

# Short-Lived Climate Pollutants (SLCPs) in Asia: An Overview

A photograph showing a person standing on a platform next to a large industrial smokestack. The smokestack is emitting thick, dark smoke that fills the sky. In the background, there is a large fire, likely from an industrial facility, with bright orange and yellow flames. The scene is set at dusk or dawn, with a dark sky and a horizon line visible.

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Area Leader  
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IGES

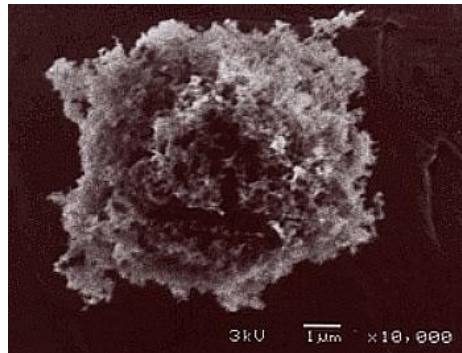
COP 19

19 November 2013

Photo: Reuters

# What are Short-Lived Climate Pollutants (SLCPs)?

## Black Carbon



## Methane

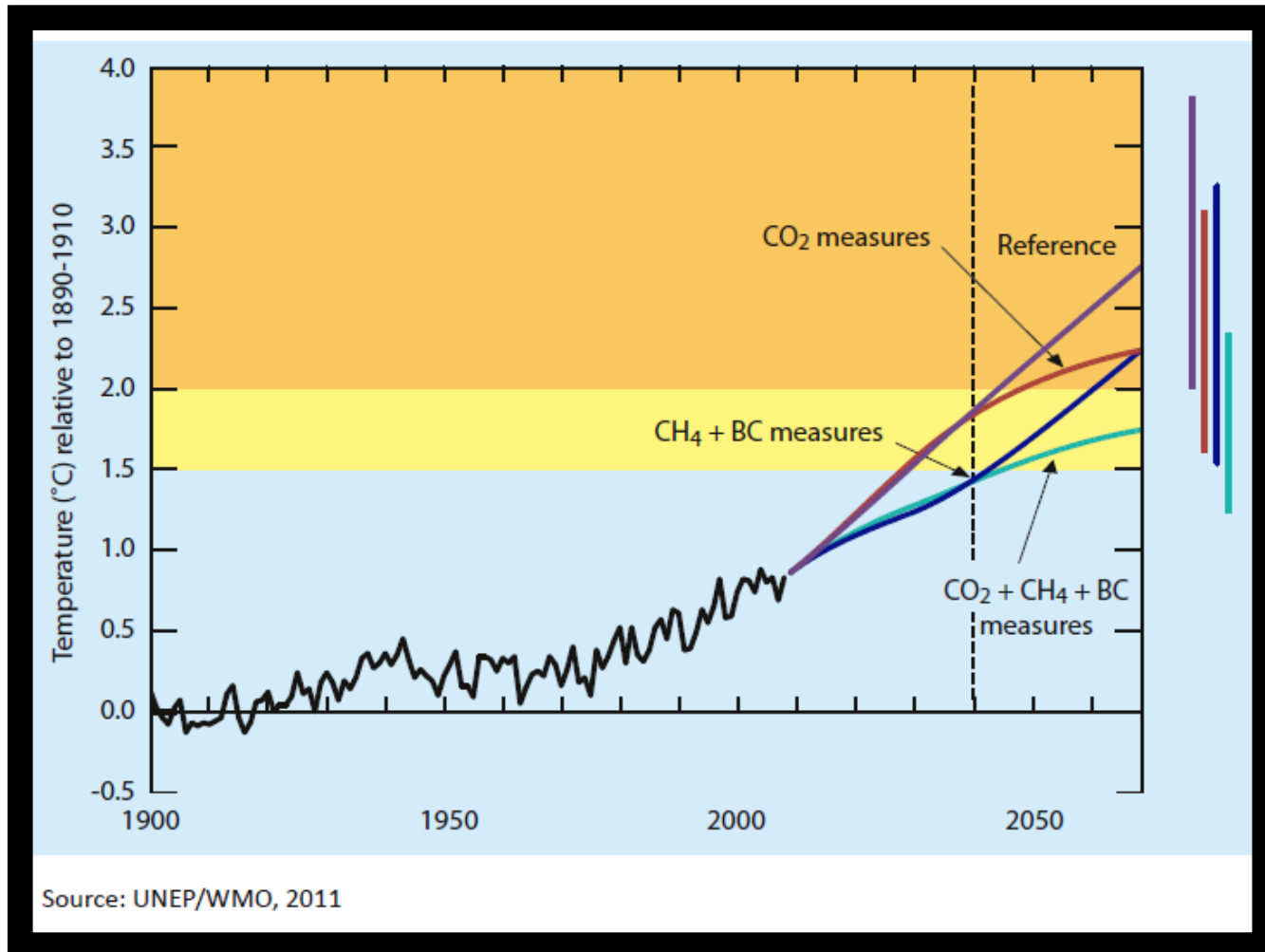


## Tropospheric Ozone

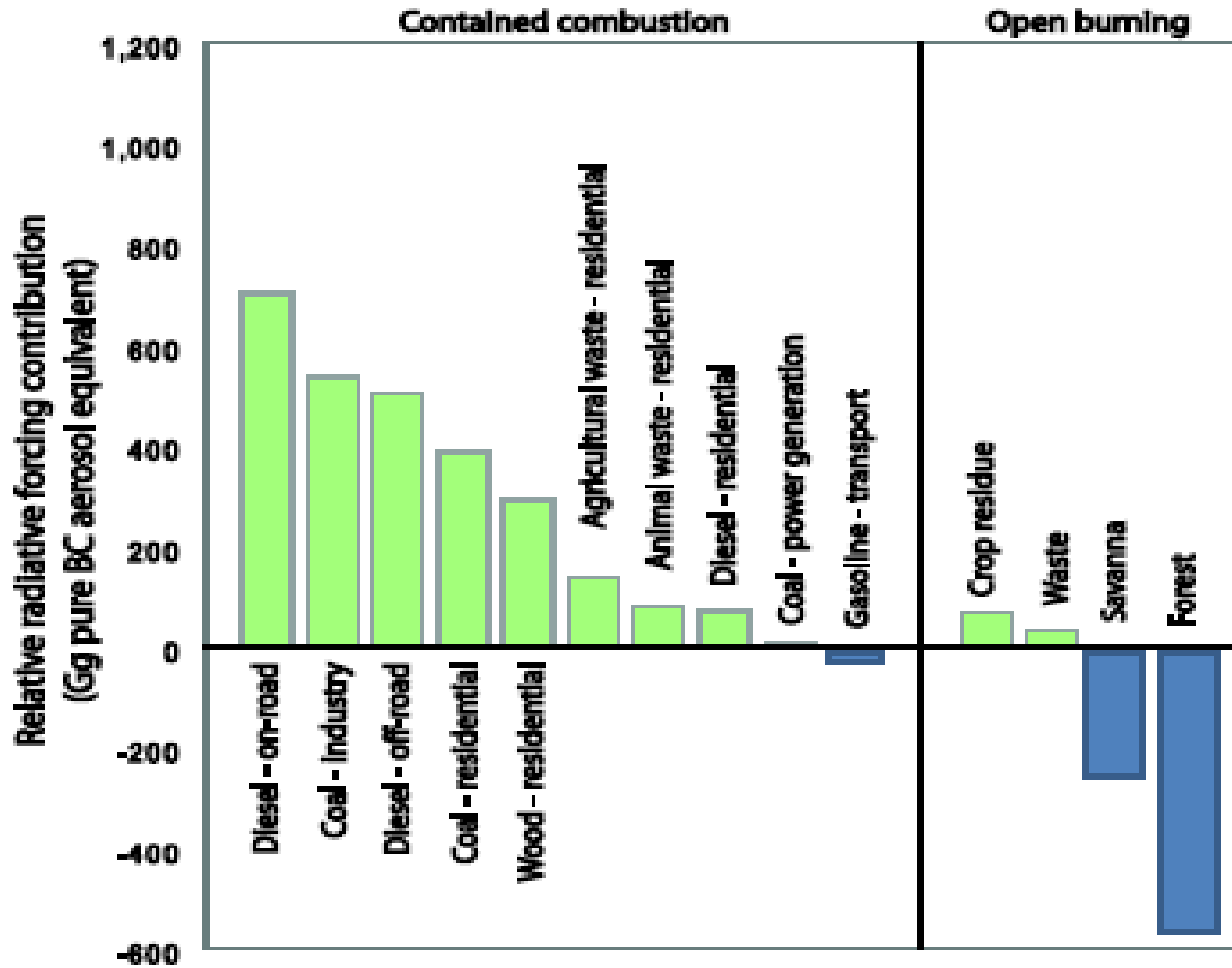


Substance	Lifetime
Carbon dioxide	Decades to centuries; about 20% will exist for millennia
Ozone	4-18 days
Methane	12 years
Black carbon	3-8 days

# Why are SLCPs Important?

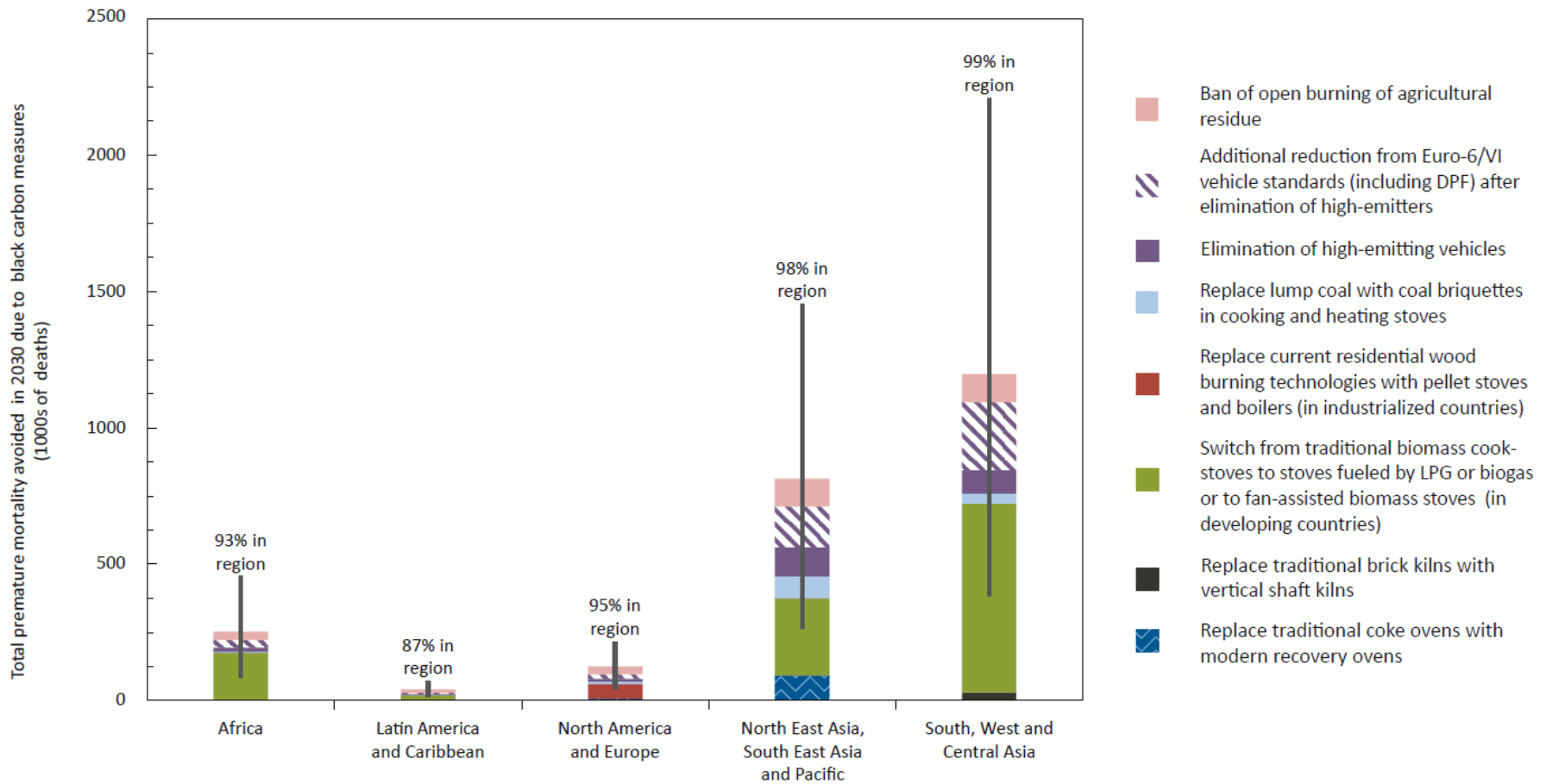


# SLCPs: Varying Impacts



Source: Woodrow Wilson School; Princeton University 2009

# Why are SLCPs Important in Asia?



Source: UNEP 2011

# Proven Technologies



EKC



# SLCPs: What is Japan doing in Asia?

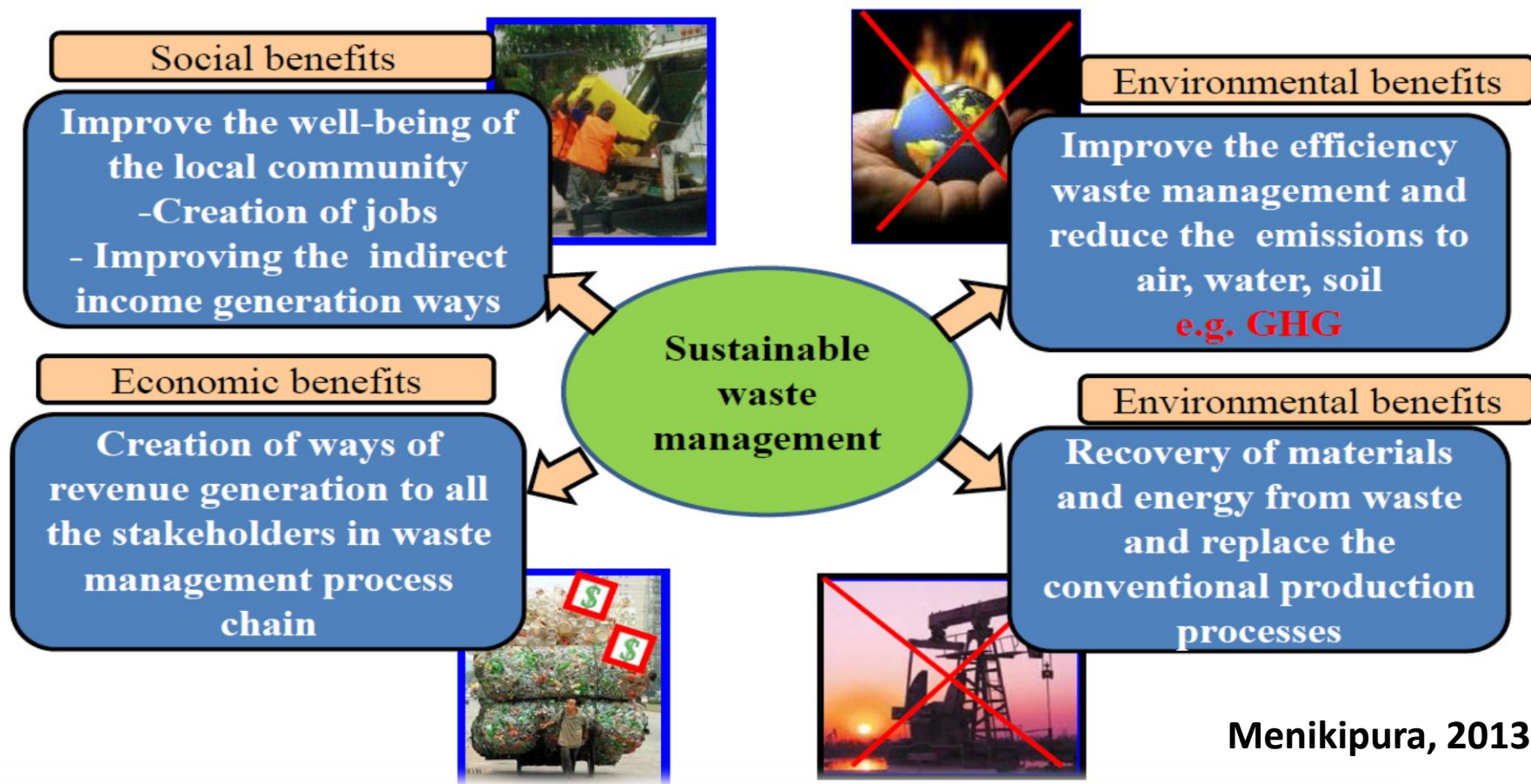


Sector based initiatives	Cross-cutting initiatives
<ol style="list-style-type: none"><li>1. Reducing Black Carbon Emissions from Heavy-Duty Diesel Vehicles and Engines</li><li>2. Mitigating SLCPs and Other Pollutants from Brick Production</li><li>3. Mitigating SLCPs from Municipal Solid Waste</li><li>4. Promoting HFC Alternative Technology and Standards</li><li>5. Accelerating Methane and Black Carbon Reductions from Oil and Natural Gas Production</li><li>6. Reducing SLCPs from Household Cooking and Domestic Heating</li><li>7. Addressing SLCPs From Agriculture</li></ol>	<ol style="list-style-type: none"><li>8. Supporting National Planning for Action on SLCPs Initiative (SNAP)</li><li>9. Financing Mitigation of SLCPs</li><li>10. Regional Assessments of SLCPs</li></ol>

Source: CCAC 2013

# SLCP Co-benefits from SWM

•Co-benefits can be achieved by selecting and adapting the best suited waste management technologies



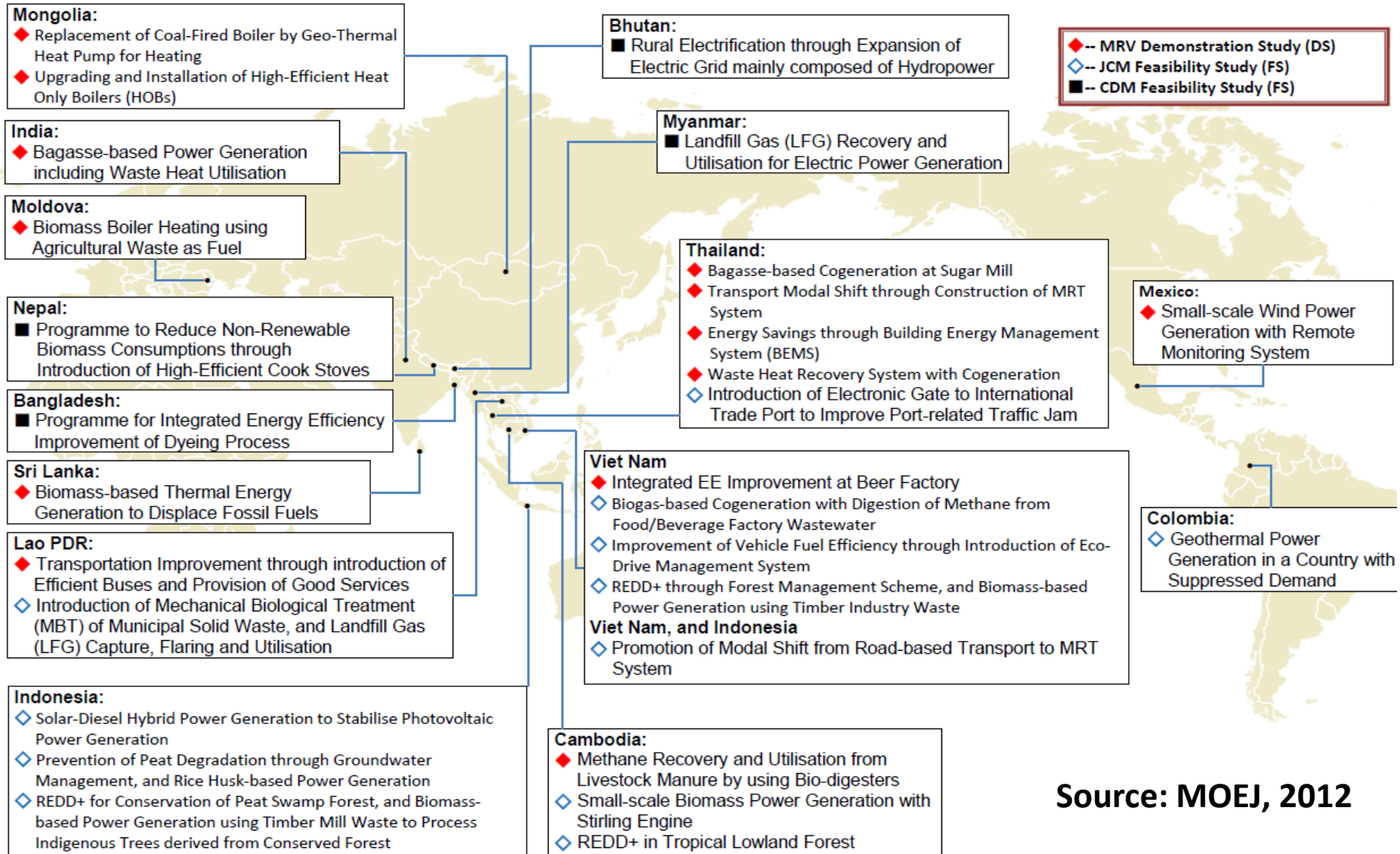


# **Asia Regional Meeting on SLCPs:**

## **5 February 2013, Bangkok**

- **The governments of Bangladesh and Japan co-hosted the meeting under the auspices of the CCAC; 119 participants from 12 countries**
- **SLCPs in the Asia-Pacific region provides substantial benefits for air quality, human health, food and energy security, poverty reduction, ecosystems, and other environmental public goods.**
- **In addition, the reduction of SLCPs helps reduce near-term warming (over the next few decades) and climate impacts across the Asia-Pacific region and globally.**
- **Accelerated and scaled up mitigation of SLCPs, such as black carbon, methane, tropospheric ozone, and many hydrofluorocarbons (HFCs), is therefore a critically important complement to efforts in multilateral climate processes to mitigate carbon dioxide (CO<sub>2</sub>) and other long-lived greenhouse gases (GHGs).**

# SLCPs: What else is Japan doing in Asia?



Source: MOEJ, 2012

# What is IGES doing on SLCPs?

**Case study:  
Clean Diesel in Thailand**



**Case study:  
Clean Cookstoves in  
Bangladesh**



**Integrating Barriers into  
Technology Models**



# The Asian Co-benefits Partnership

[www.cobenefit.org](http://www.cobenefit.org)

- A platform to improve information sharing and stakeholder coordination on co-benefits in Asia.
- Goal: support mainstreaming of co-benefits into decisions in Asia.
- Partners: ADB, Clean Air Asia, ESCAP, UNU, UNEP, PRCEE (China), MOEI (Indonesia), and MONRE(Thailand)

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## Asian Co-benefits Partnership

**Promoting Co-benefits in Asia**  
The Asian Co-benefits Partnership is an informal and interactive platform to facilitate information sharing and stakeholder dialogue on co-benefits in Asia.

**7 July**

### About

About the Partnership  
Major Functions  
Membership

### Activities

### Publications & Tools

Transport Co-benefits Calculator  
(Excel File, 1.5MB, Zipped)

### Contact us

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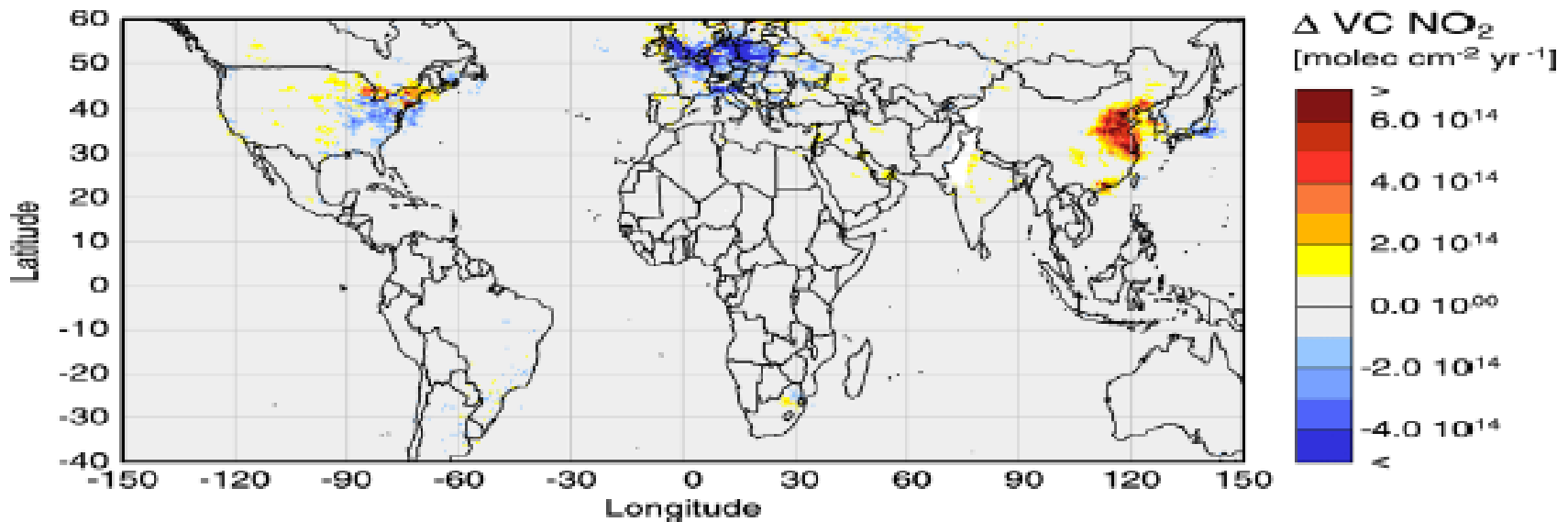
Ministry of the Environment  
UNEP  
ADB  
ESCAP

# **Next steps for SLCPs in Asia**

- **Subregional Consultation on SLCPs in Asia (likely Jan 2014)**
- **Co-benefits White Paper (March 2014)**
- **Regional Assessment on SLCPs in Asia (likely 2014-2015)**
- **Promotion of activities under CCAC (SWM and SNAP)**
- **Linking SLCP work with co-benefits work (i.e. where do NAMAs meet SNAP)**

# Some Considerations for Asia

1996 - 2002



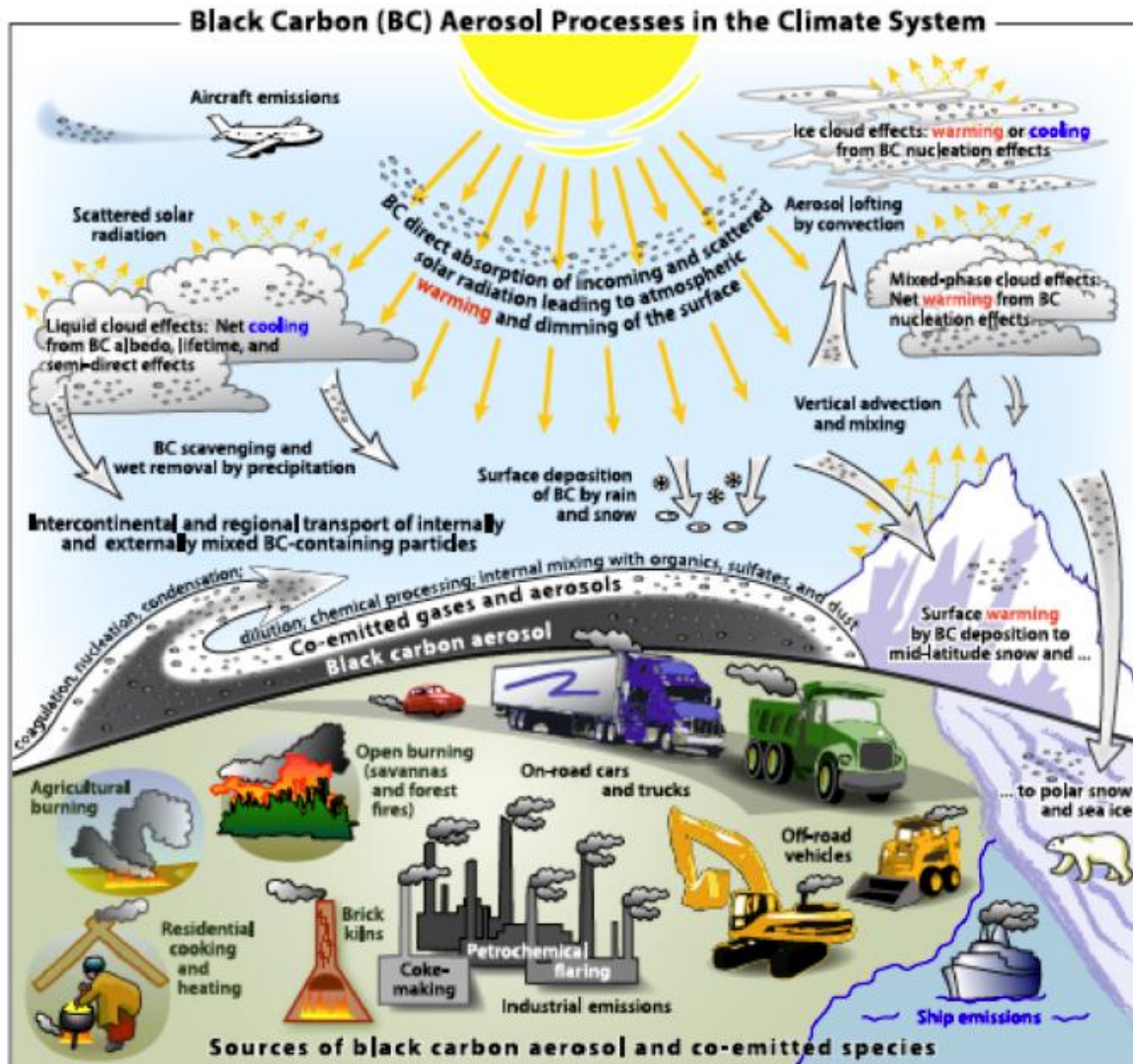
Europe and US has already reduced NOx but not in East Asia!

A. Richter et al., Nature, 2005

# Key Messages

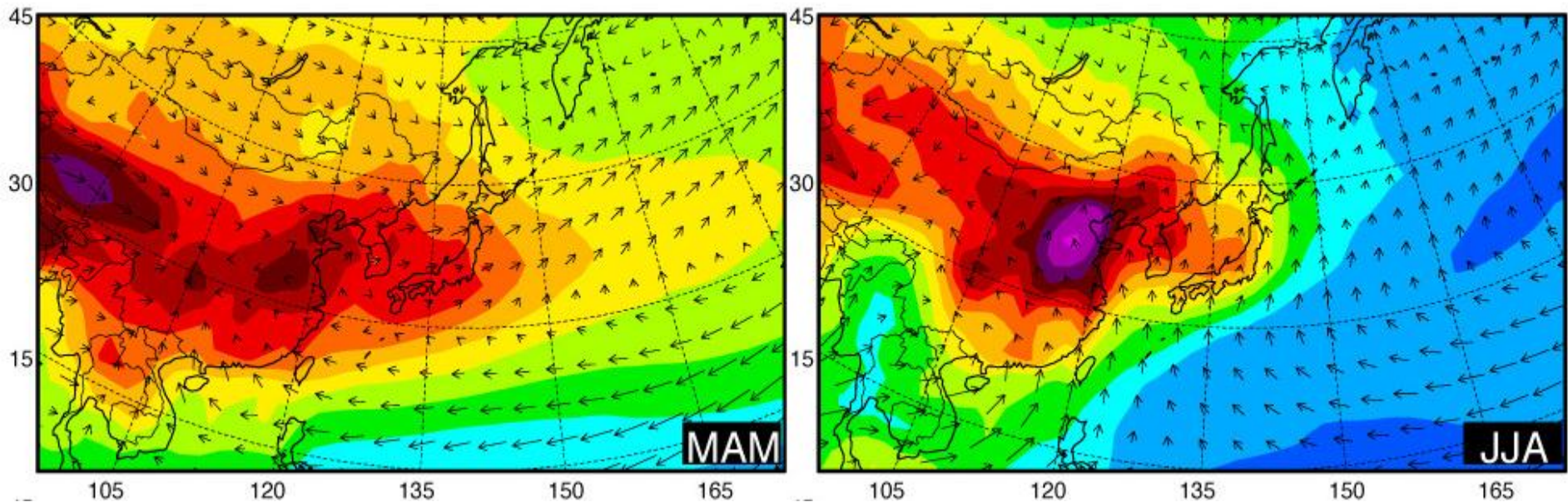
- **Mitigating SLCPs is drawing a growing amount of attention in Asia**
- **SLCP mitigation is a complement not a substitute for GHG mitigation**
- **There are several proven SLCP mitigation technologies that could help stabilize the climate, improve public health, and boost crop yields**
- **The CCAC is a voluntary multilateral initiative that was established to promote actions in these high priority areas**
- **Japan is contributing to the CCAC, the ACP, and other activities to achieve SLCP co-benefits in Asia**
- **It will be increasingly important to consider non-technical barriers to realizing SLCP co-benefits in Asia**
- **Another important consideration will be non-methane precursors of ozone that can achieve co-benefits when mitigated in parallel with CO<sub>2</sub>**

# Appendix





# Appendix



**Considering premature deaths due to O<sub>3</sub> and PM<sub>2.5</sub>, co-benefit approach by controlling NO<sub>x</sub> and VOC together with CO<sub>2</sub> should have higher incentive in East Asia.**

**Nagashima et al., Atmos. Chem. Phys. (2011)**