



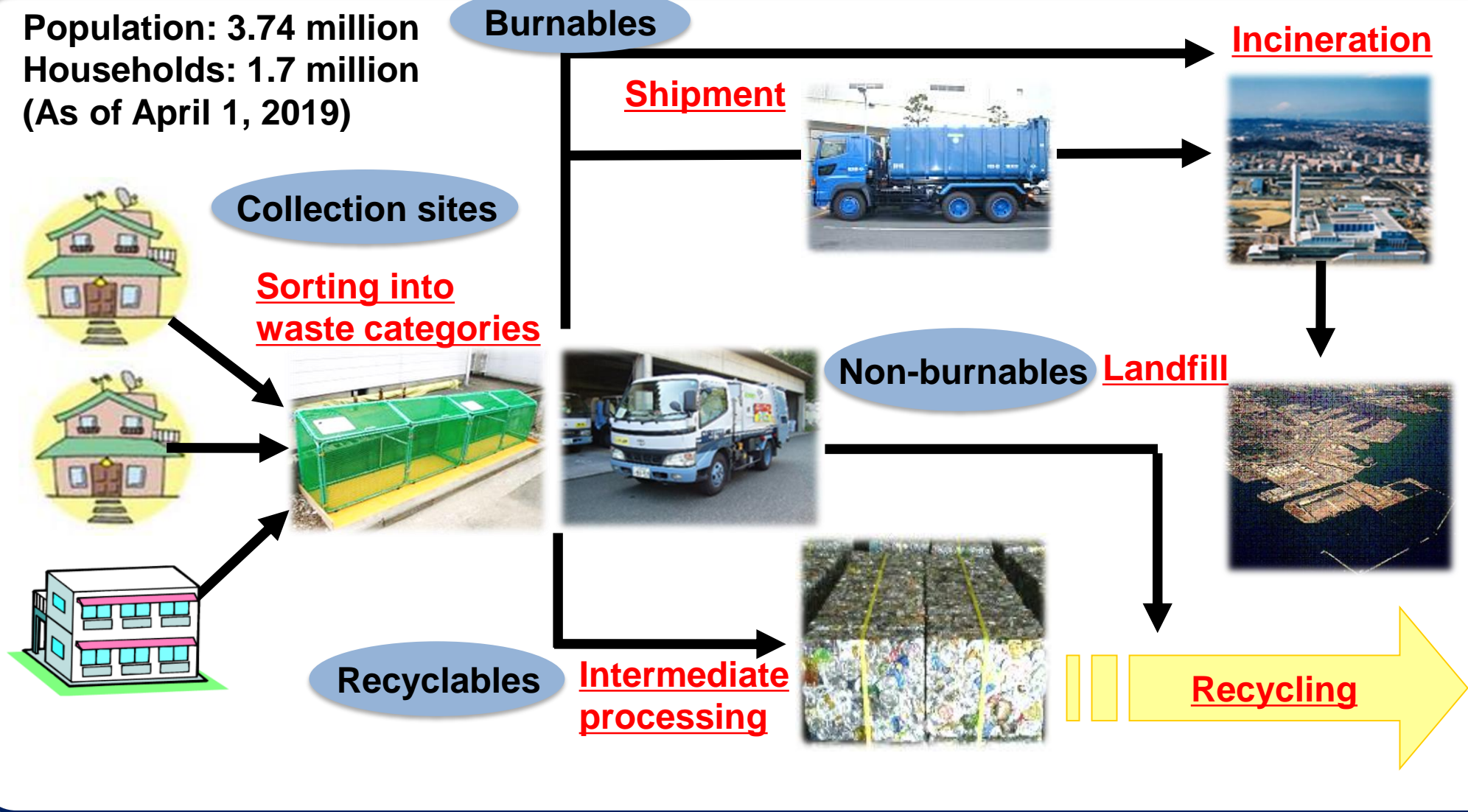
**Efforts to promote
the Correct Management of Waste
in the City of Yokohama
– Centering on Measures for Plastic Waste –**

Kazuo Fukuyama

Director, Resources and Waste Recycling Bureau, City of Yokohama

Stages of Waste Disposal in the City of Yokohama

Population: 3.74 million
Households: 1.7 million
(As of April 1, 2019)



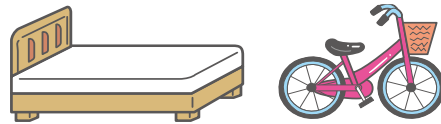
Sorted Disposal

Sorting Categories: 10 categories, 15 types

Burnables



Oversized waste



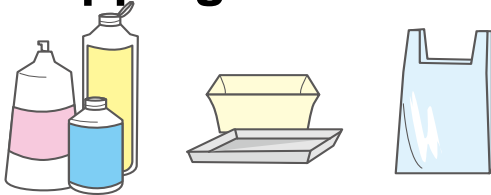
Cans, glass bottles, plastic bottles



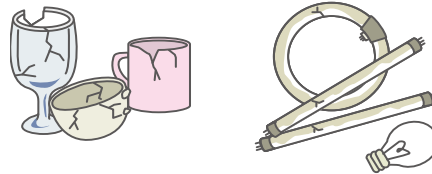
Small metal items



Plastic containers/wrapping



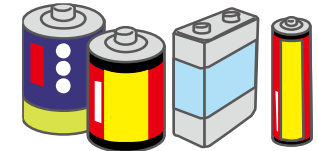
Non-burnables



Spray cans



Used batteries

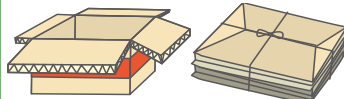


Paper

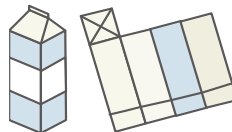
Newspapers



Cardboard



Cartons



Magazines/ other paper



Clothes/Fabrics



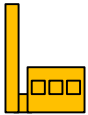
Waste Disposal Facilities in the City of Yokohama



Collection offices:
18 locations



Transportation offices:
4 locations



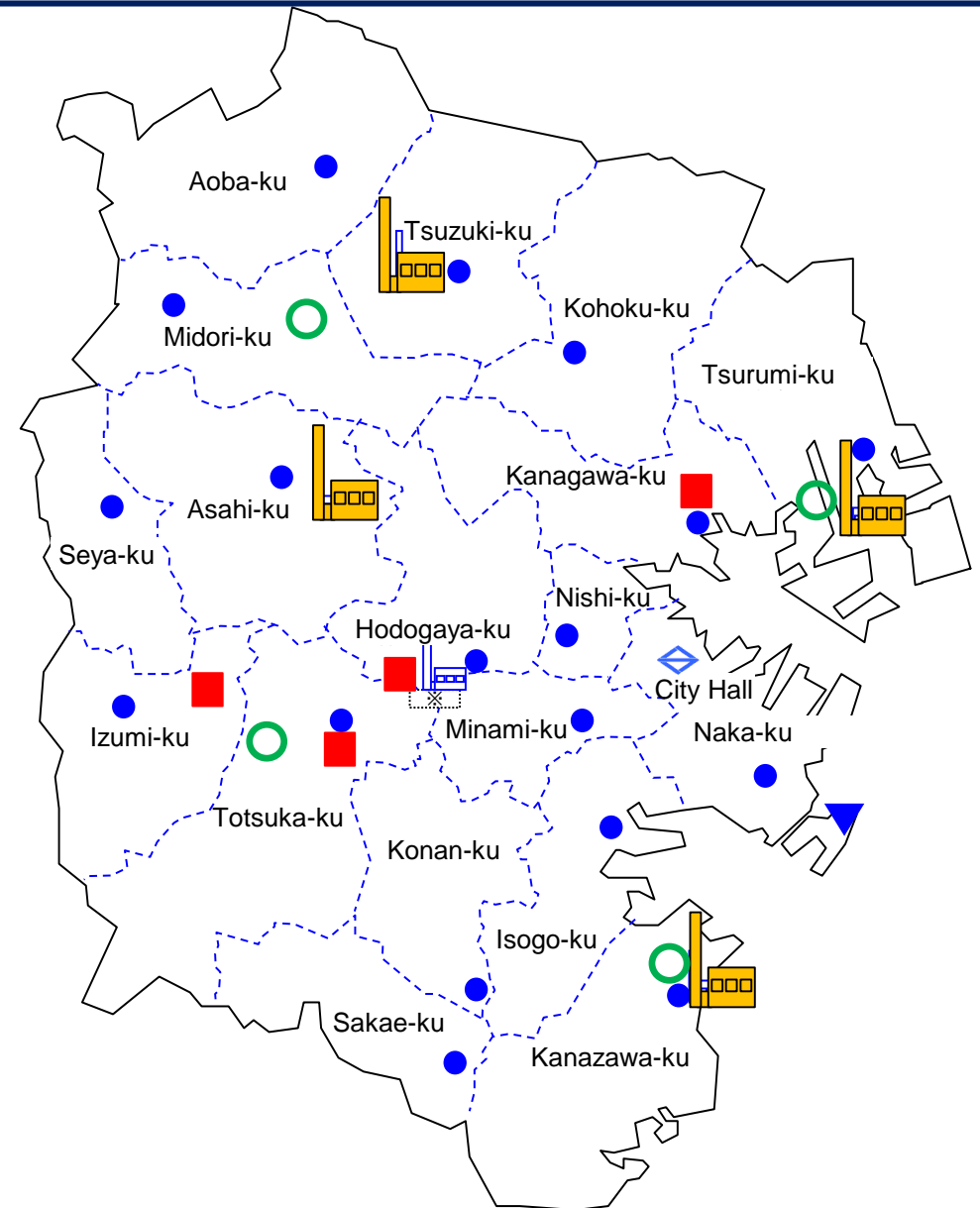
Incineration plants:
4 locations



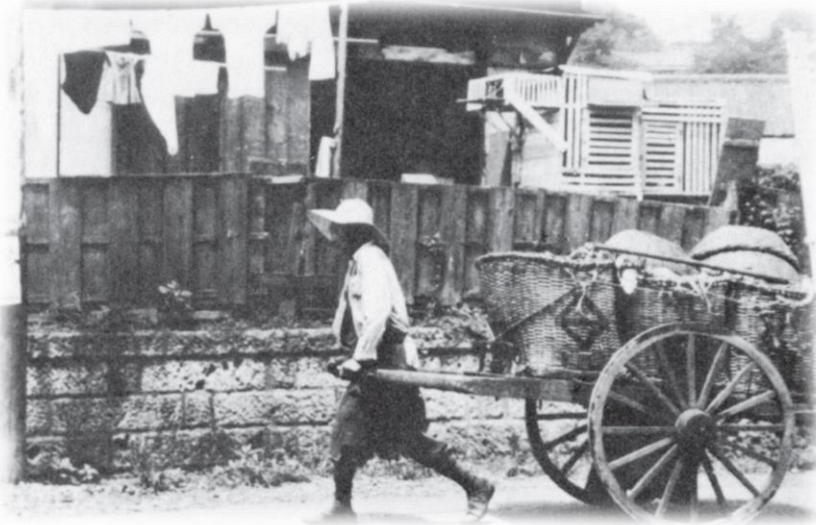
Resource sorting centers:
4 locations



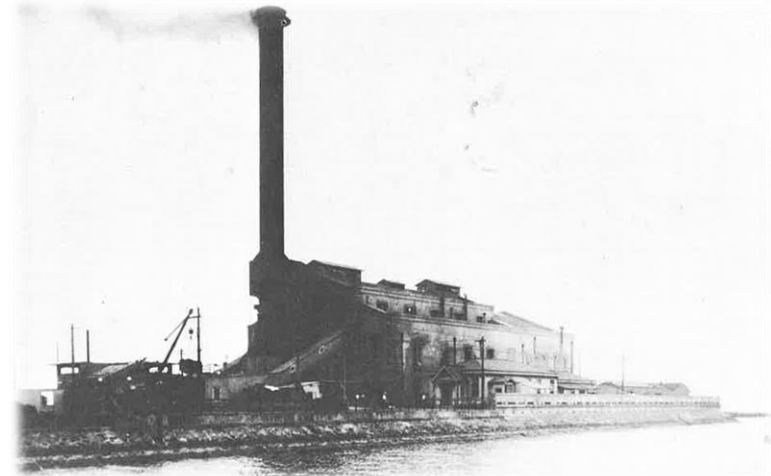
Landfill sites:
1 location



History of Waste Disposal (Need for Hygienic Disposal)



Collection via a handcart

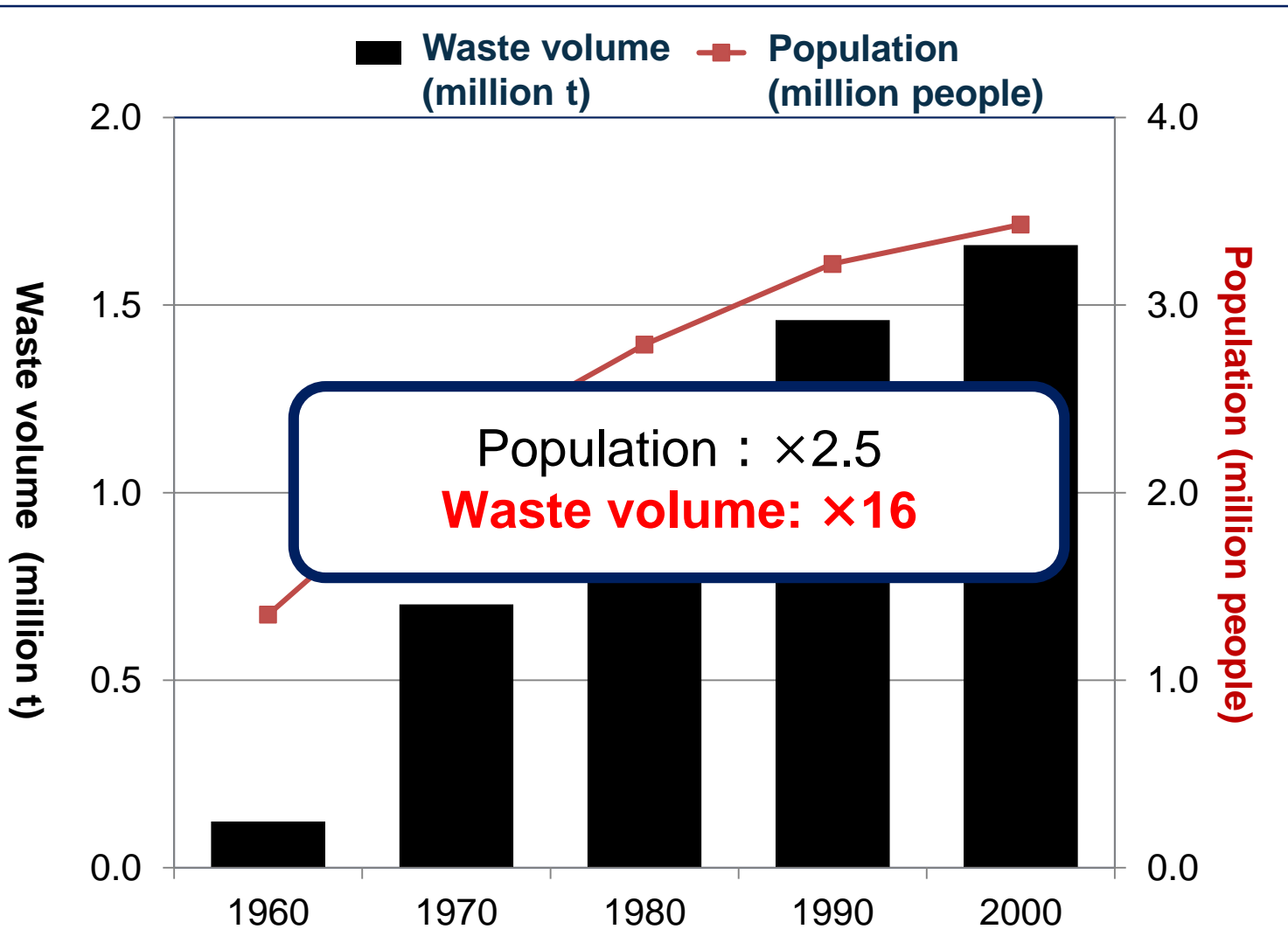


First ever incineration plant in Yokohama



Disinfectant being sprayed
on waste at a disposal site

Increase in Waste Volumes

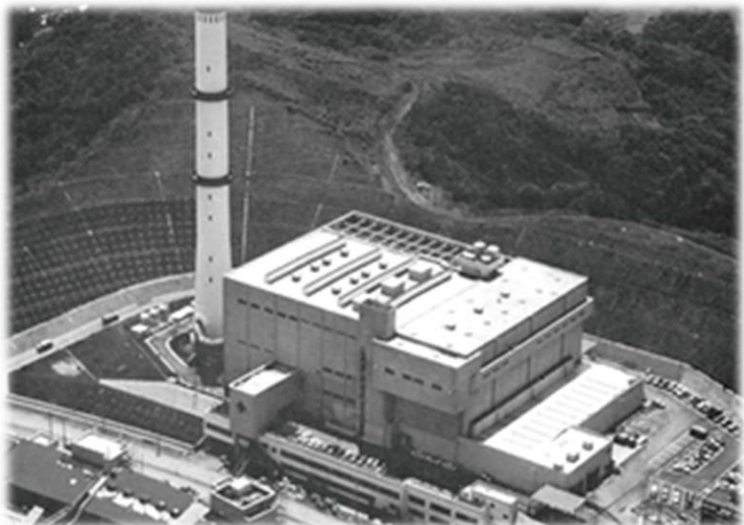


Oversized waste piled up in a street



Disposal site in the 1970s

Increased Stringency at Disposal Sites



Establishment of more incineration plants



Incinerated ash sent to landfill

Total incineration of waste

Previous: 7 items



“Waste” and “resources”

Expansion of the range of items for sorting

Present: 15 items



Cooperation with Citizens

Explanatory meetings on sorting waste
Held 11,000 times (2004–2005 fiscal years)



Explanatory meeting led by a member of staff

Initiatives to sort waste spearheaded by citizens



Citizens sorting waste at a collection site

Environmental Education



Visiting talks at daycare centers and elementary schools

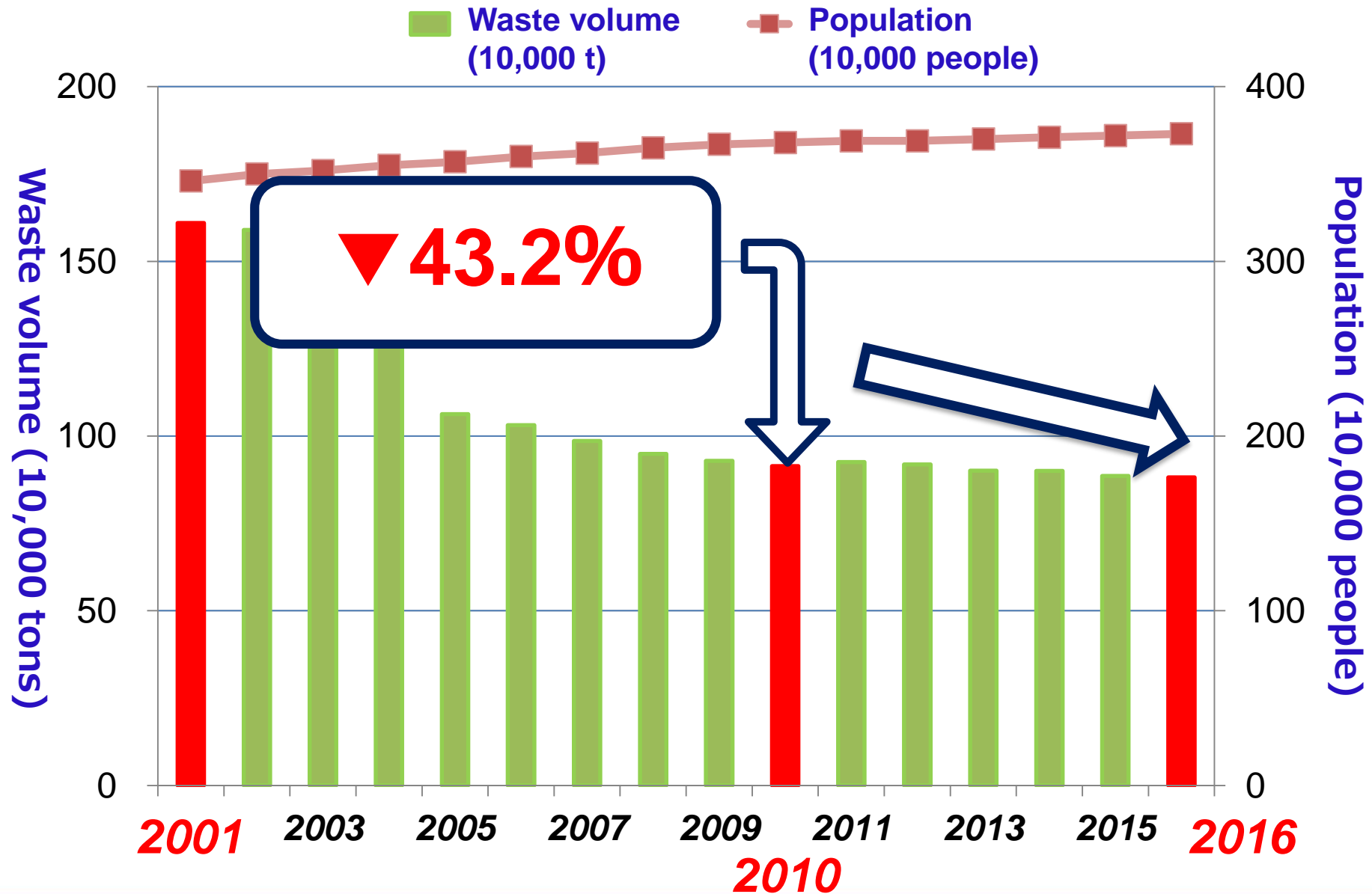


Environmental education textbook



Tours of incineration plants

Results of Efforts

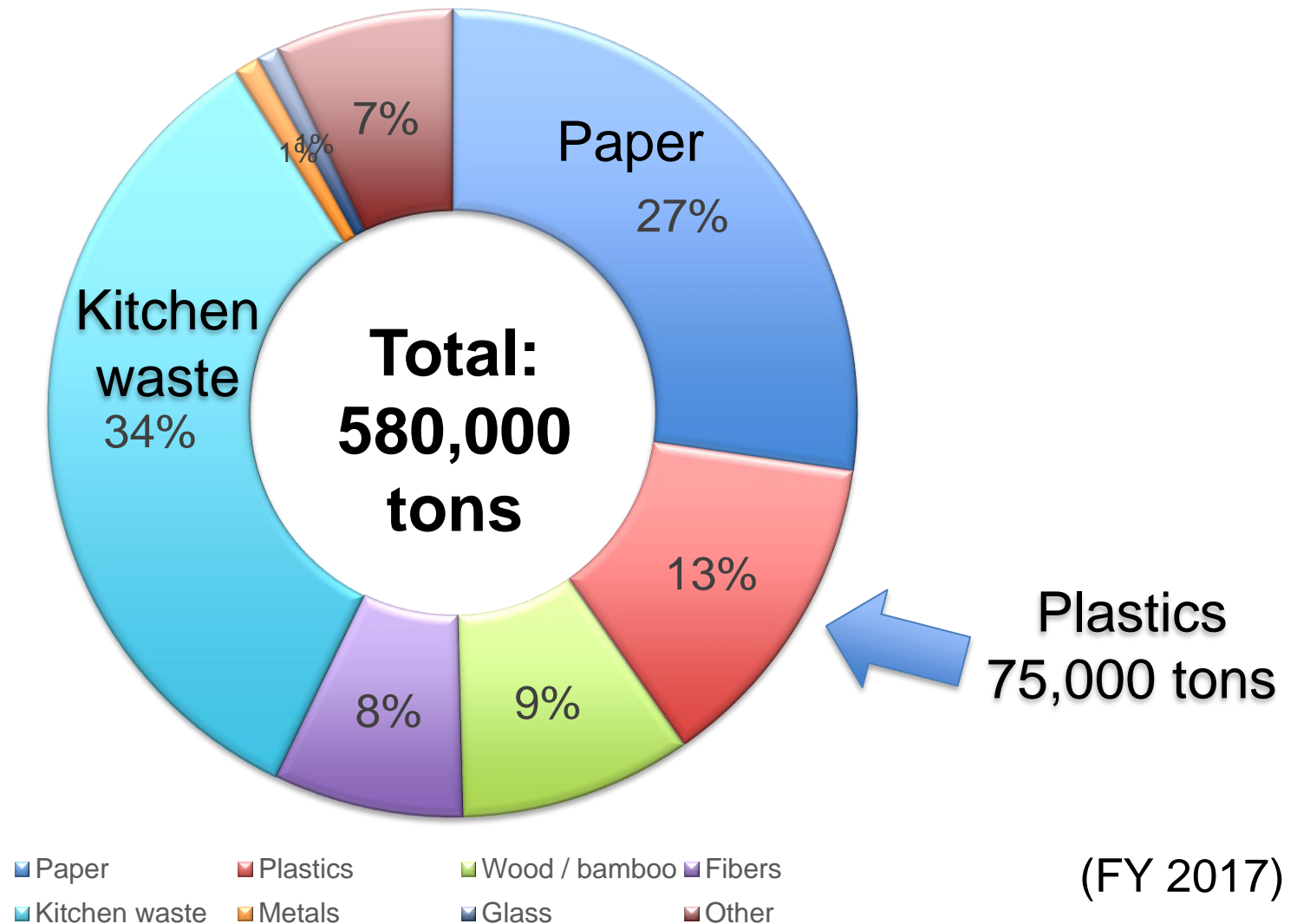


Training in Yokohama



Measures to Deal with Plastic Waste

Composition of household waste

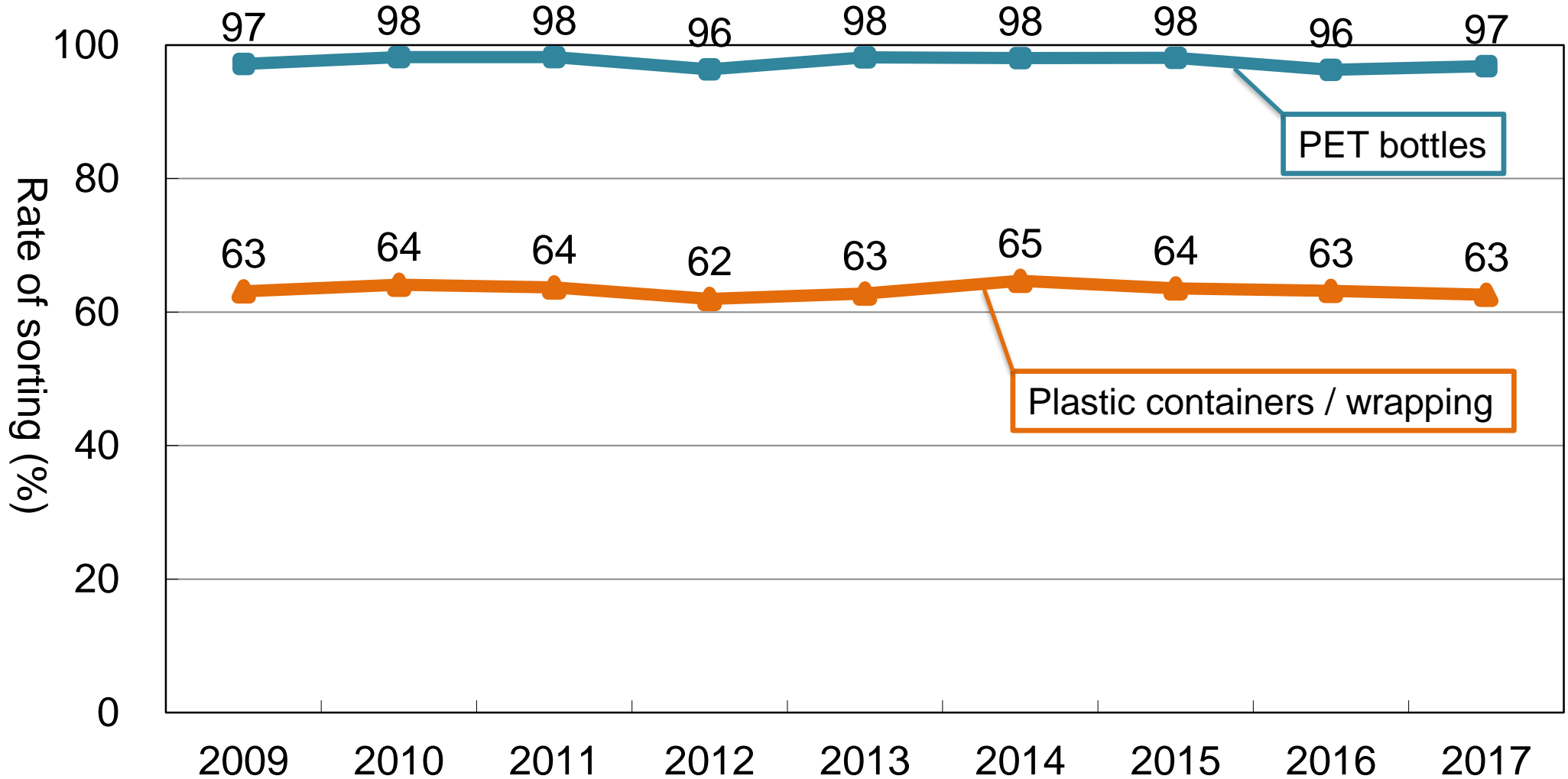


Recycling of Plastics



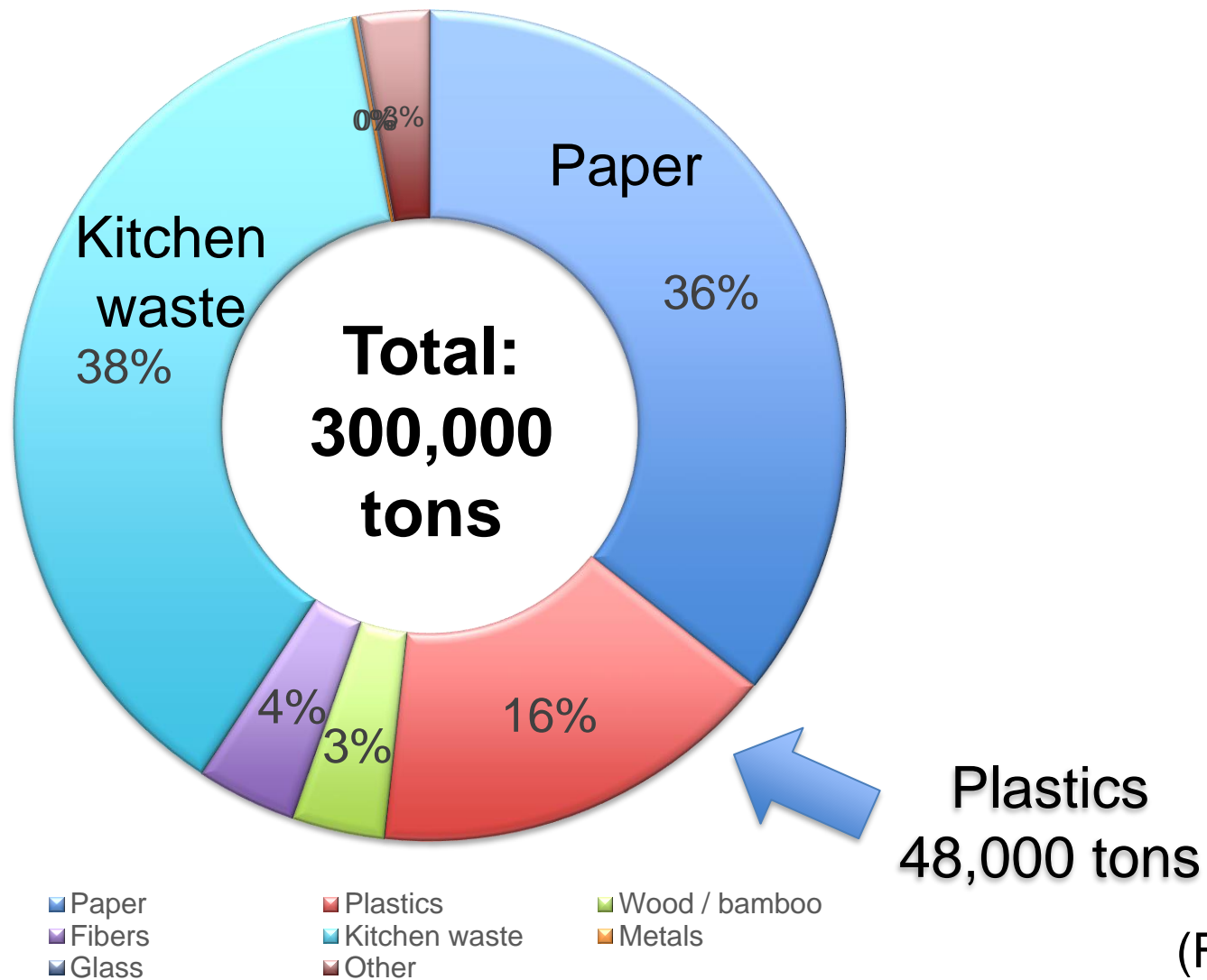
**Annual disposal volume:
Approx. 60,000 tons
(FY 2017)**

Rate of Cooperation in Sorting Plastics



Business-related Waste

Composition of business-related waste



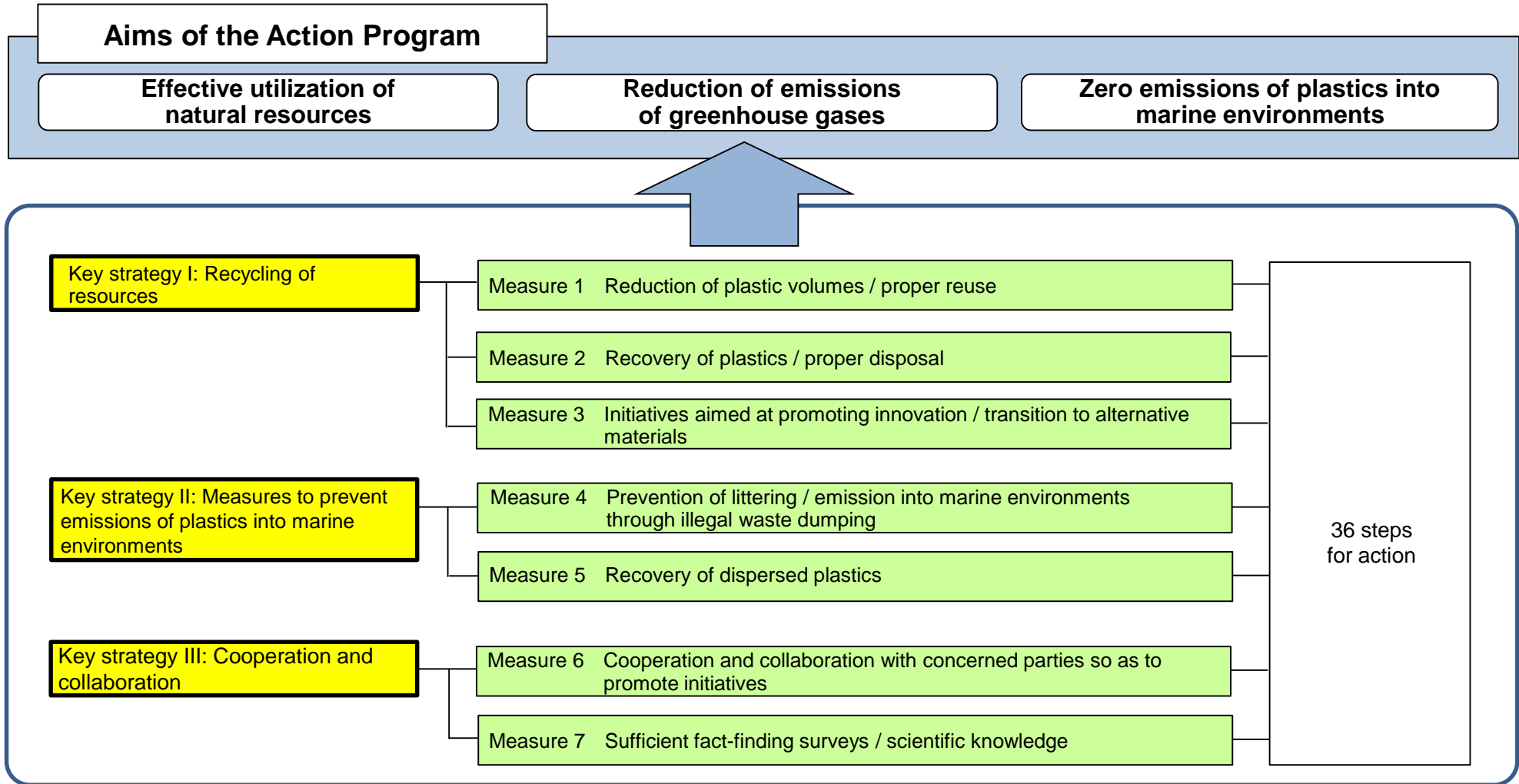
Action Program (1)



Aims of the Action Program

- 1. Effective utilization of natural resources**
(Reduction of the environmental load through the recycling of resources and securement of exhaustible resources such as fossil fuels)
- 2. Reduction of emissions of greenhouse gases**
(Measures to combat global warming)
- 3. Zero emissions of plastics into marine environments**
(Measures to stop plastics flowing into seas)

Action Program (2)



Action Program (3)

Measure 1 Reduction of plastic volumes / proper reuse
(examples)

- Awareness raising aimed at promoting thorough 3R* and use of alternatives
- Reduction of single use plastics whenever possible at Yokohama Municipal Assembly, etc.



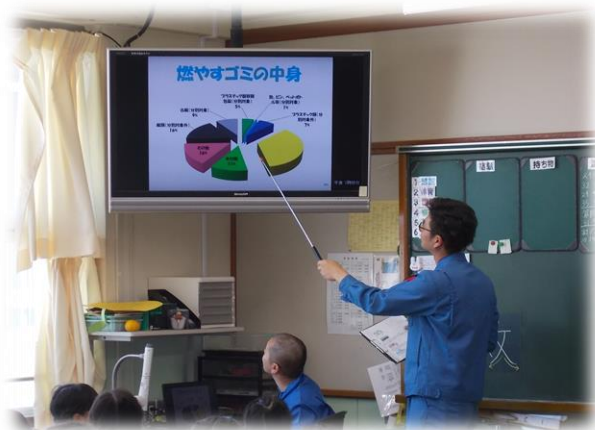
* 3R
- Reduce
- Reuse
- Recycle

Awareness raising by city employees at events

Action Program (4)

Measure 2 Recovery of plastics / proper disposal (examples)

- Awareness raising through the introduction of examples of materials that people may have trouble understanding how to properly sort
- Thorough inspections of materials brought in to incineration plants
- Support to promote waste sorting at overseas cities (Y-PORT projects, etc.)



**Awareness raising
by city employees**



**Thorough inspections of
materials brought in to
incineration plants**



**Assistance in supporting
waste sorting overseas
(Danang City, Vietnam)**

Action Program (5)

Measure 3 Initiatives aimed at promoting innovation / transition to alternative materials

(examples)

- Promotion of the introduction of biomass materials for plastics for which incineration is unavoidable
- Promotion of innovation through dissemination and awareness raising of alternative materials



Garbage bags made from biomass materials



SDGs Future City Yokohama 

Transition to alternative materials (wooden straws)

Action Program (6)

Measure 4 Prevention of littering / emission into marine environments through illegal waste dumping

(examples)

- PR and awareness raising activities to make people aware of the relationship between littering and illegal waste dumping and sea pollution
- Prevention of waste becoming scattered through the promotion and uptake of foldable net boxes



Awareness raising DVD



Foldable net boxes

Action Program (7)

Measure 5 Recovery of dispersed plastics (examples)

- Promotion of beautification and cleaning activities for streets and rivers
- Recovery of materials drifting at sea



Street cleaning in action



Beach cleaning in action



Recovery of materials
drifting at sea

Action Program (8)

Measure 6 Cooperation and collaboration with concerned parties so as to promote initiatives (examples)

- Implementation of a campaign aimed at reducing plastics in collaboration with businesses
- Awareness raising among citizens and businesses through lectures, etc.



Campaign held in collaboration with businesses (poster)

Action Program (9)

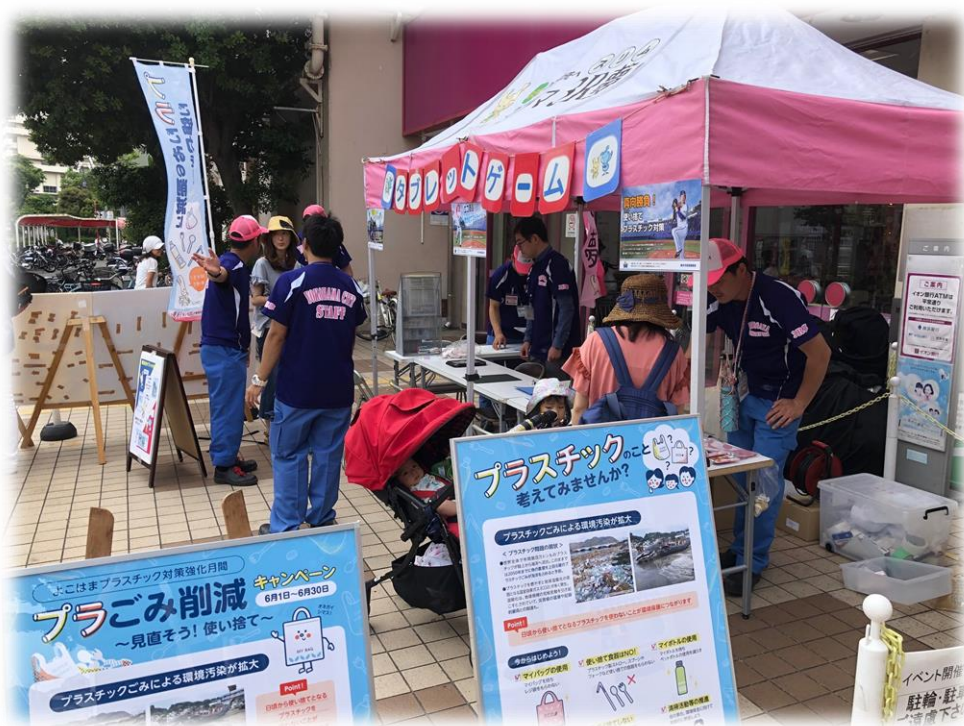
Measure 7 Sufficient fact-finding surveys / scientific knowledge (examples)

- Fact-finding surveys on single use plastics contained in burnable waste
- Fact-finding surveys on micro plastics contained in waste water at sewage facilities, etc.



Surveys on the composition of waste

Campaign Encouraging People to Sort Plastics Properly



Thank you for your attention!

