



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



Improving Waste Management to Address Climate Change and Protect Human Health

The municipal solid waste (MSW) sector is a key contributor to emissions of short-lived climate pollutants (SLCPs), including methane and black carbon, that contribute to climate change and air pollution. Activities aimed at reducing SLCP emissions from the MSW sector can help address climate change and protect human health. The Climate and Clean Air Coalition to Reduce Short-lived Climate Pollutants MSW Initiative offers support to cities to help them improve waste management and reduce SLCP emissions.

- **Background on CCAC**
- **Introduce MSWI**

CCAC Municipal Solid Waste Initiative

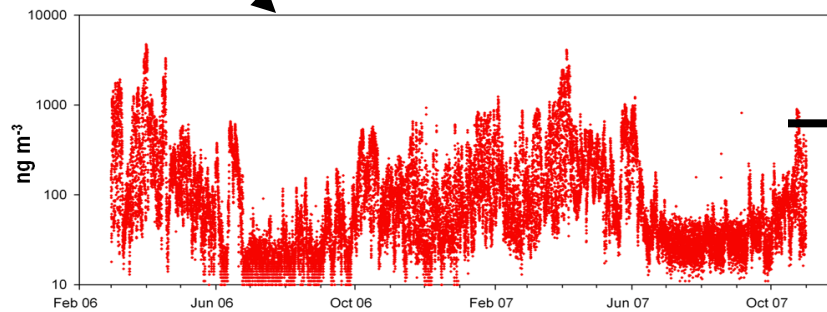
Regional 3R Forum in Asia and the Pacific,
Surabaya - February 27, 2014

Mr. Surendra Shrestha
Director UNEP IETC

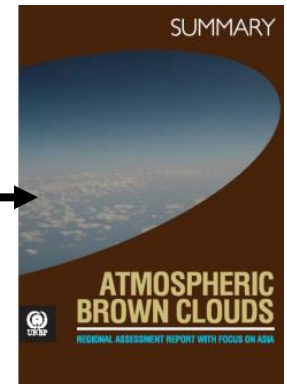
Cloud Base Aircraft

ABC Observatory:

an integrated network of strategically located state-of-the-art surface climate observatories



Time series data



Assessment



The Climate and Clean Air Coalition

to reduce Short-Lived Climate Pollutants

- **UNEP and Science of Short-lived Climate Pollutants (SLCPs)**
- **SLCP Scientific assessments:** significant impacts on
 - human health
 - agriculture and food security
 - water budget
- **Establishment of CCAC: complimentary to UNFCCC process, Voluntary,**
Feb 2012 → 7 Partners: Feb 2014 → 80 Partners (36 Countries and 44 IGOs, NGOs & private sector)



Catalysing Action: 10 Initiatives underway 2013

Heavy Duty Diesel Vehicles and Engines

Municipal Solid Waste Sector

Brick Production

Promoting HFC Alternative Technology and Standards

Oil And Natural Gas Production

Household Cooking and Domestic Heating

Financing Mitigation of SLCPs

Supporting National Planning for Action on SLCPs (SNAP)

SLCPs Regional Assessments

Agriculture



What are Short-Lived Climate Pollutants (SLCPs)?

SLCPs

Near term response to mitigation

Black Carbon (BC)



ANTHROPOGENIC SOURCES  IMPACTS/MITIGATION RESPONSE LOCAL ● GLOBAL ●



days

0.64 Wm⁻²

Methane (CH₄)



12 years

0.48 Wm⁻²

Tropospheric Ozone (O₃)



weeks

0.40 Wm⁻²

Hydrofluorocarbons (HFCs)



15 years
(averaged by weight)

0.02 Wm⁻²

Long-lived Pollutants

Longer term response to mitigation

Carbon Dioxide CO₂

Deep and persistent cuts in CO₂ and other long-lived greenhouse gases are necessary to stabilize global temperature rise through 2100 and beyond



Up to 60%
<100 years
Up to 25%
>1,000 years

1.82 Wm⁻²

IMPACTS

atmosphere

less radiation is given off to space

more thermal radiation is captured

less sunlight is reflected

cloud and rainfall patterns are affected

ice melts and sea level rises



increases heat absorbed by the Earth

harms public health

harms food security





MOTIVATION – triple imperative to reduce short-lived climate pollutants

Health- premature deaths

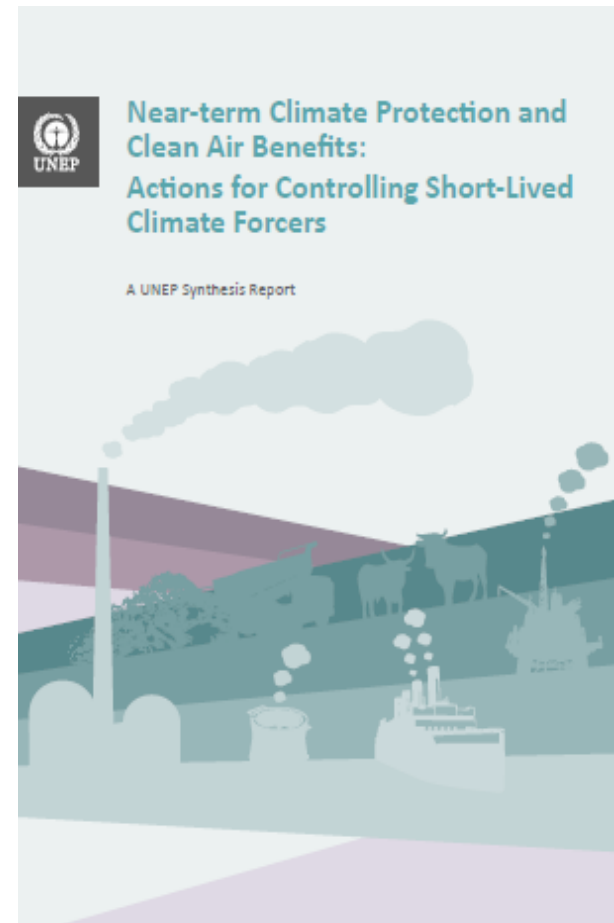
- By indoor air pollution 3.5 million annually
- By outdoor particulate pollution 3.2 million annually

Agriculture

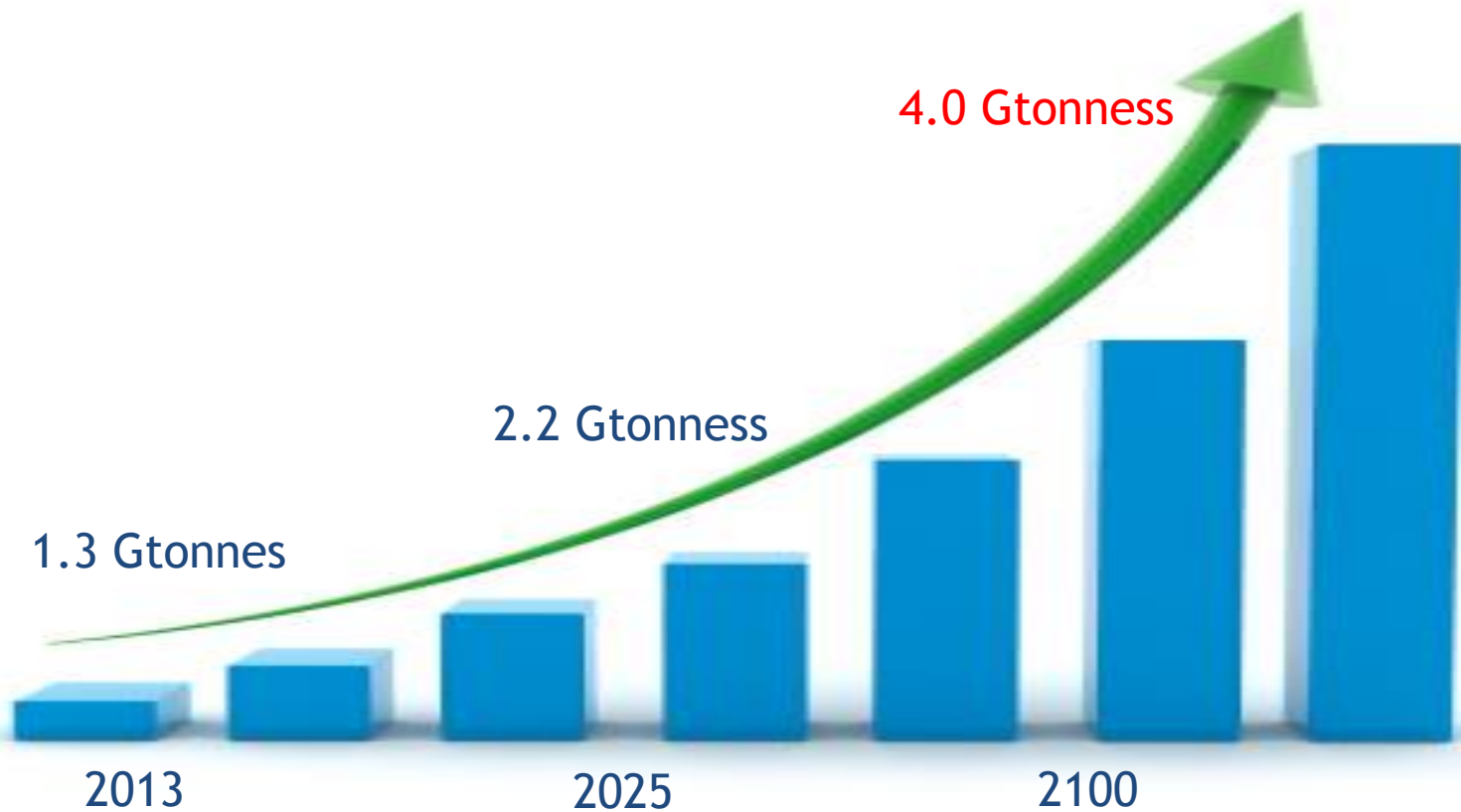
- Loss of crop yield from ground level ozone
- wheat, soybean, rice, maize.. 50 m tons lost

Water Budget

- BC and O₃ impacts rainfall - regional circulation patterns
- BC darkens snow and ice, exacerbating melting



Solid waste generation is increasing faster than any other pollutant





The Municipal Solid Waste Initiative

Overall Objective: foster partnerships, political will and technical capacity that directly support cities to take lasting action to reduce short-lived climate pollutants from their waste streams, and replicate and scale up through national policies.

The 8 Lead Partners:

Government of Canada
Government of Japan
Government of Mexico
Government of U.S.
C40 Cities Climate Leadership Group
International Solid Waste Association
The World Bank
United Nations Environment Programme



THE WORLD BANK
Working for a World Free of Poverty



ISWA

International Solid Waste Association

SEMARNAT

SECRETARÍA DE
MEDIO AMBIENTE
Y RECURSOS NATURALES



C40CITIES
Climate Leadership Group



**Environment
Canada**



Ministry of the Environment
Government of Japan



INECC

INSTITUTO NACIONAL
DE ECOLOGÍA
Y CAMBIO CLIMÁTICO



EPA United States Environmental Protection Agency



Efforts to tackle the largest sources of emissions from waste:

1. Reduce waste generation
2. Institute organic diversion for composting and/or anaerobic digestion
3. Institute recycling programs
4. Address open burning
5. Use landfills as final disposal options
6. Enhance landfill operations - promote methane recovery
7. Improve waste collection

The work of the Initiative:

Tools to identify and quantify SLCPs

Technical assistance

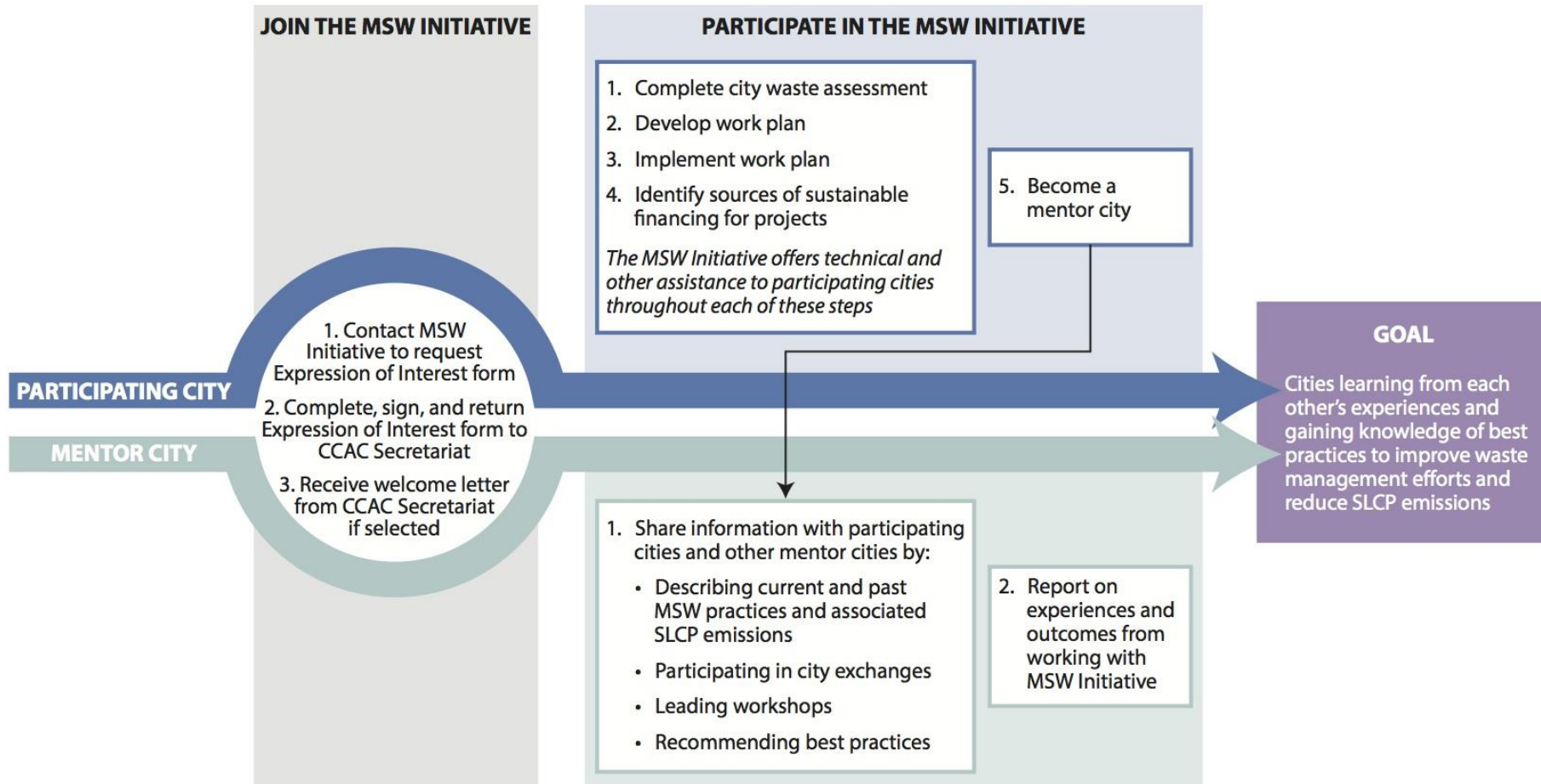
Peer-to-peer support + Knowledge Platform

Linking Local and National Actions

Platform for leadership

Aim: bolster cities' capacities to improve waste management through three main activities :

- Assessing & Implementing
- Capacity Building
- Convening





MITIGATING SLCPS

from the waste sector
is critical to addressing
climate change
in the near term

Welcome to the CCAC MSW Knowledge Platform: a tool to share and exchange information and provide outreach resources to support cities and governments to reduce [short lived climate pollutants](#)



What Cities are Doing

Find out how Cities manage their MSW and what they are doing to improve their practices



Take Action

Become involved and take action to reduce the impact of waste on climate change



Ask an Expert

Have your questions about all aspects of MSW answered by a select specialist in the field



Document Library

Search an extensive online library for key information on MSW best practices



Database Directory

Search through key databases to access a wealth of relevant information and resources on MSW



Discussion Forum

Take part in the discussion by sharing your experiences, expertise and knowledge

Announcements

[New outreach material available on Knowledge Platform](#)

Jan 13, 2014

[Two new pieces of waste legislation for New York City](#)

Dec 19, 2013

[CCAC MSW Initiative Newsletter](#)

Dec 16, 2013

[Cuestionario sobre cursos de aprendizaje en línea](#)

Nov 26, 2013

[Online learning survey](#)

Nov 26, 2013



More info – new website

<http://www.unep.org/ccac/>

Home About ▾ Initiatives Partners ▾ Scientific Advisory Panel Short-Lived Climate Pollutants ▾ Publications ▾ Events Media ▾ How to Join



The first global effort to treat short-lived climate pollutants as an urgent and collective challenge.

The Climate and Clean Air Coalition to Reduce Short-Lived Climate Pollutants is encouraging rapid reductions in black carbon (or soot), methane and many hydrofluorocarbons to protect human health and the environment now, and to slow the rate of climate change within the first half of this century.

COP19, Warsaw, Poland, 11-22 November 2013

Coalition of the Working

A BLOG FROM THE CCAC



Clean Air in Every Breath

By Marit Viktoria Pettersen, Senior Advisor, Ministry of Foreign Affairs, Norway

In Focus



Webinar Presentation

Green Freight Goes Global: Moving Toward a Global Action Plan

Join us for a special webinar to learn about and engage with the Climate and Clean Air Coalition (CCAC) as it prepares to develop a Global Green Freight Action Plan. The Coalition encourages the implementation of public-private partnerships, like SmartWay in other countries and also seeks to foster global cooperation on green freight. Multinational shippers and cargo owners, freight carriers, third-party logistics companies and other stakeholder are invited to join CCAC in its effort.

Date: January 22, 2014
Time 11:00 AM EST (United States)
[Webinar Registration](#)

Latest News

-  **21 November 2013**
Press Release: Dozens of Ministers of the Climate and Clean Air Coalition Celebrate First Successes and Enhance Actions
-  **15 November 2013**
WHO: Reduce short-lived climate pollutants
-  **04 November 2013**
New Report Supports Need for Immediate Cuts in Short-Lived

Tweets

 **Climate & Clean Air**
@CCACoalition 14 Jan