METHANE ALERT AND RESPONSE SYSTEM (MARS)
CONFIRMED MITIGATION ACTION

NIGERIA (NGA_S_006)

Through MARS, UNEP's International Methane Emissions Observatory (IMEO) turns satellite data into methane action. MARS is the only public global satellite-based system alerting governments and companies of extreme methane emissions. Using 30+ satellite instruments, combined with expert analysis and AI models, MARS detects major emission events and enables rapid response.

LAST UPDATED
15 April 2026

SOURCE ID
NGA_S_006

COUNTRY
Nigeria

COORDINATES
5.39128°, 6.65793°

SECTOR
Oil & Gas

SOURCE TYPE
Compressor

TOTAL NUMBER OF PLUMES DETECTED
2

DATE OF FIRST DETECTION
23 December 2023

DATE OF REPORTED MITIGATION
23 July 2024*

ESTIMATED TOTAL VOLUME OF EMISSIONS

21,000 tonnes

SAME CLIMATE IMPACT AS

~405,000 cars

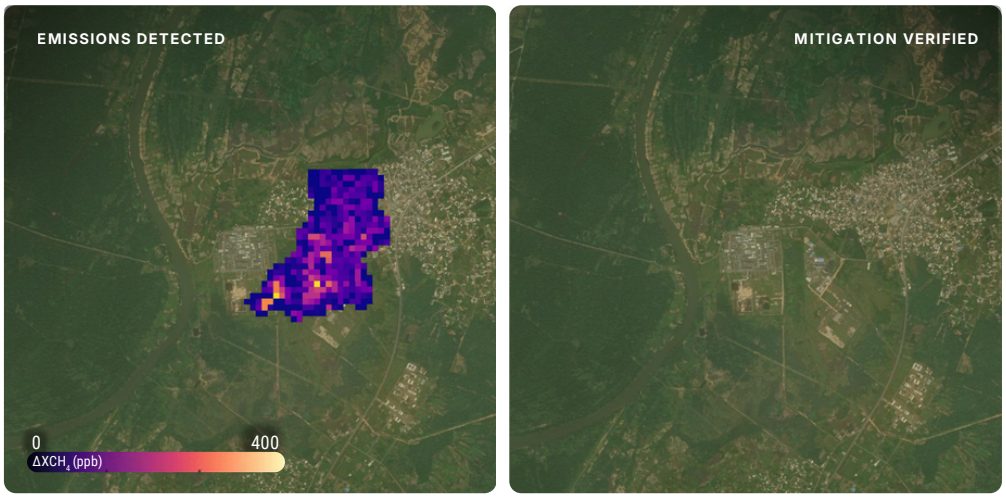
DRIVEN FOR A YEAR

*AS OF 19 DECEMBER 2024, IMEO OBSERVED POTENTIAL SUBSEQUENT METHANE EMISSIONS AT THIS LOCATION. THROUGH MARS, IMEO CONTINUES TO ENGAGE STAKEHOLDERS TO SUPPORT SUSTAINED MITIGATION.

DETECTION & ACTION

THE CAUSE AND THE SOLUTION

The emissions were caused by a leak in the inlet scrubber of a sales gas compressor. The operator replaced the affected joint, stopping the emissions.



The image shows a plume detected by NASA's EMIT in Nigeria on 23 December 2023. No further emissions have been detected at the location since 23 July 2024.

In implementing MARS, UNEP collaborates with various institutional partners, including the World Bank, International Energy Agency, the Climate and Clean Air Coalition, Universitat Politècnica de València, the Netherlands Institute for Space Research, the Committee on Earth Observation Satellites and the Copernicus Atmosphere Monitoring Service.

Based on satellite data used by MARS, it is not possible to confirm the presence of minimal methane emissions at a given location. Rather, this data can confirm the absence of emissions at levels higher than a given satellite's detection limit, which varies based on the technology, ground conditions and the weather.

UN environment programme | International Methane Emissions Observatory

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