State of the Initiative

GMI Partnership-wide Meeting

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Krakow, Poland

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Global Methane Initiative

Overview

- Importance of Methane
- Overview of the Global Methane Initiative (GMI)
- Partnership Accomplishments
- Looking Forward

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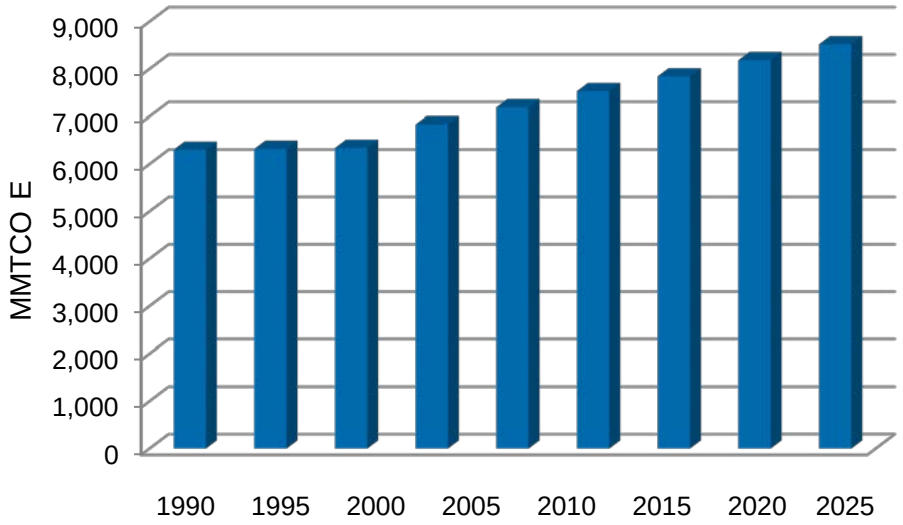
Importance of Methane (CH_4)

- Basic information:
  - 100-year GWP = 25
  - Lifetime = 12 years.
- Primary component of natural gas.
- Many natural and anthropogenic sources:
  - Energy, agriculture & waste sectors
  - 50 - 70% anthropogenic
- Atmospheric CH_4 concentrations have increased by 150% in the last 260 years.

Growth in Global Anthropogenic Methane Emissions: 1990 - 2030



- Global anthropogenic methane emission are projected to increase by more than 18 percent (up to 8,522 $MMTCO_2E$) from 2010 to 2030.

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Co-Benefits of Methane Reduction

Methane is a potent, well-mixed greenhouse gas in the atmosphere, so reducing methane emissions anywhere have equal impact.

Reducing methane has other very important benefits:

- **Energy Supply and Reliability**
  - Mitigation makes methane available for local energy purposes, thereby strengthening energy security, enhancing local economies and fostering sustainability.
- **Environmental Quality and Public Health**
  - Local water quality improvements due to improved management of agricultural wastes.
  - Reduction of local emissions of VOCs from landfills, agriculture, and oil and gas systems.
  - Reduction of ground-level ozone through reduced methane emissions.
- **Industrial Safety**
  - Methane is explosive. Reducing methane concentrations improves worker safety in the coal and oil & gas sectors.

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What is the Global Methane Initiative (GMI)?

Mission:

GMI is a voluntary, multilateral partnership that aims to reduce methane emissions and to advance the abatement, recovery and use of methane as a clean energy source.

- Began in 2004 (as the Methane to Markets Partnership)
- Targets five sector-specific areas for methane reduction
  - Agriculture
  - Coal Mines
  - Landfills
  - Municipal Wastewater
  - Oil & Gas Systems

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GMI Strategies for Success

Strategies:

- Promote international cooperation on methane reduction
- Facilitate the availability of reliable methane emission data
- Support capacity building in partner countries
- Assist in the removal of barriers for methane project development
- Identify cost-effective opportunities for methane projects

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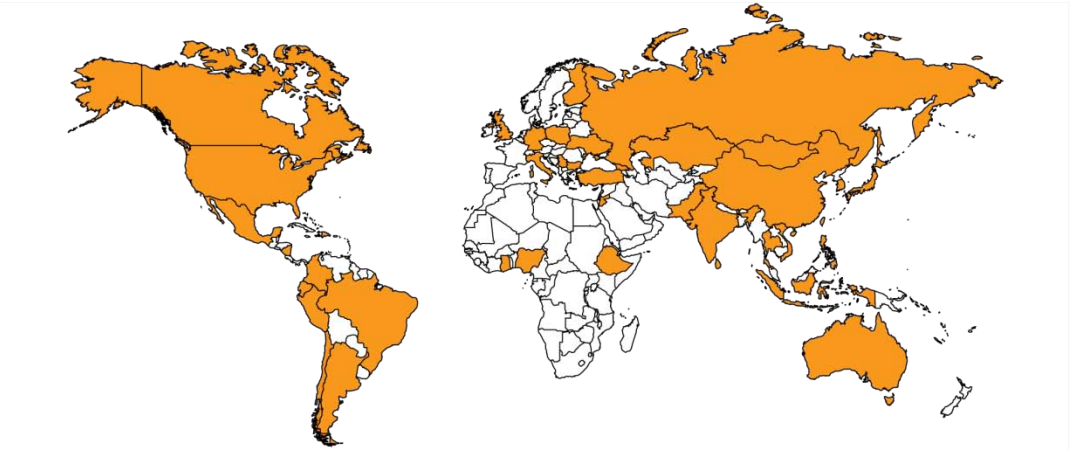
GMI Partners

- Grown from 14 to 39 Partner governments, plus European Commission
- Represent nearly 70% global anthropogenic methane emissions



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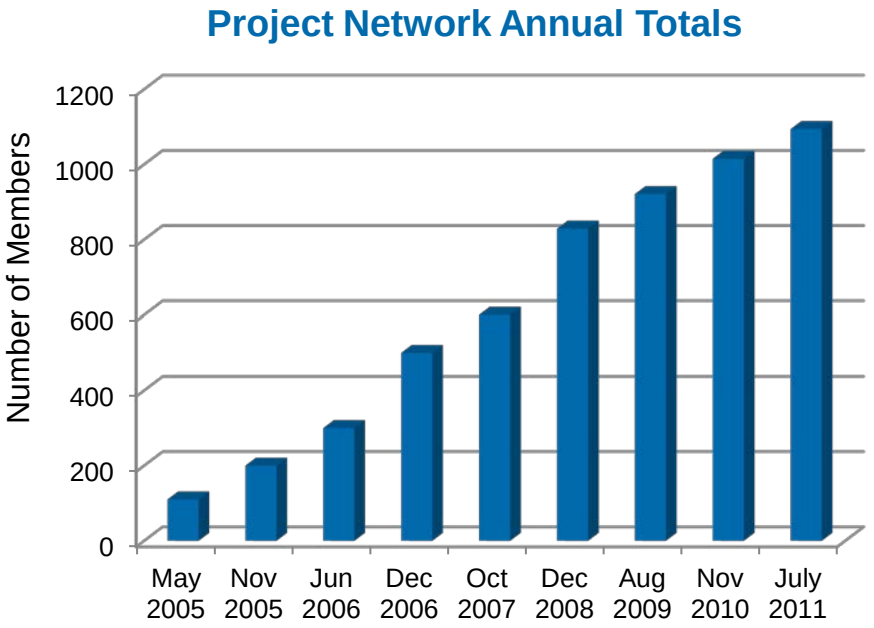
GMI Project Network

- Brings necessary actors together to implement reduction projects.
- More than 1,100 diverse organizations from six continents.
- Project Network members can:
  - Expand business and increase profits
  - Distinguish themselves in the marketplace
  - Identify financial and technical support for potential projects
  - Build capacity
  - Fulfill strategic goals
  - Mitigate climate change



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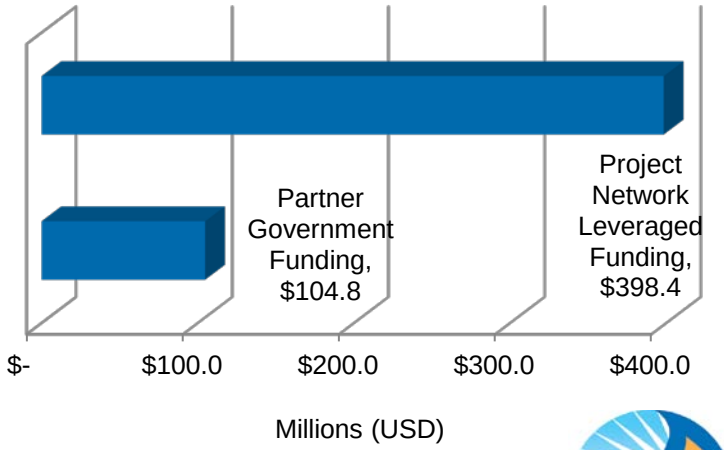
GMI: Seven Years of Accomplishments

- Supported work at nearly 600 sites in Partner countries around the world that are already reducing emissions by approximately 38 $MMTCO_2E$ annually in 2010.
- Held more than 100 technology transfer and capacity building events in more than 20 countries.
- Garnered financial support of nearly $105 million USD from Partner countries and leveraged nearly $400 million USD from private companies and financial institutions.

Government and Leveraged Funding for Partnership Activities



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GMI: Seven Years of Accomplishments (2)

- Organized two Partnership Expos in Beijing, China (2007) and New Delhi, India (2010). Cumulatively, these venues:
  - Attracted more than 1,200 attendees
  - Featured nearly 250 project opportunities and success stories
- Developed a suite of tools and resources to help overcome institutional and informational barriers to project development.
- Served as a good complement to the Kyoto Mechanisms, providing technical assistance and capacity building necessary for long-term project success.

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GMI: Seven Years of Accomplishments (3)

- Coordinated 2nd Ministerial Meeting in 2010 to launch GMI, announce new charge for the future.
  - Attracted more than 65 participants from 19 countries, as well as representatives from European Commission, ADB, and IDB.
- Ministerial Declaration:
  - Acknowledged success of Methane to Markets, and need to expand and enhance global efforts to reduce methane emissions.
  - Highlighted progress to identify/reduce barriers to technology deployment and project development.

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Agriculture

- **The Subcommittee has:**
  - Hosted meetings and workshops in more than a dozen countries.
  - Assisted in the development of 13 country-specific action plans and 10 resource assessments.
  - Showcased more than 30 project opportunities and success stories at the 2010 Expo.
  - Developed international guidance for evaluating and reporting Anaerobic Digestion system performance, currently in use by Argentina, China, and Thailand.

- **Philippines**
  - Organized a series of hands-on trainings to introduce government and private sector representatives to AD technologies and carbon reduction Program of Activities under the Clean Development Mechanism (CDM).

- **Thailand**
  - Analyzed wet market waste sector to identify potential demonstration projects and apply the analytical approach to rural areas in Thailand as well as other GMI countries.

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Coal Mine Methane

- **The Subcommittee has:**
  - Hosted meetings and workshops in more than a dozen countries.
  - Completed country-specific action plans for seven Partners.
  - Showcased nearly 40 project opportunities and success stories at the 2010 Expo.
  - Sponsored workshops in China, Kazakhstan, and Ukraine hosted by UNECE to disseminate “Best Practices” for methane drainage and recovery at underground coal mines.

- **Mongolia**
  - Conducted pre-feasibility study on methane recovery and utilization and provided two-day training on CMM project development.

- **Poland**
  - Performed feasibility study and assessment of converting abandoned mine methane (AMM) to liquefied natural gas (LNG). Also conducted study to characterize ventilation air methane (VAM) emissions and mitigation potential from 10 gassy mines.

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Landfills

- **The Subcommittee has:**
  - Hosted meetings and workshops in nearly 20 countries around the world.
  - Completed country-specific action plans for nine Partners.
  - Showcased 55 project opportunities and 11 success stories at the 2010 Expo.

- **China**
  - Conducted pump test and pre-feasibility study on potential to expand landfill gas utilization at Gaoantun Landfill. Also monitored gas collection system to improve efficiency. Current electricity generation equals 2.5 MW, with an additional 1.5 MW planned

- **Ukraine**
  - Conducted pump test to determine landfill gas recovery rate capable of supporting an electricity project at Mariupol Landfill. Collected landfill gas is now direct to a cogeneration plant, with an anticipated 1.25 MW generation rate.

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Oil and Gas Systems

- **The Subcommittee has:**
  - Hosted meetings and workshops in nearly 20 countries around the world.
  - Completed country-specific action plans for seven Partners.
  - Showcased a dozen project opportunities, success stories, and technologies developments at the 2010 Expo.

- **Mexico**
  - Co-hosted Gas Flaring Reduction Best Practices Workshop with representatives from the World Bank's Global Gas Flaring Reduction (GGFR) Partnership, the government of Mexico, PEMEX, and other oil and gas companies.

- **India**
  - Conducted prefeasibility studies to identify and estimate major methane emission sources from several Oil and natural Gas Corporation (ONGC) sites. Subsequent measurement studies identified vapor recovery units (VRUs) as cost-effect emission reduction option.

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The Future of GMI

- Well positioned for the future given continued growth in membership and demonstrated results.
- Steering Committee met yesterday and will continue today to discuss mechanisms and approaches that could enhance and expand our work in the future.
- Some Key Items under discussion:
  - Tracking and Reporting Activities
  - 2013 Expo
  - Next Steps on Municipal Wastewater Sector
  - Implementing Partner Action Plans
  - Exploring potential structural changes and funding mechanisms that could enhance effectiveness of GMI in the future.

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Conclusion

- Your participation is important to the future success of GMI.
- We look forward to an educational and successful event over the next two days
- We appreciate the strong support of all GMI Partners to-date. We thank our colleagues in Poland for their gracious hospitality in hosting this meeting in Krakow.

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