Addressing SLCPs from MSWM: *engagement of IGES-CCET in Asia*

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IGES webinar on Quantifying GHG emission from
Urban City Services Version #1, 07 December 2022

IGES Centre Collaborating with UNEP on Environmental Technologies (CCET)

- Established in 2014 under a memorandum of understanding (MOU) between UN Environment Programme (UNEP) and IGES.

- Aims to assist national/ local governments to establish science-based and integrated policies, strategies and actions to sound management of waste and chemical towards achieving resource efficiency, climate change, SDGs and other pollution free targets.

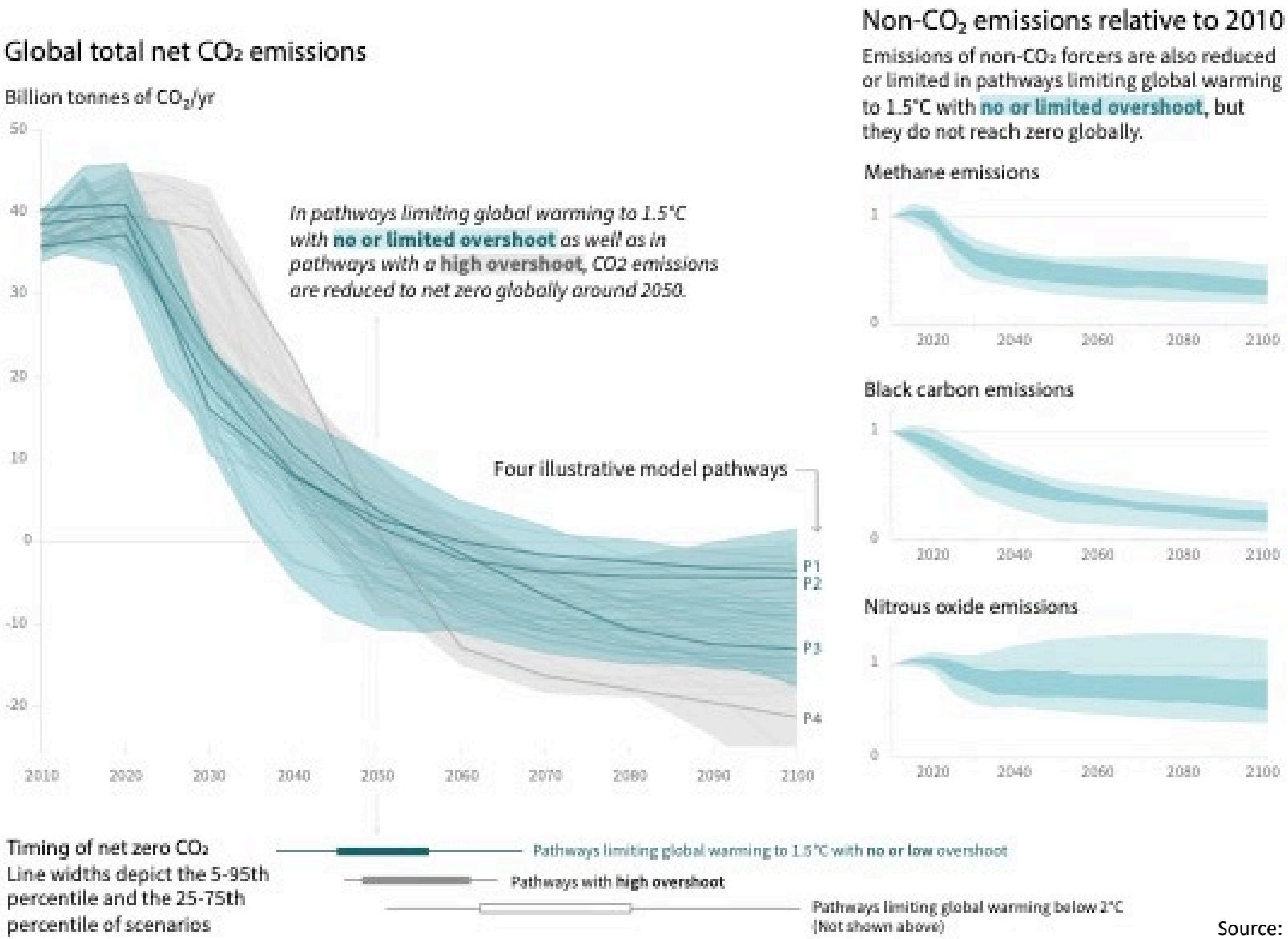
- Three priority action areas:

    - Technical/ policy support *(develop and implement national and local waste management policies, strategies and action plans)*

    - Knowledge development *(develop and disseminate the science-based knowledge products for decision makers and practitioners)*

    - Advocacy *(partnership and networking to facilitate regional/ global policy dialogue and leadership)*

Reducing SLCPs must to achieve 1.5°C climate goal



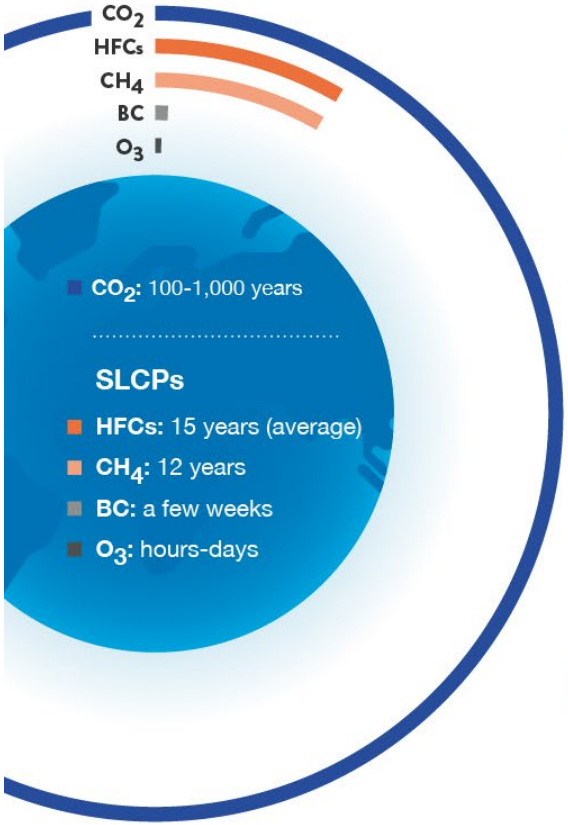
Source: IPCC (2018)

SLCPs are powerful climate pollutants

SHORT-LIVED CLIMATE POLLUTANTS

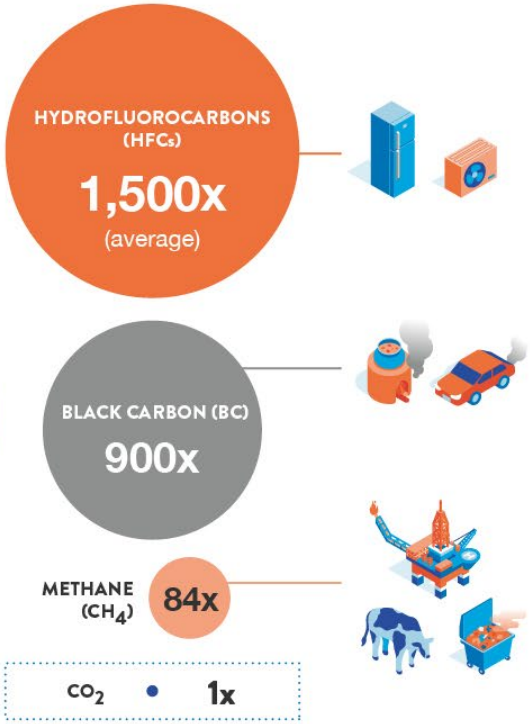
Short-lived climate pollutants (SLCPs) are powerful climate forcers that remain in the atmosphere for a much shorter period of time than carbon dioxide (CO_2), yet their potential to warm the atmosphere can be many times greater.

LIFETIME IN ATMOSPHERE



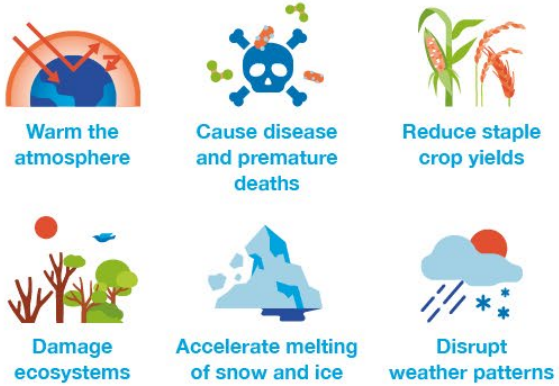
CLIMATE IMPACTS

SOURCES



Over a 20-year period, SLCPs are many times more powerful than CO_2

SLCP IMPACTS



SLCP SOLUTIONS

Due to their relatively short lifetime in the atmosphere, reducing SLCPs can bring immediate climate and air quality benefits. Emissions can be cut quickly using cost-effective technologies and practices that exist today.

	Emissions reduction potential	
Black carbon	70%	by 2030
Methane	45%	
Hydrofluorocarbons	56%	

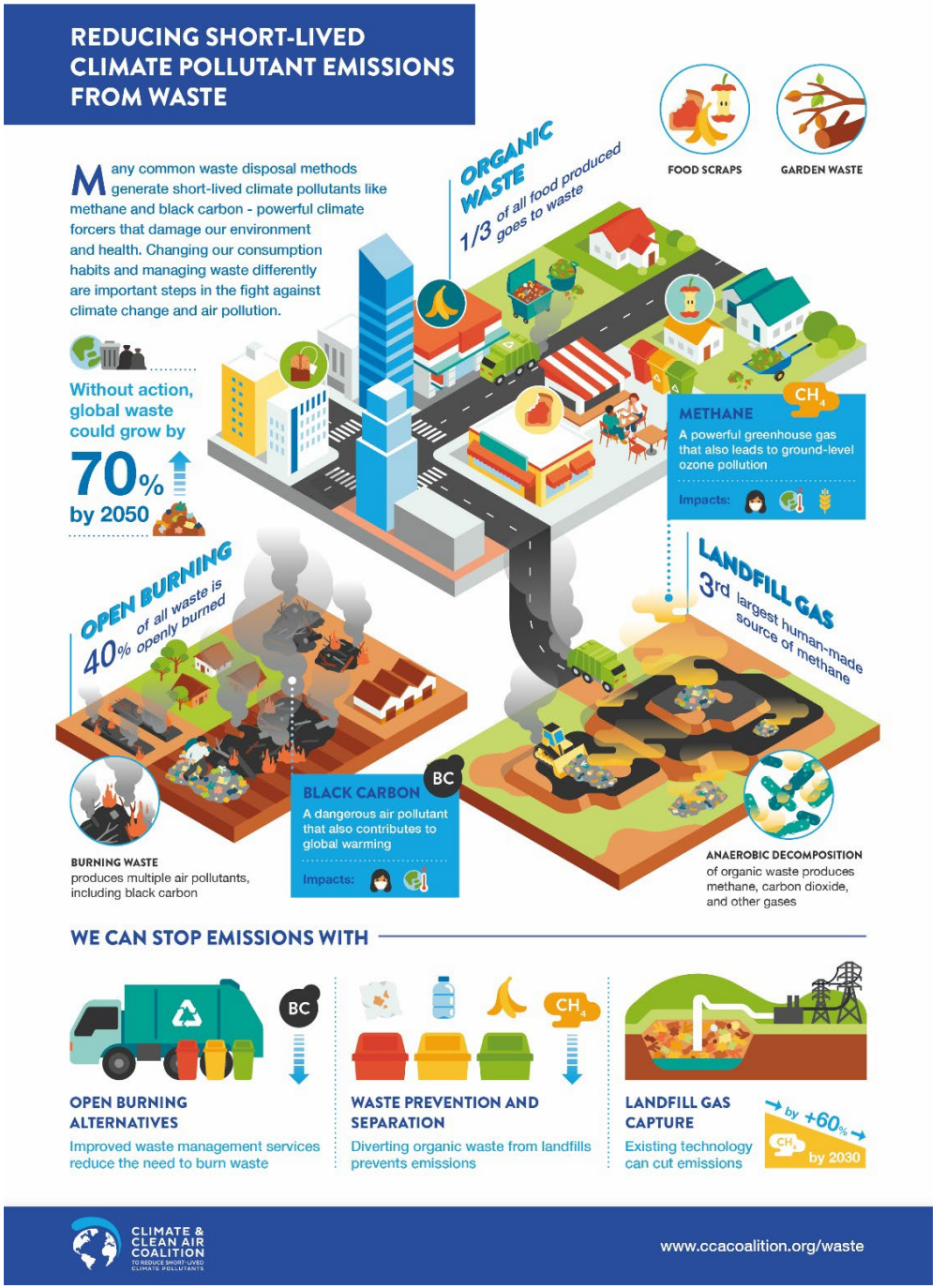
Municipal Solid Waste is a significant source of SLCPs

70%
- Global waste could grow by 2050 (BAU)

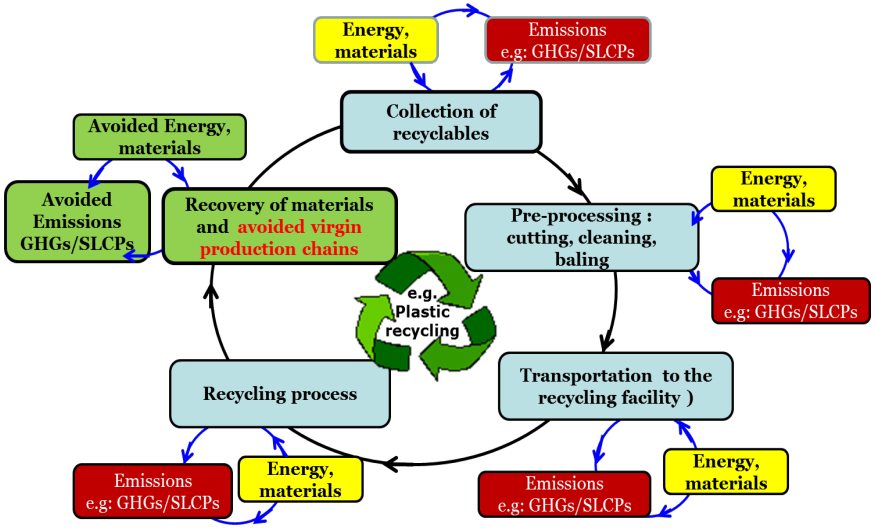
33%
- All food produced lost or goes to waste

20%
- Global methane emissions from waste sector

40%
- Waste is openly burned releasing black carbon



Integrated Solid Waste Management based on Life-cycle Assessment



SHORT-LIVED CLIMATE POLLUTANT RESEARCH DIGEST

September – October 2018

The Scientific Advisory Panel of the

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

Waste and Waste Management

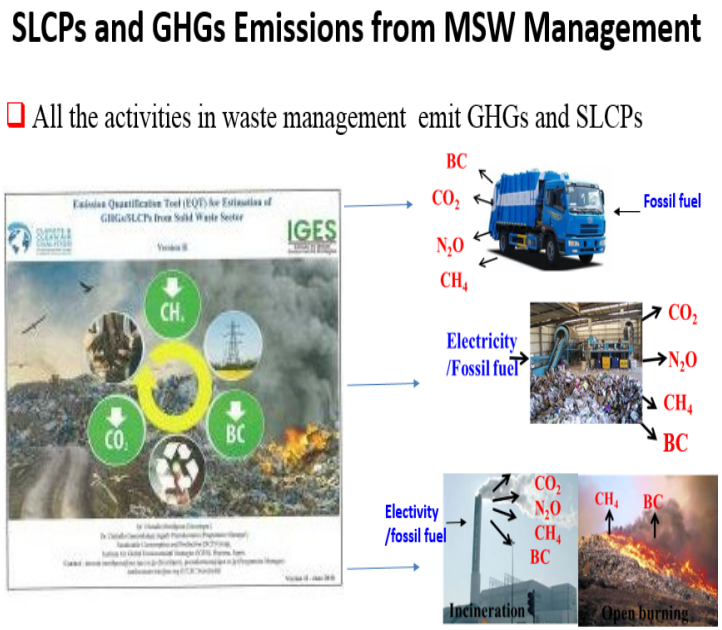
Description: This section includes articles primarily addressing SLCP measures and innovations related to the solid waste initiative and SLCP emissions in relevant sectors

Reduction of greenhouse gases (GHGs) and short-lived climate pollutants (SLCPs) from municipal solid waste management (MSWM) in the Philippines: Rapid review and assessment

Municipal solid waste management (MSWM) is considered one of the serious environmental issues in the Philippines, with corresponding linkages to the climate change and Sustainable Development Goals (SDGs). However, methane (CH4) linked with indiscriminate dumping of municipal solid waste has received the much attention with regard to public health and climate change. The impacts of black carbon (BC) are less documented and understood. This paper aims to review the status of MSWM in the Philippines and makes efforts to assess the scale of short-lived climate pollutants (SLCPs), including both CH4, and BC, associated with the country's waste sector. Utilising available national level data and following a life-cycle assessment (LCA) approach, the paper offers preliminary projections of SLCP emissions resulting from present MSWM practices. In addition, it examines model mitigation scenarios based on priority actions identified within the country's national policy on waste management, Republic Act 2003 (RA 9003). Data analysis was conducted using an Emission Quantification Tool (EQT) developed by the Institute for Global Environmental Strategies (IGES) through its work under the Climate and Clean Air Coalition (CCAC) – Municipal Solid Waste Initiative (MSWI). Following a summary of key findings, the paper affirms that control of methane from disposal practices and of BC from waste collection and open burning requires urgent attention in the Philippines. Continued awareness raising, institutionalising regulatory policies on SLCPs, and further enhancing data collection and capacity building on waste-related BC emissions remain key priorities for the country.

Premakumara, Dickella Gamaralalage Jagath, et al. "Reduction of greenhouse gases (GHGs) and short-lived climate pollutants (SLCPs) from municipal solid waste management (MSWM) in the Philippines: Rapid review and assessment." Waste Management 80 (2018): 397-405.

IGES-CCET engagement in reducing SLCPs from waste sector

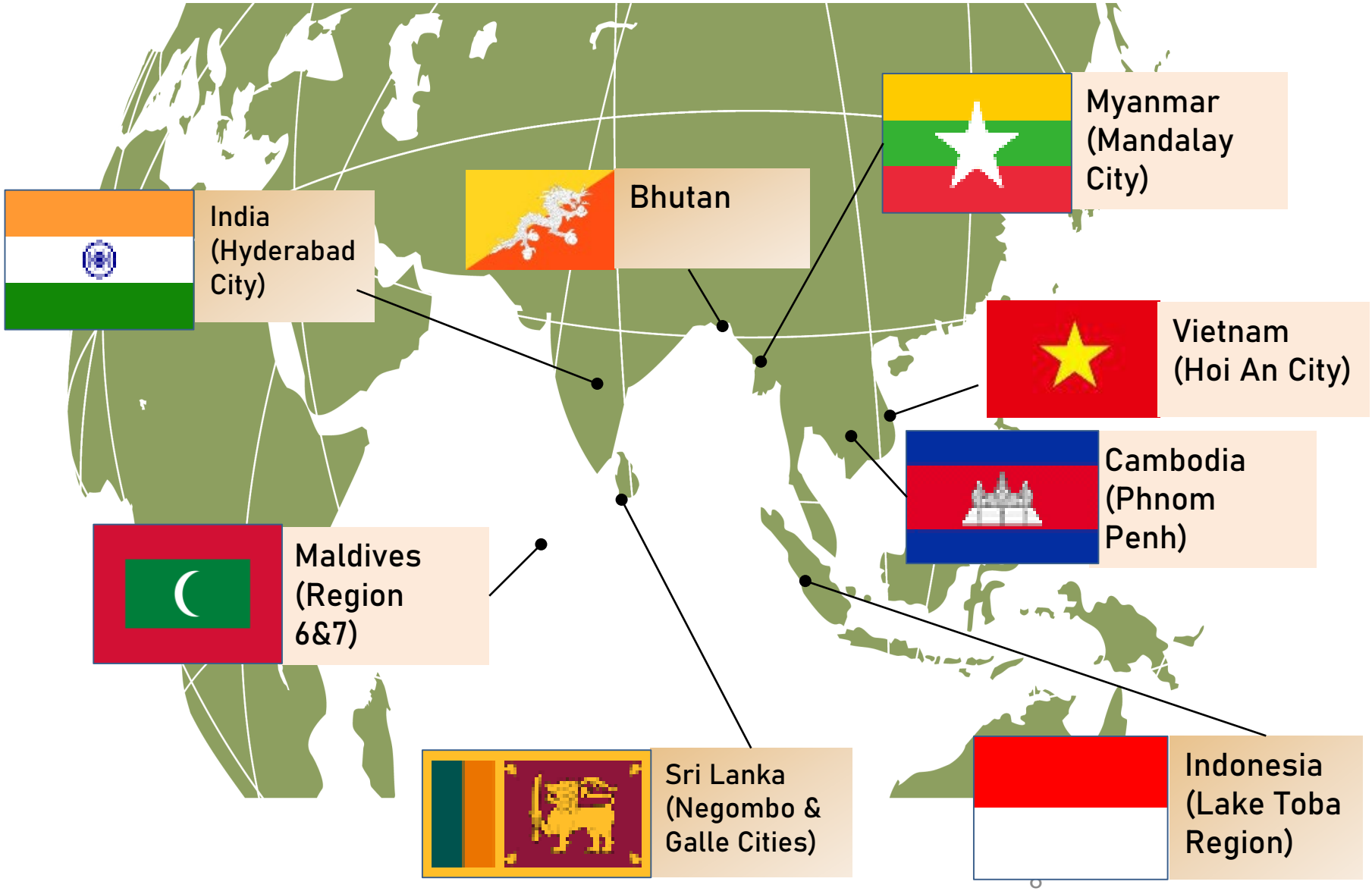


Advocate for integrated solid waste management planning and practice

Training, capacity building, and networking

Enhance scientific knowledge and know-how

Countries developed National and City Waste Management Plans with the support of IETC and CCET



Key Lesson Learned

- Identify clear (legally binding) targets and priorities considering existing national and global targets and priorities
- Better evidence (studies and learning from good practices) to inform decision-makers and practitioners
- Integrated approach based on life cycle assessment and 3Rs
- Monitoring mechanisms to review the progress at regular intervals, adjust and make any revisions
- Strong institutions and strengthened policies that are harmonised, monitored and enforced actions
- Appropriate and inclusive technologies with allocation of sufficient investment
- Improved awareness and strengthened capacity (institutional and individual)
- Get everyone involved (informal sector and vulnerable groups), good communication and active partnerships

ご清聴ありがとうございました。

Thank you for your attention.

You can find more information:
https://www.ccet.jp/publications

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