

METHANE TO MARKETS PARTNERSHIP LANDFILL SUBCOMMITTEE MEETING

Wednesday, 18 June 2008

Costa Salguero Center Buenos Aires, Argentina

Draft Agenda	Draft Age	nda
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- 08:00 Registration
- 09:00 **Welcome** (Argentina Secretary of Environment)
- 09:05 **Statement of Meeting Goals** (Subcommittee Co-Chairs and Vice Chair)
 - Meeting Goals:
 - Provide update on Methane to Markets Partnership-wide activities
 - Introduce and discuss country-specific strategies
 - Concur on mechanisms to increase Project Network Involvement
 - Update Landfill Subcommittee action plan
 - Refine role of Subcommittee delegates
- 09:15 Adoption of agenda
- 09:20 **Report from Administrative Support Group** (Erin Birgfeld, ASG)
 - Update on Report out from Partnership Expo and plans for 2009/2010 Partnership Expo
 - Methane to Markets Partnership-wide accomplishments report
 - Schedule for next Steering Committee Meeting
- 09:40 Country-Specific Strategies for Promoting Landfill Gas Projects

Attachment 1

- Review purpose of developing these strategies and discuss guidance documents
- 10:30 **Coffee break**
- 10:45 Partner country-specific strategies discussion (continued)
 - Countries present their draft strategies.
- 12:00 Review of Landfill Subcommittee Action Plan

Attachment 2

- Discuss comments received since the previous Landfill Subcommittee meeting
- How to include country-specific strategies into the action plan
- 12:30 Lunch
- 13:30 **Discussion: Increasing Project Network Involvement** (Erin Birgfeld, ASG)

Attachment 3

- Present White Paper on more effectively engaging the Project Network
- Reach consensus on approach Subcommittee wishes to implement

14:00 Updates from Project Network members and other attendees

14:30 Updates on the International Landfill Database (Rachel Goldstein, U.S. EPA)

- Users Guide
- Discussion of types of landfills entered in the database
- Discussion of newly available data sources and nominations for country-specific data entry contacts

15:15 Coffee break

15:45 Refining Role of Partner Country Delegates

- General discussion of potential roles including:
- Focal point for the project network members working in each country
- Serving on Topic-specific work groups
- Developers and implementers of country-specific strategies
- *Other?*

16:15 Updates on recent, ongoing, and upcoming activities (all)

- U.S. EPA Methane to Markets grant solicitation (Rachel Goldstein update)
- International Energy Agency Global Renewable Energy Policies and Measures Database
- Other?

16:45 **Summary of Meeting and Action Items** (Amanda Singleton, ASG support)

- Planning for next meeting (Tentatively scheduled for January 2009 Mexico)
- Next steps for Subcommittee

17:00 Adjourn

Attachment 4

Methane to Markets Partnership Landfill Subcommittee

Template for Country-Specific Profile and Strategic Plan

Background:

At its meeting on 31 October 2007, in Beijing, China, the Steering Committee discussed a need to The create country specific plans to implement methane-related activities most suitable for each country, taking into account each country's resources, technical and financial status, infrastructure, and capacity. Based on their discussion, the Steering Committee decided to direct the four Subcommittees to develop country-specific strategic plans that would help to more strategically focus subcommittee activities on the experiences and needs of each individual country. The Landfill Subcommittee is following the Steering Committee's directive by assisting each Partner country in developing a "country-specific strategic plan" within the framework of the Landfill Subcommittee Action Plan.

As a first step, it is proposed that these strategic plans could be an enhancement of the existing landfill country profiles. These profiles contain an overview of the country solid waste and landfill gas sectors and outline the country-specific opportunities and challenges to developing landfill methane recovery projects. The subcommittee will follow up with member countries that have not yet submitted country profiles to encourage development of a country-specific strategy for landfill gas. For countries that have submitted a profile, the subcommittee will request that these countries build upon these profiles to create a more comprehensive country specific strategy. These strategies will include country-specific strategic plans—a range of activities, from near-term to longer term, to promote methane recovery and use in a given country. Ideally, the strategic plan will identify activities in order of their priority or importance, convey the country's overall abilities and goals to promote projects, and outline the country's potential to reduce methane emissions during a specified period of time.

Such country-specific strategic plans can play a very useful role in identifying activities in each country that would be most beneficial and effective in promoting the development of methane recovery and use projects. Ideally, these strategies could help to identify and clearly describe the activities that should be undertaken as part of project development in a given country. These country-specific strategic plans are also an opportunity to provide information to groups that wish to work to develop projects in a particular country and want to know the most effective activities to undertake. Finally, these strategic plans might become incorporated as a component of a country's overarching carbon mitigation plan (if applicable) and provide substantive, concrete steps towards the country's overall national emission reductions goal. In these ways, the country-specific strategic plans could help make it clear how activities undertaken through the Methane to Markets Partnership contribute to each country's ongoing environmental, energy, and strategic efforts.

Country-specific strategic plans might be considered "living documents," to be updated as circumstances change and evolve in the landfill sector in a given country. It is suggested that each plan be reexamined from time to time to ensure that the Action Plan remains relevant. Ideally, plans will be based on input from a broad range of stakeholders in each country. Attached is a draft template with a list of suggested topics to include in your country-specific profile and strategic plan.

Methane to Markets Partnership Landfill Subcommittee

Template for Country-Specific Profile and Strategic Plan

1. Summary of the solid waste management sector

- Landfill management practices (daily cover practices, waste scales, leachate management and treatment, waste compaction)
- Current Status and Trends for Landfill Design (depth of waste, presence of liners and/or caps, steepness of slopes)especially disposal and landfill gas

2. Key stakeholders in the solid waste disposal sector and LFG industry

- Public and private landfill owners
- Government officials
- Non-governmental organizations
- Consultants
- Financers
- Project developers
- Utilities
- Existing bilateral agreements or international government cooperation

3. Overview of LFG potential from existing disposal sites

- Number, location and type (e.g. sanitary, controlled, open dump) of disposal sites
- Waste generation rates (total or per capita)
- Waste-in-place, daily or annual waste acceptance rate, open and close dates for sites
- Waste composition and basic characterization of landfilled waste
- 4. **List of existing or planned landfill gas capture and/or use projects** in megawatt capacity or gas flow (m³/minute or day or mmBTU/hr) and a brief description of technology applications employed (e.g., flare, electricity generation, transmitted in pipeline to end user).

5. Legal and Policy Frameworks for Landfill Methane Recovery, including:

- Current legal framework (e.g., licensing, royalties, environmental regulations, permits)
- Climate change position (e.g., signatory to Kyoto Protocol, CDM/JI opportunities)
- Policies or mandates that may affect waste streams (e.g., organic waste diversion, recycling)

6. Market assessment and reform issues, including:

- End uses for LFG (e.g., electricity generation, fuel for industrial applications)
- Prices and tariffs
- Competition
- Market access (e.g., access to electric utility grid, natural gas pipeline)

- Carbon credits
- Renewable or green energy standards

7. **Financing Options** (characterize):

- Internal mechanisms
- External support
- Private sector investment
- Multilateral agreements
- Incentives (e.g., subsidies, tax credits)
- Research and Development Resources

8. Country Strategy

Briefly describe the country's strategy and goals (if defined) including the legal framework for reducing greenhouse gas emissions and the role (if any) that landfill emissions play in this strategy.

List the elements the country is using and plans to use to overcome the barriers and promote methane emission reductions from landfills. These elements may include, but are not limited to, the following:

- Data collection and development of information products
- Information sharing
- Targeted information exchange
- Development of financial incentives
- Capacity building
- Adoption of other new policies, including changes to Regulatory Framework
- Specific technical training
- Technology demonstrations
- Support for research and technology development
- 9. "Wish List": What are you looking for from the (e.g., financing, technical assistance, feasibility assessments) and/or what expertise can you provide to the Partnership?
 - Barrier (or support) #1
 - Barrier (or support) #2
 - Barrier (or support) #3

10. Conclusions and observations

11. **References and sources** (e.g., appendices, supplemental information)



Methane to Markets Partnership Guided Review of Landfill Subcommittee Action Plan with Comment 26 February 2008

During its November 2007 meeting, Steering Committee charged the Landfill Subcommittee with updating its action plan to reflect current issues and planned activities of the Subcommittee. This revised plan will help guide the subcommittee activities to topic areas that will build on the momentum created during the 2007 Partnership Expo in Beijing China.

The existing action plan was adopted and revised over the course of the first five Landfill Subcommittee meetings. The plan is divided to address five main barriers, as shown in Annex 1 below, and it tracks both implemented actions and planned actions.

Mr. Hamilton of SCS Energy agreed with the identified list of barriers and the suggested action items to remove the barriers. However he recognized that the biggest barrier for the subcommittee is implementing the items included in this action plan. In order to guide the implementation, he suggested that the subcommittee should re-organize its plan to include a schedule, financial and technical resources, and a prioritized list of activities. The prioritized list should be based on the ability to implement the task given the schedule, resources, and its likely impact on removing or lowering the related barrier to project development.

During the 7th Landfill Subcommittee meeting, several participants noted that some barriers are too broad or no longer relevant. As a result, Mr. Brian Guzzone requested support to review and revise the barriers in preparation for the next meeting. The following companies and/or individuals volunteered to support this exercise: Mr. Cesar Rafael Chavez (Mexico), Mr. Bryce Lloyd (OWT H.K.), SCS Engineers, Mr. Gary Crawford (Veolia), Mr. P.U. Asnani (Urban Management Consultants), and Ms. Sabine Strauch (Green Gas).

Several suggestions pertaining to the participatory organization of the landfill subcommittee were made during the 7th Landfill Subcommittee meeting. Although several concrete topics were suggested for focusing workgroup efforts, the participants concluded that workgroups should be checked against the barriers listed in the updated action plan.

Three questions or comments were raised during the 7th Landfill Subcommittee meeting with respect to the scope of the landfill sector. Please keep these comments in mind as you review the listed barriers.

- Given that India and some other countries have instituted methane avoidance regulations, is the topic of methane avoidance outside the scope of the Partnership?
- Does the Subcommittee's mission support flaring-only landfill biogas projects, when the methane is not used for energy recovery?

Sabine Strauch of Green Gas indicated that all options for energy recovery should be reviewed as part of a landfill gas project development process. However, energy recovery always brings additional risk, effort, and costs to the project. A policy which

aims to avoid flaring-only projects and is not aware of these barriers will constrict and avert a lot of project activities. She summarized a list of the most important barriers:

- Uncertainty of gas quality: effective gas cleaning is expensive and can make the entire project uneconomical.
- Uncertainty of gas quantity due to lack of waste data and poor landfill management
- o High additional investment for power generation equipment
- Operation and Maintenance: difficult to find qualified local staff and ensure availability and performance of the engine. Training cannot substitute longterm experience.
- o Grid connection: Infrastructure around landfills is usually not sufficient to take off the generated electricity; a connection to point of delivery is expensive (usually more than several 100,000.-)
- The subcommittee's mission could be viewed as limited to waste-to-energy, which would exclude issues of methane avoidance and capture vs. use.

ATTACHMENT 2: Annex 1 - Identified Barriers from Existing Action Plan

Barrier	Implemented Action Items	Planned Action Items
Lack of country- specific information on landfill and LFG management practices	 Engaged country delegates with more frequent communication to facilitate more information about incountry landfill and LFG practices Collected and updated country landfill profiles (9 profiles submitted to date) Developed and launched International Landfill Database (completed September 2007) M2M landfill grant awards made in Argentina, Brazil, China, Colombia, Ecuador, India, Korea, Mexico, Nigeria, Russia and Ukraine 	 Identify new delegates for countries with inactive participation Country profiles: Follow up with member countries that have not yet submitted country profiles. International Landfill database (ILD): Help and promote database population. Outreach of the ILD Posting results and communicating lessons learned from assessment reports and pre-feasibility studies
2. Insufficient incountry knowledge and experience in developing LFG recovery and use projects	 Conducted landfill gas assessments and pre-feasibility activities (i.e., training local landfill personnel) and engageed country delegates and landfill owners in technical analyses Conducted training workshops (e.g., India, Ukraine, Russia, Ecuador, Colombia) for local officials M2M landfill grant awards made in Argentina, Brazil, China, Colombia, Ecuador, India, Korea, Mexico, Nigeria, Russia and Ukraine 	 Continue to develop training sessions, assessments and pre-feasibility studies Need to expand the Project Network to include more organizations involved with local investment and aid Consider side events at key international meetings involving municipal contacts Posting results and communicating lessons learned from assessment reports, pre-feasibility studies, etc.
3. Difficulty accessing existing LFG technical documents, tools, and resources	 Reviewed and posted a searchable bibliography of on-line resources under Documents and Resources at: http://www.methanetomarkets.org/resources/landfills/index.htm (file posted May 2007) 	 Review and improve the searchable bibliography of on-line resources Promote its usability

ATTACHMENT 2: Annex 1 - Identified Barriers from Existing Action Plan

4. Insufficient identification of suitable landfills in Partner countries for potential LFG project assessment and development	 Developed a template for countries to use in submitting landfills for evaluation (final template posted June 2007) Template used to develop landfill posters and handouts for Beijing Expo Developed and launched International Landfill Database (ILD) (completed September 2007) 	 Encourage more countries use the template Emphasize data entry in ILD. Green Gas suggested instituting a routine data maintenance schedule to update data every six months Green Gas suggested adding a data field to the (ILD) to help project developers identify the current status of landfill gas projects at the landfill (i.e., tender planned, applied for validation/registration with UNFCCC)
5. Lack of financing or capacity to obtain financing for LFG projects.	 Conducted a Finding Carbon Finance for Landfill Methane Projects session during the Beijing Expo. Conducted several training workshops that included project financing components 	Subcommittee will evaluate further finance training and guidance documents after this Expo

METHANE TO MARKETS PARTNERSHIP

Options for Increasing Project Network Involvement

Discussion Paper

1. Purpose

The purpose of this white paper is to provide options for increasing involvement of the Methane to Markets Project Network by encouraging participation in Partnership activities (e.g., Subcommittee meetings, project opportunities), and acknowledging Methane to Markets accomplishments and contributions of these members.

2. Background

Over the past few years, the Steering Committee has charged the Subcommittees and the Administrative Support Group (ASG) to increase Project Network recruitment and encourage Project Network participation in a variety of ways including: conducting outreach at key meetings and conferences (e.g., Carbon Expo), encouraging Subcommittees to schedule their meetings in conjunction with sector-specific workshops/conferences, and encouraging Partners to recruit Project Network members from their own countries. To date, these efforts have been successful and the Steering Committee has tasked Partner countries and the Subcommittees with continuing these activities. However, there is still opportunity to enhance engagement of the Project Network to further advance the goals of the Partnership.

Providing additional incentives for organizations to join and actively participate could further enhance the value of the Project Network and advance the overall work of the Subcommittees. Over the course of the last year, the ASG has received feedback from existing Project Network members suggesting that one such incentive would be broader and more formal Methane to Markets recognition for Project Network members' participation and/or contributions. This recognition could be for both Project Network members who have demonstrated significant commitment to the Partnership's work (e.g., participation in Subcommittee meetings) as well as to those that have contributed to and realized specific project implementation (e.g., measurable emissions reductions, technology deployment).

At the 2007 Steering Committee in Beijing, the Steering Committee discussed the concept of increasing Project Network involvement and tasked the ASG to work with the Subcommittees to develop a white paper with options and recommendations for consideration by the Steering Committee. Some initial options (outlined below) are organized into three categories:

- Encouraging/Enhancing Participation in Partnership Meetings
- Providing Formal Recognition for Project Network Contributions to the Partnership
- Providing Informal Acknowledgement of Project Network Involvement

3. Encouraging/Enhancing Participation in Partnership Meetings

Based on discussions during the 2007 Steering Committee and subsequent input from Subcommittee and Project Network members polled by Subcommittee chairs, the following options have been identified as ways to increase Project Network involvement.

- Issue Meeting Invitations from Partner Country. Encouraging Partner Countries to invite Project Network members to Partnership meetings is a way to potentially increase broader and more robust participation. This approach was recently pursued by both Japan and the United States to encourage Project Network members from their respective countries to attend and participate in the 2007 Methane to Markets Partnership Expo. In both cases, this approach was successful in increasing attendance and engagement and was viewed positively by Project Network members. One option is to encourage other Partner Countries to adopt a similar approach. To facilitate this, the ASG could develop and provide a boilerplate invitation to Partner countries for customization and distribution to in-country Project Network members.
- Increase Appeal of Subcommittee Meetings to Project Network Members. Simple changes to the structure or content of Subcommittee meetings also have the potential of enhancing Project Network participation. During the recent Coal Subcommittee meeting in Beijing, several suggestions were offered for consideration. These and some other options include:
 - Limiting the Methane to Markets administrative discussions (e.g., ASG details).
 - ► Adding a technical component to Subcommittee meetings.
 - Co-locating the Subcommittee meetings with other meetings and/or workshops that attract Project Network members, and improving marketing and networking opportunities for Project Network members.
 - ► Inviting Project Network members to make presentations during Methane to Markets technical workshops and/or Subcommittee meetings, and then making the presentations available on the Methane to Markets Web site.
 - Setting aside meeting time for acknowledging contributions from the Project Network and highlighting these contributions in the meeting minutes.
- **Meetings.** Presently, Project Network Attendance at Subcommittee Meetings.** Presently, Project Network members are included in the Subcommittee meeting summary attendee lists. In the Methane International Subcommittee meeting recaps, a list of Partners as well as the Project Network members that attended could acknowledge participation and show broad public-private involvement. Alternatively, one issue of Methane International might be dedicated to recognizing Project Network members that have participated in Subcommittee meetings throughout the entire year. To differentiate between attendance and more active engagement or involvement (e.g., presenting, sponsoring), this list might include an added distinction for those that made presentations and/or sponsored the meeting (see text box).

SAMPLE TEXT BOX

Methane to Markets would like to thank and acknowledge the following Project Network members for participation in recent Subcommittee meetings.

- Company A
- Firm B (presenter)
- Organization C
- Corporation D (sponsor)

4. Providing Formal Recognition for Project Network Contributions to the Partnership

Recognizing Project Network members for their contributions can be accomplished formally through recognition of their organizations' actions/activities or through their role in a given project or activity. Additionally, the Partnership could also employ various existing mechanisms (i.e., Web site or newsletter) to raise the profile of active Project Network members.

• Recognition of Project Network Members. One option for recognizing Project Network members might involve developing criteria for evaluating organizations' contributions and identifying one Project Network member [per sector] as the "Project Network Member of the Year." This type of

program might recognize Project Network member efforts to reduce methane emissions, implement a variety of technologies and practices, and support overall Partnership activities, initiatives, and outreach (e.g., sponsor/attend meetings, translate materials). The Methane to Markets evaluation criteria might be developed by either the Steering Committee or the individual Subcommittees. Based on the criteria, Project Network members would submit appropriate information for consideration. As part of this process, it might be necessary to make distinctions between organizations based on different characteristics, such as size or type (e.g., developer vs. financial institution).

- Recognition through Project Achievements. A similar approach might be considered for identifying
 and recognizing Project(s) of the Year, in which Project Network members might be involved. This
 approach has the added benefit of highlighting contributions of multiple Project Network members.
 As with the aforementioned concept, criteria would need to be developed against which project
 submittals would be evaluated.
- Recognition for Specific Technologies. Another opportunity to recognize Project Network members might be related to the development and/or deployment of specific technologies. This option might be applicable when a particular technology has benefits beyond a single project (mentioned above) and/or a Partner purchases technology for installation at multiple locations (e.g., infrared cameras at all gas processing facilities).

For direct recognition of Project Network members, projects, and/or technologies, an "awards" cycle might be required to ensure submittals are received in a timely fashion to allow ample time for evaluation, selection, and notification prior to announcement via certain outreach vehicles (e.g., newsletter, Web site) and/or at Partnership events (e.g., 2009 Expo). In addition, recipients might receive an engraved plaque or award object (e.g., crystal flame) to signify their achievement.

During the Steering Committee meeting, several Partners expressed concern that the above process might require significant time and could be subjective. Alternatively, Project Network members could submit demonstrated results from projects/technologies they have completed/installed. This methodology could utilize a self-nominating, auto-policing process by requiring that any submittals must come from the methane source that benefited from the activities of the specific Project Network members. This source could be a coal mine or landfill operator, or an oil and gas company that owns the facilities. Rather than selecting one Project Network member [per sector], every successful project that submits demonstrated results – along with the Project Network members that made it happen – would be acknowledged. In this way, both the Project Network member AND the project are recognized. As with the other approach, this option might require a cut-off date to submit projects for consideration/acknowledgement.

5. Providing Informal Acknowledgement of Project Network Involvement

The Methane to Markets Partnership has numerous existing communications and outreach outlets that could be used to acknowledge Project Network members and their contributions. Some of these outlets include the *Methane International* newsletter and the Methane to Markets Web site. Some possible informal approaches to increase recognition of Project Network member contributions include:

• Enhance the Project Network Section on the Methane to Markets Web site. The Methane to Markets Web site has proved an invaluable tool for communicating with the Partnership and highlighting its activities. Areas of the Web site (e.g., Project Network pages) could be modified to feature Project Network members more prominently, particularly those that have been active in Subcommittee meetings and/or project opportunities with demonstrated results. The ASG is also exploring opportunities to capture more detailed information on the types of services and technologies

(e.g., expertise) that Project Network members offer. This information would be included in the Project Network listing to help countries and others identify potential project development partners.

- Develop Case Studies Featuring Project Network Members: To highlight Project Network contributions and/or achievements, the ASG could develop a series of case studies featuring the parties involved in various emissions reduction projects. These case studies would tell the "story" of how the project came to be (i.e., background), the Partner countries and Project Network members involved, and the actual or anticipated results. The case studies would be developed in a graphically-appealing template similar to the Methane to Markets fact sheets and posted to the Web site for download, included in issues of Methane International, and/or printed for inclusion in Partnership marketing materials.
- Showcase Project Network Contributions at the 2009 Partnership Expo: At the next Partnership Expo, a "Wall of Fame" could be designated to feature the case studies (above) and/or other Project Network members/projects that have demonstrated results (e.g., installed technology, verifiable emissions reductions). Similar to the poster area at the 2007 Expo, Project Network members would have the opportunity to develop graphics highlighting their achievement.

6. Items for Consideration

The following Project Network involvement options are open to consideration:

Encouraging/Enhancing Participation in Partnership Meetings:

- Should the ASG pursue suggestions to encourage/enhance Project Network participation in Partnership meetings (e.g., Partner country invitation template, newsletter listing)?
- Do the Subcommittees wish to consider options for improving Project Network attendance (e.g., limiting administrative business, providing speaking opportunities) at Methane to Markets technical workshops and/or Subcommittee meetings?

Providing Formal Recognition Project Network Contributions to the Partnership:

- Do the Subcommittees wish to develop criteria to evaluate and identify a Project Network Member of the Year? Project of the Year? Technology? Within each sector or Partnership-wide?
- Alternatively, should the Partnership consider a self-policing process for Project Network members involved in projects with demonstrated results?

Providing Informal Acknowledgement of Project Network Involvement:

- Should the ASG explore new ways to use the Methane to Markets Web site to acknowledge Project Network members?
- Should the ASG consider future opportunities (e.g., case studies, 2009 Expo) to further highlight the achievements of Project Network members?

Methane to Markets Partnership Landfill Subcommittee: Refining the Role of Partner Country Delegates

Background

During the 7th Landfill Subcommittee meeting in Beijing, China the meeting participants brainstormed ideas on how to better engage Partner Country delegates and to organize the work of the subcommittee more efficiently. The outcome of this brainstorming process was to structure the landfill subcommittee to provide more task-oriented roles for each Partner Country delegate. Task-oriented roles allow for each Partner Country to take ownership of implementing different ideas and activities discussed during the landfill subcommittee meetings.

Topics for Decision

At the Beijing meeting, the subcommittee suggested two ideas for coordinating the subcommittee's work which are now up for discussion at this meeting:

1) Partner Country delegates to serve as a focal point for Project Network members wanting to work on landfill biogas project development in their country.

As a focal point, the delegate would maintain a road map of governmental organizations, procedures, and policies that would support and encourage the private sector stay engaged on landfill biogas in their country.

2) Partner Country delegates could be organized so that they participate on topicspecific work groups.

During the Beijing meeting there was significant discussion on what types of work group topics the landfill subcommittee should be focused on; ultimately, the meeting participants agreed that the needs and contributions noted in country-specific strategies (see Attachment 2) should form the basis of which topic-specific work groups receive the most focus. Based on the information available in the country profiles, the subcommittee may wish to decide on the work groups that they would like to engage in and the activities that those groups would be responsible for.

Potential topic areas for these work groups were discussed in Beijing and are summarized here:

Policy:

- Procedures for working with certain governments can be tedious, and a policy group could help facilitate projects and interest from private sector by focusing on steps required to do business in a specific country.
- Tracking policies, regulatory frameworks, and methodologies pertaining to landfill biogas project development could be a workgroup focus. The tracking could include a list of existing incentives and frameworks, and also a rating or brief description of the functionality of these incentives, such as the number of or names of projects that use a particular incentive to develop a project. The following were provided as specific examples of items to track: waste management and recycling, landfilling and leachate recovery and treatment, CDM policy and methodologies, renewable energy tariffs and programs, tax policy and potential tax benefits from environmental projects, ownership of the gas rights.

Training for Landfill Owners/Operators:

- Training on landfill gas and landfill operations and maintenance best practices were a repeatedly discussed as a priority. Near-term activities could be focused on arranging licensing agreements with training materials already created by SWANA/ISWA in order to not "reinvent the wheel." Other near-term activities could be focused on collecting and posting existing training materials that have been previously conducted during other incountry workshops.
- The onerous CDM process itself is intimidating to many municipalities and governments, especially in smaller/rural communities. These entities need training on the contracts and paperwork involved in the CDM process. Additional training and education about the appropriateness of default values, and encouragement of site-specific data, would produce better projects.

Modeling Guidance:

Given the emphasis on overestimation of landfill biogas projects, there was significant
discussion on the need for modeling guidance to focus on realistic expectations from projects,
and how not to overestimate a project. Guidance could include previous experience and
documents prepared by SCS Engineers for the World Bank and Asian Development Bank.

Project Finance Guidance:

In addition to a gas modeling need, the technical sessions focused on the risks, costs, and revenues related to developing a project. A basic financial model to demonstrate project cost elements could be very useful for project stakeholders and allow them to run their own cost sensitivities for a given project.

Advocacy for Site-Specific Data, Landfill Monitoring, and Flaring Requirements Under the CDM:

- One of the barriers for small landfill projects is the CDM paperwork and monitoring requirements and the request to use an enclosed flare. One possible workgroup focus could be to compile a credible source of information and analysis on the performance of open flares and/or reduced monitoring from small sites.
- Currently developers run the risk of not getting a project approved under CDM with site-specific values unless they can provide a very strong justification for using alternatives to the default values. A workgroup could focus on compiling credible information for promoting site-specific data.

Items for Consideration by the Subcommittee

- 1) Does the subcommittee wish to have Partner Country delegates to serve as a focal point for Project Network members wanting to work on landfill biogas project development in their country?
- 2) Does the subcommittee wish to organize some standing work groups? If so, on which topics?