

**Environment –  
A Canadian Foreign Policy Review  
2011**

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## EXECUTIVE SUMMARY

The environment is a wide and diffuse topic area that involves multiple layers with resultant policy complexities. The environment involves not simply domestic issues, but also those with vital foreign affairs implications. As the world becomes progressively globalized, managing the environment will increasingly take on international dimensions. Canada is currently facing three major environmental concerns that must be dealt with: the oil sands, climate change, and federal-provincial policy paralysis. Firstly, the oil sands represent a strategic energy resource but have negative environmental effects. Next, global climate change is having negative environmental as well as political impacts for Canada. Lastly, environmental problems are becoming increasingly transnational, and Canada has less control over ultimate outcomes.

Canada's primary environmental policy goal should be to balance environmental stewardship with economic prosperity through sustainable development. However, three other notable policy objectives are proposed as well:

1. Reducing harmful effects on the environment which will in turn positively impact health,
2. Maximizing environmental stewardship and energy security in order to strengthen national security, and
3. Ensuring better policy coordination to boost policy implementation efforts and outcomes.

Because the environment is such a broad and diffuse issue area, many actors are involved in the policy process with varying interests. Industry and the private sector provide employment and seek to maximize profits, while environmental NGOs privilege environmental protection over economic growth. Environment Canada is the principal agency involving the federal government, with DFAIT supporting the international advancement of Canadian policy positions. Provincial governments impact environment policy by controlling land use and resource extraction within their boundaries. The Canadian public is the primary beneficiary of environmental policy given improved health and quality of life.

Multiple policy alternatives are considered for each of the three issues identified with each providing differential constraints and expected impacts. After substantive analysis, three recommendations have been identified within this document, along with implementation, costed options and timelines:

- Continue with oil sands development with continued support for environmental technologies and with the enactment of a federal levy mandated to be used for environmental protection efforts. The levy would be in the range of 2% of price per barrel of oil produced and would only apply when world oil prices exceed \$50 per barrel of oil produced to ensure continued production profitability while enhancing environmental protection.
- Introduce a Canadian cap and trade emissions system, spurring reengagement with global partners to combat climate change.
- The federal government should assume more of its constitutional jurisdiction over the environment and create a more integrated federal-provincial framework to deal with environmental issues in an increasingly globalized world.

Canada is a resource-endowed country, with the most coastline of any nation, the second largest reserves of oil in the world, the third largest fresh water supply and forest cover in the world, and massive supplies of minerals. Yet, Canada also consumes resources at a voracious pace, with use of energy and greenhouse gas (GHG) emissions being among the highest in the world on a per capita basis. We have strong interests in both economic prosperity and environmental stewardship, which often appear to be in conflict, but must be managed through a nexus of sustainable development.

As the world becomes progressively globalized, managing the environment will increasingly take on international dimensions. In many areas, Canadian environmental policy cannot simply focus on parochial domestic issues. We do not have that luxury. Canada does not exist in a vacuum and neither do environmental issues that can extend beyond our borders or global issues that reach us here at home. The very nature of the environment, as interdependent and affecting multiple scales from local to national to global, inevitably involves shared and overlapping jurisdictions. In order to secure our interests, our environmental policy must also look outward to the wider world.

## CONTEXT

### CURRENT SITUATION AND INDICATORS

The environment is a wide and diffuse topic area that includes many broad issues including air, climate change, environmental emergencies, nature, pollution and waste, science and technology, sustainable development, and water. Yet, despite the breadth and scope of this area and its advancing importance globally, the environment continues to be neglected as a priority issue for Canada’s international affairs. The federal government tends to focus on broad policy creation, while leaving interpretation and implementation in the hands of individual provinces, creating a disorganized approach to a growing area of concern. It is necessary for the federal government to focus on finding actionable and concrete solutions to the most important environmental problems facing the nation. These problems all have international dimensions, have been thrust on agenda and necessitate a strong federal policy response:

| Issue                                      | Critical concern:   | Indicator:  |
|--|---|---|
| <b>Oil sands</b>                           | Oil sands production is a strategic energy resource for Canada but has negative environmental effects.                      | Declining conventional petroleum production and the mobilization of the dirty oil campaign. |
| <b>Climate change</b>                      | Global climate change is having negative environmental and political impacts for Canada.                                    | Melting ice in the Arctic and the branding of Canada as a climate change policy laggard.    |
| <b>Federal-provincial policy paralysis</b> | Environmental problems are increasingly transnational as opposed to simply domestic. Canada has less control over outcomes. | Differing compliance with Kyoto obligations federally and in the provinces.                 |

The oil sands represent the future of the Canadian oil industry as conventional petroleum production declines. They are a strategic energy resource and have the basis to turn Canada into a global energy superpower. However, oil sands production is harmful to the environment as it produces high GHG emissions and air and water pollution. 37.2 megatonnes of greenhouse gasses are emitted from the oil sands each year, posing a significant environmental threat, with this

number rising.<sup>1</sup> Oil sands projects continue to use copious amounts of fresh water from the Athabasca River, though this has been marginally reduced with substantial use of recycled water.<sup>2</sup> Oil sands mining operations have a significant impact on the environmental landscape despite producers being required to return the land to the natural state following use.<sup>3</sup> The dirty oil campaign has focused international attention on these environmental effects and may stymie the future viability of the oil sands if not effectively addressed. The U.S. Environmental Protection Agency (EPA) has publicly called on the State Department to further review the oil sands and consider alternatives before approving the Keystone XL pipeline project from Alberta to the U.S. given the oil sands' high environmental impacts.<sup>4</sup> If the EPA's foray into the regulatory process is successful, future oil sands exports to the U.S., currently the destination of 99% of Canadian oil exports, would be significantly weakened. Additionally, the European Parliament's proposed ban on oil sands imports through its Fuel Quality Directive threatens to block a future export market for Canadian crude oil and derail the ongoing Canada-European Union Comprehensive Economic and Trade Agreement negotiations.<sup>5</sup> Notably, this action came after an aggressive campaign by the dirty oil movement including protests and photo exhibitions on the esplanade outside of the Parliament building in Brussels.<sup>6</sup>

Climate change is negatively impacting Canada both environmentally and politically. It represents the most serious issue threatening the Canadian Arctic with annual temperature increases being double that of worldwide averages.<sup>7</sup> By 2100, it is forecast that Arctic temperatures will have increased by 7.7 degrees Celsius, having a devastating impact on arctic ecosystems, including melting glaciers and sea ice.<sup>8</sup> The United Nations Intergovernmental Panel on Climate Change (IPCC) has concluded that there is a 90% chance that GHG emissions have caused the majority of global warming in the past 60-70 years.<sup>9</sup> Canada has been criticized internationally for its inaction on climate change,<sup>10</sup> with this unconstructive branding being detrimental to Canadian interests abroad. Both UN Secretary General Ban-Ki Moon and president of the European Commission Jose Manuel Barroso vigorously panned Canada's climate change record in 2010, marking the first time that such high-profile diplomats have publically criticized Canada's inaction.<sup>11</sup> While it is difficult to draw explicit causal linkages in international relations due to the presence of multiple variables, Canada's climate change record certainly did not assist its bid for a Security Council seat, which ultimately failed and caused widespread humiliation in October 2010. The branding of Canada as an environmental laggard on climate change has been amplified by the dirty oil movement campaign given the oil sands' high GHG emissions.

The increasingly transnational nature of environmental issues so far has not brought about a commensurate shift to an international orientation in Canadian environmental policy. Instead, a climate of federal-provincial paralysis on environmental issues persists. As it stands, implementing international environmental agreements in Canada is difficult at best. The federal government continues to not exercise the extent of its constitutional jurisdiction over environmental protection, preferring to defer to the provinces, despite the reality that many environmental problems are both interdepartmental and cross-border.<sup>12</sup> The lack of compliance with the Kyoto Protocol on the national level with provincial attempts to express their own policy through differing action plans and paradiplomacy highlights a lack of federal direction and leadership as well as the need for action.

## **PAST POLICY AND TRENDS**

Canadian federal level environmental policy has evolved since the creation of Environment Canada

in 1971, beginning with an initial goal of protecting the biosphere, through environmental protection, water management, and fisheries, land, forest, and wildlife services.<sup>13</sup> An integrated ecosystem approach was pursued in the 1980s,<sup>14</sup> followed by sustainable development in the 1990s.<sup>15</sup> Since then, environmental policy has focused on the target areas noted above, while gradually growing to recognize the need of balancing environmental protection with economic concerns. Focus has been on “regulatory frameworks to address air emissions, greenhouse gases, wastewater, and chemicals” by involving these issues in cross-disciplinary decision-making processes.<sup>16</sup>

### *Oil Sands*

The oil sands have been recognized by the Government of Canada as a strategic resource and source of energy security, but one that has environmental impacts that must be managed. Federal government environmental policy continues to represent a rather ‘hands-off’ approach to oil sands environmental regulation. It recognizes that the environment is impacted in terms of air, water, habitat, and GHGs, but defers to the Province of Alberta in most all areas of oil sands management, including the area of environmental standards. The federal government has been too slow in dealing with the negative environmental image of the oil sands currently broadcast by the dirty oil movement.<sup>17</sup> Recently, an independent expert panel reporting to the federal Minister of the Environment examined water monitoring in oil sands region and found strong inadequacies.<sup>18</sup> The Government response to the dirty oil movement continues to focus on public relations optics and not on making measurable environmental improvements.<sup>19</sup>

### *Climate Change*

Climate change became a policy issue for Canada during the Montreal Protocol of 1987 and the Toronto Conference on Climate Change and Security in 1988, but took on even greater focus after the signing of the Kyoto Protocol in 1997 to reduce GHG emissions.<sup>20</sup> Canada ratified the Protocol in 2002 but did little to reduce GHG emissions, as seen in Appendix 1.<sup>21</sup> In fact, in the 10 years following Kyoto, Canada’s greenhouse emissions increased by over 30%, despite a reduction target of 6%<sup>22</sup>, further illustrated in Appendix 1. A lack of enforcement capacity in the agreement and an absence of political will made this increase possible. Being the third largest worldwide GHG polluter per capita and one of the top 10 worldwide GHG polluters by tonnes of CO<sub>2</sub>, the negative Canadian impact has been significant in the past several years.<sup>23</sup> The current government is doing very little to remedy the situation, with targets for environmental improvements being lower than that of other industrialized countries, giving Canada an international title as an “obstructor to the environment” in the UN’s Climate Change talks.<sup>24</sup> Canada’s current climate change target is a 20% reduction in 2006 GHG emissions levels by 2020.<sup>25</sup> Although this may seem like a notable target, it is actually almost 32% *higher* than 1990 levels, which was the baseline year for Kyoto.<sup>26</sup> No international climate change initiatives have focused on specifically addressing climate change in the Arctic, though this is where climate change is impacting Canada the greatest.<sup>27</sup> Domestically, Canada has developed five separate plans to address Arctic climate change indirectly, none of which have succeeded in reducing GHG emissions, as noted by Commissioner of the Environment and Sustainable Development.<sup>28</sup>

### *Federal-provincial policy paralysis*

The environment is under shared provincial-federal jurisdiction, and the federal government has historically deferred most environmental issues to the provinces up until the creation of the

Canadian Environmental Protection Act (CEPA) in 1988.<sup>29</sup> Federal policy continues to favour giving the provinces wide legislative berth involving the environment, as opposed to centralized and coordinated environmental regulation through Environment Canada. Provincial control over natural resources extraction, under Section 92A of the *Constitution Act, 1867*, has been balanced against a variety of federal powers by the courts. The residuary power of the peace, order, and good governance clause, the federal trade and commerce clause, and the federal criminal law power all situated in Section 91 of the *Constitution Act, 1867* are the principal constitutional bases to advance an increased federal role in environmental protection. Despite a succession of landmark Supreme Court of Canada constitutional cases enabling and outright encouraging an expanded role for the federal government to maximize environmental sustainability<sup>30</sup>, a high degree of deference to the provinces continues.

## POLICY PROCESS

### GOALS AND OBJECTIVES

Canada’s primary environmental policy goal should be to balance environmental stewardship with economic prosperity through sustainable development. However, three other notable policy objectives are proposed as well:

1. Reducing harmful effects on the environment which will in turn positively impact health,
2. Maximizing environmental stewardship and energy security<sup>31</sup> in order to strengthen national security, and
3. Ensuring better policy coordination to boost policy implementation efforts and outcomes.

### KEY PLAYERS

The environment affects a wide scope of societal and governmental interests. Many actors are involved in the formulation and application of Canadian international environmental policy. The stakeholders have vested interests for or against specific issues within the scope of environmental policy, while the allies, detractors and beneficiaries are the ones who respectively work with, against, and are benefited by Canadian environmental actions.

| Stakeholders   | Relationship to policy  | Interests  |
|--|---|--|
| <i>Industry/ private sector</i>                              | Provide tax dollars and employment for Canadians. Mixed allies and detractors.  | Making high profits while ensuring their companies portray positive public relations. Environmental policies that do not increase costs on industry.   |
| <i>Environmental NGOs</i>                                    | Critique federal environmental policy and work to improve it. Mixed allies and detractors.  | Ensuring a sustainable environment in Canada by prioritizing the environment over industry.  |
| <i>Health Canada</i>   | Partners with Environment Canada on sustainable environmental policy and managing the linkages between health and the environment.  | Achieving and maintaining a healthy natural and built environment, a vibrant and just society, and a well-functioning economy. Improving Canadian health by minimizing environmental harm.           |
| <i>Department of Foreign Affairs and International Trade</i> | Coordinating, developing and advancing Canada’s bilateral, regional, and international positions on the environment, energy security, and sustainable development issues. <sup>32</sup> | Ensuring that domestic Canadian environmental policies are compatible with Canada’s international commitments. Advancing Canadian leadership abroad to secure national interests and promote values. |
| <i>Natural Resources</i>                                     | Works with Environment Canada on  | Seeks to improve sustainable development and   |

|  |   |   |
|--|---|---|
| <i>Canada</i>  | sustainable environmental policy as it pertains to the natural resources sector.  | use of natural resources. Interested in competitiveness and economic contribution of Canadian natural resources.  |
| <i>Provincial governments</i>  | Responsible for majority of policy implementation within each province, particularly in terms of natural resources. Oversee municipal environmental efforts.                                      | Desire to recruit business to their respective province to maximize tax revenues and employment. Minimizing environmental harm to provincial residents. Secure re-election.                 |
| <i>Canadian Council of Ministers of the Environment</i>  | Forum for federal, provincial, and territorial Ministers of Environment to meet to discuss environmental policy.  | Focus on broadly improving national issues that require cooperation among parties with each member being accountable to their respective jurisdiction served. <sup>33</sup>                 |
| <i>Organized labour</i>  | Unions promote progressive environmental policies for worker protection, while being supportive of sustainable development to improve workers' overall economic well-being.                       | Defending worker rights and economic perspectives in sectors impacted such as mining.   |
| <i>Aboriginal groups</i>   | Aboriginals have a deep connection with the land and are keenly affected by environmental impacts. There are Aboriginal communities near the oil sands and in the Arctic.                         | Preserving their communities and minimizing their environmental degradation while hoping to advance sustainable resource extraction activities in order to receive revenues and employment. |
| <i>Office of the Auditor General of Canada (Commissioner of the Environment and Sustainable Development)</i> | Conducts performance audits, responsible for assessing whether federal government departments are meeting their sustainable development objectives, oversees the environmental petitions process. | Providing parliamentarians with objective, independent analysis and recommendations on the federal government's efforts to protect the environment and foster sustainable development.      |

## Allies

Environmental policy allies are comprised of environmental NGOs<sup>34</sup>, industry, research facilities, the United Nations, the Arctic Council, the Group of 8 (G8), the Inter-American Institute for Global Change Research, and the National Roundtable on the Environment and the Economy. NGOs promote progressive environmental policies, often unmarred by economic interests or downgrading their importance relative to the environment at the very least. Industry desires a positive environmental image and sometimes partners with NGOs and governments to improve the environmental degradation it is causing, while balancing NGO perspectives.<sup>35</sup>

Research facilities and academia look at the status of and changes in environmental health that are used for agenda-setting and policy-making. The UN (Environment Programme, World Meteorological Organization, and the Division for Sustainable Development) provides leadership and encourages partnerships in environmental improvements while enhancing economic and social well-being of all areas of society. The Arctic Council serves as a high-level international forum discussing Arctic issues, while including Aboriginal peoples and promoting discussion and cooperation among states. The G8 is an ally because it supports environmental improvements in the context of continued economic growth and has created the Action Plan for Climate Change.<sup>36</sup>

The Inter-American Institute for Global Change Research provides research and tools for "improved understanding of the behaviour of the global system that defines the environment of our planet" and options available for dealing with concerns.<sup>37</sup> Lastly, the National Roundtable on the

Environment and the Economy has the goal of generating and promoting sustainable development solutions to advance Canada’s national environmental and economic interests simultaneously, through the development of innovative and in-depth policy research and advice.

**Detractors and Beneficiaries**

Although they are also allies, industry and environmental NGOs, when on their own, can be seen as detractors. For industry, profit is the primary concern, while NGOs push pro-environmental policy often without other considerations, such as economic impacts. The general public is the primary beneficiary of environmental improvements as health and quality of life are positively impacted.

**ALTERNATIVES, CONSTRAINTS, AND EXPECTED IMPACTS**

There are multiple alternatives available to Canada to solve the critical problems that impact environmental affairs internationally. Some alternatives favour environmental protection, while others privilege economic growth instead. The key is to move away from a zero-sum framework and find problem solutions through the nexus of sustainable development. Each alternative presents differential constraints and expected impacts.

*1. Oil sands production is a strategic energy resource for Canada but has negative environmental effects.*

| <b>Alternative</b>   | <b>Constraints</b>  | <b>Expected Impact</b>  |
|--|---|---|
| <i>Continue with development and work towards future environment technology</i>  | - Environmental NGO opposition<br>- Mobilization of the dirty oil movement      | -Continued oil sands-related economic growth<br>-Anticipated technological advances might not materialize<br>-Continued high output of GHGs and air/water/land concerns<br>-Continued mobilization of the dirty oil movement  |
| <i>Restrict future development until emissions can be meaningfully reduced</i>   | -Industry, oil & gas labour, and Alberta and Saskatchewan government opposition | -Loss of economic prosperity for Canada during a period of high oil prices<br>-Decline in the strategic value of the resource as Canada is forced to rely more on uncertain foreign sources of crude oil<br>-Lower Canadian GHG emissions and reduced environmental degradation |
| <i>Continue with development with the enactment of a federal levy mandated to be used for environmental protection efforts</i> | -Industry and Alberta and Saskatchewan government opposition                    | -Oil & gas companies will forfeit some revenue<br>-Continued oil sands development, but likely at a slower pace<br>-Enhanced environmental protection<br>-Reduced prominence and viability of the dirty oil movement  |

*2. Global climate change is having negative environmental and political impacts for Canada.*

| <b>Alternative</b>                                     | <b>Constraints</b>           | <b>Expected Impact</b>  |
|--|------------------------------|---|
| <i>Continue with current federal government policy</i> | Environmental NGO opposition | -Continued perception of Canada as a international climate change policy laggard<br>-Modest GHG reductions if targets are met, though uncertain due to lack of prioritization by government |



|  |  |   |
|--|--|---|
| <i>Introduce a federal carbon tax</i>                              | Strong industry and public opposition with widespread fears of another National Energy Program in Western Canada | -Lower GHG emissions<br>-Improve perception of Canada internationally<br>-Economic costs at least in the short-term |
| <i>Introduce a cap and trade system for Canadian GHG emissions</i> | Industry opposition  | -Lower GHG emissions<br>-Improve perception of Canada internationally<br>-Economic costs at least in the short-term |

*3. Environmental problems are increasingly transnational as opposed to simply domestic and Canada has less control over outcomes.*

| <b>Alternative</b>   | <b>Constraints</b>  | <b>Expected Impact</b>  |
|--|---|---|
| <i>Continue with the current ad hoc approach</i>   | Environmental NGO opposition                                      | -Continued indecision and lack of coordination in Canadian environmental policy<br>-Continued difficulty for Canada to comply with international environmental agreements |
| <i>The federal government assumes more of its constitutional jurisdiction over the environment</i> | Industry and provincial government opposition                     | -Stronger regulations with minimum national standards<br>-Increased ease of negotiating and adhering to international environmental agreements                            |
| <i>Create a more integrated federal/provincial framework to deal with environmental issues</i>     | Provincial government opposition especially in Alberta and Quebec | -Better national coordination in environmental policy<br>-Increased ease of negotiating and adhering to international environmental agreements                            |

In addition to the specific constraints outlined for each alternative, working to solve these three key problems must counteract a key overarching constraint: a lack of political will to deal proactively with environmental issues. Currently, policymakers tend to prioritize the economy over the environment. This trend is amplified during economic recessions as environmental issues are placed on the backburner. The Government of Canada currently has its fifth Minister of Environment in the last five years, demonstrating a lack of prioritization of environmental issues within the executive branch. In the context of Canadian federalism, a ‘passing the buck’ framework exists, where no level of government wishes to assume a greater role in environmental protection.<sup>38</sup> This is because environmental protection entails concentrated costs and diffuse benefits. Protecting the environment inevitably requires financial expenditure, which may be higher in the short-term. Governments often do not see a path to electoral success by increasing environmental protection efforts and may even frame supporting the environment or the economy as either-or propositions. Moreover, many environmental problems, such as climate change, require widespread collective actions to achieve measurable effects. In this regards, the free rider paradox of depending on others to solve shared problems may be appealing to policymakers who are keen not to rock the boat.

## **RECOMMENDATIONS**

**1. *Continue with oil sands development with continued support for environmental technologies and with the enactment of a federal levy mandated to be used for environmental protection efforts. The levy would be in the range of 2% of price per barrel of oil produced and would only apply when world oil prices exceed \$50 per barrel of oil produced to ensure continued production profitability while enhancing environmental protection.***

- **Implementation:** Natural Resources Canada will be the lead agency, with Environment Canada assisting in determining environmental protection priorities. Consultation should be

undertaken with the Alberta and Saskatchewan governments regarding the level and implementation timeline of the levy. The levy should act as a temporary mechanism to lower the environmental impacts of the oils sands until the proposed cap and trade system takes effect. The policy should be supported by a robust public relations campaign to portray a more positive image of the oil sands.

- **Costed options:** Continued development of the oil sands will maintain economic growth with environmental impacts not being stopped, but instead curtailed. Oil companies will bear increased financial cost in order to advance increased environmental protection, but their total tax bill will remain less than in other industries and jurisdictions. The levy will be a tax on negative externalities with the effect of lowering the economic rent associated with oilsands production and not a royalty. The dirty oil movement will be significantly weakened with reduced prominence due to improved international perceptions of the oil sands.
- **Timeline:** Introduction of federal legislation by end of 2011 and start of oil levy by the June of 2012.

## **2. *Introduce a Canadian cap and trade emissions system, spurring reengagement with global partners to combat climate change.***

- **Implementation:** Environment Canada and DFAIT are the key implementation centres. Environment Canada will manage the cap and trade system and lead Canada in international climate change negotiations, requiring greater personnel and resources. The cap and trade emissions system should use the National Roundtable on the Environment and the Economy's comprehensive planning reports as a design framework to achieve measurable GHG reductions while ensuring economic growth.<sup>39</sup> DFAIT will advance Canada's international efforts by providing operational support in negotiations, leading in international dispute resolution where necessary, and communicating Canadian policies to foreign governments and interlocutors abroad.
- **Costed options:** Cap-and-trade will reduce Canada's GHG emissions, portray a positive image to the world, and provide Canada with a renewed voice in global climate negotiations, but some financial costs at least in the short-term will be incurred. These costs will be minimal in relation to Canada's GDP.<sup>40</sup> A cap-and-trade system is less politically onerous to achieve than a carbon tax given widespread lingering opposition to the Liberals' 2007 *Green Shift* carbon tax plan, though oil producing provinces may continue to oppose the policy. The system should be open to future harmonization if the U.S. develops a cap and trade plan, but Canada must act now if it is to meet its climate change targets.<sup>41</sup> Regional Canada-U.S. cross-border groupings between Canadian provinces and U.S. states, most notably the Western Climate Initiative and the Conference of New England Governors and Canadian Premiers, can work in conjunction with a national cap-and-trade approach by continuing to advance cooperation, best practices, and policy innovation. Cap and trade, as a market-based approach, is more economically-beneficial than command-and-control government regulations for individual industries that do not put a price on carbon and allow emissions trades.
- **Timeline:** Introduction of cap and trade system legislation by June of 2012 and implementation one year later, with escalating carbon prices being phased in gradually to allow industry to adapt.

**3. The federal government should assume more of its constitutional jurisdiction over the environment and a more integrated federal-provincial framework to deal with environmental issues in an increasingly globalized world should be created.**

- **Implementation:** Environment Canada is the lead agency that will work with provincial governments in a more assertive role. The Canadian Council of Ministers of the Environment will continue to act as a consultative venue to support the management of robust federal-provincial environmental relations.
- **Costed options:** A more centralized environmental policy and enhanced federal-provincial dialogue will enable Canada to engage easier in multilateral environmental negotiations by having a united voice and support stronger environment efforts by having more uniform environmental standards. Some provinces, most notably Alberta and Quebec, will complain about their jurisdiction being usurped, but the available scope of federal environmental authority is clear constitutionally. Greater policy coordination will maximize the success of the proposed cap and trade system. Enhanced federal environmental regulation can lead to greater minimum national standards in order to proactively address environmental issues. Such minimum standards can decrease an inter-provincial race to the bottom as provinces compete to attract investment by ensuring reduced environmental standards.
- **Timeline:** Amendments to federal environmental protection legislation that recognize the federal government's adoption of a larger policy purview by June of 2012 with the more integrated federal/provincial framework to take effect by the end of 2012.

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<sup>1</sup> CAPP, "Canada's Oil Sands: Greenhouse Gas Emissions," [http://www.canadasoilsands.ca/en/issues/greenhouse\\_gas\\_emissions.aspx](http://www.canadasoilsands.ca/en/issues/greenhouse_gas_emissions.aspx) Last accessed 14 March 2011.

<sup>2</sup> CAPP, "Canada's Oil Sands: Water Use," <http://www.canadasoilsands.ca/en/what-were-doing/water.aspx> Last accessed 14 March 2011.

<sup>3</sup> CAPP explains the regulation regarding land reclamation:

"Oil sands producers are required by government regulation to return disturbed land to equivalent capability, which is a sustainable landscape with productivity that is equal or greater than prior to oil sands development. The goal for the reclaimed landscape is that it be capable of supporting native vegetation and wildlife, even if it does not look exactly the same as it did before it was developed. This is accomplished by creating the building blocks that allow a diverse, natural landscape and ecosystem to take hold. Before any work begins, a land reclamation plan must be developed and approved by government. This is a piece of the overall project approval process. Producers must also set aside funds to pay for redevelopment. As of February 2009, the Government of Alberta held \$645 million from industry in trust for reclamation."

CAPP, "Canada's Oil Sands: Land Use," <http://www.canadasoilsands.ca/en/what-were-doing/land-use.aspx> Last accessed 14 March 2011.

<sup>4</sup> United States Environmental Protection Agency, "Letter from Assistant Administrator for Enforcement and Compliance Assurance to Department of State on Keystone XL pipeline project," [http://yosemite.epa.gov/oeca/webeis.nsf/%28PDFView%29/20100126/\\$file/20100126.PDF?OpenElement](http://yosemite.epa.gov/oeca/webeis.nsf/%28PDFView%29/20100126/$file/20100126.PDF?OpenElement) Last accessed 1 April 2011.

<sup>5</sup> Pete Harrison and Juliane von Reppert-Bismarck, "Tar sands row threatens Canada-EU trade deal: sources," Reuters, <http://www.reuters.com/article/2011/02/21/us-eu-canada-trade-idUSTRE71K2FL20110221> Last accessed 1 April 2011.

<sup>6</sup> The Cooperative, "Tarnished Earth," <http://www.tarnishedearth.co.uk/see> Last accessed 1 April 2011.

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- <sup>7</sup> Union of Concerned Scientists, "Early Signs of Global Warming: Arctic and Antarctic Warming," <http://www.ucsusa.org/warming/gw<uscore>arctic.html> Last accessed 14 March 2011.
- <sup>8</sup> Climate Change Impacts on the United States: The Potential Consequences of Climate Variability and Change - Overview: Alaska, U.S. Global Change Research Program, 2000. pp. 74-75.,  
See also: Lisa Mastny, (Mar. 6, 2000) Worldwatch Institute, Melting of Earth's Ice Cover Reaches New High <http://www.worldwatch.org/alerts/000306.html>.  
See also: R. Monastersky, Icy Signs of Warming Emerge in Arctic, 153 Sci. News 116 (1998).
- <sup>9</sup> United Nations Intergovernmental Panel on Climate Change (2007) *Climate Change 2007: Synthesis Report*, [http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4\\_syr.pdf](http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr.pdf) Last accessed 14 March 2011.
- <sup>10</sup> Canada's climate change policies and actions were ranked 57<sup>th</sup> out of the top 60 global GHG emitters in the most recent Climate Change Performance Index, adding to its already high level of international criticism.  
Germanwatch and Climate Action Network Europe (2010) *Climate Change Performance Index 2011*, <http://www.germanwatch.org/klima/ccpi11.pdf> Last Accessed: 30 March 2011.
- <sup>11</sup> Anca Gurzu, (May 2010) "Climate change criticism reaches new level," *Embassy Magazine*, <http://www.embassymag.ca/page/view/environment-05-19-2010> Last accessed 30 March 2011.
- <sup>12</sup> As per the Constitution Act of 1867, the federal government has exclusive jurisdiction in managing the sea coast, including offshore natural resources and inland fisheries. The provincial governments have exclusive jurisdiction in matters of exploration, development, conservation, and management of non-renewable natural resources and the production of electricity. Jurisdiction is shared in the export of these resources from the provinces in question. In cases where legislation falls between the two levels of government, the federal government takes precedence through paramountcy.  
Parliament of Canada. Constitution Act, 1867, 30 & 31 Victoria, c. 3. (U.K.).
- <sup>13</sup> Environment Canada, "About Environment Canada," <http://www.ec.gc.ca/default.asp?lang=En&n=BD3CE17D-1>. Last Accessed: 14 March 2011.
- <sup>14</sup> The department tried to act as an "ecosystem manager [to Canada, incorporating] ecological concerns into decision-making." The Integrated Ecosystem Approach recognizes the links between ecology, society and the economy and attempts to include all stakeholders in collaboratively identifying problems and solutions.  
Ibid. For further explanation of the Integrated Ecosystem Approach, see also: [http://www.helcom.fi/projects/on\\_going/details/ecoqo/en\\_GB/definitions/](http://www.helcom.fi/projects/on_going/details/ecoqo/en_GB/definitions/).
- <sup>15</sup> In the 1990s, sustainable development was introduced in Canada's Green Plan, where the intent was to change the structure of decision making in concerning the environment and sustainability. It was sketched as being the source for planning for environmental resources but was scrapped in 1993 as spending priorities focused on "soft" policy areas like research and education.
- <sup>16</sup> Environment Canada, "About Environment Canada."
- <sup>17</sup> Paul Chastko (2010) "The Dirty Oil Card and Canadian Foreign Policy" (Canadian Defense and Foreign Affairs Institute Paper).
- <sup>18</sup> Environment Canada Oil Sands Advisory Panel (2010) *A Foundation for the Future: Building an Environmental Monitoring System for the Oil Sands*, <http://www.ec.gc.ca/pollution/default.asp?lang=En&n=E9ABC93B-1> Last Accessed: 30 March 2011.
- <sup>19</sup> Mike De Souza (Mar. 16, 2011) "Governments, Big Oil unite for PR fight: Battle begins to improve industry's environmental image" *Postmedia News*.  
<http://www.ottawacitizen.com/business/Governments+unite+fight/4446476/story.html>

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- <sup>20</sup> Margaret Purdy and Leanne Smythe (2010) "From obscurity to action: Why Canada must tackle the security dimensions of climate change," *International Journal* 65:2: 415.
- <sup>21</sup> PBL – Netherlands Environmental Assessment Agency, "Frequently Asked Questions," <http://www.pbl.nl/en/dossiers/Climatechange/FAQs/?vraag=10&title=Which%2520are%2520the%2520top-20%2520CO2%2520or%2520GHG%2520emitting%2520countries%253F#vraag9>. Last accessed 14 March 2011.
- <sup>22</sup> David Suzuki Foundation (2006) "Who's meeting their Kyoto Targets?," <http://www.climateactionnetwork.ca/e/cop-12/kyoto-targets-dsf-2006.pdf>. Last accessed 12 March 2011.
- <sup>23</sup> PBL - Netherlands Environmental Assessment Agency.
- <sup>24</sup> The Canadian government has won 6 "Fossil Award" prizes (more than any other country) for its obstructive behaviour on climate change in recent UN climate change talks in Mexico City. Liberal Party of Canada, "UN Climate Change Talks Overcome Harper Government Obstruction" <http://www.liberal.ca/newsroom/news-release/climate-change-talks-overcome-harper-government-obstruction/> Last accessed 12 March 2011.
- <sup>25</sup> David Suzuki, "Meeting climate targets and keeping the economy strong," David Suzuki Foundation, <http://www.davidsuzuki.org/issues/climate-change/science/climate-solutions/meeting-climate-targets-and-economic-growth/>. Last accessed 12 March 2011.  
Notably, studies have demonstrated that emissions need to be reduced by 25-40% below the 1990 level by 2020 for global warming not to exceed the globally-recognized detrimental 2 degree Celsius limit.
- <sup>26</sup> Canada's Action on Climate Change, "Canada's Greenhouse Gas Target and Emissions Projections," Environment Canada, <http://www.climatechange.gc.ca/default.asp?lang=En&n=DC025A76-1> , Last accessed 30 March 2011.
- <sup>27</sup> Library of Parliament (2008) *The Arctic: Environmental Issues*, <http://www2.parl.gc.ca/Content/LOP/ResearchPublications/prb0804-e.htm>. Last accessed 12 March 2011.
- <sup>28</sup> Commissioner of the Environment and Sustainable Development, *Report of the Commissioner of the Environment and Sustainable Development to the House of Commons*, [http://www.oag-bvg.gc.ca/internet/English/parl\\_cesd\\_200609\\_e\\_936.html](http://www.oag-bvg.gc.ca/internet/English/parl_cesd_200609_e_936.html) Ottawa, 2006, Last accessed 14 March 2011.
- <sup>29</sup> Vic Niemela (1996) "Proposed changes to the Canadian Environmental Protection Act," *Environment Canada*, <http://www.bvsde.paho.org/bvsaidis/puertorico/lv.pdf> Last accessed 14 March 2011.
- <sup>30</sup> Most notably: *R. v. Crown Zellerbach Ltd. et al*, [1988] 1 S.C.R. 401, *Friends of the Oldman River Society v. Canada (Minister of Transport)*, [1992] 1 S.C.R. 3, and *R. v. Hydro-Québec*, [1997] 3 S.C.R. 213. *Crown Zellerbach* and *Friends of the Oldman River Society* pointed to federal environmental jurisdiction under the peace, order, and good government clause, while *Hydro-Québec* supported wide federal jurisdiction under the criminal law power. Importantly, in *Hydro-Québec* the Supreme Court held that there exists an "...all-important duty of Parliament and the provincial legislatures to make full use of the legislative powers respectively assigned to them in protecting the environment" (at 86) and that the protection of a clean environment "...is a public purpose of superordinate importance; it constitutes one of the major challenges of our time" (at 123).
- <sup>31</sup> Energy Security can be described as; "the uninterrupted physical availability at a price which is affordable, while respecting environment concerns".  
International Energy Agency (2011) "Energy Security," [http://www.iea.org/subjectqueries/keyresult.asp?KEYWORD\\_ID=4103](http://www.iea.org/subjectqueries/keyresult.asp?KEYWORD_ID=4103).
- <sup>32</sup> Department of Foreign Affairs and International Trade, "Energy, Environment and Sustainable Development," <http://www.international.gc.ca/cip-pic/environment-environnement.aspx> Last accessed 14 March 2011.

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- <sup>33</sup> Canadian Council of Ministers of the Environment, "About CCME," <http://www.ccme.ca/about/> Last accessed 14 March 2011.
- <sup>34</sup> This was the most extensive and continually-updated list of national and international Environmental NGOs found: [http://en.wikipedia.org/wiki/List\\_of\\_environmental\\_organizations](http://en.wikipedia.org/wiki/List_of_environmental_organizations).
- <sup>35</sup> For example, Syncrude describes its consultations with aboriginal communities, its projects in land reclamation, and improvements in air quality, as well as its commitment to the environment.  
Syncrude Canada, "Frequently Asked Questions,"  
<http://www.syncrude.ca/users/folder.asp?FolderID=5745#head10> Last accessed 14 March 2011.
- <sup>36</sup> G8 (2008) "The G8 Plan for climate change to enhance the engagement of private and public financial institutions," <http://www.mof.go.jp/english/if/su080614b.pdf> Last accessed 12 March 2011.
- <sup>37</sup> Inter-American Institute for Global Change Research, "The Challenge of Global Change," <http://www.iai.int/>. Last accessed: 14 March 2011.
- <sup>38</sup> Kathryn Harrison (1996) *Passing the Buck: Federalism and Canadian Environmental Policy*, Vancouver: UBC Press.
- <sup>39</sup> National Roundtable on the Environment and the Economy (2009) *Achieving 2050: A Carbon Pricing Policy for Canada*. <http://www.nrtee-trnee.com/eng/publications/carbon-pricing/carbon-pricing-advisory-note/carbon-pricing-advisory-note-eng.pdf> Last accessed 1 April 2011;  
National Roundtable on the Environment and the Economy (2011) *Parallel Paths: Canada-U.S. Climate Policy Choices*. <http://www.climateprosperity.ca/eng/studies/canada-us/report/canada-us-report-eng.pdf> Last accessed 1 April 2011.
- <sup>40</sup> National Roundtable on the Environment and the Economy (2009) *Achieving 2050: A Carbon Pricing Policy for Canada*. <http://www.nrtee-trnee.com/eng/publications/carbon-pricing/carbon-pricing-advisory-note/carbon-pricing-advisory-note-eng.pdf> Last accessed 1 April 2011.
- <sup>41</sup> The U.S. Environmental Protection Agency (EPA) is working to introduce national GHG regulations after having labelled them dangers to human health, but its efforts have run into strong congressional opposition. Congress was unable to pass a national cap-and-trade bill in 2009 due to resistance from the Senate. The results of the 2010 midterm elections, which returned the Republicans to the majority in the House and strongly diminished the Democratic majority in the Senate make the realization of a U.S. cap-and-trade system increasingly unlikely in the near term. More information on the EPA's regulatory efforts is available at:  
United States Environmental Protection Agency, "Greenhouse Gas Reporting Program,"  
<http://www.epa.gov/climatechange/emissions/ghgrulemaking.html> Last accessed 1 April 2011.

## Appendix 1

| <i>Country</i>        | <i>Base Year Emissions</i>                                | <i>Kyoto Target</i>                  | <i>Net 2003 Emissions</i>                                      | <i>Amount by which 2003 emissions are above or below target</i> |
|-----------------------|---|--------------------------------------|--|---|
|                       | Megatonnes of carbon dioxide equivalent CO <sub>2</sub> e | % above or below base year emissions | Megatonnes of carbon dioxide equivalent (Mt CO <sub>2</sub> e) | % +/-   |
| <i>Australia</i>      | 423.4   | +8                                   | 457.3  | 550.1 20.3  |
| <i>Austria</i>        | 78.5  | -13                                  | 68.3   | 91.56 34.0  |
| <i>Belgium</i>        | 146.1   | -7.5                                 | 135.1  | 147.7 9.3   |
| <i>Bulgaria</i>       | 141.8   | -8                                   | 130.5  | 69.12 -47.0   |
| <i>Canada</i>         | 595.9   | -6                                   | 560.1  | 740 32.1  |
| <i>Croatia</i>        | 31.6  | -5                                   | 30.0   | 29.86 -0.5  |
| <i>Czech Republic</i> | 192.1   | -8                                   | 176.7  | 147.14 -16.7  |
| <i>Denmark</i>        | 69.6  | -21                                  | 55.0   | 74 34.6   |
| <i>Estonia</i>        | 43.5  | -8                                   | 40.0   | 21.38 -46.6   |
| <i>EU 15</i>          | 4238.0  | -8                                   | 3899.0   | 4180 7.2  |
| <i>EU 25</i>          | 5212.0  | -8                                   | 4795.0   | 4925 2.7  |
| <i>Finland</i>        | 70.5  | 0                                    | 70.5   | 85.58 21.5  |
| <i>France</i>         | 568.0   | 0                                    | 568.0  | 557.66 -1.8   |
| <i>Germany</i>        | 1248.3  | -21                                  | 986.1  | 1017.51 3.2   |
| <i>Greece</i>         | 111.7   | +25                                  | 139.7  | 137.64 -1.4   |
| <i>Hungary</i>        | 122.2   | -6                                   | 114.9  | 83.24 -27.6   |
| <i>Iceland</i>        | 3.3   | +10                                  | 3.6  | 3.08 -14.6  |
| <i>Ireland</i>        | 54.0  | +13                                  | 61.0   | 67.55 10.8  |

Source: PBL – Netherlands Environmental Assessment Agency, “Frequently Asked Questions,” <http://www.pbl.nl/en/dossiers/Climatechange/FAQs/?vraag=10&title=Which%2520are%2520the%2520top-20%2520CO2%2520or%2520GHG%2520emitting%2520countries%253F#vraag9> Last accessed 14 March 2011.

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