



**CAFEO37**  
INDONESIA



# Environmental Work Group

**Asst.Prof.Dr.Piyanart Sommani**

Dept. of Electrical Engineering, Fac. of Engineering  
King Mongkut's Institute of Technology Ladkrabang, Thailand

Foreign Affairs Committee, and Chemical Petrochemical Engineering Committee  
The Engineering Institute of Thailand under H.M. The King's Patronage



CAFEO37 Indonesia: The Beacon For Sustainable Development, 11-14 September 2019,  
JIExpo Kemayoran Jakarta, Indonesia

# Management of Pollution Problem in Thailand



**Ministry of Natural Resources and Environment (MNRE) has main mission to prevent and solve pollution problem in Thailand in collaboration with other concerned agencies and networks.**

- 20 years National Strategy Plan (2018-2037)
- National Reform Plan
- Twelfth National Economic and Social Development Plan
- Sustainable Development Goals (SDG)



**Balance in aspects of economy, social, quality of life people living, and preserving natural resources and environment.**

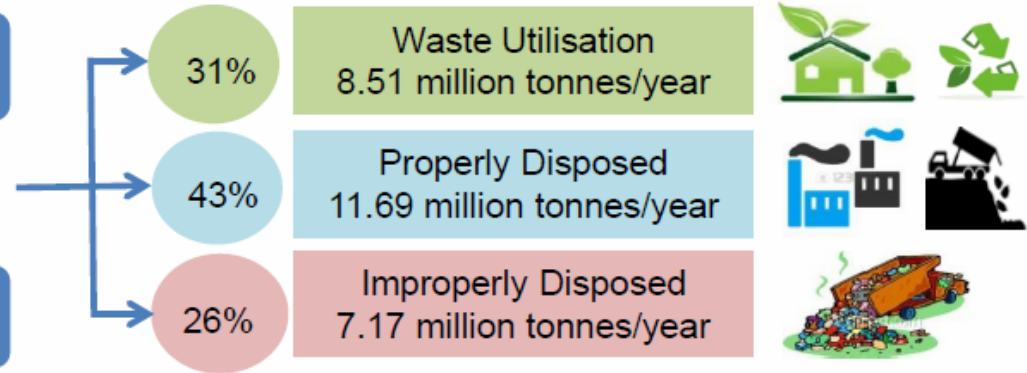
# Municipal Solid Waste (MSW) Management Status in Thailand

## Total MSW Generation

- **27.37** million tons/year or **74,998** tons/day

## MSW generation Rate

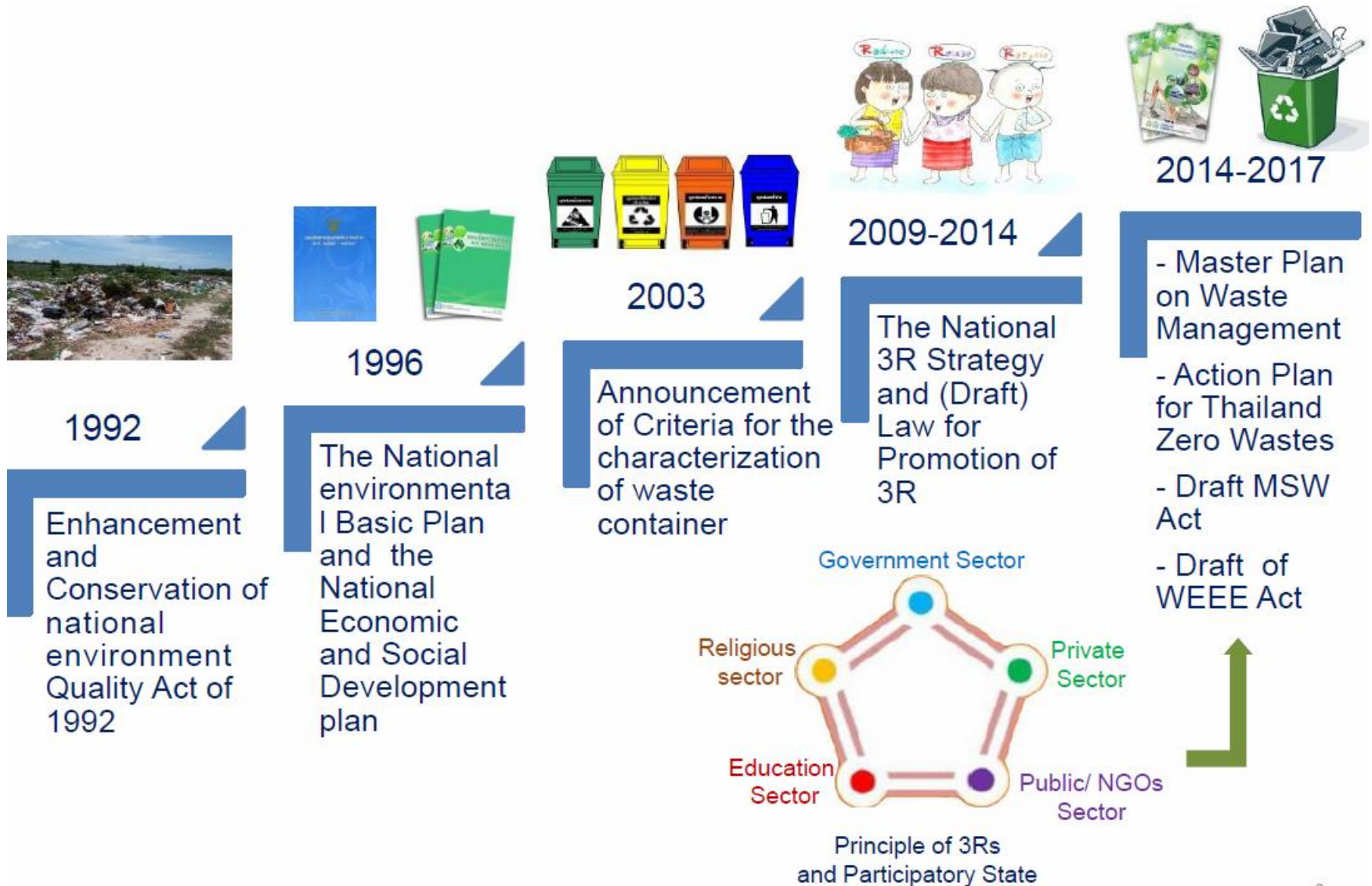
- **1.13** kilograms/capita/day



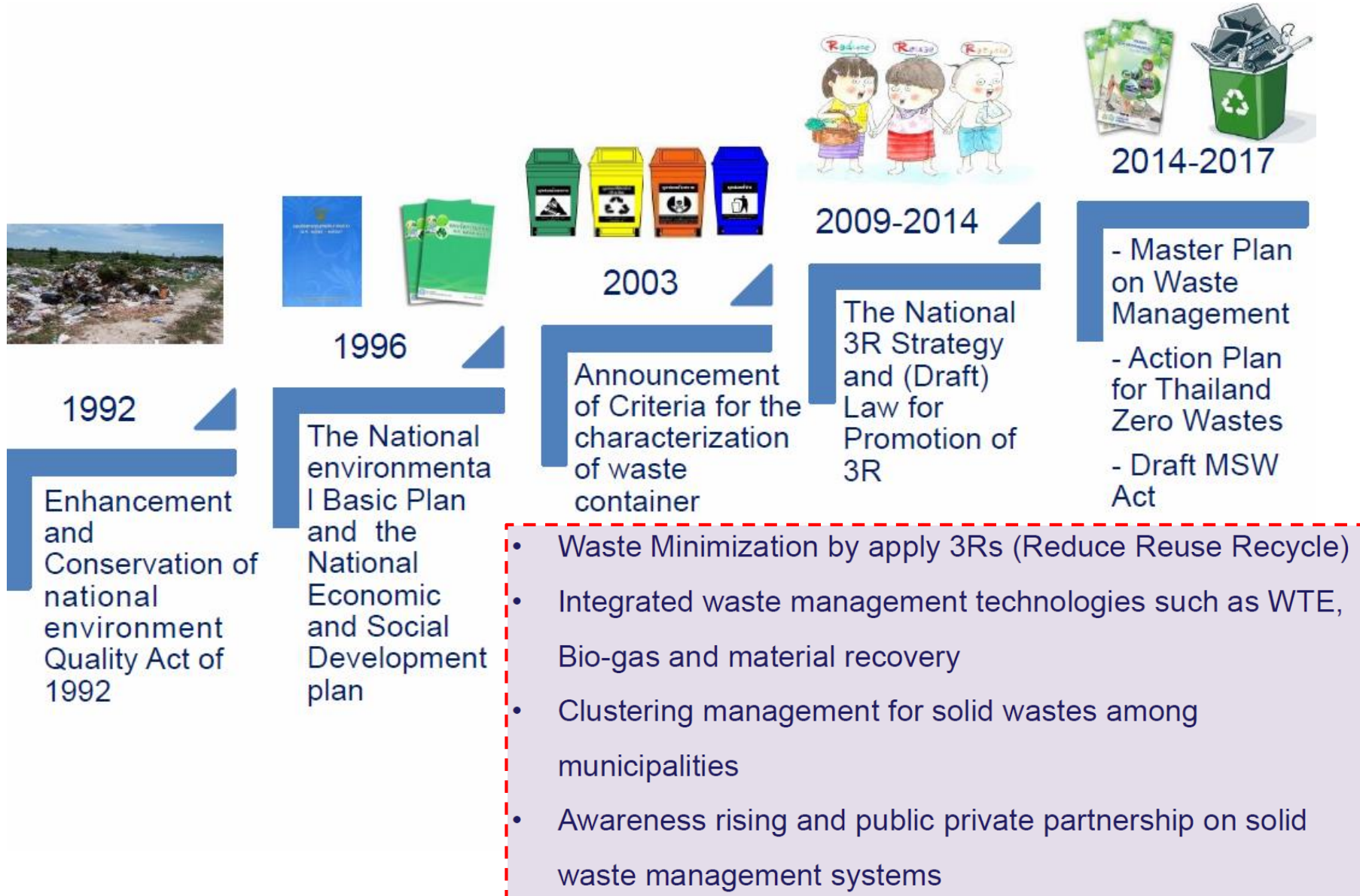
## Problems

- Open Dumping - 2,075 disposal sites (mostly in small size municipalities)
  - Deterioration in the environment
  - Health of the population
  - Releasing greenhouse gases
- Small size municipalities lack of funding and capabilities
- Public disillusioned by previous site operation and distrust new waste management projects

# MSW Management Timeline



# MSW Master Plan



Source: (1) Waste Minimization Division, Pollution Control Department. 2019. **Thailand 3R Country Report.** and (2) PralongDumrongthai. 2019. **3R in Thailand: Policy Plans and Practices.**

The Ninth Regional 3R Forum in Asia and the Pacific. 4-6 March 2019. Royal Orchid Sheraton Hotel & Towers, Bangkok, Thailand

# Achievements/Initiatives in 3R Areas

## Plastic waste reduction

- Start of the phase-out period of cap seals on April 1, 2018
- Total elimination of cap seal use in Thailand on December 31, 2019
- Reduce plastic shopping bags & refill bags in Super stores and super markets

## Zero waste in schools and communities

## Waste Management in 10 pilot National Parks and Tourist Places

Upgraded 740 open - dumping sites from 2,610 sites

Clean and Green City in 18 Provinces

Green procurement : 23 Products and 6 Services

# Achievements/Initiatives in 3R Areas (cont.)

## E-waste management

- National WEEE Strategy (2014-2021)
- Voluntary - based programs for E- waste separation and collection with Bangkok Metropolitan Administrative (BMA) and other municipalities
- Draft on WEEE Law

## Green Industry

- The clean production technology has been promoted and developed in 20 industrial sectors by capacity building and Code of Practice (COP)

## Eco-town project

- Eco-industrial Complex Project in 15 Provinces (18 areas) and 34 Eco-Industrial Estates

# Key Success Factors in 3R Practices

## Creating awareness and understanding

- Encourage citizens, including children, and the private sector to source separation by following the 3Rs concept (Reduce, Reuse, Recycle)

## Public private partnership

## R&D on 3R and waste management

## Specific laws and regulations on MSW Management

## Public Involvement

- All relevant sectors participate in the management of solid and hazardous waste





**CAFEO37**  
INDONESIA



Thank You