



Methane to Markets

Update on Methane to Markets Partnership Activities

**United Nations Economic Commission for Europe
Ad Hoc Group of Experts on Coal Mine Methane
Palais des Nations, Geneva
October 16, 2008**

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Co-Chair, Coal Subcommittee, Methane to Markets
Partnership**

U.S. Environmental Protection Agency



Methane to Markets Focuses on Sectors with Near-Term Project Opportunities

Coal Mines



Oil and Gas Systems



Landfills



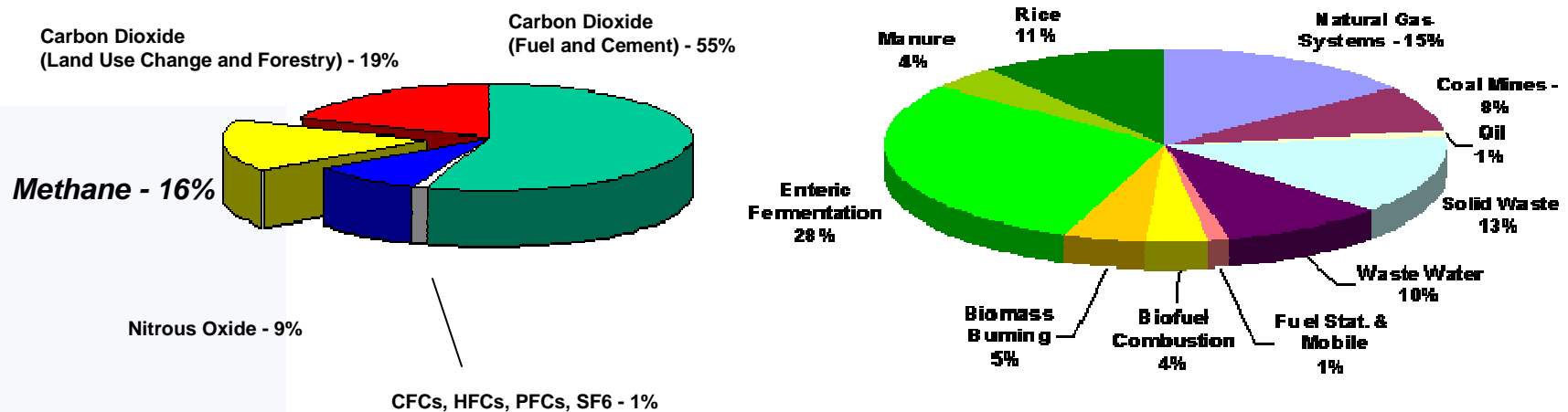
Agricultural Waste



Why Focus on Methane?

- A potent greenhouse gas (GHG):
 - 100-year global warming potential of 21
 - Atmospheric lifetime of ~12 years
- 2nd most important GHG accounting for ~18% of total climate forcing
- A primary constituent of natural gas and a valuable, clean-burning energy source

Global GHG Emissions in 2000 40,702 million tonnes carbon dioxide equivalent (MtCO₂e)

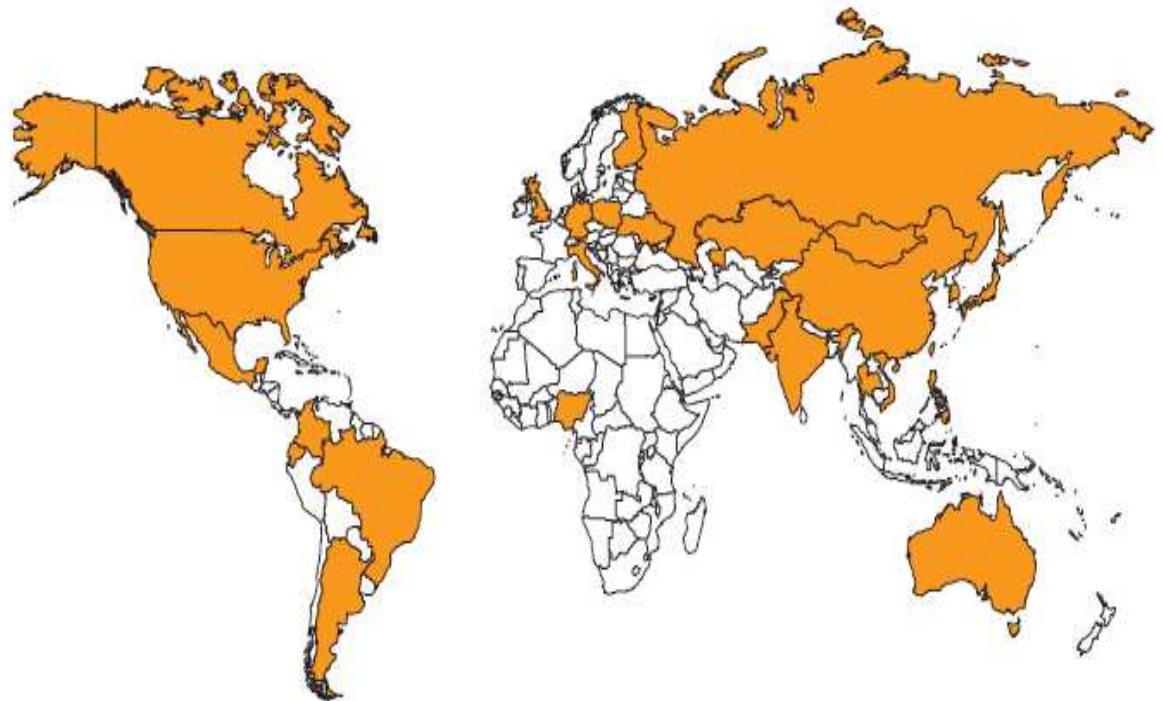




Methane to Markets Partnership

- Private companies, multilateral development banks and other relevant organizations participate by joining the ***Project Network – over 790 organizations now participating***
- **27 Partner Governments**

Argentina	Kazakhstan
Australia	Mexico
Brazil	Mongolia
Canada	Nigeria
Colombia	Pakistan
China	Philippines
European Comm.	Poland
Ecuador	Russia
Finland	Thailand
Germany	Ukraine
India	United King
Italy	United State
Japan	Vietnam
Korea	





U.S. Involvement in M2M

- U.S. EPA is coordinating efforts across the USG and staffs the Partnerships Administrative Support Group



- U.S. commitment
 - Pledge of \$53 million over five years
- Key activities to advance project development
 - Identify and assess project opportunities
 - Pre-feasibility and Feasibility studies
 - Support technology transfer, training, and capacity building
 - Workshops and Conferences
 - Study tours
 - Developing Reports / Databases / Clearinghouses
 - Address barriers to project development and increase access to information
 - Financial/market, regulatory, technical
 - Technology demonstration and deployment

Methane to Markets: Accomplishments to Date

- International dialogue on methane recovery and use opportunities
- Developed sector action plans and have held multiple meetings of each sector subcommittee
- Initiated multiple projects and other activities in more than 12 Partner countries.
- More than 90 projects at the 2008 Beijing Expo!



Partnership Expo: A Forum for Projects, Technology, Financing, and Policy



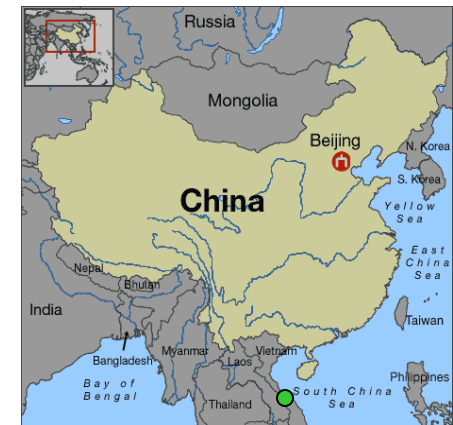
Beijing, China

30 October – 1
November 2007

- Over 750 attendees from 34 countries
- High level participation
 - Minister Xie Zhenhua, Vice Chairman of NDRC opened the meeting
 - Ambassador Randt, spoke on behalf of the U.S.
 - Vice President of ADB, Bindu Lohani gave keynote speech
- International Methane Marketplace
 - 91 projects showcased
 - 39 private sector companies showcased technologies and services
 - 13 country booths
- If fully implemented these projects are estimated to yield annual methane emission reductions of approximately 11.5 million metric tons of carbon dioxide equivalent by 2015
- The Partnership has decided to organize second Expo to be held in India Winter/Spring 2010.

Coal Sector Activities Overview

- 17 countries are on the Subcommittee, led by chairs from China, India and the United States
- Launched International Coal Mine Methane Database
- Developed Coal Mine Methane Global Overview document with in-depth info on more than 30 countries
- World's largest CMM project at Sihe Mine, Jincheng Mining Group in China



M2M Activities: Coal Sector

- Pre-feasibility and feasibility studies
 - Pre-feasibility study of VAM oxidation in Huainan, China (USEPA)
 - Feasibility studies for CMM projects in China and Ukraine (USTDA, USEPA)
 - Songzao coal basin, Chongqing, China
 - Liuzhuang Coal Mine, Anhui Province, China
 - Hebi coal basin, Henan Province, China
 - 19 Project opportunities profiled at 2007 Expo:
 - China, India, Nigeria, Russia, Ukraine
 - Status update ?



M2M Activities: Coal Sector

- Demonstration projects
 - Drilling technology in Ukraine (US AID / US Dept. of Labor)
 - Ventilation air methane technology in China (Australia CSIRO)
 - Ventilation air methane technology in USA (DOE, EPA)

M2M Activities: Coal Sector

- Project finance capacity-building
 - USEPA – UNECE program to develop financing capacity for coal mine methane projects
 - Russia, Kazakhstan, Poland, Ukraine
 - Road show in London with Russian mine
- Workshops and training to increase technical knowledge
 - Successful workshops in Beijing (2005), Geneva (2006), Brisbane (2006), Ukraine (2007), Dalian (2008)
 - Study tours to US for delegations from China, Ukraine

M2M Activities: Coal Sector

- Supporting in-country information centers
 - USEPA support for China Coalbed Methane Clearinghouse (CCII)
 - USEPA and Government of India are working to establish Coal Mine Methane / Coalbed Methane Clearinghouse
 - Kickoff scheduled for November 2008
 - USEPA currently working to develop better on-the-ground contacts in Ukraine
- Development of country-specific strategies to promote CMM

M2M Activities: Coal Sector

- Development of information resources
 - Methane to Markets website:
www.methanetomarkets.org
 - Global CMM information:
 - Overview of CMM Opportunities (33 countries)
 - Database of CMM Projects
 - Database of Technologies to Recover and Utilize CMM
 - White Papers:
 - Ownership and Regulatory Issues (in development)
 - Standard Terminology for CMM and CBM
 - CMM Flaring



Upcoming Meetings

- **US EPA 2008 Coal Mine Methane Conference**
 - 28 – 30 October 2008, Pittsburgh, PA, USA
- **Steering Committee & Subcommittee Meetings**
 - 27-29 January 2009, Monterrey, Mexico
- **2nd M2M Project Expo**
 - Winter/Spring 2010, India
- **All meeting info will be posted online:**
www.methanetomarkets.org/events/index.htm



Thank you!

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