

Effective Monitoring of Methane Emissions to Address Climate Change

ACTION

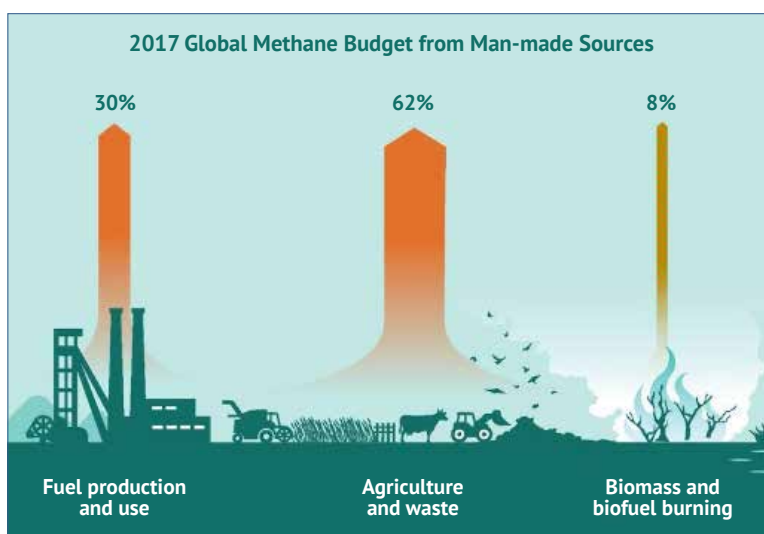
Members of Congress should champion legislation to:

- develop a national strategy for testing and correlating of methane measurements; and
- develop a national database of methane emissions observations.

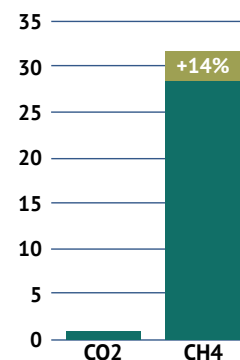
Methane Emissions from Oil and Gas: Key Climate Change Contributor

Methane (CH₄) is the second-most abundant anthropogenic greenhouse gas and significantly contributes to global warming.

Sources: *The Global Methane Budget 2000-2017*, by Marielle Saunois et al, *Earth System Science Data*, DOI:10.5194/essd-12-1561-2020



100-Year Global Warming Potential



Source: M. Etminan et al., *Geophysical Research Letters* **43** (2016)

Opportunity for Impactful Action

Methane emissions from oil and gas production are localized, intermittent, and dominated by a relatively small number of super-emitters: less than 10% of sources of methane in oil and gas operations contribute more than half of the emissions in the sector.

Support from Oil and Gas Industry

“Although the challenge of reducing methane emissions can be daunting, the results from aerial monitoring show that with a technology and data-driven approach, operators can significantly reduce emissions while simultaneously reducing costs and improving operational efficiency.”

- Pioneer Natural Resources (major US oil and gas producer)

Current Monitoring Capabilities are Ineffective

- Current methane monitoring systematically underestimates emissions by up to a factor of three.
- There are no calibration standards that allow for comparison or aggregation of observations from different tools.
- There is no national database of methane emissions observations to enable future effective monitoring and verification of reduction targets.

A National Approach is Needed for Effective Methane Emissions Reduction

- Decisive actions to monitor and reduce methane emissions have short- and long-term benefits.
- The ability to accurately measure and monitor methane emissions is critical for any strategy that addresses climate change, including recent international pledges at the COP26 conference in Glasgow.