

# 3Rs & WASTE MANAGEMENT IN TOKYO



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Tokyo Metropolitan Government

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# TODAY'S TOPIC

1. CITY PROFILE

2. WASTE/RECYCLING RELATED LAWS

3. DVD

3Rs & WASTE MANAGEMENT IN TOKYO



# 1. CITY PROFILE

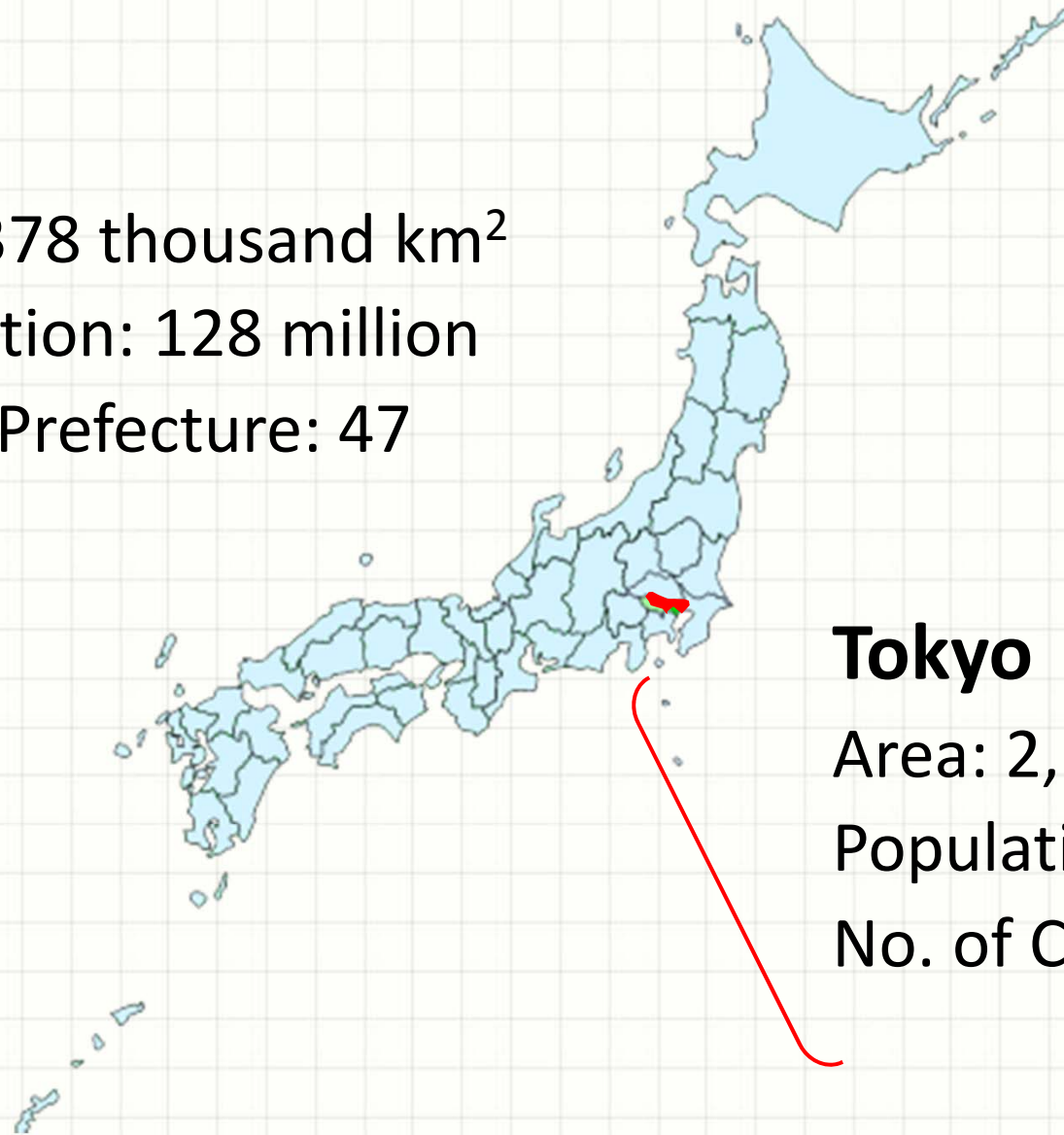
# TOKYO

## Japan

Area: 378 thousand km<sup>2</sup>

Population: 128 million

No. of Prefecture: 47



## Tokyo

Area: 2,188 km<sup>2</sup>

Population: 13 million

No. of City: 62

# TOKYO

## 1. City Profile



### Tama area

Area: 1160 km<sup>2</sup>

Population: 4,175,997

No. of municipalities: 30

### 23-ward area

Area: 622 km<sup>2</sup>

Population: 8,846,996

No. of municipalities: 23



**TMG Office**



### Izu/Ogasawara islands

Area: 406 km<sup>2</sup>

Population: 27,461

No. of municipalities: 9



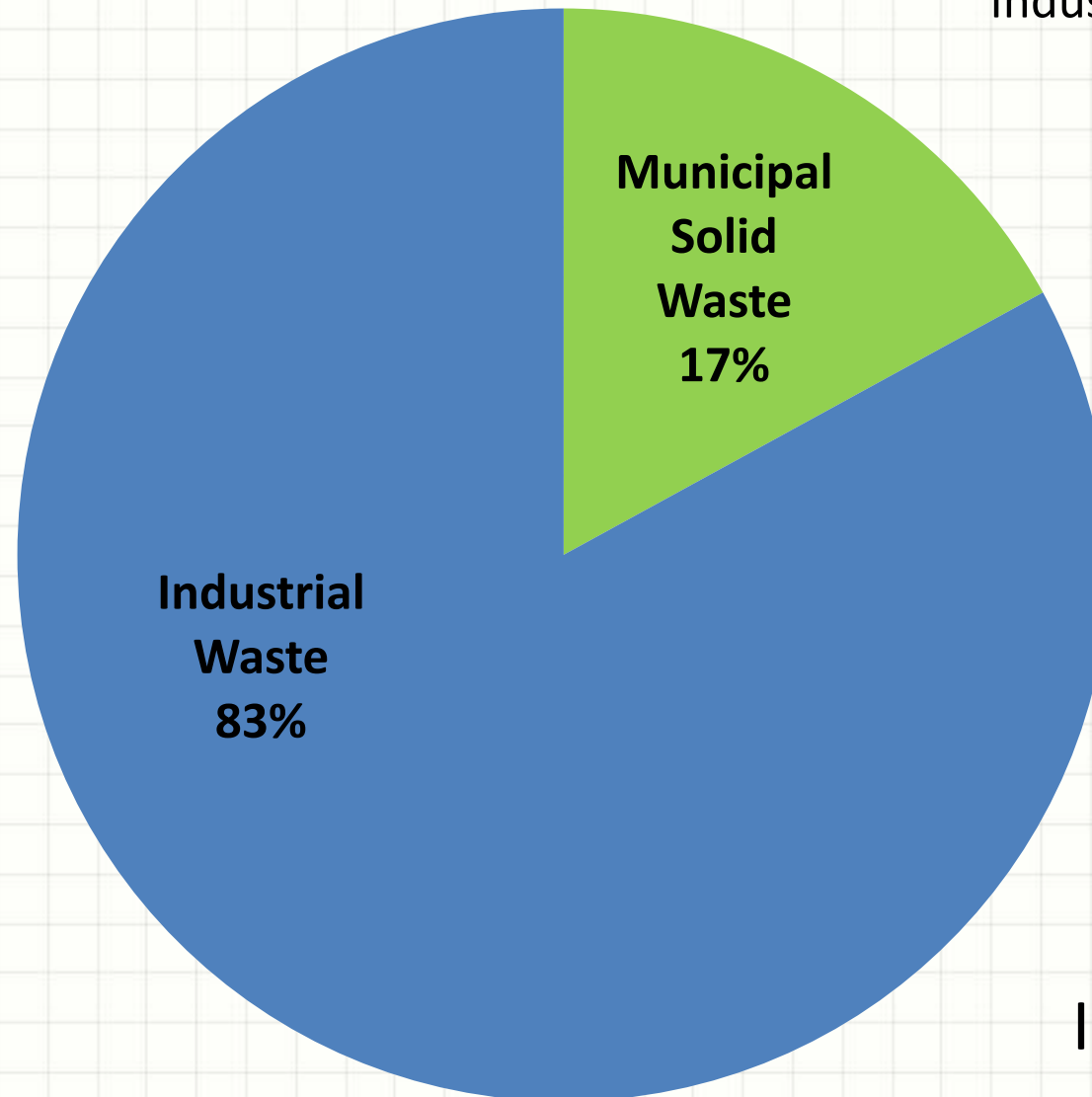
# WASTE GENERATION IN TOKYO

## 1. City Profile

76,500t/day

M S W : 13,000t/d

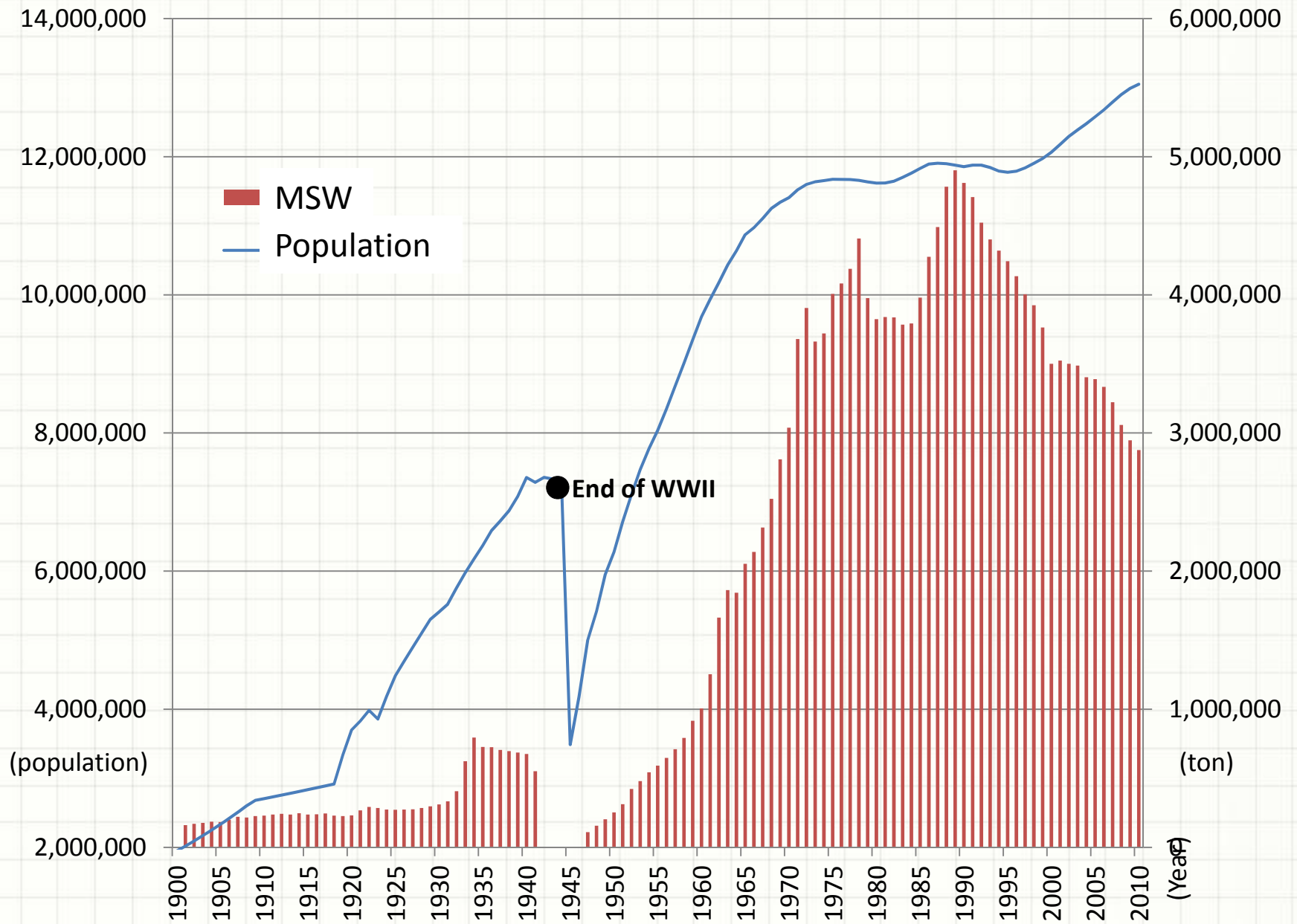
Industrial : 63,500t/d



In 2009

# 1. City Profile

## RAPID INCREASE OF POPULATION AND MSW



**【BIGGEST CHALLENGE】 LACK OF LAND FOR FDS**





# FDS IN TOKYO BAY

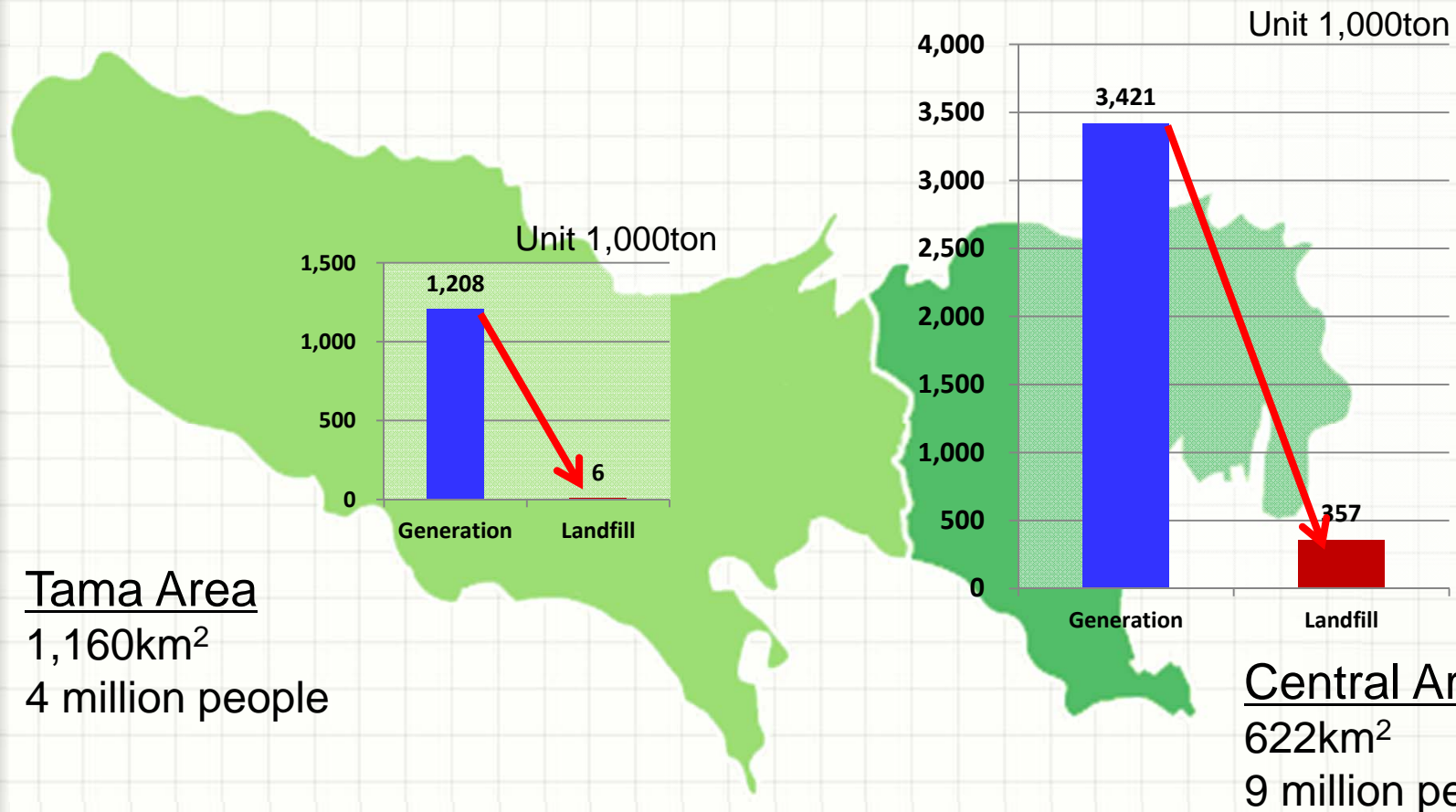
## 1 City Profile



- ① 1927-1962
- ② 1957-1966
- ③ 1965-1974
- ④ 1973-1986
- ⑤ 1977-
- ⑥ 1984-1991
- ⑦ 1998-

# 1. City Profile

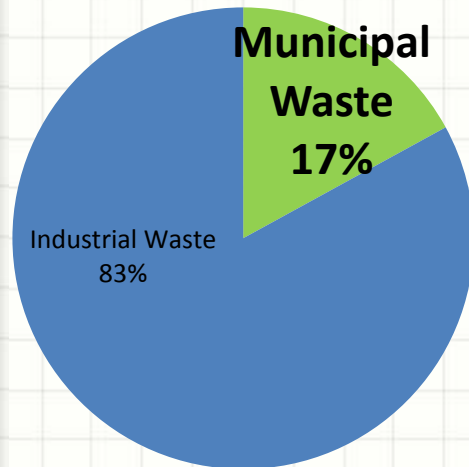
## REDUCTION OF FINAL DISPOSAL AMOUNT (MSW)



# MSW IN TOKYO

13,000T/D

Waste Generation in Tokyo



Waste generated by

- Households
- Small businesses

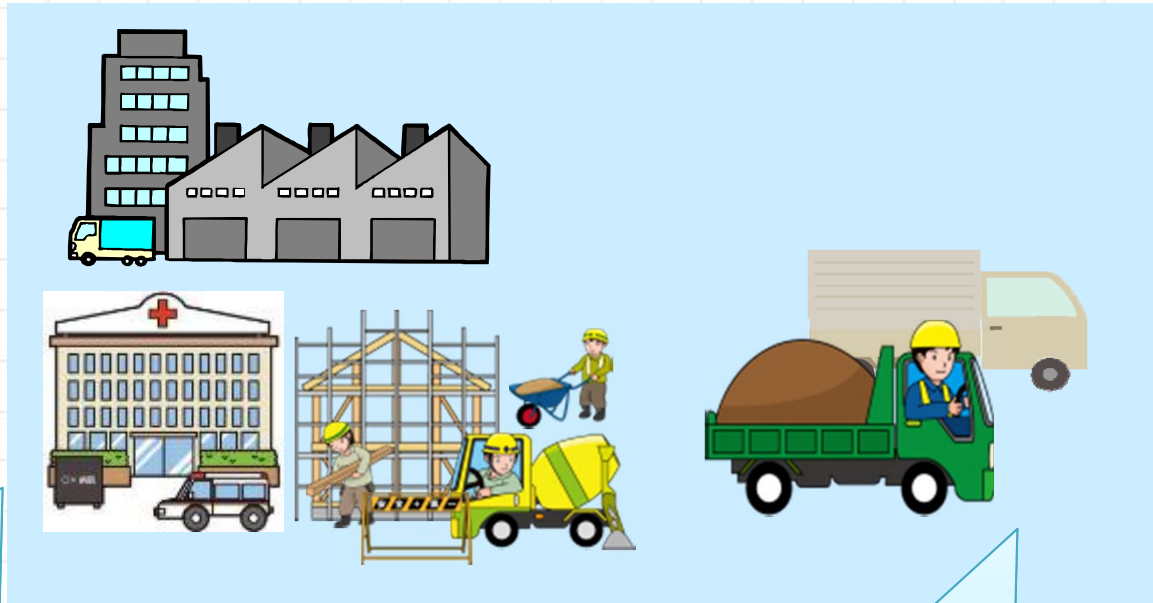
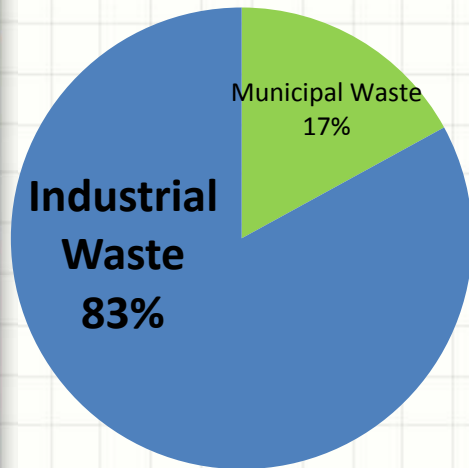
Managed and disposed by

**Municipal Government**



# INDUSTRIAL WASTE IN TOKYO

Waste Generation in Tokyo

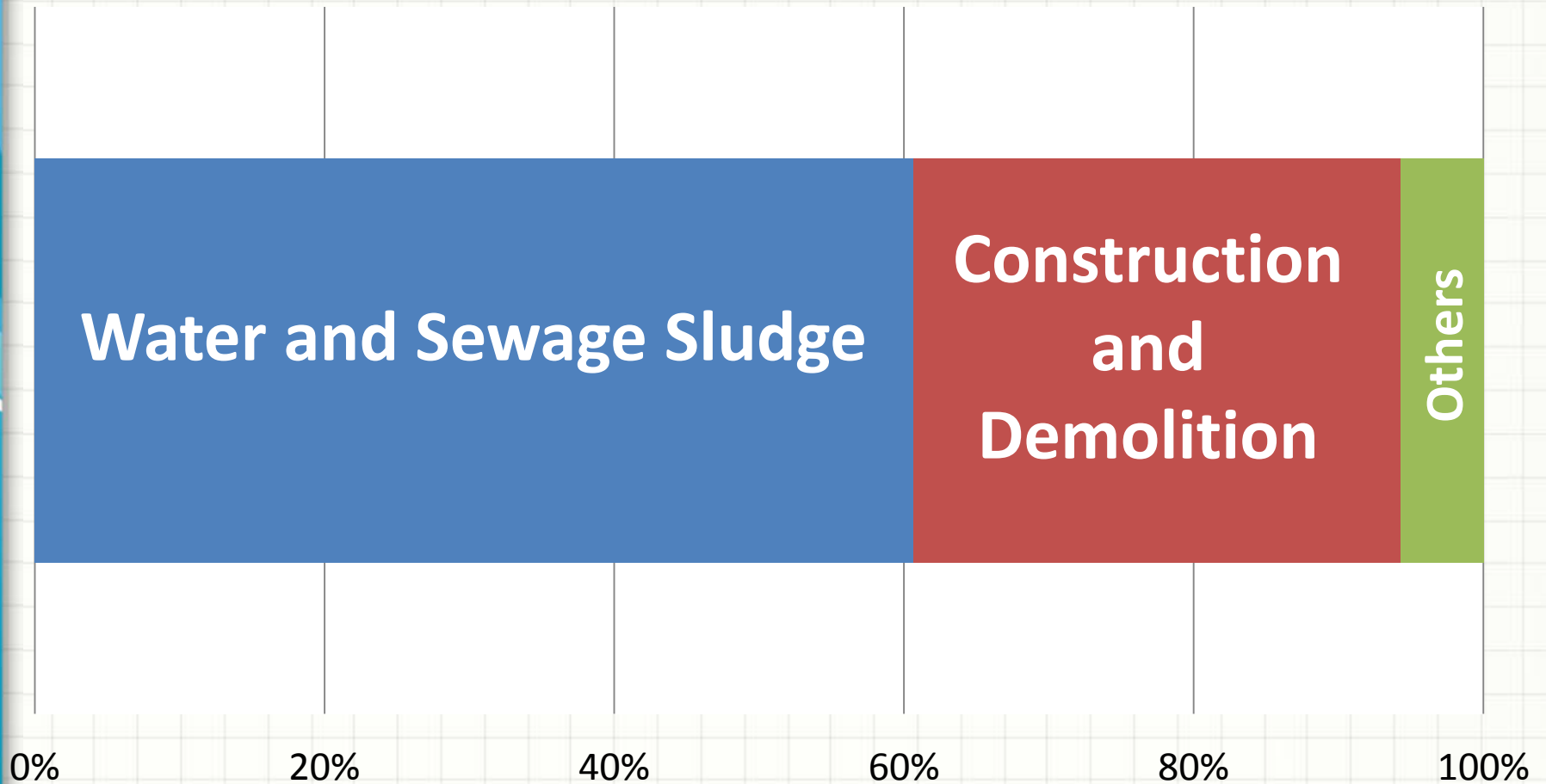


Generator has responsibility  
for proper disposal

Disposed by private sector  
licensed by Prefectural Government

# INDUSTRIAL WASTE IN TOKYO

## Composition of Industrial Waste in Tokyo





## **2. WASTE/RECYCLING RELATED LAWS**

# WASTE/RECYCLING RELATED LAWS

**Basic Law for Establishing the Recycling-Based Society**  
(Stipulating Basic Philosophy for Establishing the Recycling-Based Society)

Law for the Promotion of Effective Utilization of Resources

Waste Disposal and Public Cleansing Law

Containers and Packaging Recycling Law

Home Appliances Recycling Law

Food Recycling Law

Construction Materials Recycling Law

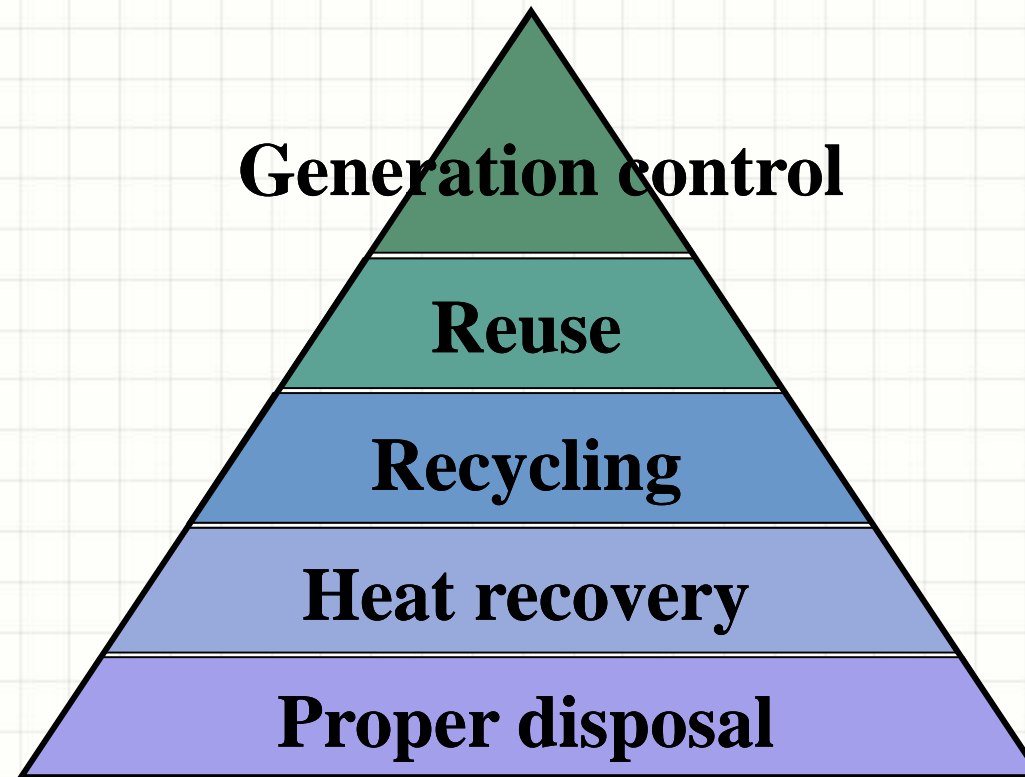
End-of-life Vehicle Recycling Law

Small Electric devices Recycling Promotion Law(2013.4-)



# 5 PRIORITY RANKS

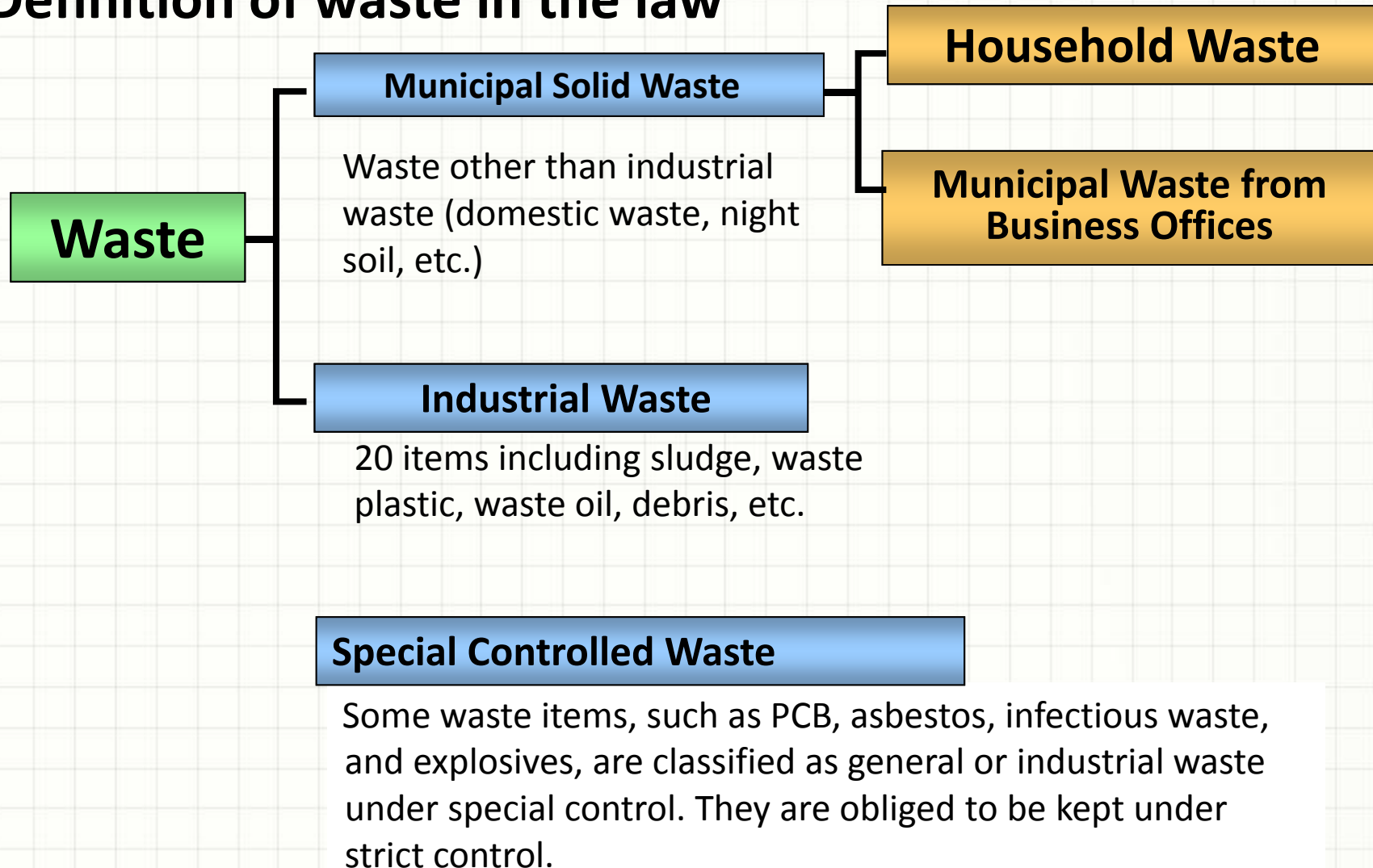
Basic Law for Establishing the Recycling-Based Society



The hierarchy ranks waste management options according to their environmental benefits. These options should be taken, in this order, whenever environmentally beneficial and economically viable.

# WASTE DISPOSAL AND PUBLIC CLEANSING LAW

## Definition of waste in the law



# WASTE DISPOSAL AND PUBLIC CLEANSING LAW

Duty of each body stated in the law

## Nation level

- Establish basic policies,
- Formulate waste disposal standards,
- Provide support to prefectures/municipalities, etc.

## Prefecture level

- Establish waste management plan,
- Provide control/guidance for appropriate disposal of industrial waste,
- Give licenses to industrial waste disposal contractors and approve construction of waste management facilities,
- Provide support to municipalities, etc.

## Municipal level

- Establish general waste management plan,
- Treat general waste according to general waste management plan,
- Give licenses to general waste disposal contractors, etc.

# OBLIGATION OF MAKING A MSW DISPOSAL PLAN

In the Waste Disposal and Public Cleansing Law

## Prefectural Plan

- Estimates amount of waste generation/treatment,
- Establishes basic policies related to reduction and treatment,
- Ensures proper management of general waste,
- Improves industrial waste management facilities, etc.

## Municipal Plan

- Estimates amount of waste generation/treatment,
- Takes waste control measures,
- Classifies waste for sorting,
- Treats waste properly,
- Improves waste management facilities, etc.

# LAW FOR

# THE PROMOTION OF EFFECTIVE UTILIZATION OF RESOURCES

## 2. Laws

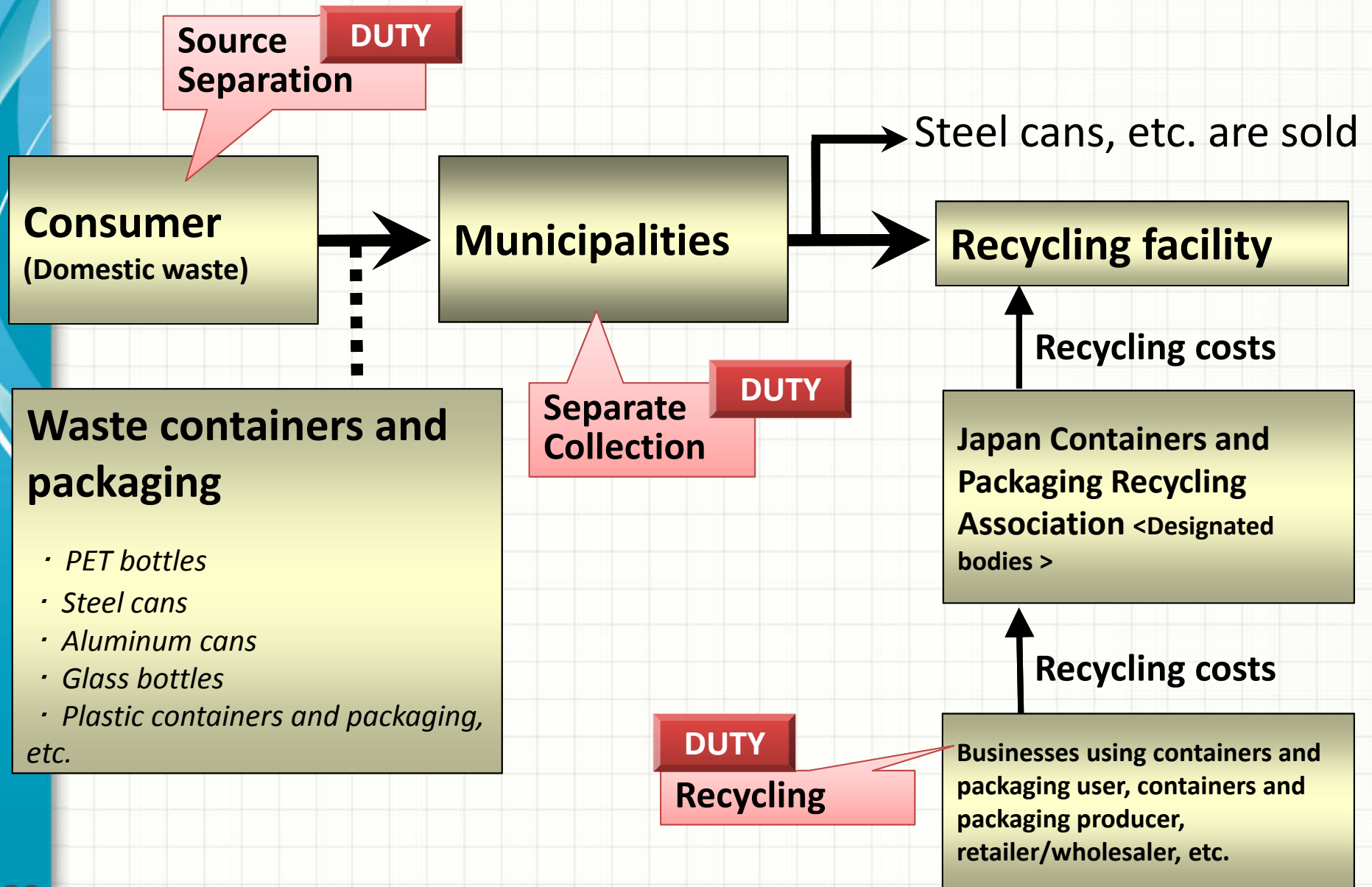
It states the standards of 3R efforts to be made by the producers



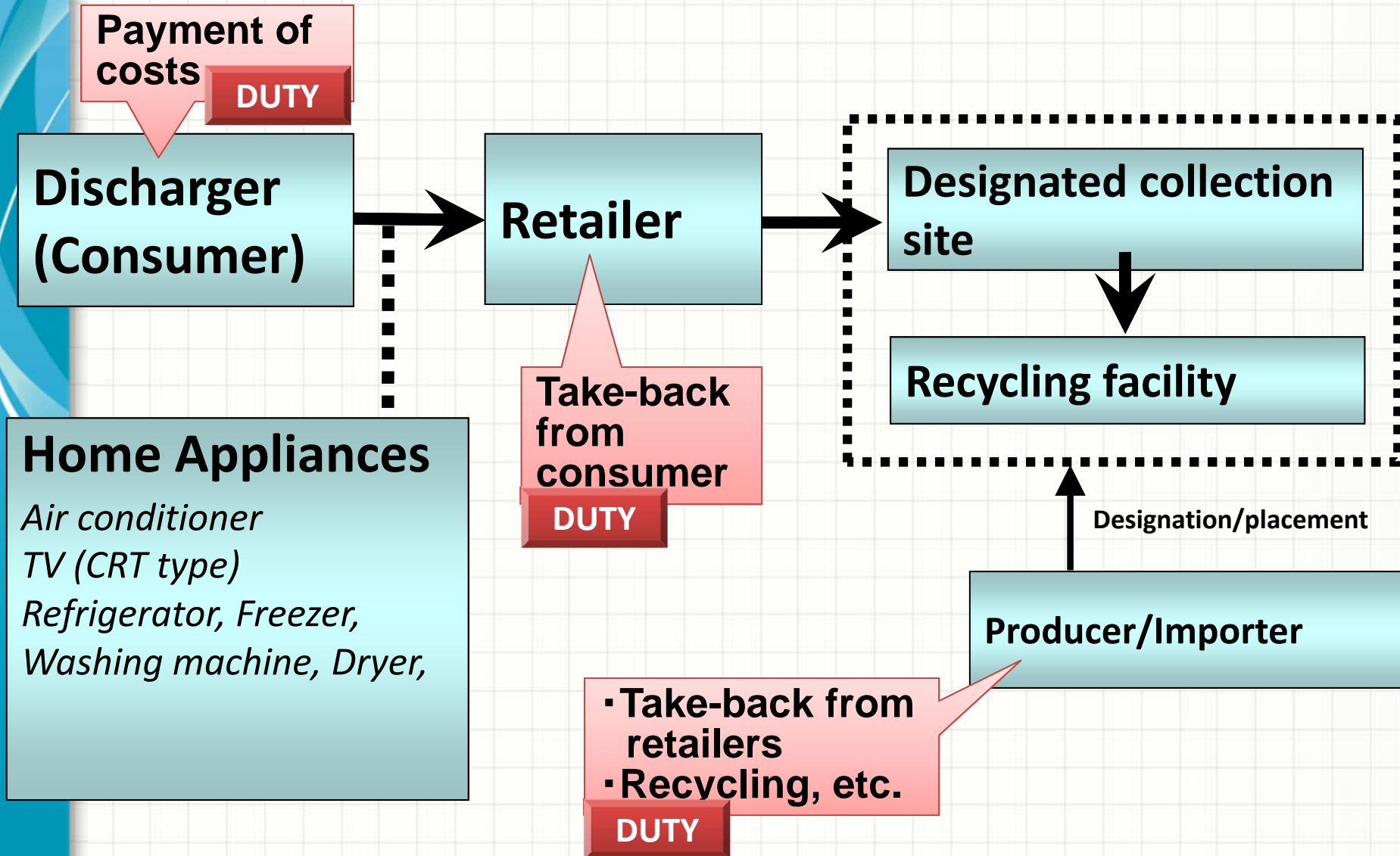
Regarding 69 product items and 10 types of businesses.

The law covers approx. 50% of end-of-life products and waste in Japan

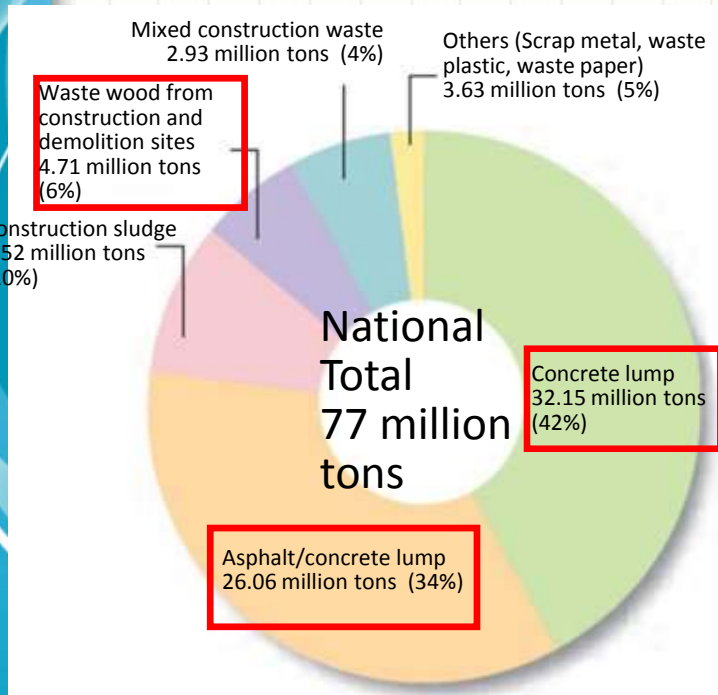
# CONTAINERS AND PACKAGING RECYCLING LAW



# HOME APPLIANCES RECYCLING LAW

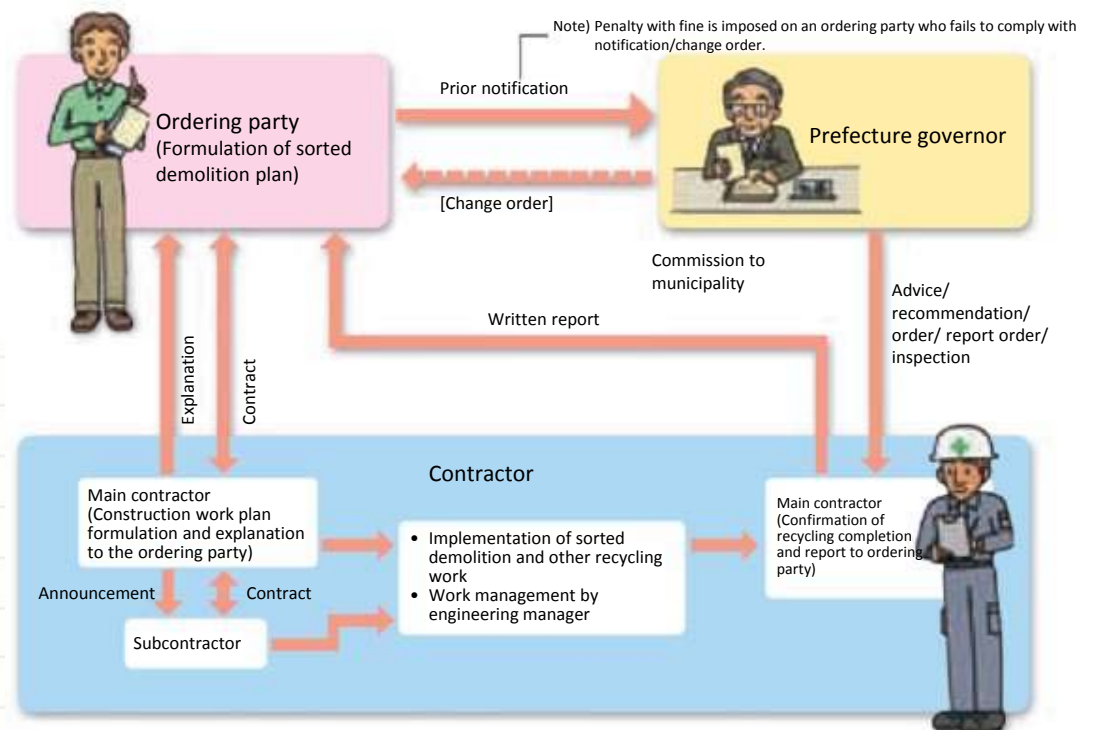


# CONSTRUCTION MATERIALS RECYCLING LAW



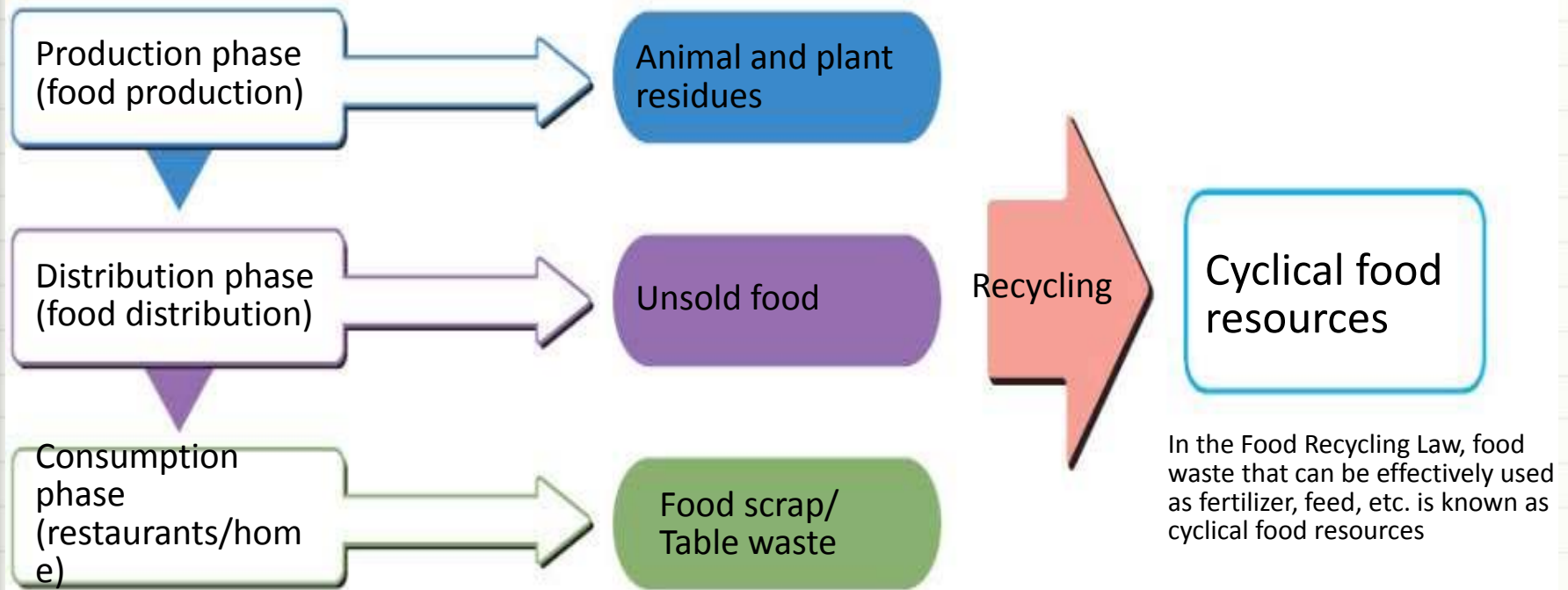
Items to be recycled

## Order/implementation flow of sorted demolition/recycling





# FOOD RECYCLING LAW



	Annual generation (10,000 tons)	Recycling rate (%)
Food producer	493	81
Food wholesaler	74	62
Food retailer	263	35
Restaurants	305	22
Food industry total	1,134	54

# END-OF-LIFE VEHICLE RECYCLING LAW

## 2. Laws



Vehicle owner

- Vehicle owner (Final owner)  
Pay recycling fee; Deliver an end-of-life vehicle to the receiver registered with the municipality



Related businesses

- Receiver  
Receives ELVs from the final owner, and delivers them to fluorocarbon recovery operators or dismantlers.
- Fluorocarbon recovery operator  
Recovers fluorocarbons and delivers it to automobile manufacturers or importers.
- Dismantler  
Dismantles ELVs, recovers airbags, and delivers them to automobile manufacturers or importers.  
Recovers fluorocarbons and delivers them to automobile manufacturers or importers.
- Shredder operator  
Shreds dismantled ELVs, and delivers shredder dust to automobile manufacturers or importers.



Automobile manufacturer / Importer

- Automobile manufacturer/importer  
When vehicles they produced or imported are scrapped, they take over shredder dust, airbags, and fluorocarbons generated from the ELVs, and recycle them

It's NEW!

# SMALL ELECTRONIC DEVICES RECYCLING PROMOTION LAW



2. Laws

From April 2013

## Background

### Limitation of Natural Resources

-Escalating price of resources

### Limitation of Environment

-Lack of land for final landfill site

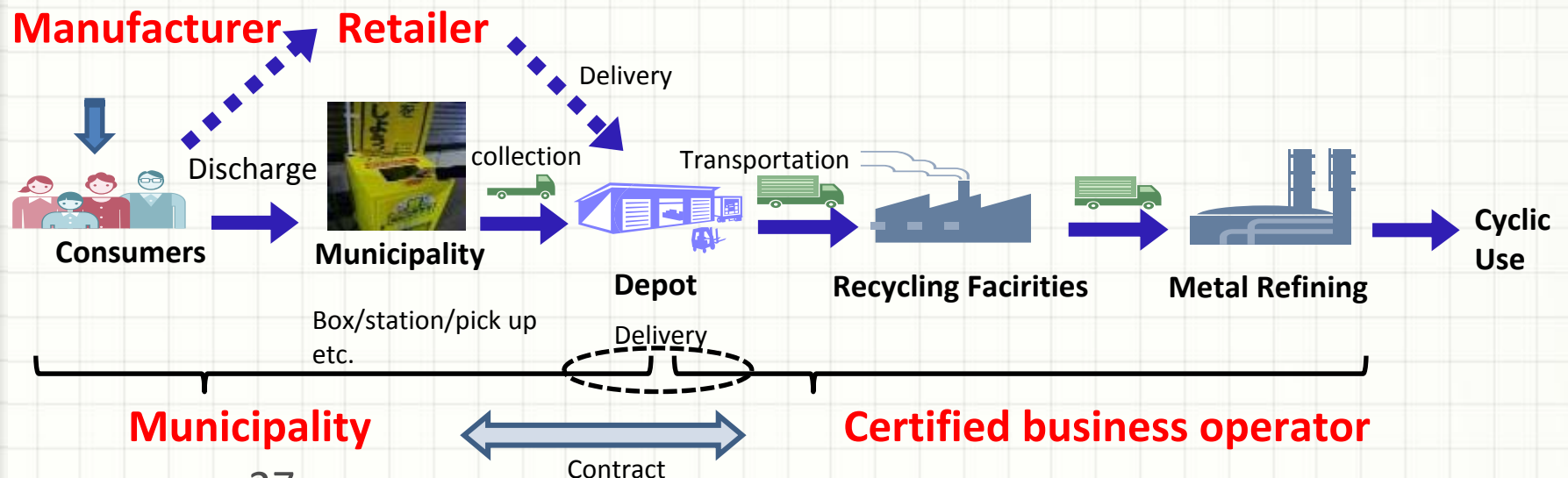
-Proper management of the environment


## Concept

### Non mandatory scheme

Provide guideline, set up necessary procedure for each sector

In order to promote recycling of precious metals used in small electronic devices





# 3. DVD

3Rs & WASTE MANAGEMENT  
IN TOKYO

An aerial photograph of a city and harbor. The city is densely packed with buildings, and the harbor is filled with water. In the foreground, there is a large, rectangular industrial site with a grid-like pattern of roads and buildings. The sky is blue with some clouds in the distance.

Less landfill,  
More future for next generation



**Thank you for your attention !**