

Mar. 2010

Waste Reduction Efforts in Nagoya

~ Challenge toward a Circular Society ~

— Environmental Affairs Bureau,
City of Nagoya —

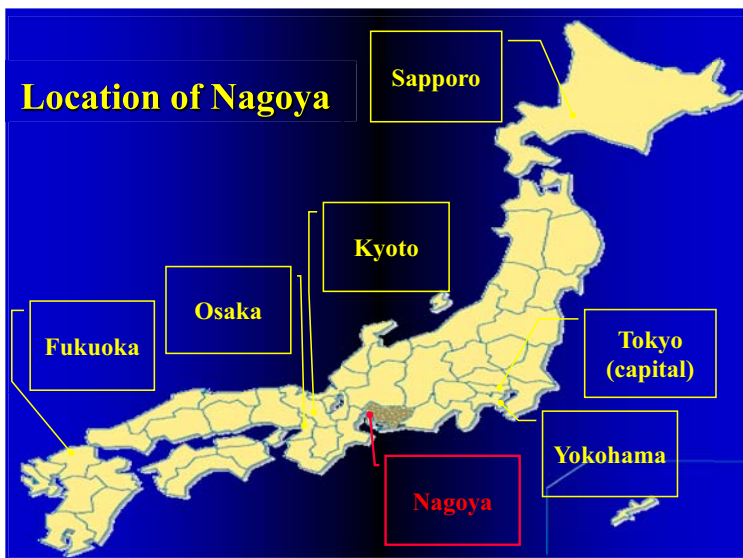


Part 1

Introduction



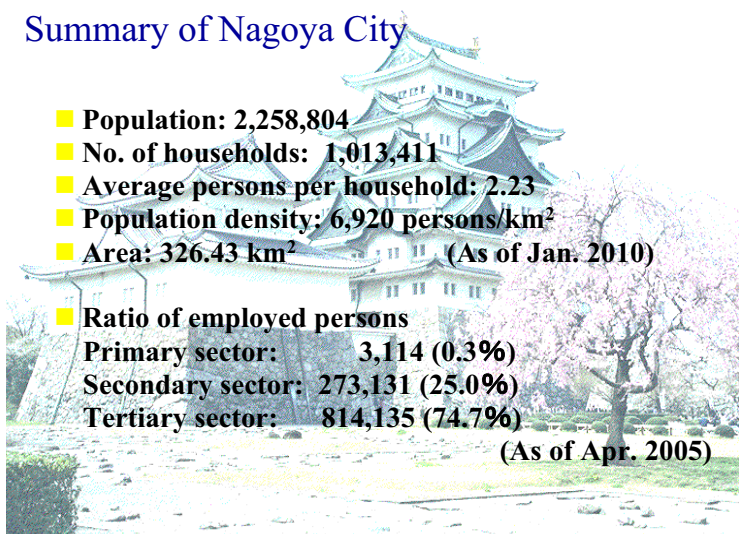
Location of Nagoya



Summary of Nagoya City

- Population: 2,258,804
- No. of households: 1,013,411
- Average persons per household: 2.23
- Population density: 6,920 persons/km²
- Area: 326.43 km² (As of Jan. 2010)


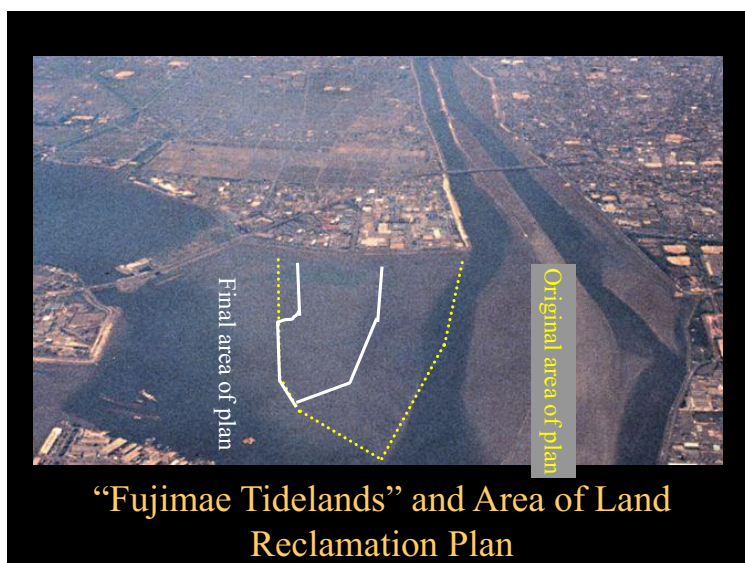
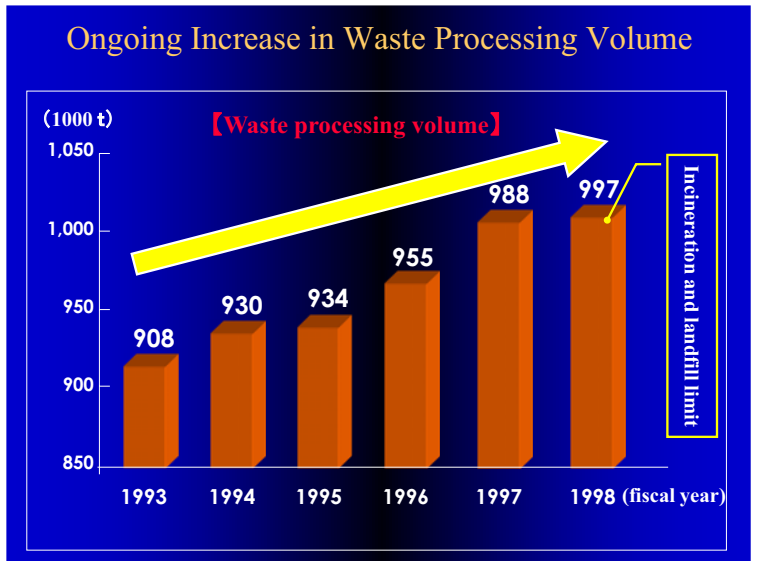
- Ratio of employed persons
 - Primary sector: 3,114 (0.3%)
 - Secondary sector: 273,131 (25.0%)
 - Tertiary sector: 814,135 (74.7%)(As of Apr. 2005)



August 2000
“Nagoya’s Hot Summer”

Part 2

Increase in waste processing volume and the “Waste Emergency Declaration”

Main Measures to Reduce Household Waste

Radical separation and recycling!

- Expansion of bottle and can collection to entire city (from 9 to 16 wards)
- Adoption of designated garbage bag system for household waste
- Strengthening of support for voluntary citizen collection (group collection and recycle stations) and start of school district collection system
- Separation and collection of paper and plastic containers and packaging
- Start of collection stations for PET bottles

Paper containers and packaging



Plastic containers and packaging



Public Information and Education for Citizens at Start of New Resource Collection (fiscal year 2000)

Advance announcements and informational meetings

- Distribution of "Nagoya News" (Mar., Apr., Jun., Aug. editions)
- Community informational meetings held about 2,300 times (Jun., July)
- Approx. 210,000 citizens participated



Scene at community informational meeting



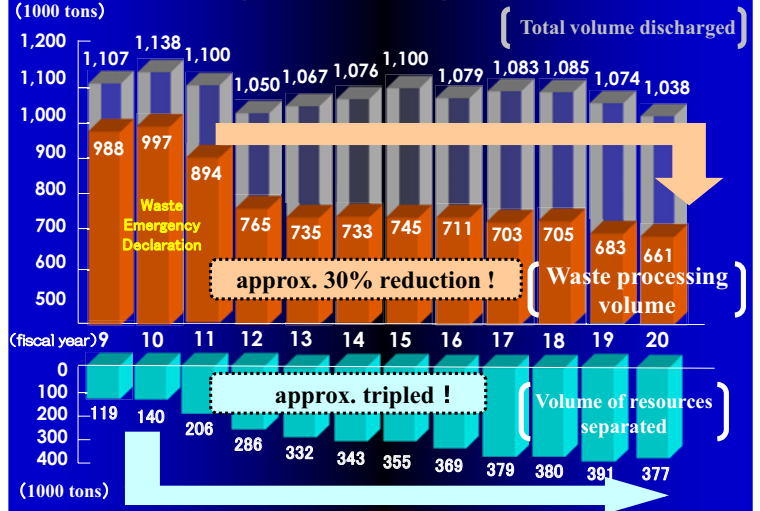
Disorder and Confusion among Citizens as Reported in Mass Media

Citizens Tackling Separation and Recycling



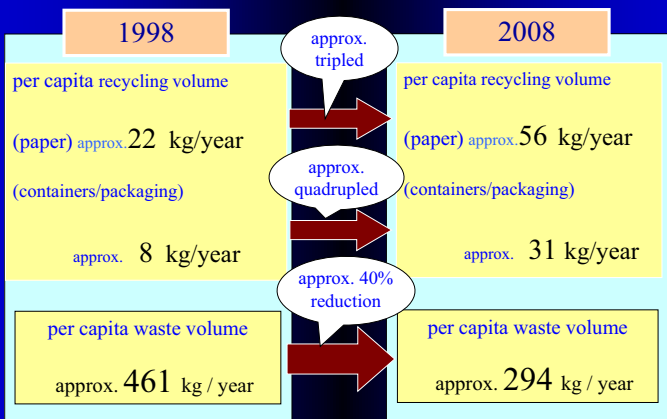
Struggle of residents and community leaders

Results following “Waste Emergency Declaration” ①



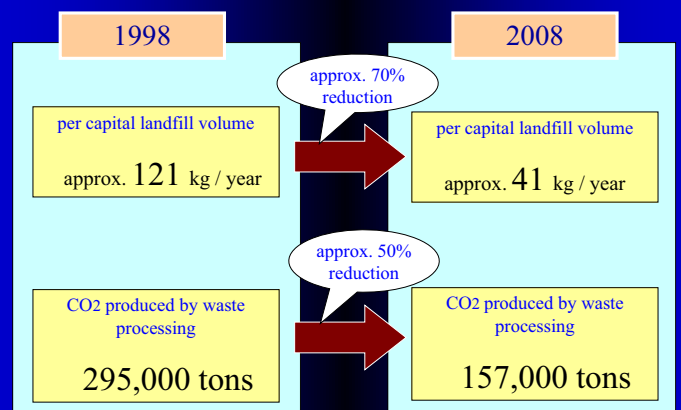
Results following “Waste Emergency Declaration” ②

Recycling amount increasing ! Waste amount decreasing



Results following “Waste Emergency Declaration” ③

Substantial decrease in landfill volume and CO2



Results following “Waste Emergency Declaration” ④

Way of putting out trash

Before



Any bag OK !
No progress in
separation or
recycling!

Present



Designated see-through bags



Scene at resource station

Results following “Waste Emergency Declaration” ⑤

Appearance of landfill sites

Before



Majority of
incombustible
waste disposed in
landfill as is!

Present



Decrease in landfill
volume due to Drastic
waste reduction and
crush processing

Separation within domestic life

Resources

- Collection by city
- Collection by community groups

•Plastic 2 types

- PET bottles
- Plastic containers and packaging

•Paper 5 types

- Newspaper, advertisements
- Magazines, misc. paper
- Cardboard
- Paper cartons
- Paper containers and packaging

•Other 2 types

- Used clothes
- Button cell batteries

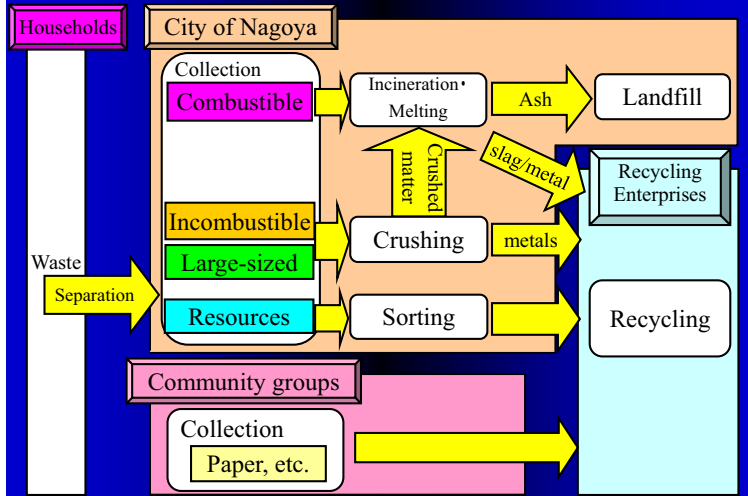
•Glass/metal 3 types

- Bottle
- Can
- Spray cans

Waste

- Combustible
- Incombustible
- Large-sized

Flow of Waste Processing in Nagoya City



Part 3

New Efforts of Nagoya City



4th Waste Processing Basic Plan (drawn up in May 2008)

Challenge objectives (fiscal year 2020)

○Total disposal volume	18 1.08 million tons	⇒ 1.04 million tons
○Resource separation volume	18 380,000 tons	⇒ 500,000 tons
○Waste processing volume	18 700,000 tons	⇒ 540,000 tons
○Landfill volume	18 100,000 tons	⇒ 20,000 tons

Basic Principle

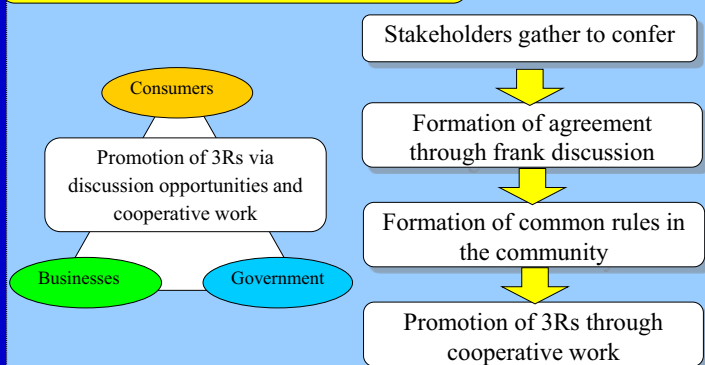
Reduce and Reuse both waste and resources!

- ① First, controls on production → Reduce waste and resources at sources
- ② Next, radical separation → Further expand establishment of Nagoya's separation culture
- ③ Then, circular processing → Reuse both waste and resources

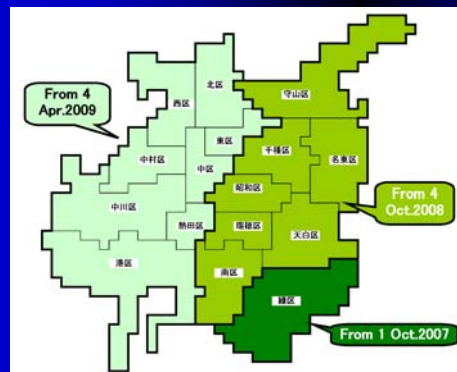
① Controls on Production

Nagoya Rules Campaign

~3Rs via community cooperation~



Implementation of Charge for Shopping Bags



Effects of Shopping Bag Charge

【Rate of shopping bag refusal】

(October 2009)

Midori ward...92%

Average of 7 Eastern wards...90%

Average of 8 Western wards...89%

Average...90%



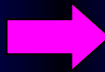
【Effects of shopping bag reduction】

(Oct. 2007 to Oct. 2009)

Reduction in shopping bag volume...320 million bags (2,233 tons)

Reduction in CO2 ...12,764 tons

City-wide expansion of charge
for shopping bags



Expansion of efforts for
other containers and packaging

Aiming for “Environmental Capital Nagoya” via cooperation with citizens and businesses

Thank you very much.



— City of Nagoya —