

## Objective

The Global Methane Initiative (GMI) is a voluntary, multilateral partnership that aims to reduce global methane emissions and to advance the abatement, recovery, and use of methane as a valuable clean energy source. GMI achieves this by creating an international network of partner governments, private sector members, development banks, universities, and non-governmental organizations to conduct assessments, build capacity, create partnerships, and share information to facilitate project development for methane reduction in Partner Countries.



## Why Target Methane?

Methane is the second most abundant anthropogenic greenhouse gas (GHG) after carbon dioxide (CO<sub>2</sub>), accounting for about 20 percent of global emissions. Methane is considered a “short-term climate forcer,” meaning it has a relatively short lifespan in the atmosphere of approximately 12 years. Though methane is in the atmosphere for a shorter period of time and is emitted in smaller quantities than CO<sub>2</sub>, its global warming potential (i.e., the ability of the gas to trap heat in the atmosphere) is 28-34 times greater.<sup>1</sup> As a result, methane emissions contributed to about one-third of today’s anthropogenic GHG warming.

Methane is emitted during the production and transport of coal, natural gas, and oil. Emissions also result from the decay of organic

matter in municipal solid waste (MSW) landfills, some livestock manure storage systems, and certain agro-industrial and municipal wastewater treatment systems. Capturing methane from these sources offers a unique opportunity to mitigate climate change and simultaneously increase available energy supply. However, without more stringent reduction measures, methane emissions are expected to increase by nearly 9 percent over anticipated 2020 levels to 10,220 million metric tons of carbon dioxide equivalent (MMTCO<sub>2</sub>E) by 2030.<sup>2</sup> GMI Partner Countries represent approximately 70 percent of the world’s estimated anthropogenic methane emissions. Cumulative methane emission reductions that can be attributed to GMI total more than 200 MMTCO<sub>2</sub>E.

## Benefits of Methane Abatement, Recovery, and Use

Launched in 2004, GMI is an international effort dedicated to the abatement, recovery, and use of methane focusing on five key emission sources: agriculture (manure management), coal mines, MSW, municipal wastewater, and oil and gas systems. The Initiative works in concert with other international organizations and agreements—including the Climate and Clean Air Coalition, United Nations Economic Commission of Europe, and the United Nations Framework Convention on Climate Change—to reduce GHG emissions.

Unlike other GHGs, methane (as the primary component of natural gas) can be converted to usable energy. The reduction of methane, therefore, serves as a cost-effective method to reduce GHGs, increase energy security, enhance economic growth, and improve air quality and worker safety.



<sup>1</sup> The fifth report of the Intergovernmental Panel on Climate Change (IPCC), released in 2013, included methane GWP values of 28 to 34. The United States and other developed countries are currently using the fourth report’s GWP value of 25 to quantify the climate impact of U.S.-government-supported methane reduction projects.

<sup>2</sup> U.S. Environmental Protection Agency (U.S. EPA), *Global Anthropogenic Emissions of Non-CO<sub>2</sub> Greenhouse Gases: 1990–2030* (EPA430-R-12-006), December 2012. [www.epa.gov/climatechange/Downloads/EPAactivities/EPA\\_Global\\_NonCO2\\_Projections\\_Dec2012.pdf](http://www.epa.gov/climatechange/Downloads/EPAactivities/EPA_Global_NonCO2_Projections_Dec2012.pdf).

## Private Sector Involvement

GMI includes a Project Network that facilitates communication, project development and implementation, and private sector involvement. This network assists with reaching out to and organizing the efforts of the private sector, the research community, development banks, and other governmental and non-governmental organizations with interests and expertise in methane abatement, recovery, and use. Active involvement by Project Network members is essential to building capacity, transferring technology, and promoting private direct investment to ensure the Initiative's success. Project Network members have helped the program leverage nearly \$600 million in investment from private companies and financial institutions. A current list of Project Network organizations is available on the GMI website.

## GMI Tools and Resources

To assist Partner Countries and Project Network members with project identification and development, GMI:

- Maintains a dynamic GMI website, which includes Partner Country-specific pages with native language features, as well as sections on the Project Network, Sites, Activities, Tools & Resources, and News & Events. Also has an active social media presence on Facebook, Twitter, and LinkedIn.
- Coordinates the Methane International (MI) blog, the primary resource for stakeholders interested in timely and topical information related to methane mitigation. The blog is regularly updated with posts on program news and events, case studies and best practices, funding opportunities, and industry news and publications from around the globe.
- Develops general and sector-specific fact sheets (available in Chinese, English, Russian, and Spanish) and technical documents (e.g., *Anaerobic Digestion System Performance Guidance*, *Coal Mine Methane Country Profiles*) that provide overviews of methane mitigation, recovery, and use options as well as case studies in Partner Countries.
- Supports data collection and distribution via international databases for Agriculture, Coal Mines, and MSW that contain site- and/or technology-specific information, as well as maintains an interactive, searchable map of projects and/or sites on the GMI website.
- Offers tools such as *Landfill Gas (LFG) Models* to help evaluate the feasibility and potential benefits of collecting and using LFG for energy recovery, and the *Oil and Gas Nodal Analysis Tool*, which provides easy access to cost-effective methane reduction technologies and practices.

## Global Methane Initiative Partners

(as of September 2015)

For additional information, please visit the GMI website at:  
[www.globalmethane.org](http://www.globalmethane.org)

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