CLIMATE & CLEAN AIR COALITION
TO REDUCE SHORT-LIVED CLIMATE POLLUTANTS

CCAC Waste Initiative Tools and Resources

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Overview

- CCAC Waste Initiative has developed numerous tools and other resources
- Designed to assist cities in addressing waste management challenges
  - Focus on aspects of waste management that contribute methane and black carbon emissions
- Free and accessible on the Municipal Solid Waste Knowledge Platform
- Cities do not need to join the Waste Initiative to access tools and resources
- However, cities that join the initiative can receive support in using them

Introduction to Key Waste Initiative Tools

City Assessment Tool

- An Excel-based framework for consistent collection and storage of solid waste data
- Supports:
  - Development of solid waste master plans
  - Preparation and implementation of projects
  - Identification of opportunities to reduce short-lived climate pollutants emissions from the solid waste sector
  - Data gap identification
- Provides basis for action plan development and implementation
- All cities that participate in the Waste Initiative are required to use this tool

Solid Waste Emissions Estimation Tool (SWEET)

- Excel-based tool for quantifying pollutant emissions from sources across the waste sector
- Project-, source-, or system-level emissions estimates
- Baseline scenario and up to four alternative scenarios
- Pollutants include: Black Carbon, CH_4, and co-emitted pollutants

OrganEcs

- Excel-based tool for estimating costs of composting projects and anaerobic digesters
- Provides an assessment of the financial viability of a project
- Determines what tipping fees and product prices (e.g., price for compost) are needed to support the project

Anaerobic Digestion Project Screening Tool

- Excel-based screening tool
- Limited inputs required
  - Waste stream composition, planned system type
- Answers basic questions with minimal time and resources
  - How much biogas and digestate will my project generate?
  - What are the best potential end uses for the biogas?

Digestate Production	Value	Unit
Total Non- Biodegradable Solids	27,068	kilograms/year
Remaining Volatile Solids	88,335	kilograms/year
Total Digestate	114,637	kilograms/year
Recovered Solids	80,246	kilograms/year
Wastewater	34,391	kilograms/year
Biogas Production (m^3)	**Value**	**Unit**
Annual Biogas Production	27,071	(m^3/year)
Energy Recovery Options	**Value**	**Unit**
Electricty Production (cleaned biogas to CH4)	159,721	kWh
Electricty Production (bioigas only)	103,818	kWh
Natural Gas Production	15,972	m^3/year
Cooking Gas Potential	247	homes/year
Home Heating Potential	185	homes/year
Gas Lamps Powered	49	lamp/year

Landfill Gas Project Screening Tool

- Helps answer basic questions about viability of landfill gas projects
- Minimal inputs required
  - Site opening/closing years, annual disposal rates, etc.
- Outputs
  - Estimated LFG recovery rates
  - Preliminary project assessment
  - Example applications based on projected LFG recovery rates and community energy needs

Microturbine at East Delhi landfill

Financing Readiness Evaluation

- Evaluation questions to help cities think about whether they are ready to seek financing for a project
- Raises awareness of challenges and potential pitfalls in several areas
  - Political environment
  - Regulatory environment
  - Legal frameworks
  - Revenue streams
  - Financial and technical expertise
  - Bidding
- Helps city identify gaps or areas of potential risks
- Cities can use the evaluation develop a plan for improving their readiness for financing

Primer for Accessing Financing

- Guides decision-makers in their efforts to access financing
- Identifies common financing challenges
  - Articulating the financial feasibility of a program or project
  - Establishing creditworthiness
  - Others
- Provides a suggested “road map” for financing projects
- Includes recommended resources and information

Introduction to the Municipal Solid Waste Knowledge Platform

Introduction to the Knowledge Platform

- Access is free and does not require membership or subscription
- Cities do not need to formally join the CCAC Waste Initiative to access these materials
- By joining the Waste Initiative, cities can receive assistance in using these tools and resources

Introduction to Knowledge Platform

Knowledge Platform Link: http://www.waste.ccacoalition.org/

Knowledge Platform Contents

- Cities
- Documents
- Tools
- Databases
- Events and Webinars

Map of cities participating in the Waste Initiative

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Sample case study

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Plans and Actions | Subcommittee Members | Tools & Resources | **Projects (625)** | Events (169) | Project Network (612)

Name	Year	Type	Country	Sector(s)
2014 MSW BG: LFG Workshop in Sofia, Bulgaria	2014	Workshop/Training	Bulgaria	MSW
2014 MSW CN: China Scoping Mission - Beijing & Ningbo	2014	Study	China	MSW
2014 MSW CN: Meetings and Scoping in Beijing and Ningbo	2014	Study	China	MSW
2014 MSW CO - GMI Landfill Gas and LFG Utilization Workshop for CARs - Tunja	2014	Workshop/Training	Colombia	MSW
2014 MSW DR - GMI Landfill Operations and LFG Utilization Workshop	2014	Workshop/Training	Dominican Republic	MSW
2014 MSW GMI Presentation at Venice Symposium	2014	Meeting	Partnership-wide	MSW
2014 MSW Indonesia - Comments on Ministry of Public Works Technical Manual	2014	Technical Assistance/Outreach	Indonesia	MSW
2014 MSW Indonesia - Malang Workshop	2014	Workshop/Training	Indonesia	MSW
2014 MSW Indonesia -- Meeting with DKI Jakarta for CCAC Activities	2014	Meeting	Indonesia	MSW

Screenshot of Global Methane Initiative's international database of projects in the MSW sector

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2016 regional workshop for cities in Southeastern Europe

Thank you! Questions?

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www.ccacoalition.org