



Government
of Canada

Gouvernement
du Canada

Canada's Climate Change Actions and Target

Lake Laberge, Yukon Territory, Canada. Shutterstock

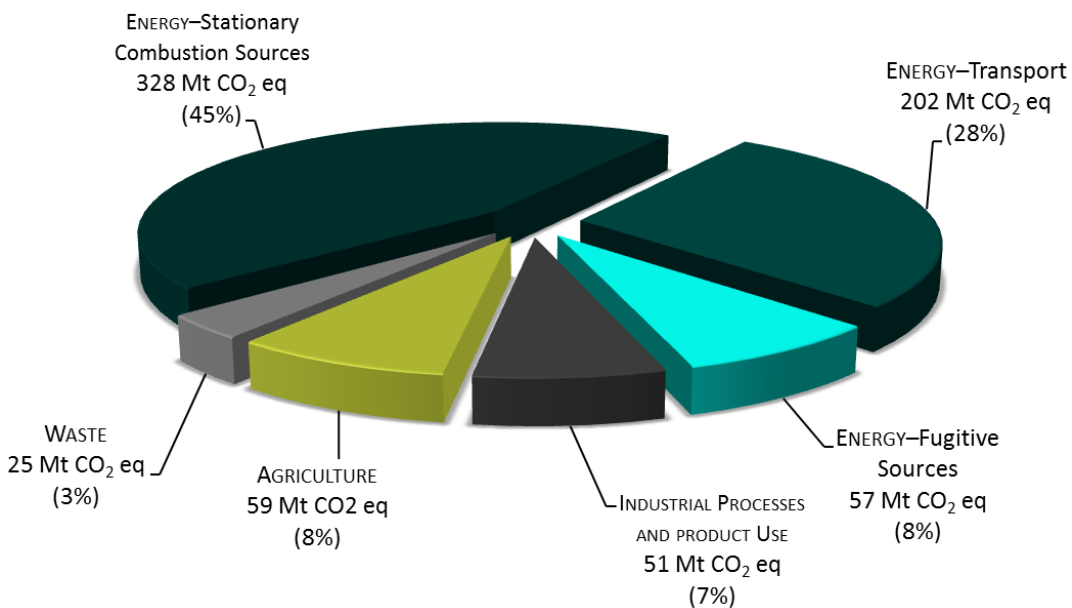
Context

- 2030 emission reduction target of 30% below 2005 levels
- Early signing and ratification of the Paris Agreement
- Established a comprehensive national plan to address climate change: The Pan-Canadian Framework on Clean Growth and Climate Change
 - Will enable Canada to meet or exceed its 2030 target
- Committed to supporting developing countries' mitigation and adaptation efforts: \$2.65 billion by 2020

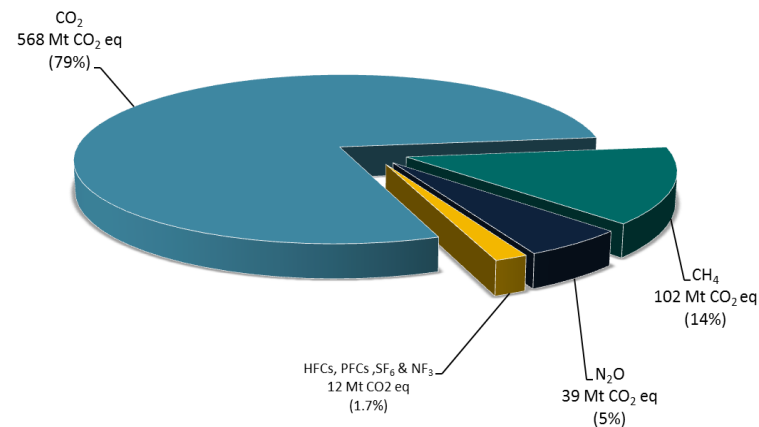
Additional Progress since Canada's 2nd Biennial Report

- **Announced** new policies and regulations including:
 - National benchmark carbon price (\$50 per tonne by 2022)
 - Accelerated phase out of coal-fired electricity by 2030
 - 40-45% reduction in methane emissions from oil and gas by 2025
 - Clean Fuel Standard
- **Committed** historic levels of investment including in green infrastructure, clean technology and innovation to drive further reductions and transition to a low-carbon economy
- **Released** Canada's Mid-Century Long-Term Low-Greenhouse Gas Development Strategy
- **Developed and released** a strategy on short-lived climate pollutants (SLCPs)

Canada's Emissions by IPCC Sector and Gas



**2015 Emissions:
722 Mt CO₂ eq**

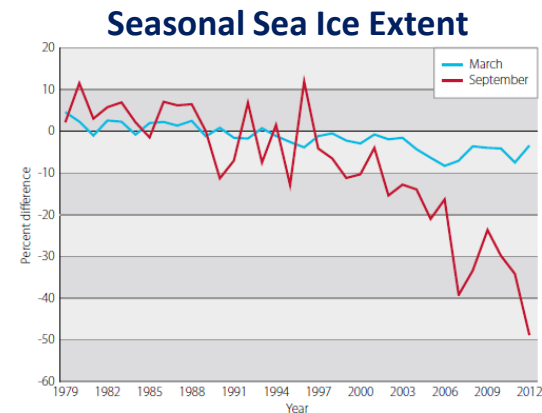
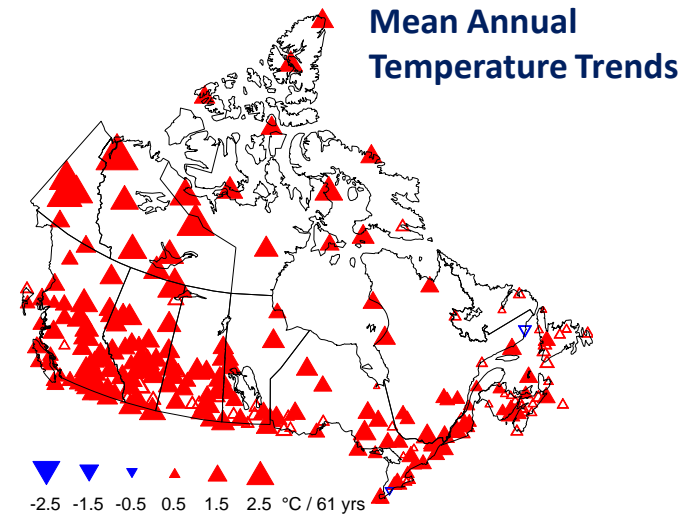


Source: Canada's 2017 National Inventory Report

*Note: Totals may not add up due to rounding.

Canada's climate is changing

- Canada has become warmer
 - Average temperatures have risen by 1.6°C since 1948, roughly double the global rate
 - Temperatures are rising even faster in Canada's North (e.g., Inuvik, Northwest Territories has warmed by almost 4°C since 1948)
- Canada has become wetter
 - Annual average precipitation has increased, with strong regional and seasonal variability
- Results include changes to sea level, permafrost and sea ice, and increased risks of heat waves, floods and droughts



Impacts are being experienced across the country

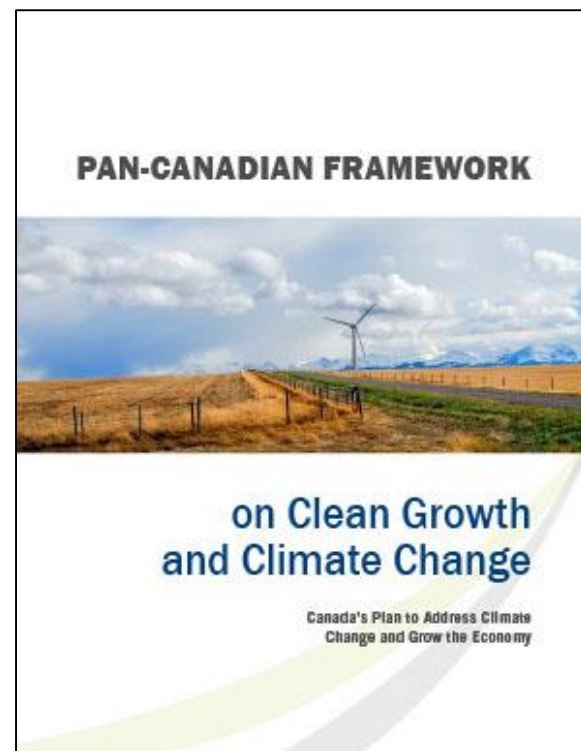


Development of a national climate change plan

- Canada is a decentralized federation with 10 provinces, 3 territories
- Environmental policy is an area of shared jurisdiction
- **March 2016:** Canada's Prime Minister and Premiers issued the Vancouver Declaration on Clean Growth & Climate Change
 - Committed to increase the level of ambition, consistent with 2030 target and Paris Agreement
 - Launched 4 working groups to study policy options and consult with Canadians
- **April-October 2016:** Working groups of federal-provincial-territorial officials developed policy options for action on climate change
 - Broad consultation and engagement, including 14,000 ideas and comments from Canadians
- **December 9th, 2016:** Pan-Canadian Framework on Clean Growth and Climate Change adopted
 - National plan, informed by working group reports and consultation

Pan-Canadian Framework on Clean Growth and Climate Change

- The Pan-Canadian Framework builds on provincial and territorial actions
- It puts Canada on a path to meet its 2030 emissions target
- The plan has four pillars:
 1. Pricing carbon pollution
 2. Complementary mitigation actions to reduce emissions across all sectors
 3. Adaptation and climate resilience
 4. Clean technology, innovation and jobs
- Designed to achieve the behavioural and structural changes needed to transition to a low-carbon economy



Carbon Pricing is central to the Pan-Canadian Framework

- The Government of Canada has introduced a carbon pricing benchmark:
 - By 2018, all jurisdictions will have carbon pricing
 - Jurisdictions can choose to use a tax or cap-and-trade system
 - The price will start at \$10/tonne in 2018 and rise by \$10/year to \$50/tonne in 2022
 - Revenue will remain in the jurisdiction of origin
- Goal is to ensure that carbon pricing applies to a broad set of emission sources across Canada, with increasing stringency over time
- The federal government is working with the territories and Indigenous Peoples to find solutions that address their unique circumstances with respect to a carbon pricing system
- The approach will be reviewed by early 2022, with an interim report in 2020, to confirm the path forward, including continued increase in stringency

Complementary mitigation actions will support carbon pricing in reducing emissions

- The Pan-Canadian Framework includes new policy and regulatory measures across all sectors of the economy
 - **Electricity:** Support increased renewable energy, smart grids, and electricity interconnections, to complement phasing out coal-fired electricity generation by 2030
 - **Buildings:** Improve energy efficiency in existing buildings, as well as net-zero energy ready building codes for new buildings
 - **Transportation:** Increase vehicle efficiency and encourage electric vehicles, including developing a zero emissions vehicle strategy by 2018
 - **A clean fuel standard** will reduce lifecycle emissions from fuels used in transportation, buildings and industry
 - **Targeted regulations:** Reduce methane emissions from the oil and gas sector by 40-45% by 2025; reduce HFC consumption and emissions
- Air pollution measures for transportation and other sectors will result in co-benefit reductions of short-lived climate pollutants (e.g. black carbon and ground-level ozone)

Adaptation and climate resilience is an important part of Canada's plan

- Canada is already feeling the effects of climate change, especially in Canada's northern and coastal regions
- Taking action to protect Canadians from climate change risks, build resilience, reduce costs, and ensure society thrives in a changing climate:
 - Establishing a Canadian Centre for Climate Services to improve access to relevant climate science and information
 - Investing in climate-resilient infrastructure
 - Measures focused on protecting health from impacts of climate change
 - Supporting vulnerable regions and populations, including the North and coastal regions, and Indigenous Peoples, to monitor impacts and take action to adapt
 - Reducing hazards and disaster risks related to climate, such as floods and wildfires

Clean technology and innovation can support the transition to a low-carbon economy

- The Pan-Canadian Framework creates the necessary conditions for innovation, accelerating investments in RD&D, and private sector investment in the clean technology sector
- Key actions include:
 - Supporting R&D in emissions reducing technologies
 - Helping companies commercialize and export their products and services
 - Enabling access to capital for clean technology businesses
 - Expediting immigration of highly qualified personnel
 - Supporting Indigenous Peoples and northern and remote communities to adopt and adapt clean tech to their needs
 - Aligning investments across levels of government

Supportive Investments

- Historic investments announced by the Government of Canada will help meet Canada's 2030 target, build resilience, and promote clean growth
- The Low Carbon Economy Fund: \$2 billion
 - Will support new provincial and territorial actions to reduce emissions by 2030
- Green Infrastructure: \$21.9 billion
 - Will support projects including for electricity transmission and grids, renewable energy, electric vehicle charging and natural gas and hydrogen refueling stations, new building codes, reducing reliance on diesel in Indigenous, Northern and Remote communities, and disaster mitigation and adaptation
- Urban Public Transit Infrastructure: \$20.1 billion
- Clean Technology: \$2.2 billion
 - Will support the development of clean technologies for sustainable development and for natural resource sectors; also includes nearly \$1.4 billion in financing dedicated to clean technology firms
 - Will support Canada's commitment to Mission Innovation

Progress toward Canada's 2020 target

2020 target: 17% reduction below 2005 levels

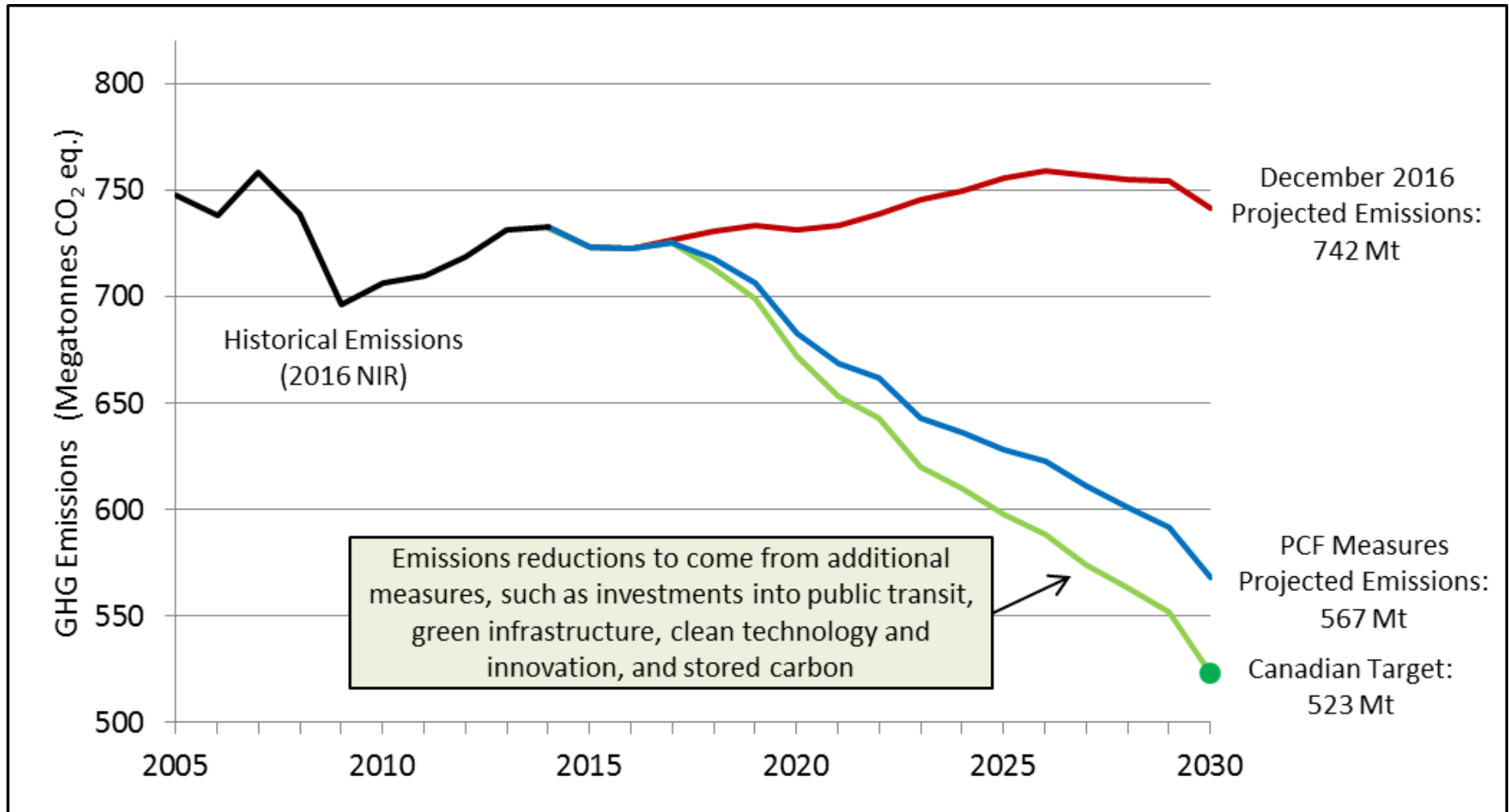
- Many key measures from the Pan-Canadian Framework will be in place by 2020 and contribute to near-term reductions:
 - Carbon pricing
 - Ongoing reductions from provincial systems in place (e.g., Quebec-Ontario-California linked cap-and-trade system; Alberta carbon levy; BC carbon tax)
 - Minimum price of \$10 per tonne across Canada by 2018, rising to \$30 per tonne by 2020
 - Clean fuel standard
 - Will increase the use of low-carbon fuels in transportation, buildings, and industry
 - Methane regulations
 - 40-45% reduction by 2025
 - HFC regulations
 - Phase down the use of hydrofluorocarbons in line with the Kigali Amendment to the Montreal Protocol
 - Energy efficiency measures
 - Across sectors, including transportation, industry, and buildings

Pathway to Canada's 2030 target

2030 target: 30% reduction below 2005 levels

- PCF policies - federal, provincial and territorial – are projected to reduce Canada's emissions by 175 Mt by 2030 from reference case
- Additional reductions will come from investments in public transit, green infrastructure, innovation and clean technology
 - Reductions will be assessed and quantified as specific projects are identified and programs are implemented
- Potential increases in stored carbon in forests, soils, and wetlands could also make an important contribution to meeting Canada's 2030 target
- Emissions reductions from additional future actions will be assessed if and when new measures are implemented

Pathway to Canada's 2030 target



Note: current projections based on 2016 NIR; updated projections based on 2017 NIR will be available in several months

Transition to Low-Carbon Economy

- PCF measures and investments will:
 - Enable Canada to meet or exceed 2030 target
 - Provide a strong foundation for deeper emissions reductions over time
 - Build a highly-competitive, low-carbon economy
 - Enhance resilience to the impacts of a changing climate
- Many policies and measures are scalable, enabling increasing ambition over time
- Ongoing monitoring and reporting on results will ensure effective policies, take stock of progress, and inform Canada's future national commitments, per the Paris Agreement:
 - Annual reports to Prime Minister of Canada, and provincial and territorial premiers
 - External assessment and advice by experts
 - Reviews of carbon pricing approaches in 2020 and 2022

Canada is mobilizing global investment towards resilient and low-carbon economies

- Canada is delivering on its pledge of \$2.65B by 2020 to help developing countries, in particular the poorest and most vulnerable, transition to low-carbon economies and build climate resilience
- Since BR2, Canada has announced \$841M in new contributions, including:
 - \$300M for climate change adaptation and mitigation projects through the Green Climate Fund
 - \$200M for the Asian Development Bank to mobilize private sector climate change investments
 - \$150M to support the Africa Renewable Energy Initiative
 - \$40M to support adaptation and climate risk insurance in Africa through the Africa Risk Capacity
 - \$30M for adaptation by the poorest countries through the Least Developed Countries Fund
 - \$14M to support NDC implementation in Mexico and Chile
 - \$3M to World Bank's Transformative Carbon Asset Facility to support emission reductions
 - \$2M to the National Adaptation Plans Global Network for climate-capacity building
- In addition to our pledge, Canada's development assistance and export credit agency are also contributing to scaling-up climate-friendly investment

Long-Term Low-Greenhouse Gas Development Strategy

- Developed in parallel to PCF and released at COP22
- Describes possible pathways towards long-term decarbonization, based on modelling of different scenarios
 - Examines an emissions-abatement pathway consistent with net emissions falling by at least 80% in 2050, from 2005 levels
- Key factors identified in the Mid-Century Strategy include:
 - non-emitting electricity generation;
 - electrification of certain end-use applications (e.g., transportation, buildings, and industry);
 - low-carbon fuels;
 - energy conservation and efficiency gains, and
 - forest-related mitigation
 - focused efforts to reduce emissions of short-lived climate pollutants such as black carbon, methane, HFCs and ground level ozone

Next Steps

- Canada is moving forward to implement the measures in the PCF
- Progress to date includes:
 - Discussion paper on the proposed clean fuel standard released in February
 - Regulations to reduce methane emissions, HFCs, and to accelerate the phase-out of coal-fired electricity by 2030 are under development.
 - Working with provinces and territories on carbon pricing; consultation document to be released May 2017; legislation expected to be introduced by fall 2017
- Commitment to ongoing monitoring and reporting to support Pan-Canadian Framework implementation:
 - Annual progress reports to Canada's Prime Minister and Premiers and the public
 - Process for ongoing and meaningful engagement with Indigenous Peoples
 - Development of a mechanism to seek advice from external experts to assess effectiveness of measures
 - Interim review of carbon pricing approaches by 2020, followed by full review in 2022
- 7th National Communication and 3rd Biennial Report will be submitted to the UNFCCC by January 1st, 2018