Municipal Wastewater Subcommittee Progress Report

2nd Steering Committee Meeting

14 March 2013

Vancouver, Canada

Chairs:

Elias Freig (Mexico)

Federico Grullon (Dominican Republic)

Chris Godlove (United States)

Global Methane Initiative

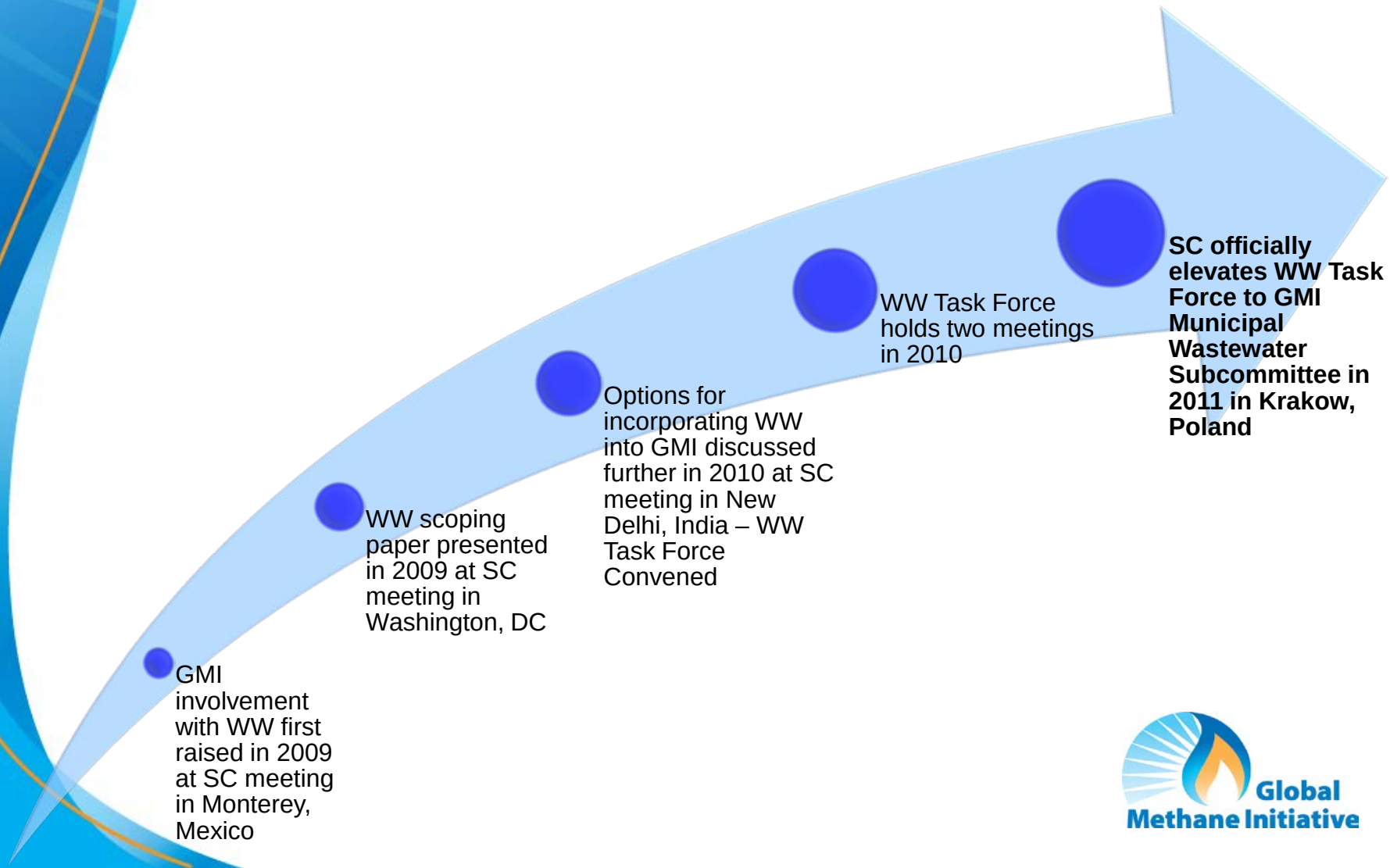
Overview

- Activities since October 2011
  - Wastewater Task Force elevated to Municipal Wastewater Subcommittee
  - Recruitment of Delegates and Project Network Members
  - Sector Action Plan developed
  - Three subcommittee meetings held (April 2012, July 2012, December 2012)

- Next Steps

Global Methane Initiative

Wastewater Task Force Elevated to Municipal Wastewater Subcommittee



Global Methane Initiative

Delegates and Project Network Members

- Delegates
  - 14 countries (Colombia, Dominican Republic, Finland, Ghana, Indonesia, Italy, Mexico, Mongolia, Nicaragua, Pakistan, Peru, Serbia, Turkey, United States
- Project Network
  - Over 65 members

Global Methane Initiative

Sector Action Plan

- Action Plan Topics
  - Origins of the Municipal Wastewater Subcommittee and Action Plan
  - Overview of Methane Emissions from Wastewater
  - Overview of Methane Mitigation, Recovery, and Use Opportunities and Descriptions of Available Technologies and Best Practices
  - Identification of Key Barriers and Issues for Project Development
  - Identification of Possible Cooperative Activities to Increase Methane Recovery and Use
  - Outreach to Engage Project Network Members
  - Country-Specific Needs, Opportunities, and Priorities

Global Methane Initiative

Subcommittee Meeting (April 2012) – Internet-Based

- Topics
  - Overview of the new subcommittee and its objectives
  - Introduction to subcommittee membership and leadership
  - Ongoing development of sector Action Plan
  - Ideas for future upcoming meetings
- Attended by 17 representatives from 10 countries

Global Methane Initiative

Subcommittee Meeting (July 2012) – Singapore

- Topics
  - Subcommittee membership and leadership: confirmation of two new Co-Chairs: Elias Freig (Mexico) and Federico Grullon (Dominican Republic)
  - Country updates from attendees
  - Overview of sector Action Plan
  - Planning for the Methane Expo 2013

Global Methane Initiative

Subcommittee Meeting (December 2012) – Internet-Based

- Topics
  - Preparation for Methane Expo 2013 and next subcommittee meeting
  - Sector fact sheet
  - Methane Action Plan development
- Attended by 24 representatives from 10 countries

Global Methane Initiative

Next Steps

- Next Subcommittee Meeting to be held During Methane Expo 2013

- Next Steps
  - Finalize sector fact sheet
  - Development of country-specific resource assessments
  - Development of country-specific WW action plans

Global Methane Initiative

Appendix – Selected Country Activities

- Dominican Republic
  - Sanitary Sewer Master Plan to expand WWT coverage in Santo Domingo to 25% by 2020.
  - Renewable energy law incentivizes clean energy, including WT biogas.
  - Net metering allows sale of electricity from WW biogas to grid.
- Finland
  - Biogas production and use:
    - Biogas annual production=24 Mm^3.
    - 20.5 Mm^3 is utilized.
    - Total electric production=27 GWh; total heat production = 80 GWh.
  - Online measurement of process gases underway.

Global Methane Initiative

Appendix – Selected Country Activities (continued)

- Japan
  - Digesters used at over 300 WWTFs.
  - ~70% of biogas generated is utilized.
  - B-DASH project (Breakthrough by Dynamic Approach in Sewage High Technology) – 2 demonstration projects.
    1. Osaka City: research for an energy management system.
    2. Kobe: goals:
       - Reduction of CAPEX and construction period of sewage sludge digestion facility by using tank made of carbon steel.
       - Refinement of biogas by upgrading to 97% purity.
       - Increase revenue by selling biogas.
       - Reduce GHGs by increasing biogas utilization (vehicle fuel and injection into NG pipeline).

Appendix – Selected Country Activities (continued)

- Turkey
  - Framework of Turkey's National Climate Change Plan calls for energy use from WW biogas.
  - New laws and regulations encourage efficient WW treatment
  - Ministry of Environment provides technical and financial support for projects.
- Mexico
  - New WWTF under construction for Mexico City.
    - Large increase in percent of collected sewage that will be treated.
    - Facility will utilize digester gas to produce electricity.

Global Methane Initiative