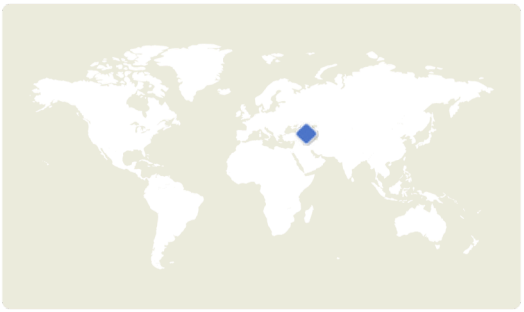
MEASUREMENT CAMPAIGN IN AZERBAIJAN

The first independent local study in the Caspian region to characterize emissions and mitigation potential in detail.



DONOR:
OGCI

BENEFITTING COUNTRIES OR REGIONS:
Azerbaijan

SECTOR:
Multi-sector

Subsector, if applicable:
Onshore, Offshore

STATUS:
Project initiation

TIMELINE:
Measurements expected 2025

IMEO SCIENCE OBJECTIVE:

→ **Initiate scientific studies in support of data assurance and to characterize regions/sources with high uncertainty or discrepancies in the integrated data.**

© Stefan Krasowski / Flickr

KEY FINDINGS

This study will determine the magnitude and locations of methane emissions from several oil and gas operators, covering both national and international oil companies, as well as from mud volcanoes.

RATIONALE

There is currently no independent empirical data to derive representative emission estimates of oil and gas sources from former Soviet Union states apart from a limited number of point sources. Understanding oil and gas emissions is particularly salient given the country's gas exports to markets such as the EU. The study would also provide independent data to support implementation of new EU methane legislation which requires the assessment of emissions associated with oil and gas imports. Azerbaijan is also host to some of the largest methane emitting mud volcanoes, a potentially significant natural methane source globally. The study will also measure methane emissions from this source. Given that methane from oil and gas and mud volcanoes have a similar chemical fingerprint, the study will help better apportion global total methane emissions into oil and gas sources versus mud volcanoes.

United Nations Environment Programme | International Methane Emissions Observatory
1 rue Miollis 75015 Paris, France | www.unep.org/imeo
For more information, please contact imeo@un.org

UN environment programme

RELATED PUBLICATIONS

In progress

SIGNIFICANCE FOR DECISIONMAKERS

The complete lack of state-of-the-art, independent, and holistic data from oil and gas related methane emissions In Azerbaijan provides a barrier for deriving effective mitigation strategies. The results are expected to aid operators in localizing the regions and processes of highest emissions. The work here will shed light on whether existing strategies need to be adapted, and will also guide as to whether more realistic emission factors are required for national inventory reporting. The study will also help Azerbaijan apportion satellite derived emission estimates into oil and gas versus natural sources (e.g. mud volcanoes).

STUDY APPROACH/ACTIVITIES

A methane instrumented fixed-wing drone will measure individual offshore platforms, large onshore facilities, and clusters or regions of onshore production facilities. The measurements will cover infrastructure from a variety of national and international operators as well as a region with Azerbaijan with a dense population of mud volcanoes.

CATALYZING ACTION

UNEP's IMEO has engaged key stakeholders in Azerbaijan as the country hosts the COP29 Presidency in 2024 to increase understanding of how measurement data can enable mitigation action.

OTHER SUPPORTERS/STAKEHOLDERS

Principal Investigator:
German Aerospace Center (DLR), Germany
Environmental Defense Fund, US

Revision History: **4 November 2024**

The UN Environment Programme's International Methane Emissions Observatory (IMEO) exists to provide open, reliable, and actionable data to the individuals with the agency to reduce methane emissions. IMEO does this by integrating and reconciling data across sources, including its global methane science studies. IMEO supports measurement and research studies around the world to close the knowledge gap on methane emissions and provide policy-relevant insights to decisionmakers.