



**ISAP 2021**

International Forum for Sustainable Asia and the Pacific

**IGES**  
Institute for Global  
Environmental Strategies

# Methane Gas Reduction and Management in the Solid Waste Sector: The Philippine Setting

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# BRIEF BACKGROUND

- National Communications
- INDC → NDC



DEVELOPMENT OF  
THE PHILIPPINE NDC

Revisit



Reconstruct

# Analytical Tools Used in NDC

- 2006 IPCC Inventory Software
- Sectoral Modelling Tools
- Cost-Benefit Analysis (CBA)
- Multi-criteria Analysis (MCA)



MARCH 2019



Methane Flaring in SLF

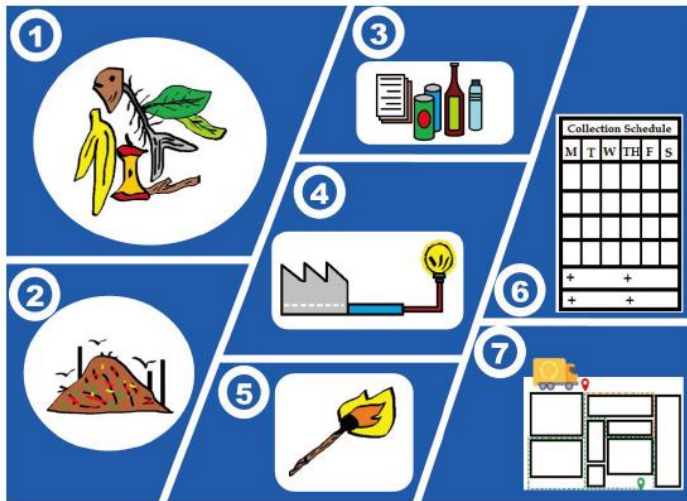
Composting

Digestion of Organic Solid Wastes

Methane Recovery from Sanitary Landfill (SLF) for Electricity

Use of eco-efficient Soil Cover

**NATIONAL STRATEGY TO REDUCE SHORT-LIVED CLIMATE POLLUTANTS FROM THE MUNICIPAL SOLID WASTE SECTOR IN THE PHILIPPINES**



MARCH 2019



- Multi-stakeholder consultation process
  - DENR, NSWMC, CCC, LGUs, Academe
  - With assistance from IGES
- Emissions Quantification Tool (EQT)
- 2010 base year
- In total, net baseline emissions from GHGs and BC are equivalent to 5.43 million tCO<sub>2</sub>e.
- If SLCPs only (CH<sub>4</sub> and BC) are considered, the total baseline emissions would be equal to 6.50 million tCO<sub>2</sub>e, of which about 15% is due to BC.
- Strategies: Core Group of Experts

### Strategies that primarily target CH<sub>4</sub> reduction

- Implement comprehensive and strategic biodegradable waste management programs.
- Promote gas capture, recovery and/or treatment during operation, and closure and rehabilitation of solid waste disposal sites (SWDS)
  - ... including the use of eco-efficient soil cover (EESC) at small SWDS.

### Strategies that primarily target BC reduction

- Implement comprehensive and strategic recyclables management programs.
- Adopt alternative technologies, including waste-to-energy, as SWM solution, considering institutional, legal, and technical limits.
- Implement BAT/BEP to prevent and control burning at SWDS.
- Implement BAT/BEP to prevent and control open burning at **backyards or communal areas**

### Strategies that primarily target CH<sub>4</sub> reduction

- Implement BAT/BEP to prevent and control open burning at backyards or communal areas
  - ... by (among others) increasing waste collection coverage and frequency.
- Promote the use of low polluting waste collection vehicles and optimization of MSW collection routes and transport schemes.

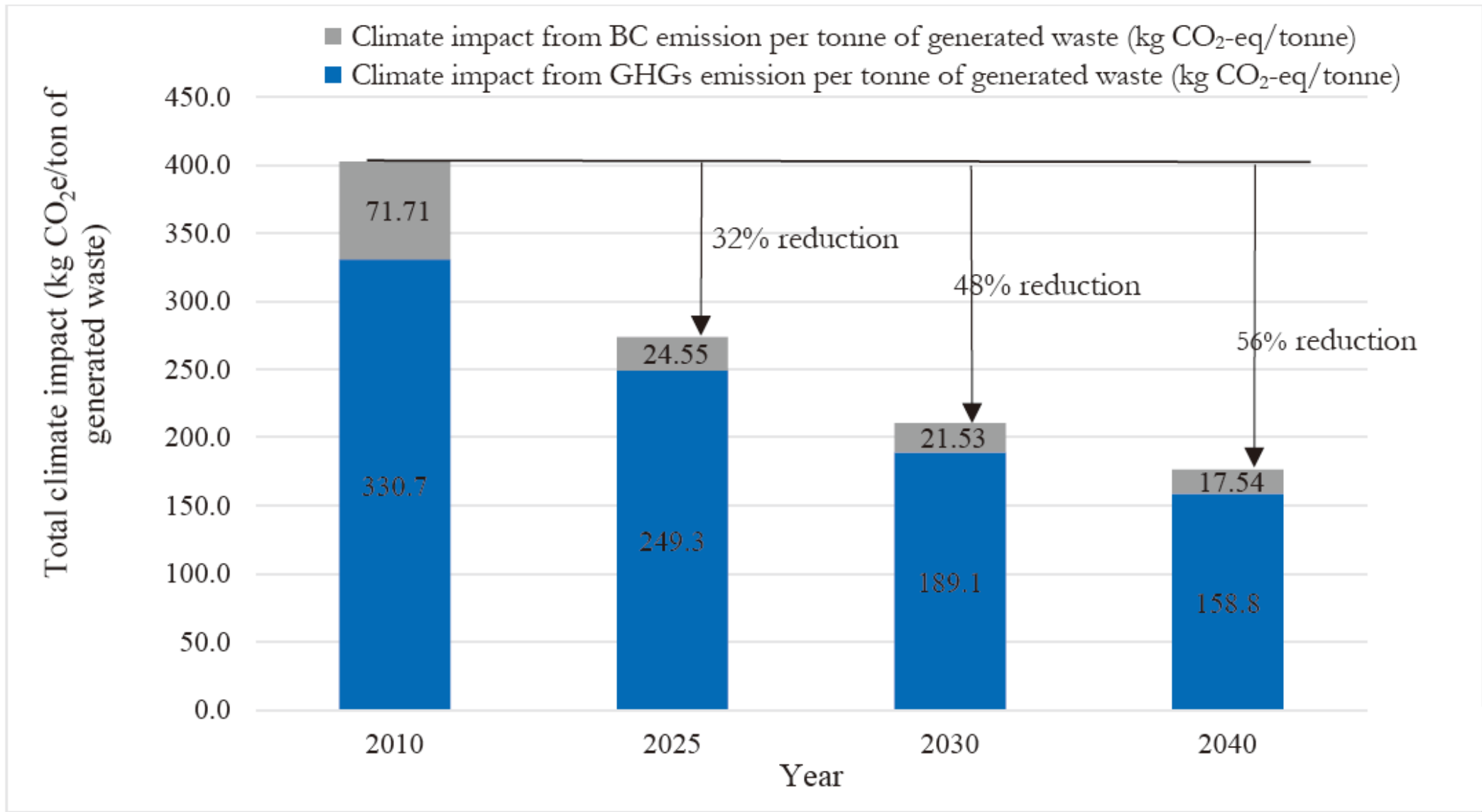
## Main strategies to reduce SLCPs from the Philippine MSW sector

**TARGETS**

**2025**

**2030**

**2040**



Aggregated GHG and BC reduction potential through the proposed strategies

# IMPLEMENTATION OF THE NATIONAL STRATEGIES

- Within the realms of the current provisions of the Ecological Solid Waste Management Act of 2000 (RA 9003)
- Some of the strategies are requiring further national study for its implementation.
- Closed all open dumpsites
- New policies on integrating composting facilities into the sanitary landfill facilities

# CHALLENGES

- Insufficient monitoring and assessment of the effectiveness and efficiency of policies
- Deficiencies in data management for information coming from the local, regional and national levels
- Untapped or suboptimal partnerships with donors, financing institutions and the private sector.
- Limitations in creating local staff positions focused on eswm
- Local leaders' inadequate political will or support and lack of motivation to prioritize ESWM in the agenda.



# WAYS FORWARD

- ❑ Improvement of data management
- ❑ Full implementation of the national strategies to achieve the targets
- ❑ Conduct further studies for the strategies
- ❑ Develop and conduct the MRV system



Members of the Core Group of Experts during one of the workshops towards the development of the national strategies.



ご清聴ありがとうございました。  
Thank you very much for your attention.