

Tenth Session of the Agriculture Subcommittee  
Krakow, Poland  
13 October 2011

## Minutes

### Summary

- 1 The Global Methane Initiative (GMI) Agriculture Subcommittee conducted its tenth session in Krakow, Poland on 13 October 2011 in conjunction with the GMI Partnership-wide meeting. More [information about the event](#) is available on the GMI website.
- 2 Prior to the subcommittee meeting, the group participated in a site visit to an agricultural biogas plant. The plant was located at the National Research Institute of Animal Production at Grodziec Slaski.
- 3 The [subcommittee meeting agenda](#) is posted online on the GMI website. Key agenda items included:
  - Welcome
  - Brief Country Updates
  - Review of subcommittee leadership
  - Update from the Administrative Support Group (ASG)
  - Overview of ongoing subcommittee work, including the international anaerobic digestion (AD) systems database
  - Discussion of possible future subcommittee work
  - Expo planning
  - Summary of action items discussed at the meeting
- 4 Following the subcommittee meeting, GMI conducted technical workshops. The [proceedings of the technical sessions](#) are available on the GMI website. The sessions and presentations (links provided below when available) included:
  - **Session 1: Financing for Project Development**
    - [Using Microfinancing Programs to Advance Small-Scale Projects](#), presented by Prem Sagar Subedi of Winrock International
    - [The Future of Carbon Finance Programs of Activities \(PoAs\) in a Post-2012 World](#), presented by W. Nick Bowden of the World Bank
  - **Session 2: National Standards and Policies that Increase the Adoption of AD**
    - Ethiopia's Strategy for Climate Resilient Green Economy, presented by Daniel Fikreyesus of Community Development and Research
    - India's Standards and Policies, presented by Anil Dhussa of the Indian Ministry of New and Renewable Energy (MNRE)
    - [Germany's National Energy Policies Supporting AD](#), presented by Eike Horn of the German Society for Sustainable Biogas and Bioenergy Utilization
    - [Design and Implementation of National Domestic Biogas Programs in Developing Countries](#), presented by Wim van Nes of the Netherlands Development Organization

- **Session 3: Spotlight on AD Projects Around the World**
  - Thailand, presented by Arux Chaiyakul of the Thailand Department of Livestock Development
  - [United States](#), presented by Allison Costa of the U.S. Environmental Protection Agency
  - [Argentina](#), presented by Jorge Hilbert of the Argentine Instituto Nacional de Tecnología Agropecuaria
- **Session 4: European Perspectives on AD Development**
  - [Framework, Potential, and State of the Art of Biogas Technology in Ukraine](#), presented by Yuri Matveev of the Renewable Energy Agency, SEC Biomass
  - [AD Projects in Poland](#), presented by Anna Bartkowiak of the Poland Institute of Technology and Life Sciences
  - [United Kingdom's AD Strategy](#), presented Steve Dagnall of AEA
- **Session 5: Increasing International Collaboration**
  - [Canada/Mexico Project](#), presented by Daniel Masse of Agriculture and Agri-Food Canada

## Welcome

- 5 Mr. Jorge Hilbert of the Argentine Instituto Nacional de Tecnología Agropecuaria (INTA), and Agriculture Subcommittee Co-chair, welcomed meeting participants on behalf of the Agriculture Subcommittee. Mr. Hilbert provided an overview of the Subcommittee meeting agenda and technical session topics. Mr. Hilbert noted the meeting's goals to discuss the current work of the ASG and Agriculture Subcommittee, and to determine future subcommittee work.
- 6 Mr. Hilbert asked the meeting participants to each provide a brief introduction. The meeting participants included GMI Partner Country delegates, Project Network members, and ASG personnel. A participant list is presented in [Annex 1](#).

## Country Updates

- 7 **Canada.** Daniel Massé from Agriculture and AgriFood Canada stated that Canada has focused much research on reducing greenhouse gas (GHG) emissions from both manure management and enteric fermentation. Mr. Massé explained enteric fermentation is the main source of livestock emissions and Canada is committed to addressing this source and evaluating the impacts of practices on total GHG emissions (including nitrous oxide). Canada currently has three main research programs addressing GHG emissions from livestock; 40 to 50 million dollars have been committed to these programs. The first program is the Sustainable Agriculture Environmental Systems initiative, which develops best management practices to address environmental concerns. The second program is the Agricultural Greenhouse Gases Program, which develops practices to mitigate GHGs, enhances partnerships and networking, supports research, and promotes technology transfer. The third program evaluates the carbon footprint of dairy products and attempts to develop more accurate emission factors for methane, nitrous oxide, and ammonia for cold climates such as Canada.
- 8 **United Kingdom (U.K.).** Steve Dagnall of AEA indicated AD has been in use in the U.K. for many years but agriculture projects have not always been successful. However, there is a renewed interest in these projects given the U.K. government's incentives for renewable energy. The U.K. government previously set a target to obtain 10 percent of electricity from renewable sources by 2010; the new target is to obtain 15 percent of all energy by 2020. U.K. policies to encourage renewable energy include feed-in tariffs, renewable obligation certificates, renewable heat incentives, and renewable transport fuel obligations.

- 9 **India.** Anil Dhussa of the Indian Ministry of New and Renewable Energy (MNRE), and Agriculture Subcommittee Co-chair, stated India's country update will be included in his technical session presentation.
- 10 **Poland.** Jaroslaw Wisniewski of the Polish Ministry of Agriculture and Rural Development shared a [brief presentation](#) about the activities in Poland. Mr. Wisniewski noted Poland has an energy policy that is in effect until 2030 which supports renewable energy. This policy supports the development of AD by developing definitions of agricultural biogas, simplifying procedures for projects (e.g., minimizing the regulation of digestate), and supporting the use of energy from biogas. The Polish Ministry of Agriculture and Rural Development has also worked with the Polish Institute of Technology and Nature to develop an AD handbook for investors. This handbook describes good practices for project development, focusing on small projects. Poland currently has 14 operating AD systems.
- 11 **Ethiopia.** Daniel Fikreyesus of Community Development and Research noted he was finishing the country sector study and action plan for Ethiopia and will be holding a workshop in November to share the results. Agriculture comprises 60 percent of the emissions in Ethiopia and the plan describes actions to reduce these emissions, including promotion of AD, the creation of standards and tools, and workshops and training programs. Mr. Fikreyesus will provide more information about his work during his technical session presentation.
- 12 **Thailand.** Arux Chaiyakul of the Thailand Department of Livestock Development noted Thailand has focused on manure management at swine operations and has reached its goal of installing AD projects on medium and large farms containing a total of 240,000 pigs. Dr. Chaiyakul added he will be discussing this work in detail during the technical presentations.
- 13 **Pakistan.** Prem Sagar Subedi of Winrock International stated that Winrock International, together with SNV and Rural Support Programmes Network, work to promote domestic biogas in Pakistan with the Pakistan Domestic Biogas Programme. The goals of the program are to develop a commercially viable domestic biogas sector in Pakistan with an installation target of 300,000 biogas plants in the next 10 years. Over 1,300 domestic biogas plants are already installed in the Punjab Province of Pakistan under this program. In 2011, Winrock International received a grant from the U.S. EPA to build Pakistan's capacity to promote AD systems on dairy farms and increase investments in the commercial biogas sector. It is expected that four to six commercial biogas plants for electricity generation at dairy farms will be installed by mid 2012.
- 14 **United States.** Allison Costa of the U.S. Environmental Protection Agency (EPA) stated the AgSTAR Program promotes and tracks AD systems in the United States. Ms. Costa mentioned that since the June Agriculture Subcommittee Webinar, there have been a few more projects started in the United States and there are approximately 170 AD systems operating, with a majority of these systems comprised of plug flow digesters located on dairy farms. Ms. Costa also noted the AgSTAR Program co-hosted a financial summit in Washington, D.C. in September 2011. Lastly, she announced the next AgSTAR National Conference will be held in Syracuse, New York in March 2012, in conjunction with Cornell's PRO-DAIRY Program, the New York State Energy Research and Development Authority, and the U.S. Department of Agriculture's Natural Resources Conservation Service.
- 15 **Argentina.** Mr. Hilbert explained his [technical session presentation](#) would provide an update on Argentina's activities.

## **Review of the Subcommittee Leadership**

- 16 Mr. Hilbert noted there were currently only two Agriculture Subcommittee co-chairs. Each subcommittee may have up to three co-chairs, so there is an available co-chair position. In addition, Mr. Hilbert noted he has already discussed his willingness to leave the position in order to give other countries a chance to co-chair. The co-chairs' tasks include helping the Partnership address issues, helping to develop meeting and technical sessions, putting forward new ideas and suggestions, and chairing the meetings.
- 17 Mr. Dhussa suggested a representative from the U.S. EPA should consider becoming a co-chair. Mr. Kurt Roos of the U.S. EPA noted that the United States will consider this suggestion, but they would like to allow other countries that may not be present at the meeting a chance to respond to the ASG if they are interested in the position.
- 18 Mr. Dhussa also suggested a representative from Poland could become co-chair. Mr. Wisniewski thanked Mr. Dhussa for this suggestion, but stated it would be premature for Poland to assume a leadership position at this stage as Poland is just starting to become active in the initiative.
- 19 Paul Liddy from Cedar Road Bioenergy noted there are many interesting projects being completed by U.S. companies and since the United States is a leader with the technology, it would make sense to have the United States in a subcommittee leadership position. Mr. Liddy also noted Harvest Power is an American company that has an office and projects in Canada, so they might be a good company to get involved as a Project Network member for the 2013 Expo.

## **Update from ASG**

- 20 Monica Shimamura provided an [update on ASG activities and the items to be discussed at the Steering Committee meeting](#). She noted that since the Agriculture Webinar in June, two more countries—Sri Lanka and Norway—have joined GMI and the Initiative now has 41 partners.
- 21 Ms. Shimamura discussed the ongoing ASG activities. The ASG is currently working to add information to the website and newsletter, and encourages all participants to provide input. The GMI fact sheets have been updated; they were available as handouts at the meeting and will be available on the GMI website in the near future. Ms. Shimamura encouraged country delegates to help by translating the fact sheets into their national languages. The ASG is working to develop an information tracking and reporting system.
- 22 Ms. Shimamura announced the third GMI Expo is being planned for early 2013. The event will be held in Vancouver, Canada and will follow the same basic framework as the previous Expos.
- 23 Ms. Shimamura also noted the Steering Committee discussed the addition of municipal wastewater to GMI, the development of country action plans, and the future of GMI. It was decided that wastewater would be a separate sector/its own subcommittee and the United States stepped forward to serve as interim co-chair while other co-chairs are identified. Timelines, official representatives, available resources, and frequency of updates were the discussion topics for country action plans. The discussion about GMI's future included organizational options and funding suggestions.
- 24 Mr. Massé suggested research organizations be invited to the Expo to share their knowledge about the latest research and advances in AD technology. Ms. Shimamura encouraged all meeting participants to invite any organizations they would like to participate in the Expo.
- 25 Mr. Hilbert noted that agri-food waste digestion continues to be a major issue for the Agriculture Subcommittee so it should be addressed during the Expo technical sessions.

## **International AD Database**

- 26 Ms. Costa shared the latest updates on the international AD database. The purpose of this database is to provide information about AD projects in GMI Partner Countries. For developers, the database may be used to see what types of projects work for other sites or facilities with similar livestock or climates. In addition, the database may be used to identify technologies that work well in a particular geographic location.
- 27 During the June Agriculture Webinar, Ms. Costa shared the [AD project template](#) that should be used to collect information about the farm and digester. After the webinar, a [glossary](#) was developed to help users fill out the template. During the Krakow meeting, Ms. Costa shared the draft international AD database website and announced it will be available to the public in November 2011.
- 28 Ms. Costa noted the data in the system is only as good as the information received by the ASG, so it is important for everyone to use the template when providing data to the ASG. Also, it is important to note the project's status when reporting data so GMI can determine which projects are currently active. Ms. Costa asked participants to contact her with any comments or questions about the database.
- 29 Mr. Hilbert asked if Google translation worked on the website. Ms. Costa replied the translation tool should work on this site, as well as the rest of the GMI website.
- 30 Mr. Massé suggested the name of the AD project developer should be listed in the database as well; and he stated not all projects work as well as expected. Mr. Roos noted the subcommittee supported the development of the [International Guidance for Quantifying and Reporting the Performance of Anaerobic Digestion Systems for Livestock Manure](#) for the purpose of determining which technologies work as reported.
- 31 Mr. Fikreyesus supported the international AD database development and noted he has been working to identify the AD projects in Ethiopia. The Ethiopian government does not keep track of the systems and they are interested to learn his results; he also expressed his view that many counties do not keep track and would like to have this information.
- 32 Mr. Hilbert suggested maps could be developed using the latitude and longitude reported in the database to show the locations of the AD systems. Ms. Costa noted that maps were developed for U.S. systems using the U.S. AgSTAR AD database and maps could also be developed for the international AD database in the future.
- 33 Mr. Dhussa asked how the international AD database was linked to GMI's goals. Mr. Roos explained the database helped to share knowledge and also keep account of the projects that GMI has supported to show the Partnership's impacts.

## **Discussion of Possible Future Subcommittee Work**

- 34 Mr. Dhussa noted the subcommittee should decide what work to focus on for the future. Mr. Hilbert noted the U.S. EPA reviewed a simple tool for estimating potential methane emissions reductions and costs for installing a covered lagoon at swine operations in the Philippines at the November 2010 meeting in Venice, Italy. The tool could be expanded to cover additional animals, systems, and countries. Mr. Roos noted the tool was being expanded to include dairy operations. Mr. Massé noted the development of a calculator tool would be helpful and he suggested that the tool include estimates of all GHG emissions

(including nitrous oxide and emissions from enteric fermentation) and nutrients. Mr. Hilbert suggested that the next meeting or Expo could include a session on existing tools that have been developed by other countries and organizations so the subcommittee can see what is currently being done and determine what is needed.

- 35 Mr. Dhussa noted he believes GMI should be more involved in project development to help increase the number of GMI linked projects. Mr. Roos noted there needs to be more participation in the subcommittee activities in order to support project development in key countries such as China, India, and Mexico. Mr. Hilbert noted there should be requirements for GMI delegates (e.g., required to attend at least one meeting at year in order to maintain an active membership). Mr. Hilbert suggested this issue should be raised to the Steering Committee.

Mr. Dhussa stated the subcommittee should be more active in order to attract more attention. Mr. Roos added the Subcommittee members should be in touch more often than once a year before a meeting. Ms. Costa mentioned U.S. EPA grant applications are coming up and U.S. EPA will be asking delegates for input on determining which grants to award, so active participation will be asked from the delegates for that effort. Mr. Roos added the grants should be related to the country's action plan and resource assessment. Mr. Hilbert stated that this initiative is a positive step in starting to coordinate the work of the subcommittee delegates with grants and projects being supported in different countries. This will also give more incentive to update and improve the country action plans.

- 36 Mr. Dhussa suggested the co-chairs and ASG hold a separate meeting to discuss future subcommittee work. In addition, Mr. Dhussa noted the subcommittee is always open to suggestions for future work. Any additional suggestions may be submitted to the ASG or sent directly to the co-chairs.

### **Expo Planning**

- 37 Mr. Hilbert stated the Expo has already been discussed during the meeting, but that if any meeting participants have additional suggestions or proposed topics to please let everyone know. Mr. Hilbert recalled it had been previously discussed that the Expo could include a session on existing calculation tools. These tools may include GHG estimations, nutrient estimates, and/or water quality impacts.

Mr. Hilbert also noted he would like the ASG to perform an assessment of how many projects have been presented at the previous Expos and how many of those projects have been developed. In addition, he suggested projects for the 2013 Expo should be reviewed by the country delegate and tie into the country action plans.

### **Summary of Action Items Discussed at the Meeting**

- 38 The action items include the following:

39 Country delegates will:

- Coordinate with their governments to determine if they could fill the Agriculture Subcommittee co-chair position.
- Submit items and updates to the ASG ([asg@globalmethane.org](mailto:asg@globalmethane.org)) for inclusion in the GMI website or *Methane International* newsletter.
- Volunteer to translate fact sheets if possible.
- Develop or update country action plans.
- Provide technical discussion topics and/or site visit suggestions for the next Agriculture Subcommittee meeting or the 2013 Expo in Vancouver, Canada.

- Provide international AD database input in the template available on the website (at [http://www.globalmethane.org/news-events/event\\_detailsByEventId.aspx?eventId=341](http://www.globalmethane.org/news-events/event_detailsByEventId.aspx?eventId=341)).
- Provide any suggestions for future work to the ASG ([asg@globalmethane.org](mailto:asg@globalmethane.org)).

40 The ASG will:

- Send out the international AD database template to the subcommittee.
- Provide more frequent updates to the subcommittee.
- Summarize the number of Expo projects that have been presented and developed.

41 U.S. EPA will continue work on the development of a simple calculator tool.

42 Mr. Dhussa and Mr. Hilbert thanked the meeting participants for their input and adjourned the meeting.



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