What are Short-lived Climate Pollutants?

Short-lived climate pollutants (SLCPs) are agents that have short atmospheric lifetimes and a warming influence on the climate. Most SLCPs are also air pollutants that have detrimental impacts on human health, agriculture, and ecosystems. Fast action on SLCPs could reduce the amount of warming expected by 2050 by as much as 0.5°C and prevent over 2 million pollution-related premature deaths each year. The key SLCPs emitted from the municipal solid waste (MSW) sector are methane and black carbon. Methane is a potent greenhouse gas and a precursor of tropospheric ozone, an air pollutant. Black carbon is a byproduct of incomplete combustion that contributes to climate warming and is a component of particulate matter, which is also an air pollutant.

How are Waste Management Practices and Short-lived Climate Pollutants Emissions Connected?

Several activities and processes related to MSW management contribute to methane and black carbon emissions. For example, landfills and dump sites are the third-largest source of global anthropogenic methane emissions, and waste collection vehicles and open garbage burning can be significant sources of black carbon emissions. Other emissions sources include waste handling equipment (e.g., bulldozers) and combustion equipment at landfills and dump sites (e.g., flares).

The Climate and Clean Air Coalition to Reduce Short-lived Climate Pollutants

The Climate and Clean Air Coalition to Reduce Short-lived Climate Pollutants (CCAC) is a partnership of governments, intergovernmental organizations, the environmental community, and other groups that is dedicated to catalyzing rapid reductions in SLCPs to protect human health and the environment now, and to slow the rate of climate change within the first half of this century. One of the CCAC’s focal areas is the Mitigating SLCPs from Municipal Solid Waste Initiative, where the CCAC works with cities and national governments to address methane, black carbon, and other air pollutant emissions across the MSW sector. The overarching goal is to enable cities, with the support of their regional and national governments, to improve solid waste management efforts in a coordinated and cohesive manner in order to mitigate methane and black carbon emissions.
How Can Cities Take Action?
Cities can take action to improve waste management, reduce SLCP emissions, and achieve a wide range of environmental, economic, health, and social benefits by joining the CCAC MSW Initiative as a participating or mentor city. Cities can learn more about joining the CCAC MSW Initiative, and MSW SLCP emissions mitigation in general, by visiting the CCAC MSW Knowledge Platform (http://waste.ccac-knowledge.net).

What Support Does the CCAC MSW Initiative Offer?

For participating cities in developing CCAC or non-CCAC partner countries that are interested in gaining access to resources that can help them improve their waste management practices and reduce SLCP emissions, the CCAC MSW Initiative offers:

- Access to an expert network
- Access to information on best practices
- Capacity building (e.g., trainings and events)
- Potential support in identifying sources of sustainable financing of MSW Initiative-related projects
- Potential technical advice* (e.g., feasibility assessments).

Mentor cities that are advanced in waste management and are interested in exchanging information about improving waste management practices and reducing SLCP emissions can benefit from:

- Opportunities to share their know-how and promote successful MSW management experiences
- Recognition as a leader and expert in MSW management
- Access to best practices and lessons learned from other mentor cities
- Access to an expert network.

* Assistance does not include support for establishment of infrastructure or capital investments.

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**Examples of How the CCAC MSW Initiative Can Support City Efforts to Reduce SLCP Emissions from Waste**

<table>
<thead>
<tr>
<th>Challenge:</th>
<th>Impacts:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disconnects between composting facilities and large generators of clean organic waste result in low-quality compost that is difficult to sell and large quantities of organic waste being deposited in dump sites or landfills.</td>
<td>• Technical advice in assessing options for collecting clean organic waste from large generators • Access to best practices from cities that are producing high-quality compost</td>
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<tr>
<td>Rapid population growth and city expansion can result in reduced waste disposal capacity in a city. This can influence open dumping and burning, and the need to transport waste longer distances to find disposal options.</td>
<td>• Technical advice in assessing the feasibility of converting dump sites into sanitary landfills • Capacity building through trainings that focus on preventing open burning and improving collection</td>
</tr>
</tbody>
</table>

**Types of Support**

- Technical advice
- Access to best practices
- Capacity building
- Potential support in identifying sources of sustainable financing
- Potential technical advice

**Participating City Examples**

- The CCAC MSW Initiative is assisting *Rio de Janeiro, Brazil* in collecting data and assessing opportunities for using yard trimmings as clean organic waste for composting projects.
- The CCAC MSW Initiative is assisting *Accra, Ghana* in evaluating opportunities for constructing a new sanitary landfill.

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**Resources**

- **CCAC MSW Knowledge Platform**
  http://waste.ccac-knowledge.net
- **International Solid Waste Association (ISWA) – White Paper on Waste and Climate Change**
- **European Environment Agency – Waste Opportunities: Past and Future Climate Benefits from Better Municipal Waste Management in Europe**
  http://waste.ccac-knowledge.net/content/waste-opportunities-past-and-future-climate-benefits-better-municipal-waste-management
- **ISWA – Brochure on Climate Change & Waste Management**
  http://waste.ccac-knowledge.net/content/know-briefing-note-climate-change-waste-management
- **United Nations Environment Programme – Waste and Climate Change**

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**For more information on the CCAC**

Visit the CCAC web site: www.unep.org/ccac
Contact the CCAC Secretariat: ccac_secretariat@unep.org