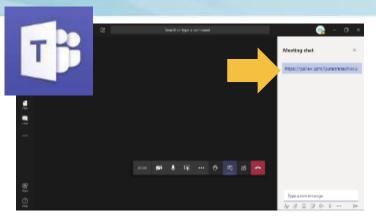
GMI Steering Committee Meeting

Session 1: 2 December 2020

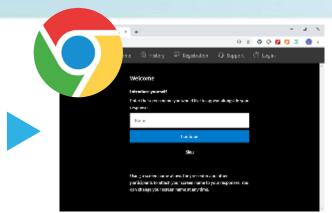
Virtual Meeting



Instructions



Click the web link provided in the "Chat" pane.



Respond yes <u>or</u> no to notification settings.

Enter a username <u>or</u> remain anonymous.



Answer the question and then navigate back to Teams.

The URL will also be displayed at the top of each question.



Need Help?

If you need help, please send an email to asg@globalmethane.org

- You may need to disconnect from VPN
- You will have the option to delete and resubmit your response

Where are you calling from?



Housekeeping – Tips for using Teams

Turn your camera on.

Consider turning your camera on so everyone can see you.

Mute your microphone.

Everyone should set the microphone to mute unless actively speaking. If participating by phone, press *6 to mute your phone.



If available, use the "Raise your hand" • button to be called upon to speak.

Or, enter questions using the "Chat" pane.

Type "Raise My Hand" to be called upon to speak.



Need Help?

If you need help, please send an email to asg@globalmethane.org

WELCOME

Opening of Meeting (2 min)
Helen Ryan

Brief Introductions – Tour de Table (40 min)

All

Tour de Table Etiquette

- Let's meet each other we invite you to turn your camera on!
- Partner Country introductions
 - We will call on each country in alphabetical order
 - Each country representative is invited to introduce themselves -- state your name and affiliation
 - One representative from each country is invited to:
 - Take 2 minutes to share one thing they hope to achieve through working with GMI in the future

Adoption of the Agenda Session 1: Wednesday, 2 December

- Meeting Objectives; Adoption of the Agenda (10 min)
 - Helen Ryan and Monica Shimamura
- Updates and Perspectives of Subcommittees (45 min)
 - Subcommittee Co-Chairs
- Leveraging Strategic Partnerships to Improve Collaboration (30 min)
 - Helen Ryan
- United Nations Declaration for a Year or Decade of Methane Management (30 min)
 - Helen Ryan
- Wrap Up / Plan for Session 2 (10 min)
 - Helen Ryan
- Adjourn



Meeting Objectives

- GMI to be re-chartered by 31 March 2021
 - Key decisions need to be made about the future of the GMI
 - Re-chartering timeline
 - Mission of GMI
 - Activities moving forward
- The Steering Committee will use feedback from the Executive Task Force (ETF) to inform decisions
- Steering Committee decisions and direction to the Secretariat during this meeting will form the basis of the new Terms of Reference
 - Informal, interactive engagement
 - Consensus-based decision making

All participants are encouraged to actively engage in virtual feedback activities and group discussions to be facilitated during this meeting.



Goals of the Executive Task Force

- The GMI Steering Committee was scheduled to meet in person in March 2020 during the Global Methane Forum in Geneva, Switzerland
- In response to the postponement, the Secretariat took a virtual approach to facilitating discussion and decision-making regarding the future of GMI, among other issues
 - Engage a broader cross-section of the GMI community beyond Steering Committee members
 - Gather information and make recommendations to the Steering Committee



Task Force Call Topics:

- GMI's Strategic Partners: How to Complement and Leverage Action
- The Global Methane Challenge
- Proposal for United Nations International Year or Decade of Methane Management
- Future of GMI
- Re-Charter of GMI



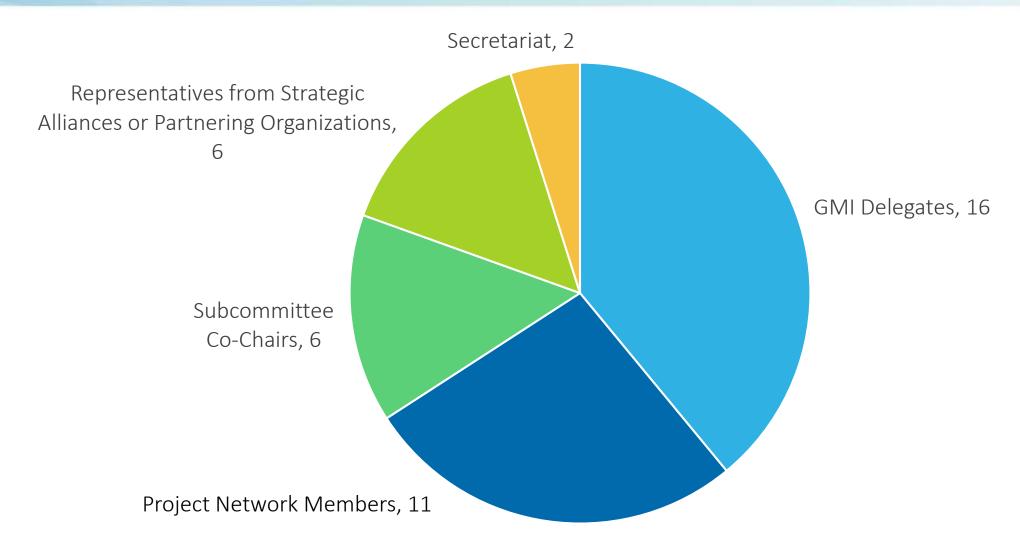
Members represented:

14 Countries

41 Members



Members of the Executive Task Force by Affiliation to GMI





Key Takeaways from the Executive Task Force

Considering the Future of GMI

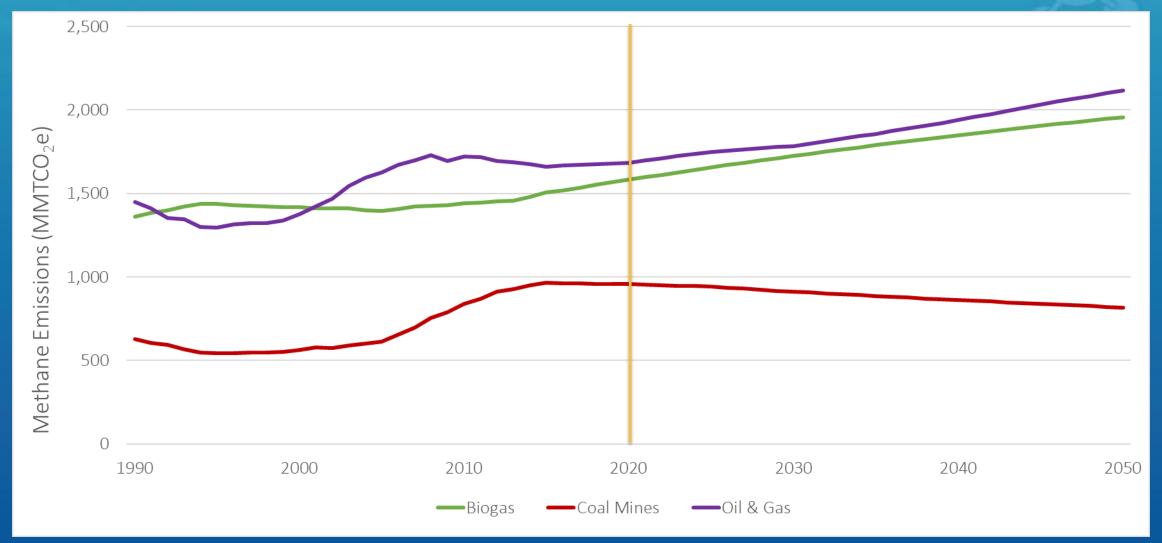


- Formalize relationships with additional partners; for example, the World Bank, IEA, and UNEP, among others
- Extend the Global Methane Challenge as part of the re-chartered GMI; explore opportunities to make it an awards-type of program
- Support UN Decade of Methane Management
- Become a "hub for all things methane"

Specific feedback from the ETF will be discussed, as appropriate, throughout the Steering Committee meeting.



Global Methane Emissions and Projections (1990-2050)





Updates and Perspectives of Subcommittees



Biogas (Agriculture, Municipal Solid Waste, Municipal Wastewater)



Coal Mines



Oil & Gas Systems

Biogas Subcommittee 2020 Updates and Plans for 2021 and Beyond

Matthew Hamilton, Environment & Climate Change Canada



GMI Steering Committee Meeting, 2 December 2020

2020 Highlights: New Resource

- Successfully launched the Biogas Toolkit: a centralized knowledge hub for biogas project stakeholders
 - Includes over 30 tools and resources
 - Allows stakeholders to search and browse for information resources that meet their specific project needs
 - Provides a roadmap for planning and implementing biogas projects and quantifying economic and environmental impacts





2020 Accomplishments

- Collaborated with Partner countries and Project Network Members to communicate Biogas Subcommittee objectives to a wider audience
 - Climate and Clean Air Coalition, World Biogas Association, European Biogas Association
- Participated in networking opportunities and provided a holistic view of the role biogas can play in achieving national and international carbon sequestration and net-zero goals
- Evaluated opportunities to unlock the potential of biogas across all biogas sectors
 - Highlighted the potential for biomethane in decarbonizing the transportation sector
 - Focused on benefits of implementing Biogas Done Right principles with emphasis on residue treatment

2020 Highlights: Collaboration

PROMOTING CIRCULAR ECONOMY AND THE ROLE OF CENTERS OF EXCELLENCE

Organized by the U.S. Environmental Protection Agency

June 23, 2020



Conducted a webinar with the Climate & Clean Air Coalition



THE WORLD SUMMIT &

Hosted a virtual GMI Biogas
Subcommittee Meeting - October 6, 2020
(54 participants)

Participated on the WBA-GMI Panel:

Carbon Neutrality – the Climate Benefits of Biogas- Biogas Done Right





WBA-GMI Panel Participants: Carbon Neutrality – the Climate Benefits of Biogas

194 participants from

more than

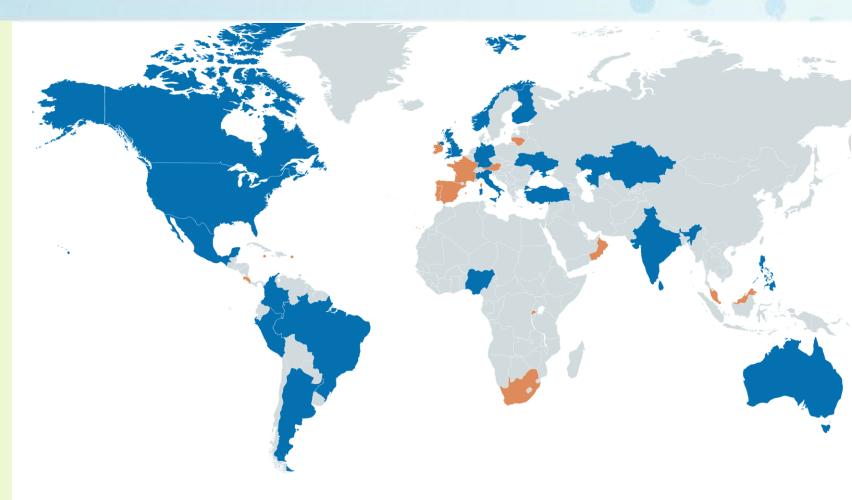
162 organizations representing

more than

35

countries, including

20 GMI Partner countries



Participating GMI Partner Country

Other participating countries



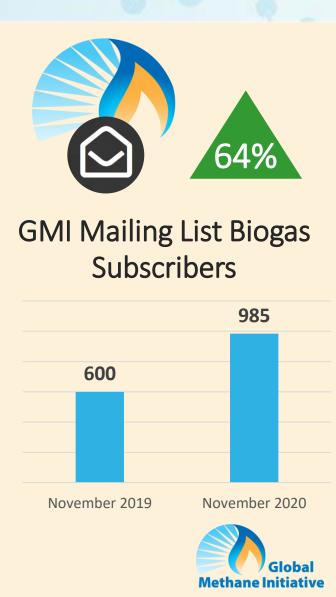


Other 2020 Highlights

Welcomed a New Subcommittee Delegate

Mr. Dinesh Dayanand Jagdale, Joint Secretary of the Ministry of New and Renewable Energy, India





2021 Priorities

- Collaborate with other biogas/sector-focused organizations to form strategic alliances to leverage resources, members, and more nimble communications – for example World Biogas Association and Biogas Done Right
- Develop workplan committing to developing tools and resources to assist countries meeting national targets
- Prioritize resources including improved models for estimating biogas generation, and MRV guidelines for a framework/protocol for calculating emissions from major biogas sectors
- Conduct technical webinars focused on unlocking the full value of anaerobic digestion



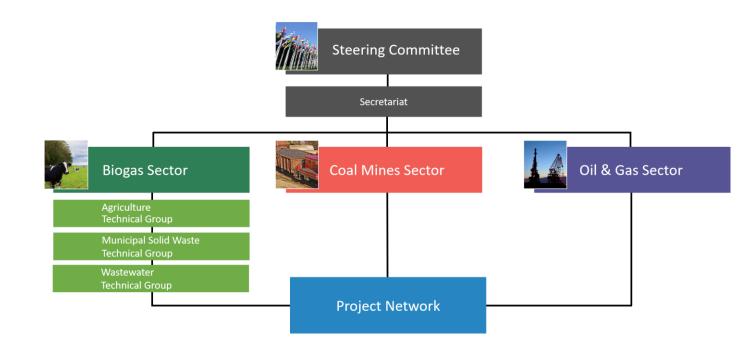






Biogas Subcommittee Perspectives on the Future of GMI

- Encourage cross-sector collaboration and resource development to support countries national commitments
- Consider less formal structure to maximize participation by sector experts and other nongovernmental members





Oil & Gas Subcommittee 2020 Updates and Plans for 2021 and Beyond

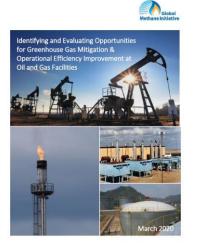
James Diamond, GMI Oil and Gas Subcommittee Co-Chair, Environment and Climate Change Canada (ECCC)



GMI Steering Committee Meeting, 2 December 2020

2020 Highlights: Technical Resources

- Collaborated with other agencies (UNECE) and developed technical resources
- Initiated development of training resources
 - Leak Detection and Repair (LDAR) Program
 - Identification and Development of Methane Mitigation Projects



Identifying and Evaluating
Opportunities for Greenhouse
Gas Mitigation & Operational
Efficiency Improvement
at Oil and Gas Facilities



Best Practice Guidance for Methane Management in the Oil and Gas Sector





2020 Highlight: Technical Webinars

- Conducted technical webinars
 - Seeing Methane the Invisible Problem...Who is Using Which Number?
 - Methods for detecting and quantifying methane emissions
 - 90 people attended
 - Methane Emissions Mitigation Technology and Innovation
 - Applying available and emerging methane reduction technologies to operations
 - 94 people attended

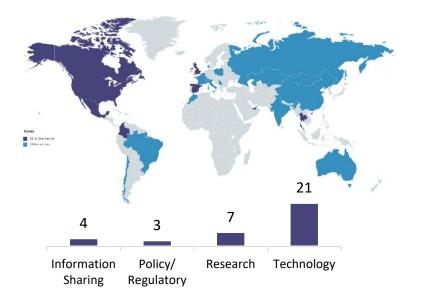




Other 2020 Highlights

- Continued to build relationships with strategic partners to improve outreach and capacity building
 - Promoted tools, resources and events of other organizations in the oil and gas sector

 Enhanced social media messaging to promote oil and gas events and news





Global Methane Challenge

35 Oil and Gas Submissions Representation from **9** countries



GMI Oil & Gas Mailing List increased from 542 to 748 subscribers in the last 12 months





2020 Subcommittee Meeting

The O&G Subcommittee virtual meeting focused on:

- Reviewing 2020 accomplishments
- Identifying Subcommittee priorities for 2021 and beyond
- Discussing key opportunities to collaborate
- 55 people attended

Attendees discussed:

- Direction of the Subcommittee
- GMI's role among global organizations addressing methane mitigation

	Core Activities	GMI	OGMP 2.0*	GMA	UNECE	World Bank	IEA	OGCI	EDF	CATF
Policy	Develop emissions reductions targets and policy			$\overline{\checkmark}$						V
	Promote sustainable development goals to meet political commitments				$\overline{\checkmark}$					
	Advocate for public policy								V	$\overline{\checkmark}$
Information	Identify best practices for methane emissions reductions and use	V		\checkmark	V			V		
	Distribute tools, data, and resources about methane mitigation	V					\checkmark	$\overline{\checkmark}$		
	Collect, compile, and publish emissions data		$\overline{\mathbf{V}}$				$\overline{\checkmark}$		$\overline{\checkmark}$	
Capacity	Build capacity to implement methane policies and projects	V				$\overline{\checkmark}$				
Building and Training	Advance private sector involvement in methane projects	V	$\overline{\mathbf{V}}$	V						
	Host training events for Oil & Gas stakeholders									A



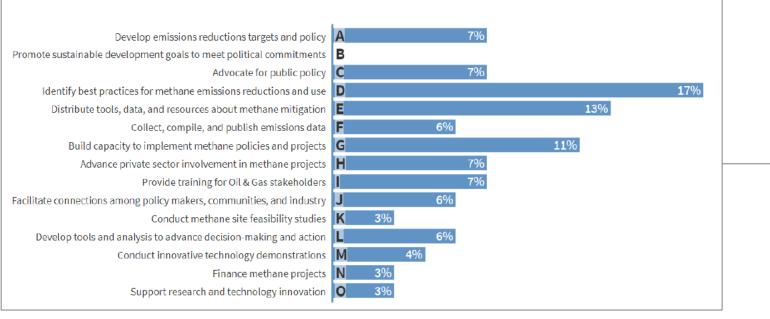
2021 Top Priorities and Activities



Select three webinar topics that interest you the most.



Pick three activities that we should prioritize.



Top priorities:

- Identify best practices for methane emissions reductions and use
- Distribute tools, data, and resources about methane mitigation
- Build capacity to implement methane policies and projects

Priority actions:

- Conduct a series of webinars hosted by technical experts:
 - Mitigation technologies to reduce methane emissions
 - Marginal abatement cost curves for methane emission abatement technologies
 - Cost effective leak detection and repair programs
- Develop training resources
- Promote technical tools and resources and upcoming events

Oil & Gas Subcommittee Perspective on the Future of GMI

- Keep GMI's mandate as flexible as possible with a broad scope to accommodate changing policy and technological advances
- Expand collaboration with other international efforts for methane mitigation
 - Gain a better understanding of the role of GMI in the context of other international activity
 - Consider inter-regional initiatives
- Encourage increased participation by Partner delegates
- Explore options to expand non-government representation in the Subcommittee





Immediate Opportunities to Engage



Oil & Gas Subcommittee

Express interest in filling Oil & Gas Subcommittee Co-Chair position





Provide feedback on topics of planned Webinar Series and other future topics





Identify case studies for planned GMI report:



The Investment Decision Process for Greenhouse Gas (Methane) Mitigation Projects/Opportunities/ Options



Coal Mines Subcommittee 2020 Updates and Plans for 2021 and Beyond

Coal Mines Subcommittee Co-Chairs

Ms. Volha Roshchanka, USA

Mr. Shekhar Saran, India

Mr. Huang Shengchu, China



GMI Steering Committee Meeting, 2 December 2020

Coal Mines Subcommittee Meetings

November 2019: Geneva, Switzerland

- Held In conjunction with UNECE Group of Experts on CMM
- Focused on incentives for CMM and AMM
- Co-chaired by China, India, USA

July 2020: Virtual Meeting

- Held in conjunction with UNECE Group of Experts on CMM
- Focused on how COVID has impacted CMM mitigation around the world
- Included discussion panel with presentations from China, India, Poland, USA

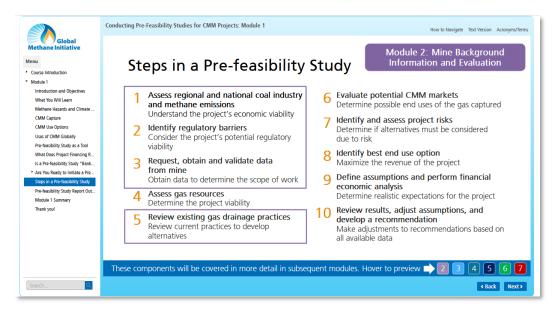
How has COVID impacted CMM projects in your country?	# of Responses		
Energy market prices	6		
Equipment supply	6		
Equipment operations & maintenance	5		
Coordination/cooperation with mine owner/operator	5		
Gas availability	4		
Carbon market prices	3		
Staffing	3		
Other	4		
TOTAL	36		



Featured Resources: Trainings and Research

CMM Project Development Online Training Course

- Introduces principles for assessing the potential of developing projects to capture and/or use CMM (3 out of 8 modules have been posted on the GMI website to date).
- Exploring the option to collaborate with China Coal Information Center (CCII) to release the training course in Chinese.



Available at: https://globalmethane.org/training/ CoalMineTraining.html

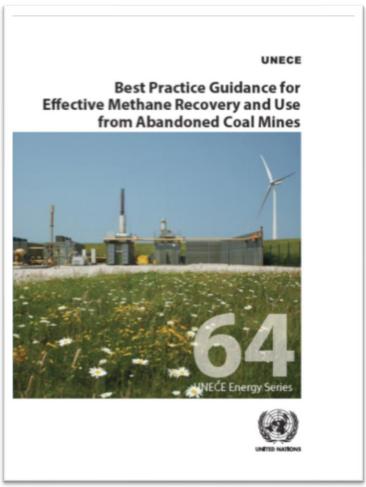
Research Publication

- Published a study estimating global CMM and AMM emissions using modelling analysis. The article is referenced in the <u>EU Methane Strategy</u>.
 - Kholod, N., Evans, M., Pilcher, R.C., Roshchanka, V., Ruiz, F., Coté, M., Collings, R., 2020. Global methane emissions from coal mining to continue growing even with declining coal production. Journal of Cleaner Production. https://doi.org/10.1016/j.jclepro.2020.120489



Featured Resources: AMM Best Practice Document

- Best Practice Guidance for Effective Methane
 Recovery & Use from AMM
 - Published under the auspices of UNECE
 - Identifies best practice for evaluating abandoned mine methane opportunities and implementing AMM recovery and use projects
 - Includes detailed case studies
 - Is available on UNECE's website at:
 https://www.unece.org/index.php?id=55101&L=0





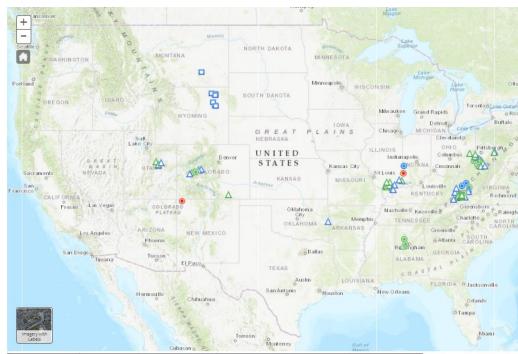
Recent Accomplishments in the United States

Updates to Resources:

- Online <u>map</u> of US CMM Opportunities
- Coal Mine Methane Recovery at Active and Abandoned
 U.S. Coal Mines: Current Projects and Opportunities (in progress)
- U.S Coal Mine Methane Project Cash Flow Model (in progress)
- Case study document featuring flaring projects (in progress)
- Primer on Greenhouse Gas Registries (in progress)

Webinars:

- Conducted a webinar on "<u>Ventilation Air Methane</u>
 <u>Projects in the United States: Barriers and Potential</u>
 <u>Opportunities</u>"
- Website refresh (in progress)



	Surface Mine	Underground Mine	Underground Non-Producing Mine	Abandoned Mine
No drainage No gas recovery		•	♦	Δ
With drainage No gas recovery		•	♦	Δ
With drainage With gas recovery		•	♦	Δ



Recent Accomplishments in China





19th International CBM/CMM Symposium

- Organized in Dec 2019 by the China Coal Information Institute and attended by over 150 participants.
- Provided an excellent forum for exchange of CMM development lessons learned and best practices in CMM capture and use.
- Subcommittee members presented on global perspectives and best practices for Abandoned Mine Methane Recovery and Use.
- U.S. and China representatives met and engaged on current technical and policy developments in CMM

Yangquan Coal Group VAM Site Tour

- Yangquan Coal Group, one of the biggest coal mine groups in China, began to utilize CMM since 1950s. CMM has been utilized in many ways, such as power generation, household use, and liquefaction.
- In December 2019, U.S. EPA participated in a study tour organized by the Yangquan Coal Group the Shanxi Province.
 - Visited the Ventilation Air Methane (VAM)-to-Power project at Yangquan Coal Group's Mine #2 and a nearby CMM project.
 - The VAM-to-Power project uses 6 oxidizers and generates 15 megawatts (MW) of power.
 - The VAM-to-Power project is one of two operating worldwide, and the success and transferability of the project could lead to the implementation of additional projects with considerable green house gas (GHG) mitigation potential.







Recent Accomplishments in India

Bi-lateral United States- India meetings:

- The India Central Mine Planning & Design Institute's (CMPDI) CMM/CBM Clearinghouse welcomed a U.S. Embassy representative in January 2020.
- The meeting was chaired by Chairman-cum- Managing Director Shri Shekhar Saran.
- U.S. Consul General, Patricia Hoffman, extended her support for CMPDI's work.
- International Webinar on "CBM Resource-Reserve Assessment" organized by CMPDI on 29th Sept 2020 (4Hrs)







India CBM/CMM Clearinghouse

- CMPDI is now the Principal Implementing Agency (PIA) for the development of CBM & CMM in Coal India Limited (CIL) & its Subsidiaries' Leasehold areas.
- A CMM drainage project at Moonidih UG Mine (BCCL), Jharia Cf has been planned for the recovery of methane from coal seams to enhance mines safety, gainful utilization of recovered methane gas, and coal production.
- Offer has been received in September 2020 from a consortium belongs to companies of USA & India in response to Global Tender floated for Selection of Technology Provider on concept to commissioning basis.
- Global Tenders have been published at https://coalindiatenders.nic.in for Selection of CBM Developer (CBMD) for Jharia CBM Block I and Raniganj CBM Block. Offer may be submitted till 28th December 2020.



2021 Priorities

- Move most CMM mitigation tools online, including
 - CMM 101
 - CMM prefeasibility training
 - AMM prefeasibility training
- Build capacity to implement methane policies and projects through trainings and outreach
- Update Subcommittee Action Plan
- Promote achievement of partner countries
- Awards and recognition of participating organizations



Coal Mines Subcommittee Perspective on the Future of GMI

- Extend GMI Charter for another 10 years
- Extend Global Methane Challenge for another two years
- GMI should support declaration of the UN Decade of Methane Management
- GMI priorities should be:
 - Develop recommendations on how countries can increase employment though mitigation, as countries aim to recover economies
 - Develop a policy tool-kit that help facilitate methane mitigation
 - Alliance with professional association(s), e.g., The Mining, Geological & Metallurgical Institute of India (MGMI)



Thank you!

Co-Chairs, Coal Mines Subcommittee
Global Methane Initiative

Leveraging Strategic Partnerships to Improve Collaboration

GMI International Collaboration

- GMI collaborates routinely with many international organizations to create synergies to mitigate methane globally
- Since its 2016 re-charter, GMI has established formal strategic alliances with two critical partners - the Climate and Clean Air Coalition (CCAC) and the United Nations Economic Commission for Europe (UNECE)

Strategic Alliances













Considerations for Improving Collaboration

- → Is there value in expanding official strategic alliances in the GMI Terms of Reference?
- Should the re-chartering include more strategic partners, or leave partnerships more informal?
- How can GMI's work with official and unofficial partners be improved?
- Are there other organizations to consider?

Recap of Executive Task Force Feedback

ETF Suggestions

Formalize GMI's engagement with additional likeminded organizations (for example, World Bank, IEA, WHO, and UNEP)

Explore further opportunities to collaborate with sector-specific or environmental groups

Consider establishing a joint GMI – CCAC committee to develop an at outline of action for collaboration

Explore aligning the GMI Oil & Gas Subcommittee with the Global Methane Alliance



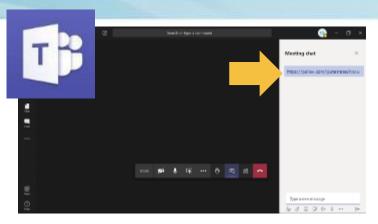


Recap of Executive Task Force Feedback

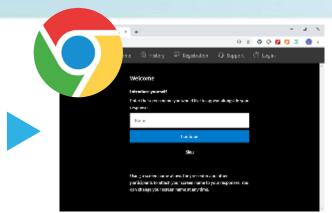
Options for Consideration	Benefits	Potential Limitations
1. Formalize GMI's engagement with additional like-minded organizations (for example, World Bank, IEA, WHO, and UNEP)	VisibilityInfluenceLow investment	Transactional cost to initiateExtent of agreementFuture coordination
2. Explore further opportunities to collaborate with sector-specific or environmental groups (e.g., collaboration between the Oil & Gas Subcommittee and organizations like the Global Methane Alliance)	 Reach new stakeholders Foster innovation Sector-specific actions 	 Transaction cost to reach relatively narrow audiences Selecting specific groups
3. Consider establishing a joint GMI – CCAC committee to develop an at outline of action for collaboration	 Clarify roles/responsibilities More strategic engagement Leverage limited resources Amplify strengths 	 Competing priorities Loss of GMI autonomy Costs of coordination Fewer GMI activities



Instructions



Click the web link provided in the "Chat" pane.



Respond yes <u>or</u> no to notification settings.

Enter a username <u>or</u> remain anonymous.



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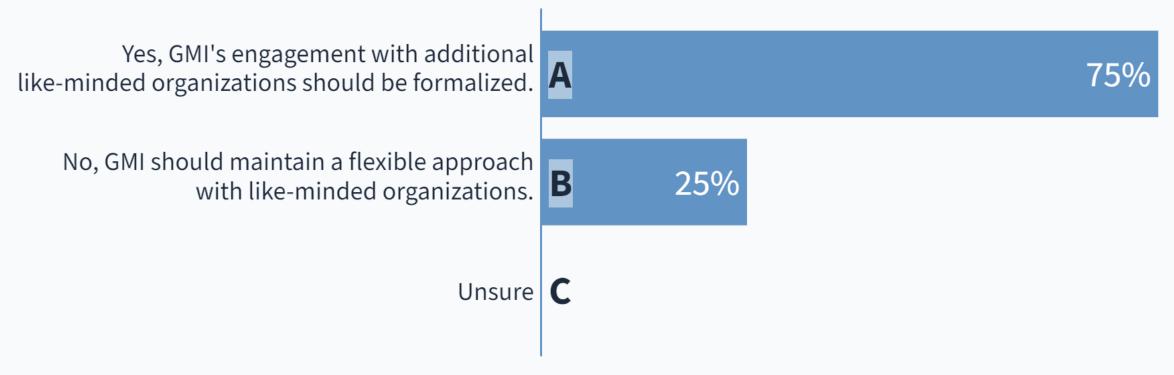
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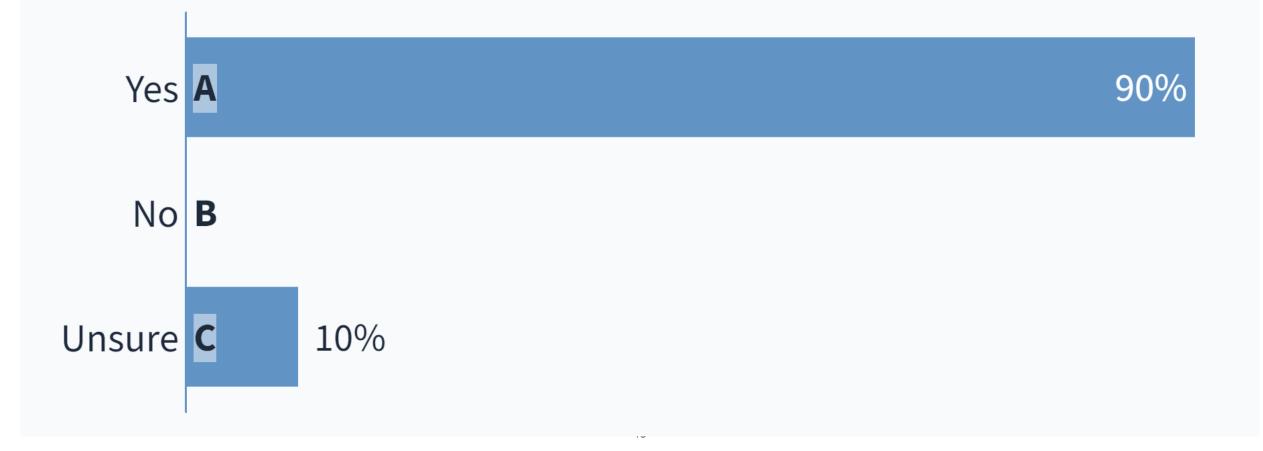
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Respond at PollEv.com/cathymcgirl568 Text CATHYMCGIRL568 to 22333 once to join, then A, B, or C

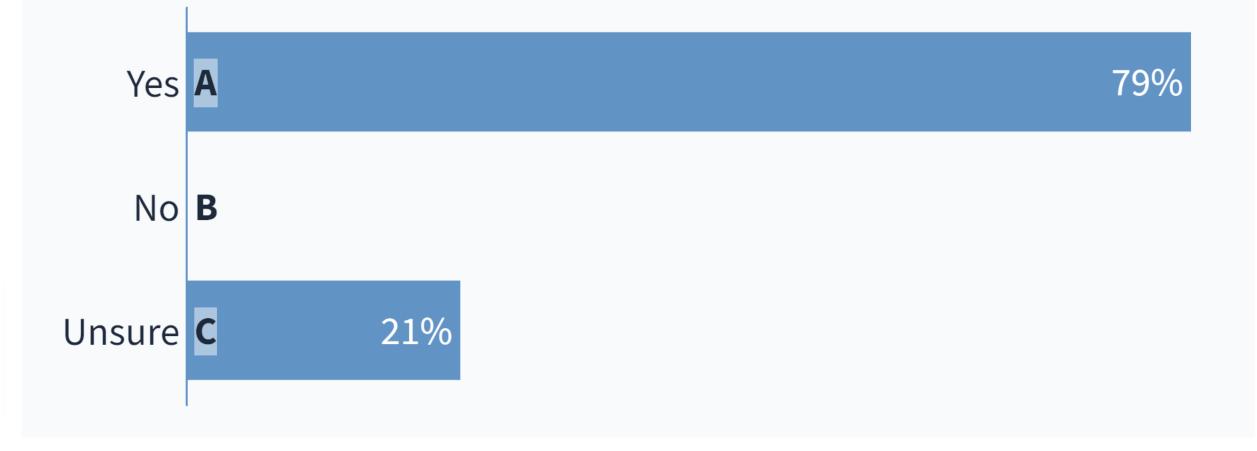
Collaboration with Strategic Partners has been very successful, although with different levels of formality. Should GMI formalize its engagement with additional like-minded organizations?



Should GMI explore further opportunities to collaborate with sectorspecific or environmental groups?



Should GMI establish a joint committee with the Climate and Clean Air Coalition (CCAC) to develop an outline of action for collaboration?



DISCUSSION & DECISIONS

Do we agree with the ETF's feedback on Strategic Partnerships?

What other considerations on strategic partnerships should be considered, in the context of re-chartering?

Thank You for the discussion

- Key takeaways
- Next steps

United Nations Declaration for an International Year or Decade of Methane Management

About UN Declarations

- The UN General Assembly (UNGA) may vote to designate international days, weeks, years, or decades
- The UNECE Executive Committee voted to send a recommendation for an International Year/Decade of Methane Management to the UN Economic and Social Council (ECOSOC) on June 13, 2019
 - ECOSOC "took note" of the recommendation, thereby formally recognizing the request
- Next step: A Member State submits a resolution to the UNGA for a vote
 - An active coalition of the willing, especially Member States, could facilitate passage of such a resolution

Timing

If a resolution were passed by the UNGA at its next meeting in September 2021, and if the standard 2-year interim period between the adoption of the resolution and its implementation were observed, the start date for such a Year or Decade would be 2023.



Potential Roles for GMI

- Support and mobilize Member States
- Increase attention to and accelerate and catalyze successful methane mitigation efforts
 - Develop a communiqué by GMI Partners
 - → Host a virtual high-level plenary event on methane
- Develop or provide substantive input to a proposed Program of Activities

Recap of Executive Task Force Feedback

- Expressed strong support for a UN Declaration for an International Year or Decade of Methane Management (preference for a decade)
- Several opportunities for GMI Partners and Partner Countries to champion an International Year or Decade of Methane Management
 - Involve the private sector to help sponsor actions and to secure funding for resources
 - Develop a public education and awareness campaign
 - Explore options to increase grassroots participation; get individuals involved
 - Engage as many countries as possible to mobilize their in-country networks





Considerations about Launching the UN Declaration

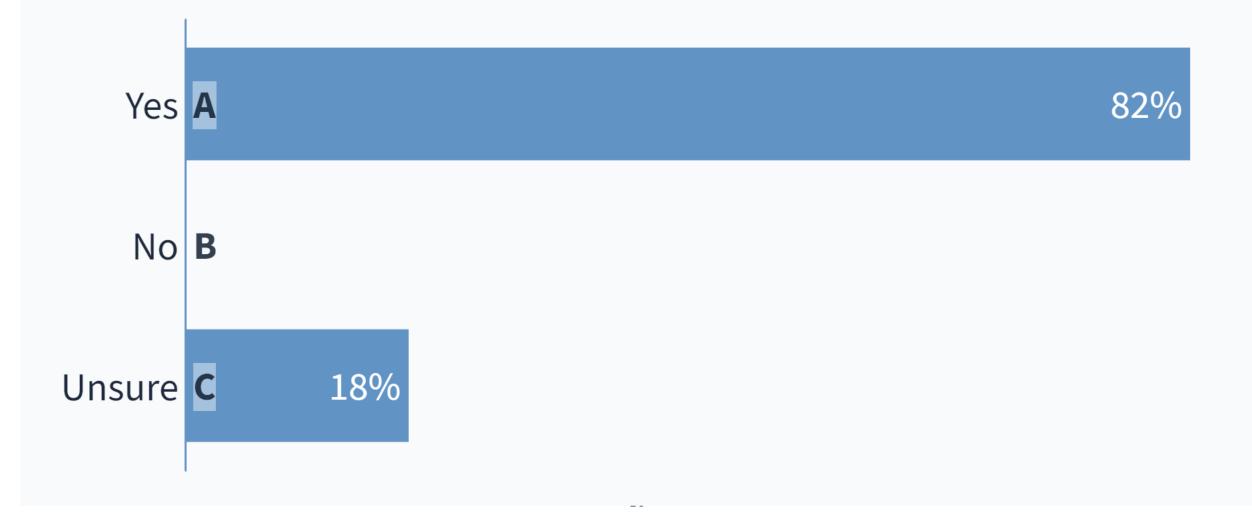
Consideration	Benefits	Potential Limitations	
1. Does GMI Support the Declaration?			
Support for a UN Declaration	Aligns with GMI missionProvides opportunity for global visibilityLeverages UN platform	Requires quick mobilization and resources to successfully achieve resolution and implement	
2. Would GMI favor a YEAR OR DECADE of Methane Management?			
Support for a YEAR of Methane Management	 Align to governments / administrations short-term needs Costs less to implement than a decade Global interest may be higher in short campaign 	 Resource-intensive for short duration of benefits Challenging to develop and implement deliverables in 12 months 	
Support for a DECADE of Methane Management	 Achieves more awareness raising Leverages strong international motivation Emphasizes significance of methane mitigation as an enduring concern 	 Difficult to secure funding for decade May be challenging to sustain attention to this specific campaign over time, especially if turnover in governments, administrations 	

Considerations about Implementing the UN Declaration

Consideration	Benefits	Potential Limitations	
3. What role should the GMI play in the UN Declaration?			
Support to launch the UN Declaration	 Opportunity to shape the Declaration Visible platform to effectively engage in global methane mitigation efforts 	 Diplomatic effort, outside core expertise Challenging for GMI unless GMI Partner(s) volunteer to champion the effort 	
Developing a Program of activities	 Opportunity for GMI to contribute in a tangible way that is directly relevant to GMI's expertise 	Requires financial and workload details that are not yet clear	
Implementing one or more activities	On-going, high-visibility role for GMI that will enable more effective engagement with global methane community	Implementing activities would be potentially resource-intensive	

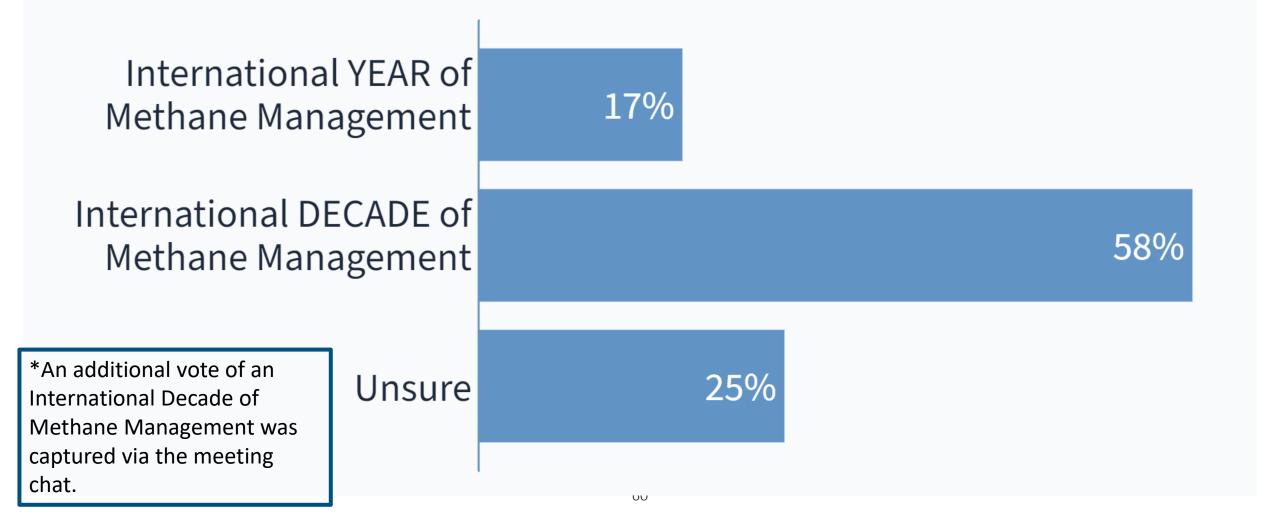


Should GMI support a UN Declaration for Methane Management?

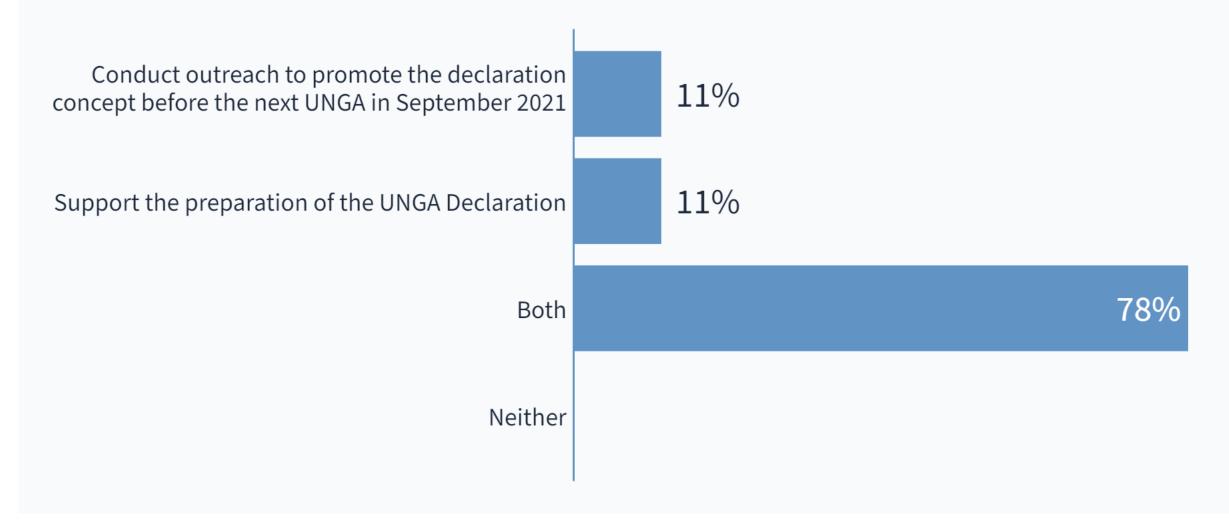


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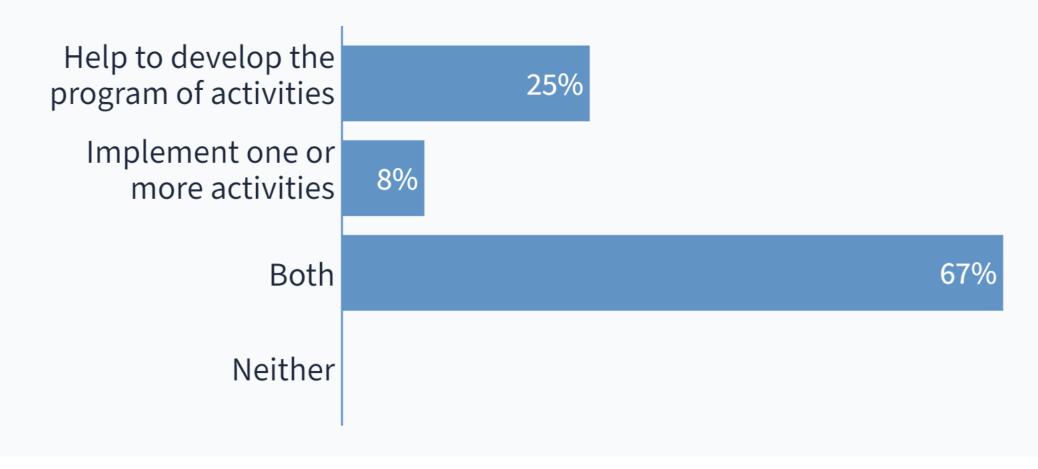
Should GMI favor an International YEAR or an International DECADE?



How should GMI support the launch of the UNGA Declaration?



Which activities should GMI support to implement a UNGA Declaration for Methane Management?



DISCUSSION & DECISION

Should GMI play a role in the promotion, launch and/or programming of the UN Declaration of an International [Year or Decade] Methane Management?

Thank You for the discussion

- Key takeaways
- Next steps

Wrap Up / Plan for Session 2

- Recap of key decisions and perspectives heard today
- Review agenda for Session 2
 - 12:00 UTC

Session 2: Thursday, 3 December

- Welcome, Opening of Meeting
 - Helen Ryan
- Secretariat Update
 - Monica Shimamura
- Global Methane Challenge
 - Denise Mulholland
- Re-Chartering of the GMI
 - Jennifer Kerr and Monica Shimamura
- GMI Governance
 - Helen Ryan
- Global Methane Forum
 - Monica Shimamura
- Next Steps and Closing
 - Helen Ryan and Monica Shimamura



Adjournment