

SMART SOLUTIONS BY UTILIZING 3R

THE CASE OF CITY-TO-CITY COLLABORATION BETWEEN KAWASAKI CITY AND BANDUNG CITY



Ohzenji Waste Treatment Center in Kawasaki city



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1. OVERVIEW OF ENVIRONMENTAL PROTECTION MANAGEMENT OF KAWASAKI CITY

(1) AIR QUALITY MANAGEMENT

In 1960s and 1970s, Kawasaki experienced severe air pollution due to emission of air pollutants from industries. Kawasaki city improved its air quality by cooperating with citizens and business sectors and introducing various initiatives.



The sky over Kawasaki in 1960s



The sky over Kawasaki in 2016

1. OVERVIEW OF ENVIRONMENTAL PROTECTION MANAGEMENT OF KAWASAKI CITY

(2) WATER QUALITY MANAGEMENT

In 1960s and 1970s, Kawasaki experienced severe water pollution due to emission of household waste water and industrial waste water.

Kawasaki city introduced sewage system and industrial waste water control measures and improved its water quality.



Tama River in 1979



Tama River in 2019

1. OVERVIEW OF ENVIRONMENTAL PROTECTION MANAGEMENT OF KAWASAKI CITY

(3) WASTE MANAGEMENT

Because of rapid economic growth and urbanization
Public health problems occurred

Establishment of appropriate waste treatment
structure for collection and incineration

Increasing population and economic growth resulted in
waste generation increase →Emergency declaration of
waste treatment (1990)

Waste recycle policy: Establish resource recycle society

The master plan for general waste treatment of Kawasaki
City (2005) -Kawasaki challenge, 3R-

The master plan for general waste treatment of Kawasaki
City (2016) -Waste reduction and EcoLife for bridging
the future-

Appropriate
treatment

Recycle

3R

© Major achievement

Waste reduction

Even under increasing
population, waste generation
amount reduced and waste
recycle ratio improved



Incineration plants

Reduced from 4 to 3
contribute to reduce 72,000,000,000
JPY expenditure in 40 years



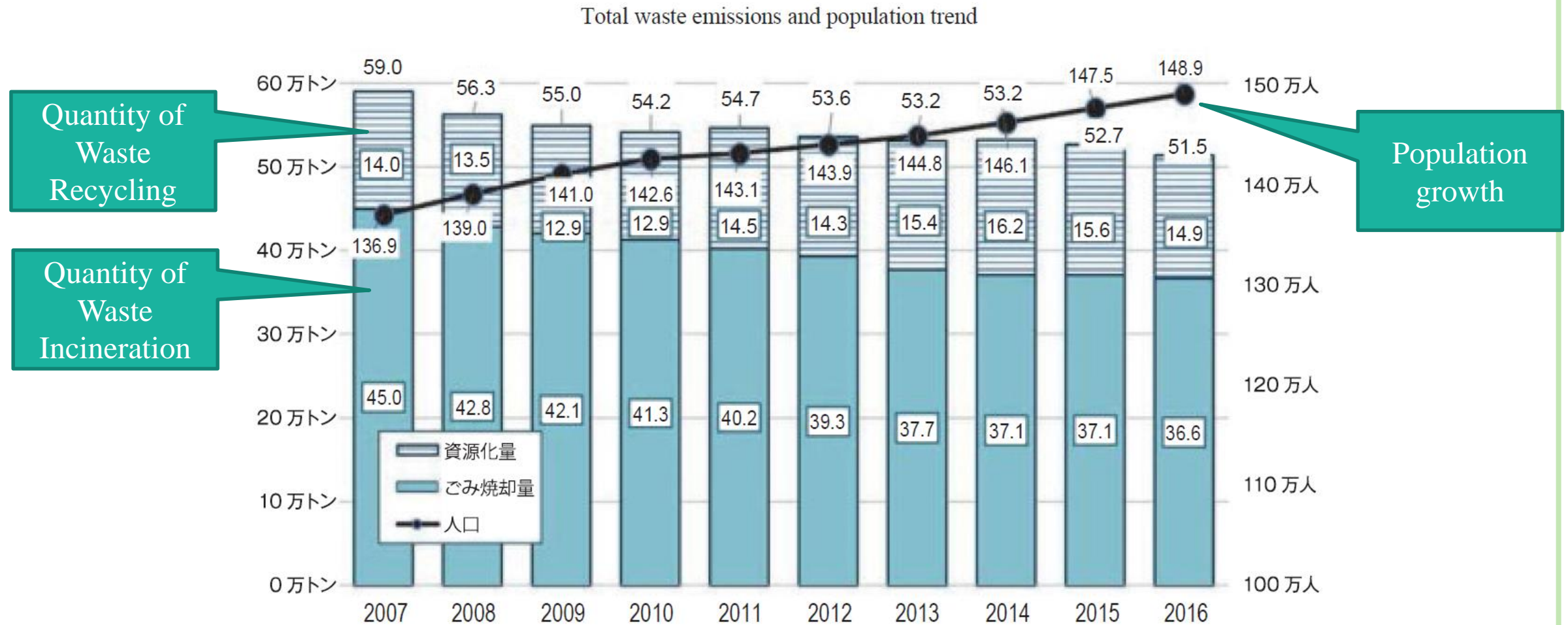
Landfill site

Life span is extended
28 years
Extended from 2028 to 2056



1. OVERVIEW OF ENVIRONMENTAL PROTECTION MANAGEMENT OF KAWASAKI CITY

(3) WASTE MANAGEMENT



- Reduction of Incineration plant from 4 to 3 contribute to reduce 72,000,000,000 JPY expenditure in 40 years
- Landfill lifespan was extended to 2056, which was originally 2028

2. Case of city-to-city collaboration between Kawasaki city and Bandung city

i. Origin of the city-to-city collaboration

a. Collaboration through Kawasaki International Eco-Business Forum

(Collaborative activity with relevant organizations, such as the United Nations Environmental Program [UNEP])

- ◆ The 15th Forum was convened in February 2019.
- ◆ Bandung city, Indonesia, has participated in the Forum since its 3rd one.



2. Case of city-to-city collaboration between Kawasaki city and Bandung city

i. Origin of the city-to-city collaboration

18th February, 2016

Based on the city-to-city collaborative activities since 2014 by utilizing the JCM, Bandung City and Kawasaki City concluded a memorandum of understanding (MoU) concerning city to city cooperation towards low carbon and sustainable cities.



Scope of Cooperation of the MOU:

- Solid waste management,
- Waste water management,
- Air quality management,
- Energy management,
- Transportation technologies,
- Other environmental fields that shall be mutually agreed by Bandung city and Kawasaki city.

2. Case of city-to-city collaboration between Kawasaki city and Bandung city

ii. City-to-city collaboration project relevant to 3R

Based on the MOU and the requests from the Mayor of Bandung city, Bandung city and Kawasaki city launched a **waste management support project toward a sustainable resource recycling society in Bandung city by utilizing JICA Partnership Program**

EXAMPLES OF ACTIVITIES IN BANDUNG CITY



Information sharing on public awareness activities on waste separation



Site visit to a Zero Waste Community

2. Case of city-to-city collaboration between Kawasaki city and Bandung city

ii. City-to-city collaboration project relevant to 3R

EXAMPLES OF ACTIVITIES IN KAWASAKI CITY



Information sharing on waste management planning system



Site visit to Ukishima intermediate recycling center
(Photo: recycling process of mix paper)

2. Case of city-to-city collaboration between Kawasaki city and Bandung city

ii. City-to-city collaboration project relevant to 3R

- **Progress of the project:**

By utilizing information obtained through meetings for information sharing, site visits, discussions and others, the following products were produced so far.

- For community:
 - A manual on waste separation and collection for communities in Bandung City
- For business sector:
 - A draft of an improved awareness raising system for organic waste separation at source for business sector
- For Intermediate waste collection facilities:
 - A draft Standard Operation Procedures (SOPs) of waste management for waste collectors and transporters
 - Training materials on appropriate waste separation treatment of collected wastes.
 - Draft guidelines of TPS 3R operation of model areas
- For implementation of waste master plan:
 - Revised city ordinance on waste management

The year of 2019 is the final year for the project.

In 2019, we are making trial implementation of the draft manual, guidelines and SOPs mentioned above.

Thank you for your kind attention



Kawarun

Kawasaki city's 3R
promotion character



Eco-chans

Kawasaki city's ecological
life promotion character

If you have questions on this
presentation,
please send your questions
to the following email address:

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