

GLOBAL METHANE TRACKER

Context

According to the International Energy Agency's (IEA) annual Methane Global Tracker report, fossil fuel companies emitted 120 million metric tonnes of methane into the atmosphere in 2022, only slightly below the record highs seen in 2019.

Details

These companies have done almost nothing to curb the emissions despite their pledges to find and fix leaking infrastructure.

The report said 75 per cent of methane emissions from the energy sector can be reduced with the help of cheap and readily available technology.

The implementation of such measures would cost less than three per cent of the net income received by the oil and gas industry in 2022, but fossil fuel companies failed to take any substantial action regarding the issue.

Findings of the report

The energy sector accounts for around 40 per cent of the total average methane emissions from human activity, as **oil and natural gas companies** are known to release methane into the atmosphere when natural gas is flared or vented.

The greenhouse gas is also released through leaks from valves and other equipment during the **drilling, extraction and transportation process**.

More than 260 billion cubic metres (bcm) of natural gas (mostly composed of methane) is wasted through flaring and methane leaks globally.

Although it's impossible to avoid all of this amount, the right policies and implementation can bring 200 bcm of additional gas to markets.

In the oil and gas sector, emissions can be reduced by over 75 per cent by implementing well-known measures such as leak detection and repair programmes and upgrading leaky equipment.

It further mentioned that 80 per cent of the available options to curb the release of methane could be implemented by the fossil fuel industry at net zero cost.

How are methane emissions driving climate change?

Methane is a greenhouse gas, which is responsible **for 30 percent of the warming since preindustrial times, second only to carbon dioxide**.

A report by the **United Nations Environment Programme** observed that over a 20-year period, methane is **80 times more potent** at warming than carbon dioxide.

In recent years, scientists have repeatedly sounded the alarm regarding the **increasing amount of methane in the atmosphere**.

Last year, the **US National Oceanic and Atmospheric Administration (NOAA)** said that the atmospheric levels of **methane jumped 17 parts per billion in 2021**, beating the previous record set in 2020.

Why did India refuse to sign the 'Methane Pledge'?

The two predominant sources of methane emissions in India are '**enteric fermentation**' (methane from the intestines of animals) and **paddy cultivation** (from standing water).

These emissions result from **agricultural activities of small, marginal, and medium farmers** across India, whose livelihood stands threatened by the aforesaid pledge.

In contrast, agriculture in developed countries is dominated by industrial agriculture. In addition to **impacting farmers' income**, this can impact agricultural production, especially that of paddy. India is one of the largest producers and exporters of rice.

As per the 6th Assessment Report of the Intergovernmental Panel on Climate Change, the predominant gas responsible for climate change is CO₂ which has a lifetime of 100-1,000 years.

"This pledge shifts the **CO₂ reduction burden to methane reduction**, which has a lifetime of just 12 years.

