

The Role of National Monitoring, Reporting & Verification in Methane Management

- Coal mines release ~10% of global anthropogenic methane emissions
 - May continue to release methane for decades, even after closure
- Effective national measurement, reporting & verification (MRV) systems:
 - Help understand emissions to design impactful policies, mechanisms & incentives
 - Track mitigation action & impact
 - Foster investment in mitigation, such as ventilation air methane (VAM), which comprises 70-80% of CMM and is low-concentration
- MRV systems provide robust data that support mitigation, if:
 - **Monitor** through direct measurements at facilities following methodologies
 - **Report** to a platform that eases documentation & data management
 - **Verify** reported data & calculations & provide an independent check



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- Flow of methane at a source can **vary within the day** & often – **hourly**
 - Depends on pace of coal production, geology, ventilation velocities, barometric pressure
- Accuracy of measurement → frequency of measurement ← cost vs. benefit
- Policy objectives guide the approach
 - Continuous emissions monitoring systems (CEMS) might be too costly, if serving MRV purposes only
- MRV data can support development and planning of mitigation projects:
 - Establish a clear baseline of methane availability
 - Form an understanding of the variation in methane flows & concentrations
 - Provide developer confidence in gas availability over time



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- Considerations for developing robust MRV programmes for mitigation:
 - Adjust to the **policy framework** for the MRV, such as legislative, regulatory & administrative
 - Recognize and define roles for relevant **stakeholders**
 - Understand the **specific sources of sector emissions** (sub-sources) & their monitoring options
 - Assess **feasibility of direct measurements** at facility level (preferred approach) for sub-sources
 - Determine the **target sub-sources** (e.g., working, abandoned or surface mines)
 - Prioritize by establishing **reporting thresholds** (e.g., facility type or size, emission size)
 - Develop the **programme structure** (reporting frequency, platform, recordkeeping, publication)
- National MRV systems can provide reliable data for mitigation
- National data should ideally be compatible with international reporting efforts, such as UNFCCC

Thank you for your attention!

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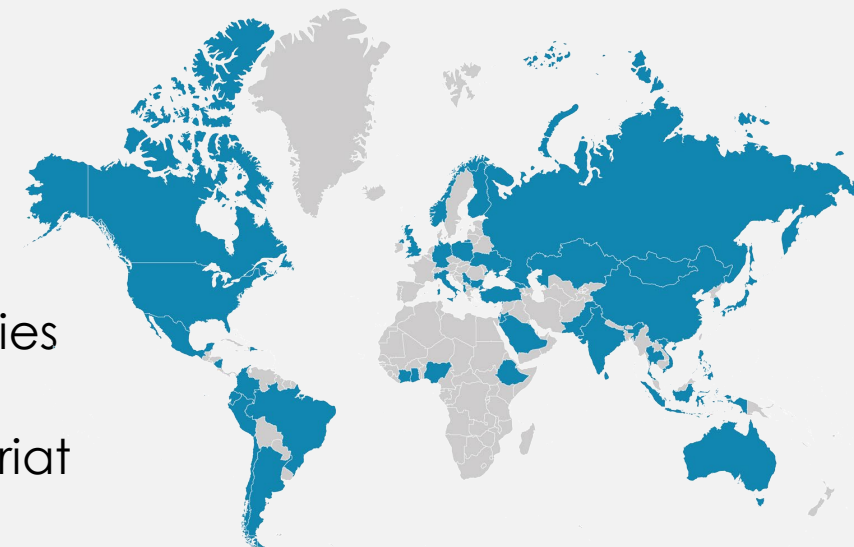
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- GMI is an international partnership of 45 countries & hundreds of private sector & multilateral partners focused on reducing methane emissions across five key sectors: oil & gas, coal mining, landfills, agriculture (manure), wastewater.
- Uniquely qualified with tools, resources & expertise to enable countries to reduce methane quickly & cost-effectively
- US EPA provides cross-sector technical expertise & serves as secretariat

<https://www.globalmethane.org/>



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