at the federal level, there is no detailed criteria list similar to Switzerland (e.g., Table 3-1) from which departments could base their issue scans.

One tool that could be potentially useful in carrying out departmental risk analysis is a variant of the **Driving forces-Pressure-State-Impact-Response** framework. This framework is being used by the Global Environment Outlook process of the United Nations Environment Program – Division of Early Warning and Assessment (refer to footnote on previous page for more information).

The current draft DPSIR analytical framework for the revised training manual is illustrated on Figure 3-3. The starting point for the integrated analysis of environmental trends and policies is a specific environmental STATE (e.g., air, water, land, biodiversity or climate). The societal activities which PRESSURE either positive or negative changes in an environmental state are identified, as are the broader processes which are the DRIVING FORCES behind these pressures. The changes that occur in a specific environmental state IMPACT on ecosystem services, which in turn, have impact on human wellbeing. Existing SOCIETAL ACTIONS have some influence on each of the DPSI components and a scan of these actions (a good portion of which are public policy instruments) is carried out to understand what is being done and how effective it is.

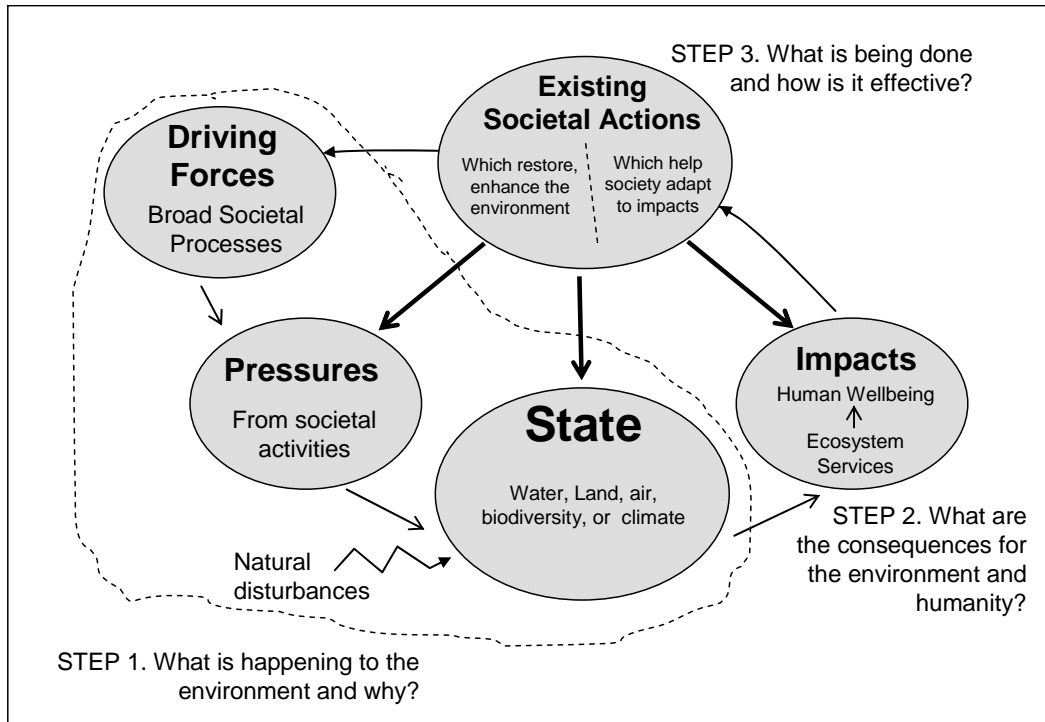


Figure 3-3. Draft DPSIR framework for the integrated analysis of environmental trends and policies (UNEP-IISD 2005).

Parts of such a framework could be envisaged to help departments and agencies understand their key environmental risks. The August discussion paper prepared by Sask. Environment already provided a preliminary glimpse as to what could be focused on in relation to environmental states (e.g., energy, waste, water, flora and fauna). An analysis of pressures focused on departmental internal operations and on the relative impacts due to changes in the environmental state could then help identify departmental risk priorities in terms of stewardship planning for internal operations. A scan of policy instruments (societal actions) currently being used by the department could be carried out to help understand the external influence of the department and to identify risk priorities in terms of external influence of the department.

The above approaches used by the Swiss, the Canadian government, and UNEP’s Global Environmental Outlook process are just a few examples of assessment techniques that could be used to help identify departmental environment risks. A more detailed review of other methods would provide a broader range of approaches that could be adopted or adapted.

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APPENDICES

Appendix A: PotashCorp, Saskatchewan - Sustainability Reporting Framework and Indicators

Appendix B: New South Wales, Australia – Recommended Sample Indicators for Assessing Sustainability of Agency Internal Operations

Appendix C: Oregon Benchmarks

Appendix A: PotashCorp, Saskatchewan - Sustainability Reporting Framework and Indicators

GRI Governance Performance Indicators	PotashCorp's Governance Performance 2004
Governance Structure	
<p>GRI 3.1 Governance structure of the organization, including major committees under the board of directors that are responsible for setting strategy and for oversight of the organization</p>	<p>The Board of Directors is responsible for supervising the successful management of the company's global business. In pursuing the best interest of the company, the board considers PotashCorp's customers, employees, suppliers and the communities and environment where it does business; recognizing that all are essential to a successful business.</p> <p>The board adopted a comprehensive statement of governance principles in 2003. Highlights are presented on page 14.</p> <p>All five board committees have responsibility for sustainability issues. These are the executive committee, corporate governance and nominating committee, safety, health and environment committee, compensation committee and audit committee.</p> <p>More information is provided on page 14.</p>
<p>GRI 3.2 Percentage of the board of directors that are independent, non-executive director</p>	<p>10 of the 12 board members are independent directors. Only the CEO and one outside director are not independent directors.</p> <p>The board's definition of an "independent" director is one who has no material relationship to the company. The board has adopted categorical standards to assist in making independence determinations.</p>
<p>GRI 3.3 Process for determining the expertise board members need to guide the strategic direction of the organization, including issues related to environmental and social risks and opportunities</p>	<p>The corporate governance and nominating committee conducts an annual review of the board's "needs matrix." This review includes consideration of whether there is an appropriate mix of talent on the board.</p> <p>Although directors may be elected to bring special expertise or a point of view to board deliberations, they are not chosen to represent a particular constituency but rather the best interests of the company and its shareholders.</p> <p>The board facilitates ongoing director education.</p>
<p>GRI 3.4 Board-level processes for overseeing the organization's identification and management of economic, environmental and social risks and opportunities</p>	<p>The audit committee oversees the company's major policies with respect to risk assessment and risk management.</p> <p>Management reports annually in September to the board, at a meeting convened for that purpose, on the nature of the risks faced by the company, the risk response options and how risks are being managed.</p> <p>In 2004, PotashCorp introduced a new integrated risk-management framework that focuses on identifying risks that could interfere with the successful implementation of the company's strategy. See page 15.</p>
Executive Compensation and Sustainability Performance	
<p>GRI 3.5 Linkage between executive compensation and achievement of the organization's financial and non-financial goals (e.g., environmental performance, labor practices)</p>	<p>The compensation committee annually reviews the Chief Executive Officer's performance in light of previously established goals and objectives, a number of which relate to sustainability performance (including improvement in all safety indicators, fostering a culture of integrity and social responsibility and providing leadership for the company with all stakeholder groups).</p> <p>Safety and environmental performance are factors in determining bonus awards to eligible managers at PotashCorp's production sites.</p>
Organization Structure	
<p>GRI 3.6 Organizational structure and key individuals responsible for oversight, implementation and audit of economic, environmental, social and related policies</p>	<p>The CEO is accountable to the board for PotashCorp's sustainability performance.</p> <p>PotashCorp has established a sustainability committee (composed of the COO and three other senior executives) to oversee the development of a sustainability framework for the company and take responsibility for public reporting on sustainability.</p> <p>The company has a corporate Vice President with specific responsibility for safety, health and the environment (SHE) and a Director of People Development. The company also has a Corporate Donations Committee.</p>

GRI Governance Performance Indicators		PotashCorp's Governance Performance 2004
Codes and Policies		
GRI 3.7	Mission and values statements, internally developed codes of conduct or principles, and policies relevant to economic, environmental and social performance and the status of implementation	<p>Sustainability considerations are embedded in PotashCorp's corporate vision and supported by specific codes and policies.</p> <p>PotashCorp's vision, values, codes of conduct, and specific policies that shape its sustainability performance are summarized on page 15.</p> <p>In 2004, the specific sustainability elements in these various codes and policies were integrated into a concise statement of PotashCorp's <i>Commitment to Sustainability</i>.</p>
Shareholder Resolutions		
GRI 3.8	Mechanisms for shareholders to provide recommendations or direction to the board of directors	<p>The company has a process for security holders to communicate with the board. Further details can be found on page 26 of the most recent proxy circular.</p> <p><i>The Canada Business Corporation Act</i> (section 137) provides a mechanism for shareholders who meet basic eligibility criteria to submit proposals for consideration at the company's annual meeting of shareholders. More information is provided in the company's proxy circular.</p> <p>Access to the company's directors is also available through PotashCorp's website (www.potashcorp.com) or by e-mail at directors@potashcorp.com.</p>
Stakeholder Engagement		
GRI 3.9	Basis for identification and selection of major stakeholders	<p>PotashCorp identifies major stakeholders as those that are essential to a successful business. Major stakeholders include employees, unions, customers, investors, suppliers, local communities, regulators and also critics.</p>
GRI 3.10	Approaches to stakeholder consultation reported in terms of frequency of consultations by type and by stakeholder group	<p>One of PotashCorp's <i>Core Values</i> stresses that the company listens to all stakeholders.</p> <p>PotashCorp undertakes many types of stakeholder engagement. These include customer surveys, meetings with investors, investor surveys, employee consultation, union-management meetings, community meetings and political engagement.</p>
GRI 3.11	Type of information generated by stakeholder consultations	<p>Examples of types of information gathered from stakeholders include investor perceptions about PotashCorp, customer satisfaction, customer needs, employee perceptions and community issues.</p> <p>More information is provided on page 17.</p>
GRI 3.12	Use of information resulting from stakeholder engagements	<p>Examples of how stakeholder feedback is processed within the company and how it has influenced specific decisions on policy or operations are provided on page 17.</p>
Overarching Policies and Management Systems		
Precautionary Approach/Approach to Risk Management		
GRI 3.13	Explanation of whether and how the precautionary approach or principle is addressed by the organization	<p>PotashCorp's approach to product responsibility stresses that its products are assessed for safety, health and environmental hazards and risks prior to marketing and distribution.</p> <p>The company completes risk assessments and manages risk through the use of appropriate mitigation measures. In 2004, for example, it chose to permanently stop producing ammonium nitrate for agricultural use due to the associated risks.</p> <p>PotashCorp also recognizes that environmental protection no longer focuses on production processes alone, but must cover the product life cycle. Its sustainability initiatives are responding accordingly. Among these initiatives are educational programs which stress the proper application of the company's fertilizer products.</p> <p>For more information, see page 18.</p>

GRI Governance Performance Indicators	PotashCorp's Governance Performance 2004
Voluntary Standards	
GRI 3.14 Externally developed, voluntary economic, environmental and social charters, sets of principles or other initiatives to which the organization subscribes or which it endorses	<p>Two facilities, Augusta and Lima, are ISO 9001 certified and one, Lima, is also ISO 14001 certified.</p> <p>The company's Lima and Aurora facilities are OSHA Voluntary Protection Program (VPP) Star Sites.</p> <p>PotashCorp subscribes to and endorses The Fertilizer Institute's <i>Security Code of Management Practices</i>.</p>
Memberships in Business and Industry Associations	
GRI 3.15 Principal memberships in industry and business associations, and/or national/international advocacy organizations	<p>PotashCorp has membership in a number of industry and lobbying associations.</p> <p>A listing can be found on page 19.</p>
Managing External Impacts	
GRI 3.16 Policies and/or systems for managing upstream and downstream impacts, including supply chain management and product stewardship	<p>PotashCorp is committed to developing and supporting programs and procedures that enable it to better manage its economic, environmental and social performance from its upstream suppliers to the downstream impacts created by its products.</p> <p>More information is provided on page 19.</p>
GRI 3.17 Organization's approach to managing indirect economic, environmental and social impacts resulting from its activities	<p>Impacts are managed through sustainable business practices throughout the organization; educational programs addressing responsible product use; and stakeholder engagement, particularly with respect to social and environmental issues.</p>
Major Operational Decisions	
GRI 3.18 Major decisions during the reporting period regarding the location of, or changes in, operations	<p>Major operational decisions in 2004 included:</p> <ul style="list-style-type: none"> - Adding extra shifts at Lanigan and Allan and continuing a production expansion at Rocanville, all designed to increase potash production. - Major expansions were approved for Trinidad in 2004 which will add a total of 270,000 tonnes of ammonia capacity. - The company continued the indefinite shutdown of nitrogen production at Memphis and of ammonia and nitrogen solutions production at Geismar. - The property of the Kinston phosphate feed plant in North Carolina, which ceased operations in 2003, was sold. - The 16-acre site of a former fertilizer blending facility that ceased operations in 1996 was sold to the City of Macon, Georgia. - PotashCorp concluded the sale of 100% of its shares in PCS Yumbes in Chile to SQM and increased its ownership share in SQM from 20% to 25%. <p>For more information see PotashCorp's 2004 Annual Report.</p>
Sustainability Programs and Procedures	
GRI 3.19 Programs and procedures pertaining to economic, environmental and social performance	<p>Key elements of PotashCorp's management systems for sustainability include: goal setting at the corporate and site levels; defining clear expectations under the SHE management system; awareness training and skill development programs; a Best Practices program; and performance monitoring and review. See page 20.</p>
Certification	
GRI 3.20 Status of certification pertaining to economic, environmental and social management systems	<p>Augusta nitrogen plant is ISO 9001 certified.</p> <p>Lima nitrogen plant is ISO 9001 certified.</p> <p>Lima nitrogen plant is also ISO 14001 certified.</p>

GRI Economic Performance Indicators		PotashCorp's Economic Performance 2004	
Customers			
EC1	Net sales	Net sales in 2004	\$ 2.9 billion
		Breakdown of sales by nutrient	
		Potash	30.8%
		Phosphate	30.2%
		Nitrogen	39.0%
EC2	Geographic breakdown of markets by volume	Potash markets	35% United States 4% Canada 61% Other
		Phosphate markets	65% United States 8% Canada 27% Other
		Nitrogen markets	93% United States 0.2% Canada 6.8% Other
Suppliers			
EC3	Cost of all goods, materials and services purchased	Total cost of goods purchased	\$ 1.7 billion
		Principal goods and services purchased	
		Natural gas	\$ 562.7 million
		Sulfur/sulfuric acid	\$ 129.3 million
		Electricity	\$ 108.7 million
		Freight services	\$ 238 million
		Contract services	\$ 115 million
EC4	Percentage of contracts that were paid in accordance with agreed terms, excluding agreed penalty arrangements	Typically, 98% of our payables are current (i.e. payable within 30 days of the invoice date) and 2% are delayed. Delayed invoices are normally due to disputes on quantity, price or delivery.	
EC11	Supplier breakdown by organization and country	Top 10 supplier organizations* 1. National Gas Co. natural gas 2. CN Railway Co. rail transportation 3. Overseas Marine Services ocean transport 4. Sequent Energy Management LLC natural gas 5. Koch Nitrogen nitrogen 6. Norfolk Southern Railway rail transportation 7. CSX Transportation rail transportation 8. IBE Trade Corp. ammonia 9. BP Energy Co. natural gas 10. BG LNG Services natural gas Main supplier countries are Trinidad, the United States, Canada and Venezuela. * Based on dollar value.	

GRI Economic Performance Indicators		PotashCorp's Economic Performance 2004	
Employees			
EC5	Total remuneration to employees, including benefits	Total compensation for 4,906 regular employees	\$ 386.7 million in 2004
		Compensation for 739 contract employees	\$ 60 million
		Country breakdown of regular employment	
		United States	2,668
		Canada	1,753
		Trinidad	395
		Brazil	79
		Chile	8
		Jordan	3
Providers of Capital			
EC6	Distributions	Total interest expense	\$ 84.0 million
		Net short-term debt	(\$ 1.8 million)
		Long-term debt	\$ 85.8 million
		Dividend payments	\$ 56.1 million
EC7	Increase/decrease in retained earnings at end of period	Net increase in retained earnings	\$ 238.7 million
Public Sector			
EC8	Total sum of taxes of all types paid broken down by country	Total taxes paid	\$ 172.5 million
		Country breakdown	
		Canada	\$ 131.2 million
		United States	\$ 23.1 million
		Trinidad	\$ 17.1 million
		All other countries	\$ 1.1 million
EC9	Subsidies received broken down by country or region	No subsidies were received.	
EC10	Donations to community, civil society and other groups broken down in terms of cash and in-kind donations	Total charitable community donations	\$ 3.4 million
		PotashCorp's cash donations	\$ 1.7 million
		PotashCorp's non-cash donations	\$ 1.3 million
		Employee cash donations	\$ 0.4 million

GRI Social Performance Indicators		PotashCorp's Social Performance 2004						
Employment and Decent Work								
LA1	Breakdown of workforce by region/country, status (employee/non-employee), employment type (full time/part time), etc.	<p>PotashCorp had 4,906 full-time regular employees at the end of 2004. In addition, 739 contract employees provided services to the company.</p> <p>The workforce is located mainly in the United States, Canada, Trinidad and Brazil. See page 33 for country breakdown.</p> <p>Most PotashCorp employees are hourly employees.</p>						
LA2	Net employment creation and average turnover	<p>PotashCorp's employment increased by two net jobs between the end of 2003 and the end of 2004.</p> <p>Employee turnover averaged 7.7% in 2004.</p>						
LA12	Employee benefits beyond those legally mandated	<p>PotashCorp complements and supplements those benefits provided or mandated by governments. Supplementary employee benefits include medical, life and disability insurance coverage, maternity benefits and education and retirement benefits.</p>						
Labor/Management Relations								
LA3	Percentage of employees represented by independent trade union organizations, broken down geographically	<p>34% of PotashCorp's regular employees were unionized in 2004.</p> <p>Geographic distribution of union members</p> <table border="0"> <tr> <td>Canada</td> <td>54%</td> </tr> <tr> <td>United States</td> <td>42%</td> </tr> <tr> <td>Brazil</td> <td>4%</td> </tr> </table>	Canada	54%	United States	42%	Brazil	4%
Canada	54%							
United States	42%							
Brazil	4%							
LA4	Policy and procedures involving information, consultation and negotiation with employees over changes in the reporting organization's operations (e.g., restructuring)	<p>PotashCorp informs employees of changes in the workplace through employee meetings, direct correspondence and through their unions. In its union agreements, PotashCorp is required to advise the union well in advance of any job elimination or introduction of new technology that could result in termination of union members.</p>						
LA13	Provision for formal worker representation in decision-making or management, including corporate governance	<p>Workers at all PotashCorp operations participate in various employee-management committees. At many unionized sites there are provisions for committee participation in the collective bargaining agreement.</p>						
Health and Safety								
LA5	Practices on recording and notification of occupational accidents and diseases. How they relate to the International Labor Organization's (ILO) Code of Practice on recording and notifying occupational accidents and disease	<p>The PotashCorp Safety, Health and Environmental (SHE) Management System prescribes specific, timely reporting requirements for all SHE events. It is substantially in compliance with the reporting and recording requirements of the ILO. PotashCorp is also subject to specific reporting and notification requirements in the host countries where it operates and follows those requirements.</p>						
LA6	Description of formal joint health and safety committees	<p>There are 42 joint committees across PotashCorp's operations that are involved in health and safety. Some are plant safety committees, some are BAPP* steering committees and others are occupational health and safety committees.</p> <p>*Behavioral Accident Prevention Process®</p>						

GRI Social Performance Indicators	PotashCorp's Social Performance 2004
Health and Safety <i>continued</i>	
LA7 Standard injury, lost day and absentee rates and number of work-related fatalities	PotashCorp's employees reduced the company's recordable injury and lost-time injury rate to record lows in 2004. For more information see page 59.
LA8 Description of policies and programs on HIV/AIDS	Under its <i>Code of Business Conduct</i> and <i>Respect in the Workplace</i> policy, PotashCorp does not discriminate or tolerate discrimination or harassment against employees or job applicants on any grounds including HIV status. In order to maintain a safe and healthy environment for all employees, the company provides training on the prevention of transmission of blood-borne pathogens to all employees with job duties that would place them in the position of being exposed to bodily fluid.
LA14 Evidence of substantial compliance with ILO Guidelines for occupational health management systems	PotashCorp's SHE management system is in substantial compliance with all the key elements of the ILO Guidelines for occupational health management systems.
LA15 Description of formal agreements covering workplace health and safety with trade unions or employee representatives	All PotashCorp operations have joint employee-management occupational health and safety committees. At most plants, the company has Plant Safety Committees and BAPP steering committees with employee representatives.
Training and Education	
LA9 Average hours of training per year per employee by category of employee	Employees received an average of 134 hours of training in 2004. The main types of training included safety training, skills development, operations training, apprenticeships, crisis/emergency response training, orientation training, hazardous materials training and environmental training.
LA16 Programs to support the continued employability of employees and to manage career endings	The company pays tuition costs for employees to take certain university and college programs which will enhance their ability to advance their careers. Outplacement services are provided for those employees who would benefit from this type of assistance.
Diversity and Opportunity	
LA10 Description of equal opportunity policies or programs and monitoring systems	PotashCorp does not allow any discrimination in the hiring, promotion, termination or compensation of employees. PotashCorp tracks workforce demographics only in the United States.
LA11 Composition of senior management and corporate governance bodies (including the board of directors), including female/male ratio and other indicators of diversity	<p>The Board of Directors has seven Canadian residents, four US residents and one resident of the Dominican Republic.</p> <p>Women comprise 25% of the Board of Directors.</p> <p>Women hold 38% of the senior management positions at PotashCorp.</p>
Human Rights	
<i>Strategy and Management</i>	
HR1 Description of policies, guidelines, corporate structure and procedures to deal with all aspects of human rights relevant to operations	PotashCorp's <i>Code of Conduct</i> and <i>Respect in the Workplace</i> policy provide guidance and rules for respecting human dignity and the rights of the individual. The <i>Code</i> is enforced at all levels and violations can result in dismissal.
<i>Non-Discrimination</i>	
HR4 Description of global policy, procedures or programs preventing all forms of discrimination in operations	PotashCorp's <i>Code of Business Conduct</i> states that the company will not tolerate any form of discrimination or harassment directed at any individual or group.

GRI Social Performance Indicators	PotashCorp's Social Performance 2004
Human Rights <i>continued</i>	
<i>Collective Bargaining</i>	
HR5 Description of freedom of association policy and extent to which this policy is universally applied independent of local laws	PotashCorp respects a worker's right to freedom of association. More than one-third of the company's workforce is unionized.
<i>Child Labor and Forced Labor</i>	
HR6 Description of policy excluding child labor, as well as description of procedures/programs to address this issue	Consistent with PotashCorp's commitment in its <i>Code of Business Conduct</i> to respect the rights of the individual, the company does not use child labor at any of its operations.
HR7 Description of policy to prevent forced and compulsory labor as well as description of procedures/programs to address this issue	Consistent with its commitment to respect the rights of the individual, PotashCorp does not use forced labor at any of its operations.
<i>Disciplinary Practices</i>	
HR9 Description of appeal practices including, but not limited to, human rights issues. Describe the representation and appeals process.	PotashCorp has written policies regarding procedures for problem resolution.
HR10 Description of non-retaliation policy and effective, confidential employee grievance system	The <i>Code of Business Conduct</i> states that no retaliation will be taken against any employee for raising any concern in good faith. In 2004, PotashCorp introduced <i>ComplianceLine</i> to provide a secure method for employees to make an anonymous complaint.
<i>Indigenous Rights</i>	
HR12 Description of policies, guidelines and procedures to address the needs of indigenous people.	PotashCorp has no specific policy or procedures governing relationships with indigenous populations.
Society and Community	
SO1 Description of policies and procedures/programs to manage impacts on communities	PotashCorp actively participates in periodic community meetings to address concerns, alert the public to changes at its operations and foster open communications with stakeholders. In 2004, the company hosted or participated in about 2,200 external engagement meetings.
SO2 Description of the policy, procedures and compliance mechanisms addressing bribery and corruption	The company's <i>Code of Business Conduct</i> expressly forbids the giving or taking of bribes.
SO3 Description of the policy, procedures and compliance mechanisms for managing political lobbying and contributions	Political lobbying takes place primarily through public affairs activities; through the activities of the fertilizer associations in the United States and Canada; and through registered lobbyists in the states of North Carolina and Florida. The PotashCorp Political Action Committee (PAC) was created in 2003, and is funded by US employees, to make specific political contributions at the federal, state and local levels. See page 45.
SO5 Amount of money paid to political parties and institutions whose prime function is to fund political parties or candidates	In 2004, the PotashCorp PAC made contributions in the United States totaling \$26,250. Of this, \$21,250 went directly to political candidates and \$5,000 was a transfer to The Fertilizer Institute's PAC, which in turn made political contributions.

GRI Social Performance Indicators	PotashCorp's Social Performance 2004
<p>Society and Community <i>continued</i> <i>Competition and Pricing</i></p>	
<p>S07 Description of policy and procedures for preventing anti-competitive behavior</p>	<p>The PotashCorp <i>Code of Business Conduct</i> states that the company must never act in contravention of antitrust or competition laws in the jurisdictions in which it does business.</p>
<p>S06 Court decisions regarding anti-trust and monopoly behavior</p>	<p>A civil case was filed against PotashCorp and other potash producers in the late 1980s and was ultimately dismissed.</p>
<p>Product Responsibility <i>Customer Health and Safety</i></p>	
<p>PR1 Description of policy for preserving customer health and safety during use of products</p>	<p>Product analysis, education, labeling and customer service are at the core of PotashCorp's efforts toward customer health and safety. The company provides customers with safe-handling videotapes for certain products.</p>
<p>PR4 Number and type of instances of non-compliance with regulations concerning customer health and safety</p>	<p>There have been no instances of non-compliance concerning customer health and safety.</p>
<p>PR5 Number of complaints upheld by regulators</p>	<p>There have been no customer health and safety complaints upheld by regulators.</p>
<p><i>Products and Services</i></p>	
<p>PR2 Description of policy and procedures related to product information and labeling</p>	<p>PotashCorp is subject to feed and fertilizer labeling requirements in most jurisdictions where it makes or sells its products. Product labels are reviewed regularly to ensure they comply with all laws and regulations.</p>
<p>PR7 Number and type of non-compliance with regulations related to product information and labeling</p>	<p>There have been rare cases of "stop sale" orders if a label is missing or a bag of fertilizer is found to be mislabeled.</p>
<p>PR8 Description of policy and procedures related to customer satisfaction, including results of surveys measuring customer satisfaction</p>	<p>PotashCorp conducts annual customer surveys. The information provides the basis for setting targets for improvement in areas of customer satisfaction. See page 30 for more details.</p>
<p><i>Advertising</i></p>	
<p>PR9 Description of policies and procedures for adherence to standards and voluntary codes related to advertising</p>	<p>The company's long-standing practice is to ensure that all advertising undergo extensive internal review for technical accuracy and legal compliance.</p>
<p>PR10 Number and types of breaches of advertising regulations</p>	<p>There have been no instances of breaches of advertising regulations by PotashCorp.</p>
<p><i>Privacy</i></p>	
<p>PR3 Description of policy and procedures for customer privacy</p>	<p>The PotashCorp <i>Code of Business Conduct</i> states that the company collects, uses and discloses personal information only with the knowledge and permission of the affected individual, unless required by law. The PotashCorp <i>Code of Customer Commitment</i> states that all information shared with the company is always kept in the strictest confidence.</p>
<p>PR11 Number of substantiated complaints regarding breaches of customer privacy</p>	<p>PotashCorp has had no complaints regarding breaches of customer privacy.</p>

GRI Safety, Health and Environment Performance Indicators		PotashCorp's Performance 2004
Energy Use		
EN3	Direct energy use segmented by primary source	Total direct energy used by PotashCorp at all of its operations was 163,000 tera joules in 2004. The dominant sources of energy were natural gas (80.2%), cogeneration/waste heat recovery (11.1%) and purchased electricity (8.7%).
EN4	Indirect energy use	Indirect energy, such as that consumed by power companies and energy consumed in transporting products to market, is not tracked at present by the company.
EN 17	Initiatives to use renewable energy and increase energy efficiency	Since 1996, all potash operations in Canada have been voluntary participants in the Canadian Industry Plan for Energy Conservation. Each plant has committed to an action plan that involves setting goals and targets and developing and implementing an energy efficiency improvement strategy. A number of plants have cogeneration and waste heat recovery programs that together contribute 11.1% of PotashCorp's total energy needs. See page 62 for more details.
Environmental Expenditures		
EN 35	Total environmental expenditures by type	Total environmental expenditures in 2004 were \$98.7 million. Operating expenses were \$91.3 million. Capital expenditures totaled \$7.4 million. See page 54 for more details.
Environmental Impacts		
<i>Materials Demand</i>		
EN1	Total materials used	The principal raw materials used in PotashCorp's operations are mined potash ores, mined phosphate ores, natural gas in nitrogen production, and sulfur, ammonia and limestone in phosphate products.
EN2	Percentage of materials used that are wastes from other organizations	Recovered sulfur (a byproduct of oil refining or natural gas production) is used by PotashCorp in the production of phosphoric acid.
Impact on Air		
EN8	Greenhouse gas emissions	In 2004, PotashCorp's emissions of total GHGs (as CO ₂ equivalent)* totaled 7,488,300 tonnes. Carbon dioxide emissions totaled 5,703,500 tonnes. Nitrous oxide emissions totaled 751,699 tonnes. Methane emissions totaled 1,137 tonnes. * GHG emissions require a conversion factor to reach reported totals of CO ₂ equivalents. See <i>Site Performance</i> section for data on GHG emissions from individual production sites for the past three years.
EN9	Use and emissions of ozone-depleting substances	The company uses small amounts of chlorofluorocarbons (CFCs) in refrigeration and cooling systems. This substance is phased out when systems are upgraded.

GRI Safety, Health and Environment Performance Indicators		PotashCorp's Performance 2004																
Impact on Air <i>continued</i>																		
EN10	Other significant air emissions	<p>In 2004, emissions of Criteria Air Pollutants from PotashCorp operations were as follows</p> <table border="0"> <tr> <td>Nitrogen oxides</td> <td>7,036 tonnes</td> </tr> <tr> <td>Carbon monoxide</td> <td>8,931 tonnes</td> </tr> <tr> <td>Particulates (dust)</td> <td>4,381 tonnes</td> </tr> <tr> <td>Sulfur dioxide</td> <td>8,643 tonnes</td> </tr> </table> <p>Other air emissions in 2004 were</p> <table border="0"> <tr> <td>Volatile organic compounds</td> <td>1,608 tonnes</td> </tr> <tr> <td>Ammonia</td> <td>5,737 tonnes</td> </tr> <tr> <td>Hydrogen sulfide</td> <td>1,370 tonnes</td> </tr> <tr> <td>Sulfuric acid mist</td> <td>107 tonnes</td> </tr> </table> <p>See <i>Site Performance</i> section for data on air emissions by PotashCorp's individual production sites for the past three years.</p>	Nitrogen oxides	7,036 tonnes	Carbon monoxide	8,931 tonnes	Particulates (dust)	4,381 tonnes	Sulfur dioxide	8,643 tonnes	Volatile organic compounds	1,608 tonnes	Ammonia	5,737 tonnes	Hydrogen sulfide	1,370 tonnes	Sulfuric acid mist	107 tonnes
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EN30	Indirect GHG emissions	The company does not track or monitor indirect GHG emissions.																
Impact on Water																		
EN5	Total water use	<p>Total water used in 2004 was 1,097 million cubic meters.</p> <table border="0"> <tr> <td>Municipal water</td> <td>7 million cubic meters</td> </tr> <tr> <td>Well water</td> <td>55 million cubic meters</td> </tr> <tr> <td>River water</td> <td>110 million cubic meters</td> </tr> <tr> <td>Recycled water</td> <td>925 million cubic meters</td> </tr> </table> <p>Phosphate operations account for nearly 95% of total water used.</p>	Municipal water	7 million cubic meters	Well water	55 million cubic meters	River water	110 million cubic meters	Recycled water	925 million cubic meters								
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Recycled water	925 million cubic meters																	
EN7	Major impacts on biodiversity in freshwater and marine environments	PotashCorp's major wetland disturbances occur in phosphate mining. Significant portions of its phosphate reserves in Aurora, North Carolina are located in wetlands, as are the phosphate operations at White Springs, Florida. All lands, including wetlands, are being reclaimed to meet or exceed regulatory requirements.																
EN12	Significant discharge to water by type	<p>Emissions to water in 2004</p> <table border="0"> <tr> <td>Salt as brine to sea</td> <td>417,500 tonnes</td> </tr> <tr> <td>Nitrogen as N</td> <td>520 tonnes</td> </tr> <tr> <td>Fluoride (F)</td> <td>238 tonnes</td> </tr> <tr> <td>Phosphorus</td> <td>276 tonnes</td> </tr> <tr> <td>Methanol</td> <td>48 tonnes</td> </tr> </table> <p>See <i>Site Performance</i> section for data on emissions to water by PotashCorp's individual production sites for the past three years.</p>	Salt as brine to sea	417,500 tonnes	Nitrogen as N	520 tonnes	Fluoride (F)	238 tonnes	Phosphorus	276 tonnes	Methanol	48 tonnes						
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EN20	Water sources and related ecosystems or habitats significantly affected by use of water	Water used by PotashCorp's operating sites does not significantly affect any ecosystems or habitats.																
EN22	Total recycling and re-use of water	About 84% of the total water used at PotashCorp's operations is recycled. Recycling occurs at all sites, but most extensively at the phosphate operations.																
Impact on Land and Biodiversity																		
ENG	Location and size of land owned, leased or managed in biodiversity-rich habitats	PotashCorp does not have any operations in/near biodiversity-rich habitats. It does not have operations in/near IUCN (International Union for the Conservation of Nature and Natural Resources) category I-IV designated areas.																

GRI Safety, Health and Environment Performance Indicators		PotashCorp's Performance 2004																	
Impact on Land and Biodiversity <i>continued</i>																			
EN7	Major impacts on biodiversity in terrestrial environments	PotashCorp's activities have no major impacts on biodiversity in terrestrial environments.																	
EN23	Total amount of land owned, leased or managed for production	PotashCorp conducted production and mining activities on 69,437 hectares of company-owned land. A significantly less amount of land was leased.																	
EN24	Amount of impermeable surface as percentage of land owned/leased	Land used by the phosphate and potash divisions had approximately 1% of impermeable surface. Impermeable surface at nitrogen operations was 15%.																	
EN27	Objectives, programs and targets for protecting and restoring ecosystems and species	All lands affected by PotashCorp's operations are ultimately reclaimed and restored. For examples of initiatives at individual production sites to protect and restore ecosystems, see page 56.																	
Production of Wastes																			
EN11	Total amount of waste by type and destination	<p>Solid wastes produced in 2004</p> <table border="0"> <tr> <td>Gypsum</td> <td>8,564,000 tonnes</td> </tr> <tr> <td>Waste salt to storage</td> <td>8,581,000 tonnes</td> </tr> <tr> <td>Clay wastes (slimes)</td> <td>812,000 tonnes</td> </tr> <tr> <td>Waste salt and clay to mine</td> <td>1,819,000 tonnes</td> </tr> <tr> <td>Salt as brine injection well</td> <td>3,579,000 tonnes</td> </tr> </table> <p>Non-process wastes in 2004</p> <table border="0"> <tr> <td>Solid waste off-site</td> <td>8,648 tonnes</td> </tr> <tr> <td>Solid waste on-site</td> <td>824,000 tonnes</td> </tr> <tr> <td>Solid waste recycled</td> <td>151,000 tonnes</td> </tr> </table> <p>See <i>Site Performance</i> section for data on wastes to land by PotashCorp's individual production sites for past three years.</p>		Gypsum	8,564,000 tonnes	Waste salt to storage	8,581,000 tonnes	Clay wastes (slimes)	812,000 tonnes	Waste salt and clay to mine	1,819,000 tonnes	Salt as brine injection well	3,579,000 tonnes	Solid waste off-site	8,648 tonnes	Solid waste on-site	824,000 tonnes	Solid waste recycled	151,000 tonnes
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Solid waste recycled	151,000 tonnes																		
EN13	Significant spills of chemicals/fuels	Ten spills occurred, one in the potash division and nine at phosphate operations.																	
EN31	All production, transport, import or export of hazardous waste	Hazardous waste disposal in 2004 was 438 tonnes.																	
Indirect Environmental Impacts																			
EN15	Percentage of product weight that is reclaimable at end of its useful life and percentage actually reclaimed	Fertilizer products provide nutrients to the land and are used by plants. None of these are reclaimable. Products sold as animal feed and industrial applications are non-reclaimable inputs.																	
EN 31	Environmental performance of suppliers	Under PotashCorp's SHE Management System, procurement processes must assess the ability of contractors to meet its SHE Expectations. Purchased products and services are, where possible, verified as meeting national/international safety, health and environmental standards.																	
Compliance																			
EN16	Incidents and fines for non-compliance	<p>The number of environmental events and permit excursions in 2004</p> <table border="0"> <tr> <td>US federal reportable quantity</td> <td>18</td> </tr> <tr> <td>Permit excursions</td> <td>31</td> </tr> <tr> <td>Provincial incident reports</td> <td>4</td> </tr> </table> <p>There were 24 hazardous materials incidents in 2004, eight of which were non-accidental releases. A non-accidental release is the release of a PotashCorp hazardous material from a transportation vehicle (railcar or truck) that was not the result of the vehicle being involved in an accident.</p> <p>Total fines paid during the year for environmental infringements were \$4,970.</p>		US federal reportable quantity	18	Permit excursions	31	Provincial incident reports	4										
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Our Sustainability Goals

We believe accountability means more than simply reporting our performance. It means establishing clear targets and reflecting on whether those targets were met.

Governance Goals and Targets ● = Achieved ○ = Partially Achieved ○ = Not Achieved

Goal: To be a leader in corporate governance.

2004 Targets

- Conduct a review of governance policies and principles to identify most recent best practices.
- Take a leadership role in establishing a Saskatchewan Chapter of the Institute of Corporate Directors and share knowledge and experience on corporate governance issues.

2004 Results

- The company engaged outside governance experts both in Canada and the United States to review its governance principles and implemented best practices, accordingly.
- Saskatchewan Chapter was established.

2005 Targets

1. The Board of Directors will set for itself key sustainability targets.
2. Establish procedures for board review of compliance with commitments made to stakeholders.
3. Begin a formal board education process that will include crisis communications training.
4. Present results of key stakeholder surveys to the board.
5. Remain in the top quartile of governance practices, as measured by external reviews.

Goal: To have effective stakeholder engagement processes.

2004 Targets

- Survey each of the company's major stakeholder groups to measure the effectiveness of current engagement levels, and to solicit feedback.
- Deliver presentations to external audiences regarding sustainable development and its value to society.

2004 Results

- Engagement surveys were conducted with investors, customers and 1,800 employees. In addition, community leaders were surveyed in Saskatoon. Leaders were selected from seven distinct sectors: known and respected, business, health care, education, media, government and NGO.
- A number of speeches on sustainability were given by senior management to external audiences.

2005 Targets

1. Continue to survey each of our key stakeholder groups annually.
2. Each PotashCorp production facility will participate in at least one community meeting during the year.

Goal: Refine corporate management systems to achieve sustainability goals.

2004 Targets

- PotashCorp's Chief Operating Officer will visit all of the company's facilities to speak to employees about their role in sustainability and to outline sustainability targets for each plant.

2004 Results

- COO visited all facilities and spoke to employees about their role in sustainability and the value and business case for sustainable business practices.

2005 Targets

1. Develop a common set of sustainability expectations for all divisions and sites.
2. Develop a consolidated database on all PotashCorp policies, along with appropriate communications and educational materials for employees.
3. Begin developing site-specific sustainability plans that include SHE, social, energy, community, training and local sourcing goals.

Economic Goals and Targets

Goal: To meet customer needs and expectations.

2004 Targets

- Continue to be the preferred supplier as measured by customer surveys.
- Reduce the number of customer complaints by 5%.
- Begin ongoing customer feedback with survey cards issued by the customer service department.

2004 Results

- Customers evaluated PotashCorp as No. 1 on a series of sales criteria, and the company outperformed its competition.
- PotashCorp reduced the number of customer complaints by 10%.
- Customer Satisfaction Cards accompany all orders delivered by truck. Customers are asked for feedback on product quality and customer service.

2005 Targets

1. Implement enterprise-wide customer complaint system to facilitate tracking and resolution.
2. Outperform competitors on quality and service as measured by customer surveys.
3. Expand computer applications' e-mail capabilities to improve communications with customers and vendors.
4. Provide quarterly reports on customer feedback program to monitor customer attitudes about quality and service.

Economic Goals and Targets <i>continued</i>		
● = Achieved ● = Partially Achieved ○ = Not Achieved		
Goal: To ensure that employees share in the company's economic success.		
2004 Targets	2004 Results	2005 Targets
<ul style="list-style-type: none"> - Reinstated a company contribution to the employee savings plans that includes a performance contribution, subject to the achievement of key business performance measures. - End wage freeze for management employees and senior executives. 	<ul style="list-style-type: none"> ● Company contribution to the employee savings plans was reinstated with a performance contribution. ● Wage freeze ended. 	<ol style="list-style-type: none"> 1. Develop communications to increase employee understanding of newly implemented and existing incentive and benefit plans.
Goal: To promote sustainability by leveraging supplier relationships.		
2004 Targets	2004 Results	2005 Targets
<ul style="list-style-type: none"> - Identify key supplier relationships that have the potential for broader engagement across the company. 	<ul style="list-style-type: none"> ● Identified and pursued four significant supplier relationships for broader engagement across the company. 	<ol style="list-style-type: none"> 1. Ensure that key service vendors meet PotashCorp's SHE expectations.
Goal: To meet the needs and expectations of our providers of capital.		
2004 Targets	2004 Results	2005 Targets
<ul style="list-style-type: none"> - To maintain the positive perceptions of the financial community as measured by investor surveys. 	<ul style="list-style-type: none"> ● Received positive feedback from investor surveys. Engagement with the financial community also included a major analyst meeting conducted in Toronto in September 2004. 	<ol style="list-style-type: none"> 1. Be at the top of our earnings guidance range. 2. Continue to emphasize the company's "Potash First" strategy.
Goal: To improve the socio-economic well-being of local communities.		
2004 Targets	2004 Results	2005 Targets
<ul style="list-style-type: none"> - Align charitable donations with sustainability priorities. - Survey community leaders regarding their perceptions of the company. 	<ul style="list-style-type: none"> ● Corporate grants are now aligned with sustainability priorities. ● Community leaders were surveyed in Saskatoon. Leaders were selected from seven distinct sectors: known and respected, business, health care, education, media, government and NGO. 	<ol style="list-style-type: none"> 1. Continue to seek viable opportunities for more local sourcing at each site. 2. Be engaged with community support projects at each of our plants and offices. 3. Achieve a 10% increase in individual participation in the matching gift program and a 20% increase in total donations. 4. Initiate meetings with aboriginal representatives in Saskatchewan to address job opportunities and skill requirements. 5. Formalize corporate-donations guidelines with a written policy and post it on the company's website. 6. Survey community leaders at three of our larger production sites.

Social Goals and Targets		
● = Achieved ○ = Partially Achieved ○ = Not Achieved		
Goal: To have motivated and productive employees committed to the company's long-term goals.		
2004 Targets	2004 Results	2005 Targets
<ul style="list-style-type: none"> - Conduct the company's first employee research survey using a web-based, interactive system with guaranteed confidentiality. - Implement employee incentives that tie compensation more directly to the achievement of key corporate financial performance measures. - Complete implementation of succession management and employee development processes to improve focus on key talent and critical shortages. 	<ul style="list-style-type: none"> ● Employee survey was conducted with a 78% response rate of those surveyed. ● Designed performance-based stock option plan that was approved by shareholders in May 2005. Introduced performance-based company contribution to 401(k) and Savings Plans. ○ Succession management continued at the board level. Identification of key talent, critical positions and development is now an ongoing component of senior management discussions. 	<ol style="list-style-type: none"> 1. Integrate key corporate performance metrics into regular employee reviews, providing managers with greater discretion to reward individual achievement. 2. Proactively improve orientation programs for new employees and career development processes for existing employees.
Goal: To promote sustainability through the supply chain management process.		
2004 Targets	2004 Results	2005 Targets
<ul style="list-style-type: none"> - To begin engaging major suppliers regarding their human rights policies by requesting a description or copy of their <i>Code of Conduct</i> and human rights performance indicators. 	<ul style="list-style-type: none"> ○ This initiative was delayed by one year. 	<ol style="list-style-type: none"> 1. To begin engaging major suppliers regarding their human rights policies by requesting a description or copy of their <i>Code of Conduct</i> or human rights performance indicators.
Goal: To strengthen relationships with local communities.		
2004 Targets	2004 Results	2005 Targets
<ul style="list-style-type: none"> - Develop plant-specific community brochures that share the company's commitments to sustainability. - Develop and distribute additional tools to further promote the company's community outreach activities. 	<ul style="list-style-type: none"> ● Templates for site-specific community brochures were developed and distributed to local management. ● Additional community outreach materials were developed and distributed. Nearly 5,000 CDs, brochures and flyers promoting the outreach program were given to various stakeholder groups. 	<ol style="list-style-type: none"> 1. Be in the top quartile of responses in a survey of community leaders. 2. Encourage each production site to formally engage with its local community.
SHE Goals and Targets		
Goal: To have no harm to people, no accidents and no damage to the environment.		
2004 Targets	2004 Results	2005 Targets
<ul style="list-style-type: none"> - Reduce recordable and lost-time injury frequency rates by 10%. - Reduce the number of environmental releases and permit excursions by 10%. - Implement security plans at PotashCorp facilities. - Through the use of effective management processes, continue to avoid major adverse incidents. - Conduct updated Facility Siting Studies at Aurora and White Springs. 	<ul style="list-style-type: none"> ● Recordable injury frequency rate dropped 13% and lost-time injury rate fell 21%. ○ Environmental releases and permit excursions were higher due to problems at Lima's nitric acid plant. ● All high-risk facilities have security plans in place. ● By designing, implementing and auditing safety processes and action plans, PotashCorp avoided major adverse incidents in 2004. ● Facility Siting Studies were conducted at both facilities. 	<ol style="list-style-type: none"> 1. Reduce recordable and lost-time injury frequency rates by 10%. 2. Reduce the number of environmental releases and permit excursions by 25%. 3. Achieve 100% compliance on all environmental and safety audit items. 4. Achieve energy efficiency in nitrogen 2% better than in 2004. 5. Establish a senior management Safety Leadership Team. 6. Establish a set of proactive SHE key performance metrics and incorporate them into the company's 2006 targets and performance measurements.

Appendix B: New South Wales, Australia – Recommended Sample Indicators for Assessing Sustainability of Agency Internal Operations

Social Indicators			
Sustainability dimension	Agency level	Whole of Government	Unit of performance measure
Workforce composition	(LA1) Geographical breakdown of workforce by status, employment type and employment contract	Total government employment breakdown and regional employment breakdown	Total and % FTE personnel x regions
Workforce retention	(LA2) Employment net creation and average turnover	Identification of strategies for bridging knowledge or service gaps	No and % ongoing staff
Workforce planning	(LA16) Programs supporting continued employability of employees and management of career endings	Current and future workforce needs	No and types programs

Social Indicators (cont)

Workplace diversity	(LA10 and HR12) EEO outcomes as per monitoring systems (for women, ATSI, ethnicity and disability)	Proportion of demographic groups employed across public sector	Total and % staff by gender and other demographic groups
Diversity in management structures	(LA11) Composition of senior management viz male/female ratios and other diversity indicators	Government commitment to diversity in management structures	% board composition by gender and other demographic groups
Workplace democracy	(LA13) Existence of ongoing formal consultative arrangements between agency Head and employees	Total number of ongoing formal consultative arrangements between agency Heads and their employees	Total number and types of consultative arrangements
Workforce training	(LA9) Average hours per year of training per employee by category of employee	Government investment in workforce training	Total hours per year by age of employees; Graduate programs, etc
OH & S	(LA7 and PR1) Number of incidents or fatalities or serious injuries affecting workers, non-workers and the public (incl lost days and absent rates and amounts paid as compensation)	Government workplace health	Total no and type of compensation claims; absentee rates (sick leave days per employee); level of use of counselling services, etc
OH & S	(LA12) Employee benefits beyond those legally mandated	Government commitment to work-life balance	Description of types of programs offered
Participation in the community	(SO1) Description of ways in which impact on communities in areas affected by agency's activities is managed	Description of ways in which impact on communities in areas affected by Government's activities is managed	Provision of access to paid leave for services such as blood donors, emergency services, defence force training
Client satisfaction	(SO1) Description of procedures for identifying and engaging in consultation with community stakeholders, incl FOI	Collated description of procedures for identifying and engaging in consultation with community stakeholders, incl FOI	Description of programs
Anti-corruption	(SO2) Procedures and numbers of referrals to ICAC for investigation	Procedures and numbers of referrals to ICAC for investigation	Numbers and types of procedures

Environmental Indicators			
Sustainability dimension	Agency level	Whole of Government	Unit of performance measure
Environmental management system	(M1) Environmental management system conformance	Overall level of environmental management system conformance	No of agencies with a good practice EMS
Environmental management system	(M2) Environmental performance improvement process	Government environmental performance improvement processes	Description of process
Environmental management system	(M3) Integration of environment with other business management systems	Overall level of integration of environment with other business management systems	Description of process
Energy use – electricity	(EN4) Direct use of electricity	Direct use of electricity	Kilowatt hours (kWh)
Greenhouse gas emissions - electricity	(EN8) Total greenhouse emissions resulting from electricity consumption	Total greenhouse emissions resulting from electricity consumption	Tonnes CO2
Energy use- transport	(EN 4) Direct energy use - transport	Direct energy use - transport	Total litres fuel
Greenhouse gas emissions - transport	(EN 8) Total greenhouse gas emissions - transport	Total greenhouse gas emissions - transport	Tonnes CO2
Vehicles in fleet	(EN34) Total number of hybrid, electric and other vehicles in agency fleet	Total number of hybrid, electric and other vehicles in Government fleet	Total number/type of vehicles
Travel	(EN34) Significant environmental impact of transportation (other than motor vehicles) used for logistical purposes	Cumulative environmental impact of transportation (other than motor vehicles) used for logistical purposes	Total VKm travelled
Paper consumption	(EN1) Total materials used - paper	Total materials used - paper	Total Kg to landfill and/or recycled
Waste and recycling	(EN11) Total amount of solid waste by type and destination	Total amount of solid waste by type and destination	Total Kg to landfill and/or recycled
Water use	(EN5) Total water use	Total water use	Total MI used
Land use	(EN29) Business units operating or planning operations in or around protected or sensitive areas	Number and locations of business units operating or planning operations in or around protected or sensitive areas	Total number of units

Economic Indicators			
Sustainability dimension	Agency level	Whole of Government	Unit of performance measure
Payroll	(EC5) Total payroll benefits (incl wages, pensions, other benefits and redundancy) by region	Statewide regional breakdown of effect of Government payroll	Total expenditure (\$) x region
Purchasing	(EC3) Cost of all goods, material and services purchased	Cost of all goods, material and services purchased	Total expenditure (\$)
Contract management	(EC4) Percentage of contracts paid in accordance with agreed terms, excluding penalty arrangements	Percentage of all Government contracts paid in accordance with agreed terms, excluding penalty arrangements	% invoices paid within x days
Debt	(EC6) Agency debt and borrowings	Total public sector debt	Total debt (\$)
Liability management	Description of liability management policies	Types of liability management policies	Description of policies in place
Investment in infrastructure	Expenditure on capital assets	Expenditure on capital assets	Total expenditure (\$)
Donations/sponsorships	(EC10) Donations to or sponsorship of community, civil and other groups	Donations to or sponsorship of community, civil and other groups	Total value (\$)

Public Sector Process Indicators			
Sustainability dimension	Agency level	Whole of government	Unit of performance measure
Defining and explaining sustainable development	(PA2) Explanation of source of the agency's definition of sustainable development and brief description of statements or principles adopted by the agency and published in annual report	Explanation of source of the Government's definition of sustainable development and brief description of Government statements or principles	No and type of sustainability model
Aspects of public policy addressed	(PA3) Identification of the aspects of public policy addressed by the agency that refer to sustainable development (eg climate change, community health, etc)	Identification of the aspects of public policy addressed by the Government that refer to sustainable development	Description of range of agency and/or government activity

Public Sector Process Indicators (cont)

Organisational sustainable development goals	(PA4) Brief description of short and long-term sustainability goals for the agency are identified, and Results in the agency's Results and Services Plan are identified	Brief description of short and long-term sustainability goals for the Government are identified and quantified as per Results and Services Plans	Presence of sustainability goals in RSPs
Management	Sustainability reporting and action is identified as a factor in the CEO/Director's performance agreement	Total number of agencies identifying sustainability reporting and action as a management issue	Total number of agencies identifying sustainability reporting and action as a management issue
Decision-making	Description of internal decision-making process for managing agency outcomes sustainably: seeking mutually supportive benefits with minimal trade-offs, managing risk, informing and auditing and embedding sustainability practice in organisational culture; and whether a specified person or unit has responsibility for sustainability initiatives	Description of internal decision-making process for managing Government outcomes sustainably: seeking mutually supportive benefits with minimal trade-offs, managing risk, informing and auditing and embedding sustainability practice in organisational culture	Description of processes for comparative purposes
Implementation and assessment	(PA6) Description of progress toward goals, actions to ensure continuous improvement, benchmarking processes, where targets are exceeded or fall short, and evaluation strategies; and regular publication of measures of achievement on agency's website	Description of progress toward goals, actions to ensure continuous improvement, benchmarking processes, where targets are exceeded or fall short and evaluation strategies and	Description of processes for comparative purposes
Stakeholder engagement	(PA7) Description of the role and engagement of stakeholders in relation to sustainability goals and actions	Description of the role and engagement of stakeholders in relation to sustainability goals and actions	Description of processes for comparative purposes

Appendix C: Oregon Measures

Economy

BUSINESS VITALITY

- | | | |
|---|--|--|
| 1 | Employment in Rural Oregon | Percent of Oregonians employed outside the Willamette Valley and the Portland tri-county area |
| 2 | Trade Outside of Oregon | Oregon's national rank in traded sector strength |
| 3 | New Employers | Oregon's national rank for new Employer Identification Numbers per 1000 workers. |
| 4 | Net Job Growth | Net job growth: a. urban counties, b. rural counties |
| 5 | Professional Services | Oregon's concentration in professional services relative to the U.S. concentration in professional services. |
| 6 | Economic Diversification | Oregon's national rank in economic diversification. |

ECONOMIC CAPACITY

- | | | |
|---|--|--|
| 7 | Research and Development | Research and development expenditures as a percent of gross state product: a. industry (public and private), b. academia |
| 8 | Venture Capital | Oregon's national rank in venture capital investments (measured in dollars per worker) |

BUSINESS COSTS

- | | | |
|----|--|--|
| 9 | Cost of Doing Business | Oregon's national rank in the cost of doing business: a. labor costs, b. energy costs, c. tax costs |
| 10 | On-time Permits | Percent of permits issued within the target time period or less: a. air contaminant discharge, b. wastewater discharge |

INCOME

- | | | |
|----|--|---|
| 11 | Per Capita Income | Per capita personal income as a percent of the U.S. per capita income (U.S.=100%): a. metropolitan as a percent of metropolitan U.S., b. non-metropolitan as a percent of non-metropolitan U.S. |
| 12 | Pay Per Worker | Average annual payroll per worker covered by unemployment insurance (all industries, 2003 dollars): a.urban, b. rural |
| 13 | Income Disparity | Comparison of average incomes of top 5th families to lowest 5th families: a. ratio, b. national rank |
| 14 | Workers at 150% or More of Poverty | Percent of covered Oregon workers with earnings of 150% or more of the poverty level for a family of four |
| 15 | Unemployment | Oregon unemployment rate as a percent of U.S. unemployment rate |

INTERNATIONAL

- | | | |
|----|---|--|
| 16 | Exports | Percent of total exports traded with non-primary partners. (Primary partners are Canada, Japan and South Korea.) |
| 17 | Foreign Language Skills | Percent of Oregonians who speak a language in addition to English |

Education

KINDERGARTEN - 12th GRADE

18	Ready to Learn	Percent of children entering school ready-to-learn
19	3rd Grade Reading & Math	Percent of 3rd graders who achieve established skill levels a. reading; b. math
20	8th Grade Reading & Math	Percent of 8th graders who achieve established skill levels a. reading; b. math
21	Certificate of Initial Mastery	Percent of high school graduates who attain a Certificate of Initial Mastery.
22	High School Dropout Rate	Percent of students who drop out of grades 9 - 12 without receiving a high school diploma or GED.
POST SECONDARY		
23	High School Completion	Percent of Oregon adults (25+) who have completed high school or equivalent
24	Some College Completion	Percent of Oregon adults (25+) who have completed some college
25	Postsecondary Credentials	Percent of Oregon adults (25+) who have an Associates degree or other occupation-related credential
26	College Completion	Percent of Oregon adults (25+) who have completed: a. bachelor's degree; b. advanced degree
SKILL DEVELOPMENT		
27	Adult Literacy	Percent of adult Oregonians with intermediate literacy skills a. prose; b. document; c. quantitative
28	Computer/Internet Usage	Percent of adult Oregonians who use a computer or related electronic device to: a. create docs/graphics or analyze data; b. access the Internet (% of those with computers at home)
29	Labor Force Skills Training	Percent of Oregonians in the labor force who received at least 20 hours of skills training in the past year

Civic Engagement

PARTICIPATION		
30	Volunteering	Percent of Oregon adults who volunteer time to civic, community or nonprofit activities in the last twelve months
31	Voting	Oregon's voter turnout for presidential elections (1 = highest) a. percent; b. national rank
32	Feeling of Community	Percent of Oregonians who feel they are a part of their community

TAXES		
33	Understanding the Tax System	Percent who demonstrate knowledge of Oregon's main revenue source & main expenditure category
34	Taxes & Charges Per \$1,000 Personal Income	National ranking for state and local taxes and charges as a percent of personal income

PUBLIC SECTOR PERFORMANCE		
35	Public Management Quality	Governing magazine's ranking of public management quality
36	S&P Bond Rating	State general obligation bond rating (Standard and Poor's)

CULTURE

- 37 [State Arts Funding](#) Oregon ´s national rank in per capita state arts funding
- 38 [Public Library Service](#) Percent of Oregonians served by a public library which meets minimum service criteria

Social Support

HEALTH

- 39 [Teen Pregnancy _](#) Pregnancy rate per 1,000 females, age 15-17
- 40 [Prenatal Care](#) Percent of babies whose mothers received prenatal care beginning in the first trimester
- 41 [Infant Mortality](#) Infant mortality per 1,000
- 42 [Immunizations](#) Percent of two-year-olds who are adequately immunized
- 43 [HIV Diagnosis](#) Number of new HIV diagnoses among Oregonians aged 13 and older
- 44 [Adult Non-Smokers](#) Percent of Oregonians 18 and older who report that they do not currently smoke cigarettes
- 45 [Preventable Death](#) Years of life lost before age 70 (rate per 1,000)
- 46 [Perceived Health Status](#) Percent of adults whose self-perceived health status is very good or excellent
- 47 [Affordable Child Care](#) Percent of families with incomes below the state median income for whom child care is affordable
- 48 [Available Child Care](#) Number of child care slots available for every 100 children under age 13

PROTECTION

- 49 [Teen Substance Abuse](#) Percent of 8th grade students who report using in the previous month: a. alcohol; b. illicit drugs; c. cigarettes
- 50 [Child Abuse or Neglect](#) Substantiated number of children, per 1,000 persons under 18, who are: a. neglected or abused; b. at a substantial risk of being neglected or abused
- 51 [Elder Abuse](#) Substantiated elder abuse rate per 1,000 Oregonians age 65 & older
- 52 [Alcohol/Tobacco During PG](#) Percent of pregnant women who report not using: a. alcohol; b. tobacco

POVERTY

- 53 [Poverty](#) Percent of Oregonians with incomes below 100% of the Federal poverty level: a. 0-17; b. 18-64; c. 65+
- 54 [Health Insurance](#) Percent of Oregonians without health insurance
- 55 [Homelessness](#) Number of Oregonians that are homeless on any given night (per 10,000)
- 56 [Child Support Payments](#) Percent of current child support due that is paid within the month that it is due.
- 57 [Hunger](#) As a percent of the U.S., percent of Oregon households with limited or uncertain access to enough food for all household members to live a healthy and active life: a. food insecurity with hunger; b. food insecurity

INDEPENDENT LIVING

- 58 [Independent Seniors](#) Percent of seniors (over 75) living outside of nursing

		facilities
59	Working Disabled	Percent of adults with lasting, significant disabilities who are capable of working who are employed
60	Disabled Living in Poverty	Percent of Oregonians with lasting, significant disabilities living in households with incomes below the federal poverty level

Public Safety

CRIME

61	Overall Crime	Overall reported crimes per 1,000 Oregonians a. person crimes; b. property crimes; c. behavior crimes
62	Juvenile Arrests	Juvenile arrests per 1,000 juvenile Oregonians per year a. person crimes; b. property crimes
63	Students Carrying Weapons	Percent of grade 9-12 students who report carrying weapons in the last 30 days
64	Adult Recidivism	Percent of paroled adult offenders convicted of a new felony within three years of initial release
65	Juvenile Recidivism	Percent of juveniles with a new criminal referral to a county juvenile department within 12 months of the initial criminal offense
66	Cooperative Policing	Percent of counties that have completed a strategic cooperative policing agreement

EMERGENCY PREPAREDNESS

67	Emergency Preparedness	Emergency preparedness - percent of Oregon counties and communities with: a. geologic hazard data and prevention activities in place; b. response and recovery capabilities for all counties, Portland, Beaverton, and Gresham
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Community Development

GROWTH MANAGEMENT

68	Traffic Congestion	Hours of travel delay per capita per year in urbanized areas. a. Portland metro; b. Salem & Eugene
69	Drinking Water	Percent of Oregonians served by public drinking water systems that meet health-based standards

INFRASTRUCTURE

70	Commuting	Percent of Oregonians who commute during peak hours by means other than driving alone
71	Vehicle Miles Traveled	Vehicle miles traveled per capita in Oregon metropolitan areas for local, non-commercial trips
72	Road Condition	Percent of roads and bridges in fair or better condition: a. State roads; b. Bridge Condition: i. State, ii. County & City (Local)

HOUSING

73	Home Ownership	Percent of households that are owner occupied
74	Affordable Housing	Percent of Oregon households below median income spending 30% or more of their income on housing (including utilities) a. renters; b. owners

Environment

AIR

- 75 [Air Quality](#) Percent of time that the air is healthy to breathe for all Oregonians
- 76 [Carbon Dioxide Emissions](#) Carbon dioxide emissions as a percentage of 1990 emissions (1990=100%)

WATER

- 77 [Wetlands](#) Number of wetland acres gained or lost in any given year: a. freshwater; b. estuarine
- 78 [Stream Water Quality](#) Percent of monitored stream sites with: a. significantly increasing trends in water quality; b. significantly decreasing trends in water quality; c. water quality in good to excellent condition
- 79 [Instream Flow Rights](#) Percent of key streams meeting minimum flow rights: a. 9 or more months a year; b. 12 months a year

LAND

- 80 [Agricultural Lands](#) Percent of Oregon agricultural land in 1982 not converted to urban or rural development: a. cropland; b. other ag land
- 81 [Forest Land](#) Percent of Oregon's non-federal forest land in 1974 still preserved for forest use
- 82 [Timber Harvest](#) Actual timber harvest as a % of potential harvest levels under current plans & policies: a. public lands; b. private lands
- 83 [Municipal Waste Disposal](#) Pounds of municipal solid waste landfilled or incinerated per capita
- 84 [Hazardous Waste Cleanup](#) Percent of identified Oregon hazardous substance sites cleaned up or being cleaned up: a. tank sites; b. other hazardous substances

PLANTS AND WILDLIFE

- 85 [Freshwater Species](#) Percent of monitored freshwater species not at risk: (state, fed listing): a. salmonids; b. other fish; c. other organisms (amphibs, molluscs)
- 86 [Marine Species](#) Percent of monitored marine species not at risk: (state, fed listing): a. fish; b. shellfish; c. other (mammals only - plant data N/A)
- 87 [Terrestrial Species](#) Percent of monitored terrestrial species not at risk: (state, fed listing): a. plants; b. vertebrates; c. invertebrates
- 88 [Protected Species](#) Species populations that are protected in dedicated conservation areas: a. species found in streams or rivers; b. other
- 89 [Invasive Species](#) Number of most threatening invasive species not successfully excluded or contained since 2000

OUTDOOR RECREATION

- 90 [State Park Acreage](#) Acres of state-owned parks per 1,000 Oregonians