

The Global Methane Initiative (GMI) is an international public-private partnership focused on reducing barriers to the recovery and use of methane as a clean energy source. GMI's 45 Partner Countries and more than 700 Project Network members exchange information and technical resources to advance methane mitigation in three key sectors: Oil and Gas, Biogas, and Coal Mines.

globalmethane.org **GMI Partner Countries represent** approximately 75% of methane emissions from human activities.

**GMI provides technical support** to deploy methane-to-energy projects around the world. Since 2004, GMI support has enabled Partner Countries to launch hundreds of methane recovery and use projects, with more than 453 MMTCO<sub>2</sub>e of associated emission reductions. These reductions result in many benefits, including:

- ↑ Improved human health
- 1 Increased worker safety
- ↓ Decreased greenhouse gases ↑ Better air and water quality
  - 1 Enhanced energy security
  - ↑ Expanded economic growth

**GMI is an information resource** for Partner Countries, Project Network members, and other stakeholders. GMI's website serves as an online library with extensive information on methane-to-energy projects, best practices, and technical tools and resources. In the last 15 years, GMI has trained more than 15,000 people around the world in methane mitigation and recovery.

**GMI collaborates** with other international organizations focused on methane recovery and use, including the Climate and Clean Air Coalition (CCAC), the United Nations Economic Commission for Europe (UNECE), and the International Energy Agency (IEA).

### **Methane Matters**

## The Challenge

Methane is a potent greenhouse gas. Over its 12-year lifetime in the atmosphere, it traps 28 times more heat than carbon dioxide. resulting in a stronger influence on warming.

# The Opportunity

Methane's short atmospheric lifetime also means that reductions today can make an immediate impact to slow warming. And, a variety of technologies are available to capture methane and convert it to useful energy.



#### Oil & Gas Sector

Methane emissions from oil and natural gas systems result from both normal operations and system disruptions. These emissions can be cost-effectively reduced by upgrading technologies or equipment, and by improving operations.



#### **Biogas Sector**

Biogas produced from the anaerobic digestion of organic material or emitted directly from landfills can be treated to create pipeline-quality natural gas, used as a cooking fuel, used to generate electricity, and captured on-site to provide heat and power.



#### **Coal Mines Sector**

Removing fugitive methane gas from underground coal mines and using it in profitable and practical ways can improve worker safety, enhance mine productivity, increase revenues, and reduce greenhouse gas emissions.

# **Estimated Global Methane Emissions from Human** Activities in 20301

**GMI Targeted Sectors (50.3%)** 

Oil & Gas Operations: 20.3%

Municipal Solid Waste: 9.7%

Wastewater: 6.1%

Manure Management: 3.8%

Coal Mining: 10.4%

Other Sources (49.7%)

Others: 1.5% Biomass: 2.2%

Industrial Sources: 4.0%

Stationary & Mobile Sources: 4.4% Rice Cultivation: 7.0%

Enteric Fermentation: 30.6%