2023-IP05: IEA's Global Methane Tracker 2022

On 21st February, the IEA published its Global Methane Tracker for 2022. IEA Executive Director Fatih Birol opened the launch webinar to give a high-level overview of the findings. He mentioned that CH_4 was not getting the attention in climate discussions that it deserved but that early action on CH_4 would have a high pay off. The IEA tracker had become the global reference for energy sector emissions, collating the best available data on oil, gas, coal and biomass. Although some improvement in terms of CH_4 emissions have been observed, they were still not falling fast enough even with natural gas (NG) prices currently being at record high levels. Well over half of the CH_4 emissions could be reduced at no net costs, as saving NG also means saving money. The global income of oil and gas (O&G) companies in 2022 was more than $4 trillion, as compared to $1.5 trillion in 'average' years. The extra profits should be invested in clean energy, especially in emerging economies, and in CH_4 mitigation. With only 3% of those $4 trillion, we could cut 75% of global CH_4 emissions, so there is really no excuse to not act more quickly on this. Fatih Birol also announced that the IEA would undertake a new study in preparation for COP28 on O&G in net zero transitions.

After the high-level summary, IEA Chief Energy Economist Tim Gould presented more details from the report. He reiterated that high NG prices did not drive deep reductions in CH_4 emissions, thus energy related CH_4 emissions had risen to 135 Mt in 2022. Positive developments were that satellite detected large leaks fell by 10% and that action on CH_4 was gaining momentum, with 150 countries (representing around 55% of global CH_4 emissions) now having signed the Global Methane Pledge. Technology was bringing more transparency to the table, with satellites having detected more than 500 super-emitting events. The Nordstream pipeline explosion had released a huge amount of CH_4, 150 kt, compared to other super-emitting events but normal O&G operations are causing the equivalent of this event every single day and are emitting Mt annually (see figures below).

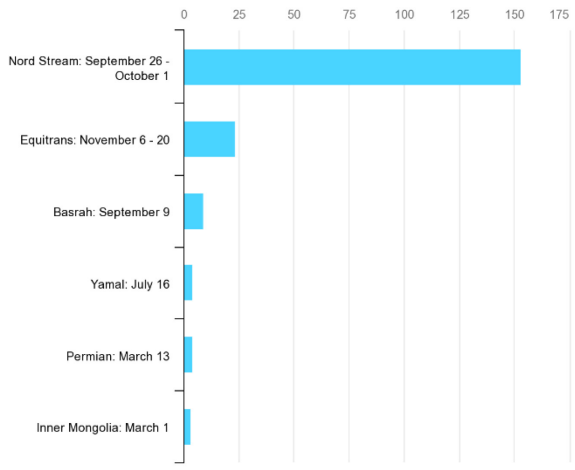

Figure 1 Estimated CH_4 emissions from single events, kt

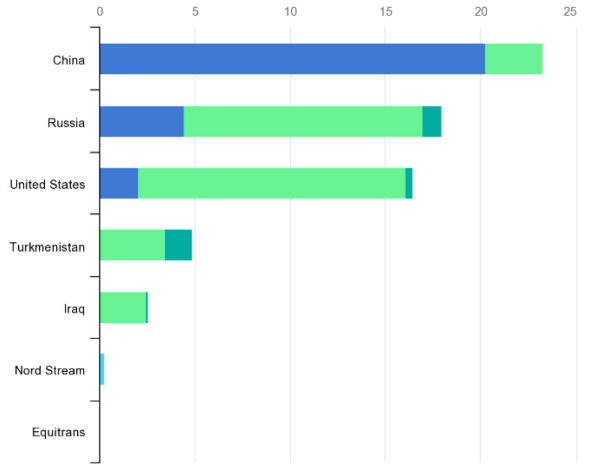

Figure 2 Large leaks from fossil fuel operations, Mt

Cutting CH_4 emissions would be one of the cheapest ways to limit near term global warming. More than 200 billion m^3 of NG, equivalent to the EU's previous annual imports from Russia, could be saved just by stopping flaring. Coal operations are currently causing around 40 Mt of CH_4 emissions, so there would be the need for a combined effort: cutting coal consumption but also deploying mitigation measures. Thus, tackling CH_4 emission would be the most important thing that fossil fuel companies could do to lower their carbon intensity (CI). Some companies might not be aware of the extent of their leaks and/or that cost-effective mitigation options exist. The US Inflation reduction Act (IRA) was

mentioned as a game changer, as it included the requirement for companies to report their CH_4 emissions, introduced a progressively increasing charge (starting with $900/t in 2024 and increasing to $1,500/t in 2026) and would be providing $1.5 billion for solutions, including CH_4 abatement.

Reference list:

IEA Global Methane Tracker 2022

https://www.iea.org/reports/global-methane-tracker-2023

Jasmin Kemper

02/03/2023