

# Country Brief: CANADA



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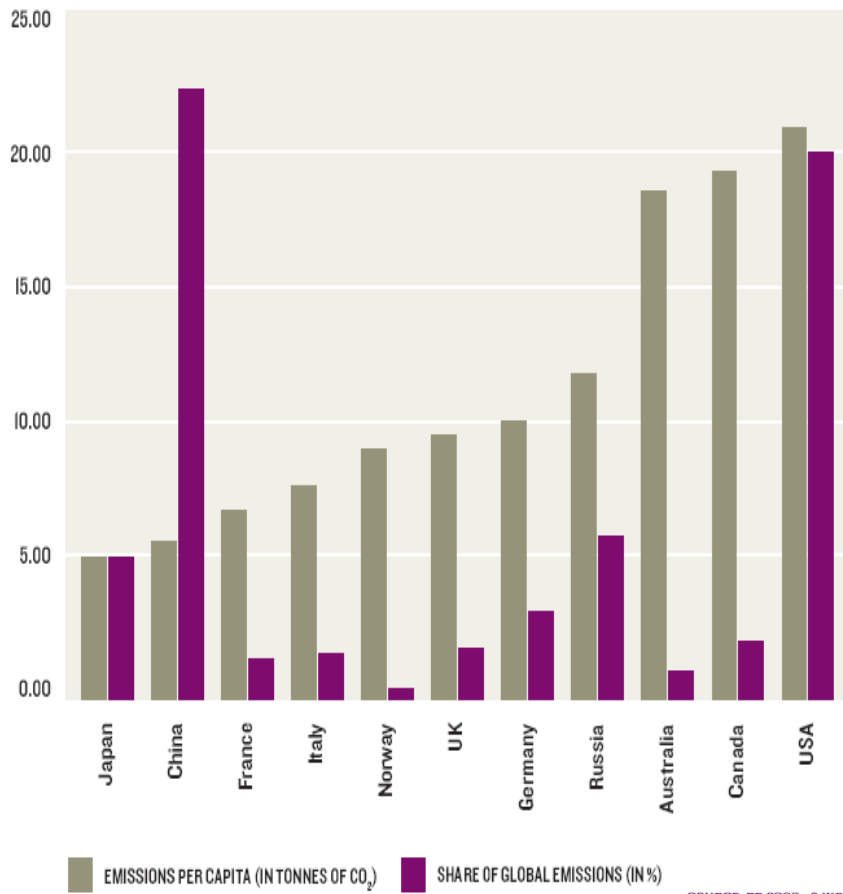
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# Emissions Profile

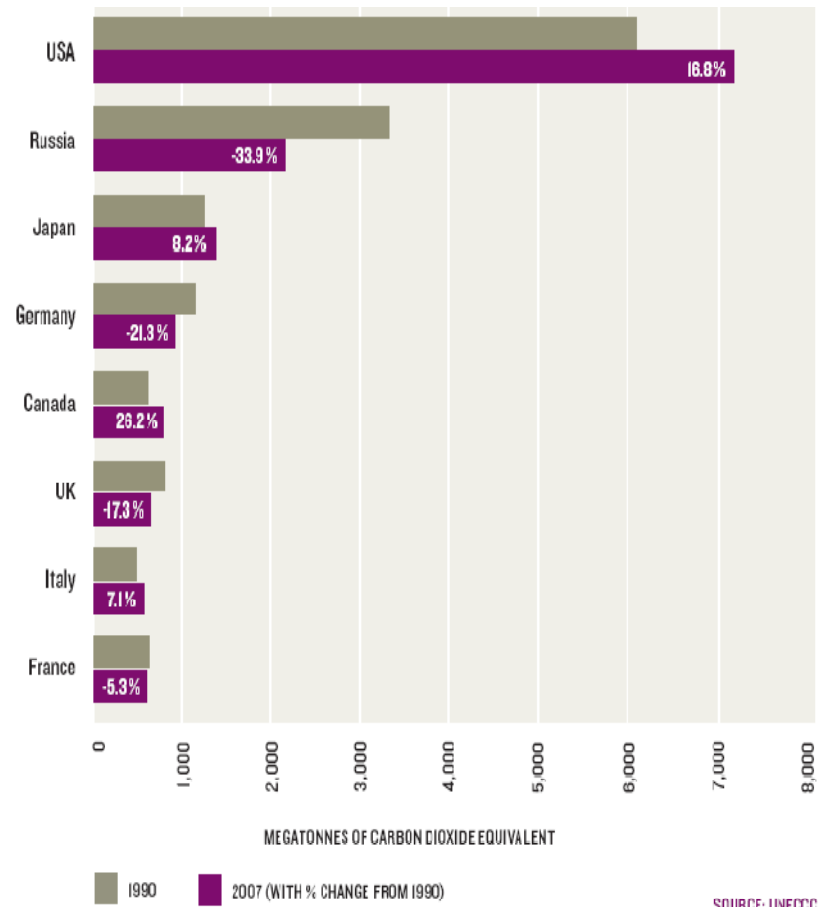


EMISSIONS PROFILES BY COUNTRY, 2008



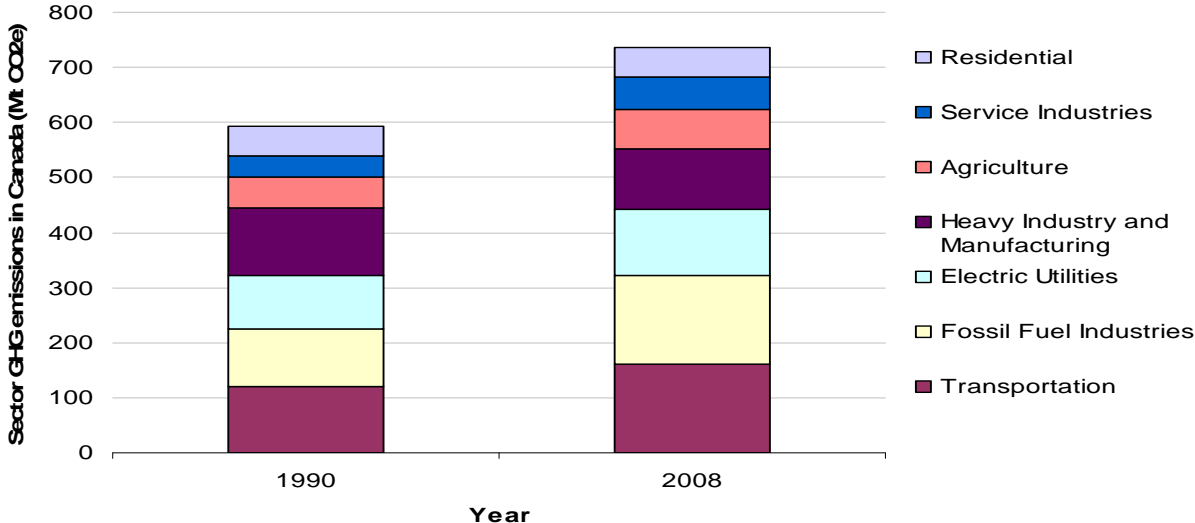
SOURCE: BP 2009, & WB

GREENHOUSE GAS EMISSIONS BY COUNTRY, 1990 AND 2007

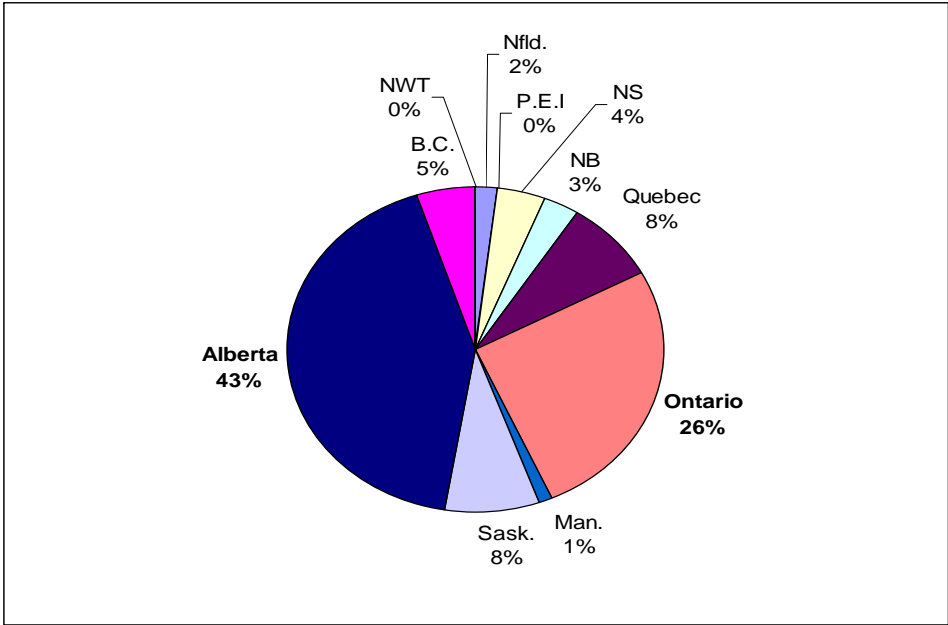


SOURCE: UNFCCC

# Share of GHG Emissions by Sector in Canada , 1990 and 2008



# Reported 2008 Emissions by Province, in Canada (as a %)



Source: Environment Canada

# Federal Government

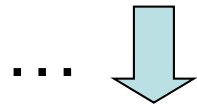




# Targets

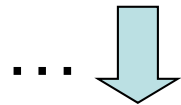
## 2002 - Ratified Kyoto Protocol

Canada to reduce its GHG emissions by 6% below 1990 levels by the five-year commitment period (2008 - 2012)



## 2007 – Government of Canada commits to

reducing total GHG emissions by 20% below 2006 levels by 2020 and by 60 to 70% by 2050



## 2010 – Minister of Environment announces

GHG emission by 17% below 2005 by 2020;

Aligned with U.S. climate change approach;

Increase electricity from non emitting sources (i.e.

Hydro-electricity, Clean coal, Nuclear and Wind Power)

to 90% of Canada total electricity production by 2020

# Federal Government Strategy for Low-Carbon Economy

- 2009 Canada-US Clean Energy Dialogue
- 2009 advancement of clean technology for energy security and economic prosperity
- Funding renewable energy projects, development of clean technology -in particular Bio-fuels, and Carbon Capture and Storage (CCS)Technology



# Federal Government: Programs and Funding

- **Renewable Energy and Clean Technology Investment:**
  - Clean Energy Fund (~795 M, 2009-2015)
  - Large-Scale CCS projects (446M for three projects), as well as small-scale projects
  - 2009, through APPP announced 19 new clean-tech projects
- **Programs managed by Natural Resources Canada aimed at energy efficiency and renewable energy:**
  - ecoENERGY for Biofuels program (\$1.5 billion, 2008-2017);
  - ecoENERGY for Renewable Power (\$1.48 billion, 2007-2011),
  - ecoENERGY Home Retrofit (\$801 million, 2007-2011);
  - ecoENERGY Industry (\$18 million, 2007-2011);
  - ecoENERGY for Renewable Heat (\$36 million, 2007-2011).
- **Environment Canada lead on Climate Change policies coordinated through the following:**
  - Clean Air Agenda initiatives (45 programs) with other federal departments through its horizontal management, accountability and reporting framework.
  - The Clean Air and Climate Change Trust Fund (\$1.5 billion)
- **Transportation Canada's Eco-Transport Strategy**
- **Sustainable Development Technology Canada's Technology Fund and NextGen Biofuels Fund**

# Challenges to Moving toward a Low-Carbon Society: Federal Level

- National low-carbon economy strategy not yet established, and only have short-term timeframes
- Harmonization with the U.S. could present delay, although Canada has harmonized with the U.S. on vehicle emissions standards
- Canada's unique circumstances as major energy producer
- Lack of federal-level economy-wide carbon pricing policy but provincial governments are pursuing independent climate change plans

# Canadian Provinces and Municipal Governments



# Canada is a Federation: Provincial Action on LCS

- Constitutional Authority over environmental issues divided between Federal and Provincial Government
- Some provincial plans complemented their climate change plan with: an energy plan, green technology promotion, and a “green” skills and jobs strategy
- Some provincial plans are complemented by a carbon pricing element



# Provincial Example

## Ontario's Key Initiatives

- Target: reduce its GHG emission by 15% below 1990 by 2020, and of 80% by 2050
- Green Energy and Green Economy Act (2009)
- MoveOntario 2020 (\$11.5 billion, rapid transit action plan)
- Phasing out Ontario's coal-fired generating plants by 2014
- Agreement with Samsung C&T Corporation and the Korea Power Electric Corporation (\$7 billion)
- Next Generation Jobs Fund (\$1.15 billion)

# Municipal Example

## City of Calgary's Key Initiatives

- Target: reduce corporate GHG emissions by 20% by 2020 and 80% by 2050, based on 2005 levels, and to pursue parallel strategies within the community
- imagineCALGARY: public engagement project to produce a 100-year vision for sustainable future
- The World Energy Cities Partnership (WECP)  
Calgary Climate Change Accord
- Sustainable Building Policy
- Vehicle Idling Reduction Policy
- EcoFuel Biodiesel Project
- Low Carbon Future Community Action
- PlanDowntown district energy



# Challenges to Moving toward a Low-Carbon Society: Provinces and Municipalities

- Although most provinces have adopted low-carbon strategies there is a lack of an over-arching integration
- Provinces and territories have jurisdiction over generation, transmission and distribution of electricity within their boundaries. Differential regulating scheme may be a challenge for an over-arching integration.
- At the municipal level, the main challenge is lack of resources and fiscal tools. Major cities have greater ability to implement low-carbon society plans than smaller municipalities.



 A CANADIAN INITIATIVE

# CLIMATE PROSPERITY

// THE ECONOMIC RISKS AND OPPORTUNITIES OF CLIMATE CHANGE FOR CANADA

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