



Environment and
Climate Change Canada

Environnement et
Changement climatique Canada

Canada



Canada's Action on Methane and Climate Change

December 8, 2017

Addressing Climate Change is a Top Priority

- To support Canada's commitments under the Paris Agreement, federal, provincial and territorial governments adopted the Pan-Canadian Framework on Clean Growth and Climate Change (PCF) on December 9, 2016
- Under Canada's approach, a number of regulatory and other measures have been initiated, and all Canadian jurisdictions are required to have carbon pricing in place by 2018

The Framework is the first-ever pan-Canadian climate change plan. It will help grow the economy while reducing emissions and building resilience to adapt to a changing climate.



Addressing climate change is a Top Priority (cont'd)

- Canada committed additional resources to encourage Canada's transition to a low-carbon and climate-resilient economy and society
 - Significant provisions for green infrastructures and clean technologies
 - Additional investments in adaptation and climate resilience, including a Canadian Centre for Climate Services
- On the international scene, Canada committed over US\$2 billion by 2020 to help developing countries transition to low-carbon and climate-resilient economies.



Canada's NDC submission

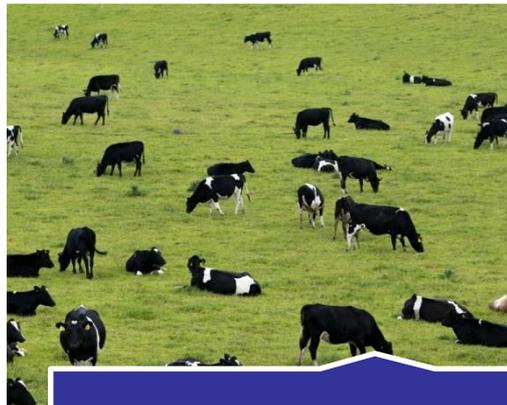
- Canada's current target is to reduce GHG emissions by 30 percent below 2005 levels by 2030
- Canada's submission also includes a commitment to reduce black carbon emissions and its particular significance in the Arctic due to its contribution to Arctic warming.
 - In Canada, the Arctic has already warmed by 2.2 degrees between 1948 and 2013
- The PCF is a key component of Canada's NDC implementation
 - Remaining reductions to reach Canada's target will come from additional investments in green infrastructure, clean technology and innovation, and stored carbon.



Key sources of methane in Canada



Oil and Gas



Agriculture



Landfills



Canada's methane commitments

- Under the Leaders' Statement on a North American Climate, Clean Energy, and Environment Partnership, Canada committed to:
 - reduce methane emissions from the oil and gas sector by 40-45% below 2012 levels by 2025 (reaffirmed in the PCF)
 - develop and implement a national methane strategy
 - take action to reduce emissions from landfills, and
 - implement voluntary measure to reduce and recover food waste
- These measures are under development and reflected in *Canada's Strategy on Short-Lived Climate Pollutants* (see next slide).



Canada's SLCP Strategy

- Canada's published its first *Strategy on Short-Lived Climate Pollutant in July 2017* as part of a holistic approach to address climate change and air pollution
 - The Strategy outlines recent commitments and new areas for action on methane, black carbon, hydrofluorocarbons, and ground-level ozone
 - Five pillars for action: 1) enhanced domestic mitigation, 2) science and communications, 3) international engagement, 4) coordination within the Government of Canada and 5) collaboration with other levels of government.
- Implementation of the strategy will generate emission reductions from key SLCP sources and achieve health and climate benefits.



Example of domestic action to reduce methane: regulations in the oil and gas sector

- Canada published draft regulations to reduce methane emissions in May 2017, and plans to publish final regulations in 2018
- These regulations will provide clear and consistent requirements across the country.
- The proposed federal regulations are flexible and outcome focused and target methane emissions from 5 key fugitive and venting sources.
- The coming into force of the regulations will start in 2020, with all requirements coming into force in 2023.

Key Facts:

- The oil and gas sector accounted for 44% of Canada's total methane emissions in 2015.
- GHG reductions from the regulations will be about 20Mt/year by 2030, meeting 7% of Canada's target under the Paris Agreement.
- Compliance costs for industry are estimated to be approximately US\$2.6B over 18 years, which could be offset by an estimated US\$1.3B in natural gas recovery.

Page 8 – December 21, 2017



Methane science and measurement

- National and provincial/territorial emissions of methane and HFCs are included in Canada's National Inventory of GHG Sources and Sinks (NIR).
- Current scientific work on monitoring emissions includes:
 - the development and improvement of black carbon and methane emission estimates and emission factors
 - targeted projects focused on characterization of transportation and oil and gas emissions
- Challenges include quantifying regional and fugitive sources, refining emission rates by technologies and operating conditions, and quantifying emissions from sources with skewed emission distributions.
 - emissions from the oil and gas sector are particularly challenging to measure; ECCC, provincial and territorial governments, and academic researchers are working to better quantify emissions from this sector.



International engagement on methane

- In addition to co-chairing the Global Methane Initiative with Mexico, Canada is co-chairing the Climate and Clean Air Coalition (CCAC) for the 2016-2018 period.
- In collaboration with the GMI and the CCAC, the 2018 Global Methane Forum will be held in Toronto, Canada in April 2018
- Canada plays an active role in the Arctic Council's efforts to assess levels and trends in SLCPs and to reduce emissions in the Arctic
 - In May 2017 Canada, alongside other Arctic states, adopted a collective goal to reduce black carbon emissions by at least 25 -33% below 2013 levels by 2025
 - Actively involved in preparations for the Arctic Monitoring and Assessment Program 2019 interim report on SLCPs and the 2021 scientific assessment
 - Increasing engagement in activities under the Arctic Contaminants Action Program, including expanded involvement in pilot projects



Bilateral projects on methane

- As part of the \$2.65B investment in climate finance, \$35M was put in place to reduce short-lived climate pollutant emissions
 - Includes \$14 million to support the implementation of bilateral projects in Mexico and Chile.
- \$7M to support Chile's NDC implementation in the waste sector through:
 - the reduction of methane emissions from existing landfill sites and measures to divert organic matter from landfilling; and,
 - the development of robust sectoral monitoring, reporting and verification (MRV).
- \$7M to support Mexico's NDC implementation in the oil and gas sector through:
 - identification of opportunities for emissions reductions; strengthening MRV; development of instruments that leverage investment; and creation of opportunities for international leadership;
 - Additional \$2M to develop world first measurement based emission factors for methane and black carbon from flaring (Natural Resources Canada)

