



Methane to Markets

Agriculture Subcommittee technical session
welcome

Europa room CINTERMEX Monterrey Mexico

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Overview

- Sector Action Plan Summary
- Activities since the 2007 Beijing Meeting
 - Recent Subcommittee meeting
 - Selected Subcommittee Achievements
 - Example Activities by Country
- Next Steps

Background

- Sources of methane in the agriculture sector include:
 - ***Livestock manure management***
 - Livestock enteric fermentation
 - Rice cultivation
 - Agricultural waste burning
- The Agriculture Subcommittee has focused on methane from livestock manure management and utilization of anaerobic digesters.
 - Livestock manure management offers the most viable, short-term opportunities for methane recovery and utilization.
 - These opportunities can be realized using currently available technology and offer benefits in terms of improved environmental quality.
- The Agriculture Subcommittee last year included AD projects utilizing agri-food waste

Action Plan Overview

- The key obstacles to project development in this sector can be categorized into the following 6 key themes:
 - National capacity
 - Technology
 - Financial and Economic
 - Policy
 - Awareness
 - Project Identification and Development

- The Action Plan includes types of activities that can overcome these obstacles, as presented in the following table.

Sector Action Plan Overview (continued)

Obstacle to Project Development	Examples of Current Action Plan Items to Address Obstacles
National capacity	<ul style="list-style-type: none"> ▪ Promote capacity building in governments ▪ Provide AD experts in the Ag Country Profiles
Technology	<ul style="list-style-type: none"> ▪ Support technology demonstrations ▪ Bring together technology developers in the Project Network
Financial and Economic	<ul style="list-style-type: none"> ▪ Each country to identify and support investment opportunities ▪ Include possible financiers in the Project Network
Policy	<ul style="list-style-type: none"> ▪ Share lessons learned from policy development ▪ Analyze differences in policy portions of Country Profiles
Awareness	<ul style="list-style-type: none"> ▪ Keep up-to-date information on the M2M Web site ▪ Hold international seminars on ag methane recovery and use
Project Identification and Development	<ul style="list-style-type: none"> ▪ Track on-going projects in the M2M project database ▪ Present projects at the Expo

Subcommittee Achievements 2008

- **Subcommittee Meeting and Workshop on Overcoming the Barriers for the Implementation of Anaerobic Digestion in the Agricultural Sector – 22 to 24 April 2008, Morelia, Mexico**
 - 25 attendees at the Subcommittee Meeting
 - Approximately 80 participants in the Workshop
 - Countries represented: Argentina, Australia, Canada, India, Mexico, Thailand, United Kingdom, United States
 - Subcommittee meeting participants provided input on the next steps for the Subcommittee
 - Workshop attendees shared anaerobic digestion information and participated in a site visit to a swine farm



Subcommittee Activities 2008 (continued)

- Country representatives have developed country strategic plans which include information on:
 - International cooperation
 - Country strategy for promoting AD
 - Government Structures
 - Country Contacts
 - Conclusions and observations
 - References and Source
- ASG developed a paper to summarize the methane emission mitigation options associated with enteric fermentation and rice cultivation
- The U.S. EPA developed a draft international protocol for determining the performance of anaerobic digestion systems
 - The Subcommittee has recommended experts for review of the document
- The U.S. EPA investigated data available on anaerobic digestion of various types of food wastes
 - This information will assist project development for AD systems utilizing food processing wastes
- The U.S. EPA summarized available information on leakage from anaerobic digestion systems

Next Steps

- **Next Subcommittee Meeting**
 - Fall 2009
 - Location to be determined probably matching an AD international event

- **Next Steps**
 - Review of international protocol for evaluating the performance of anaerobic digestion systems by selected international experts.
 - Agricultural Sources of Methane Beyond Manure (Enteric Fermentation, Rice Cultivation)
 - **Preparations for 2010 M2M Expo**
 - **Response to other steering committee charges**
 - **Finishing country assessment studies with the implementation of demonstration programs and plants. (Thailand, Philippines, Vietnam, Colombia, Brazil, Argentina)**

Next Steps

- **Next Steps**
- International Protocol for Anaerobic Digestion
 - Short presentation and overview of the purpose of the Protocol
 - Status of Protocol Development
 - Discussion of proposed international protocol and next steps
- Anaerobic Digestion Systems Leakage Rate Methodology Improvement
 - Review of U.S. EPA literature review
 - Discussion of proposed leakage rate methodology
- Update country profiles and conclude specific action plans