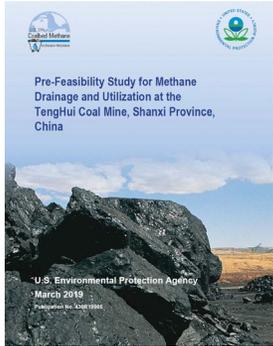


Coal Mines Subcommittee Report

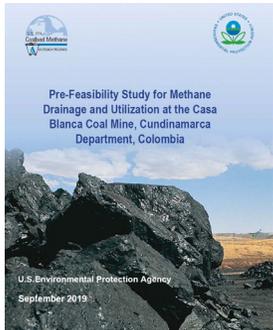
Subcommittee Co-chairs
7 November 2019



Conducted Prefeasibility Studies



- Methane Drainage and Utilization at the TengHui Coal Mine, Shanxi Province, China
 - Part of an integrated Best Practices training program for the China ICE-CMM

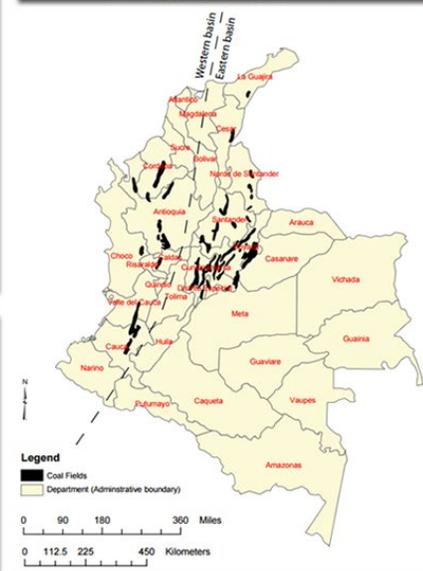
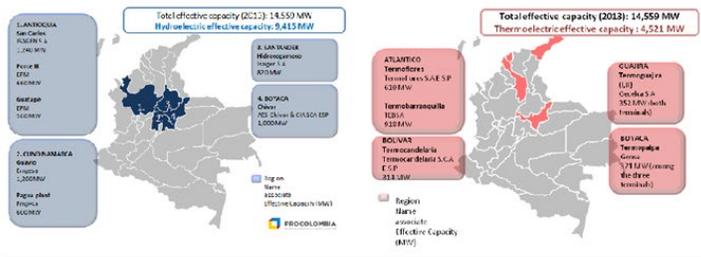
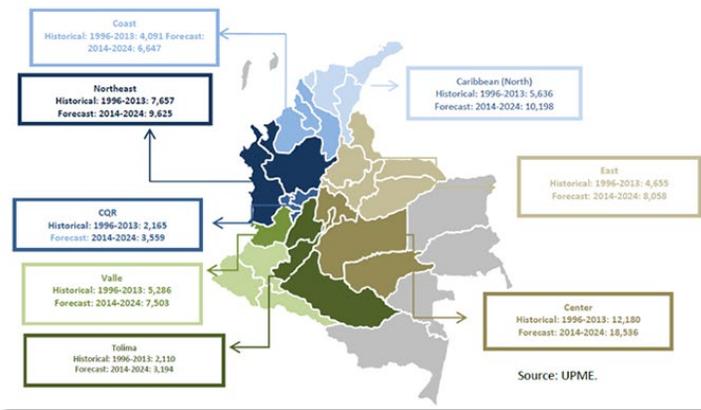


- Methane Drainage and Utilization at the Casa Blanca Coal Mine, Colombia
 - One of the largest mining complexes in the country
 - Completed to determine the feasibility of a CMM capture and utilization project

- Methane Drainage and Utilization at the Pootkee Colliery, Damodar Valley, Jharkhand State, Dhanbad District, India



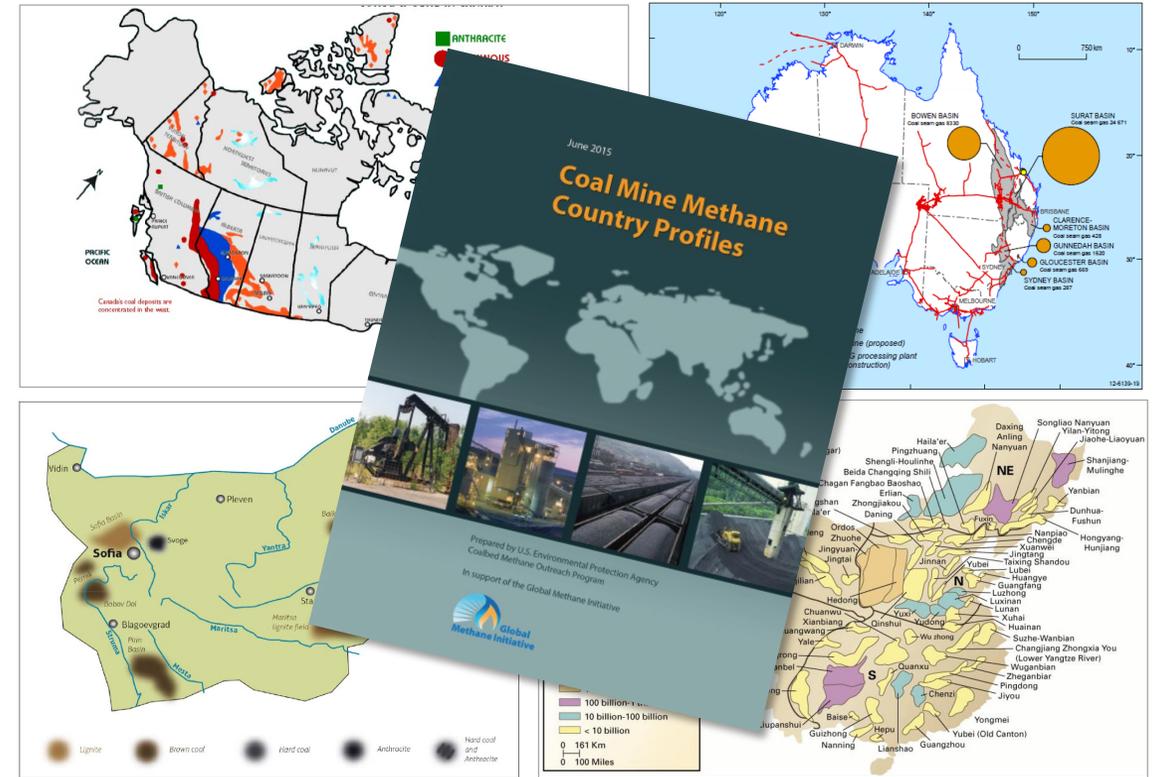
Completed Coal Mine Methane Market Studies



- Completed two CMM Market Studies in 2019
 - India
 - Colombia
- The studies provide an overview of each country's energy markets and:
 - Summarize current CMM and CBM projects and CMM emissions
 - Identify opportunities for CMM utilization and emissions reduction projects
 - Outline challenges and benefits of implementing CMM and CBM projects

Updated GMI Country Profiles

- Comprehensive profiles that characterize the coal and coal mine methane sectors
- Contain summary tables that include statistics on:
 - Coal reserves
 - Coal production
 - Methane emissions
 - CMM project activity
- Profiles were recently updated for 7 countries and will be posted on the GMI website soon



Prepared Reports Analyzing CMM Ownership, Legal Status



- Status of CMM Ownership and Policy Incentives in Key Countries
 - Presents cases studies about building capacity, developing strategies and markets, and removing barriers for CMM recovery and utilization projects
- Legal and Regulatory Status of AMM in Selected Countries
 - Presents case studies on countries that have an enabling environment for AMM recovery and utilization projects
- Supported by US EPA under the auspices of GMI

CMM Project Development Online Course

- Introduces principles for assessing the potential of developing projects to capture and/or use CMM.
- Course will benefit project developers, mining company personnel, governmental officials, or other 3rd parties.
- 8 modules under development and expected to be released in early 2020.

Module 1

Show/Hide Menu How to Navigate Text Version

Are You Ready to Initiate a Pre-feasibility Study?

Clarify study objectives & scope Confirm commitment of mine management Verify project type

Conduct pre-feasibility study

Answer these questions to clarify the objectives and scope of the study:

- Is it a pre-feasibility or full feasibility study?
- Is it at one mine or multiple mines?
- What are the expected outputs of the study?

Search...

[Back](#) [Next](#)

Workshop and Event Participation



- Delivered CMM workshops in India and Colombia
- Contributed to Best Practice workshops/panels in Ukraine, Poland, and Turkey
- Also participated in:
 - Greenhouse Gas Control Technologies-14
 - 18th International CBM/CMM Symposium in China
 - North American Coalbed Methane Forum
 - International Pittsburgh Coal Conference

Report on Expert Dialogue on VAM

- Summarizes discussion from the Expert Dialogue on VAM held in Melbourne, Australia in October 2018
- Explores the technical, market and policy barriers that are inhibiting VAM project implementation
- Provides details on achievable tasks/action items to help eliminate barriers to increase VAM project development
- Available on GMI website:
https://globalmethane.org/documents/res_coal_VAM_Dialogue_Report_20181025.pdf
- Update from Clark Talkington, ARI



Expert Dialogue on Ventilation Air Methane (VAM)
Melbourne, Australia
25 October 2018
Meeting Report

Sponsor

Commonwealth Scientific & Industrial Research Organization (CSIRO) of Australia

Supporters

Global Methane Initiative
U.S. Environmental Protection Agency

Agenda

The agenda is included as Appendix A.

Participants

The list of participants is included as Appendix B.

Background and objectives of the Expert Dialogue

Methane is the second largest source of anthropogenic greenhouse gases (GHGs), accounting for 16 percent of global GHG emissions.¹ Reduction of these emissions has become a policy priority in recent years due to methane's high global warming potential (GWP) which is 28 to 34 times greater than that of CO₂.² In addition to the climate benefits of lower emissions, mitigation of methane emissions also results in important economic, safety, and environmental co-benefits.

Coal mines are a leading source of methane, accounting for 9% of global methane emissions, making the mining industry the fourth largest anthropogenic source. The Global Methane Initiative (GMI) estimates that current global coal mine methane (CMM) emissions total 800 million tonnes of CO₂ equivalent (MTCO₂e), with the largest share of emissions coming from ventilation shafts at underground coal

¹ IPCC, 2014: Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, R.K. Pachauri and L.A. Meyer (eds.)]. IPCC, Geneva, Switzerland, 151 pp.

² IPCC, 2014.



Thank you!

**Co-Chairs, Coal Mines Subcommittee
Global Methane Initiative**

Upcoming Events for GMI Coal Mines Subcommittee Participation

7 November 2019



Members' Planned Events:

19th International Symposium on CBM/CMM in China

- Organizer: China Coal Information Institute (CCII)
- When: December 11th in Beijing, China
- A platform to promote the development of the CBM/CMM industry through strengthening technical and economic cooperation in CBM/CMM recovery and utilization at home and abroad.

Members' Planned Events: Ventilation Air Methane Study Tour

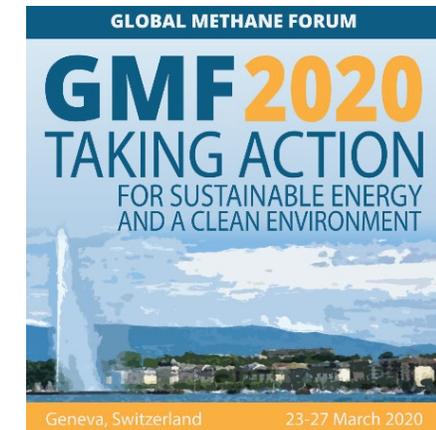
- Organizer: Yanquan Mining Group
- When: the week of December 9th
- Goals: Advance VAM utilization in China and globally; visit VAM site and develop a joint GMI-CCII-ICE report on best practices

Global Methane Forum 2020

- 23 – 27 March 2020 in Geneva, Switzerland
- Co-hosted with UNECE
- GMI Meetings:
 - Oil & Gas Subcommittee
 - Coal Mines Subcommittee
 - Biogas Subcommittee
 - Steering Committee
 - Plenary Session
- Capstone event to celebrate the Global Methane Challenge

**Recommendations for topics
(discussing later today)**

Send recommendations to
ASG@Globalmethane.org



Other Upcoming Events

- International Mining Forum 2020, Krakow, Poland
- [North American Mine Ventilation Symposium](#)
 - 12-16 June 2021 - Rapid City, South Dakota (USA)
- [World Mining Congress](#)
 - 20-22 July 2021 - Brisbane, Australia
- International Pittsburgh Coal Conference
 - 2021 – India



Future of Mining Events



- [Future of Mining Australia](#)
 - 23-24 March 2020 - Sydney, Australia
- [Future of Mining Americas](#)
 - October 2020 - Denver, Colorado (USA)
- [Future of Mining EMEA - Europe, the Middle East and Africa](#)
 - June 2022 - London, UK

Thank you!

**Co-Chairs, Coal Mines Subcommittee
Global Methane Initiative**

Coal Mines Subcommittee Action Plan: Update and Future Priorities

7 November 2019



Adopted Subcommittee Action Plan



Global Methane Initiative Coal Subcommittee – Action Plan

Coal Subcommittee Action Plan

Adopted by Subcommittee: 24 September 2018

Introduction

The Global Methane Initiative (GMI) Terms of Reference (TOR)¹ states that each Subcommittee should develop and execute an Action Plan that aligns with the TOR and current needs of the Subcommittee and Project Network members, as well as GMI's overarching goals of advancing project implementation, facilitating investment, and creating appropriate policy frameworks that support methane abatement, recovery, and use.

The Coal Subcommittee Action Plan provides a blueprint for the important activities and priorities of the Coal Subcommittee to advance coal mine methane (CMM) projects. The Action Plan recognizes and takes into account the Subcommittee's work and accomplishments to date, while also acknowledging the dynamic and rapidly changing environment affecting the global energy sector, particularly the coal industry, and also global carbon and environmental attributes markets.

In 2006, the Coal Subcommittee developed an Action Plan for the Subcommittee's specific activity (the '2006 Action Plan'). In 2014, the Coal Subcommittee drafted and adopted a Statement of Purpose which clarified the focus of its work, as well as the roles and responsibilities of Subcommittee and Project Network members. In 2015, the Coal Subcommittee adopted a new Action Plan.² The 2015 Action Plan recognized the necessary evolution of the Subcommittee's work from a foundational focus on project identification and policy development to identification and dissemination of best practices for effective methane management in coal mines worldwide. The 2015 Action Plan also recognized the Subcommittee's support for public-private, regional International Centres of Excellence (ICE) on CMM. The ICE model, in concert with dissemination of best practices, is the foundation for a stronger and more sustainable results-driven model for emission reductions. Collectively, the 2006 and 2015 Action Plans and Statement of Purpose were instrumental in providing a framework for the projects and activities of the Coal Subcommittee.

In 2016, the GMI TOR was modified and extended for an additional five years. Updating the Coal Subcommittee Action Plan was discussed at the 24 October 2017 and 18 April 2018 Coal Subcommittee meetings. To better align with the new GMI TOR and more accurately reflect the Coal Subcommittee's

¹ See: <http://www.globalmethane.org/about/terms.aspx>

² See: https://www.globalmethane.org/documents/Coal_Subcommittee_Action_Plan_Oct2015.pdf

- Adopted by Subcommittee in September 2018
 - Previous Coal Subcommittee Meeting
- Available on GMI website:
https://globalmethane.org/documents/Coal_Subcommittee_Action_Plan_September2018.pdf
- 3-year cycle
- Open to suggestions and feedback



Objectives for Discussion

1. Next steps: What should be priorities moving forward?
2. What Partners will take the lead on implementing actions?



Objective One: Development of Overview Materials

- Completed:
 - ✓ Regular updates to the GMI CMM Country Profiles (7 profiles)

- Potential Activities:
 - 1) Update additional CMM Country Profiles (which countries?)
 - 2) Update the GMI CMM Technology Database
 - 3) Update the International CMM Projects List
 - 4) Update other tools and resources on the GMI website

Objective Two: Identify and Address Key Barriers to Project Development

- Completed:
 - ✓ Update White Paper “Legal and Regulatory Status of CMM Ownership in Key Countries: Considerations for Decision Makers”
 - ✓ Hold seminars, workshops and/or extended training to facilitate technology transfer on best practices, evolving from a more targeted approach
 - ✓ Prepare pre-feasibility studies in GMI countries
 - ✓ Conduct training on preparation and delivery of pre-feasibility and full feasibility studies

Objective Two: Identify and Address Key Barriers to Project Development (Cont'd)

■ Potential Activities:

- 1) Host delegations for CMM study tours (in progress with CCII)
- 2) Support information centres or clearinghouses
- 3) Participate in and sponsor delegates from Subcommittee members to participate in quality technical symposia
- 4) Continue cooperation with the China & Polish International Centres of Excellence
- 5) Identify sources of finance and engage with financial institutions
- 6) Hold project capacity building finance workshops
- 7) Create link between prospective CMM projects and sources of finance and investment
- 8) Update important tools: the CMOP *International Cash Flow Model* and the *CMM Finance Guide*

Objective Three: Identifying Country-Specific Needs and Opportunities

- Potential Activities:
 - 1) Provide tools and guidance that help Partner Countries identify national level actions, supportive policies, and priority project opportunities
 - 2) Update relevant tools

Objective Four: Establish Long-Term Relationships that Promote the Coal Subcommittee Objectives

- Potential Activities:
 - 1) Contact members about upcoming activities and events
 - 2) Contact GMI Partner Countries to encourage them to nominate Coal Subcommittee members
 - 3) Provide information to members to show that GMI and the Coal Subcommittee provides added value to their methane management efforts
 - 4) Encourage members to provide updates on their methane management activities and Action Plans
 - 5) Continue cooperation in support of dissemination and publication of “Best Practice Guidance for Effective Methane Drainage & Use in Coal Mines”

Thank you!

**Co-Chairs, Coal Mines Subcommittee
Global Methane Initiative**

**Planning for the Upcoming
Global Methane Forum:
March 23-27, 2020**



Global Methane Forum 2020

Time	MONDAY 23 March		TUESDAY 24 March	WEDNESDAY 25 March		THURSDAY 26 March	FRIDAY 27 March
08:00							
09:00	GMI Steering Committee 09:00-18:00 <i>Room S4</i>	GMI Biogas Subcommittee 09:00-18:00 <i>Room IV</i>	Plenary 10:00-18:00 <i>Room XVIII</i>	GMI Steering Committee 09:00-12:00 <i>Room IV</i>	GMI Oil & Gas Subcommittee 09:00-18:00 <i>Room S4</i>	UNECE Group of Experts on Gas 10:00-18:00	UNECE Group of Experts on Gas 10:00-18:00
10:00							
11:00							
12:00							
13:00							
14:00		GMI Coal Mines Subcommittee 14:00-18:00 <i>Room XVIII</i>					
15:00							
16:00							
17:00							
18:00							

Global Methane Forum 2020

- GMI Coal Subcommittee
 - Topics/themes
 - Global Methane Challenge

- Remember to register at:

<https://globalmethane.org/gmf2020/>

<https://www.unece.org/index.php?id=52506>

Action Items

- VAM Study Tour December 2019
- China CBM/CMM Symposium December 2019
- Potential Subcommittee Meeting September 2020
- Updates to Subcommittee Action Plan
- CMM Incentives and Market Opportunity
 - GMI to help include CMM in NDCs
- CMM Task Force for Global Methane Forum 2020
 - Topics?
- Co-Chairs to coordinate on Steering Committee Meeting Presentation November 2019

Thank you!

See you in Geneva

23 – 27 March 2020

Global Methane Forum 2020

<https://globalmethane.org/gmf2020/>