

# YOKOHAMA's Waste Management and Partnership with Africa

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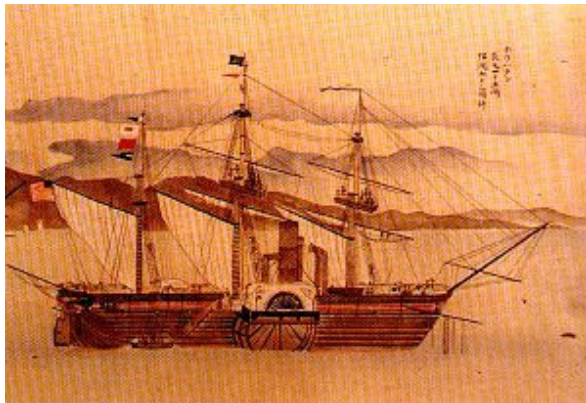
# Profile of YOKOHAMA



# History of YOKOHAMA

1859

Opening of the port to international trade



1923

Great Kanto Earthquake

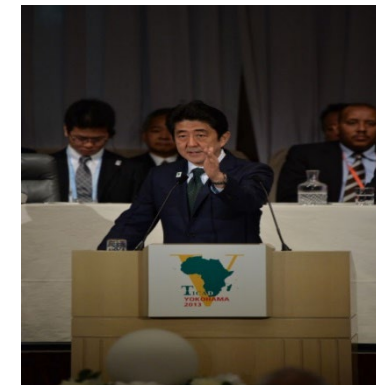


Present



# YOKOHAMA, The Closest City to Africa

TICAD 4 (2008)  
TICAD 5 (2013)



©Ministry of Foreign Affairs of Japan

# Interchange between Africa and Yokohama

March 2017

The First Lady of Mozambique visits an elementary school



# Interchange between Yokohama and Africa

~ One School, One Country Program ~

67 Elementary & Junior High schools  
in Yokohama

36 African Embassies in Japan



# TICAD VI (August 2016)



Side Event:  
Speech by the Mayor of Yokohama  
at the Joint Seminar on Waste Management

# Transition of Waste Disposal in the 1940s



- Yokohama disposed of all waste by burial, because the incineration plants had been damaged by war and were unusable.
- We sprayed disinfectant and covered the sites with soil to prevent odors and pests.



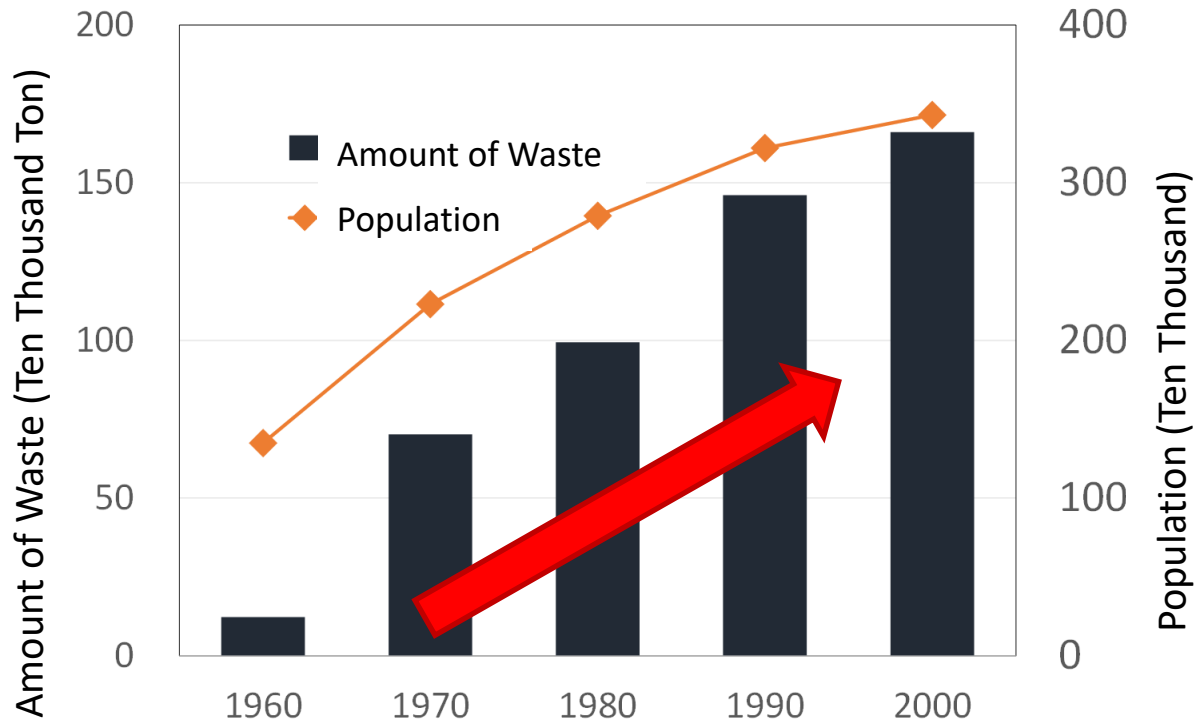
# Transition of Waste Disposal in the 1970s



- Start of mass consumption along with a steep increase in population, material affluence, and higher income levels brought by booming economic growth. This led to an explosive increase in the amount of waste.
- Need for disposal of plastic products and oversized garbage such as TV sets, washing machines, and refrigerators. Growth of waste disposal into a problem for society as a whole.

# Transition of Waste Disposal

~ Significant Increase in Waste ~



Over 40 years  
Population :  $\times 2.5$   
Amount of Waste:  **$\times 16$**



# Transition of Waste Disposal

~ Responding to the Significant Increase in Waste ~

## Construction of Incineration Plants




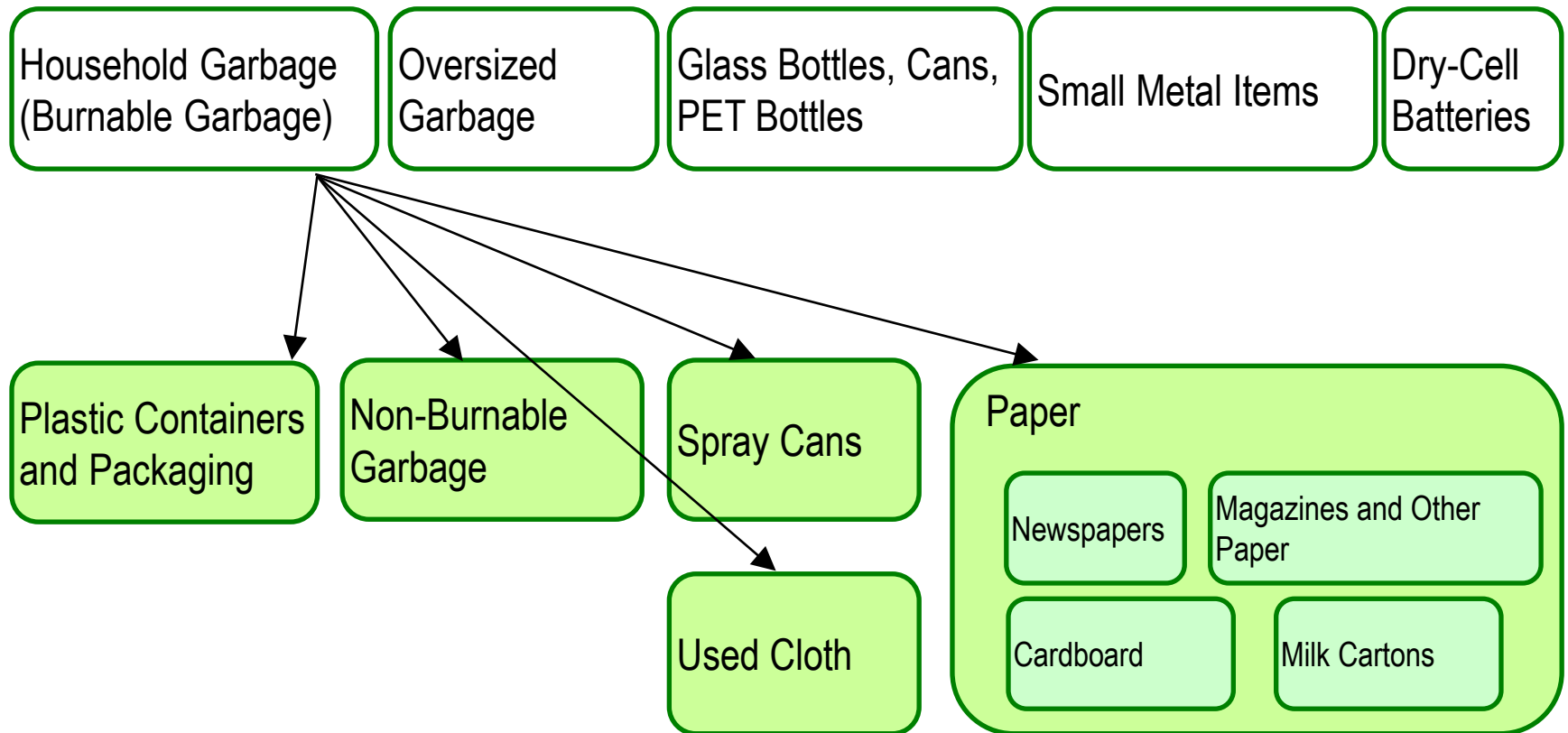
## Landfill of Ash



# Expansion of Items Recycled as Resources

<15 Items, 10 Sorting Categories>

 Indicates items newly added to the list for presorted collection

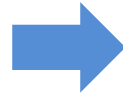


# Waste Sorting by Citizens

~Raising Citizen Awareness~



# Waste Sorting by Citizens



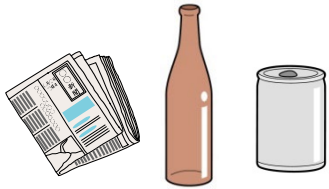
**Dividing  
「Waste」 and 「Recyclables」  
With the Cooperation of Our  
Citizens**

# Waste Sorting by Citizens ~ Resource Recovery ~

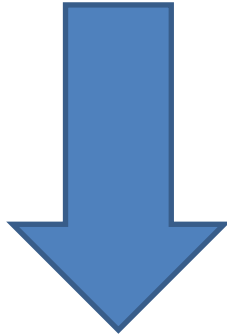
## Collection of Recyclable Materials by Local Groups

Local  
Groups

Community Councils  
Neighborhood Associations  
Children's Groups



Recyclable  
Materials



Recycling  
Companies



# Waste Sorting by Citizens ~ Citizen Volunteers ~

Citizens

Citizen Volunteers

Administration



Waste Sorting in Collection Sites



Waste Sorting in Local Events



# Private Businesses

## ~ Recycling of Kitchen Waste and Wood Waste ~

### **Kitchen Waste** ©YOKOHAMA ENVIRONMENT SAFEGUARD Co.Ltd



### Composting



### **Wood Waste** ©YOKOHAMA ECOLOGY Co.Ltd



### Processing into chips for use as material to make pulp etc.



# Private Businesses

## ~ Recycling of Plastic and PET Bottles ~

### PET bottles

©ALL WASTE RECYCLE Co.Ltd



Processing into flakes used to make clothes



### Plastic

©SHOWA DENKO Co.Ltd



Gasification for use in production of carbonated beverages and dry ice



# Efforts by Private Businesses

~ Recycling of aluminum cans and steel cans ~

## Steel Cans and Aluminum Cans

©YOKOHAMA RESOURCES AND WASTE RECYCLING PUBLIC CORPORATION

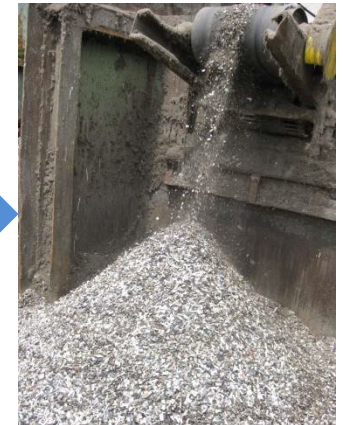


# Private Businesses

~ Recycling of small electrical/electronic goods ~

Small Consumer Electrical / Electronic Goods

©SUZUTOKU Holdings Co.Ltd

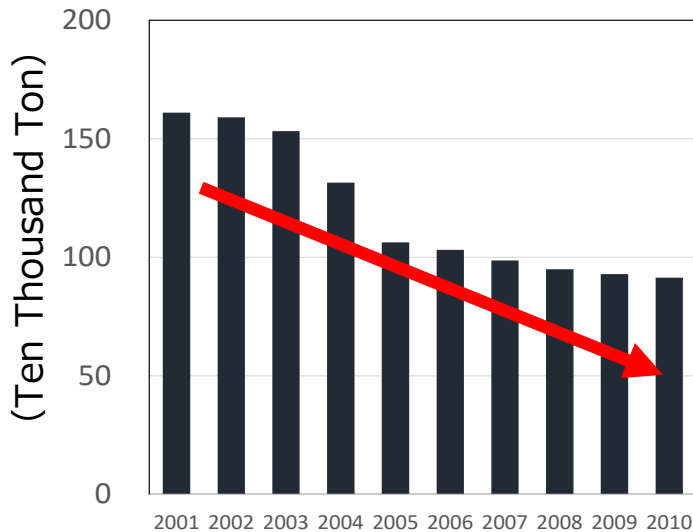


**Project for production of medals using metal from urban mines!**

Production of medals for the Tokyo 2020 Olympics and Paralympics using precious metals extracted from small consumer electrical / electronic goods

# Results of Sorting Approaches

Reduction in  
Waste Volume  
of **43%** in 10  
years



Closing of  
Incineration Plants:  
7 Plants to 5 Plants

Savings  
equivalent to  
**US \$ 1 billion**

# Waste Disposal in Yokohama ~ Incineration ~



○ Making Waste Harmless   ○ Reduction of Waste Quantity

Reduction of Weight to 1/6  
Reduction of Volume to 1/40

Using Heat Generated by Incineration

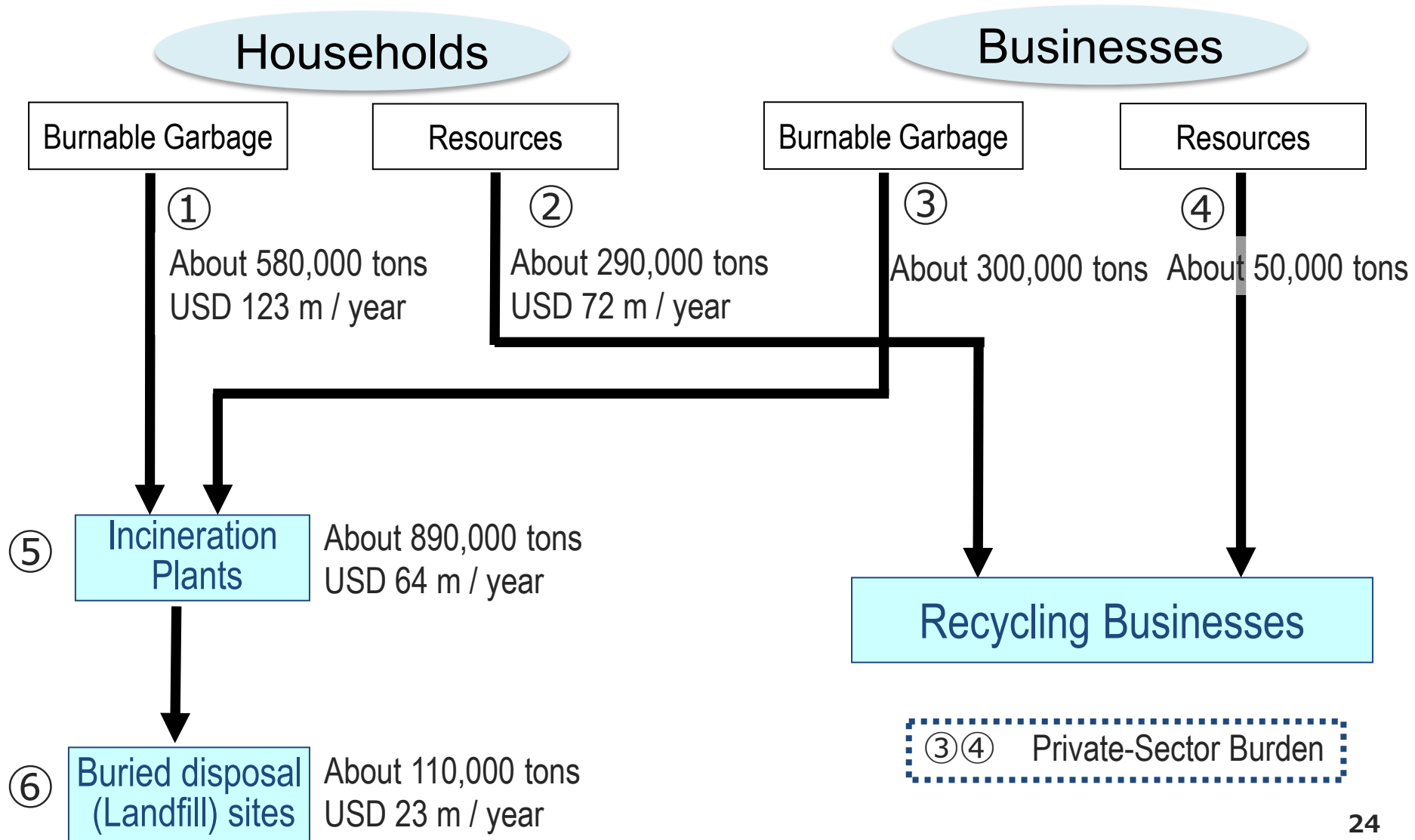
Providing Electricity Worth  
**100,000 Households**

# Waste Disposal in Yokohama

~ Incinerated Ash as Landfill for Port Facility Development ~



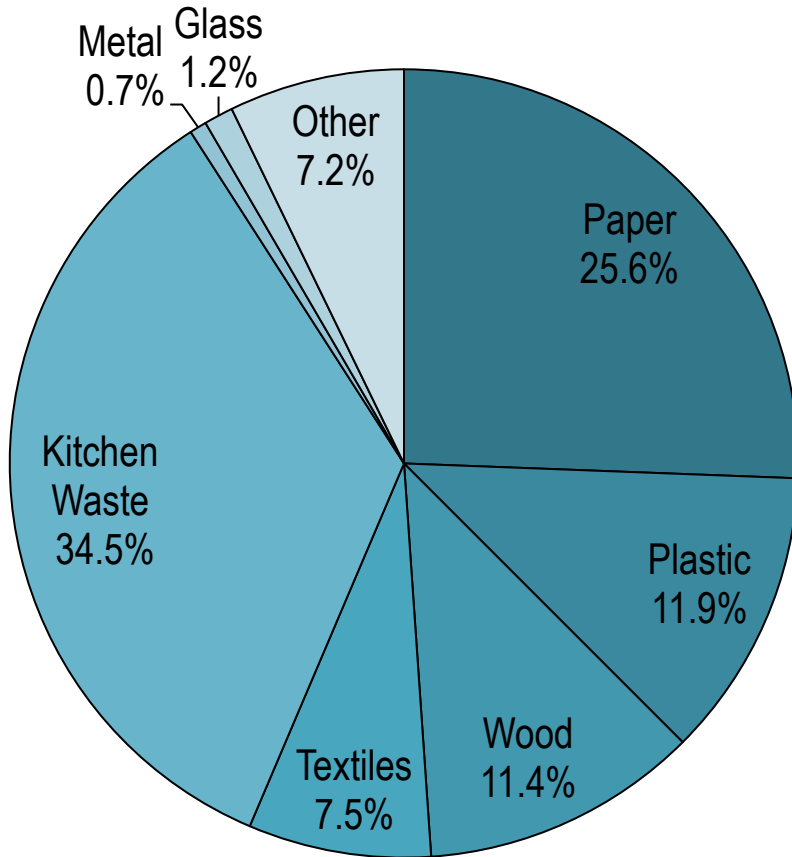
# Flow of Garbage and Resources



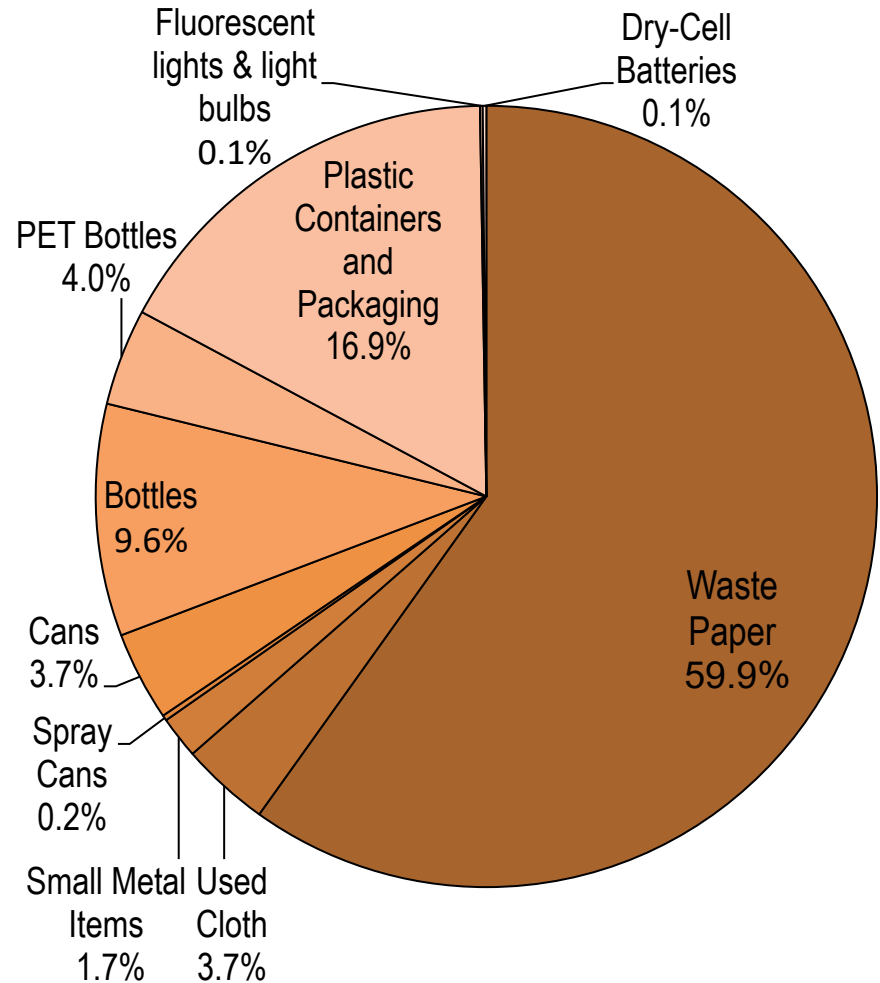


# Breakdown of Burnable Garbage and Resources (Household)

**Burnable Garbage (about 580,000 tons)**



**Resources (about 290,000 tons)**



# Proposals from YOKOHAMA

Partnership and interchange based on local conditions

## 1 Provision of Practical Training

Practical programs incorporating on-site, firsthand experience

Refill Products



Personal Shopping Bags

Personal Bottles





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# Proposals from YOKOHAMA

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**Partnership and interchange based on local conditions**

## **1 Provision of Practical Training**

Practical programs incorporating on-site, firsthand experience

## **2 Corporate Partnership**

Setup integrating city government and recycling businesses

## **3 Total Approaches**

Total approaches extending to the sanitation aspect, including improvement of water quality through wastewater treatment and prevention of illegal dumping



**Thank you for your kind attention!**

**We are looking forward to hearing  
from you in Yokohama**



**Africa & Yokohama  
Together**