



**Methane to Markets**



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## **Overview: Methane to Markets Partnership and Resources for Natural Gas Companies**

**Seminar with Russian Independent Oil and Gas Producers on Methane Mitigation Technologies and Strategies**

October 4, 2010, Moscow, Russia

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# Background: Methane to Markets

- The **Methane to Markets Partnership (M2M)** is an international initiative that advances cost-effective, near-term methane recovery and use as a clean energy source in four sectors:



*Oil and Gas Systems*



*Coal Mines*



*Landfills*

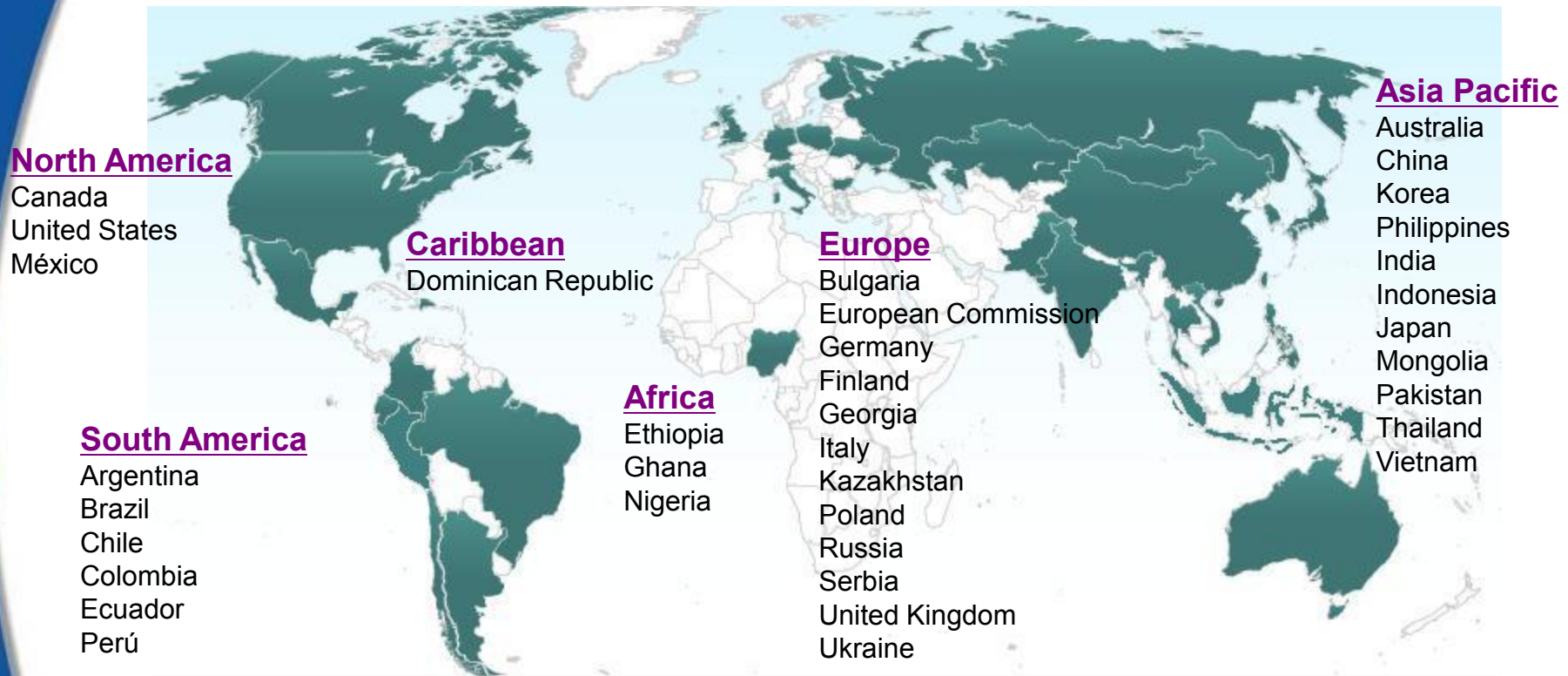


*Agricultural Waste*

- The goals of the Partnership are to reduce global methane emissions to:
  - Enhance economic growth
  - Improve air quality and industrial safety
  - Reduce emissions of greenhouse gases
  - Strengthen energy security

# Methane to Markets Partner Governments

- Currently there are 35 Methane to Markets Partner Governments including the United States and Russia.



- Private companies, multilateral development banks and other relevant organizations participate by joining the **Project Network – over 900 organizations now participating**

## Why focus on Methane

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- Methane is the second most important greenhouse gas accounting for ~18% of total radiative (climate) forcing
- A primary component of natural gas and a valuable, clean-burning energy source
- Concentration of methane in the atmosphere has increased by 150% in the last 260 years
- Anthropogenic methane emissions are expected to rise 23% by 2020
- Methane reductions are critical and can be cost-effective

# Methane Emissions from Oil and Gas Operations

- The majority of oil and gas methane emissions come from
  - Natural gas
    - Production
    - Processing
    - Transmission
    - Distribution
  - Oil production
  
- Methane emissions can be intentional or unintentional
  - Leaks
  - Process venting
  - System malfunctions



# Background: Natural Gas STAR Program



- For over 15 years (since 1993), the U.S. EPA has worked with the U.S. oil and gas industry to promote proven, cost-effective, methane mitigation technologies and practices.
  - Collaborate with companies that produce, process, transmit and distribute natural gas to learn about innovative ways to reduce methane emissions;
  - Develop detailed technical information (currently on over 80 cost-effective mitigation options);
  - Facilitate the sharing of that information across the industry.
  
- In 2006, under Methane to Markets, EPA expanded the Program to include international operations



# Oil and Gas Resources: Industry Wide

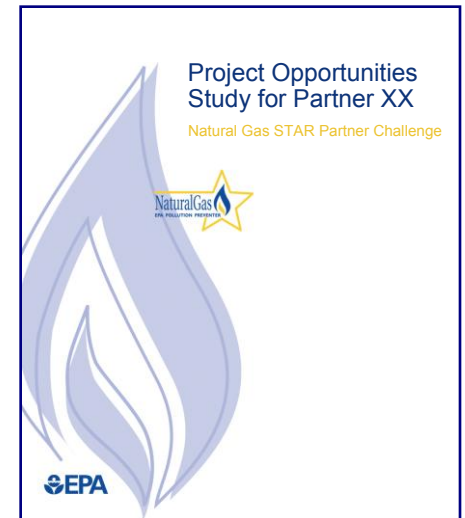
Resources to advance cost-effective oil & gas sector methane emission reductions:

- **General technology transfer, training, and capacity building:**
  - Technical documents and research outlining over 80 mitigation options, including analyses of economic, environmental and operational benefits, and
  - Workshops, conferences, and study tours
- All recommended technologies and practices are proven based on actual field implementation by partner companies.



# Oil and Gas Resources: Company Specific

- **Individual technical assistance to help companies identify and assess cost-effective methane emission reduction opportunities**
  - Analysis of estimated methane emission sources and corresponding project opportunities
  - Pre-feasibility and feasibility studies
  - Leak detection and measurement studies





# Contact Information

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- **For more information, visit:**
  - [www.methanetomarkets.org](http://www.methanetomarkets.org)
  - <http://www.epa.gov/gasstar>
  - <http://www.epa.gov/gasstar/tools/recommended.html>

- **For further assistance, direct questions to:**

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