

Canada's Progress in Addressing the Strategic Imperatives set out in "Our Common Future"

By: Richard Tarasofsky¹

1. Introduction	1
2. Canadian policy responses to WCED	2
2.1. Canada's Submission to the WCED	2
2.2. Task Force on Economy and Environment.....	3
2.3. Round Tables on the Environment and Economy	3
2.4. The Green Plan for a Healthy Environment.....	4
2.5. Projet de Societe	6
2.6. Commissioner for the Environment and Sustainable Development	7
2.7. Federal and Provincial legislation	8
2.8. International initiatives	9
2.9. Strengthening Canadian research capacity.....	10
3. Canadian action that addresses the Strategic Imperatives.....	10
3.1. Reviving Growth	10
3.2. Changing Quality of Growth.....	15
3.3. Meeting essential needs	25
3.4. Sustainable level of population	29
3.5. Conserving and enhancing the resource base	33
3.6. Reorienting Technology and Managing Risk.....	40
3.7. Merging environment and economics in decision-making	43
4. Canada's response to sustainable development's greatest challenge: climate change	44
5. Final observations.....	48
6. Bibliography	51

1. Introduction

During the 1980s, Canada was one of the strongest supporters of the World Commission on Environment and Development (WCED), also known as the Brundtland Commission. It was a Canadian proposal at the 1981 UNEP Governing Council meeting that a commission made up of eminent persons be set up to consider why the strategies put in place to implement the 1972 Stockholm Declaration on the Human Environment were not working to stem the tide of environmental degradation. One hallmark of the Commission's process was its public hearings held in a number of countries in every region of the world. In May 1986, the Commission held a series of hearings across Canada -- in Vancouver, Queen Charlotte Islands, Edmonton, Toronto, Ottawa, Halifax ,

¹ I am grateful to the following people who made very helpful comments on earlier drafts: David Runnalls, Jim MacNeill, Bob Slater, James Meadowcroft, Stephan Barg, John Drexage, and Marlene Roy. All errors and omissions remain my sole responsibility.

Québec City and James Bay. These hearing were promoted heavily by ministers of the environment at federal and provincial level, attracting not only many NGOs, but also ministries from both levels of government, city mayors, and municipal councillors. During its hearing in Ottawa, Canada made an ambitious submission to the Commission. Furthermore, two prominent Canadians were associated with the Commission: Maurice Strong was a Member and Jim MacNeill was its Secretary General, as well as being chief architect and lead writer of the final report *Our Common Future*.

The Commission recommended an urgent and rapid shift to more sustainable forms of development and set out seven “strategic imperatives”, for achieving it. Following the submission of the WCED Report, a UN General Assembly resolution was adopted, with out a vote, endorsing the Report in principle, concurring with the strategic imperatives, and inviting governments to take account of the Report’s recommendations in determining their policies and programmes.² In addition to the UN, the WCED recommendations were endorsed by ASEAN, OECD, the Commonwealth and other regional bodies, as well as the World Bank and all of the regional banks. Despite this strong show of support, twenty years later, no country is fully on a sustainable path. As Jim MacNeill puts it, “... in no case has [progress in implementing the strategic imperatives] been at the pace and scale needed to keep up with the unsustainable trends that we charted in *Our Common Future*.” (MacNeill, 2006).

The aim of this paper is to consider Canada’s progress in addressing these recommendations, in particular, the “strategic imperatives”. The main focus of analysis will be on actions of the federal government, which plays three roles in this context: (a) rule-maker (domestically and internationally), initiator of programmes (e.g. research funding, public procurement), and (c) as owner of crown land (although most crown land is provincially owned). In addition, notable actions at the provincial level, or in the non-governmental sector, will also be mentioned. The main purpose of this paper is to identify a direction of travel; by its nature, the paper will not be exhaustive; only a presentation of select highlights.

Following this introduction, section 2 will outline some of the general Canadian policy responses to the WCED report, both domestically and internationally. Section 3 will examine each of the WCED strategic imperatives and their application in Canada. Several figures are presented for illustration – they are not purported to be a full set of sustainable development indicators. Section 4 will look at a policy area that relates to all the strategic imperatives: climate change. And, finally, Section 5 will present some thoughts on why Canada has not fully implemented the WCED recommendations.

2. Canadian policy responses to WCED

2.1. Canada’s Submission to the WCED

Canada’s submission to the WCED aptly named “Survival in a threatened world“, contained a sober analysis. It posited a “harsh truth”, that:

² Resolution 42/187, 11 December 1987.

Unless the environmental sciences are routinely harnessed by economic scientists and decision-makers, the future of Canada – both economically and environmentally – is seriously threatened. Conventional economic analysis is the underpinning of all of the world's development decision-making. The inability of economics to take into full account the “real” value of social and environmental assets has created enormous gaps in the ways societies define and reflect in decisions their well-being and the value of their future.

It then went on to admit that in Canada, “there is, however, almost no integration of economics and the environmental at any level of governments.” After highlighting the importance of adopting a preventive approach, the submission identifies the key priority policy areas for Canada: chemicals, resource management, climate change, and the North.

2.2. Task Force on Economy and Environment

Following the Brundtland Commission's visit to Canada, a Task Force on Economy and Environment was established in 1986. This was an important initiative, not only because of the issues it grappled with, but also because of its membership, which included seven environment ministers at federal and provincial levels, as well as leaders of major Canadian industries (e.g. Alcan, Dow Chemicals, Inco, Noranda Forest, etc). It adopted an interesting definition of sustainable development: “development which ensures that the utilisation of resources and the environment today does not damage prospects for their use by future generations“. Of the main areas of recommendation included the integration of environmental and economic decision-making. According the Task Force, achieving this calls for the following:

- advanced and integrated planning (i.e. recognises that sectoral planning is problematic)
- proper valuation and pricing of natural resources, including water, soil, and forests
- Environmental policies that are made integral to economic policy-making and planning and a required element of any economic development proposal (page 6)

To this end, the Task Force called on First Ministers to regularly address environmental issues at federal-provincial conferences and direct that cabinet documents demonstrate that they are both economically and environmentally sound. Furthermore, government ministers and departments must be held accountable for this integration via formal mechanisms.

2.3. Round Tables on the Environment and Economy

The Task Force called for the creation of round tables on environment and economy throughout the country, each of which should report to the First Minister. These Round Tables were not meant to make decisions, per se, but were to be independent venues for senior decision-makers in the public and private sector to meet candidly and make recommendations to the First Ministers. By 1990, round tables existed in all provinces,

territories, and nationally. Some municipal round tables were also established. Writing in 1993, Ronald Doering, the Executive Director of the National Round Table on the Environment and the Economy, stated that these Round Tables were “Canada’s principal institutional response to the challenge of sustainable Development” (Doering, 1993). However, by 2007, nearly all the round tables have folded. The national round table continues, and carries out a number of topical programs (e.g. climate change and air pollution), but appears to be less independent and influential than previously. In particular, there are no longer and cabinet ministers as members, and the chair reports to the Minister of Environment, rather than the Prime Minister (Daly, et. al, 2006). The Manitoba Round on the Environment and Economy ceased in 1987, but was replaced by a Round Table for Sustainable Development, which continues until today. Its tasks are defined in that province’s Sustainable Development Act, and has broader mandate that takes into account human health and social well-being. It should be noted, however, that in recent years, the Manitoba Roundtable has not convened very often.

2.4. The Green Plan for a Healthy Environment

One of the major policy responses of the Federal Government to the idea of sustainable development was to initiate an ambitious process leading to the adoption, in 1990, of the Green Plan for a Healthy Environment. The Green Plan was the product of an extensive multi-stakeholder consultation and was the sustainable development strategy that Canada presented at the UN Conference on Environment and Development (UNCED) in 1992. One of the main characteristics of the Green Plan, in addition to aiming to be the first-ever comprehensive environmental planning process, was its commitment of \$3 billion of additional funding over five years. Its more fundamental aim was to create a shift in the governance of environmental and economic policy.

This financial commitment had both positive and negative aspects within the federal government. At first, the department of finance and Treasury Board were concerned about the amount of the expenditure at a time of high deficits. Other departments feared that that a well-endowed Department of Environment would increase its influence and power over Cabinet decision-making. However, resistance faded when it became apparent that more than half of the new funds would be given to departments other than environment – although by that time the Green Plan was far less ambitious and involved less financial commitment than initially envisaged.

The preparation of the Green Plan fuelled high expectations. One reason for this was the high political profile given to the exercise, due to its initiation by Lucien Bouchard as Environment Minister, who at that time was a very close ally of Prime Minister Mulroney. Mr. Bouchard’s decision to launch such an ambitious project may have been influenced by the WCED’s message of integrating environment and economics, as well as the elaboration in 1988 of the Greenprint for Canada, done by a coalition of NGOs. Much of Mr. Bouchard’s political clout was due to his personal relationship with Prime Minister Mulroney. However, by the time the Plan was released, Mr. Bouchard had been replaced as Environment Minister.

Another reason was that the early drafts of the Green Plan were purposefully ambitious, with officials being instructed to make proposals without consideration of any budgetary consequences (Hoberg and Harrison, 1994). Since this was going to be a Plan with spending, the Finance Ministry insisted on the usual secrecy associated with budgetary

document, which had the effect of fuelling speculation and unease. The initial presentation of the Plan to the cabinet was met with general hostility, which led to the decision that public consultation was needed.

The consultative document, “A Framework for Discussion on the Environment”, committed the government to ensuring “that the activities of business, individuals, communities and government are consistent with the concept of sustainable development.” Toner (2000) tells how the early drafts of the Plan, prepared by officials:

... envisioned the Green Plan as representing a turning point in the Canadian discourse by moving the conceptual basis of environmental policy away from resource management and environmental clean-up to pollution prevention and sustainable development (page 59).

Indeed, the very first substantive chapter of “A Framework for Discussion on the Environment” focussed on the need to improve decision-making. This includes improving the factors that influenced decision-making (e.g. science, legislation, information), processes and institutions, and partnerships with provinces, aboriginal groups, NGOs, and the private sector. This theme also appeared in the Green Plan, but as the last chapter.

The Plan was not well received by many in the environmental policy community for a number of reasons (Gale 1997). The consultative process, although massive, was perceived as rushed and not organised in a way that promoted meaningful discussion. More substantively, they saw the Plan as lacking in far-reaching regulatory or economic instruments – which may also explain why industry largely welcomed the Plan and not opposed by the provinces. Indeed, the Green Plan did not contain very much in new pollution-related regulation or clean-up nor were any new taxes introduced (some earlier text on a carbon tax was abandoned after industry lobbied the Prime Minister): much of the spending was for information related initiatives, such as research and education. Inside the Federal Government, the political calculus of having the Department of Environment take the lead had the effect of displacing NRTEE from the exercise, with the result that NRTEE was not able to champion the Plan, even after the Department of the Environment’s political influence waned.

Despite the promise made in the Green Plan that the government would review it annually, enhancing and broadening it, by the time of UNCED, the process was already running out of steam. By 1993, it was no longer alive, despite the original intention that the Plan be revised and renewed on a regular basis. The newly elected Liberal Party perceived the Green Plan as a partisan, Conservative, initiative, and saw no political benefit in continuing it – even though its election manifesto, the “Red Book” had declared that the Liberals would keep and improve it. There was also no constituency strong enough, or interested enough, in pressing for the Plan’s continuation (Gale, 1997). Nonetheless, many of the actual Green Plan initiatives continued, although not under that banner. More recently, interest in the Green Plan has been rekindled in some quarters, such as the Green Party praising its vision and promising a new version of it.³

³ Green Party of Canada, GP2 – Our Green Plan for the Future, available on <http://www.greenparty.ca/en/policy/documents/gp2>.

2.5. *Projet de Societe*

After UNCED, the federal government launched a *Projet de Societe* as part of the national response to the call in Agenda 21 for a national sustainable development strategy. The preparation of Canada's national report to UNCED was based on a large multistakeholder process, under the framework of a National Report Steering Committee. Participants in this process included business, labour, environmental NGOs, aboriginal groups, the provincial governments, and Round Tables. Canada also took an inclusive approach to its participation at the Conference, much of this due to the initiative of Environment Minister Jean Charest. Representatives of all organisations on the National Report Steering Committee were made part of the Canadian delegation and during the Conference open briefings with the Environment Minister took place every day.

After this "extraordinarily inclusive and open process for an international, intergovernmental meeting (Toner, 2000), there was a desire to continue that momentum in designing Canada's national sustainable development strategy called for in Agenda 21. This led to the creation of the *Projet de Societe*, which was a "multi-stakeholder partnership of government, indigenous, business and voluntary organizations committed to promoting Canada's transition to a sustainable future. Our primary role is as a catalyst for change, recognising that sustainable development is a collective responsibility of all Canadians." (*Projet de Societe*, 1994). According to Environment Minister Charest, a *Projet de Societe* is an aim of society at large, a defining purpose and ambition that inspires all sectors, all elements... (it) ... is appropriate for the fundamental change that sustainable development requires."⁴

Over 100 sectors of society participated in its work, as a coalition of networks, in the National Stakeholder Assembly. The main principles underlying this process were:

- The process should be transparent, inclusive and accountable.
- All stakeholders should identify and take responsibility for their contributions to sustainability.
- Dialogue and cooperation are key elements of problem solving.
- A shared vision on policy, institutional and individual changes is necessary for transitions to sustainability.
- Strategy and action must be linked and build on previous and ongoing initiatives.
- Canada's contribution to global sustainability should be exemplary.

The amount of participation, and broad scope of the *Projet*, created organisational challenges and arguably bogged down the process. The process was anchored by the National Round Table, which became increasingly involved in writing the document, but by 1996 the Round Table withdrew its support. Even earlier, government support had waned after the departure of Jean Charest and the election of the Liberal Party.

Several publications were prepared, including an assessment of Agenda 21 from a Canadian perspective, written by various stakeholders, and a framework for sustainability planning. The last report produced by the *Projet*, "Canadian Choices for

⁴ See RRI Green Plans Archive, http://greenplans.rri.org/resources/greenplanningarchives/canada/canada_epr_history.html.

Transitions to Sustainability”, was not, in the end, a sustainable development strategy, but rather more of a conceptual guide. It contains a survey of existing initiatives on sustainable development and tools for those seeking to address sustainability issues in the future. It also contains a set of principles for sustainable development:

- all deliberations must be informed by respect for nature, including the rights of other species and future generations;
- all persons should be able to participate in transitions to sustainability;
- the process should be based on anticipation and prevention;
- issues related to sustainability should be neither won nor lost, but resolved;
- informed decision making must consider the full cost of actions;
- the process should take into account social, interregional, and intergenerational equity;
- the process should be a dynamic learning one.

2.6. Commissioner for the Environment and Sustainable Development

One of the planks of the Liberal Party’s manifesto during the 1993 election campaign --- Creating Opportunity, also known as the Red Book – was to create an environmental Auditor General (in addition to calling for binding carbon emissions targets, and the completion of the National Parks System). Once in power, it amended the Auditor General Act in 1995 to create the post of Commissioner for the Environment and Sustainable Development (CESD). The CESD is meant to audit the federal government’s progress in meeting its commitments on environment and sustainable development. It can also receive and petitions from anyone in Canada alleging breaches of environmental and monitor the responses of the relevant authorities.

According to the Act, ministers and heads of 25 departments and agencies must prepare sustainable development strategies and update them at least every three year. It should be noted that Canada is unique in taking such a bottom-up approach to governmental strategies on sustainable development. In 1985, the Green Guide to Government was prepared, and the first round was prepared in 1997. The reaction of the CESD in 1998 to the first strategies was that they were a restatement of the status quo, rather than a commitment to change to sustainable development. Similar reactions were made in 2001, to the second round of strategies. The Commissioner suggested that the federal government needed to articulate what a sustainable Canada would like in 20 years, as a basis on which individual departments can work from. By 2004, the CESD had noted an improvement in some of the strategies – they had clearer objectives and commitments. However, in her view, they were still not the kind of strategic documents that would stimulate necessary change, and in 2004, she urged the federal government to review the experience and draw lessons from the process so far. In 2005, she suggested an alteration to the framework under which the strategies were prepared, so that the following elements be reflected:

- ❑ **Role and fit.** The role of the strategy and how it fits with other plans and strategies is clearly indicated.
- ❑ **Vision.** A vision for sustainable development is included.
- ❑ **Goals and objectives.** Goals and objectives clearly express the long-term results to be achieved.

- ❑ **Linking goals and objectives with targets and actions.** Targets and actions are clearly linked to goals and objectives.
- ❑ **Clear targets.** Targets are clear – they are clearly stated and understandable.
- ❑ **Measurable targets.** Targets provide a deadline and a clear deliverable.
- ❑ **Lessons learned.** Lessons learned from previous strategies are included.
- ❑ **Changes.** Changes between previous and current strategies are identified.

In 2006, she found satisfactory progress on 27 of the 39 commitments in the current sustainable development strategies.

In sum, the CESD reports have been a basis for moving government departments forward towards meeting sustainable development commitments. They are also very valuable assessments that all interested parties can make use of. But given that most of the annual reports have noted rather little progress, the conclusion must be that the CESD is not having a very profound effect on the implementation of government policy – certainly not as significant as the Auditor-General normally is.

2.7. Federal and Provincial legislation

In the years preceding the WCED, the federal government played a largely supporting role to the provinces in environmental policy (Hoberg and Harrison, 1994). It conducted research, regulated mobile source emissions, urged harmonisation of provincial legislation, while the provinces created most of the standards, issued permits, and enforced legislation. The enactment of the Canadian Environmental Protection Act (CEPA) in 1988 marked a new era of federal assertiveness, which discomfited some of the provinces – especially after some court decisions upheld CEPA's environmental assessment provisions in relation to some high profile provincial projects.

CEPA was the consolidation of five separate pieces of legislation, and made reference to several principles of sustainable development, including pollution prevention, ecosystem approach, the precautionary principle, and user/producer responsibility. CEPA authorises, *inter alia*, ambient air quality objectives, pollution prevention plans, emissions standards, and an inventory of pollutants. By 2002, 52 substances were listed as toxic under CEPA. In 1999 it was amended, after a critical Parliamentary review of the act urged its update. It is currently under review again, with considerable attention being focussed on the Act's treatment of toxic substances. New legislation is anticipated for 2008. Another important legislative development was the enactment of the Canadian Environmental Assessment Act, although the CESD in 1998 found significant weakness in its implementation. These, and other important pieces of legislation are discussed later in this paper.

At the provincial level, there were several important developments. Several provinces completed conservation strategies, such as Prince Edward Island, New Brunswick and the Yukon. Most provinces completed sustainable development strategies, facilitated by their Round Tables. Provinces also began developing consolidated legislation to protect the environment. Ontario enacted an Environmental Bill of Rights (EBR) in 1993, designed to enhance public participation in environmental decision-making, and created an Environment Commissioner to hold government departments to account in implementing the EBR. In 2006, Quebec passed an ambitious Sustainable Development Act, which, *inter alia*, creates a Commissioner on Sustainable

Development that will report annually on the implementation of the Act.⁵ It has also become the first jurisdiction in Canada to implement a carbon tax.

2.8. International initiatives

Since 1987, Canada has joined many of the international initiatives relating to sustainable development. For example, it ratified the two Rio Conventions, as well as the Kyoto Protocol. Canada also took a leading role in the development of some major international treaties. Canada was instrumental in promoting the idea of a treaty on straddling and highly migratory fish stocks, building on its success in including a commitment to initiate negotiations in Agenda 21. It was less successful, however, in getting commitment to negotiate a legally binding agreement on forests. Canada also was a leader in tightening up the Montreal Protocol on Substances that Deplete the Ozone Layer, which is perhaps the most successful international agreement on the environment. It very recently joined in the agreement under that Protocol to reduce HCFCs.⁶ Canada also played a key role in developing the international agreement on persistent organic pollutants. And Canada has played an important role in the debates at the WTO aimed at finding an accommodation between WTO rules and trade measures in multilateral environmental agreements.

But there were also international agreements that Canada had difficulty in joining, such as the Basel Convention on the Transboundary Movement of Hazardous and Other Wastes or the Biosafety Protocol. Even more controversial is Canada's deviation from the Kyoto Protocol, which it had ratified. At the 2002 World Summit on Sustainable Development, Canada was singled out as being part of a small group of laggards on a range of issues,⁷ although by that time, it was already receiving considerable criticism from the NGO sector.⁸ More recently, Canada was one of the few countries that declined to support the UN Declaration on the Rights of Indigenous Peoples.

At the bilateral and regional levels, Canada has had some sustainable development successes. It concluded a landmark agreement with the United States on reducing the serious problem of acid rain. It supported the American initiative to agree an Environmental Side Agreement to the North American Free Trade Agreement. There are also instances of binational cooperation between Canada and the United States that are effectively conducted at the provincial and state level. The prime instance of this approach is the cooperation around the Great Lakes, where, for example, Ontario and Quebec are associate members of the Great Lakes Commission formed by several

⁵ Available on <http://www2.publicationsduquebec.gouv.qc.ca/dynamicSearch/telecharge.php?type=5&file=2006C3A.PDF>.

⁶ BBCNews.Com, "Deal on ozone and climate relief", <http://news.bbc.co.uk/1/hi/sci/tech/7010280.stm>, 24 Sep. 2007.

⁷ Gutman, P., 2003. What did 2002 World Summit on Sustainable Development accomplish? A non-governmental agency perspective, *Environment*, 3 January 2003, available on <http://www.encyclopedia.com/doc/1G1-98187623.html>; Burg, J., 2003. The World Summit on Sustainable Development: Empty Talk or Call to Action?, *Journal of Environment and Development*, vol. 12 at 111.

⁸ See Greenpeace, 2002, Who's to blame? The role of the USA, Canada & Australia in undermining the Rio agreements, available on http://archive.greenpeace.org/earthsummit/docs/blame_summary.pdf.

American states.⁹ In addition, A Joint Strategic Plan For Management of Great Lakes Fisheries was developed by the eight American Great Lakes States and Ontario. In an good example of federal and provincial cooperation, the implementation of the Canada-US Water Quality Agreement is enhanced by a Canada-Ontario Agreement Respecting the Great Lakes Basin Ecosystem.¹⁰

However, although a strong player in the elaboration of new international rules, Canada has not always implemented them effectively. The critical issue of climate change is discussed later in this paper, but on other issues, such as fisheries management, Canada has also fallen short.

2.9. Strengthening Canadian research capacity

Another Canadian reaction to the WCED was the creation of the International Institute of Sustainable Development (IISD), which receives financial support from the federal and Manitoba governments. IISD is a not-for-profit organization whose mission is to promote change towards sustainable development. As of 2007, IISD engaged 150 people located in more than 30 countries, on a full or part time basis, and partnered with more than 200 organizations throughout the world.

3. Canadian action that addresses the Strategic Imperatives

This section sets forth highlights of Canadian responses to issues set out in the Strategic Imperatives. Since Canada did not organise its policies around the Strategic Imperatives, some of the text below classifies policies in a somewhat artificial manner for the sake of this analysis. In reality, there has often been more connection between policies than is suggested.

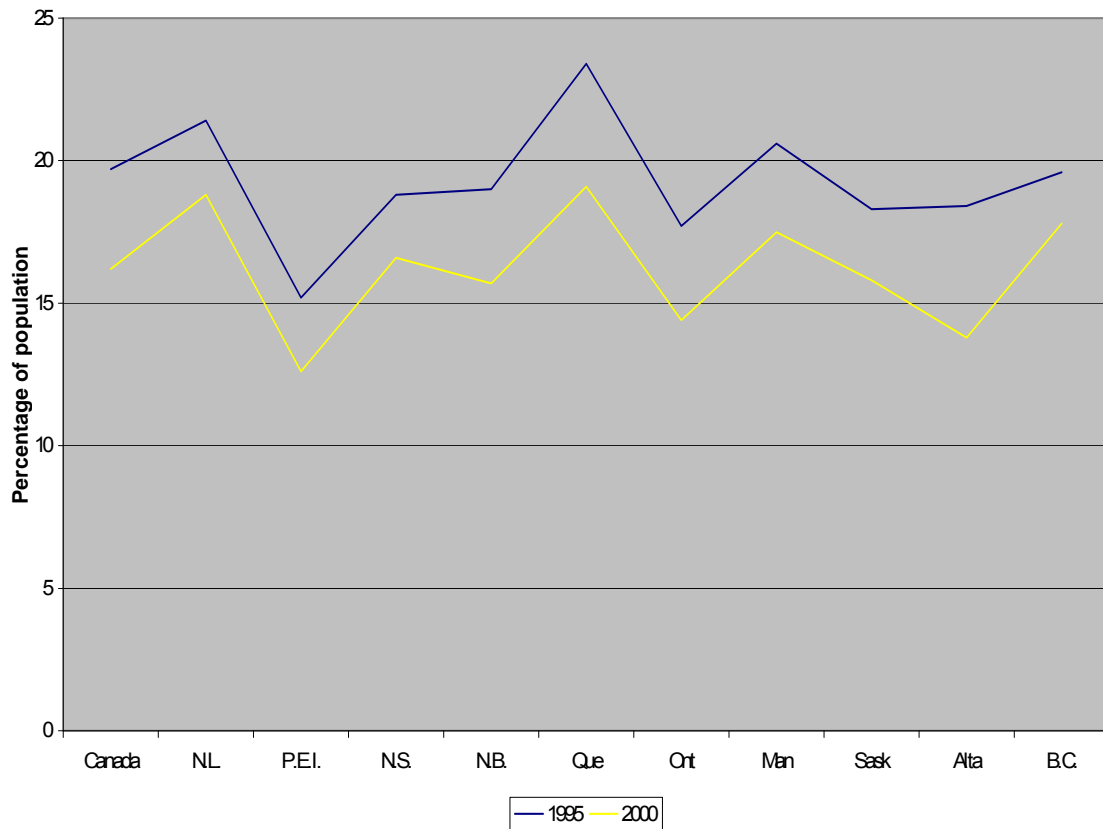
3.1. Reviving Growth

In the WCED report, the text on this Strategic Imperative is mainly aimed at developing countries, in that it addresses the need to combat absolute poverty. The gist of the argument is that countries that eliminate poverty and meet basic human needs will also be able to have increased domestic demand for agricultural and manufactured products, as well as services. Although Canada is not a poor country, and its population's basic needs are met, poverty does still exist. The number of persons with low income in 1987 was 3,074,000, representing 11.9% of the population, while in 2005, that number was 3,409,000, representing 10.8% of the population (Statistics Canada).

⁹ <http://www.glc.org/about/glbc.html>.

¹⁰ See <http://www.ec.gc.ca/CEPARRegistry/documents/agree/Fin-COA07/framework.cfm>.

incidence of low income among population living in private households



Source: Statistics Canada, Census of Population, last updated 10.01.2005

Despite this drop in the incidence of low income, which was similar in all regions, income inequality grew since the WCED report: average income in the bottom 10% of the population fell by 8% between 1989 and 2004, while growing by 24% for the top 10% of the population.¹¹

Since 1987, Canada has experienced considerable economic growth. But this growth was not consistent, nor was it present evenly throughout the country. Some provinces have experienced strong growth, others less so.

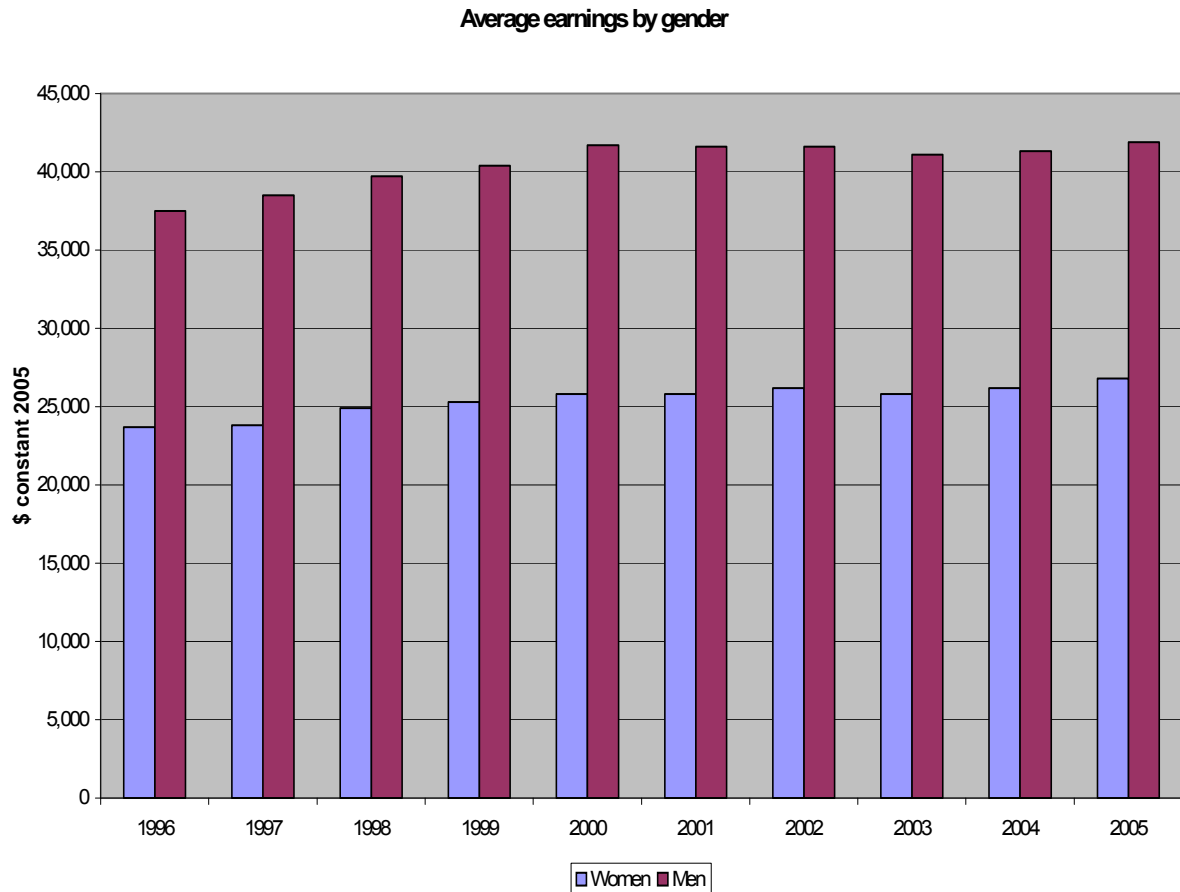
¹¹ Heisz, A. 2007. Income inequality and redistribution in Canada: 1976 – 2004, Statistics Canada, Catalogue no. 11F0019MIE — No. 298, available on <http://www.statcan.ca/english/research/11F0019MIE/11F0019MIE2007298.pdf>.

Table: Real gross domestic product, expenditure-based, by province and territory

	2002	2003	2004	2005	2006
	millions of chained (1997) dollars				
Canada	1,069,282	1,088,773	1,124,688	1,157,705	1,189,535
Newfoundland and Labrador	14,471	15,372	15,237	15,298	15,719
Prince Edward Island	3,225	3,264	3,367	3,437	3,505
Nova Scotia	24,652	24,929	25,131	25,534	25,814
New Brunswick	20,133	20,605	21,147	21,219	21,773
Quebec	223,832	226,831	232,944	237,981	242,039
Ontario	450,341	456,178	470,568	483,962	493,126
Manitoba	33,629	34,074	34,937	35,872	37,052
Saskatchewan	30,824	32,081	33,139	34,157	34,292
Alberta	125,926	129,553	136,602	142,896	152,670
British Columbia	130,445	134,131	140,263	145,501	150,741
Yukon Territory	1,146	1,138	1,187	1,249	1,285
Northwest Territories	3,112	3,734	4,018	4,024	4,103
Nunavut	897	866	885	875	926

Source: Statistics Canada, CANSIM, table 384-0002

Gender inequality has also persisted in Canada. For example, in 1996, women earned on average 63% of what men earned; in 2005, it was 64%.



Source: Statistics Canada, CANSIM Table 202-0102, Last modified: 2007-05-01

Another manifestation of inequality is that many aboriginal communities continue to experience poverty: overall aboriginal people are worse off than non-aboriginal people in Canada. As the Canadian government reported in 2002:

The average annual income for aboriginal people is half that of non-aboriginal people, 50% of aboriginal children live in poverty, the unemployment rate is three times higher, in some places reaching as high as 90 percent. Infant mortality is two times higher.¹²

¹² Sustainable Development: A Canadian Perspective, p. 27

Income of Aboriginal People¹³

YEAR	1995	2000
Without income	48275	42540
With income	469135	598955
Average income \$	17111	19215
Median income \$	12010	13593

The challenges facing the slow rate of economic development among aboriginal people are many and inter-linked, underpinned by disputes over land claims. In 1989, the government initiated the Canadian Aboriginal Economic Development Strategy (CAED Strategy) in partnership with the aboriginal communities. Its aims were to achieve long term employment and enable aboriginal people to set up their own businesses. However, a Royal Commission on Aboriginal Peoples reported in 1996 that a sweeping change in the relationship between the government and aboriginal peoples was necessary. In relation to economic development, the Commission stated that the most important steps non-Aboriginal governments can take to facilitate economic development in Aboriginal communities are as follows:

- Recognise Aboriginal rights and honour and implement treaty provisions, with particular attention to the economic dimensions of those provisions. Where historical treaties have not been signed, new agreements must be concluded. In existing treaty areas, updated or additional treaties may be necessary.
- Through the treaty process and by other means outlined in this volume, make available a land and resource base that is sufficient to provide the basis for self-reliant Aboriginal economies.
- Make it possible for Aboriginal governments to regain stewardship over their own economies. Over the medium to long term, this will be accomplished as part of the process of achieving self-government. In the interim, we believe it is important for federal, provincial and territorial governments to enter into economic development agreements with Aboriginal governments, or institutions representing them, to provide multi-year funding for Aboriginal-controlled economic development programs and projects.¹⁴

While the federal government did not agree with the RCAP's recommendation that an increase in funding (\$1.5 billion annually by Year 5 of the strategy, and then \$2 billion in the subsequent 15 years), it did respond in 1998 with a new initiative: Gathering Strength – Canada's Aboriginal Action Plan. Part of this plan was about creating a new fiscal relationship and enabling stronger aboriginal economies. Implementation of this Plan has included new funding agreements, funding for training, and new instruments, such as aboriginal contract guarantees.

The Federal Government has four general vehicles for the federal government to transfer funds to the provinces: the Canadian Health Transfer, the Canadian Social Transfer, Equalisation payments and the Territorial Formula Financing. The first two are

¹³ Statistics Canada - Cat. No. 97F0020XCB2001045

¹⁴ Chapter 5, section 2.10.

based on the federal government supporting specific aspects of social policy, including health care, post-secondary education, social assistance and social services, early childhood development and childcare. Since these areas are under provincial competence, the provinces spend the funds received in these areas, subject to criteria set by the federal government. The Equalisation program is meant to address regional inequity by providing funds to the poorer provinces. These funds, as well as the funds under the Territorial Formula Financing, are not tied to specific categories. During the early 1990s, these transfer payment decreased in response to the economic recession and the policy of fiscal restraint. In addition, other funding for social purposes decreased, in an effort to balance budgets. For example, unemployment insurance benefit entitlements were altered. More recently this decline in funding has been reversed.

Internationally, Canada has contributed to raising economic growth in developing countries. Since 1987, it generally has pursued a liberal trade policy approach first in the GATT, and then at the WTO, as well as and regionally, first with the United States and later with NAFTA. Liberal trade does not always sit comfortably with all sustainable development objectives, but it has contributed to increasing economic growth around the world, with the exception of sub-Saharan Africa. Canada has also implemented duty and quota free access on most products to Canadian markets for products from least-developed countries. It has also contributed funds to international development assistance, although its overall spending is relatively meagre (discussed further in section 3.3). A recent benchmarking placed Canada 5th amongst developed countries in its commitment to development.¹⁵ In that report, the authors stated:

Canada's main contributions to the development of poor countries come through its strong support of technological innovation and dissemination, its low barriers against developing country exports, and its policies that promote productive investment in poor countries. But Canada's positive impact is reduced by its large share of tied foreign aid, its arms exports to undemocratic governments, and its poor environmental record from the standpoint of developing countries.

3.2. Changing Quality of Growth

This strategic imperative exhorts an approach to growth that is less material/energy intensive and more equitable. This seems very appropriate to a country like Canada, which has enjoyed considerable economic growth over the past 20 years. The WCED cautions that growth that increases vulnerability is not sustainable. Over exploitation of natural resources is one example of this kind of vulnerability. Canada, where use of natural resources is an important part of the society, is therefore prone to this kind of vulnerability. Below are some areas that relate to this Strategic Imperative:

a. Fisheries

The most dramatic is the collapse of most of Atlantic Canada's goundfish fishery, where in the 1960s annual catches were in the range of 2,000,000 tonnes, falling to 120,000

¹⁵ Center for Global Development, Commitment to Development Index 2007, available on http://www.cgdev.org/doc/cdi/2007/country_reports/Canada_2007.pdf.

tonnes in the mid-1990s. The roots of this collapse lie in decades of poor management by Canada and other fishing nations. The Atlantic fisheries have long been characterised by over-capacity, low incomes, and low profit margins. In the case of major cod, haddock, and pollock, for example, there has been a persistent rate of over-fishing that far exceeded the Department of Fisheries and Oceans conservation rate. Notwithstanding this, the rate of over-fishing between the years 1989 and 1992 increased. In addition, there was a steady growth in employment in this sector throughout the 1980s. As the Auditor General stated in its 1997 report:

The period from 1980 to 1991 saw a growth of 31 percent in the number of individuals employed in Atlantic fish processing jobs; during the same period, the available fishery resource declined by 2.5 percent. The discrepancy was particularly notable in Newfoundland, where the number of people in the fish processing sector increased by 50 percent while the available fish stocks declined by 18 percent. As the resource declined, dependence on the support programs increased; in certain sectors of the fishery there was a total reliance on support because of the complete collapse of the resource. (Paragraph 14.46).

That report also noted the as yet unfulfilled promise in the Green Plan for a national fisheries strategy to be developed to ensure the long-term sustainability of fishery resources.

In some years, the total allowable catch determined by the Federal Government also exceeded international standards – this was in part due to difficulties in obtaining reliable data, but also because of flexibility that allowed the government to determine fishing levels based on socio-economic criteria. (Auditor General, 1997). In this connection, it is important to note that the Atlantic provinces are relatively poor and fishing is an important part of the local economy. In 1992, a temporary cod moratorium was imposed, later extended. An income support programme and a plan to dramatically reduce fishing capacity, e.g. by reducing the number of fishing licences, accompanied this moratorium. In 1997, there was limited opening of the cod fishery, but it was then closed again in 2003, amidst some predictions that it would take decades for the stocks to recover. Another area of concern has been the management of Atlantic and Pacific salmon stocks. In 2004, the Commissioner for Environment and Sustainable Development noted that while many stocks were abundant, some were in trouble; the CESD had previously audited Fisheries and Oceans Canada's management of these stocks in 1997, 1999, and 2000, but those recommendations were not implemented. The Department's response in 2004 was to accept all of the CESD recommendations.

b. Forestry

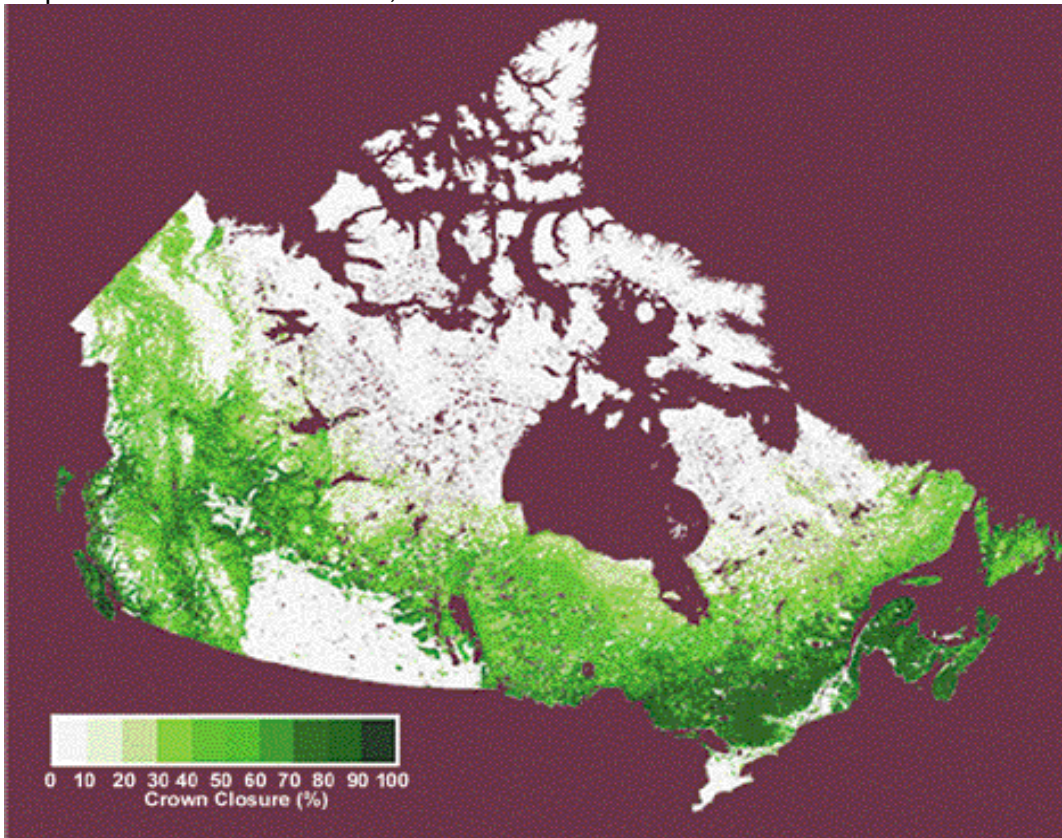
Another industry with serious concerns about overexploitation is forestry, which is a major industry in Canada. During the 1990s, there was considerable controversy over clear-cutting in British Columbia, which involved criticisms from aboriginal communities, environmental and consumer NGOs. Much of the competence to regulate forestry is at the provincial level. Since 1987, several provinces have done major overhauls of their legislation, and there have been several important court cases that have clarified aboriginal entitlements.

British Columbia, for example enacted a Forest Practices Code, which included detailed regulations on forest practices and a new Forest Practices Board to audit implementation. The 2001 amendments to the Quebec *Loi sur les forêts*, require the maintenance of biodiversity in new forest management plans. Many of the provinces have implemented the criteria and indicators for sustainable forest management that emerged from the „Montreal Process“, and adopted by the Canadian Council of Forest Ministers in 1995. Another innovation has been in the conclusion of agreements between government, industry, and environmental NGOs around forest management issues. Examples include the Ontario Forest Accord, with commitments to create new parkland and protect wood supply and jobs, and the Canada Forest Accord, which oversees the National Forest Strategy. The National Forest Strategy (2003-2008) covers themes, such as ecosystem management, sustainable forest communities, rights and obligations of aboriginal communities, and forest products benefits. These efforts appear to be having a payoff.; according to the Canadian Sustainable Forestry Certification Coalition:

As of June 2007, there are 134 million hectares (331 million acres) certified to the 3 SFM certification programs in use in Canada. The State of Canada's Forests 2005-2006 report clarifies that of the 310 million hectares of forest land in Canada, less than half of it (143 million hectares) is subject to forest management. With 134 million hectares dedicated to forestry operations in Canada, and 123.75 million hectares certified, the Canadian forest sector has drastically closed the gap between the land they are allowed to operate on and the portion of that land that is certified. (www.certificationcanada.org).

This represents a dramatic increase in forest certification in Canada. For example, the Forest Stewardship Council reports that the area of forest under their certifications has quadrupled since 2005.

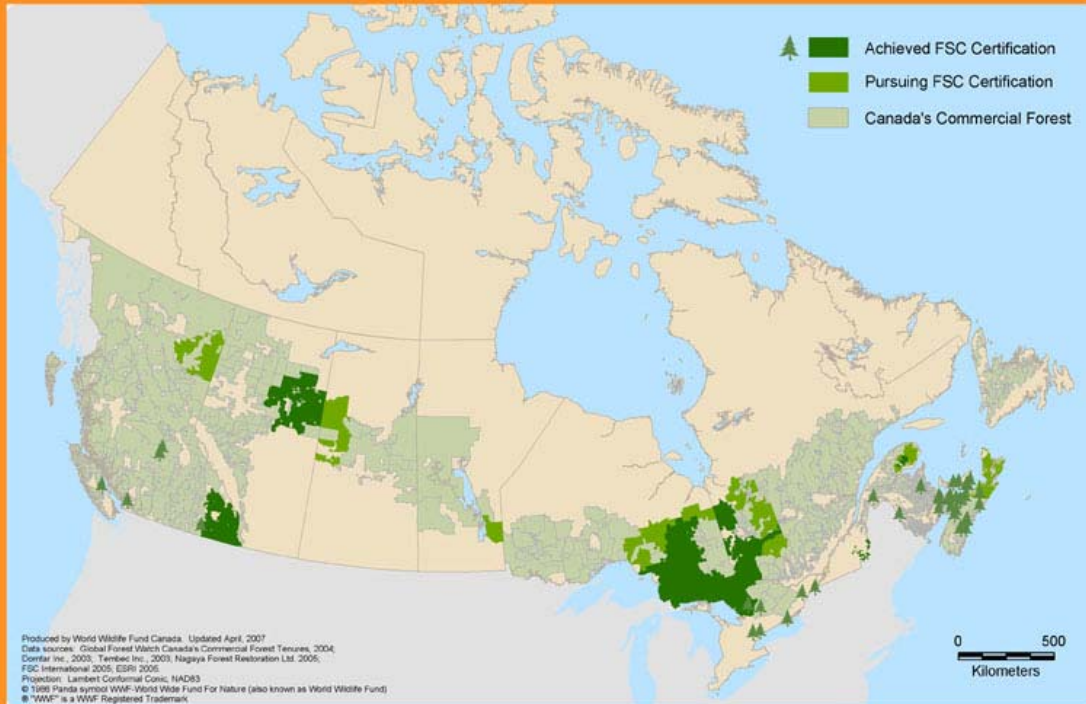
Map: Forest Cover in Canada, 1998



Source: Developed for the NRTEE by Statistics Canada and Natural Resources Canada, in NRTEE, Environment and Sustainable Development Indicators, 2003.



CANADA: WORLD LEADER IN FSC CERTIFICATION 21 MILLION HECTARES AS OF APRIL 2007



Source:

<http://wwf.ca/AboutWWF/WhatWeDo/ConservationPrograms/ForestsAndTrade/images/sc.jpg>.

c. Agriculture

A related area is agriculture, which remains a significant Canadian industry, which can adversely impact on the natural environment depending on the methods used. A recent survey of agri-environmental indicators revealed that all soil quality indicators showed considerable improvement between 1981 and 2001:

- ❑ the share of cropland in the high and very high soil cover classes went from 13% to 32%;
- ❑ the share of cropland in the very low risk class for water erosion went from 78% to 86%;
- ❑ the share of cultivated land (Prairies) in the very low risk class for wind erosion went from 72% to 86%;
- ❑ the share of cropland in the very low risk class for tillage erosion went from 38% to 50%;
- ❑ the share of cropland in the large soil organic carbon increase class went from 6% to 31%;
- ❑ the share of agricultural and adjacent non-agricultural land (Prairies) in the very low

- risk class for salinization went from 62% to 70%.¹⁶

The reasons for this improvement are attributed to two changes in farming practice. One is a 50% decrease in the area under summerfallow and a significant increase in the share of cropland under reduced tillage or no-till to the point where in 2001, 58% of Canadian cropland was tilled conventionally compared with approximately 100% in 1981. Other indicators are a reduction in water quality as a result of higher risk of nitrogen contamination. This is due to increasing fertiliser use, as well as climactic changes. There was some reduction of greenhouse gas emissions and a slight deterioration in wildlife habitat capacity.

Despite this, the Senate has affirmed that agriculture in Canada is threatened by climate change, which is expected to bring more extreme weather events, floods, and drought.¹⁷ Indeed, the impact of climate change, along with increased nutrient load have lead some observers to conclude that Canadian agriculture in the Prairies may begin to deteriorate as ecosystems increasingly demonstrate kinds of environmental problems prevalent in drylands (Venema, 2005).

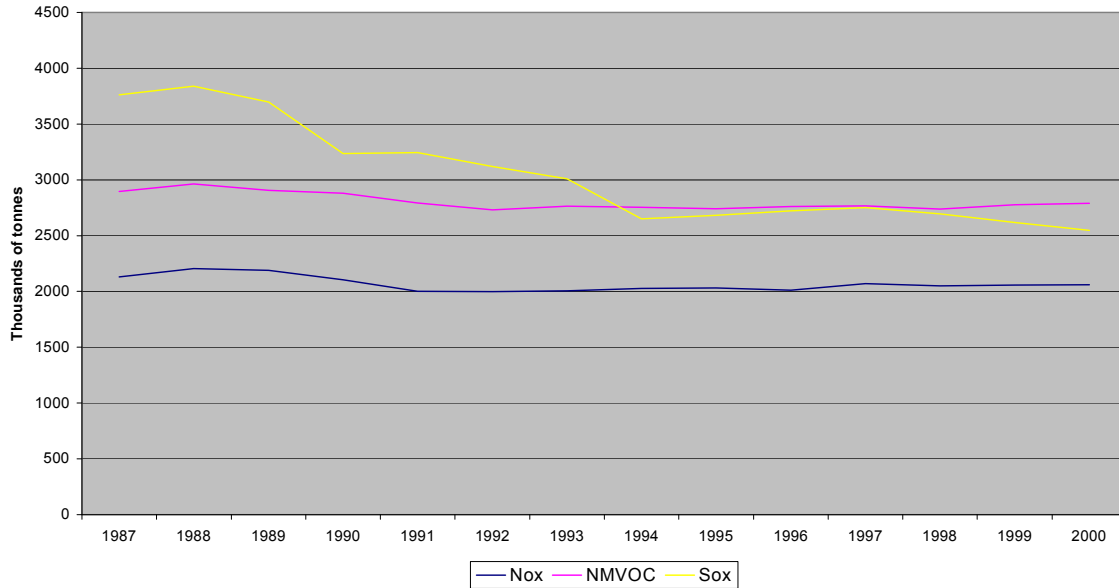
d. Air Quality

Achieving adequate air quality remains a difficult challenge for policy makers, and despite some progress in reducing emissions, this area still remains one of the country's most pressing environmental problems. The federal government has authority over some areas that impact on air quality, such as motor vehicles emissions, while the provinces can regulate the air quality more directly.

¹⁶ Agriculture and Agri-food Canada, 2005. Environmental Sustainability of Canadian Agriculture, Agri-Environmental Indicator Report Series Report #2, available on http://www.agr.gc.ca/env/naharp-pnarsa/pdf/2005_AEI_report_e.pdf.

¹⁷ Senate Standing Committee on Agriculture and Forestry, 2003. Climate Change: We Are At Risk, available on <http://www.parl.gc.ca/37/2/parlbus/commbus/senate/com-e/agri-e/rep-e/repfinnov03-e.htm>.

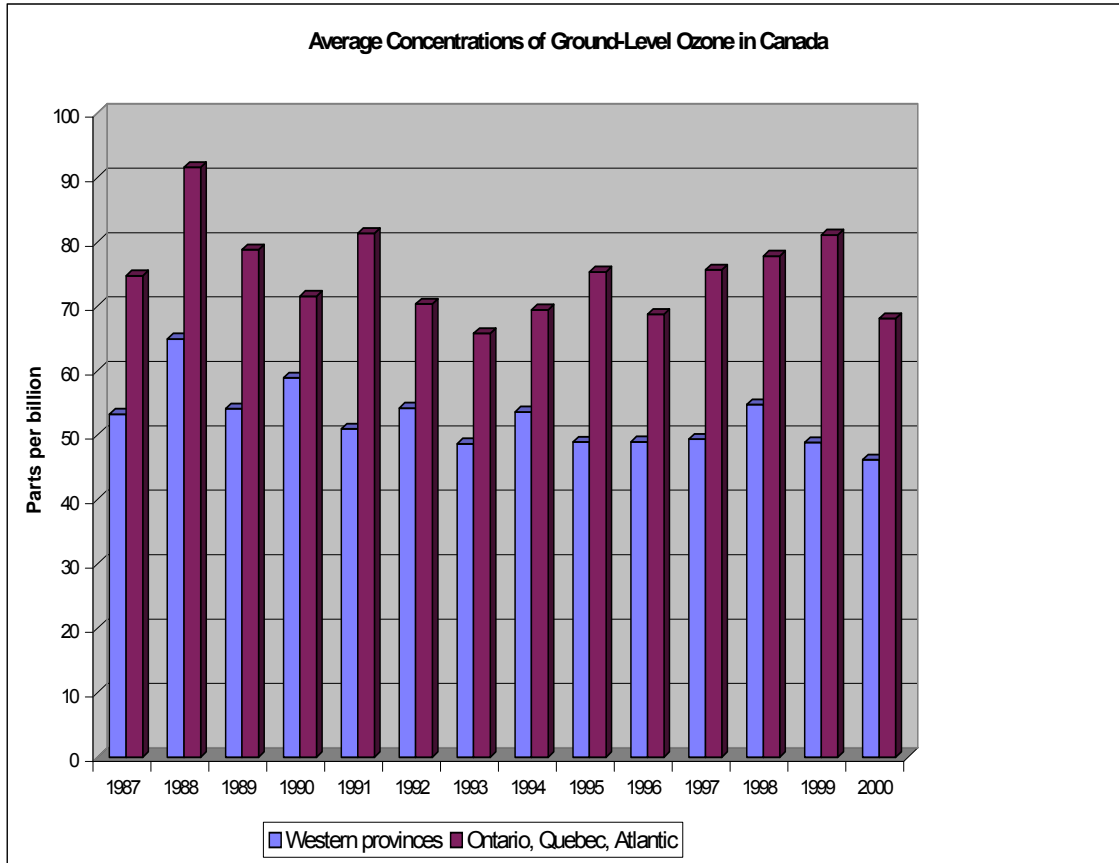
Nox, NMVOC, and SOx emissions



Source: Criteria Air Contaminants Database, Environment Canada, last updated 2002.

One of the major successes in this area after 1987 was the agreement with the United States on acid rain in 1991, following several years of heated bilateral debate and negotiation. Earlier, in 1985, the federal government and provinces agreed among themselves on a plan to reduce sulphur dioxide emissions. In contrast to the United States, which took a market based approach to eliminating sulphur dioxide, Canada carried out negotiations with the small number of major emitters, which lead to significant reductions in emissions.

However, during the 1990s, many urban centres in Canada began experiencing an increase in smog and ground-level ozone. Several initiatives have taken place with a view to redressing this, a 2000 Ozone Annex was added to the 1991 Canada – US Air Quality Agreement, which provides for improved monitoring. There have been new, non-legally-binding federal standards on particulate matter, ozone, benzene, mercury, dioxin, and furans. But these standards are not only not ambitious, as compared to other OECD countries (including the United States), and are often lower than World Health Organisation standards, but nonetheless are often not complied with (Boyd 2007). It should be noted that individual provinces may have more stringent rules.

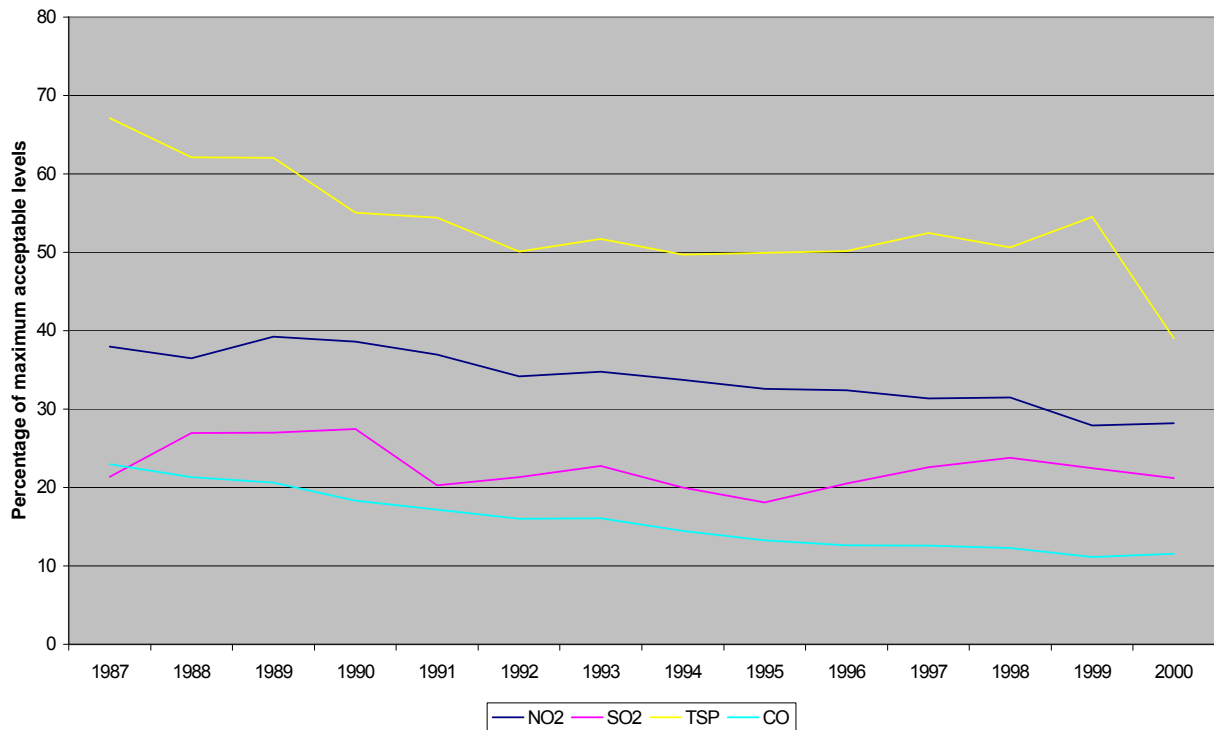


Source: National Air Pollution Surveillance Network

Canada's standards on motor vehicle emissions derive from legislation passed in 1982. Mandatory regulations are passed, but are often supplemented by voluntary agreements with the auto industry in order to ensure harmonisation with American standards. The current federal government is working on a Clean Air Act, which has passed first reading. The aim of this legislation is to regulate air pollution as well as greenhouse gases, including by setting mandatory standards. This legislative proposal is controversial, with critics arguing that it would be more effective and quicker to modify CEPA, rather than creating new legislation.¹⁸

¹⁸ Boyd, David R. 2007, Reality Check: Climate Change and the Proposed Clean Air Act, Presentation to the Standing Committee on Bill C-30, available on http://www.polisproject.org/PDFs/clean_air_act.pdf.

Air Quality Trends



Source: National Air Pollution Surveillance Network

e. Water quality

Canada has also faced difficulties in tackling water quality. Regulation of water is shared between federal and provincial jurisdiction, with most of the responsibility at the provincial level. As in the case of air quality, there are no national water quality standards that are mandatory or legally enforceable. Rather, there are voluntary Guidelines for Canadian Drinking Water Quality, developed in cooperation with the provinces and territories. Some of these guidelines have not been adequate.¹⁹ Also, the CESD in 2005 found that there is currently a large backlog in updating the guidelines. In addition, some have argued, like Justice O’Conner, who headed the commission of inquiry that examined the causes of the Walkerton water disaster, that water quality standards should be legally binding.²⁰ It should be noted that some of these national guidelines become legally binding when incorporated into provincial legislation. The content of these guidelines is also controversial. The stringency of Canada’s guidelines fares poorly compared with several other OECD countries; the guidelines are also noteworthy in lacking any outcome based standards for water treatment (Boyd, 2007b).

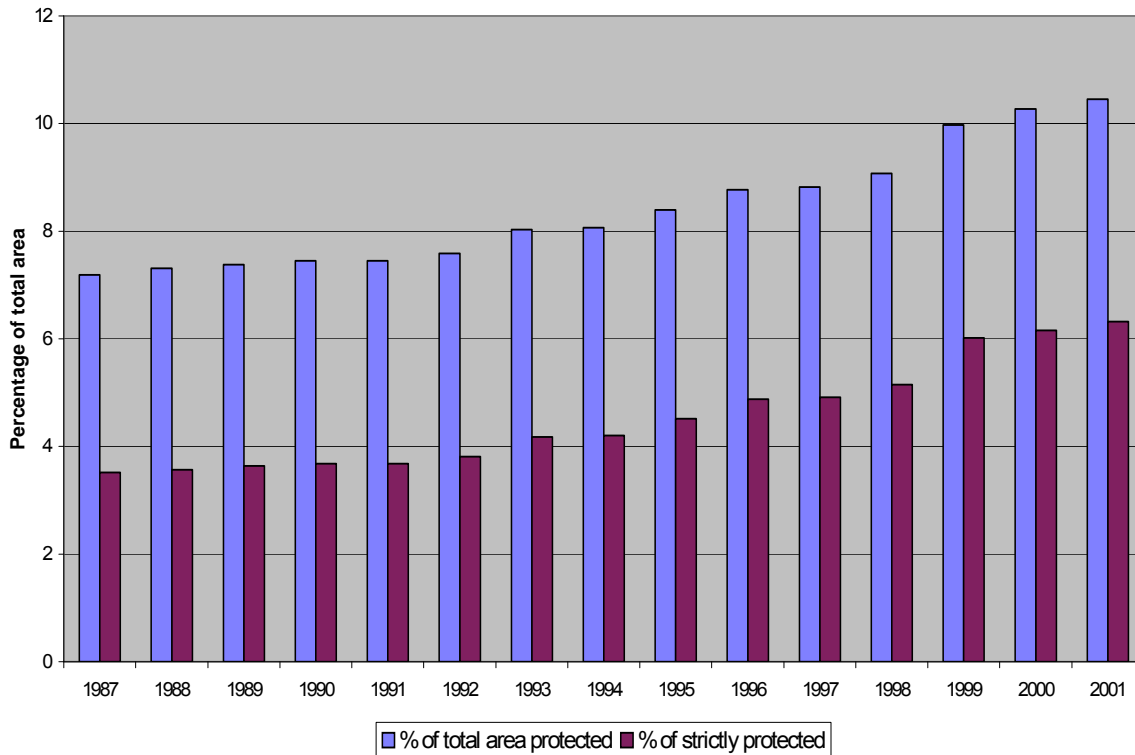
¹⁹ E.g. Canadian Drinking Water Guideline for TCE, which was slow in being reviewed and found to be inadequate (CESD2003 report).

²⁰ D.R. O’Connor. 2002. *Report of the Walkerton Inquiry*. Toronto: Queen’s Printer.

g. Protected Areas

The WCED also mentions the importance of maintaining national beauty. The Biodiversity Convention, which Canada supports, requires the creation of a system of protected areas. Canada has a long tradition of creating national parks – at present there are 43 of them. The present system of protected areas, which in 2005 was 60% complete,²¹ includes terrestrial and, more recently marine protected areas known as National Marine Conservation Areas.

Protected area coverage in Canada



Sources: Canadian Council on Ecological Areas, Canadian Wildlife Service, Environment Canada, last updated in 2002

In 2005, the Federal Marine Protected Areas Strategy was agreed.²² It remains to be seen whether implementation of this strategy will fulfil the expectations raised by the 1996 Ocean Act and 2002 Oceans Strategy that a coordinated federal approach to conserve and protect the ocean environment, after years of disappointment (CESD 2005: Chapter 1). Some terrestrial protected areas will only become national parks once outstanding land claims are settled. There are several legislative instruments governing protected areas in Canada, involving Fisheries and Oceans Canada, Environment Canada, and most importantly, Parks Canada. In 1998 and 2000, the role of Parks Canada was strengthened when a new National Parks Act and a Parks Canada Agency Act was adopted affirming the main aims of the Parks Canada Agency were to ensure

²¹ See http://www.pc.gc.ca/docs/v-g/nation/nation3_e.asp.

²² http://www.dfo-mpo.gc.ca/oceans-habitat/oceans/mpa-zpm/fedmpa-zpmfed/pdf/mpa_e.pdf.

the ecological integrity of national parks and Canadian understanding and enjoyment of them. However, despite major new financial resources allocated in recent years, and several achievements relating to ensuring ecological integrity, the CESD found that not all parks have up-to-date management plans setting out specific actions to be undertaken to maintain or restore ecological integrity (CESD 2005: Chapter 2).

g. Assessments

A key element of this strategic imperative is the requirement that decisions on projects take account of all their impacts: economic, social, and environmental. Canada has had environmental impact assessment legislation and procedures at federal and provincial levels since the 1980s, and in recent years there have been efforts to harmonise these standards under the Canada-Wide Accord on Environmental Harmonization and its Sub-agreement on Environmental Assessment. The Canadian Environmental Assessment Act was strengthened in 2003, inter alia, to: create a publicly accessible internet registry of projects, include consideration of Aboriginal perspectives into assessments, including the formal recognition of Aboriginal traditional knowledge, and enabling the Canadian Environmental Assessment Agency to promote compliance, resolve disputes and coordinate federal involvement in assessments conducted in cooperation with other jurisdictions.²³

In 1999, the federal Cabinet passed a Directive on Environmental Assessment of Policy, Plan and Programme Proposals, which requires strategic environmental assessments for proposals to the federal government whose implementation will have a significant environmental impact. These assessments are to examine the scope and nature of the likely environmental effects, the need for mitigation to reduce or eliminate adverse effects, and the likely impact of any adverse environmental effects. The directive was amended in 2004 to include a public reporting requirement. However, in 2004, the Commissioner for Environment and Sustainable Development found that implementation of this Directive was far from adequate (CESD 2004: 7). It found that most departments have not made serious efforts to implement the Directive, nor were they provided with effective tools for doing so.

h. Sustainable Consumption

The Canadian government's work on sustainable consumption is primarily aimed at introducing environmental considerations into the decisions taken by businesses, such as by promoting a life cycle approach or strategies to reduce environmental risks. The instruments used are voluntary and only cover certain sectors.²⁴ So far, a comprehensive national approach to sustainable consumption and production has not yet been achieved.

3.3. Meeting essential needs

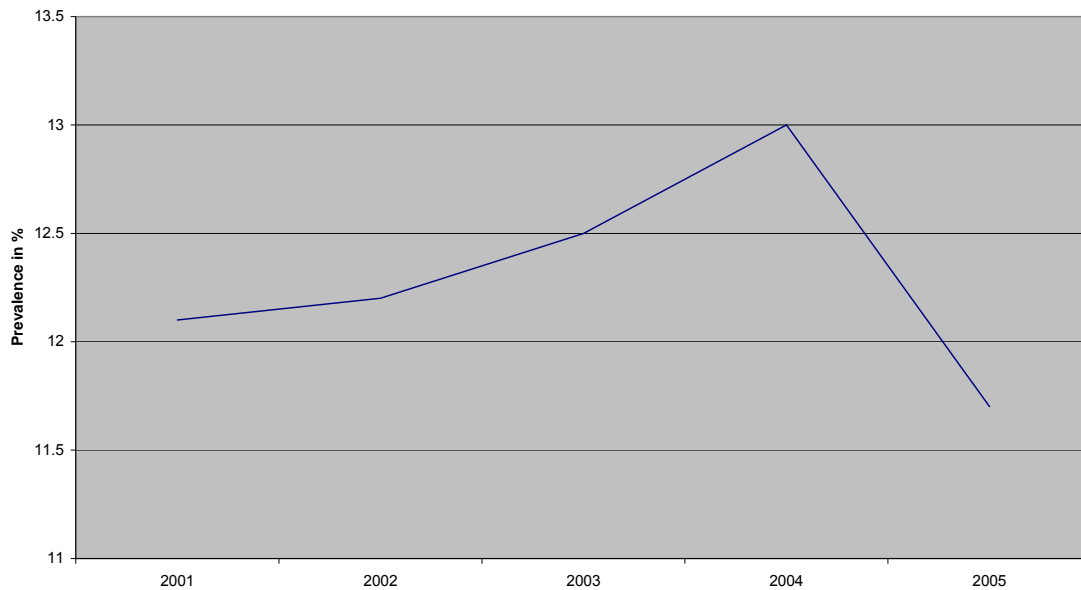
²³ See http://www.ceaa-acee.gc.ca/013/nr031030_e.htm.

²⁴ See http://www.ec.gc.ca/NOPP/scd/en/index.cfm?par_OrgID=6&par_Org=1.

This strategic imperative is primarily aimed at poverty alleviation, but also at the environmental impact of the actions richer countries take to meet their basic needs. So, the discussion above relating to environmental impact assessment is relevant. In general, Canada is able to meet the essential needs of its people. It consistently ranks very high in the UN Development Programme’s Human Development Index, which is based on three components of development: a long and healthy life, knowledge, and a decent standard of living.

There are, however, some disturbing gaps. For example, one quarter of drinking water systems in aboriginal communities is of such poor quality that they posed potential health and safety risks, with a significant risk to quality and safety in three-quarters of those systems.²⁵ At present, there are no pieces of legislation covering water quality for those communities – the federal government seeks to influence this through policies, guidelines, and funding. Many of these policies and guidelines are based on provincial legislation. Another gap is in the area of food insecurity. Statistics Canada estimated in 1988/89 that 1 in 10 Canadians were living in food-insecure households and 8% reported that they had compromised their diets.²⁶ There are also ongoing problems of childhood poverty, although some important progress has been made recently.

Percentage of persons in low income after tax under 18 years of age



Source: Statistics Canada CANSIM Table 202-0802. Last updated 05.01.2007

A more successful area of policy action has been in the area of persistent organic pollutants, which pose major threats to aboriginal communities in Northern Canada. Canada was a key proponent of the POPs Convention that was agreed in 2001 in Stockholm and entered into force in 2004. Canada was also the first country to sign and

²⁵ <http://www.oag-bvg.gc.ca/domino/reports.nsf/html/c20050905ce.html>.

²⁶ Che, Janet and Jiajian Chen , 2001. Food insecurity in Canadian Households, in Health Reports (Catalogue Number 82-003-XIE), volume 12. Page 11, et. seq.

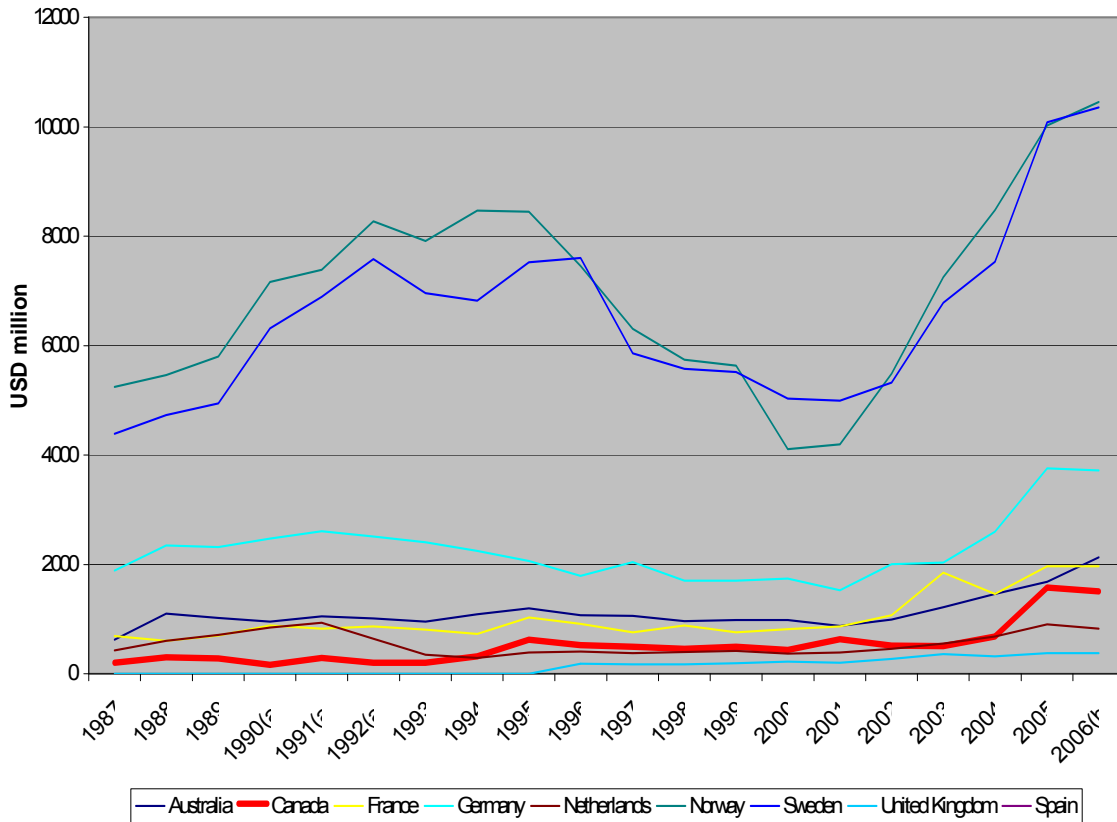
ratify it in 2001. The first National Implementation Plan required by the Convention was agreed in 2006, after a consultative process. Key areas of commitment include action on PCBs and on unintentionally produced POPs. Given their long-term nature, the impact of these chemicals still present serious

The WCED identifies livelihood, i.e. employment, as the most basic need of all. In Canada, both federal and provincial government policies impact on the level of employment. The federal government, through its fiscal policies, and job training programmes, can have a very important influence on the amount and type of employment opportunities that exist. For example, the federal government provides income support for fishermen and farmers, to ensure that those people can pursue those livelihoods. Canadian policy has also attempted to prepare for increased employment opportunities arising out of the transition to sustainable development. Although the CESD criticised the Human Resource Development Canada's (HRDC) performance in this direction for lack of implementation,²⁷ the most recent sustainable development strategy of the HRDC identifies signature projects aimed at developing a labour market that provides sustainable employment.

As mentioned above, Canada contributes overseas development assistance to developing countries. The aim of the Canadian International Development Agency is to reduce poverty, promote human rights, and support sustainable development. However, Canada has not been a generous donor, relative to comparable OECD countries – it is far from being among the highest per capita aid donors, although it has recently increased the amounts spent. Canada is also far from meeting the aspirational target of ODA amounting to 0.7% of Gross National Income.

²⁷ See CESD report 2003.

**Net Overseas Development Assistance
(including debt forgiveness of non-ODA claims)**



Canada has committed to the UN's Millennium Development Goals – but it is increasingly evident that the amount of overall development assistance is not going to be sufficient to support meeting these goals. There have also been many criticisms, in recent years, of the effectiveness of international ODA efforts. In 2005, Canada joined with other OECD countries in adopting the Paris Declaration, which advocated the following principles:

- Developing countries exercise leadership over their development policies and plans (*ownership*).
- Donors base their support on countries' development strategies and systems (*alignment*).
- Donors co-ordinate their activities and minimise the cost of delivering aid (*harmonisation*).
- Developing countries and donors orient their activities to achieve the desired results (*managing for results*).
- Donors and developing countries are accountable to each other for progress in managing aid better and in achieving development results (*mutual accountability*).

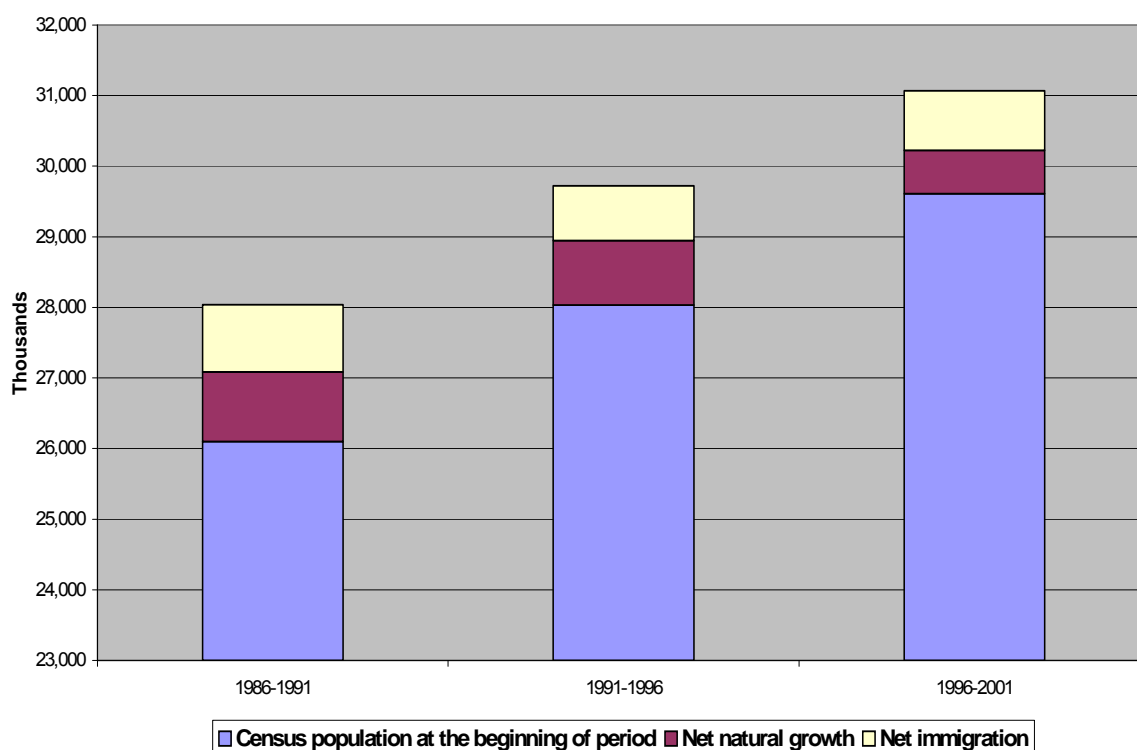
A 2006 survey on monitoring the results of the Paris Declaration reveal that implementation is very preliminary.²⁸

Canada has also adopted the OECD guidelines on untying aid – a Cabinet directive on this was approved in 2002. An audit of the policy in 2004-05 found that while it had been complied with, CIDA could better guide its employees and clarify its procurement policy.²⁹ On a related front, Canada was an early supporter of proposals to amend the WTO TRIPS Agreement to facilitate the sale of essential medicines to developing countries, and has become the first developed country to use the revised WTO procedure.³⁰

3.4. Sustainable level of population

In the WCED report, this strategic imperative appears mainly to be aimed at countries where the population pressures are putting severe strain on the national environmental carrying capacity. Canada’s situation is somewhat different. Canada’s population has increased through both natural growth as well as immigration.

Canadian Population and growth components

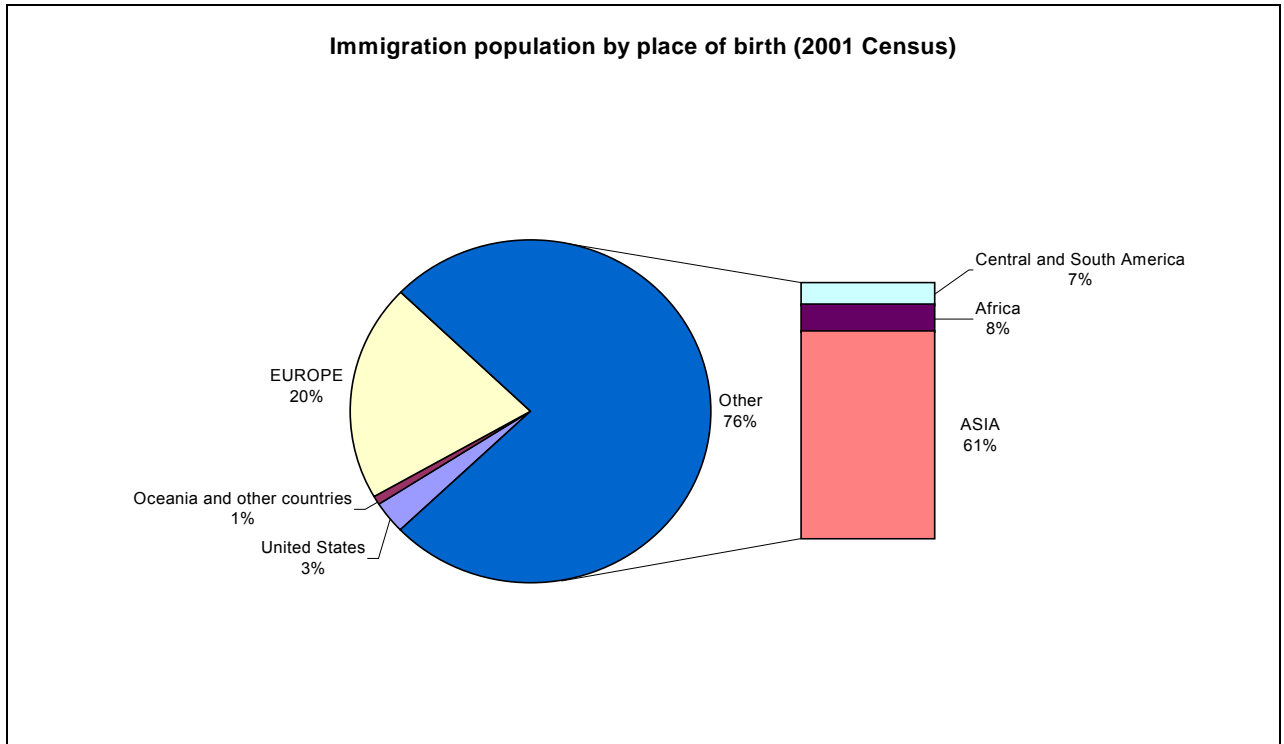


²⁸ See <http://www.oecd.org/dataoecd/58/28/39112140.pdf>.

²⁹ See <http://www.acdi-cida.gc.ca/CIDAWEB/acdicida.nsf/En/NAT-1116111541-M3U>.

³⁰ “Canada issues compulsory licence for HIV/AIDS drug export to Rwanda, in first test of WTO procedure”, in Bridges Weekly Trade Digest, Vol. 11, Number 32, 26 September 2007.

One issue is whether these immigrants to Canada have increased their ecological footprint through (due to higher impact that Canadians have on the environment than people from most developing countries). This appears to be likely, since a recent report has placed Canada as having the third largest ecological footprint in the world,³¹ while the majority of immigrants to Canada in the period of 1991 – 2001 were from developing country regions, it is very likely that their ecological footprints increased considerably by moving to Canada:



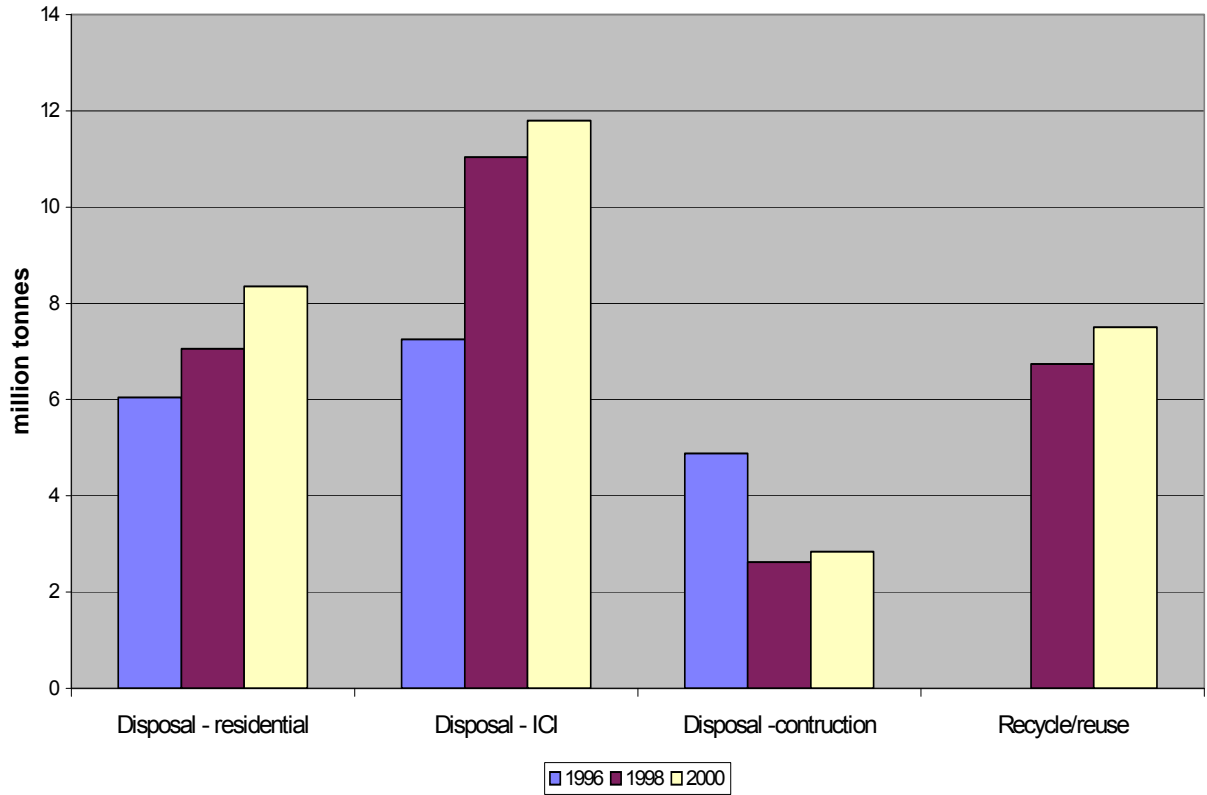
Source: Statistics Canada, Census of Population, last modified 20.04.2004.

Most immigrants also move to urban areas. Over 72% of all immigrants have settled in Canada's three largest metropolitan areas: Toronto (43%), Montréal (15%), and Vancouver (14%). In a few cases, this has exacerbated social problems, especially where full integration has not taken place. It should be noted that the 2007 – 2010 Sustainable Development Strategy of Citizenship and Immigration Canada does not address these issues.

Population increases can also play a role in the increasing amount of waste generated in Canada since the 1980s, although in recent years there has also been an increase in the amount of recycling and reuse.

³¹ Wilson, Jeffrey, and Anielski, Mark, 2005. Ecological Footprints of Canadian Municipalities and Regions, available on <http://www.anielski.com/Documents/EFA%20Report%20FINAL%20Feb%202.pdf>.

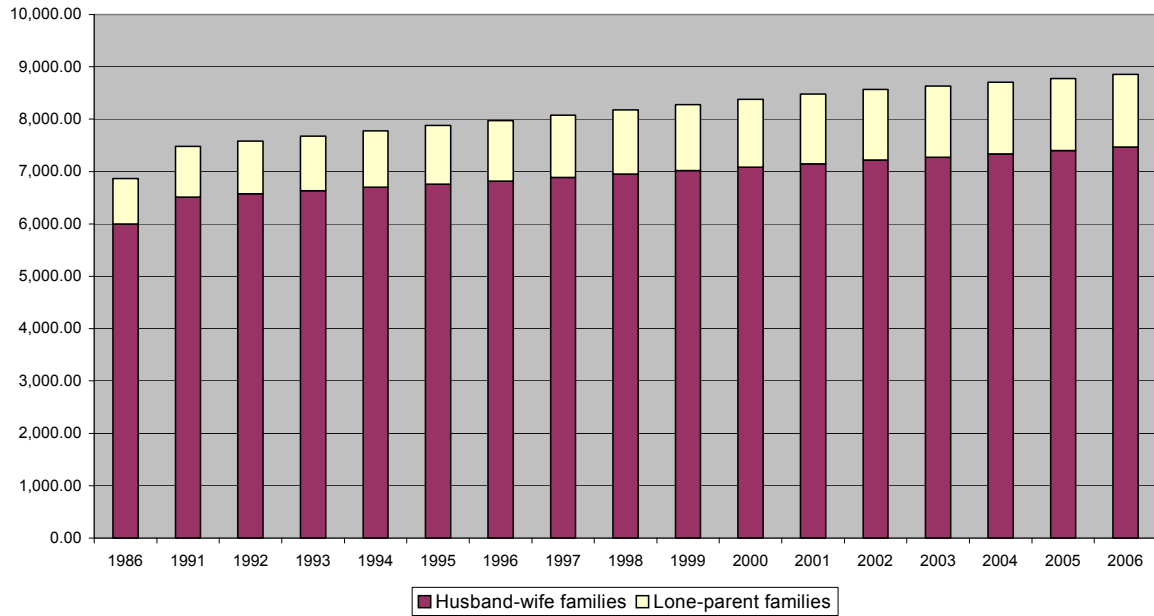
Per capita non-hazardous solid waste disposal and recycling/reuse



Source: Waste Management Industry Survey: Business and Government Sectors, 1996,1998, 2000, Statistics Canada

As the population of Canada has increased, so too has the number of family units. There are now more single parent families than previously, although the total average size of units has not changed significantly (from 3.1 in 1986 to 3.0 in 2006):

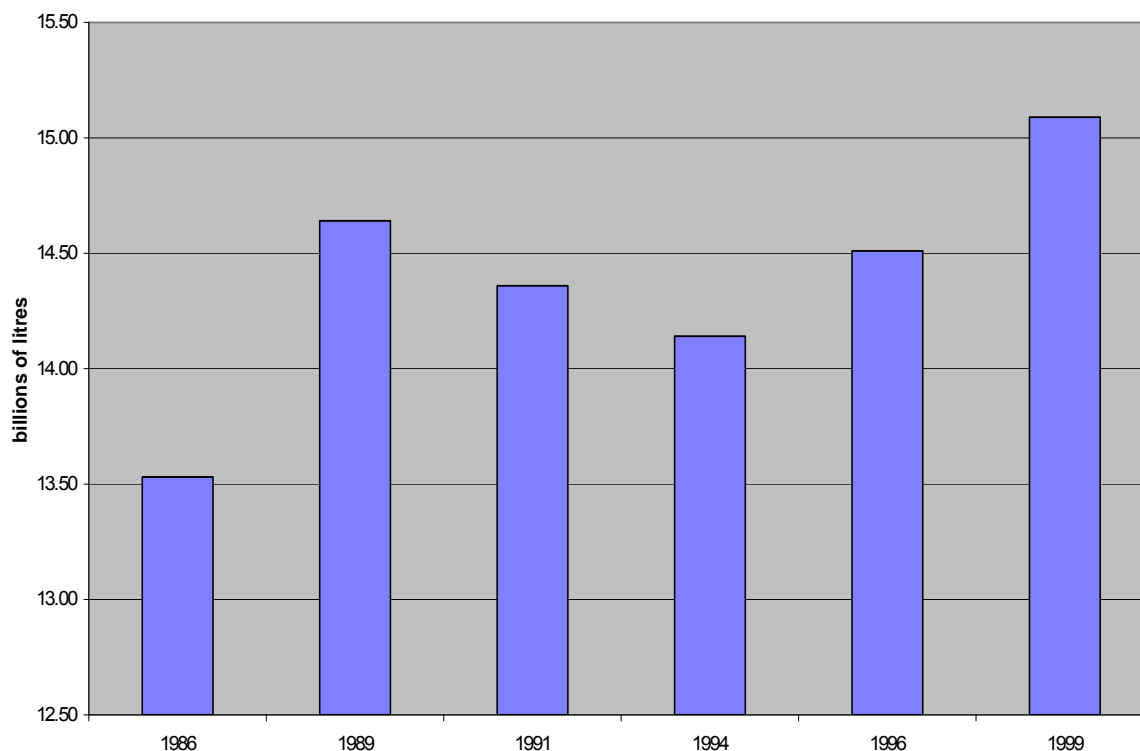
Number of families in Canada



Source: Statistics Canada, Catalogue no. 91-213-X

The growing number of families in Canada likely increases some ecological pressures, for example by demanding more housing, which can be a driver for more urbanisation. Population growth also means that even where per capita consumption does not increased very much, overall consumption does, as in the case of municipal water use.

Total daily municipal water use



Source: Municipal Water Use Database, Environment Canada

3.5. Conserving and enhancing the resource base

This strategic imperative seems especially important for a resource-rich country like Canada, one where many natural resource sectors are critical to the economy. Much of the relevant menu of policy instruments lie under provincial jurisdiction, but the federal government also has an impact, e.g. on fisheries, where it has had a mixed record (e.g. Atlantic Cod and Pacific Salmon),³² as well as in areas it works on in partnership with the provinces. For example, there have been improvements in air and water pollution policy (basically there has been progress,³³ but some areas of weakness remain³⁴), through increased enforcement, promotion of low-waste technologies, and anticipating impacts of new products, technologies and wastes.

The discussion below looks at several areas that are relevant to this Strategic Imperative

a. Biodiversity conservation

³² Note the CESD Report 2002, which indicates some improvement in DFO operations, but other areas are still lacking.

³³ SD: Canadian Perspective, p. 44 et seq)

³⁴ Reference to the Canadian Drinking Water Guideline for TCE, which was slow in being reviewed and found to be inadequate (CESD2003 report).

One of the key implementation actions of the 1992 Convention on Biological Diversity, a treaty that was strongly supported by Canada, even though the US opposed it, is to develop a national biodiversity strategy. The goals of Canada's national biodiversity strategy, adopted in 1996 by federal, provincial and territorial ministers are:

- To conserve biodiversity and sustainably use biological resources;
- To enhance both our understanding of ecosystems and our resource management capability;
- To promote an understanding of the need to conserve biodiversity and sustainably use biological resources;
- To provide incentives and legislation that support the conservation of biodiversity and the sustainable use of biological resources; and
- To work with other countries to conserve biodiversity, use biological resources sustainably and share equitably the benefits that arise from the utilization of genetic resources.

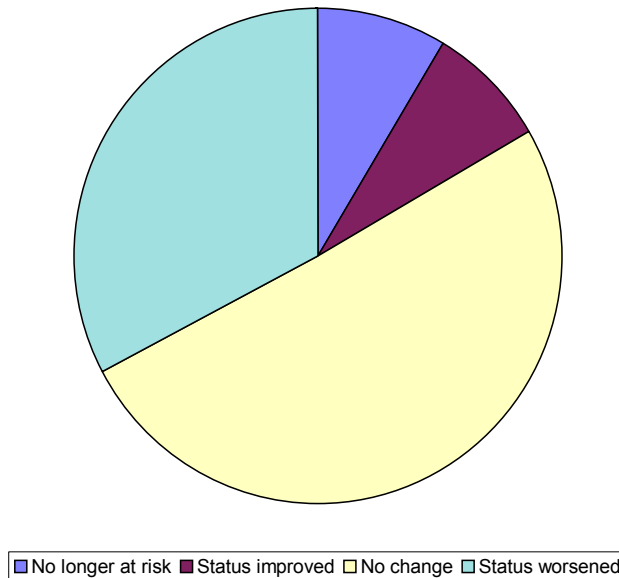
Notwithstanding early momentum, and partial success in implementation, there appears to still not be a coherent plan to implement it (CESD 2005: 8). In 2005, ministers committed to preparing a framework for implementation with measurable outcomes, but this process has not yet been completed. One of the key challenges appears to be that Environment Canada, which has the lead on biodiversity, must coordinate with several other federal governments, as well as provincial and territorial governments, in setting and carrying out policy on conservation and sustainable use. This can be a lengthy and complex process. Nonetheless, some successes are noteworthy. One is the strategy on invasive species, adopted in 2004.³⁵ Implementation of this strategy is, however, dependent on a set of thematic action plans, not all of which have yet been concluded. Another is Canada's Stewardship Agenda,³⁶ which calls for a range of measures and incentives to encourage voluntary conservation efforts by Canadians. Still, it may be that a more formal inter-ministerial body is necessary to ensure full implementation of the national Biodiversity Strategy.

A further area of action that Canada has taken, after lengthy discussion, is in the area of endangered species conservation. By 2004, all of the Species at Risk Act had entered into force, aiming to prevent species from becoming extinct and work towards their recovery. Some of its key provisions include actions to protect listed species and critical habitats. Enforcement and compensation are both provided for. The Act is implemented through cooperative arrangements with the provinces, territories, and aboriginal communities. It is too soon to know how effective this legislation will be, but it does appear that action was needed to stem the negative trends:

³⁵ See http://www.cbin.ec.gc.ca/issues/ias_invasives.cfm?lang=e.

³⁶ See http://dev.stewardshipcanada.ca/sc_national/console/stewCanAgenda/reports/agendaE.pdf.

Change in Status of Reassessed Species at Risk 1985-2002 (number of species assessed) Source: Committee on the Status of Endangered Wildlife in Canada (COSEWIC) Last Updated: 2002



Source: Committee on the Status of Endangered Wildlife in Canada (COSEWIC)

However, the announcement in 2007 that the government will spend an additional \$55 million annually on the Act's implementation is potentially significant.

Conservation of land resources has also been addressed at the provincial level. One provincial policy that stands out as particularly successful is the strategic land use planning approach taken in British Columbia. Introduced in the early 1990s, this approach has allowed an evolution from conflicts over land use to having 85% of provincial crown land covered by land use plans by 2006.³⁷ In contrast to conventional resource-specific planning, strategic land use planning is an integrated approach over a defined piece of land. The process includes coordinating active government agencies and engaging stakeholders to resolve use conflicts.

b. Energy

Energy resources are a major component of the Canadian economy, with Canada being one of the world's largest producers of conventional and non-conventional petroleum, uranium, coal, and hydro power. Canada is also a major exporter of energy resources, all of it to the United States. This is another area, where much of the regulatory competence to manage the resources themselves is at provincial level, with the exception of resources that lie offshore and uranium. According to the constitution, the federal government's role is limited to international and inter-provincial matters, but it also has a general responsibility for promoting overall economic development in Canada for which it can deploy various fiscal instruments. In addition to developing national

³⁷ See A New Direction for Strategic Land Use Planning in BC, http://ilmbwww.gov.bc.ca/lup/policies_guides/new_direction/new%20direction%20synopsis.pdf.

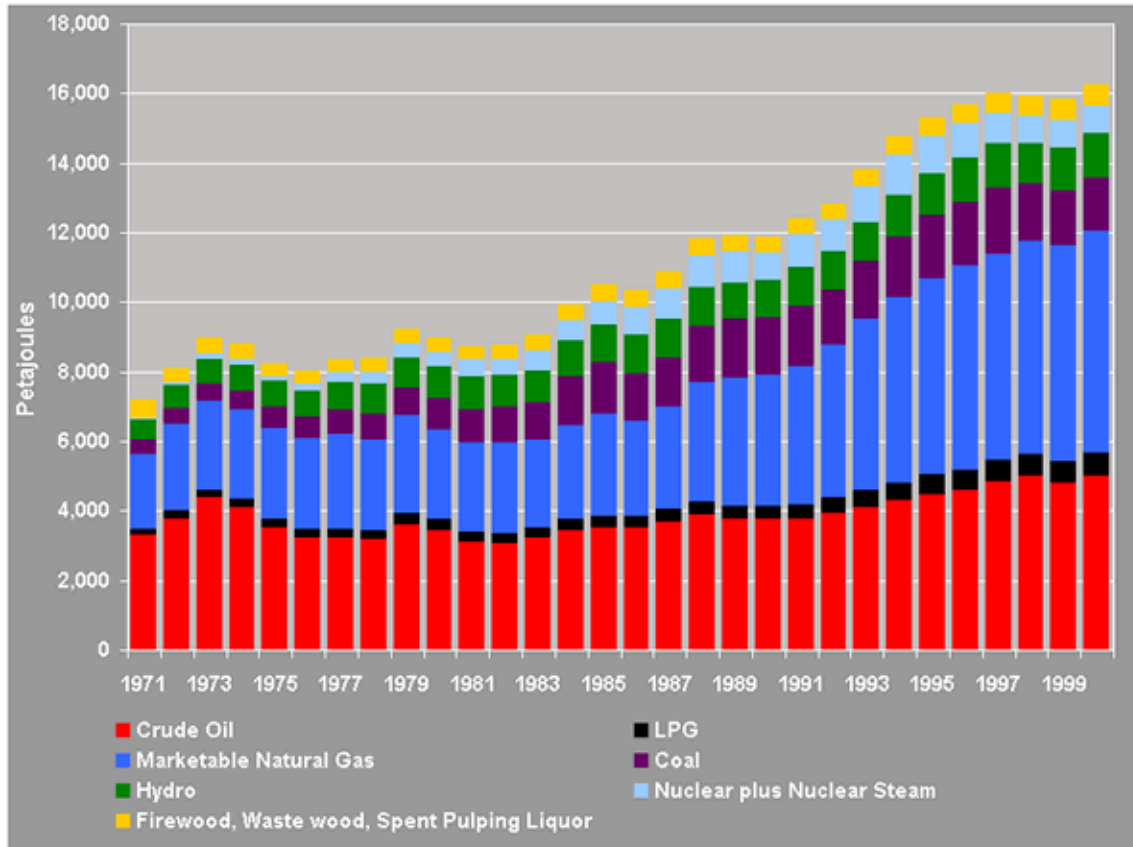
energy policy objectives, the federal government, therefore, has an important influence on use of resources, e.g. by removing barriers to trade in petroleum, regulations on energy efficiency, programmes aimed at encouraging investment in the energy sector, and research. The National Energy Board now considers environmental aspects of major pipeline projects, like the proposed Mackenzie Gas Pipeline in the Northwest Territories. One of the main aspects of federal and provincial government action has been to provide financial support to the energy industry. For example, in 1995, to encourage exploitation of the oil sands, Alberta applied a lower royalty rate than for petroleum from conventional sources. This was accompanied, in 1996, by the federal government extending a 100% Accelerated Capital Cost Allowance (ACCA) tax deduction to the oil sands, which is more favourable than for investment in conventional sources. However, under the terms of the 2007 federal budget, the ACCA will be down to 25% by 2011 and phased out by 2015. Another important subsidy the federal government has provided is to the Atomic Energy of Canada Limited, a crown corporation that helps fund Canadian civil nuclear energy projects. A recent report by Energy Probe estimates that since its inception in 1952, these subsidies amount to \$209 billion in 2006 dollars.³⁸

Since the mid-1980s, Canada's energy policy has been characterised by liberalisation, deregulation, and free trade, which was in deep contrast to the federal interventionist policy in the 1970s of the National Energy Program. There were also several mega-projects in the late 1980s, early 1990, and in recent years, there has been a push towards developing the large reserves of the Alberta oil sands, as well as offshore petroleum in the Atlantic. High oil prices are a recent impetus to increased investment, but even during the 1990s, efforts were made to invest in these new areas to offset declining oil fields.

Canada's secondary energy use has increased by 22% between 1990 and 2004, although the population in 2001 was 10% higher than in 1991.³⁹ The following table provides a breakdown of the energy mix between 1971 and 1999:

³⁸ Adams, Tom, 2006. Federal Government Subsidies to Atomic Energy of Canada Limited, Energy Probe, available on <http://www.energyprobe.org/energyprobe/reports/AECLsubsidies.pdf>.

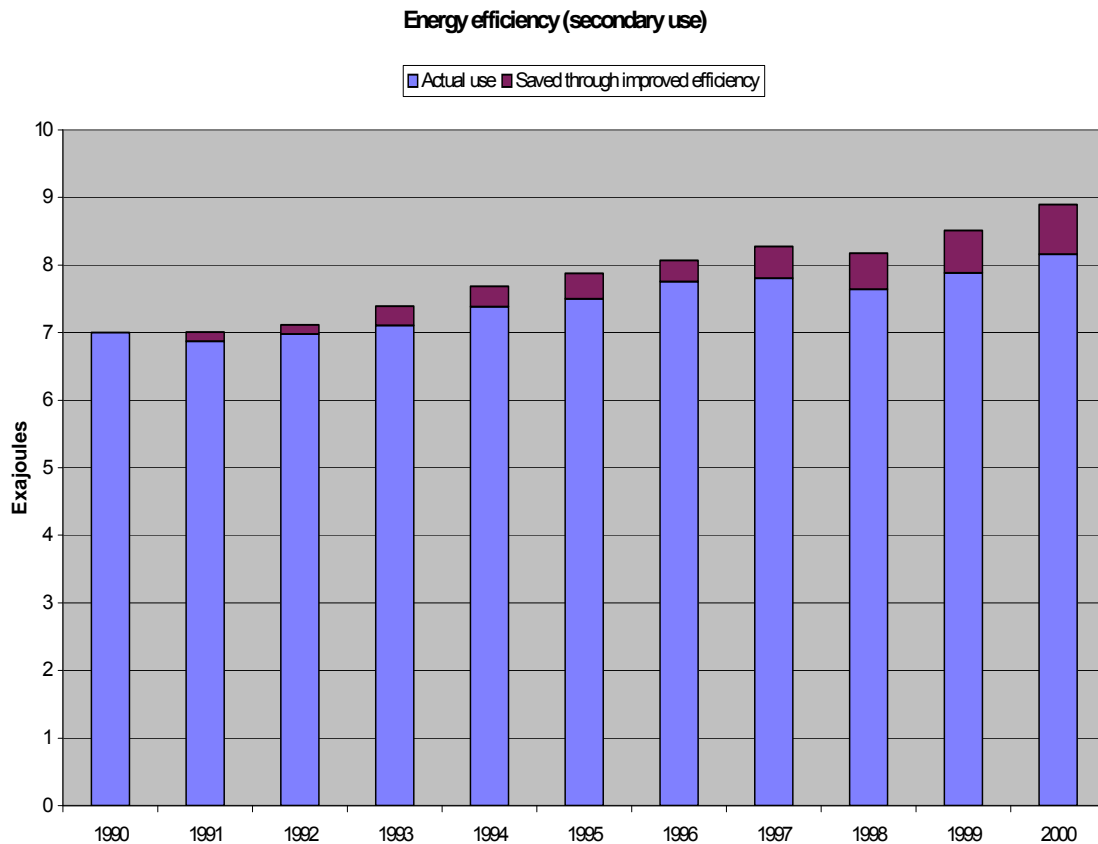
³⁹ Statistics Canada, see <http://www40.statcan.ca/l01/cst01/demo03.htm>.



Source: Energy Statistics Handbook, Natural Resources Canada and Statistics Canada, available on <http://www2.nrcan.gc.ca/es/es/sdi/English/index.cfm?fuseaction=SDI.Next&PageOrder=5>.

As a result, Canada is one of the most energy-intensive countries in the world. Amongst the membership of the International Energy Agency, Canada ranks second highest in energy intensity, although the IEA also reports that between 1990 and 1998, Canada has improved its energy efficiency by 1%/year, similar to the United States.⁴⁰

⁴⁰ Oil Crises and Climate Challenges – 30 Years of Energy Use in IEA Countries, cited in Natural Resources Canada, “Improving Energy Performance in Canada – Report to Parliament Under the Energy Efficiency Act For the Fiscal Year 2005-2006”, available on <http://oee.nrcan.gc.ca/Publications/statistics/parliament05-06/chapter1.cfm?attr=0>.



Source: Office of Energy Efficiency, Natural Resources Canada, last updated in 2002

From 1990 to 2004, the greenhouse gas intensity of energy changed slightly as fuel switching towards less GHG-intensive fuels offset a higher GHG intensity in electricity production.⁴¹ The industrial sector is the largest energy user, accounting for 38.4 percent of total secondary energy use in 2004. The transportation sector is the second largest energy user at 28.9 percent, followed by the residential sector at 16.6 percent, the commercial/institutional sector at 13.7 percent and the agriculture sector at 2.4 percent.⁴² After the initiation of energy conservation programs in reaction to the oil crises of the 1970s, conservation became a lower priority during the 1980s and 1990s. In recent years, conservation has again become a priority, motivated by higher oil prices and concern over climate change. Canada has several current initiatives around energy efficiency. For example, after years of declining energy efficiency in federal government buildings, in 2005, the federal government announced that all its new facilities will be 25 percent more energy efficient than the existing Model National Energy Code for Buildings and a further 20 percent of its commercial buildings will be retrofitted by 2010 to improve energy efficiency.⁴³ However, Canadian energy policy is not yet oriented towards a truly low-carbon economy.

⁴¹ Ibid.

⁴² Ibid.

⁴³ http://www.bomagogreen.com/news/20051124_PWGSC_en.pdf.

As described above, the federal government had used spending and tax initiatives to promote investment in non-renewable energy sources. Many of these instruments have been removed, and renewable energy is no longer fundamentally disadvantaged in terms of government support (CESD 2004: 12). Indeed, the 2007 federal budget extended the ACCA to support renewable energy projects and in March 2007, Canada announced an increase in support for its ethanol and biodiesel sector. The federal government has allocated \$1.5 billion over seven years for these “operating incentives” to producers. No government support will be provided when rates of return earned by producers exceed 20 percent⁴⁴

Although renewables have increased in Canada, they still represent a small part of the national energy mix. For example, there has been more than 300% increase in renewable, non-hydro, energy generated electricity between 1991 and 2003, only 1.9% of electricity is generated from these sources.⁴⁵ In 2000, the CESD recommended that the federal government consider ways in which renewable energy can be made more attractive to private investors. There have been some successes, since then, such as the Wind Power Production Incentive, which the CESD found in 2006 had stimulated investment in the wind power industry during its infancy (CESD 2006, Chapter 3).

c. Freshwater

Another key natural resource is water, where Canada has one of the largest supply of fresh water in the world.

There are also continuing concerns about the quality of this water. An important example is Lake Winnipeg, where threats include alien invasive species, soil erosion, the inverted discharge regime from hydropower, and, most importantly, nutrient pollution (Venema, 2005). The Great Lakes region is another example where PCB and other toxic pollution is significant, although there is an ongoing binational initiative to improve the entire Great Lakes ecosystem.

More generally, there does appear to be commitment in Canada to the Integrated Water Resource Management approach advocated under the Millennium Assessment. This approach brings together the management of water and land resources. But in practice, this does not always work well. For example, according to Venom (2005), this is not working well in the Prairies because of:

- generally poor coordination between Agriculture and Water agencies; they “are often not at the table together”;
- the lack of an updated federal Water Policy (the current one dates from 1987); and

⁴⁴ Steenblik, Ron, 2007. Biofuels – At What Cost? Government support for ethanol and biodiesel in selected OECD countries, Global Subsidies Initiative, available on http://www.globalsubsidies.org/IMG/pdf/biofuel_synthesis_report_26_9_07_master_2_.pdf.

⁴⁵ <http://oee.nrcan.gc.ca/Publications/statistics/parliament05-06/chapter1.cfm?attr=0>.

- weak federal leadership, facilitation and logistical support, and poor coordination among the federal departments with partially overlapping jurisdiction over water resources issues.⁴⁶

The most fundamental challenges to Canadian water supply may come from climate change. It has been asserted, for example, that impacts of climate change, such as retreating glaciers, declining snowpacks in the Rocky Mountains, and increased evaporation, combined with human activities, such as water intensive agricultural practices and heavy use of water for the oil sands development, will cause a severe water shortage in the prairie provinces.⁴⁷

This suggests a need to ensure that water is not over-used. In 2002, the CESD found that the federal water policy from 1987 had not succeeded in reducing water consumption either through demand management or pricing; the result is that Canada consumes water at a rate 65% higher than the average of other major industrialised nations (CESD 2002: 6).

3.6. Reorienting Technology and Managing Risk

This strategic imperative involves creating incentives and rules to promote technology and its application in a manner that meets public objectives relating to sustainable development. In Canada, there have been a number of relevant initiatives aimed at stimulating innovation in energy and environmental areas. These include Industry Canada's promotion of environmental technologies⁴⁸ and new research and development budgets aimed at promoting environmental technology or reducing environmental risks.⁴⁹ In 2001, the Sustainable Development Technology Canada was formed. It draws on a \$550 investment fund to promote the pre-commercial development of clean technology by building the capacity of Canadian entrepreneurs.

But Canada appears reluctant to develop regulatory standards that are aimed at forcing technological change. At least in some instances, Canadian standards are set specifically with a view of not impairing economic performance, as exemplified by the term "best available technology economically achievable".⁵⁰

⁴⁶ Citing Adkins, P. 2005. "Prairie Water Partnerships in Governance", presentation given at the Prairie Water Policy Symposium, Winnipeg, Manitoba Sept 22-23, 2005. available at: http://www.iisd.org/pdf/2005/pwps_phil_adkins.ppt.

⁴⁷ Schindler, D.W. and Donahue, W.F., 2006. An impending water crisis in Canada's western prairie provinces, PNAS Early Edition, May 9, 2006.

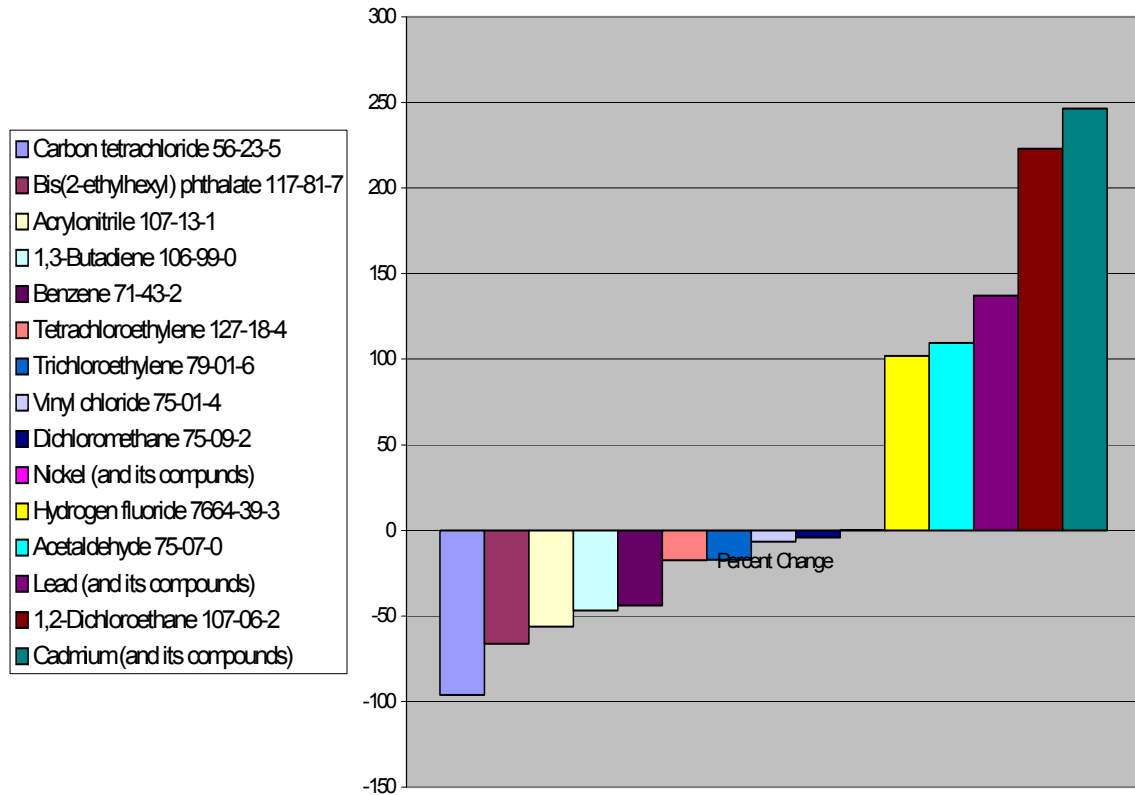
⁴⁸ See CESD Report 2003 and the 2007 Science and Technology Strategy, entitled "Mobilising Science and Technology to Canada's Advantage".

⁴⁹ E.g. new regional North American partnership to research and manage risks from industrial chemicals (SPP Regulatory Framework). <http://www.chemicalonline.com/content/news/article.asp?docid=%7B99031E76-6092-4A3F-9BC0-9C34626329DB%7D&VNETCOOKIE=NO>.

⁵⁰ E.g. Canadian Council of Ministers of the Environment, 2006. "Canada-Wide Standards For Mercury Emissions From Coal-Fired Electric Power Generation Plants", available on http://www.ccme.ca/assets/pdf/hg_epg_cws_w_annex.pdf.

In terms of reducing risk, there are new instruments such as the strategies to control invasive alien species, and the National Pollutant Release Inventory. But in 2002, the CESD noted that the federal government was not living up to its potential to effectively protect Canadian health and environment from toxic chemicals and pesticides. It found that the scientific examination of such substances, and the ability to detect, understand, and prevent harm was limited.

Percentage change in emissions of 15 CEPA toxic substances from 1995 - 2000



Source: National Pollutant Release Inventory, last updated in 2002

Since 1987, there has been an evolution in Canadian regulatory approaches, away from a precautionary approach, towards one of risk management. One of the features of the current „smart regulation“ approach is that governments have the burden of proof that risk or toxicity exists before listing a substance as harmful – i.e. the in contrast with the precautionary principle. Nevertheless, the Canadian Domestic Substances list is more stringent than under comparable lists in the US, although less rigorous than the European Union’s REACH legislation. Also, Canada’s Chemicals Management Plan, announced in December 2006, aims at eliminating toxic chemicals, although some critics have cast doubt on Environment Canada’s capacity to effectively implement this initiative. This year, the House of Commons Standing Committee on Environment and Sustainable Development recommended that CEPA regulation of toxic chemicals be

strengthened.⁵¹ In 2007, Canada joined with the United States and Mexico to agree on a continent-wide single regulatory framework for chemicals, under the Security and Prosperity Partnership. It has been argued that the impact of harmonisation between the three countries will result in a lowering of regulatory standards in Canada, (Campbell, 2007), although the government denies this.

One of the more fundamental debates has revolved around the application of the “precautionary principle”. In 2001, the Federal Government released “A Canadian Perspective on the Precautionary Approach/Principle Discussion Document”,⁵² and A Canadian Perspective on the Precautionary Approach/Principle Proposed Guiding Principles.⁵³ These documents were criticised by environmental NGOs, inter alia, for promoting a cost-benefit approach to determining acceptability of risk and that the measures adopted be “least trade restrictive”.⁵⁴ One of the areas where the precautionary principle is most relevant is around biotechnology. Canada is the third largest producer of genetically modified food. However, despite the public debate around the impacts of biotechnology,⁵⁵ there is no consolidated legal framework for this area.⁵⁶ And although Health Canada has safety assessment guidelines for food derived from genetically modified crops,⁵⁷ there is no comprehensive assessment approach for impacts of these crops on the environment or broader society. However, Health Canada has been working to develop environmental impact assessments for novel foods, in order to meet the requirements of CEPA.⁵⁸ In addition, the New Substances Notification Regulations (Organisms) under CEPA was passed in 2005, requiring the government to be notified if a person wants to import or manufacture certain genetically modified organisms.

Another facet of managing risk is the placing of financial risk for certain potentially hazardous activities. In 2002, the CESD noted that the legacy of abandoned mines in Northern Canada is hundreds of thousands of tonnes of highly toxic chemicals (CESD, 2002). The Department of Indian and Northern Affairs had not required sufficient financial security from mine operators to cover this risk; until 1993, there were legislated limits on the amounts that could be imposed on companies. The estimates for cleaning up these sites will be at least \$555 million, with it not being possible to definitively clean up some sites. In 2002, the Department of Indian and Northern Affairs announced its

⁵¹ Report of the Standing Committee on Environment and Sustainable Development, April 2007, Available on <http://cmte.parl.gc.ca/cmte/CommitteePublication.aspx?SourceId=204099>.

⁵² Available on http://www.ec.gc.ca/econom/discussion_e.htm.

⁵³ Available on http://www.ec.gc.ca/econom/booklet_e.htm.

⁵⁴ Benevides, H, et. al, 2002. Implementing Precaution. An NGO Response to the Government of Canada’s Discussion Document “A Canadian Perspective on the Precautionary Approach/Principle”, available on <http://cela.ca/uploads/f8e04c51a8e04041f6f7faa046b03a7c/419precautionary.pdf>.

⁵⁵ See. E.g. the Expert Panel on Biotechnology of the Royal Society of Canada, http://www.rsc.ca/index.php?page_id=119, and Canadian Press/Leger Marketing, How Canadians Perceive Genetically Modified Organisms, 2001, <http://www.legermarketing.com/documents/spclm/010723eng.pdf>, and National Farmers Union Policy on Genetically Modified Organisms, 2000, available on http://www.nfu.ca/policy/GM_FOOD_POLICY.misc.pdf

⁵⁶ Canadian Institute for Environmental Law and Policy, 2002. A Citizens’ Guide to Biotechnology. Helping citizens have a real say in the development of biotechnology in Canada.

⁵⁷ See http://www.hc-sc.gc.ca/fn-an/gmf-agm/pol/index_e.html.

⁵⁸ See http://www.hc-sc.gc.ca/ewh-semt/contaminants/person/impact/index_e.html.

Contaminated Sites Management Policy, with a view to managing contaminated sites in a cost-effective and consistent manner, to reduce and eliminate, where possible, risk to human and environmental health and liability associated with contaminated sites. Since 1993, financial requirements were steadily increased, and it now appears that new mines have been opened with full financial security in place.

3.7. Merging environment and economics in decision-making

In many ways this is the critical strategic imperative for most countries, including for Canada. Some actions have been taken on many levels in Canada, although none have been sufficiently fundamental to be considered as integration of environment and economics. There is more use of economic instruments for environmental policy (although less than other OECD countries)⁵⁹, but not a real reorientation of economic policy vis-à-vis the environment. For example, the tax system, a critical policy lever, has not been overhauled to ensure that it contributes to sustainable development, although there have been some small steps taken recently⁶⁰ and calls for environmental taxation are coming from established think tanks, such as the C.D. Howe Institute.⁶¹ The promise of the Framework for Discussion on the Environment to fundamentally alter decision-making was not reached.

Much of the discussion in the previous sections is relevant here, and demonstrates that this strategic imperative has not been fully implemented. For example, at the Federal Government level, sustainable development strategies have been developed for every department (although not all entities are covered), including those that develop economic policy. However, the impact and effectiveness of these strategies have been less than initially expected. Environmental assessment procedures exist, but especially in relation to policies, plans, and programs, their impact has been weak. Some individually important government programmes have taken place, such as Industry Canada's promotion of eco-efficiency. At the provincial level, there have been some key initiatives, such as the Ontario Environmental Bill of Rights and the Manitoba Sustainable Development Act.

However, particularly in the 1990s, it became apparent that the priority of the government was economic growth and balancing of budgets, and not the integration of environment into economic decision-making. For example, Environment Canada's budget was significantly reduced, which also lessened its capacity to vigorously interact with economic policy makers in government. These cuts also diminished its ability to enforce environmental rules or develop wide-ranging programs. It should be noted, however, that Environment Canada's budgets have more recently increased.

Most fundamentally, there has been a lack of a high level institutional approach to integrating environment into economic decision-making. Canada's record compares poorly with some other OECD countries. A leading example is Norway, where in 2004, the national sustainable development strategy was adopted in the framework of the

⁵⁹ 2004 OECD Environmental Review

⁶⁰ See Green Budget analysis of 2007 Federal Budget.

⁶¹ Mintz, J. 2007. 2007 Tax Competitiveness Report: A Call for Comprehensive Tax Reform, Commentary, C.D. Howe institute, available on http://www.cdhowe.org/pdf/commentary_254.pdf.

national budget.⁶² Furthermore, it is the Ministry of Finance that chairs the committee for implementing the national Agenda 21. In the United Kingdom, the government's budgetary allocation to government departments, the national Spending Review, now incorporates sustainable development criteria. Another indication of Canada's lack of resolve can be seen in the absence of high level commitment to integrate environment into overall governmental decision-making. This is in contrast with several OECD countries, such as Norway, Finland, and Germany, where the prime minister or president is responsible for the sustainable development strategy process. Perhaps a high level drive in Canada might have lead to a better record by the Department of Finance in accepting the CESD's recommendations.⁶³

There have been some important private sector initiatives in merging environmental and economic decision-making, such as the Canada Forest Accord.⁶⁴ Several Canadian investment houses have been active in socially responsible investment initiatives such as the UN Principles for Responsible Investment, facilitated by Mercers.⁶⁵ In addition, some of the major certification systems, such as the Forest Stewardship Council and, to a lesser extent, the Marine Stewardship Council, have made important gains in Canada. In the case of forest products, the Forest Products Association of Canada required in 1992, that all land under its member's management be certified under one of the major certification programmes in Canada. Some Canadian provinces have also included FSC certification standards in their public procurement policies.⁶⁶ However, it was only in 2006 that the federal government adopted a green procurement policy, after having committed to it many years before.

On the international stage, Canada has made efforts to find accommodation between trade policy and sustainable development. Canada has actively participated in the WTO debate on ensuring that multilateral environmental agreements and WTO rules are mutually supportive, contributing several concrete proposals. In 2001, the Department of Foreign Affairs and International Trade developed a Framework for Conducting Environmental Assessment of Trade Negotiations. However, the anticipated process was not completely independent and the modes for public consultation were modest. Its implementation does not appear to have significantly influenced Canadian trade policy.

4. Canada's response to sustainable development's greatest challenge: climate change

Climate change represents such a complex and massive challenge that effective policy to combat it will draw on virtually all areas of economic development. At the same time, the phenomenon of climate change will be so profound as to impact all the areas covered by the strategic imperatives: societies, economies, and environmental resources. Arguably, implementation of all the WCED strategic imperatives is a

⁶² Swanson, Darren and Pintér, László, 2006. Governance Structures for National Sustainable Development Strategies Study of Good Practice Examples, IISD.

⁶³ See, e.g. CESD 2004 report, which reports that the Department of Finance has not accepted the Commissioner's recommendations on using the tax system.

⁶⁴ See Pages 14-17 of SD: A Canadian Perspective.

⁶⁵ See <http://www.mercer.ca/summary.jhtml/dynamic/idContent/1222520>.

⁶⁶ <http://www.fscCanada.org/ProcurementPolicies.htm>.

necessary condition for successful climate change policy. Climate change policy, as a concrete and pressing manifestation of a sustainable development priority, is a good barometer of a government's commitment to sustainable development.

Canada faces significant obstacles in trying to reduce greenhouse gas emissions, by virtue of its increasing reliance on the fossil fuel industry for a good part of its economic growth, particularly in the field of energy exports. Nevertheless, successive Canadian governments have continued to try and "square the circle" and has a long history, in terms of individuals and institutions, in playing a constructive role in developing an international regime on climate change while falling short in delivering a credible domestic policy that would effectively address climate change over the short and long term. In 1988, the Canadian government convened the World Conference on the Changing Atmosphere: Implications for Global Security in Toronto, which called for global carbon dioxide reductions to be reduced by 20% by 2005. This commitment formed part of the 1993 Liberal Party electoral Red Book. Canada was an important participant in the negotiations of the UN Framework Convention on Climate Change, which called for the less ambitious, and in legally ambiguous terms, for a stabilisation target at 1990 levels by 2000, and was quick to ratify it.

However, problems began to emerge in the mid-1990s. From the outset, some provinces, especially Alberta, were deeply concerned that actions that would penalise GHG emissions would marginalise Alberta's economic opportunities. It is arguable that the decision by the Federal Government to implement the Convention in conjunction with the provinces (ie, with full consensus of provinces) ensured that real progress on implementation would be very difficult indeed. For example, the Federal Government rejected the notion of a carbon tax, under pressure from Alberta. More fundamentally, Chrétien's first Environment Minister, Sheila Copps, recalled, "it became clear that the rule of [federal-provincial] 'consensus' in the environmental agenda would mean moving to the lowest common denominator. There was no way that Alberta would agree to any reduction in fossil-fuel emissions." (Harrison 2006). The Commissioner on Environment and Sustainable Development found in 1998 that the implementation of international climate change policies was hampered by a lack of federal-provincial cooperation. (CESD 1998).

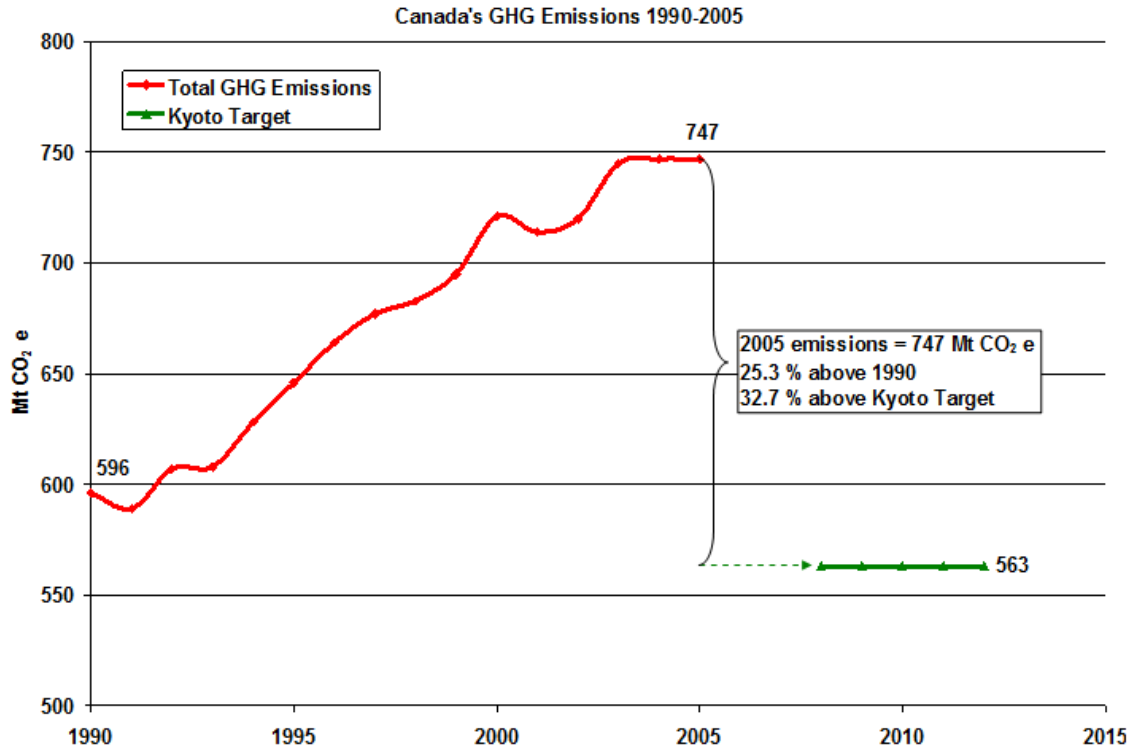
A multistakeholder consultative process failed to agree a national strategy on climate change in 1993-94. By the mid-1990s, it became clear that Canada CO₂ trajectory was such that the FCCC target would not be met. The lack of leadership by the Prime Minister, coupled with internal disagreements in cabinet between the Environment Minister and the Minister of Natural Resources Canada, led to Canada adopting a go-slow approach to climate change until 1997 (Toner, 2000). It was only 3 days into the actual Kyoto Protocol negotiations that Canada stated its position on targets. The amount of the target (3% below 1990 levels by 2010) was influenced by the American position (reducing to 1990 levels by 2010): the aim was to have a target that more ambitious than the Americans, despite the fact that one month before, Ministers Goodale and Stewart had successfully reached a deal with all provinces for Canada to aim to stabilise its GHG emissions at 1990 levels. It became apparent that the Prime Minister was more interested in keeping up with his G8 partners, than in reflecting the consensus that had been reached domestically. This was to have far reaching implications for future Federal – Provincial discussions on addressing climate change. The Prime Minister's approach seems to have been influenced by two factors: (a) the assumption that Canada's closest economic partner, the United States, would take on targets, and

(b) that Canada would have access to relatively 'cheap' international credits to meet its GHG targets. Harrison (2006) notes that the Chretien's position on an ambitious target was at the urging of President Clinton to "push the envelope" so as to bridge the US and European proposals. Chretien's position does not appear to have been based on a rigorous analysis of the implications of that target for Canada. Ultimately, the American target agreed at Kyoto was higher than the one for Canada, a fact that did not appease provincial opponents of the agreements. Nonetheless, at the First Ministers meeting following the negotiations, the Federal and provincial governments agreed to establish a process (the National Climate Change Process) to consider the implications of the Protocol for Canada and that the implementation would be done with the full participation of the provincial and territorial governments with the federal government. On the basis of this last point, Alberta Premier Klein indicated that he would apply a provincial veto to Kyoto implementation (Harrison). The declaration also stated that no region of Canada would be asked to bear an unreasonable burden in relation to global warming. During the subsequent years, the National Climate Change Process held many meetings, but little substantive agreement was reached.

Given this background, it is not surprising that efforts to robustly implement the Kyoto Protocol in Canada suffered a severe setback with President George W. Bush's announcement that the US would not be ratifying the Protocol. There was a campaign by some provinces and industry associations against Canadian ratification. However, to the surprise of even some cabinet colleagues, the Prime Minister announced at the 2002 World Summit on Sustainable Development that he would submit a resolution on ratification to Parliament by the end of the year. This was a highly unusual approach, since normally Cabinet approves international treaties, but had the impact of allowing the Prime Minister to side step the divisions inside Cabinet. With the support of two opposition parties, accompanied by pressure by the Prime Minister on the sceptics inside the Liberal ranks (including Cabinet), the motion was passed.

Since 2000, there have been four national plans to address climate change. The first one, Action Plan 2000, was a package of measures aimed at covering one third of Canada's Kyoto commitment. The second, Climate Change for Canada, in 2002, focussed on enhancing energy efficiency. Following the ratification of Kyoto, the Federal Government announced a concession to industry, that "large final emitters" would not have to pay for abatement measures that cost more than \$15/tonne, nor would they be required to implement reductions of emissions intensity at more than 15% of the business-as-usual scenario for 2010. Both of these were significantly less than the anticipated costs and reductions anticipated for full Kyoto compliance. The third plan, Project Green, in 2005, based largely on a new \$8 billion Climate Fund that subsidise emissions reductions, a cap-and-trade system, and a voluntary agreement with the auto industry to reduce emissions by 5.3 MT. This plan was never implemented because of a change of government; nonetheless, it was open to the criticism that it would not have lead to full compliance with the Kyoto Protocol.

Throughout this time, it became increasingly evident that Canada was not on track to meeting its Kyoto commitments: in fact, the trends were moving in the opposite direction.



Source: Canada's 2005 Greenhouse Gas Inventory: A Summary of Trends

The most recent plan was announced in 2007, Turning the Corner: An Action Plan to Reduce Greenhouse Gases and Air Pollution, which aims to have an absolute reduction of 20% by 2020 of 2006 emissions, and by 60-70% by 2050. The core of the plan is a regulatory framework involving emissions trading, which creates three compliance mechanisms that industry can use: purchase domestic offsets, invest (initially @ \$15 per tonne of carbon dioxide) in a technology fund, or obtain a limited amount of carbon credits from the Clean Development Mechanism.

The current plan is not without critics. Firstly, it appears to be in breach of the Kyoto target. This is built-in by using 2006 as the baseline, since by 2004, it was evident that Canada's emissions were up 27% from 1990 levels. Using 2006 instead of 1990 also appears to penalise those firms who took early action. Second, the regulation is of energy intensity, not emissions reduction – therefore, the claim that absolute emissions levels will be reduced cannot be proven (Bramley, 2007). The programme appears to be very complex and raise several areas of uncertainty. Furthermore, the rules appear to grant latitude to petroleum projects, while penalising some other industries where emissions growth has been slow. A big unknown is what the technology fund will invest in – especially whether it would lead to actual emissions reductions.

An interim report of the National Roundtable analysing the government's current plans recommends the following:

- In order to meet deep GHG emission reduction targets, the immediate implementation of a clear, consistent, and long-term policy (such as an emissions price) by the government is critical. Such a policy needs to place a price on carbon,

which could be implemented, for example, through an emissions cap and permit trading scheme, and/or an emissions tax.

- Establishing and reaching medium-term targets is critical if the long-term targets of 45% and 65% reductions by 2050 are to be achieved. Any delay in the implementation of the GHG price may put some long-term GHG targets beyond Canada's reach and will mean that future emission prices will need to rise significantly.
- Medium and long-term targets should be set in combination to account for reductions of cumulative emissions between now and 2050.
- Canada's contribution to the international effort to reduce GHG emissions has not yet been determined, but could end up calling for a "faster and deeper" reductions path than currently envisioned by the Government of Canada.⁶⁷

In 2006, the same year as a critical report of the government's progress on climate change by the Commissioner of the Environment and Sustainable Development, the opposition Parties teamed up to pass legislation against the will of the government entitled, "An Act to ensure Canada meets its global climate change obligations under the Kyoto Protocol". This Act received Royal Assent in June 2007, and reflects the level of opposition in Parliament to the approach of the present government. Among the requirements are that the government is to develop a plan and enact regulations to meet its commitments under the Kyoto Protocol. So far, the government has indicated its intention not to comply. Meanwhile, two NGOs – Friends of the Earth and Ecojustice – have launched a suit against the government for failing to comply with this legislation and the Kyoto Protocol.

It should be noted that other than providing funds for research and analysis, the federal government has no major activities on adaptation to climate change. This is despite the strong likelihood that Canada will be impacted negatively by climate change.

Finally, some provinces are taking strong action on climate change. As mentioned above, Quebec has just introduced a carbon tax. In addition, British Columbia has just committed to having all government agencies be carbon neutral by 2010 and that it will establish emissions targets for heavy industry.⁶⁸

5. Final observations

During the WCED process up until UNCED, Canada was world leader in promoting the concept of sustainable development and initiating processes aimed at achieving it (e.g. the multistakeholder process in the run up to UNCED). But then during the 1990s, this momentum slipped. As the previous sections have revealed, the result is that Canada has fallen behind some other OECD countries both in terms of government policy and in environmental quality. No overall vision that has been developed for what a sustainable Canada will look like, which inhibits a coherent approach and the development of the tools needed to achieve such a vision. Canada has still not completed a national

⁶⁷ See <http://www.nrtee-trnee.ca/eng/publications/ecc-interim-report/summary-ecc-interim-report-eng.html>.

⁶⁸ Bula, Francis, Premier unveils laws to sharply reduce emissions, Vancouver Sun, 29 September 2007, <http://www.canada.com/vancouver/news/story.html?id=9194048f-02f0-4dd9-8c86-4ad657926d22>

sustainable development strategy, like many other OECD countries, such as the United Kingdom, Sweden, and Norway. And although there were some significant Canadian responses to the WCED in the field of environment; this was not accompanied by a major push to achieve social equity within Canada.

This is not to negate some of the very important successes that have taken place in Canada, in spite of the inherent difficulties and long term nature of many of these challenges. The handling of the acid rain problem can be cited as a leading example of federal-provincial cooperation that led to effective action. According to Yale University's 2005 Environmental Sustainability Index, Canada ranks 6th in the world – which is certainly a very respectable score.⁶⁹ That index points out that Canada has done better than the average of comparable countries in a number of key areas: water quality, biodiversity conservation, and science and technology. Canada comes out poorly on reducing waste and consumption pressures, as well as on emitting greenhouse gases. However, the question – not answered in this paper – should be asked: why have some other comparable countries been able to do better than Canada?

On the basis of this review, a number of general observations can be made. The first is that strong political leadership has been intermittent, at best. The experiences of the Green Plan and the various plans to address climate change demonstrate this rather dramatically, but even in other areas there has not always been a strong commitment from the top, or sufficiently robust political consensus, to address very difficult sustainable development challenges. Related to this is that the environmental and social agendas have been hostage to the higher priority economic development policy agenda. This has been especially so in times of economic recession, but it also appears in regions where exploitation of natural resources are an important part of the local economy, e.g. fisheries or oil. A third observation is that governmental decision-making has not been robust enough to underpin a true process towards sustainable development. Many sustainable development challenges are inherently difficult, and most initiatives take place in the context of less-than-full information, where outcomes are far from certain. Therefore, decision-making processes need to be such as to be able to support bold action – which has not been apparent in Canada. Indeed, much of the federal government response has been to focus on win-wins and voluntary approaches, while avoiding the difficult priority setting and trade-offs inherent in a transition to sustainable development. Another factor is that there has not been a powerful public constituency to push the government hard enough. For example, during the 1990s, environmental NGOs suffered from severe budgetary cuts, as did Environment Canada. In addition, there is less of an incentive to tackle difficult areas of policy during times of relatively low energy prices.

There are perhaps a number of explanations for why Canada has not been able to implement all the WCED Strategic Imperatives. This paper can only raise these possibilities; it does not purport to present a thorough analysis. One is the constitutional divisions between federal and provincial levels on environmental, social, and economic issues. These divisions can inhibit fully joined-up approaches and can be aggravated in the absence of strong leadership from the federal government. There are, of course, examples where federal-provincial cooperation has been very effective. Another possible explanation is that natural resources encompass such an important basis for the Canadian economy, which engenders a reluctance to place limits on their

⁶⁹ Available on http://www.yale.edu/es/b_countryprofiles.pdf.

exploitation. Finally, proximity and economic linkages to the US can create the impression among policy makers that Canadian policy should not impede national competitiveness by ambitious environmental policy. Many of these concerns are not, however, supported by empirical evidence.

The Brundtland Report was all about dramatic change in the face of dramatic planetary challenges. The profundity of those challenges may be such that twenty years is not sufficiently long for any country to fully make the adjustments called for in the Strategic Imperatives, even in the best of political/economic circumstances. And yet the physical timetable of the planet's deterioration is becoming more, not less urgent. Decision-making, now more than ever, needs to be fundamentally altered, to be far more integrated and anticipatory, with a greater sense of purpose. There are surely more lessons to be drawn from the Canadian experience, where in 1987 the ground seemed to so ripe for the kinds of "Big Ideas" that underpinned the Green Plan process, and yet progress on their implementation proved to be so intermittent.

6. **Bibliography**

Boyd, David, 2001. Canada vs. the OECD: An Environmental Comparison. Available on <http://www.environmentalindicators.com/htdocs/execsum.htm>.

Boyd, David 2007. The air we breathe, available on <http://www.polisproject.org/PDFs/Air%20We%20Breathe.pdf>.

Boyd, David, 2007b. The water we drink, available on <http://www.polisproject.org/PDFs/Water%20We%20Drink%20ENG.pdf>.

Bramley, Matthew, 2007. Analysis of the Government of Canada's April 2007 Greenhouse Gas Policy Announcement, Pembina Institute.

Campbell, Bruce, 2007. More Than Jellybeans: The SPP Regulatory Framework Agreement and Its Impact on Chemicals Regulation, Canadian Centre for Policy Alternatives, available on http://www.policyalternatives.ca/documents/National_Office_Pubs/2007/More_Than_Jellybeans.pdf.

Clark, Karen, J. McKay and A. Mitchell, 2001. Sustainable development in Canada: a new federal plan. Toronto: CIELAP.

Commission for Environment and Sustainable Development Annual Reports (1999 – 2006).

Culpeper, Roy, 2004. Human security, sustainable and equitable development: foundations for Canada's international policy. Ottawa, ON: North-South Institute.

Dale, Ann, Carrie Spencer, Chris Ling, (2006). The National Round Table on the Environment and the Economy (NRTEE): Expanded Decision-making for Sustainable Development, available on <http://cocresearch.royalroads.ca/node/3218>.

Doering, Ronald L, 1993. Canadian Round Tables on the Environment and the Economy: Their History, Form and Function, Working Paper, National Round Table on the Environment and the Economy.

Doern, G. Bruce, 1990. The Federal Green Plan: Assessing the "Prequel". Commentary, C.D. Howe Institute.

Drexage, John, 2007. The beginnings of a plan, in Environmental Finance, June, 2007, page 26.

Environment Canada, 1986. "Survival in a Threatened World, Submission by the People of Canada to the World Commission on Environment and Development".

Environment Canada, 2002. Environment and Development: A Canadian Perspective.

Environmental Defence, 2005. Toxic nation: a report on pollution in Canadians. Toronto, ON

Gale, Robert J. P. 1997. Canada's Green Plan. Nationale Umweltpläne in ausgewählten Industrieländern, Springer-Verlag, Berlin.

Government of Canada, 1990. A Framework for Discussion on the Environment.

Government of Canada, 1990. Canada's Green Plan: Canada's Green Plan for a Healthy Environment.

Green Budget Coalition, 2007. 2007 Federal Budget - Analysis of Environmental Measures, available on http://www.greenbudget.ca/pdf/Budget_Analysis_2007.pdf.

Greenprint for Canada Committee, Greenprint for Canada: A Federal Agenda for the Environment.

Gunton, Thomas I. and C. Joseph, 2007. Toward a national sustainable development strategy for Canada : putting Canada on the path to sustainability within a generation. Vancouver, BC, : David Suzuki Foundation.

Harrison, Kathryn, 2006. The Road Not Taken: Climate Change Policy in Canada and the United States, presented at conference "Global Commons and National Interests: Domestic Climate Policies in an International Context," University of British Columbia, Vancouver, June 2006, available on http://www.politics.ubc.ca/fileadmin/template/main/images/departments/poli_sci/Faculty/harrison/Canada_US_august.pdf.

Hoberg, G and K. Harrison, 1994. Its not Easy Being Green: The Politics of Canada's Green Plan, in XX:2 Canadian Public Policy, 119 – 137.

International Institute for Sustainable Development, 2003. Advancing sustainable development in Canada: policy issues and research needs. [Ottawa, ON]: Canada. Policy Research Initiative.

International Institute for Sustainable Development et al., 2004. National strategies for sustainable development: Canada case study. Winnipeg: IISD.

MacDonald, Mary and S. Holtz, 2005. Sustainability in Canada: 2005 update. CIELAP.

MacNeill, Jim, 2006. The Forgotten Imperative of Sustainable Development, 26 Environmental Policy and Law, 167 – 170, IOS Press.

MacNeil, Jim 2007. From Controversy to Consensus -- Building Global Agreement for Change, Environmental Policy and Law, Vol. 37 (2007) Nos. 1/2.

National Task Force on the Environment and the Economy, 1987. Report of the National Task Force on Environment and Economy.

Organisation for Economic Co-operation and Development, 2004. Canada: [environmental performance review]. Paris, : Organisation for Economic Co-operation and Development.

Projet de Societe, 1994. A Partnership for Change.

Projet de Societe, 1994. Canadian Choices for Transitions to Sustainability.

Royal Commission on Aboriginal Peoples, 1996. Report of the Royal Commission on Aboriginal Peoples, available on http://www.ainc-inac.gc.ca/ch/rcap/index_e.html.

RRI Green Plans: Archives: Canada, <http://greenplans.rri.org>.

Toner, Glen, 2000. Canada: From Early Frontrunner to Plodding Anchorman, in Lafferty, W.M and J. Meadowcroft, Implementing Sustainable Development: Strategies and Initiatives in High Consumption Societies, Oxford University Press.

Venema, Henry David, 2005. From Cumulative Threats to Integrated Responses: A Review of Ag-Water Policy Issues in Prairie Canada, prepared for the OECD Workshop on Agriculture and Water: Sustainability, Markets and, Policies Adelaide and Barmera, South Australia