



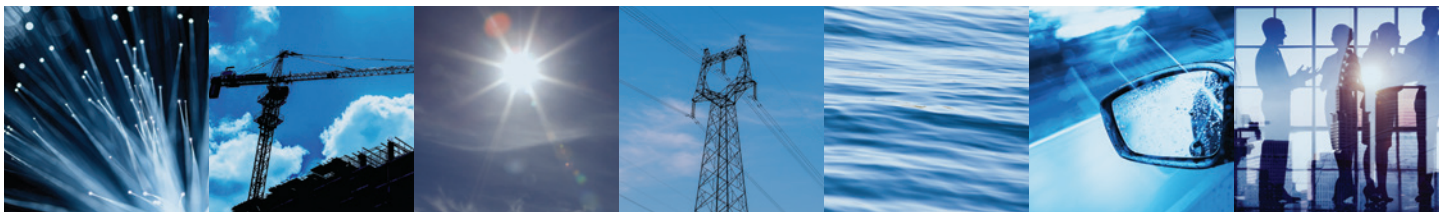
CANADA'S **ECOFISCAL** COMMISSION
Practical solutions for growing prosperity

SMART PRACTICAL POSSIBLE

Canadian Options for Greater Economic
and Environmental Prosperity

November 2014





CANADA'S ECOFISCAL COMMISSION

WHO WE ARE

A group of independent, policy-minded Canadian economists working together to align Canada's economic and environmental aspirations. We believe this is both possible and critical for our country's continuing prosperity. Our Advisory Board comprises prominent Canadian leaders from across the political spectrum.

We represent different regions, philosophies, and perspectives from across the country. But on this we agree: ecofiscal solutions are essential to Canada's future.

OUR VISION

A thriving economy underpinned by clean air, land, and water for the benefit of all Canadians, now and in the future.

OUR MISSION

To identify and promote practical fiscal solutions for Canada that spark the innovation required for increased economic and environmental prosperity.

For more information about the Commission, visit **Ecofiscal.ca**



A REPORT AUTHORED BY CANADA'S ECOFISCAL COMMISSION

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This report is a consensus document representing the views of the Ecofiscal Commissioners. It does not necessarily reflect the views of the organizations with which they are affiliated.

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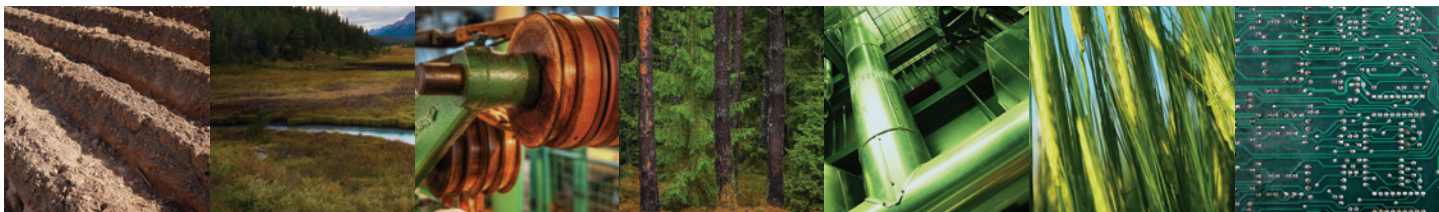
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Executive Summary

Canada's Ecofiscal Commission will examine practical fiscal solutions for Canada that spark the innovation required for increased economic and environmental prosperity. We believe that aligning Canada's economic and environmental aspirations is both critical and possible for our country's continuing prosperity.

SMART ENVIRONMENTAL POLICY IS SMART ECONOMIC POLICY.

Canada's current and future economic prosperity depend on protecting our clean air, water, and land, and also reducing our greenhouse gas emissions. They depend on ramping up Canadian innovation to respond not only to today's demands, but also to the emerging environmental realities that will shape the markets of tomorrow. We can no longer afford to silo our economic and environmental agendas. The sustained well-being of Canadians requires new policies that align our aspirations for a thriving economy and a clean environment. Current evidence suggests that we can achieve this by using *ecofiscal* policies.

Ecofiscal policies correct market price signals to encourage the economic activities we want (job creation, investment, and innovation) while discouraging those we don't (greenhouse gas emissions and pollution of our land, air, and water). The revenue generated from pollution fees can create further benefits; for example, by reducing taxes on families and businesses or investing in new technologies or critical public infrastructure.

ECOFISCAL REFORM IS A CRITICAL OPPORTUNITY FOR THE COUNTRY.

Canada is fortunate, both in terms of its economic prosperity and its unparalleled natural assets. It has maintained this prosperity not by accident, but through deliberate policy choices. Just as Canada successfully tackled high government budget deficits and embraced freer international trade, implementing ecofiscal policies is our next ambitious, and critical, policy opportunity.

Total Canadian government revenues now represent more than one-third of our gross domestic product (GDP), yet our ecofiscal revenues are only 1% of GDP, a significantly lower share than in other major OECD (Organization of Economic Co-operation and

Development) countries. The International Monetary Fund recently suggested that by using ecofiscal policies reflecting damages caused by fossil fuel consumption and traffic congestion, Canada could generate revenues of roughly \$26 billion. This would provide an opportunity to achieve further benefits by recycling these revenues back into the economy. Ecofiscal reform thus presents a tremendous untapped opportunity for Canada.

The aim of this report is to start the conversation required to examine these opportunities. The evidence presented here highlights the success of ecofiscal policies already implemented in Canada and the rest of the world—evidence that makes a strong and reasoned argument for greater use of these tools across Canada.

Here are the five pillars of that argument:

1. Canada's natural wealth is fundamental to our economy; damaging it is costly. Sectors such as tourism, forestry, and agriculture rely directly on the health of our ecosystems; most others rely indirectly on the same. The costs of repairing environmental damage use funds that could be invested fruitfully elsewhere in the economy. Increased health problems caused by pollution, the remediation of contaminated sites, and the impacts of climate change will cost taxpayers dearly. Estimates suggest, for example, that air pollutants in Canada will impose health costs of roughly \$230 billion between 2008 and 2031. Ongoing climate change is also expected to have major economic implications for Canada, with estimated costs rising from around \$5 billion annually in 2020 to between \$21 billion and \$43 billion annually by 2050. The Insurance Bureau of Canada noted that the "terrible effects of new weather extremes" cost insurers a record-breaking \$3.2 billion in 2013.

2. Canadians deserve a better fiscal system. Canada's current fiscal system—the entire collection of taxes, subsidies, and spending policies used by government—is working against our well-being by holding back innovation and productivity while inadvertently promoting greenhouse gas emissions and pollution of our land, air, and water. Taxes are crucial for financing essential government services, but all taxes are not created equal. Income taxes, which

Canada uses extensively, reduce incentives for investment and job creation and tend to reduce economic growth. In contrast, taxes on pollution, which we use sparingly, create incentives for activities that improve the health of our environment.

Ecofiscal policies use market forces to rebalance this equation. They align economic and environmental priorities, creating incentives for conservation, but allowing flexibility in how firms and individuals reduce their pollution. They enable reductions in other taxes, such as corporate and personal income taxes. For example, ecofiscal reforms in Denmark that target air, carbon, and water pollution were used to lower personal income tax rates and reduce employer contributions to social security and pensions while supporting investment in energy efficiency.

3. Ecofiscal policies can be designed to ensure fairness in multiple ways. Fairness is intrinsic to the use of ecofiscal policies, since they require polluters to pay for the environmental damage they cause. Fairness also means ensuring that our grandchildren inherit Canada's natural wealth, not its ecological debt. Failure to invest in clean energy now will cost Canadians many times over down the line. According to estimates by the OECD, for example, every dollar invested now in a low-carbon electricity sector results in more than four dollars saved by future generations (who would otherwise be required to reduce emissions at much higher costs).

Acting fairly also means making decisions that respect and accommodate the diversity of Canada's regions, sectors, and families. Well-designed ecofiscal policies can recognize the differences between regions and need not involve wealth transfers between them. They can also ensure that additional burdens are not placed on the most vulnerable. For example, research suggests that only 10% of the revenue generated by a Canadian carbon tax would be required to offset the impact of the tax for low-income Canadians. Similarly, several policy options exist to address the potential impact of ecofiscal policies on firms' competitiveness.

4. Improving innovation is critical for Canada's future. Ecofiscal policies drive innovation by creating incentives for the development of new technologies that reduce pollution and environmental damage. In Sweden, for example, a price on emissions of nitrogen oxides coincided with a seven-fold increase in patents on pollution-reducing technology from 1988 to 1993. Over the longer term, this innovation will put Canada in a more secure and advantageous position, particularly as our trading partners implement more of their own ecofiscal policies.

5. Canadians can seize an opportunity for long-term, clean prosperity. Right now, however, we are behind the curve. We lag behind most OECD countries in innovation and productivity growth; we also lag behind them in environmental performance. Perhaps not surprisingly, we are close to the bottom of the list in the use of ecofiscal policies. However, important progress—particularly at the provincial level—shows that these policies can and do work in Canada.

This report is the starting point for **Canada's Ecofiscal Commission**. Future research by the Commission will focus on practical policy solutions that can drive the innovative economy we need to succeed in the 21st century. The Commission's future reports will explore these opportunities for pragmatic Canadian policy. Policy issues will likely include:

- **Road congestion pricing.** Road access is free yet it leads to congestion, air pollution, greenhouse gas emissions, and lost productivity through wasted time. Congestion is becoming a significant issue in Canada's major cities. Congestion pricing could be a promising policy solution to promote efficient transportation systems.
- **Municipal user fees.** Cities have limited revenue tools; they tend to rely on property taxes to fund municipal infrastructure. At the same time, users of infrastructure often have no incentive to limit their usage. User fees can create incentives for conservation while also ensuring that cities do not have to overbuild infrastructure.
- **Carbon pricing.** Global climate change will have major economic costs for Canada. Pricing carbon emissions can help achieve reductions at the lowest cost, can contribute to global emissions reductions, and can help position Canadian firms to compete in a cleaner global economy.
- **Subsidy reform.** Many existing Canadian subsidies are environmentally harmful, fiscally wasteful, or both. Biofuel subsidies for ethanol, for example, may actually increase greenhouse gas emissions while also representing large public expenditures. Phasing out such subsidies can therefore generate both economic and environmental benefits.

- **Air pollution pricing.** Despite existing regulations, firms have insufficient incentives to reduce emissions of local air pollutants, which have major impacts on ecosystems and human health. Air pollution pricing would create incentives for reducing emissions as well as for the development of new technologies to do so.
- **Water pollution pricing.** Toxic effluents released into waterways—whether from agricultural runoff, tailing ponds from mines, or other municipal and industrial wastewater—can have major implications for ecosystems, but also for human health and for economic activity. Appropriately pricing water pollution can encourage less pollution of Canada’s lakes, rivers, and streams.
- **Water use pricing.** Free or inexpensive water leads to over-consumption, putting pressure on supply. Pricing water use appropriately can create incentives for water conservation, though care must be taken to ensure the policy is applied fairly.
- **Catastrophic risk pricing.** Existing liability, insurance, and securities frameworks may not be sufficient to address environmental damages from low-probability catastrophes—such as major rail catastrophes (e.g., Lac Mégantic, Quebec) or tailings pond dam breaches (e.g., Mount Polley, BC)—and thus may provide firms with insufficient incentive for risk management. Risk pricing could fill this gap and reduce the likelihood of catastrophic damage.