

# Methane

Potential impact of reductions:

~ 133 Mt CH<sub>4</sub> or 3.6-10.7 Gt CO<sub>2</sub>e

Overall progress rating:

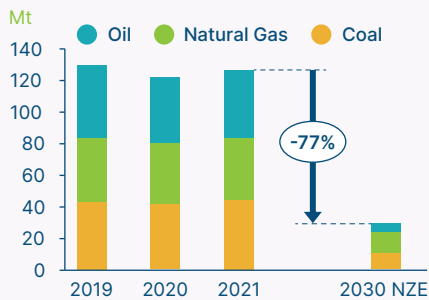
Poor

## State of play 2022 & Progress since COP 26

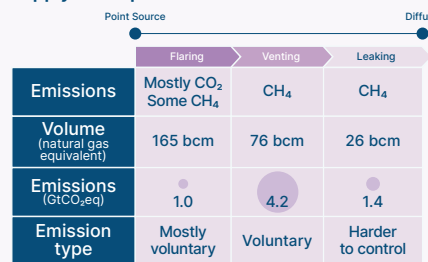
- Latest IPCC insight indicates a 40% contribution of anthropogenic methane emissions to global warming.
- As a short-lived gas with an 84-fold greenhouse effect over carbon emissions within a 20-year time horizon, effective reductions of methane are critical before 2030 – but emissions from fossil, agricultural and waste sources are still on the rise.<sup>1</sup>
- Reducing methane emissions from the fossil sector can occur at little to no cost, however additional regulatory oversight is required, as well as stricter methane leakage tracking.<sup>2</sup>
- Some progress on ambition has been made. The Global Methane Pledge launched in 2021 with a commitment to reduce global emissions at least 30% by 2030 (vs 2020) has seen some new signatories (e.g. Qatar) and currently the pledge covers 45% of emissions, though with some of the top emitters missing on the signatory list.<sup>3</sup>

### Fossil

Methane emissions in energy<sup>4</sup>



Voluntary venting and flaring are responsible for more than 5 Gt CO<sub>2</sub>eq along the oil and gas supply chain p.a.<sup>5</sup>

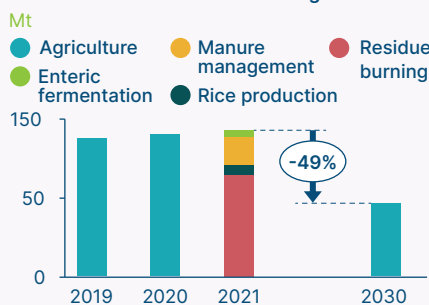


## Progress & Bottlenecks

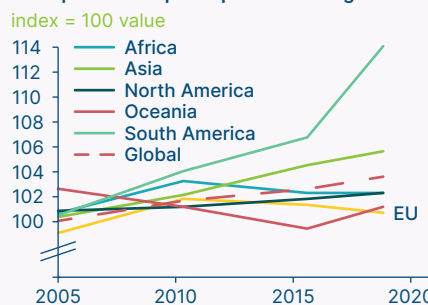
- The fossil sector represents the highest potential for emission reductions, with 40% of reductions at no cost and low-cost potential for 60-80% of emissions in oil and gas and 55-98% in coal.<sup>6</sup> Operators must become aware of this potential.
- More regulatory oversight is needed as well as stricter methane tracking, especially through satellites.
- Qatar joining the Global Methane Pledge and the US Inflation Reduction Act methane emissions charge and investment into leak detection represent some important steps.

### Agriculture

Global methane emissions from agriculture<sup>6</sup>



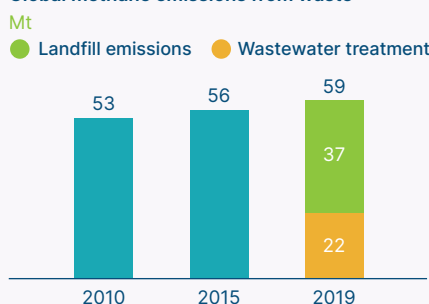
Meat production per capita across regions<sup>7</sup>



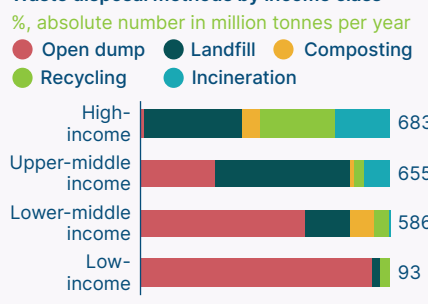
- Global food consumption is growing, including a growing plant-based food sector. But meat consumption still accounts for 75% of agriculture methane emissions, and has so far only levelled off in Europe.<sup>7</sup>
- Behaviour shifts away from meat are important but culturally difficult to implement.
- Policymakers must move quicker to disincentivise harmful agriculture practices.

### Waste

Global methane emissions from waste<sup>8</sup>



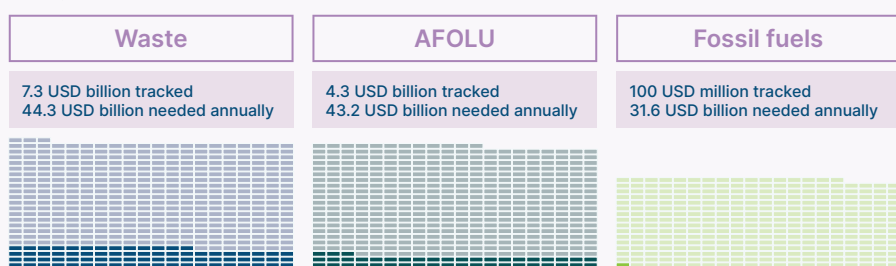
Waste disposal methods by income class<sup>8</sup>



- Most waste is produced in developed countries, but strong urbanization and poor waste management in low-income countries drives emissions.
- Difficult to establish more effective waste management infrastructure in low-income countries due to massive financial gaps and hard lack of incentives - financial aid from developed countries needed.

### Finance

Tracked methane abatement investments across 2019-2020 compared to average annual needs through 2050 by sector in USD 100 million<sup>9</sup>



- Methane Abatement Finance is very underfunded, in particular in the energy sector.

NOTE: Analysis uses the 20-year time frame multiplier for methane equivalence.

SOURCES: (1) UNEP (2021) Methane Action; (2) IEA (2022) press release; (3) IEA (2022) Data and Statistics and ClimateWatch (2020) Historical GHG Emissions Tracker; (5) M. Davis, Capterio (2022) interview; (6) UNEP (2021) Global Methane Assessment; (7) FAO (2020) Meat and dairy production dataset; (8) UN Habitat (2020) Landfills and Dumpsites; (9) CPI (2022), The Landscape of Methane Abatement Finance