



G7/G20
TRACK 2
DIALOGUE

Fact Sheet

Global Methane Pledge

About GMP

The United States and the European Union launched the Global Methane Pledge at the November 2021 United Nations Climate Change Conference (COP26). Thus far, 112 countries have joined the Pledge. They are collectively responsible for 50% of global anthropogenic methane emissions. The Pledge's main goal is to reduce global methane emissions by at least 30% by 2030 (vs. 2020 levels). According to the Pledge, this initiative has the potential to avert 0.22°C warming by 2050.





Three Key Facts on Methane:



Methane accounts for approximately 16% of anthropogenic greenhouse gas (GHG) emissions, with a climate impact 84 times that of CO₂ (over 20 years).



Agriculture, energy, and waste are the main sectors causing methane emissions.



According to Climate Analytics, global methane emissions must decrease by 34% by 2030 to keep the 1.5°C goal in reach. An increase of over 15% by 2030 is expected under current policies.

Three Key Demands:



Put forth efforts to include more of the top methane emitters—such as China, India, Russia, and Iran—in the pledge.



Develop transparent and comprehensive methane assessment, including on fracking emissions.



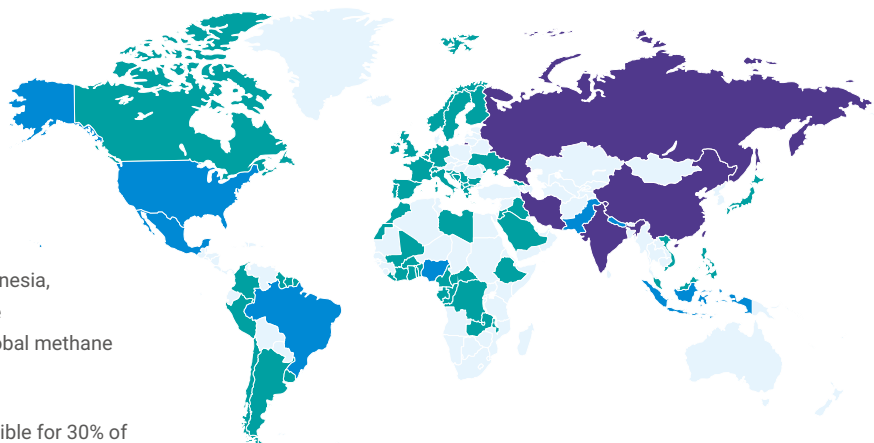
Formulate clear time schedules for sub-targets as well.

Global Methane Pledge

- Member of GMP
- Member and top emitter
- Top 10 methane emitters
- Neither

Seven of the world's top 10 methane emitters (including the US, Brazil, Indonesia, and Mexico) signed the GMP. They are collectively responsible for 53% of global methane emissions.

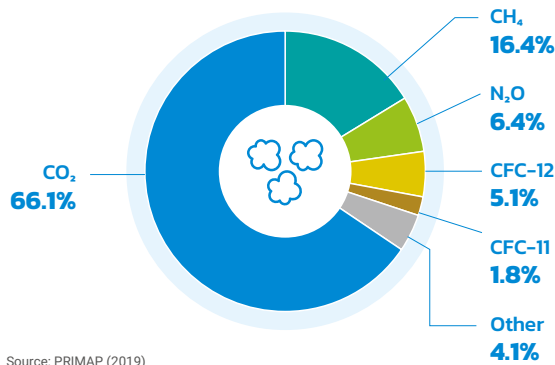
China, India, Russia, and Iran—responsible for 30% of global methane emissions—are not part of the GMP.



Source: PRIMAP (2019) and Global Methane Pledge (2022)



Share of different greenhouse gases in the atmosphere in 2019

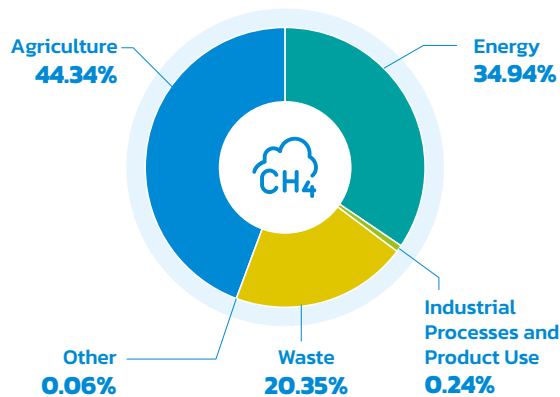


Source: PRIMAP (2019)

Methane is responsible for approximately 16% of anthropogenic GHG emissions and is the second-largest GHG contributor.

Methane is among so-called short-lived GHG emissions (approximately 12 years' lifetime in the atmosphere) but has 84 times the global warming potential of CO₂ (over 20 years) (Umweltbundesamt 2021; McDonald 2018).

Anthropogenic Methane Emissions per Sector in 2019



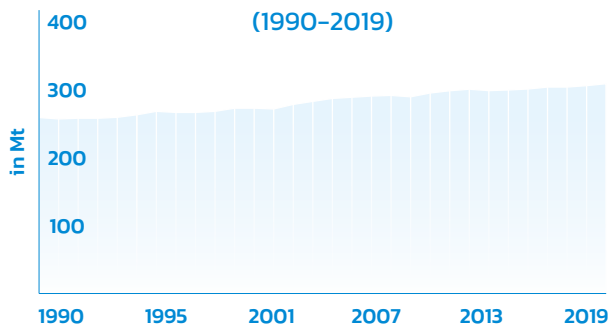
Source: PRIMAP (2019)

Agriculture, energy, and waste are mainly responsible for global methane emissions.

- **Agriculture:** Enteric fermentation, manure management, rice
- **Waste:** Solid waste disposal, landfills
- **Energy:** Pipe leakages, fracking (Bundesverband der Energie- und Wasserwirtschaft, n.d.), production, coal mining (Gabbatiss 2020), processing of natural gas (Zerger & Boden 2020)

Natural methane sources: inland freshwaters, geological releases, wild animals, termites, permafrost (UNEP 2021) (also see the Tipping Points textbox).

Global Methane Emission (1990–2019)



Source: PRIMAP (2019)

Global methane emissions increased by 24% since 1990. By 2030, an increase of anthropogenic methane emissions by more than 15% is likely if there is no change in policy regulation (Changing Markets, EIA, & GAIA 2022).

Tipping Points: Methane Hydrates and Permafrost

Methane causes two well-known climate tipping points:

- Scientists are concerned about methane trapped in ice below the seafloor (methane hydrates), thawed by warming seawater, releasing methane (Climate Tipping Points 2016).
- Climate warming brings an increasing risk that permafrost will thaw. The process releases CO₂ and methane and, in turn, could cause further climate warming (McSweeney 2020; Cho 2021).



MATRIX

MEMBERS	Membership	A total of 112 nations are members and the private sector, development banks, financial institutions, and philanthropic organisations support the initiative.
	Relevant actors	With the US, Brazil, EU, Indonesia, Nigeria, Pakistan, and Mexico, top methane emitters are included. Fourteen G20 countries are members; the undersigning countries cover 53% of the total share of global methane emissions. Key methane-emitting countries such as China, India, Russia, and Iran, which are collectively responsible for 30%, are absent from the initiative.
	Institutional status	The Climate and Clean Air Coalition functions as a secretariat and hosts the websites. Annual ministerial-level meetings are planned, but no further information is available.
TARGETS	Main goal	Globally, 30% methane emissions reduction by 2030 compared with 2020 levels.
	Assessment of targets	The Pledge's sub-targets are diverse and address different aspects of methane. Most targets are achievable, but clear measurements and allocated resources are absent. Targets other than those for 2030 are vague and have no clear time schedule.
	Additionality	To be impactful, the 30% reduction target must be additional to all further commitments. As it is a global, not national, target, additionality cannot be identified.
	Clarity of targets/loopholes	The sub-targets' formulation, overall, is extremely vague (e.g. 'commit,' 'encourage,' 'resolve'). These targets present a global and non-national emissions reduction goal.
	Paris- compatibility	To be Paris-compatible, methane emissions must be reduced by 34% [25–53%] by 2030 compared with 2020 levels (Gidden et al. 2021a).
REDUCTION POTENTIAL	GHG-reduction potential	Climate Action Tracker calculates a reduction potential of 0.8 GtCO ₂ e –the GMP notes the potential to avoid 0.22°C warming by 2050 (Gidden et al. 2021b).
TRANSPARENCY	Participation procedures for stakeholders	Owing to the high number of states involved, participation appears relatively easy, but no further information can be found.
	Availability of review mechanisms	The planned ministerial-level meetings should also discuss and review progress, but no further information is available.
	Transparent monitoring and reporting procedures	The GMP engages its members to improve their inventory methodologies.



Demands/Requirements

For the Initiative

- Have accessible and regular review mechanisms to measure the initiative's progress.
- Formulate clear time schedules for sub-targets.
- Further institutionalise the pledge (including transparent reporting from ministerial-level meetings).
- Put forth efforts to include more of the top methane emitters—such as China, India, Russia, and Iran—in the pledge.

For G7/G20

- Join the Global Methane Pledge.
- Include binding methane-reduction pathways in NDCs, to guarantee at least 34% methane reduction by 2030.
- Develop transparent and comprehensive methane assessment, including on fracking emissions.

GMP in G7/G20



About the fact sheet series

Initiatives and so-called climate clubs can potentially close the 2030 ambition gap and more quickly implement climate action. Only a small amount of research exists for assessing their impact, accountability, transparency, and implementation. In this fact sheet series, to enhance transparency, we assessed three different climate initiatives launched at COP26.



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G7 | G20 Track 2 Project is a channel to allow 'trickle-down / bottom-up' dialogues between civil society and governments to discuss climate change policies in the context of G20. Our partner CSOs in each country represent the global south countries in these dialogues.

Fact sheet initiator :



Participating NGOs :

