KPMG Consulting

Bytown Consulting

INTERNAL ISSUES SCAN FOR INDUSTRY CANADA'S SUSTAINABLE DEVELOPMENT STRATEGY, 2003-2006 (SDS III)

Prepared for

Audit and Evaluation Branch
Industry Canada

Prepared by

Hussein Rostum
KPMG Consulting &
Bytown Consulting

Ottawa
May 8, 2003

Table of Contents

Executive Summary

Industry Canada's next Sustainable Development Strategy (SDS III) must be tabled in Parliament by the end of 2003. This internal issues scan report identifies key sustainable development issues from the perspective of departmental management and staff. Related opportunities and constraints that impact on implementing the department's next strategy are also identified.

Key Sustainable Development Issue Areas

Seven broad sustainable development issue areas emerged from the consultation process that can be considered to be key from the standpoint of Industry Canada's mandate and its strategic directions. These issue areas are also consistent with the objectives identified in *A Guide to Green Government* and consecutive *Speeches from the Throne* (1999, 2001, 2002). The results of this study reflect the perceptions of the officials that were interviewed.

The broad issue areas that were identified are:

Near-term (1-3 years, SDS III):

- Integrating sustainable development into the decision making process
- Broadening government measures of sustainable development
- Supporting innovation towards sustainable development
- Fostering improved productivity through environmental efficiency

Long-term (cumulative impacts of various SD strategies over 10+ years):

- Ensuring resources development is sustainable
- Meeting our international challenges
- Improving quality of life and wellbeing.

These seven broad issue areas encompass the sustainable development initiatives of SDS I and SDS II, and provide a framework for initiatives in SDS III.

The consultation process involved representative individuals from a cross-section of branches within the department. Each branch within the department may prioritize these issues differently. The department will need to review and validate these issue areas, select related specific initiatives (action items), and prioritize their activities from an overall departmental standpoint.

Opportunities

A number of potential initiatives that could contribute to achieving government-wide sustainable development objectives, within a context consistent with Industry Canada's mandate, were identified based on the perceptions of the departmental officials interviewed. These perceived opportunities are listed below under each of the broad issue areas identified. Narratives on issues and opportunities are presented in Chapter III of this report.

Near-term (1-3 years, SDS III):

- Integrating sustainable development into the decision making process

  Opportunity areas:
  - Monitoring environmental reporting practices of companies in Canada
  - Promoting SD awareness among consumers
  - Integrating environmental framework with economic framework for SD
  - Ratcheting up quality of Strategic Environmental Assessments (SEAs)
  - Identifying economic impacts of Kyoto Protocol on Canadian industry
  - Improving the role of the department in advocacy
  - Promoting good corporate governance practices
  - Encouraging life cycle stewardship
  - Monitoring reporting requirements for Corporate Social Responsibility (CSR)
  - Developing new sector technology roadmaps
  - Continuing to work on sustainable cities/communities
  - Conducting an international benchmarking of SD policies and legislation
  - Continuing to evolve the Canadian Environmental Solutions web site
  - Promoting Extended Producer Responsibility, to include the post consumer stage
  - Helping municipalities and SMEs to adopt Environment Management Systems
  - Biodiversity stewardship/conservation
  - Helping SMEs with "triple bottom line" implementation
  - Participating in the convergence framework (with NRCan and EC)
  - Putting own house in order.

- Broadening government measures of sustainable development

  Opportunity areas:
  - Studying impacts of SD fiscal and tax incentives on performance of firms
  - Developing a strategic oversight capability for SDS III
  - Delineating linkages for convergence of SD projects around SDS III themes
  - Contributing to MOUs with NRCan to make economic case for reduced emissions
  - Helping to accelerate the regulatory review process
  - Developing performance measures for Sustainable Cities Initiative
  - Building socio-economic impacts analysis into roadmaps
  - Improving micro-economic modeling for measuring impacts of SD
  - Implementing an internal departmental forum for sharing ideas from SDS III
  - Applying RMAF guidelines for SDS III at an early planning stage
  - Exploring effectiveness of MOUs as a "soft" tool for influence

- Using SD as a screening tool in the financial sector
- Benchmarking of companies ranked in relation to SD performance
- Analyzing impacts of voluntary SD mechanisms on industry
- Developing credible impacts analysis for pre-competitive investments of TPC
- Working with Statistics Canada to develop data and measures on environmental technologies and eco-efficiency
- Measuring what constitutes success of SD for Canadian trade
- Identifying success measures for outreach efforts by Industry Canada
- Studying implications of Kyoto Protocol for consumers
- Identifying infrastructure requirements for hybrid and fuel cell technologies
- Developing more effective environmental assessment indicators.

➢ Supporting innovation towards sustainable development

Opportunity areas:

- Identifying commercial benefits of innovative technologies that mitigate the effects of climate change
- Supporting small and medium-sized enterprises in understanding and adopting SD innovative technologies and practices
- Continuing arms length support for innovative SD technologies development (CFI, TPC, STF)
- Supporting Green Chemistry network
- Supporting water clean-up technologies
- Facilitating recycling initiatives for waste management (such as the ICT initiative for take-back of electronic equipment)
- Continuing to showcase leading edge SD technologies
- Providing incentives for commercialization phase of technology development
- Developing a multi-sector resource recovery strategy
- Continuing to develop sector technology roadmaps
- Supporting lean manufacturing technology development
- Networking through initiatives such as Innovation Summit – themes include green chemistry, air quality, recycling, bioeconomy
- Supporting biotechnology initiatives that aim to develop less resource-intensive products and methods.

➢ Fostering improved productivity through environmental efficiency

Opportunity areas:

- Aligning environmental concerns with economic impacts of SD—compile and disseminate information on benefits and trade-offs
- Conducting an international benchmarking study on SD practices and productivity— compare foreign companies to Canadian companies, and companies at different stages of maturity
- Undertaking a reality check study about impacts of SD on productivity and eco-efficiency, at micro and macro levels
- Continuing to develop and disseminate eco-efficiency tools to demonstrate eco-efficiency performance and productivity by industry sector
- Preparing a training module for capacity building in industry.

Long-term (cumulative impacts of various SD strategies, 10 years or more):

Long-term results ensue from undertaking relevant SD initiatives that take advantage of near-term opportunities presented by various Industry Canada delivery instruments. Nonetheless, some opportunities were suggested for the long-term objectives.

- Ensuring resources development is sustainable

  Opportunity areas:
  - "lean" manufacturing
  - voluntary approaches taken by industry sectors to achieve sustainable codes of practice
  - biotechnology solutions and applications
  - combining competitiveness with efficient use of resources.

- Meeting our international challenges

  Opportunity areas:
  - clean-production technologies
  - climate change technologies
  - standards and codes
  - SME compliance
  - outreach to Canadian firms
  - relevant web sites and databases
  - technology showcasing
  - workshops and seminars
  - multi-stakeholder working groups/committees.

- Improving quality of life and wellbeing

  Opportunity areas:
  - promoting awareness in industry and the public
  - incentives for innovation in industry
  - dissemination of relevant information to help informed choices.

Constraints

Constraints were identified during the consultation process with Industry Canada officials. A "constraint" is a limiting factor that is perceived to have a significant impact on the potential for the department to advance sustainable development initiatives.

The key constraints discussed in this report fall into the following categories:

- Need for a clear government-wide vision and set of time bound outcomes and associated indicators which can be used to measure impacts
- Need for clarity of long-term departmental goals
- Limitation of delivery instruments
- Limited resources

- Challenge of intradepartmental partnerships
- Challenge of tracking results
- Other strategies and priorities of the department
- Competing stakeholder interests
- Fragmentation – numerous action items to consolidate.

Addressing these constraints is crucial for SDS III, to ensure the success of Industry Canada's future SD strategy and related initiatives.

Recommendations

"Continuous improvement" is one of the principles espoused by *A Guide to Green Government.* The following recommendations are presented for Industry Canada to continue to improve the quality and scope of its SD initiatives.

- **Focus on the seven SD issue areas identified in this report**—These issue areas form a framework to identify relevant initiatives and opportunities for SDS III. They also encompass objectives of SDS I and SDS II.

- **Consider the opportunities identified**—It is recommended that the department consider the opportunities identified, and use them to develop sustainable development initiatives that are relevant and consistent with the department's mandate and SD priorities.

- **Merge the results of the internal issues scan with other studies and consultations**—This internal issues scan summarizes key issues and opportunities identified through interviews with 49 professional and management officials from a cross-section of branches within Industry Canada. Views of stakeholders and clients of Industry Canada, particularly those gathered as part of the external issues scan study, and views of officials from other government departments, will need to be merged with the results of this study. In addition, the findings and lessons learned that are presented in the mid-term evaluation study of SDS II need to be considered in developing SDS III. These merged results can then be used as a basis for further consultation with stakeholders and other internal departmental officials.

- **Recognize the constraints identified**—The department should recognize the constraints identified in this report when developing SDS III. Considering these constraints during the planning process for SDS III could help prioritize the initiatives and serve as a "reality check" on what is achievable within the parameters defined by these constraints.

This report largely reflects a synthesis of the perceptions of Industry Canada officials that were interviewed. Background research involving a review of several relevant documents also formed a part of the findings. The results of this study should be seen only as one step in a continuous improvement process aimed at contributing to the development of the next sustainable development strategy of the department.

I. Introduction

This report presents the results of an internal issues scan for Industry Canada's third Sustainable Development Strategy (SDS III), 2003-2006. Industry Canada commissioned KPMG Consulting to undertake this study to identify key sustainable (SD) issues and related opportunities from a departmental standpoint.

1.1 Context

Definition of sustainable development—The World Commission on Environment and Development (the Brundtland Commission) defined sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs". This definition provides a framework for the integration of environmental policies and development strategies. The Government of Canada is committed to sustainable development as a way to improve our quality of life. Sustainable development has been integrated into the *Auditor General Act* and federal departments are required to produce sustainable development strategies every three years.

Sustainable development strategies in the federal government—In 1997, 28 federal government departments and agencies tabled their first sustainable development strategies in the House of Commons. The general objective of these strategies was to operationalize sustainable development, to move it from a concept to a practice by articulating what needed to be done by federal government departments.

The various federal government departments' SD initiatives have to satisfy a number of government-wide strategic directions, including those articulated in the government's *A Guide to Green Government* and in various government *Speeches from the Throne (1999, 2001, 2002).*

Industry Canada's sustainable development strategies—According to the *Department of Industry Act*, one of the duties of the Minister of Industry is to "strengthen the national economy and *promote sustainable development* ...". From a strategic management perspective, in 2001 senior management added SD to IC's Priorities Chart to reflect its importance as a major cross-cutting policy issue. Industry Canada is now in the process of developing its third Sustainable Development Strategy (SDS III), 2003-2006.

- SDS I (December 1997) was designed to build sustainable development into departmental activities and to be effectively aligned with the objectives of the department's overall business plan. SDS I focused on learning and discovery.
- SDS II (December 2000) is presently in progress, and aims to lead, form effective partnerships and be more proactive in select strategic areas where significant results are possible. This strategy focuses on leadership, partnership, being more proactive and focused, and placing more emphasis on strengthening management practices.

- SDS III is in a developmental phase and will be tabled in the House of Commons in December 2003.

Issues scan—This issues scan is part of a process for helping to develop the next sustainable development strategy of the department (SDS III) for 2003-2006. According to *A Guide to Green Government*, such an issues scan is intended to be a self-assessment of the department's policies, programs and operations in terms of their impacts on sustainable development. The internal issues scan is aimed at helping the department and the Commissioner of the Environment on Sustainable Development understand the implications of the department's activities for sustainable development. It is also aimed at identifying relevant sustainable development issues that the department could address over the next three years.

Two other studies have also been commissioned as part of this process: an external issues scan and a mid-term evaluation of SDS II. The external issues scan is intended to develop an understanding of the sustainable development issues from the standpoint of Industry Canada's partners, clients and stakeholder groups that are impacted by the department's policies and programs. The mid-term evaluation study is intended to review implementation issues and results of SDS II, and to identify lessons learned for designing SDS III.

1.2 Objective of this Report

Issues, opportunities and constraints—The objective of this report is to present the results of the internal issues scan. Key sustainable development issues for Industry Canada, as perceived by departmental officials, are presented, and related opportunities to help address these issues are presented. In addition, internal departmental constraints towards implementing an effective sustainable development strategy are identified.

1.3 Approach

Consultations—The approach for this study involved interviews with 49 management and professional staff members of Industry Canada (see the list of persons consulted in Appendix B and the interview guide in Appendix C). In addition, relevant results of interviews conducted for the mid-term evaluation study (37 interviews) were blended with the issues scan interviews, particularly in the context of relevant lessons learned from SDS II.

Document review—Part of the approach for the issues scan included a review of some relevant documents. Documents reviewed include previous SD internal and external issues scans, progress reports, evaluations of sustainable development initiatives, SDS I and SDS II strategy documents, reports of the Commissioner of the Environment and Sustainable Development, IC senior management presentations and memos on departmental SD activities, and ad hoc staff communications. Appendix A provides a list of references reviewed for this study.

Self assessment—The results of the interviews represent a self assessment of the relevant sustainable development issues and related opportunities that the department could initiate, from an appropriate standpoint of departmental strategic directions as described in *Industry Canada: Making a Difference—Our Priorities for 2002-2003*. The results presented reflect the perceptions of the persons interviewed.

Linking government-wide SD objectives to Industry Canada's mandate—*Making a Difference—Our Priorities for 2002-2003* is Industry Canada's strategic document on priorities for addressing the department's mandate to help make Canadians more productive and competitive in the global, knowledge-based economy. As part of the approach for this study, Chapter II of this internal issues scan report discusses the link between government-wide sustainable development objectives and Industry Canada's strategic directions. The objectives of *A Guide to Green Government* are linked to the five strategic areas of Industry Canada – i.e., Innovation, Connectedness, Marketplace, Investment and Trade.

Emerging themes and issues—The approach for the issues scan also involved narrowing down the key issues which Industry Canada could help address through its policies, programs and operations. Seven sustainable development issue areas are discussed in this report as key for related departmental initiatives.

Identifying the opportunities and constraints—An "opportunity" is a potential area in which specific Industry Canada initiatives could be launched to achieve departmental and/or government-wide sustainable development objectives. A "constraint" is a limiting factor that is perceived to have a significant impact on the potential for the department to advance sustainable development initiatives.

1.4 Limitation

Only an "internal issues scan"—This report is only an *internal* issues scan based on perceptions of Industry Canada officials. Views of stakeholders and clients of Industry Canada's programs and policies, and views of officials from other government departments, will need to be merged with the results of this study. The results of other studies, such as the findings from the mid-term evaluation study and the *external* issues scan, will also need to be reviewed as part of the planning process for SDS III.

Scope of internal consultations—While a representative sample of officials was consulted (49 interviews), from several branches in the department (see Appendix B), there may be other potentially interested individuals and groups within the department that were not interviewed.

Approach—The approach used in this study was tailored to the resources available for exploring the issues, opportunities and constraints. Consequently, a comprehensive review of pertinent documents (notwithstanding the references consulted and listed in Appendix A) and use of other effective consultation methods (e.g., focus group discussions, survey of stakeholders), were not pursued as part of this internal issues scan.

II. Linkages of Sustainable Development to IC's Strategic Objectives

This chapter of the report outlines the key sustainable development objectives of the federal government and Industry Canada's strategic objectives. It presents comments on the linkages between the department's strategic objectives and sustainable development. These comments are based on a review of literature (see Appendix A) and information gathered in our interviews with departmental managers and professional staff.

2.1 Government of Canada SD Objectives

In 1995, the concept of sustainable development was integrated into federal legislation and into amendments to the *Auditor General Act*, which established the office of the Commissioner of the Environment and Sustainable Development. The Commissioner issued *A Guide to Green Government* which lays out fifteen sustainable development objectives grouped into five major categories: sustaining our natural resources, protecting the health of Canadians and of ecosystems, meeting our international challenges, promoting equity, and improving our quality of life and well-being.

In 1997, federal departments were required for the first time to table in Parliament a three-year sustainable development strategy that outlined departmental objectives and an action plan for integrating sustainable development into policies, programs, and operations. The government is now in the process of preparing its third generation of sustainable development strategies (SDS III) for 2003-2006. These strategies are critical for advancing the government's SD agenda and for measuring progress against it.

The government's SD objectives, as laid out in *A Guide to Green Government,* are outlined in Exhibit 1 and serve as a starting point for the identification of sustainable development issues relevant to Industry Canada.

The 1999 *Speech from the Throne* confirmed these objectives, while also highlighting additional sustainable development objectives, including:

- *Integrating sustainable development into decision-making processes*—Canada must place greater emphasis on sustainable development in government decision making. The use of sound scientific analysis and policy tools needs to be integrated into business planning and decision-making processes of government.
- *Putting the house in order*—The government intends to make itself a model of environmental excellence. It is introducing legislation and stewardship programs that will ensure sustainable development initiatives are followed.
- *Partnerships for sustainable development*—Partnerships with government, business and other stakeholders need to be used effectively to encourage the innovation of policy instruments that further sustainable development goals.

Exhibit 1: SD Objectives Included in *A Guide to Green Government*

Sustaining our Natural Resources – Sustainable Jobs, Communities and Industries

Ensuring renewable resources development is sustainable	Many of Canada's resources are renewable, but for resource bases to be sustainable they must have the capacity to regenerate; the integrity of ecosystems on which a resource depends should be respected.
Ensuring efficient use of non-renewable resources	Some resources, such as minerals, oil, gas and coal, are not renewable. Sound policies that encourage efficient extraction and manufacturing processes, or that stimulate recycling and the development of substitutes will contribute to ensuring these resources are used efficiently.

Protecting the Health of Canadians and of Ecosystems

Virtually eliminating anthropogenic persistent, bioaccumulative toxic substances	Toxic andanthropogenic(human-made) substances have long-term health and environmental implications, particularly when they accumulate in plant and animal tissues and thus persist in the environment. Canada needs to determine how to manage or phase-out these toxic substances most effectively.
Adopting a pollution prevention approach	Pollutants (atmospheric, chemical, etc.) damage the environment, often in immeasurable ways. More than how to manage the consequences of pollution, the issue in Canada is how to prevent pollution and waste. Furthermore, Canadian pollution standards are sometimes inadequate or not properly enforced.
Protecting represented areas of ecosystems	The protected spaces that house many forms of plant and animal life, and which are important indicators of overall ecosystem health, need to be preserved.
Warning and responding to natural and human disasters	Natural disasters like landslides, tornadoes, forest fires, severe wind and hailstorms, floods and avalanches can have devastating social and economic costs. Human error or accident can also cause disasters, e.g., oil spills, nuclear waste, with devastating effects. Canada needs an effective warning and adaptive response capability to reduce the costs of disasters.

Meeting Our International Challenges

Protecting ozone layer	The depletion of the ozone layer has human health, environmental and economic implications. Canada must continue efforts to phase-out the production and use of ozone depleting substances.
Reducing greenhouse gas emissions and climate change	Current projections indicate that with no further action Canada's emissions in the year 2000 will be 13 percent higher than in 1990. Canada has committed to stabilize greenhouse gas emissions by the year 2000 and to ultimately return emissions to 1990 levels.
Conserving biodiversity	Biodiversity – the variety, richness and complexity of life that exists within nature – is increasingly threatened. Certain species are particularly at risk, raising issues about how best to protect them and their natural environments.

Exhibit 1 (continued): SD Objectives Included in *A Guide to Green Government*

Promoting Equity

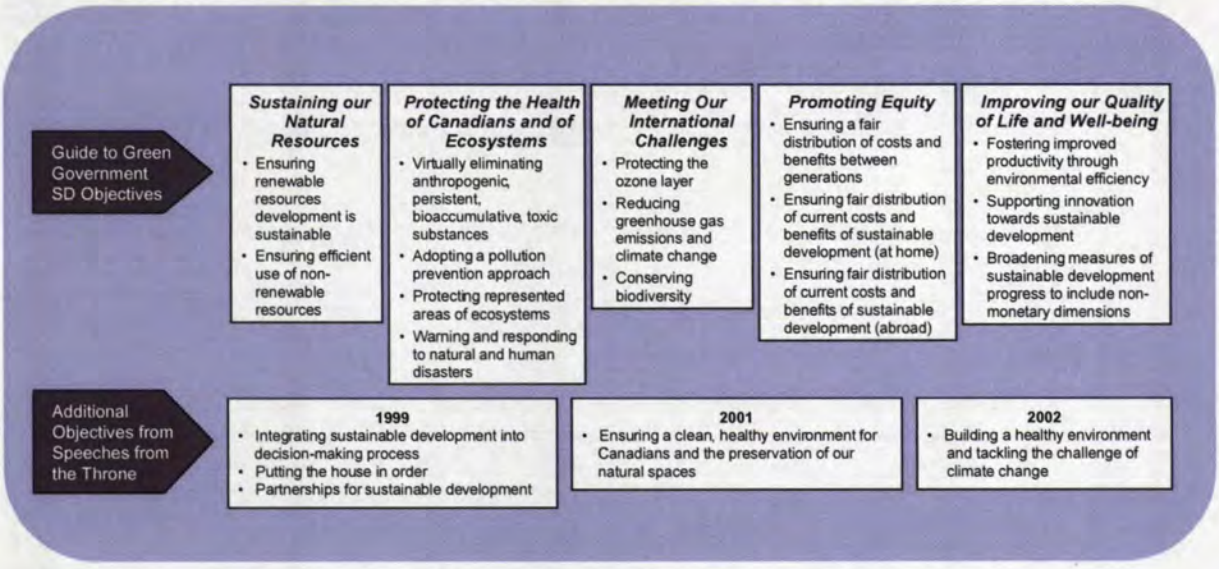
Ensuring a fair distribution of costs and benefits between generations	While it is not possible to predict with precision the likely interests of future generations, future generations must benefit from the environment to the same degree as current generations.
Ensuring fair distribution of current costs and benefits of SD (at home).	Canada needs to extend the benefits of the country's economic prosperity and high quality of life to as broad a segment of the population as possible without threatening the integrity of the nation's ecosystems.
Ensuring fair distribution of current costs and benefits of SD (abroad)	Inequitable distribution of wealth between the nations of North and South is a major barrier to achieving sustainable development. Furthermore, an insufficient provision of technical assistance to developing countries is hindering these countries' ability to respect sustainable practices.

Improving our Quality of Life and Well-being

Fostering improved productivity through environmental efficiency	Environmental efficiency is an important dimension of productivity. How can Canada produce more with less – less resource inputs, less waste? In essence, Canada needs an improved understanding of the environmental costs and benefits and environmental inefficiency.
Supporting innovation towards sustainable development	Canada needs policies and programs that help make measurable progress on a range of sustainable development issues, but that also stimulate innovation and competitiveness. Part of the problem is an inadequate government capacity for and commitment to environmental research, and the need to base environmental objectives on sound, risk-based scientific analysis.
Broadening measures of SD progress to include non-monetary dimensions	Canadians need access to information on sustainable development issues in order to assess, predict and respond to sustainable development challenges.

Subsequent *Speeches from the Throne* (2001 and 2002) and the recent Federal Budget (2003) further confirmed the government's commitments to sustainable development. Exhibit 2 below summarizes the overall government objectives for sustainable development.

Exhibit 2: Current Government of Canada SD Objectives



2.2 Linkages of SD to IC's Strategic Objectives

Industry Canada's mandate is about growing a dynamic economy, and about helping Canadians become more productive and competitive in the global, knowledge-based economy. The department's policies, programs, and services help create an economy that:

- provides more and better-paying jobs for Canadians;
- supports stronger business growth through continued improvements in productivity and innovation performance;
- gives consumers, businesses and investors confidence that the marketplace is fair, efficient and competitive; and
- ensures a more sustainable economic, environmental and social future for Canadians.[1]

The five strategic objectives (Innovation, Connectedness, Marketplace, Investment and Trade), that guide the department in achieving its mandate, are highlighted in Exhibit 2a.

[1] *Industry Canada: Making a Difference—Our Priorities for 2002-2003.*

Exhibit 2a: Strategic Objectives of Industry Canada

Another important priority encompassing "Corporate and Management Support Services" underlies the five objectives.

2.2.1 Innovation

What the department does—*Canada's Innovation Strategy – Achieving Excellence: Investing in People, Knowledge and Opportunity* provides an assessment of Canada's innovation performance, proposes national targets, and identifies a number of areas where the Government of Canada can act to improve the nation's innovation performance. More organizations have to recognize that, in the knowledge-based economy, the development of innovative products and processes is key to success in the global marketplace. To achieve this goal, the department undertakes activities that support and encourage organizations to participate in its innovation agenda. These activities include:

- **Technology Roadmaps (TRMs):** TRMs are forecasting tools that help firms in specific industry sectors predict their future technological and product needs, and map out how best to attain them. As part of the department's commitment to innovation, IC acts as a catalyst and provides support for the development of industry-led TRMs.
- **R&D investments:** *Canada's Innovation Strategy* identifies low levels of expenditures on research and development (R&D) as a leading factor responsible for Canada's productivity gap. In particular, it stresses the importance of the private sector's R&D expenditures, commits government to at least doubling Canada's R&D investments and calls for greater support from the private sector on this crucial initiative.
- **Technology Partnerships Canada (TPC):** TPC, a special operating agency of Industry Canada, is a technology investment fund investing strategically in research, development and innovation in order to encourage private sector investment, and maintain and grow the technology base and technological capabilities of Canadian industry. In partnership with the private sector, TPC invests in high-risk industrial research and pre-competitive development projects.
- **Accelerated Commercialization of Innovations:** Industry Canada works to accelerate the commercialization and adoption of innovative processes and products by Canadian organizations in all sectors of the economy through a variety of activities. For example, the department provides small and medium-sized enterprises

(SMEs) and start-up companies with access to laboratories and specialized equipment through the Communications Research Centre Canada.

- **Increased Eco-Efficiency:** The department's eco-efficiency web site provides information on the benefits of eco-efficiency innovations for Canadian business, including industry practices, case studies, links to other useful sites, and eco-efficiency tools such as "Three Steps to Eco-efficiency" for use by Canadian manufacturers.

Relevance for sustainable development—As outlined above, Industry Canada promotes and encourages innovation and research in the private sector. This provides the opportunity for research in sustainable development technologies – for example, into new and better ways of sustaining our natural resources, into methods that could help lower emissions, and into the development of technology that could reduce reliance on hazardous substances.

Innovation can also lead to improved productivity through the development of eco-efficient technologies and practices. Industry Canada has continuing opportunities to promote eco-efficiency as a reinforcing important dimension of productivity. One of Industry Canada's SD priorities is to work in partnership with industry to develop innovative tools and practices that improve business and environmental performance. For example, the department can continue to capitalize on Technology Roadmaps as a tool for SD purposes, and the Technology Partnerships Canada fund has a component that focuses on environmental technologies.

2.2.2 Connectedness

What the department does—Canada recognized early on that connectedness is an important platform of an innovative economy and inclusive society. Connectedness ensures that all Canadians have the means to participate in the creation and sharing of knowledge. Industry Canada plays an important role in helping businesses and consumers connect to the information highway.

One of Industry Canada's key priorities is to continue to work with its partners toward strengthening the information and communications technologies (ICT) infrastructure, to enable full interactivity as well as the types of applications that will provide socio-economic benefits, such as telehealth and telelearning. Examples of the department's activities in this area include supporting CANARIE's program for advanced Internet broadband applications to contribute to e-commerce, the Smart Communities Program, e-learning and e-health applications, as well as the CA*net 4 initiative to provide Canadian researchers with an expanded national research network.

The department also promotes the need for, and adoption of, secure e-commerce business processes with the private sector and in international forums. It implements measures to accelerate the growth of e-business by promoting fair business practices and e-business readiness among SMEs. Examples of related activities include providing resources, toolkits, diagnostics, analysis and research, and market intelligence and training to encourage the adoption of e-business, as well as developing and disseminating intelligence on the best e-business practices of Canadian industry sectors.

Relevance for sustainable development—IC's objective to make Canada the most connected nation in the world can potentially be linked to sustainable development. An advanced information and communications infrastructure can contribute to sustainable development by:

- providing opportunities to Canadian businesses and consumers to gain and share knowledge on ways and means to improve productivity and environmental performance;
- building environmentally responsible technologies that reduce the amounts of materials and energy used and pollutants that result from the manufacture of information and communications products; and
- helping businesses and consumers find benign ways to reduce materials, energy and toxic dispersion (e.g., by supply chain management, e-commerce, telecommuting, teleworking, telelearning, telehealth).

Persons interviewed for this study suggested that Industry Canada, by playing an important role in helping businesses and consumers connect to the information highway, is better able to advance sustainable development in Canada. Because of connectedness, more Canadians are able to access information from web sites that are dedicated to disseminating relevant information, tools and best practices for sustainable development (e.g., Industry Canada has a dedicated web site for eco-efficiency).

2.2.3 Marketplace

What the department does—Industry Canada is committed to building a fair, efficient and competitive marketplace. By setting rules for the Canadian marketplace, promoting vigorous competition, and providing accurate, timely and state-of-the-art information to business and consumers, Canada benefits in terms of increased innovation, investment, consumer spending, job growth and productivity. For example, Industry Canada's marketplace service organizations (MSOs) are proactively modernizing the rules of the marketplace, the services provided to clients, and the tools used to detect, prevent and deter fraudulent, unfair and deceptive behaviour.

The following are the department's marketplace service organizations:

- Canadian Intellectual Property Office
- Competition Bureau
- Corporations Directorate
- Marketplace Framework Policy Branch
- Measurement Canada
- Office of Consumer Affairs
- Office of the Superintendent of Bankruptcy Canada
- Spectrum, Information Technologies and Telecommunications Sector.

Activities undertaken by MSOs include: reducing regulatory burden on industry, addressing and protecting intellectual property rights, promoting and maintaining fair competition, and

protecting consumer interests in the event of market failure. More specifically, MSOs are involved in activities such as assessing the effectiveness of the country's patent regime, increasing mobile wireless services through increased spectrum, providing consumers with tools to increase their confidence in on-line purchasing, and stopping telemarketing fraud, especially for the pharmaceutical and biotechnology sectors.

The department also prepares marketplace frameworks to ensure competitive prices and product choices, and provide accurate and timely information to market participants. Such frameworks help streamline regulations, inspire public and business confidence and create incentives to innovate.

In addition, Industry Canada's Canadian Consumer Information Gateway is an innovative web site that provides single-window access to consumer information from federal departments and agencies, and more than 250 provincial/territorial government partners.

Relevance for sustainable development—A fair, efficient and competitive marketplace will create wealth and also ensure a fair distribution of the costs and benefits of development between generations, among nations and between the poor and the affluent. Passing on economic growth to future generations through innovation and productivity is key to sustainable development.

Through its marketplace programs and activities, as described above, Industry Canada can help educate Canadians on the challenges, opportunities and benefits of advancing sustainable development. It can help create a marketplace climate that encourages companies to invest in innovations that improve their business performance as well as their ability to address environmental challenges. The department can also give consumers the tools they need to make informed decisions to choose safe and healthy products that protect the environment. Sustainable development requires that future generations are able to benefit from the environment to the same degree as current generations.

2.2.4 Investment

What the department does—Part of what Industry Canada does is to encourage domestic and foreign investment in Canada. Canada, like many other countries, depends on investment and capital formation to stimulate economic growth, innovation and sustainable development. Investment brings skills, new management techniques and ideas, as well as financial resources to Canada and to Canadian business.

Industry Canada is involved in activities aimed at improving the conditions that lead to increased business investment in Canada. The department's efforts in this direction include working with federal investment partners, provincial/territorial departments and agencies, and the private sector to develop and implement specific initiatives related to investment policy, branding, investment attraction in priority markets and sectors, and SME and Aboriginal investment.

The department undertakes research and analysis of investment climate issues, in consultation with partner organizations, to strengthen the knowledge base and facilitate the resolution of investment impediments (such as border, immigration, regulatory and foreign ownership issues). It also undertakes joint partnerships with other government departments

such as DFAIT (e.g., *Investment Partnerships Canada*), to attract and retain multinational investment by promoting Canada's advantages as a preferred investment location. It also helps to develop sector-specific investment strategies, and it is involved in identifying and addressing sector and company-specific issues that are key to investors making location decisions.

Industry Canada also works to increase investment by targeted groups that play a major role in stimulating growth and jobs in the Canadian economy. For example, the department provides a broad range of business services to help identify opportunities for growth for SMEs and for other target groups such as Aboriginal people (e.g., *Aboriginal Business Canada* provides services to help build the Aboriginal economy).

Relevance for sustainable development—Industry Canada seeks to encourage investment flows that contribute to sustainable development in Canada. The department is encouraging investment in Canadian knowledge, products, practices and technologies that further the objectives of sustainable development.

When promoting Canadian investment opportunities, Industry Canada is aware of the challenge of extending the benefits of economic prosperity and high quality of life to a broad segment of the population, while maintaining the fundamental integrity of Canadian ecosystems. As a result, some of the people interviewed for this study felt that Industry Canada has an opportunity to do more in:

- promoting investments that encourage adoption of eco-efficient practices (e.g., in "lean" manufacturing); and
- monitoring investments in order to ensure that renewable resources development is sustainable.

The challenge is to enlist investors to take on industry solutions that achieve more value from lower inputs of materials and energy while reducing emissions, and to design products that are easily disassembled and recycled while extending their durability, service life and functionality.

2.2.5 Trade

What the department does—Canada's trade performance is a critical factor in sustaining a strong, healthy economy. Today's global economy is enticing more Canadian businesses to think of exporting their products and services to international markets. Industry Canada works with Canadian companies to increase Canada's share of global trade. Examples of this effort include the Industry Canada's Trade Team Canada Sector (TTCS) teams that are instrumental in the delivery of Canada's trade programs, and the department's International Trade Centres (ITCs) located across Canada.

TTCSs operate under the umbrella of Team Canada Inc (TCI), Canada's network of federal and provincial government export service providers that helps Canadian business succeed in world markets. Team Canada Inc is the result of Canadian businesses' demands for faster, easier access to the international business services that governments offer.

The key role of the TTCSs is to develop sectoral trade development strategies and annual

action plans. By participating in TTCSs, team members work to develop consensus on strategic priorities, decrease overlap and duplication in programs and activities, and share resources towards agreed goals.

Industry Canada's International Trade Centres (ITCs) help direct firms to existing products and services that relate to their particular exporting needs. The mandate of ITCs is to work within the Team Canada Inc partnership to substantially increase the number of Canadian exporters, to expand and diversify exports and to support the investment initiatives of Canadian small and medium-sized enterprises (SMEs). Located in every province, ITCs provide a full range of trade development services and assistance to Canadian SMEs, including export counseling and market entry support.

By planning and implementing trade promotion activities, as described above, Industry Canada helps Canadian companies by:

- opening doors and providing contacts through trade missions, trade fairs, and matchmaking events;
- providing information about target markets, and intelligence about business opportunities; and
- showcasing Canadian capabilities abroad.

Relevance for sustainable development—There was a perception amongst some of those interviewed for the internal issues scan that the department should continue, through its trade-related activities, to foster the export of Canadian innovations that further the objectives of sustainable development; encourage trade that contributes to sustainable development goals in Canada and abroad; promote the establishment of international rules that further the objectives of sustainable development; and encourage the export of Canadian knowledge, products, practices and technologies that further the objectives of SD. This is consistent with the government's aim of branding Canada as a leader in innovative technologies for sustainable development.

2.2.6 Corporate and Management Services Support

Although not considered one of the department's five strategic objectives, corporate and management services are a critical support component of the overall departmental strategic directions. Sustainable development objectives can be advanced through this support function. Strong corporate management strengthens the department's decision making process and increases the capacity of the department to manage and deliver its programs, policies and operations that support sustainable development. For this purpose, corporate and management services form an important element of the sustainable development strategy of Industry Canada.

2.3 Industry Canada and SD Can Be Compatible

As discussed in the previous sections of this chapter, Industry Canada's mandate can be quite compatible with the goals of sustainable development. Sustainable development includes efficient and environmentally responsible use of scarce resources—natural, human and economic, and is not just the protection of the environment. Nor should environmental

protection be viewed as a barrier to economic development. Rather, an SD economy stimulates job growth and wealth; fosters innovation, research and development; and encourages investments in healthy living and working conditions.

Integrating economic, social, and environmental areas consistent with IC's mandate and under an SD framework (the so called "triple bottom line" that more and more firms are moving towards[2]), could lead to an improved quality of life and wellbeing for all Canadians. Consequently, Industry Canada and sustainable development can be compatible.

[2] See *Sustainable Development Strategy, 2000-2003*, Industry Canada, Section 3.1.3, page 25.

III. Key Issues and Opportunities

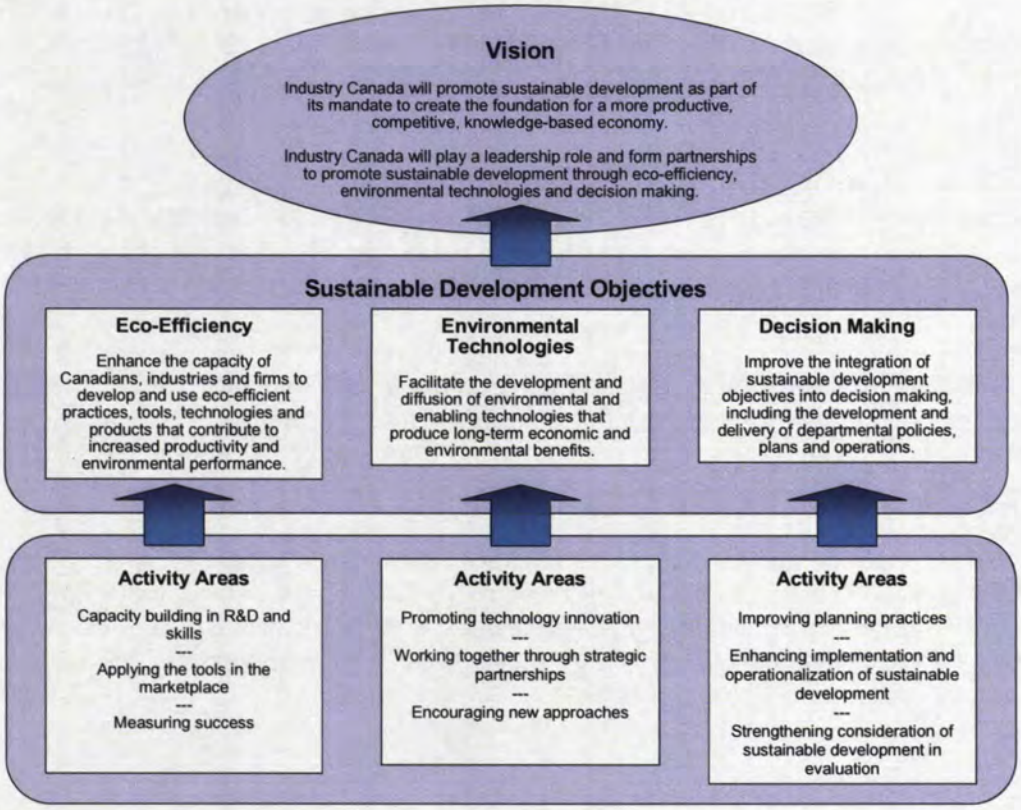
This chapter presents a synthesis of the key sustainable development issues and opportunities perceived to be relevant to Industry Canada for the next sustainable development strategy, SDS III.

3.1 Context and Linkages: SDS II and SDS III

In its second Sustainable Development Strategy (SDS II), Industry Canada was committed to promoting sustainable development as part of its mandate to create the foundation for a more productive, competitive, knowledge-based economy.

Industry Canada's SDS II consisted of three objectives that focus on eco-efficiency, environmental technologies, and decision making. Exhibit 3 identifies the architecture of the strategy, including the vision, objectives and targeted areas for action.

Exhibit 3: Context of SDS II



The overall vision of SDS II is aligned with Industry Canada's mandate to create the foundation for a more productive, competitive, knowledge-based economy. The following are the overall strategic objectives of SDS II:

- *Eco-efficiency*: Enhance the capacity of Canadians, industries and firms to develop and use eco-efficient practices, tools, technologies and products that contribute to increased productivity and environmental performance.
- *Environmental technologies*: Facilitate the development and diffusion of environmental and enabling technologies that produce long-term economic and environmental benefits.
- *Decision-making*: Improve the integration of sustainable development objectives into the decision-making and delivery of departmental policies, plans, programs and operations.

Within these strategic objectives, the department established nine priority activity areas (see Exhibit 3) to play a leadership role and promote sustainable development.

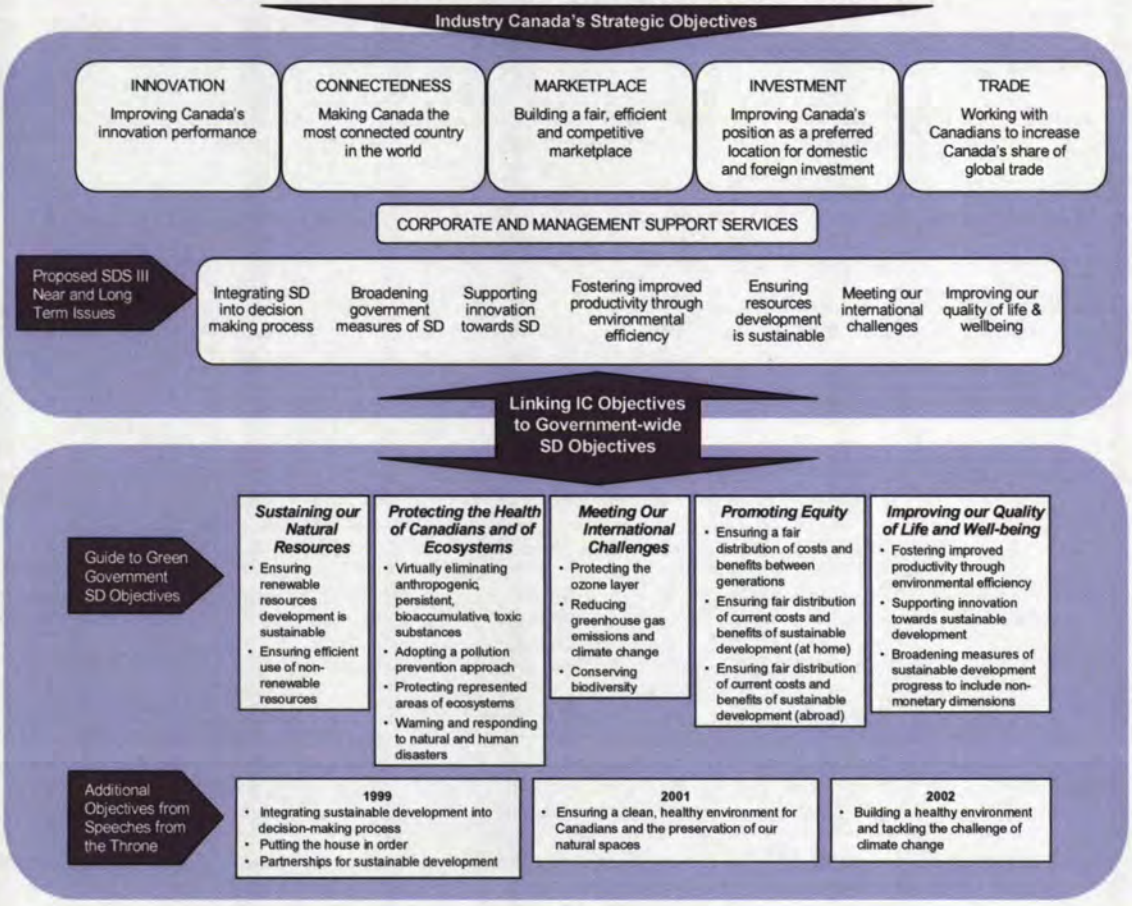
The proposed context framework for SDS III is presented in Exhibit 4. Industry Canada's five strategic objectives, as described in *Making a Difference – Our Priorities for 2002-2003* are linked to the fifteen sustainable development objectives from *A Guide to Green Government* and the objectives summarized from the *Speeches from the Throne* (1999, 2001, 2002). They are also consistent with the horizontal themes across federal government departments that emerged through the Leaders Forum on SD in 2000 (e.g., "productivity through eco-efficiency" is a co-lead theme with Natural Resources Canada and Environment Canada).

One of the underlying aims of IC's sustainable development strategies is to focus on those action areas that would make the greatest difference. Certain Industry Canada strategic objectives lend themselves more than others to advancing SD. Therefore, it is important to link the department's SD objectives to the strategic objectives that are most likely to yield SD activities.

The linkages between IC's strategic objectives and the government's overall SD objectives were assessed through the internal issues scan consultation process with management and professional staff within the department, and by a review of the key documents listed in Appendix A.

Several key issues and opportunities emerged from the interviews and the review of documents, and it was possible to link these issues and opportunities to the major strategic objectives of the department. Logical linkages were made between IC's strategic objectives and seven sustainable development issue areas. The issues and opportunities are discussed later in this chapter.

Exhibit 4: Context Framework for SDS III Issues



3.2 SDS III Issue Areas Identified by SDCC

Industry Canada's Sustainable Development Coordinating Committee (SDCC) identified several SDS III issue areas for discussion during the consultation process. These issue areas were listed as follows:

- Productivity through eco-efficiency
- Environmental technologies
- Increasing the integration of SD in departmental decision making
- Social dimensions of sustainable development
- Innovation
- Climate change
- Corporate sustainability reporting
- Corporate social responsibility (CSR)
- Interdepartmental partnerships.

In addition to the overall SD framework established by the federal government (see Chapter II of this report), the issue areas listed above were discussed with interviewees. An overview of the response of interviewees to this list, as well as a cross reference to the issue areas proposed through the discussions with IC managers and staff, are provided in Exhibit 5.

Exhibit 5: Response to SDCC's Issues List

SDCC ISSUE AREA	OVERVIEW	CROSS REFERENCE TO PROPOSED ISSUES SCAN AREAS (SDS III)
Productivity through eco-efficiency	This is a continuing priority for Industry Canada. Productivity growth is one of the strategic objectives of the department. Developing and applying eco-efficient tools, products, practices, and technologies, are important for productivity growth. Finding competitive solutions that enhance productivity and improve environmental performance is an important focus for IC.	"Fostering improved productivity through environmental efficiency"
Environmental technologies	This is a continuing priority for IC. This can be described as the forte of the department. Many SD initiatives that are likely to have a more direct impact on innovative technologies are in place, and spin-off initiatives for SDS III are possible.	"Supporting innovations towards sustainable development" "Meeting our international challenges"
Increasing the integration of SD in departmental decision making	While the department has made much progress in successfully integrating SD in departmental decision making, IC needs to continue to be vigilant about this issue area – to give SD a high profile and to ensure continued commitment by senior management and staff.	"Integrating SD into decision making process"
Social dimensions of sustainable development	Though most persons interviewed recognized that social dimensions of SD are just as important as economic dimensions, they also recognized that IC's mandate emphasizes economic impacts. However, the integration of social, economic and environmental concerns remains a priority for government, and IC needs to consider how industry can best achieve this "triple bottom line" objective.	"Improving our quality of life and wellbeing"
Innovation	Enhancing the ability of Canadian firms to develop and use innovative technologies and tools that contribute to SD is considered a forte of IC. Innovation should continue to be a primary focus in SDS III.	"Supporting innovations towards sustainable development"
Climate change	Climate Change (CC) issues are addressed by interdepartmental activities of the federal government. IC is only one player amongst many addressing CC. While the ratification of the Kyoto Protocol heightens the profile of CC within the federal government (the 2003 Budget allocated approx. $3 billion for this), IC is not the lead department.	"Meeting our international challenges" This issue area cross-references with several issues identified in the internal issues scan, to one degree or another.
Corporate sustainability reporting	Corporate sustainability reporting has three drivers (i) enhanced business value (allows for competitive advantages); (ii) improved internal alignment and capacities (coherent corporate vision, internal management systems, continuous improvement); and (iii) strengthened external relationships (sharing performance information with the public and with stakeholders demonstrates willingness to be accountable). SD reporting is seen as part of the process to get SD in the forefront of socio-economic strategic thinking, both in the private and public sectors. Consensus standards for reporting and transparency could provide a climate conducive to responsible corporate SD practices.	"Integrating SD into decision making"
Corporate social responsibility (CSR)	Voluntary approaches of government are predicated on an understanding that private sector firms are to exercise "corporate social responsibility" (CSR). As such, CSR is considered to be a "good business" practice. This is an important consideration for advancing the SD agenda.	"Improving our quality of life and wellbeing"
Interdepartmental partnerships	Interdepartmental partnerships are not an objective of SD as such, but rather an approach to achieving results. SDS I and SDS II used this approach in implementing several action items. Partnerships remain an important tool for IC to achieve its SDS III objectives.	Partnerships are a means to an end, addressing all issues identified to one degree or another.

3.2 Logic Diagram

The logic diagram provided in Exhibit 6 lists the key sustainable development issue areas that emerged from the interview process as important for Industry Canada. Logical linkages between key sustainable development issues and strategic objectives of the department are depicted in the logic diagram.

By addressing the near-term issue areas (i.e., integrating SD into the decision making process, broadening the government measures of sustainable development, supporting innovation towards sustainable development, and fostering improved productivity through environmental efficiency), Industry Canada moves the sustainable development agenda closer to achieving the long-term goals of the government SD vision (i.e., ensuring resources development is sustainable, meeting our international challenges, and improving our quality of life and wellbeing).

The key issues that are identified in Exhibit 6, and related opportunities, are discussed in the following sections of this chapter. These issues and opportunities are summarized results based on the perceptions of management and professional staff of Industry Canada. As discussed in Chapter I of this report, the scope of the project and timeframe limited the interviews to a sample of officials within the department. While the interviewees represented a good cross section of knowledgeable staff throughout the department, not all potentially interested parties and branches were interviewed. Key issues and opportunities were selected as ones that were reiterated in a number of interviews or brought to the table by individuals with significant knowledge and understanding of sustainable development.

3.3 Issue Areas and Opportunities

The department has a number of instruments that it can use to achieve the intended outcomes of its sustainable development strategies. Exhibit 7 lists several of these instruments and highlights how SDS III can utilize these instruments as opportunities to address the issue areas identified for the strategy.

The issue areas that were identified and that the department could further focus upon in the next phase of SDS III are:

Near-term (1-3 years, SDS III):

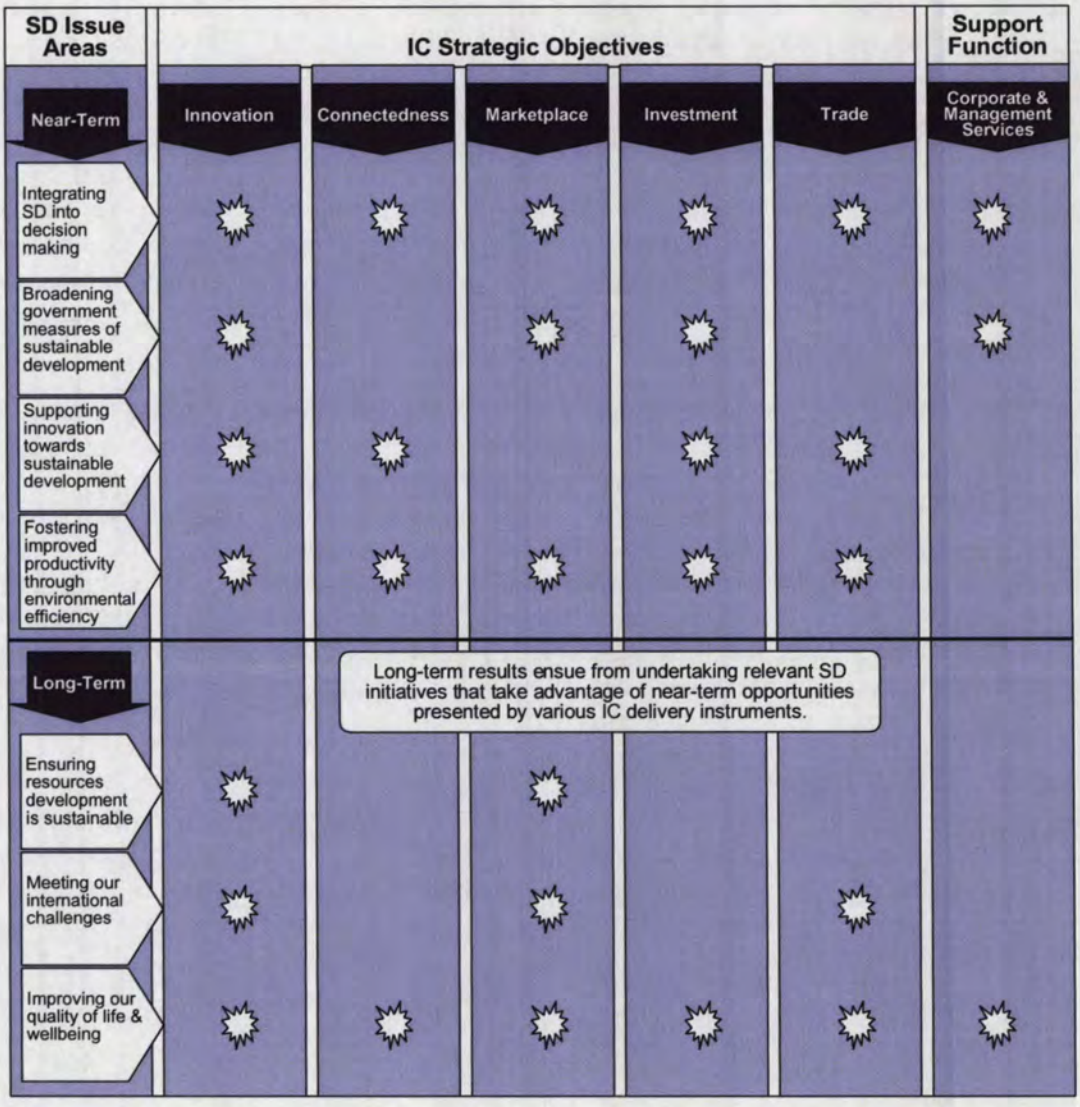
- Integrating sustainable development into the decision making process
- Broadening government measures of sustainable development
- Supporting innovation towards sustainable development
- Fostering improved productivity through environmental efficiency

Long-term (cumulative impacts of various SD strategies over 10 years):

- Ensuring resources development is sustainable
- Meeting our international challenges
- Improving quality of life and wellbeing.

These seven broad issue areas encompass the sustainable development initiatives of SDS I and SDS II, and provide a framework for initiatives in SDS III.

Exhibit 6: Logic Diagram Linking Proposed SD Issues to Industry Canada's Strategic Objectives



The challenge for Industry Canada will be to choose the appropriate instruments that best achieve the intended outcomes of the strategy, in a suitable timeframe that is consistent to a government-wide schedule for achieving results. This challenge can be mitigated only to the extent that consensus emerges on such a timeframe, with an accompanying clarity of vision expressed at a government-wide level, as well as within IC. Regardless of this challenge, however, it is important for the department to assess and select the most effective tools at its disposal that best achieve intended results, in a timely fashion.

Exhibit 7: IC Delivery Instruments to Address Proposed Issue Areas for SDS III

IC DELIVERY INSTRUMENTS (OPPORTUNITIES)	PROPOSED ISSUE AREAS FOR SDS III						
	NEAR-TERM ISSUES				LONG-TERM ISSUES		
	Integrating SD into decision making process	Broadening government measures of sustainable development	Supporting innovation towards sustainable development	Fostering improved productivity through environmental efficiency	Ensuring resources development is sustainable	Meeting our international challenges	Improving our quality of life and wellbeing
	NEAR-TERM OPPORTUNITIES				LONG-TERM INTENDED RESULTS		
Activity in international fora	√	√	√	√	**LONG-TERM RESULTS ENSUE FROM UNDERTAKING RELEVANT SD INITIATIVES THAT TAKE ADVANTAGE OF NEAR-TERM OPPORTUNITIES PRESENTED BY VARIOUS IC DELIVERY INSTRUMENTS.**		
Funding support/programs			√	√			
Guidelines & application tools	√	√	√	√			
MOUs & other agreements			√	√			
Multi-stakeholder committees	√	√	√	√			
Networking activities			√	√			
Newsletters, brochures & other info-dissemination materials & reports	√	√	√	√			
Partnerships/collaborations			√	√			
Policy & legislative framework	√		√	√			
Putting own house in order	√	√					
Research chairs/networks			√	√			
Research studies & reports	√	√	√	√			
Standards & regulations			√	√			
Technology demos & trade show venues			√				
Technology roadmaps	√	√	√				
Third-party delivery			√	√			
Training	√	√		√			
Web sites and databases	√	√	√	√			
Workshops/seminars	√	√		√			
Voluntary mechanisms				√			

3.4 Near-Term Issues and Opportunities

The following is a consolidation of views about what the relevant near-term issues for SDS III are, and what the relevant opportunities could be, as suggested by staff and managers of Industry Canada.

3.4.1 Integrating SD Into Decision Making Process

Issue—The issue of integrating SD into decision making is twofold: internal within the department, and external within industy. On the one hand, the issue involves strategic planning functions of government, and on the other hand it is intended to address decision making processes within the private sector.[3] Integrating SD into decision making is an ongoing issue, in that the department needs to continue to be vigilant about its activities and how they impact on government-wide objectives for sustainable development.

Departmental interviews suggested that the profile of SD within Industry Canada has increased considerably since SDS I. The mid-term evaluation of SDS II revealed that there was a considerable amount of SD-related activity at all levels within Industry Canada, during the planning and implementation phases of the strategy. [4] However, there continues to be a concern about the need to assess to what extent the department has made significant impacts on SD, with the delivery instruments available to it. If "Making a Difference" is a banner headline of the department, senior management, for example, could focus on the question: "What difference have we made in sustainable development?" Further development and use of sound policy and scientific analysis tools need to be encouraged, notwithstanding the many positive advances that the department has already made in this direction (for example, in the use of Strategic Environmental Assessments).

Opportunities—Exhibit 7 indicated specific delivery instruments on how the department could address this issue. Officials of Industry Canada also identified opportunity areas to address challenges related to the integration of SD into the decision making process, as follows:

- Monitoring environmental reporting practices of companies in Canada
- Promoting SD awareness among consumers
- Integrating environmental framework with economic framework for SD
- Ratcheting up quality of Strategic Environmental Assessments (SEAs)
- Identifying economic impacts of Kyoto Protocol on Canadian industry
- Improving the role of the department in advocacy
- Promoting good corporate governance practices
- Encouraging life cycle stewardship
- Monitoring reporting requirements for Corporate Social Responsibility (CSR)
- Developing new sector technology roadmaps
- Continuing to work on sustainable cities/communities
- Conducting an international benchmarking of SD policies and legislation

---

[3] *Speech from the Throne, 1999.*

[4] *Mid-term Evaluation Study of Industry Canada's Sustainable Development Strategy, 2000-2003.*

- Continuing to evolve the Canadian Environmental Solutions web site
- Promoting Extended Producer Responsibility, to include the post consumer stage
- Helping municipalities and SMEs to adopt Environment Management Systems
- Biodiversity stewardship/conservation
- Helping SMEs with "triple bottom line" implementation
- Participating in the convergence framework (with NRCan and EC)
- Putting own house in order.

3.4.2 Broadening Measures of Sustainable Development

Issue—Canadians need access to information on sustainable development issues in order to assess, predict and respond to sustainable development challenges.[5] Government, industry and the general public make decisions on the basis of the best information available to them. Information and awareness tools have been a big part of addressing this gap and fostering informed choices. However, information by itself is not sufficient to make informed decisions. Performance measurement indicators and tools to organize information into practical applications are needed. Decision makers at all levels in government, society and business need credible measures on performance of any given SD initiative: what performance standard is satisfactory, does the actual performance measure up to this standard, what is realistic performance within given timeframes, and how will results be accomplished in the most efficient and effective way? Industry Canada has addressed this challenge, to a certain extent, over the span of SDS I and SDS II. However, there is consensus among managers and staff at Industry Canada that there still is much to accomplish, and that there is a need to broaden government measures of sustainable development. Opportunities to do this should be considered in SDS III.

Opportunities—Exhibit 7 indicates specific delivery instruments on how the department could address this issue. Officials of Industry Canada also identified opportunity areas to address challenges related to broadening government measures of sustainable development, as follows:

- Studying impacts of SD fiscal and tax incentives on SD performance of firms
- Developing a strategic oversight capability for SDS III
- Delineating linkages for convergence of SD projects around SDS III themes
- Contributing to MOUs with NRCan to make economic case for reduced emissions
- Helping to accelerate the regulatory review process
- Developing performance measures for Sustainable Cities Initiative
- Building socio-economic impacts analysis into roadmaps
- Improving micro-economic modeling for measuring impacts of SD
- Implementing an internal departmental forum for sharing ideas from SDS III
- Applying RMAF guidelines for SDS III at an early planning stage
- Exploring effectiveness of MOUs as a "soft" tool for influence
- Using SD as a screening tool in the financial sector
- Benchmarking of companies ranked in relation to SD performance
- Analyzing impacts of voluntary SD mechanisms on industry

[5] *A Guide to Green Government, 1995.*

- Developing credible impacts analysis for pre-competitive investments of TPC
- Working with Statistics Canada to develop data and measures on environmental technologies and eco-efficiency
- Measuring what constitutes success of SD for Canadian trade
- Identifying success measures for outreach efforts by Industry Canada
- Studying implications of Kyoto Protocol for consumers
- Identifying infrastructure requirements for hybrid and fuel cell technologies
- Developing more effective environmental assessment indicators.

3.4.3 Supporting Innovation Towards Sustainable Development

Issue—The development of innovative products and processes is key to success in the global marketplace. Promoting innovation is essential if Canada is to lead in the creation of a knowledge-based economy and improve its productivity and competitiveness. Industry Canada promotes and encourages innovation and research in the private sector and academia. This provides the opportunity for research into new and better ways of sustaining our natural resources, into methods that could help lower emissions and into the development of technology that could reduce reliance on hazardous substances. Innovation can also lead to improved productivity through the development of eco-efficient technologies and practices. Industry Canada has opportunities to promote innovative technologies that address all these SD challenges.

Opportunities—Exhibit 7 indicates specific delivery instruments on how the department could address this issue. Officials of Industry Canada also identified opportunity areas to address challenges related to supporting innovation towards sustainable development, as follows:

- Identifying commercial benefits of innovative technologies that mitigate the effects of climate change
- Supporting small and medium-sized enterprises in understanding and adopting SD innovative technologies and practices
- Continuing arms length support for innovative SD technologies development (CFI, TPC, STF)
- Supporting Green Chemistry network
- Supporting water clean-up technologies
- Facilitating recycling initiatives for waste management (such as the ICT initiative for take-back of electronic equipment)
- Continuing to showcase leading edge SD technologies
- Providing incentives for commercialization phase of technology development
- Developing a multi-sector resource recovery strategy
- Continuing to develop sector technology roadmaps
- Supporting lean manufacturing technology development
- Networking through initiatives such as Innovation Summit – themes include green chemistry, air quality, recycling, bioeconomy
- Supporting biotechnology initiatives that aim to develop less resource-intensive products and methods.

3.4.4 Fostering Improved Productivity Through Environmental Efficiency

Issue—Environmental efficiency, or eco-efficiency, is perceived as a way to do more with less. If Canadian companies can produce more with less, they will ultimately be more productive. Eco-efficiency can be achieved through such means as reducing energy and material inputs, increasing recyclability and reducing toxic dispersion. It offers the potential to save costs, to reduce risks and to improve business expansion. Industry Canada can play a role in advancing eco-efficiency technologies and practices. For example, it is not always clear to some industry sectors, or to some SMEs, how the adoption of more efficient environmental practices will make it more productive or competitive. On the other hand, there are many lessons learned and best practices about this issue from some industry sectors (such as the auto and chemical industry sectors). The opportunity continues to exist for Industry Canada to increase industry awareness of the benefits of becoming more eco-efficient.

Opportunities—Exhibit 7 indicates specific delivery instruments on how the department could address this issue. Officials of Industry Canada also identified opportunity areas to address challenges related to fostering improved productivity through environmental efficiency, as follows:

- Aligning environmental concerns with economic impacts of SD—compile and disseminate information on benefits and trade-offs
- Conducting an international benchmarking study on SD practices and productivity—compare foreign companies to Canadian companies, and companies at different stages of maturity
- Undertaking a reality check study about impacts of SD on productivity and eco-efficiency, at micro and macro levels
- Continuing to develop and disseminate eco-efficiency tools to demonstrate eco-efficiency performance and productivity by industry sector
- Preparing a training module for capacity building in industry.

3.5 Long-Term Issues and Intended Results

Long-term results ensue from undertaking relevant SD initiatives that take advantage of near-term opportunities presented by various IC delivery instruments. The following is a consolidation of what the relevant long-term issues are for the department, as suggested by staff and managers.

Ensuring resources development is sustainable—Many of Canada's resources are non-renewable, such as minerals, oils, gas and coal. Sound policies that encourage efficient extraction and manufacturing processes, or that stimulate recycling and the development of substitutes will contribute to ensuring these resources are used efficiently. Other resources of Canada are renewable (e.g., forests, water), but for these resource bases to be sustainable they must have the capacity to regenerate. Sound environmental practices are essential in order to support a strong natural resources sector. Renewable resources should be managed

on an integrated basis that recognizes the full range of their uses and values.[6] The role of Industry Canada in ensuring resources development is sustainable involves long-term resolve, and implementation of SD initiatives that are focused on opportunities involving innovative technologies. For example, consultation with departmental managers and staff suggested that the development of technology in the manufacturing sector for "lean" manufacturing holds promise for the introduction of more sustainable and less resource intensive production and extraction methods in the resource sector. In addition, voluntary approaches taken by industry sectors to achieve sustainable codes of practice have proven effective at both national and international levels. Furthermore, biotechnology is creating opportunities for resource and other sectors to combine competitiveness with eco-efficient use of resources—for example, planting of genetically improved trees increases fiber availability and reduces wood costs, thus strengthening the forest sector's competitiveness. Likewise, the use of chemical feedstock reduces the amount of Canadian landmass used, contributing to a regeneration of natural renewable resources. Biotechnology opportunities are ongoing. The key is to support biotechnology initiatives that aim to develop less resource intensive products and methods.

Meeting our international challenges—Canada has committed to reducing and stabilizing greenhouse gas emissions. With the ratification of the Kyoto Protocol, the federal government has underscored this commitment. Actions are underway federally and in all provinces to limit greenhouse gas emissions. The opportunities for Industry Canada to address climate change fall mainly within the department's innovation objective. The perception is that the challenge of reducing emissions can effectively be met by developing clean-production technologies. There are also opportunities to promote climate change technologies in the marketplace.

Part of the challenge in addressing climate change is helping individual firms develop workable technology migration strategies to deal with climate change. By supporting and continuing to be involved in joint industry/government working groups, Industry Canada has an opportunity to work with the private sector to adopt new technologies and practices. A large percentage of Canadian firms are SMEs who tend to focus on short or near-term competitive challenges. Most do not have the resources for environmental functions, nor do they have the resources to take advantage of national or international guidelines and standards of compliance. As a result, as time goes by, and as more and more firms adopt these standards, it may become more difficult for SMEs to maintain competitiveness (to take advantage of export opportunities) unless they are able to meet climate change targets. Industry Canada has already been providing climate change information to SMEs, in SDS I and SDS II initiatives (e.g., relevant web sites and databases, technology showcasing, workshops and seminars, and multi-stakeholder working groups/committees). In SDS III, the department could continue to reach out to SMEs on this issue.

Improving quality of life and wellbeing—Addressing the quality of life and wellbeing of Canadians requires at least a two-pronged approach: both industry and consumers are targets for government initiatives that contribute to this cause. Canada needs policies and programs that help make measurable progress on a range of sustainable development issues that

[6] *A Guide to Green Government, 1995.*

directly impact on industry and consumers alike. There is a continuing need to stimulate innovation and competitiveness on the part of industry. And there is a parallel need to continue to provide Canadian consumers ready access to relevant information, in order to help them make informed choices about products and services that impact on their quality of life and wellbeing. Industry Canada has had a big role in both these areas over the span of SDS I and SDS II, according to the two mid-term evaluation studies of these strategies. Promoting awareness of SD among consumers and encouraging innovation in industry, however, is an ongoing challenge. Opportunities to address these issues are covered in the previous, near-term section of this chapter. By successfully completing initiatives related to these opportunities, IC staff and managers expect that this long-term objective would be achieved.

Other long-term intended results—The question of inter-generational equity is a key aspect of sustainable development. Sustainable development is defined as development that meets the needs of the present without compromising the ability of future generations to meet their own needs.[7] It is important that future generations are able to benefit environmentally, economically, and socially in the same way as the current generation. It is equally important that the costs of sustainable development are fairly distributed between generations. The notion of inter-generational equity is an all-encompassing issue for sustainable development, which is very relevant to the strategic direction of Industry Canada—especially given the department's commitment to economic growth through technological innovation and connectedness, an improved investment climate, and a fair and efficient marketplace.

It is not possible to predict with precision the likely interests of future generations, and it is not possible to anticipate accurately the results of current initiatives aimed at ensuring a fair distribution of costs and benefits between generations. Nonetheless, it is intuitively apparent that the variety of SD initiatives undertaken by government, including IC, is intended to lead to this objective, and will likely accomplish the desired impacts if these initiatives are successful in their own right.

[7] *A Guide to Green Government, 1995.*

IV. Constraints

The constraints highlighted in this chapter of the report are based on the perceptions and opinions of Industry Canada officials interviewed as part of this study. It should be noted that some of the elements discussed may have already been addressed, or are in the process of being addressed by the department, in anticipation of the third generation of sustainable development strategies (SDS III).

For the purpose of this study, a "constraint" has been defined as a limiting factor that is perceived to have a significant impact on the potential for the department to advance sustainable development initiatives. While the discussion of constraints may be misconstrued as negative by some, the reader is encouraged to take a balanced interpretation of these constraints, and to see them in the context of the department's SD accomplishments to date – and to interpret them as challenges to address during the planning and implementation of SDS III.

4.1 Need for a Clear Government-Wide Vision

It is now commonly recognized that there is need for a clear Government-of-Canada perspective to facilitate greater co-ordination and coherence in the federal voice on sustainable development. The Commissioner of the Environment and Sustainable Development, in her 2002 report to the House of Commons, stated that: "The government has yet to provide a clear picture of what a sustainable Canada would look like 20 years from now."[8] In the absence of such a government-wide vision, it makes it difficult for departments such as Industry Canada to develop long-term SD goals.

4.2 Need for Clarity of Long-Term Departmental Goals

Industry Canada in SDS II identified its long-term, as well as near-term, intended results that are relevant within a broad government framework, and linked these to specific sustainable development action items.[9] Notwithstanding, there is a perceived lack of clarity within the department about the path towards achieving the long-term goals. Most of the action items in SDS II are actually short or near-term in nature, within a three-year horizon, since the Minister of Industry and the department are required to update the strategy every three years. Yet long-term thinking for the next generation of Canadians is the essence of SD.

[8] *Report of the Commissioner of the Environment and Sustainable Development to the House of Commons*, Office of the Auditor General, 2002, Section 5.65, page 19.

[9] Table 2 on page 51 of Industry Canada's *Sustainable Development Strategy, 2000-2003*, links each action item to the intended results.

4.3 Limitations of Delivery Instruments

The department has a number of instruments that it can use to achieve the intended outcomes of its sustainable development strategies. These instruments include the following:

- Guidelines & application tools
- Moral suasion
- MOUs & other agreements
- Multi-stakeholder committees
- Networking activities
- Participation in international fora
- Partnerships/collaborations
- Policy & legislative frameworks
- Research chairs (arms-length)
- Research studies & reports
- Standards & regulations
- Support programs (limited funding)
- Technology demos & trade shows
- Technology roadmaps
- Training
- Web sites and databases
- Workshops/seminars
- Voluntary mechanisms

While the department has made good use of these diverse tools for sustainable development initiatives (see mid-term evaluation reports of SDS I and SDS II), generally the IC managers and staff that were interviewed agreed that most of the tools are "soft" and fit in the categories of policy, advice, information, guidance, or third-party delivery mechanisms. The sense is that these tools yield mostly indirect and uneven outcomes over longer periods of time, and are difficult to track for results.

In the next sustainable development strategy (SDS III), the challenge for Industry Canada will be to select the appropriate instruments that best achieve the intended outcomes of the strategy, in a suitable timeframe that is consistent to a government-wide schedule for achieving results.

4.4 Limited Resources

There are many persons within Industry Canada who are committed to sustainable development work, but most of them have other competing priorities. Faced with heavy workloads, staff time is often dictated by other objectives of the department. Notwithstanding some initiatives that are funded separately from a modest IC sustainable development fund (which is likely to be reduced in the next strategy), there may be resistance to new SD initiatives within the department if appropriate resources are not allocated in proportion to the objectives set for SDS III endeavours.

4.5 Challenge of Intradepartmental Partnerships

The department has become smarter (more effective) in collaborating and partnering with other government departments, provinces, municipalities, and private industry, non-profit organizations and associations – for SD-related activities in general. However, from the consultation process for this study, there are perceived opportunities to improve internal partnerships, within the department, for SD initiatives. The Industry Canada SDS group could encourage internal partnerships with/between branches within the department. These internal partnerships could create synergies in expertise and knowledge and bring about cooperation towards more effective delivery of SD outcomes and objectives.

Intradepartmental working groups could be used more effectively to capitalize on these synergies.

4.6 Challenge of Tracking Results

There is a challenge faced by all departments implementing sustainable development strategies, to develop appropriate performance measurements that track results in a credible way that contributes to good government management and accountability requirements. While the Commissioner of the Environment and Sustainable Development has recognized this common challenge, her recent report on monitoring and reporting SD progress[10] calls for a focus on determining the extent to which departments are managing selected SD objectives for results. Industry Canada will need to address this challenge by developing a consensus on appropriate indicators, and methods for compiling relevant information, to track near-term and long-term analysis of results.

4.7 Other Strategies and Priorities of the Department

While SDS II has been incorporated in the department's overall strategic framework (as expressed in Industry Canada's *Making a Difference* document), the profile of SD within IC's Innovation Strategy document – *Achieving Excellence* – is less evident. The Innovation Strategy perhaps as a necessity seems to exist as a separate framework for action, but does not in itself explicitly link-up with SDS II. To engender a more robust role for SD within the department, it would be useful if the next strategy (SDS III) would be substantially more integrated within parallel strategies of the department – such as the Innovation Strategy.

4.8 Competing Stakeholder Interests

Many of the SD initiatives of Industry Canada involve several stakeholders with competing interests and different points of view about how to solve sustainable development problems, the appropriate timing, and the role of government. For example, some stakeholders in industry compared to others favour SD solutions that emphasize voluntary mechanisms over regulatory requirements, and tax or fiscal policies over direct financial intervention through funding programs. Some initiatives of SDS II (see mid-term evaluation report) have been slower in implementation than originally planned, because of the involvement of multiple partners and stakeholders. Project leaders interviewed for the internal issues scan suggested that it is very difficult and time consuming to achieve consensus solutions, in projects where many players are involved from diverse jurisdictions (e.g., federal, provincial, municipal governments), and from competing interest groups (e.g., consumer and industry associations). It would be useful for project leaders of sustainable development initiatives to convene and share individual experiences, and discuss approaches and solutions to this challenge.

---

[10] *Monitoring and Reporting on Progress toward Sustainable Development: Scope and Plan Report*, Commissioner of the Environment and Sustainable Development, December 23, 2002.

4.9 Fragmentation – Numerous Action Items to Consolidate

SDS II had 58 SD action items, compared to SDS I's 28. This in itself suggests an increase in SD activity in the department. However, it also means that there is a requirement to consolidate the various initiatives underway around key objectives of the strategy. While SDS II represents progress in establishing a good framework, the process is still seen by some in the department as a fragmented collection of projects/action items. Industry Canada could consolidate the various action items that emerge for SDS III, into no more than 10 key outcome areas that are associated with the objectives of the strategy. Implementation and reporting on results could be structured around these key outcome areas. While SDS II had 9 key outcome areas, the implementation and reporting structure of the strategy was focused on the 58 action items, and not around the 9 key outcome areas.

V. Conclusions and Recommendations

Industry Canada's next sustainable development strategy (SDS III) must be tabled in the House of Commons by December 2003. This strategy will build on the successful practices of SDS I and SDS II, and articulate how the department intends to implement sustainable development action items over the next three years.

This internal issues scan is intended to help the department and the Commissioner of the Environment and Sustainable Development understand the implications of the department's activities for sustainable development.

5.1 Key Sustainable Development Issues

Seven broad sustainable development issue areas emerged from the consultation process that can be considered to be key from the standpoint of Industry Canada's mandate and its strategic directions. These issue areas are also consistent with the objectives identified in *A Guide to Green Government* and consecutive *Speeches from the Throne* (1999, 2001, 2002). The results of this study reflect the perceptions of the officials that were interviewed.

The broad issue areas that were identified are:

Near-term (1-3 years, SDS III):

- Integrating sustainable development into the decision making process
- Broadening government measures of sustainable development
- Supporting innovation towards sustainable development
- Fostering improved productivity through environmental efficiency

Long-term (cumulative impacts of various SD strategies over 10+ years):

- Ensuring resources development is sustainable
- Meeting our international challenges
- Improving quality of life and wellbeing.

These seven broad issue areas encompass the sustainable development initiatives of SDS I and SDS II, and provide a framework for initiatives in SDS III.

The consultation process involved representative individuals from a cross-section of branches within the department. Each branch within the department may prioritize these issues differently. The department will need to review and validate these issue areas, select related specific initiatives (action items), and prioritize their activities from an overall departmental standpoint.

5.2 Opportunities

A number of potential initiatives that could contribute to achieving government-wide sustainable development objectives, within a context consistent with Industry Canada's mandate, were identified based on the perceptions of the departmental officials interviewed. These perceived opportunities are listed below under each of the broad issue areas identified. Narratives on issues and opportunities are presented in Chapter III of this report.

Near-term (1-3 years, SDS III):

- Integrating sustainable development into the decision making process

  Opportunity areas:
  - Monitoring environmental reporting practices of companies in Canada
  - Promoting SD awareness among consumers
  - Integrating environmental framework with economic framework for SD
  - Ratcheting up quality of Strategic Environmental Assessments (SEAs)
  - Identifying economic impacts of Kyoto Protocol on Canadian industry
  - Improving the role of the department in advocacy
  - Promoting good corporate governance practices
  - Encouraging life cycle stewardship
  - Monitoring reporting requirements for Corporate Social Responsibility (CSR)
  - Developing new sector technology roadmaps
  - Continuing to work on sustainable cities/communities
  - Conducting an international benchmarking of SD policies and legislation
  - Continuing to evolve the Canadian Environmental Solutions web site
  - Promoting Extended Producer Responsibility, to include the post consumer stage
  - Helping municipalities and SMEs to adopt Environment Management Systems
  - Biodiversity stewardship/conservation
  - Helping SMEs with "triple bottom line" implementation
  - Participating in the convergence framework (with NRCan and EC)
  - Putting own house in order.

- Broadening government measures of sustainable development

  Opportunity areas:
  - Studying impacts of SD fiscal and tax incentives on performance of firms
  - Developing a strategic oversight capability for SDS III
  - Delineating linkages for convergence of SD projects around SDS III themes
  - Contributing to MOUs with NRCan to make economic case for reduced emissions
  - Helping to accelerate the regulatory review process
  - Developing performance measures for Sustainable Cities Initiative
  - Building socio-economic impacts analysis into roadmaps
  - Improving micro-economic modeling for measuring impacts of SD
  - Implementing an internal departmental forum for sharing ideas from SDS III
  - Applying RMAF guidelines for SDS III at an early planning stage

- Exploring effectiveness of MOUs as a "soft" tool for influence
- Using SD as a screening tool in the financial sector
- Benchmarking of companies ranked in relation to SD performance
- Analyzing impacts of voluntary SD mechanisms on industry
- Developing credible impacts analysis for pre-competitive investments of TPC
- Working with Statistics Canada to develop data and measures on environmental technologies and eco-efficiency
- Measuring what constitutes success of SD for Canadian trade
- Identifying success measures for outreach efforts by Industry Canada
- Studying implications of Kyoto Protocol for consumers
- Identifying infrastructure requirements for hybrid and fuel cell technologies
- Developing more effective environmental assessment indicators.

➢ Supporting innovation towards sustainable development

Opportunity areas:

- Identifying commercial benefits of innovative technologies that mitigate the effects of climate change
- Supporting small and medium-sized enterprises in understanding and adopting SD innovative technologies and practices
- Continuing arms length support for innovative SD technologies development (CFI, TPC, STF)
- Supporting Green Chemistry network
- Supporting water clean-up technologies
- Facilitating recycling initiatives for waste management (such as the ICT initiative for take-back of electronic equipment)
- Continuing to showcase leading edge SD technologies
- Providing incentives for commercialization phase of technology development
- Developing a multi-sector resource recovery strategy
- Continuing to develop sector technology roadmaps
- Supporting lean manufacturing technology development
- Networking through initiatives such as Innovation Summit – themes include green chemistry, air quality, recycling, bioeconomy
- Supporting biotechnology initiatives that aim to develop less resource-intensive products and methods.

➢ Fostering improved productivity through environmental efficiency

Opportunity areas:

- Aligning environmental concerns with economic impacts of SD—compile and disseminate information on benefits and trade-offs
- Conducting an international benchmarking study on SD practices and productivity— compare foreign companies to Canadian companies, and companies at different stages of maturity
- Undertaking a reality check study about impacts of SD on productivity and eco-efficiency, at micro and macro levels
- Continuing to develop and disseminate eco-efficiency tools to demonstrate eco-efficiency performance and productivity by industry sector
- Preparing a training module for capacity building in industry.

Long-term (cumulative impacts of various SD strategies, 10 years or more):

Long-term results ensue from undertaking relevant SD initiatives that take advantage of near-term opportunities presented by various Industry Canada delivery instruments. Nonetheless, some opportunities were suggested for the long-term objectives.

- Ensuring resources development is sustainable

  Opportunity areas:
  - "lean" manufacturing
  - voluntary approaches taken by industry sectors to achieve sustainable codes of practice
  - biotechnology solutions and applications
  - combining competitiveness with efficient use of resources.

- Meeting our international challenges

  Opportunity areas:
  - clean-production technologies
  - climate change technologies
  - standards and codes
  - SME compliance
  - outreach to Canadian firms
  - relevant web sites and databases
  - technology showcasing
  - workshops and seminars
  - multi-stakeholder working groups/committees.

- Improving quality of life and wellbeing

  Opportunity areas:
  - promoting awareness in industry and the public
  - incentives for innovation in industry
  - dissemination of relevant information to help informed choices.

5.3 Constraints

Constraints were identified during the consultation process with Industry Canada officials. A "constraint" is a limiting factor that is perceived to have a significant impact on the potential for the department to advance sustainable development initiatives.

The key constraints discussed in this report fall into the following categories:

- Need for a clear government-wide vision
- Need for clarity of long-term departmental goals
- Limitation of delivery instruments
- Limited resources

- Challenge of intradepartmental partnerships
- Challenge of tracking results
- Other strategies and priorities of the department
- Competing stakeholder interests
- Fragmentation – numerous action items to consolidate.

Addressing these constraints is crucial for SDS III, to ensure the success of Industry Canada's future SD strategy and related initiatives.

5.4 Recommendations

"Continuous improvement" is one of the principles espoused by *A Guide to Green Government*. The following recommendations are presented for Industry Canada to continue to improve the quality and scope of its SD initiatives.

- **Focus on the seven SD issue areas identified in this report**—These issue areas form a framework to identify relevant initiatives and opportunities for SDS III. They also encompass objectives of SDs I and SDS II.

- **Consider the opportunities identified**—It is recommended that the department consider the opportunities identified, and use them to develop sustainable development initiatives that are relevant and consistent with the department's mandate and SD priorities.

- **Merge the results of the internal issues scan with other studies and consultations**—This internal issues scan summarizes key issues and opportunities identified through interviews with 49 professional and management officials from a cross-section of branches within Industry Canada. Views of stakeholders and clients of Industry Canada, particularly those gathered as part of the external issues scan study, and views of officials from other government departments, will need to be merged with the results of this study. In addition, the findings and lessons learned that are presented in the mid-term evaluation study of SDS II need to be considered in developing SDS III. These merged results can then be used as a basis for further consultation with stakeholders and other internal departmental officials.

- **Recognize the constraints identified**—The department should recognize the constraints identified in this report when developing SDS III. Considering these constraints during the planning process for SDS III could help prioritize the initiatives and serve as a "reality check" on what is achievable within the parameters defined by these constraints.

This report largely reflects a synthesis of the perceptions of Industry Canada officials that were interviewed. Background research involving a review of several relevant documents also formed a part of the findings. The results of this study should be seen only as one step in a continuous improvement process aimed at contributing to the development of the next sustainable development strategy of the department.

Appendix A: References

A Guide to Green Government, Minister of Supply and Services, Government of Canada, Ottawa, 1995.

A Guide to the Climate Change Convention and its Kyoto Protocol, UNFCC, Climate Change Secretariat, Bonn, 2002.

"Budget 2003 and Other Activities in Support of *Canada's Innovation Agenda*", memo to Industry Canada staff by Peter Harder, Deputy Minister, Industry Canada.

"Chapter 5: Sustainable Development Strategies", *Report of the Commissioner of the Environment and Sustainable Development to the House of Commons*, Office of the Auditor General, 2002.

Climate Change Information Kit, published by UNEP and UNFCC, July 2002.

Eco-Efficiency Related Initiatives in Industry Canada, Strategic Policy Branch, September 2002.

Executive Summary: Leaders Forum on Sustainable Development, National Round Table on the Environment and the Economy, April 2000.

Extract from the Canadian *1999 Speech from the Throne: The Quality of our Environment.*

Guide for the Development of Results-based Management and Accountability Frameworks, Treasury Board of Canada, www.tbs-sct.gc.ca/eval/tools_outils/rmaf_crgar_e.asp.

Guidelines for Integrating Sustainable Development Issues in Industry Canada Evaluation Frameworks and Studies, Audit and Evaluation Branch, June 1998.

Industry Canada 2002-2003 Estimates: Part III, Report on Plans and Priorities, Minister of Industry, February 15, 2002.

Industry Canada Sustainable Development Focus Day, Report on Proceedings, Industry Canada, Ottawa, February 24, 2003.

Industry Canada's Sustainable Development Strategy, 2000-2003, Performance Measurement Framework, prepared for Industry Canada by KPMG Consulting, March 2003.

Internal Issues Scan for Industry Canada's Sustainable Development Strategy (SDS II), prepared for Industry Canada by KPMG Consulting, March 2000.

Making a Difference, Our Priorities for 2002-03, Industry Canada, 2002.

Managing the Development of Industry Canada's third Sustainable Development Strategy, 2003-2006, presentation to SDCC, Strategic Policy Branch, October 16, 2002.

Mid-Term Evaluation Study of Industry Canada's Sustainable Development Strategy (SDS I), prepared for Industry Canada by KPMG Consulting, March 2000.

Monitoring and Reporting on Progress toward Sustainable Development, Scope and Plan Report, Commissioner of the Environment and Sustainable Development, December 23, 2002.

Moving Up the Learning Curve: The Second Generation of Sustainable Development Strategies. Report from Brian Emmett, Commissioner of the Environment and Sustainable Development, December 1999.

NRTEE Indicators Overview Paper, Stakeholder Workshop, March 2001.

"Opening Statement to the Standing Committee on Environment and Sustainable Development", *Report of the Commissioner of the Environment and Sustainable Development to the House of Commons*, Office of the Auditor General, 2002.

Performance Measurement: A Guide to Building and Using a Performance Measurement Framework, Planning and Performance Directorate, Comptroller's Branch, December 2002.

Progress Reports on the Implementation of Industry Canada's Sustainable Development Strategy (SDS II), various progress reports 2000-2003, Industry Canada.

SDS II Performance Report (summary), Industry Canada SD Website, strategis.ic.gc.ca.

Sustainable Development Strategy, 2000-2003, Industry Canada, 2000.

Welcome to the Future, Implementing Sustainable Development in the 21st Century: the Industry Canada Capacity Building Course, presented by Glen Toner and Kevin Brady, Carleton University.

Appendix B: List of Persons Interviewed

Industry Canada

Heather Amys
Environmental Affairs Branch

Jerry Beausoleil
Strategic Policy Branch

Bruce Bowie
Energy and Marine Branch

Lucien Bradet
Service Industries Branch

Heather Campbell
Technology Partnerships Canada

John Chibuk
Strategic Policy Branch

Steve Cobham
Dept. of Foreign Affairs and International Trade
(on secondment from Industry Canada)

Joe Cunningham
Manufacturing Industries Branch

John Dauvergne
Environmental Affairs Branch

Lloyd Deane
Strategic Policy Branch

Howard Dudley
Trade and Operations Branch

Robert Dunlop
Small Business Policy Branch

Jim Evans
Programs and Service Branch

Peter Forristal
Environmental Affairs Branch

Eric Gagne
Energy and Marine Branch

Lee Gill
Corporate Governance

Marcie Girouard
Environmental Affairs Branch

Martin Green
Strategic Policy Branch

Sharon Harrison
Environmental Affairs Branch

Jamie Hum
Information and Communications Technologies Branch

John Jaworski
Life Sciences Branch

Michael Jenkin
Office of Consumer Affairs

Brent Johnson
Strategic Policy Branch

Guy Leclaire
Aerospace and Automotive Branch

Glen MacDonell
Energy and Marine Branch

Don McCulla
International Business Branch

Dennis Michaud
Programs and Services Branch

Sherril Minns
Audit and Evaluation Branch

Marshall Moffat
Innovation Policy Branch

Glyn Moore
Audit and Evaluation Branch

Elizabeth Morris
Corporate Governance

Darlene Murphy
Information and Communications Technologies Branch

Peter Murphy
Office of Consumer Affairs

Geoffrey Nimmo
Manufacturing Industries Branch

Richard Pageau
Trade and Operations Branch

Amrik Rakhra
Aerospace and Automotive Branch

Johan Rudnick
Industry Portfolio Office

Heather Schoemaker
Sustainable Cities Initiative

Prakash Sharma
Micro-Economic Policy Analysis Branch

Tess Sliwinski
International Business Branch

Don Stewart
Environmental Affairs Branch

Helen Teeple
Manufacturing Industries Branch

Normand Theberge
Comptroller's Branch

Rick Thomas
Manufacturing Industries Branch

Marie Tobin
Information Policy Branch

Thomas Van Camp
Strategic Policy Branch

Britt Watson
Environmental Affairs Branch

Christopher Wilkie
International Business Branch

Tom Wright
Environmental Affairs Branch

Appendix C: Interview Guide

Issues Scan for Industry Canada's Sustainable Development Strategy (SDS III)

Interview Guide

Industry Canada has commissioned Hussein Rostum, Associate of KPMG Consulting, to undertake an assessment of the department's policies, programs and operations in terms of their impact on sustainable development. This study involves clarifying the key sustainable development issue areas for SDS III and providing input into the SDS II mid-term evaluation study. To assist with this study, several departmental managers and officers are being surveyed.

The World Commission on Environment and Development (the Brundtland Commission) defined sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs". It provides a framework for the integration of environmental policies and development strategies. The Government of Canada is committed to sustainable development as a way to improve our quality of life and consequently, federal departments are required to produce sustainable development strategies every three years. These strategies must outline concrete goals and action plans for integrating sustainable development into departments' policies, programs and operations. Industry Canada's first Sustainable Development Strategy (SDS I) was developed in 1997. The second, SDS II, was tabled in the House of Commons in December 2000. Industry Canada is now in the process of developing its third Sustainable Development Strategy (SDS III), 2003 – 2006.

The attached interview questions and list of sustainable development issue areas provide background information to prepare for the interviews. The list of issue areas is based on material provided in A Guide to Green Government (the framework used to guide and assist federal departments in the preparation of their sustainable development strategies), the Speech from the Throne (1999 and 2000), and previous departmental (internal and external) issues scans. Please review the list of issue areas and interview questions before/during the interview. The information gathered from these interviews will be used to develop the SDS III Issues Scan report and the SDS II mid-term evaluation study.

The interview will take approximately 45 minutes. Your participation is voluntary. All information will be handled in accordance with the provisions of the Privacy Act. Information collected from the interviews will not be attributed to individual respondents.

Interview Questions

Please answer the following questions for each sustainable development issue area listed in the attached document:

1. Which SD issue area(s) are relevant to your branch/program? *[see attached list of issues]* Where does this issue fit in with Industry Canada's Strategic Objectives (i.e. Innovation, Connectedness, Marketplace, Investment, and Trade)?

2. Which other departmental programs, policy initiatives and/or operations can help address the issue?

3. What opportunities exist within these programs, policies and operations that contribute towards achieving this SD issue? What realistically can be done within the mandate and strategic framework of your department/branch/programs to address this SD issue?

4. Are there any constraints that may impede the department from contributing towards this SD issue? What are these constraints?

5. To what extent can this SD issue be addressed in SDS III? In your opinion, what sustainable development objectives are achievable for SDS III?

6. What other sustainable development issue areas should Industry Canada consider?

Thank you for taking the time to participate in this interview.

Key Sustainable Development Issue Areas for SDS III

The SDS III key issue areas for Industry Canada, as identified by the Department's Sustainable Development Coordinating Committee (SDCC), and as based on the *Guide to Green Government*, the *Speech from the Throne* (1999 and 2000), and previous issues scans, are as follows:

- Productivity through Eco-efficiency
- Environmental technologies
- Increasing the integration of SD in departmental decision-making
- Social dimension of sustainable development
- Innovation
- Climate change
- Corporate sustainability reporting
- Corporate social responsibility (CSR)
- Interdepartmental partnerships