Aiming for waste reduction and recycling ∼Slim City Sapporo Plan~



August 2009 Winter Cities Conference for Mayors

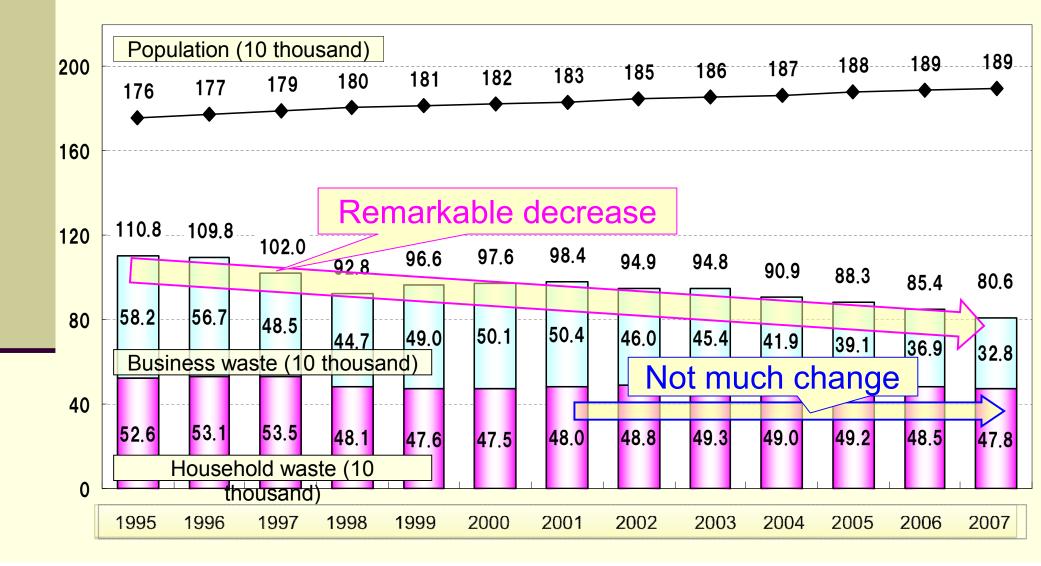
General category of waste in Japan

Classification in the Waste Management and Public Cleansing Law

< Industrial waste > Treated by Industrial Specific items such as Business waste waste oil and plastics, Waste treatment scrap iron service companies Wast **Municipal Solid waste** e Other than industrial waste Treated by Household municipal Any kinds of household Waste government waste Office scrap paper

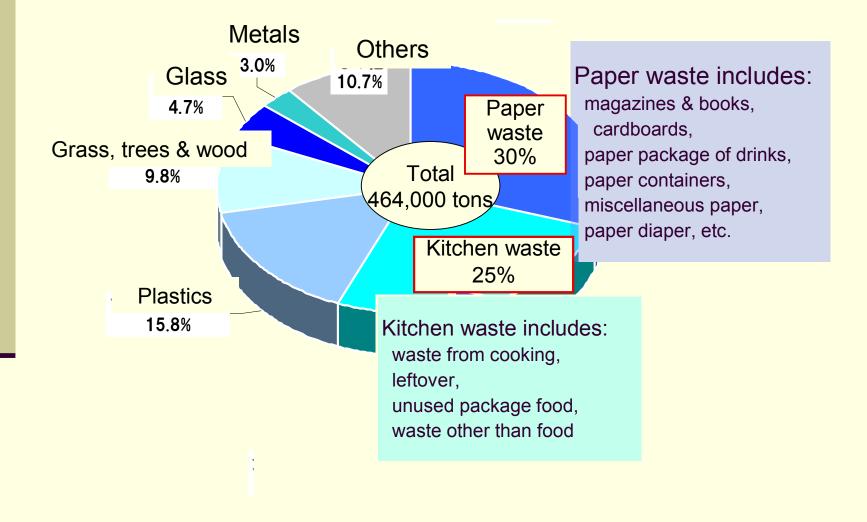
City's challenge 1 : Volume of waste

[Volume of waste disposed in Sapporo]



City's challenge 2: Largest volume of waste

Source of household waste (2017)



City's challenge 3: Waste treatment facilities



If the amount of waste disposed remains the same,

Landfill sites will be filled in 15 years.

Shinoro Plant being operated since 1980

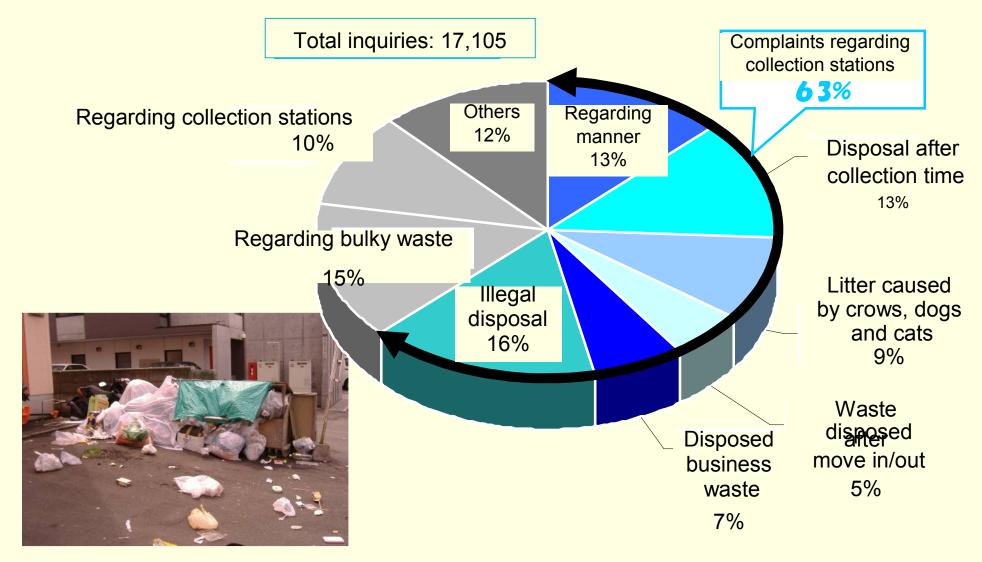
Timeworn Rebuilding?

2 Landfill Sites

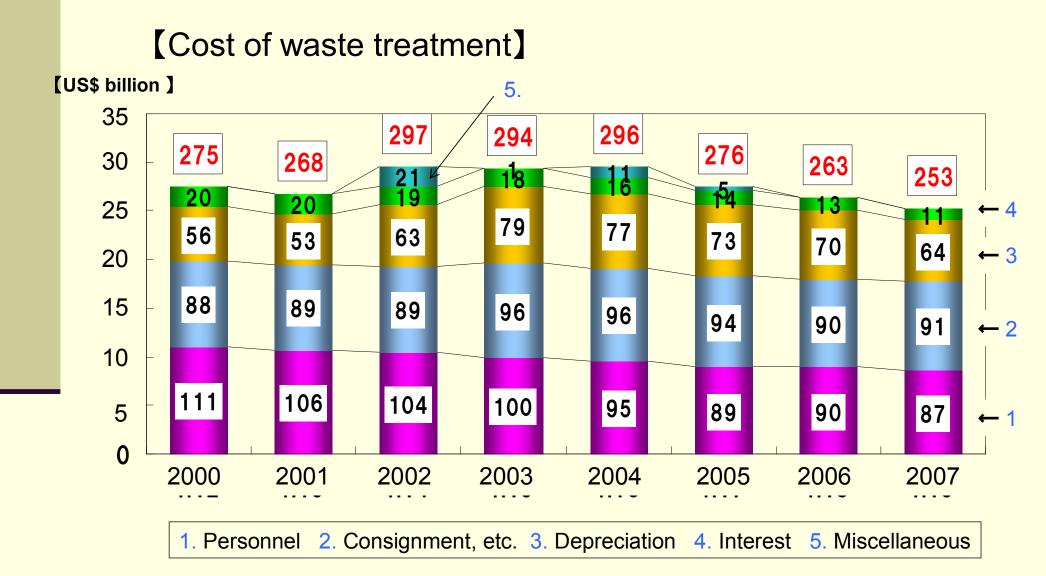


City's challenge 4: Observation of disposal rules

[Complaints regarding public cleaning (2007)]



City's challenge 5: Cost of waste management



Summary

- Amount of waste disposed have not made any remarkable change.
- No landfill sites will be available in the future.
- Cost of waste management is very large.

To deal with these issues

Measures to further reduce the amount of waste is critical.

"Eco-Capital" Sapporo - Action Plan to Protect the Earth

Slim City Sapporo Plan

Municipal Solid Waste Treatment Basic Plan

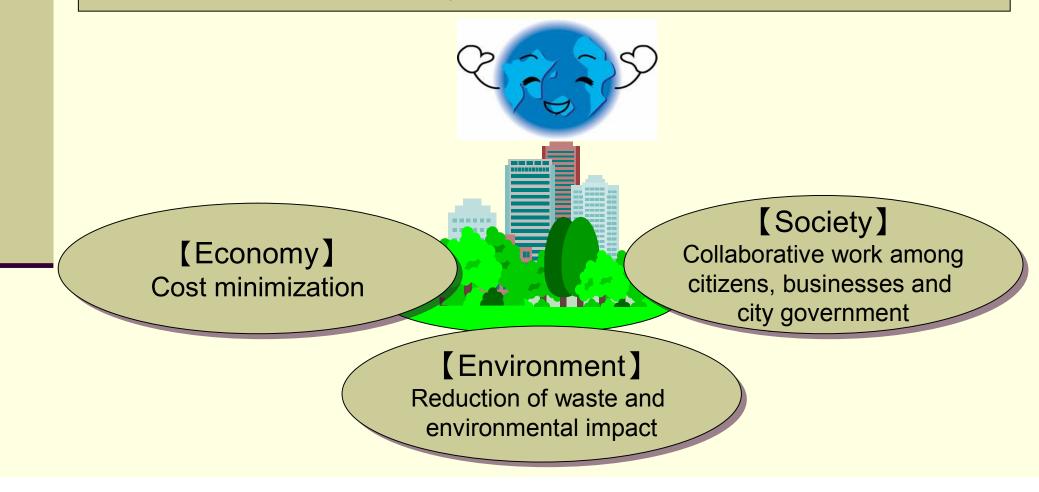
Moerenuma Park was designed by the worldrenowned sculptor Isamu Noguchi as a "park that is considered to be one complete sculpture." The area used to be a waste landfill site.

City of Sapporo

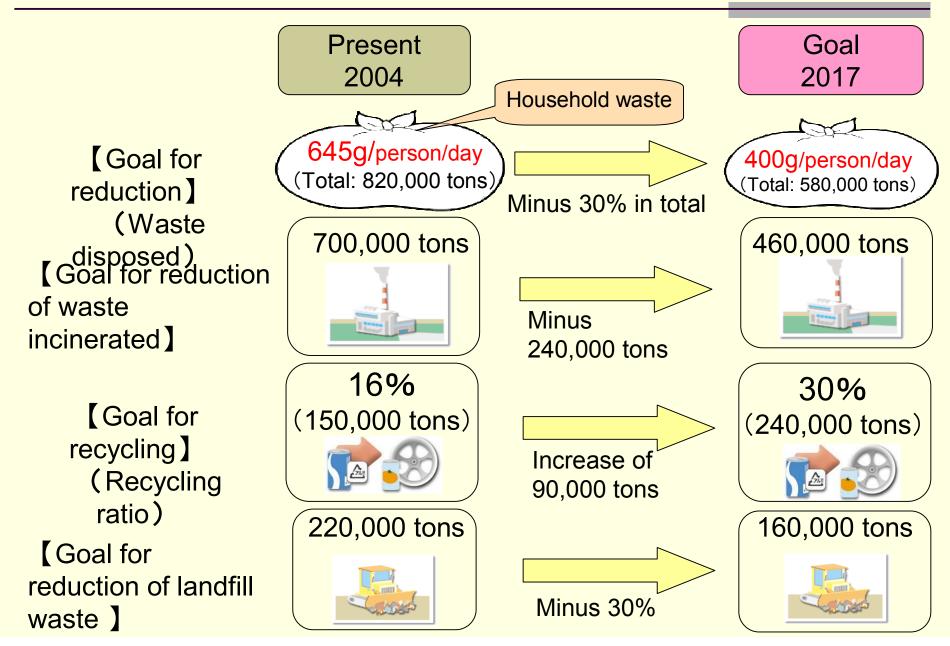
What will be the target society in the Plan?

Basic Goal

Realization of resource recycling society (city) with low environmental impact



Waste management goals



Major policies based on the Plan

- 1. Sorting, collection and recycling of "miscellaneous paper"
- 2. Sorting, collection and recycling of "branches, leaves, grass and weed cuttings"
- 3. Forming "kitchen waste recycling partnership system"
- 4. Support of "Sapporo Waste Disposal Patrol Group" for their collection station checking
- 5. Implementation of fee-based household waste collection system

Sapporo's new waste categories

- 1. Burnable waste
- 2. Non-burnable waste
- 3. Crushed spray cans, gas cartridges
- 4. Plastic containers and packaging
- 5. Dry batteries
- 6. Bottles, cans, and PET bottles
- 7. Branches, leaves, grass and weed cuttings
- 8. Miscellaneous paper
- 9. Bulky refuse

Collection fee is newly charged for Nos. 1 & 2. These waste have to be put in designated plastic waste bags available for fee.

since July 2009

What is the fee system for household waste disposal?

Fee-based system for household waste disposal

The fee is charged, when disposing, depending on the volume of waste disposed.

(Price of the city-designated waste bags differ depending on the size.)

Purposes of introducing fee-based system

- 1. To promote further waste reduction and recycling
- To have everyone feel fair in terms of financial burden for waste disposal. Those making effort to reduce waste will pay less by using smaller number of waste bags.

How to pay the fee for waste disposal

The fee is charged for disposal of "burnable" and "non-burnable" wastes. The waste has to be put out in officially designated yellow plastic bags, which are sold in four different sizes at various shops, drug stores and supermarkets. Those bags will have to be placed at a collection station by 8:30 a.m. on respective collection days.



Size	5 liter	10 liter	20 liter	40 liter
Price	US\$1	US\$2	US\$4	US\$4
(approx.)	for ten	for ten	for ten	for five

Impact of the new policies of the Plan?

Present analysis

- 1. "Burnable waste" decreased by 40% compared with previous year.
- 2. "Miscellaneous paper" and "branches, leaves, grass and weed cuttings" are well sorted.
- 3. "Bottles, cans, PET bottles" and "plastic containers and packaging" increased by 20 to 30%.
- 4. Citizens are conscious about sorting more than before.



Whether to close one of the four incineration plants will be decided in 2010.

After introducing new system

Burnable waste in designated bags



Miscellaneous paper waste

Inspection by waste patrol staff



Branches, leaves, grass and weed cuttings





We will start doing what we can to protect beautiful planet.

