# GLOBAL METHANE TRACKER: INTERNATIONAL RELATION

NEWS: Methane emissions from energy sector in 2024 remains 'stubbornly high' despite available measures: IEA

# WHAT'S IN THE NEWS?

The IEA's Global Methane Tracker 2025 reveals that methane emissions, especially from the energy sector, are rising rapidly and underreported, with over 70% of emissions technically reducible using existing solutions.

#### Context:

• The International Energy Agency (IEA) has released the Global Methane Tracker 2025, a comprehensive update that highlights methane emissions trends and reduction strategies in the global energy sector.

## About IEA's Global Methane Tracker:

- It is a key analytical tool to track and reduce methane emissions from the energy sector.
- Provides updated estimates using latest satellite and ground-based measurements.
- Evaluates the cost-effectiveness and feasibility of various mitigation options.

## New Features in 2025 Edition:

- Country-level data on historical methane emissions.
- Projections for 2030 and 2035, allowing forward-looking climate strategy planning.
- An interactive tool for exploring global methane initiatives.
- Estimates for emissions from abandoned fossil fuel facilities.
- Open-access model for exploring reduction strategies in oil and gas operations.

#### Key Findings on Methane Emissions:

1. Methane's Role in Climate Change:

- Methane is a potent greenhouse gas, responsible for around 30% of global temperature rise since the Industrial Revolution.
- Atmospheric methane levels are rising faster than other GHGs, with concentrations now 2.5 times higher than pre-industrial levels.
- 2. Major Sources of Methane:
  - Three major sectors contribute to global methane emissions:
    - Agriculture
    - Energy sector (oil, gas, coal, bioenergy)
    - Waste management
  - The energy sector alone contributes over 35% of methane emissions from human activity.
- 3. Emissions Statistics for 2024:
  - The global energy sector emitted approximately 145 million tonnes (Mt) of methane.
  - Oil and gas operations alone accounted for over 80 Mt.
  - Top fossil fuel-related methane emitters include:
    - China, United States, Russia, Iran, Turkmenistan, India, Venezuela, Indonesia

## Challenges Identified in the Report:

1. Underreporting of Emissions:

- Methane emissions are underreported by about 80%, as per IEA findings.
- Significant discrepancy between actual emissions and those reported to United Nations climate frameworks.
- 2. Weak Integration in National Climate Plans:
  - Only 30 countries included methane reduction in their 2024 NDCs (Nationally Determined Contributions).
  - Merely 9 countries had quantifiable methane targets.

- Countries like Brazil, Canada, UAE, and the UK have included methane in updated NDCs for 2025.
- 3. Limited Progress Despite Global Pledges:
  - The Global Methane Pledge (GMP) and the Oil and Gas Decarbonization Charter have seen limited verified impact.
  - Key emitters like China, India, and Russia, who account for 45% of emissions, are not signatories to GMP.

# Recommendations for Methane Reduction:

1. Oil and Gas Sector Interventions:

- 75% of methane emissions in this sector can be reduced using existing technologies.
- Suggested actions include:
  - Upgrading or replacing high-emitting equipment
  - Sealing leaky wells and valves
  - Implementing leak detection and repair (LDAR) programs
  - Capturing methane for energy or flaring when recovery isn't viable

2. Coal Sector Interventions:

- Sealing abandoned coal mines
- Plugging closed shafts and monitoring them for residual emissions
- 3. Bioenergy Sector Improvements:
  - Promote clean cooking solutions to reduce household methane emissions.
  - Encourage modern heating technologies.
  - Implement safety measures to prevent leakage from biogas and biomethane systems.

4. Overall Mitigation Potential:

• With current solutions, around 70% of methane emissions from fossil fuels can be eliminated cost-effectively.

#### Conclusion:

- The Global Methane Tracker 2025 highlights the urgency and opportunity to cut methane emissions, especially from the energy sector.
- Although scientific tools and technologies exist to significantly reduce emissions, policy gaps, non-participation by key emitters, and underreporting continue to hamper global mitigation efforts.
- Immediate and coordinated global action, especially from major emitters, is essential to meet climate goals and reduce near-term warming.

Source: <u>https://www.downtoearth.org.in/energy/methane-emissions-</u> <u>from-energy-sector-in-2024-remains-stubbornly-high-despite-</u> <u>available-measures-iea</u>