



Image of a methane plume in Campo de Mayo, Buenos Aires Province, Argentina detected by the Tanager satellite on Nov. 13, 2025. Source: Carbon Mapper

One of the transformations in the climate policy world over the last few years has been the (rightful and helpful) rise in focus on methane pollution. For a long while, carbon dioxide was the attention-grabbing greenhouse gas, the one at which most policy initiatives were aimed. And CO₂ remains critically important, of course. But folks have now realized that methane acts as the far more powerful driver of warming in the short- and mid-term, given its greater potency and shorter atmospheric life than CO₂. (MIT has a neat explainer [here](#) about why that's true.)

For that reason, advocates now [refer to](#) methane as the climate “emergency brake”: If we want quick and forceful action to slow warming, tackling methane is much more effective than reducing CO₂. This insight is driving a host of [new efforts](#) and [pledges](#) addressed at reducing methane over the coming years.

A team I help lead at the UCLA Emmett Institute is working to boost these efforts with our [STOP Methane project](#), which recently released two new reports on global methane emissions.

In April, we released [a list of Top 25](#) methane sources in the waste sector, drawing on direct satellite observations of emissions. Our list shows the 25 sites in the waste sector with the largest detected and quantified emissions rates worldwide, as seen by key satellite instruments in 2025. These insights come from Carbon Mapper's public methane emissions data leveraging two space-based instruments: Planet Labs' Tanager-1 satellite and NASA's [EMIT](#) instrument on the International Space Station. Data from these instruments are analyzed by [Carbon Mapper](#) and published on its [data portal](#). We compiled this list of extreme emitters by identifying the landfills with the highest emissions rates seen in 2025.

The No. 1 site on the top 25 list is a landfill near Buenos Aires with an emission rate of 7.6 tonnes of methane per hour, well over the global heating effect of one million SUVs. Brazil and Chile each have three landfills on the top 25 list. And Turkey—which will host the next UN climate summit and which has made reducing emissions from the waste sector one of its key priorities—is home to three of our largest plumes, including a “Dishonorable Mention” site in Istanbul with the highest average emissions rate we identify.

Earlier this spring, we also released a [Top 25 in 2025 list for oil and gas sources](#). The Guardian picked up on that report with [a terrific story](#) highlighting the need to address methane emission leaks in the fossil fuel sector.

The STOP Methane project aims to take advantage of, and to amplify, powerful new sources of information about some of the world's largest methane sources. Satellites that can see methane from space—and public data portals that share their emissions observations—are now making the formerly invisible, visible. (We explain those satellites and their potential to help policymakers [here](#).) The world's largest methane sources can no longer hide or systematically underestimate their emissions without consequence.

Our hope is that these reports will help shine a light on methane pollution sources and grow public pressure to clean them up. To follow our project, we'll have occasional updates here on Legal Planet or you can sign up for our Substack [here](#).