Work Plan Development

CCAC MSW Initiative
Latin American Regional Municipal Solid Waste Workshop
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Key sources of SLCP emissions from the MSW sector

- **Methane**
  - Anaerobic decomposition of organic waste in landfills and open dumps

- **Black carbon**
  - Open burning of waste
  - Waste collection and transportation vehicles
  - Waste handling equipment
  - Waste incinerators
How do we Reduce SLCPs from the Municipal Solid Waste Sector?

- Reduce waste generation
- Improve waste collection
- Promote organic diversion programs: composting and anaerobic digestion
- Institute recycling programs
- Use landfills and waste to energy as final disposal options
- Address open burning
- Implement sustainable financing systems
CCAC MSW Initiative
Typical Process

• Conduct scoping missions
• Collect city-specific information using detailed questionnaires
• Develop action plan with broad goals
• Develop work plan with specific tasks
• Implement the specific tasks identified in the work plan
• Exchange information in workshops (global and regional)
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Problems – Collection and Transport
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• Littering
• Accessibility to households and community disposal sites
• Poor or no collection route design
• Vehicle type and maintenance
• Fuel availability and costs
• Distance required travel to disposal site
• Tracking performance of collection team
• Capital and operating costs
• Lack of information on best practices
Problems – Organic Diversion
Problems – Organic Diversion

- Access to large organic waste generators
- Quality of feedstock
- Quality of compost
- Market for compost
- Access to grid or gas end users
- Market for energy
- Odor and vector control
- Low awareness
- Capital and operating costs
- Lack of information on best practices
Problems – Recycling
Problems – Recycling

- Informal sector
- Selection of materials to recycle
- Transportation of recyclables to market
- Markets or local use for recyclables
- Capital and operating costs
- Lack of information on best practices
Problems – Waste to Energy
Problems – Waste to Energy

- Moisture content of waste
- Guaranteeing quantity of waste
- Developing specifications for contracts
- Hazardous air pollutants
- Access to grid or electricity end users
- Capital and operating costs
- Lack of information on best practices
Problems – Dumpsites and Landfills
Problems – Dumpsites and Landfills

• Air emissions
• Leachate and groundwater contamination
• Health and safety
• Odor and vector control
• Space limitations at old sites
• Land availability for new sites
• Technical and economic feasibility of converting to sanitary landfills
• Developing specifications for contracts
• Access to grid or gas end users for landfill gas projects
• Capital and operating costs
• Lack of information on best practices
Potential priorities

• Waste collection and transport
  o Improve collection rate
  o Optimize collection routes
  o Address staff efficiency
  o Use fuel efficient vehicles

• Organics management
  o Assess waste for composting and anaerobic digestion
  o Improve facility operations
  o Conduct market assessments
Potential priorities (contd.)

• Disposal
  o Close dump sites
  o Design sanitary landfills
  o Improve landfill operations
  o Assess feasibility of landfill gas to energy projects
  o Manage leachate

• Other
  o Prevent open burning
  o Improve waste management planning
  o Conduct public outreach
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Examples of work plan activities

• Improving landfill maintenance and operations
  o Capacity-building trainings
  o Site visits to identify best practices that can be employed

• Improving organic waste management
  o Compost feedstock source assessments
  o Organic waste management project economic assessments
  o Compost marketing assessments
Examples of work plan activities (contd.)

• Capturing and using landfill gas
  o Assessments to determine landfill gas recovery potential
• Improving waste collection efficiency
  o Networking with experts to build local capacity
  o Results-based financing mechanism assessments
• Improving waste transportation efficiency
  o Capacity building (e.g., eco-driving trainings)
  o Waste transportation logistics assessments (e.g., transfer station siting)
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Key CCAC-MSW Initiative Activities

- Develop SLCP emissions baseline
- Optimize waste collection
- Increase organic waste diversion
- Increase recycling
- Enhance landfill operations
- Promote methane recovery and use
Thank you!

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