



Environment and  
Climate Change Canada

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Canada



# Canada's Action on Methane and Climate Change

**December 8, 2017**

# Addressing Climate Change is a Top Priority

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- 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)

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- 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

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- 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.

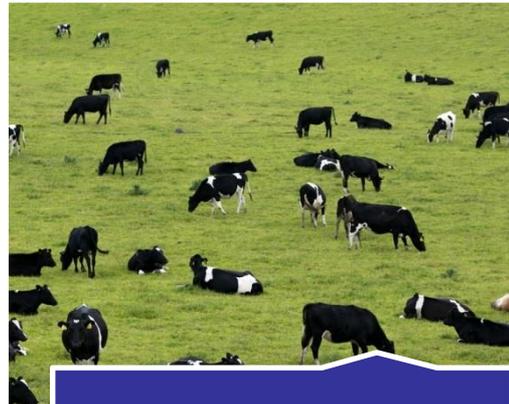


# Key sources of methane in Canada

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Oil and Gas



Agriculture



Landfills



# Canada's methane commitments

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- 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

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- 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.



# Methane science and measurement

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- 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

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- 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

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- 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)

