



# MSW Status Sri Lanka

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Global Methane Initiative

Municipal Solid Waste Subcommittee Meeting  
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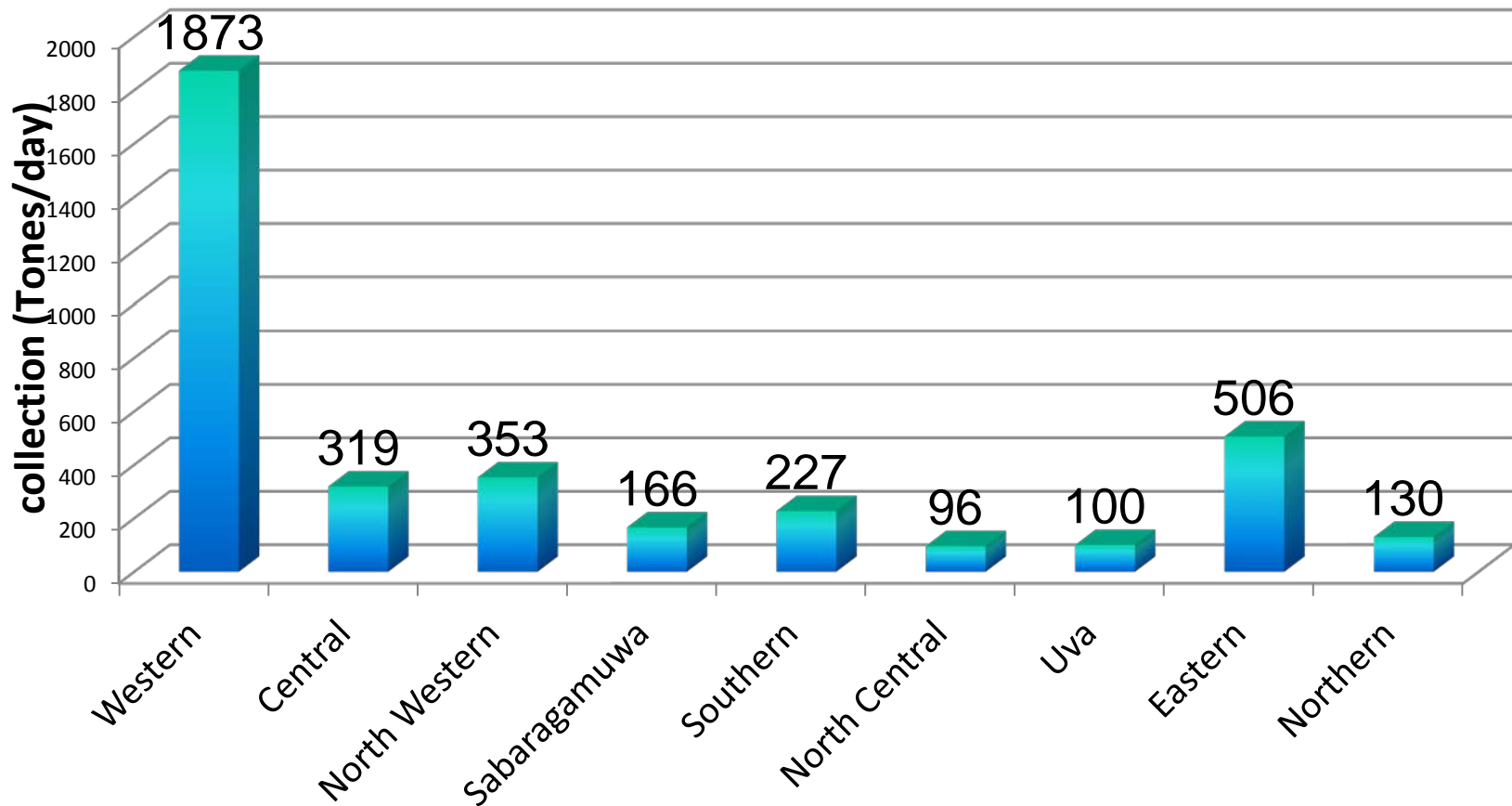
# Regulatory & Institutional Framework

- The National Environmental Act of 1980 amended in 1988, provides the necessary legislative framework for environmental protection in the country.
- National Strategy for Solid Waste Management put forth by the Ministry of Environment in 2002 to provide overall guidance.
- Management of the municipal solid waste is a mandatory responsibility of the local authorities.
- Legislations required for waste management are provided under the Local Government Laws.

- National Solid Waste Management Support Center (NSWMSC) was established in 2007 to assist local authorities.
- The provincial Waste Management Authority of Western Province functioned as a provincial authority since 2004 with the mission of Protection, Management and Enhancement of the provincial environment by way of establishing a suitable Waste Management Structure, Strategy and Legal Framework.

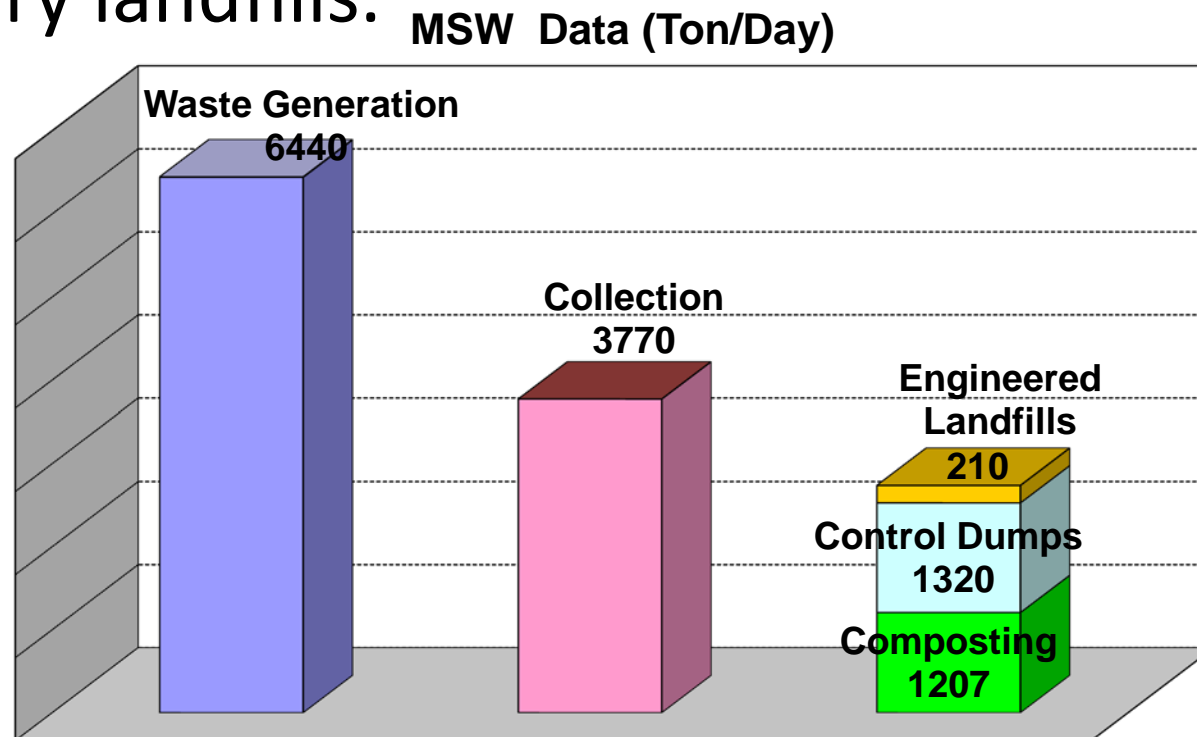
# Waste Generation

- Total waste generation - about 6400 Mt/day
- Collection - about 3770 Mt/day.
- Western Province shares more than 59% .



# Waste quality & disposal

- Majority biodegradable waste –range 60-80%
- Most LAs are practicing open dumping except few local authorities who are operating composting plants, controlled dumps and sanitary landfills.



# Composting

- SLS standards for compost quality (SLS 1246: 2003)
- There are 335 LAs. More than 125 LAs are operating compost plants as a waste recovery option.

## Different Methods

- Inclined Step Grate (ISG) Composting
- Semi aerobic trench method
- Windrow composting
- Home composting

Compost Plant-BURNS Environmental Technologies LTD



# Anaerobic digestion

- Code of practice for design & construction of biogas systems

Part 1: domestic biogas systems (SLS 1292: 2006)

Part 2: Farm scale systems 10-100 m<sup>3</sup> (in progress)

- Sri Lanka biogas association in 2008
- Different techniques for MSW digestion

- Plug flow
- Dry Batch



# Barriers, assistance & information Needed

- Reactor configuration –cracks, gas leaks, lack of skilled masons
  - Existing – All large scale units- underground concrete/brick structures
  - Need to go for above ground steel units
- In order to use as a power source
  - Gas cleaning
  - Gas compaction/storage



# Land fills

- Majority -open dumps
- Few control dumps
- Some engineered landfills – no gas extraction, semi aerobic type
- Few proposed projects with gas extraction
- Few have leachate treatment facility
- No landfill gas industry in operation yet



# Problems

- Mixed waste
  - Fill before targeted life span
  - Lack of Leachate management
  - Lack of Gas management
  - No proper plan yet for LFG recovery from existing and abandoned dumps
- ex: Bloemendhale dump in North Colombo 1.5-2 million tons waste, compacted waste height ~ 40 m

# Waste to energy

- Approved projects by Sustainable Energy Authority

Technology	Capacity (MW)	Raw material (Tons/day)	Location
Incineration	10	400	Kaduwela
Mass burning /pyrolytic gasification	10	700	Meethotamulla
RDF	10	400	Kolonnawa
Landfill	10	200	Gohagoda

# Methane Action Plans and NAMA

- Prepared the status report. But not finalized yet.
- Need to develop national level methane action plan and nationally appropriate mitigation actions by considering the waste composition, past experience, weather condition and sustainability

We have long way to go...

**Thank You**