Unravelling a large methane emission discrepancy in Mexico using satellite observations (10.1016/j.rse.2021.112461)

Science Question
How much methane is emitted by the oil/gas industry in Mexico?

Analysis
We use the 2018-2020 TROPOMI satellite observations to map and quantify methane emissions from eastern Mexico.

Results
Our results show that emissions from Mexico's oil and gas sector is $1.3 \pm 0.2$ Tg a$^{-1}$, which are higher by a factor of two relative to bottom-up estimates.

Significance
Our findings suggest that stronger mitigation measures are critical to curbing the anthropogenic footprint of methane emissions in Mexico, especially the large contribution from the oil and gas sector.

Possible reasons for this discrepancy
1. Gas produced offshore (R6) is transported to onshore (R5) facilities.
2. R5 has drilled many new wells in the past five years.

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