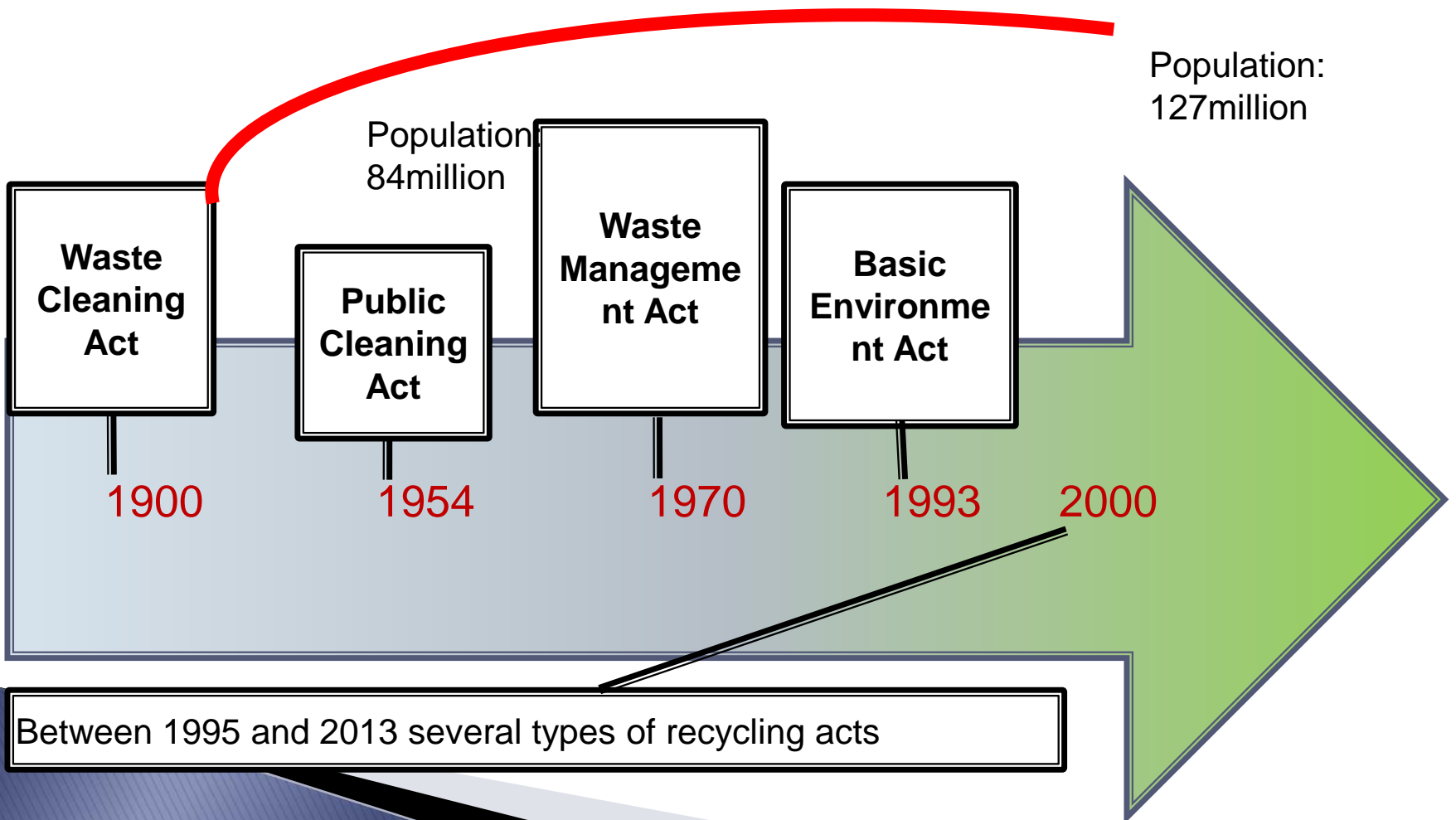


Problems and Measures regarding Waste Management and a 3R Society

**Japan Environmental Sanitation Center(JESC)
President Mr. Hideki MINAMIKAWA**

The History of major Laws on Waste Management

The historical development of waste management laws from the late 19th century to the early 20th century.



Situation subsequent to the Meiji Restoration

The waste cleansing act was enacted in 1900 in order to improve public health. Waste dumping sites provided breeding grounds for flies, mosquitoes and rats that carried infectious diseases. This act defined the collection and disposal of waste as the obligation of municipalities. To ensure cleanliness was the most important issues at that time. And it also stated that waste should be incinerated if possible.



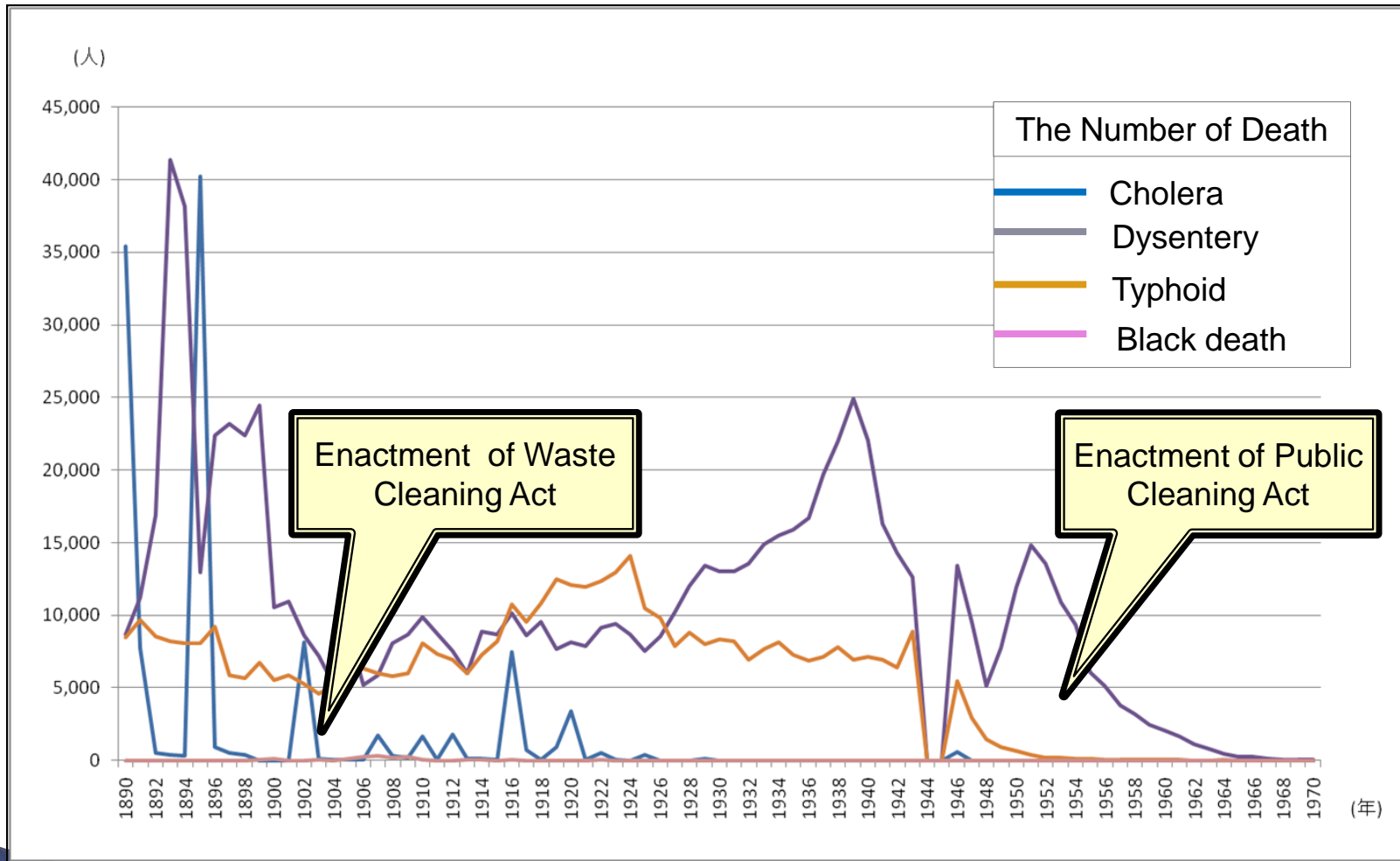
Garbage incineration in the open(around 1910)



Inside of incineration facility (1903)

Source: Website on Clean Authority of Tokyo, Osaka Water & Environment Solution Association

The number of Deaths by major infectious diseases



Source : Ministry of Health, Labour and Welfare and Ministry of the Environment

Post-war year 1945

Disposal of World-War II damage garbage was urgent business in 1945 and 1946



Rubble (1945)

Source: One Hundred Years of Waste Management in Tokyo

Situation in post-war periods and enactment of Public Cleaning Act in 1954

Carts were used to collect waste from homes and offices. Collected waste was loaded onto special trucks in residential areas and transported to incineration sites or landfills.



Rubbish and Waste Collection (1950s)



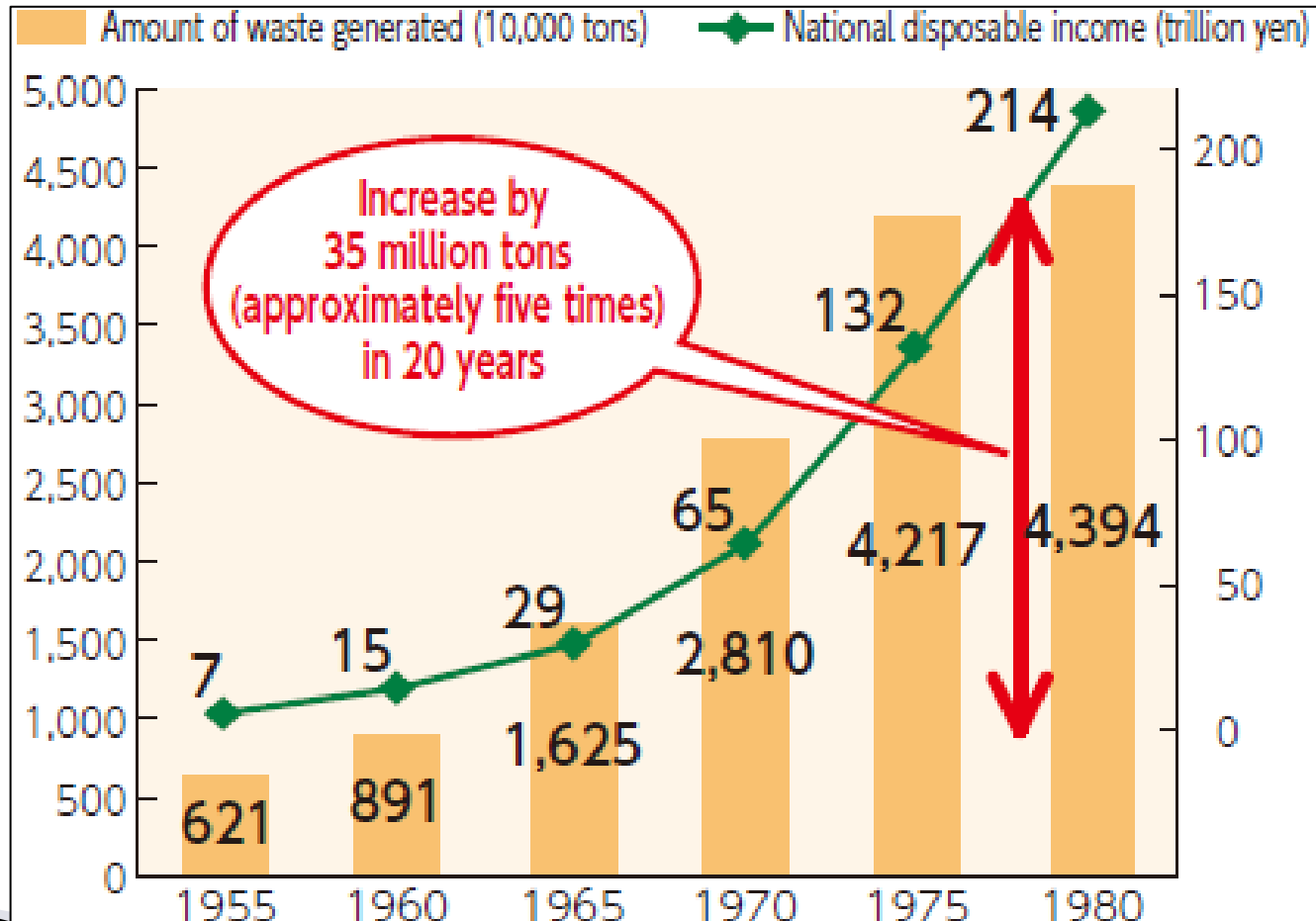
Huge amount of waste

Situation in post-war periods and enactment of Public Cleaning Act in 1954



Waste island (Dream island), Tokyo 1950s

Changes in the total amount of waste generated and National disposable income (1960s to 1970s)



Source: One Hundred Years of Waste Management in Tokyo

Changes in the total amount of waste generated and National disposable income (1960s to 1970s)



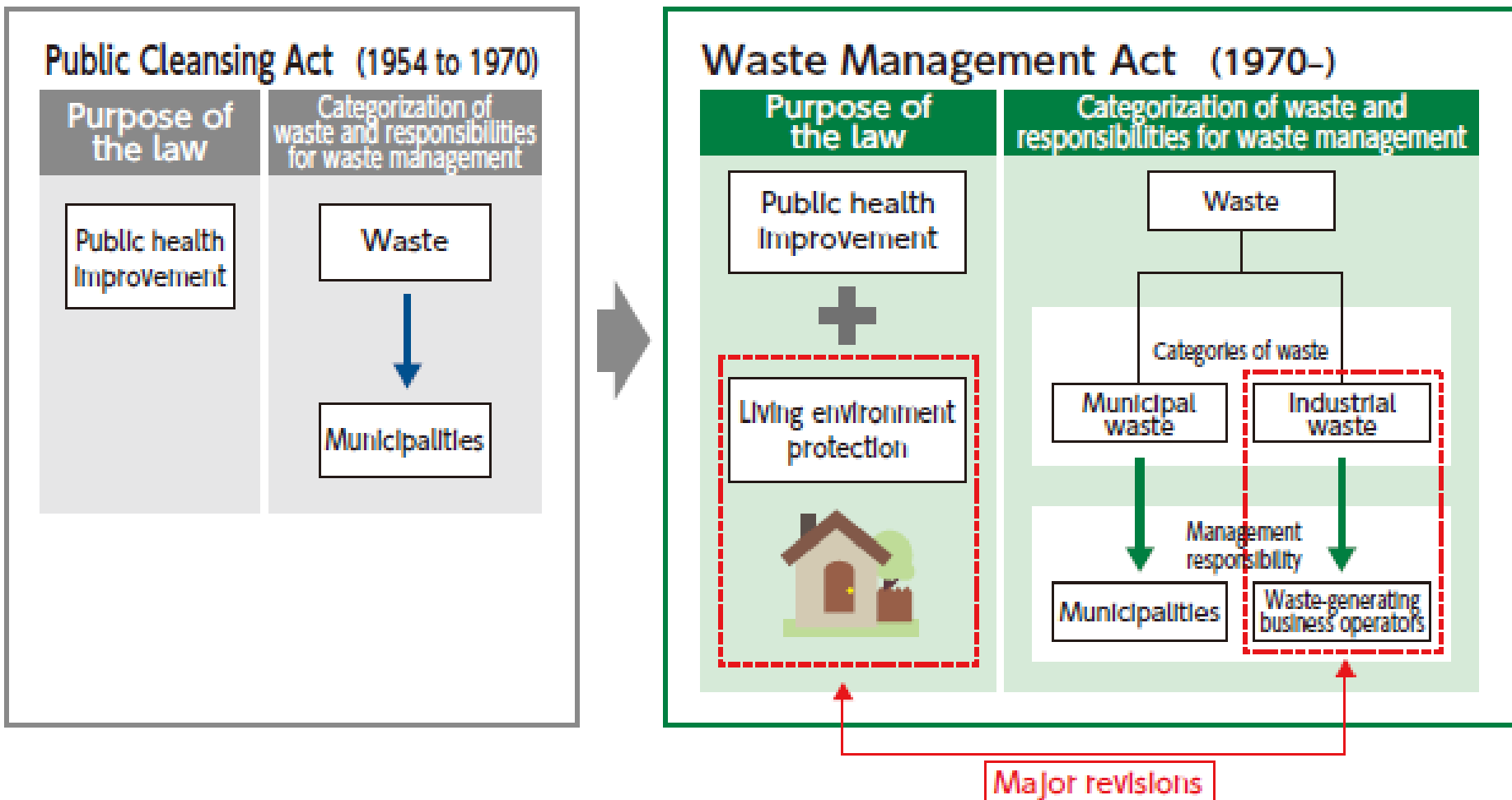
Elementary school students near the landfill site swat the flies (1965)



Huge amount of garbage was dumped into rivers flowing through the town (1960s)

Development of basic systems for waste management

Waste management Act in 1970



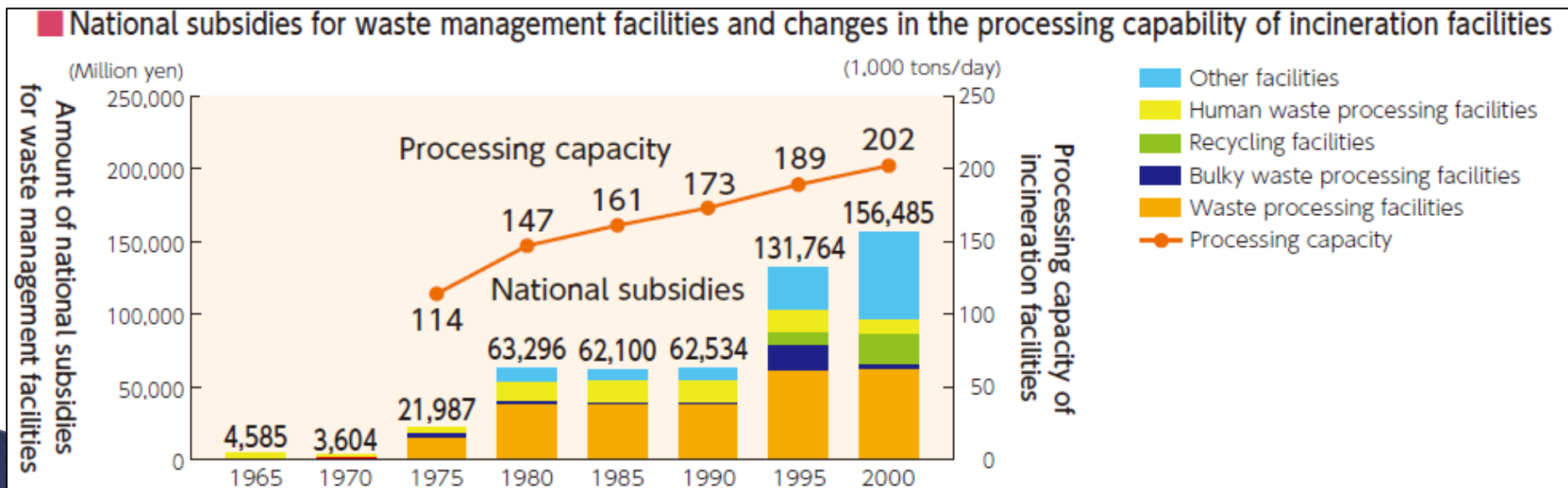
Sources: Ministry of the Environment

Promotion of proper waste management and facility development



Constructed in Tokyo in 1973, the Oi Waste Processing Factory contributed to solving waste problems as a large factory equipped with bulky waste crushers and waste reloading devices.

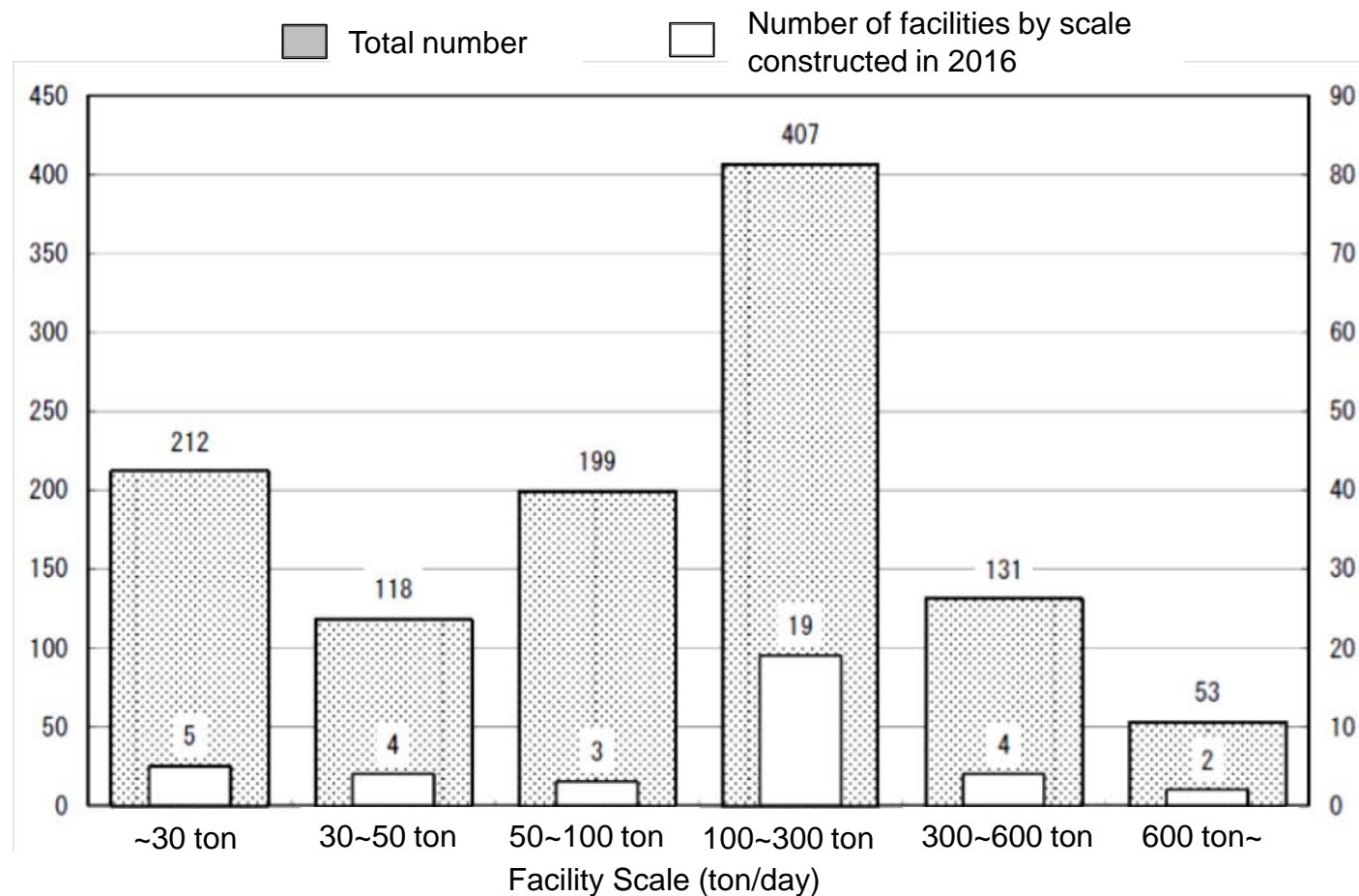
Source: One Hundred Years of Waste Management in Tokyo



Source: Compiled from MOE, Waste Management in Japan (annual editions) and Japan Waste Management Association. FY2005 Manual for Waste Management Facility Development Operations

Promotion of proper waste management and facility development

Number of incineration facilities by scale (2016)



Source: Ministry of Environment

Emergence of large scale illegal dumping and other problems

Industrial waste treatment operators illegally dumped approximately 620,000m³ of industrial waste on Kanagawa Prefecture's Teshima Island. The industrial waste contained Hazardous substance, including heavy metals such as lead, chromium, and cadmium.



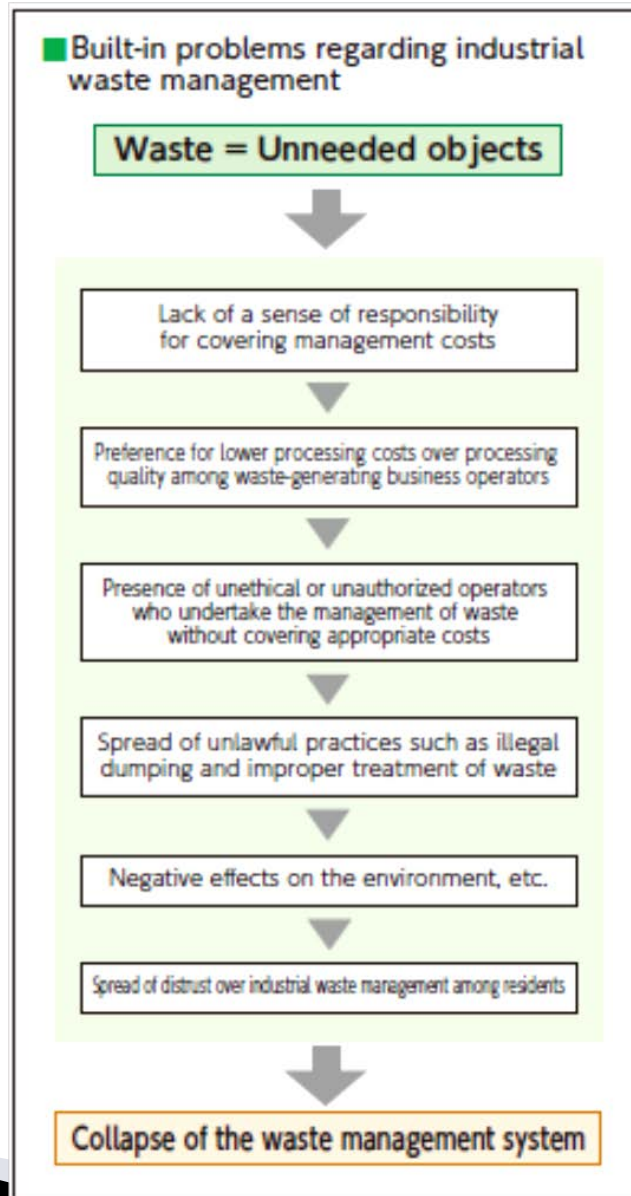
Illegally dumped waste



Teshima landfill immediately after the exposure of the illegal practice

Source: Kanagawa Prefecture

Enhancement of regulation on industrial waste



Structural change toward the goal to be achieved based on waste generators' responsibility

Enhancement of regulation on industrial waste

Goal to be achieved based on waste-generators' responsibility

Waste = Unneeded objects

Complete fulfillment of responsibility by waste generators

Reliable and proper waste management

Selection of well-performing operators by waste generators
(exclusion of ill-performing operators from the market)

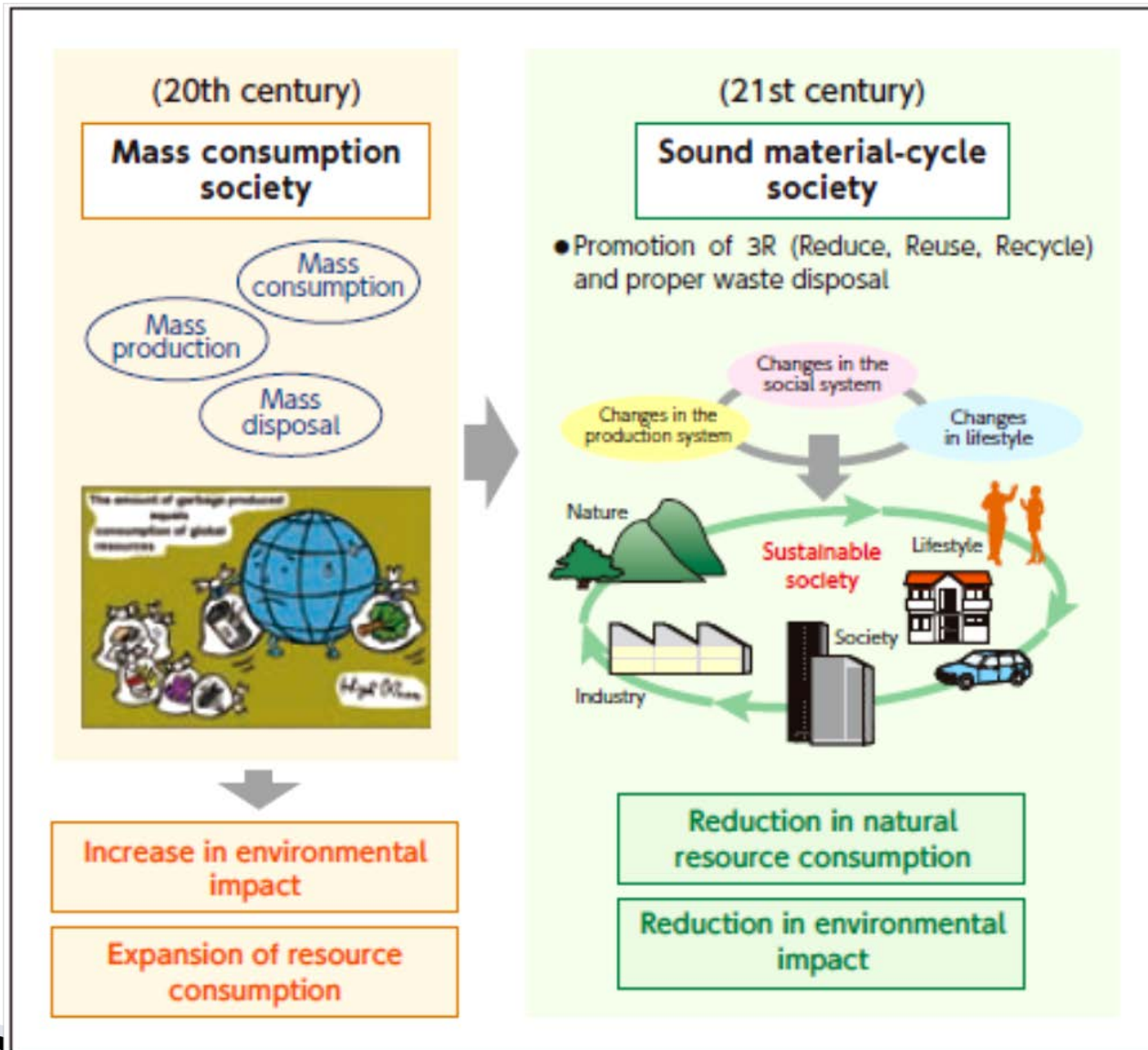
Safe, reliable, and proper waste management

Restoration of consumers' trust in the management of industrial waste

Establishment of a sound material-cycle society

Maintenance of a healthy and civilized lifestyle for future generations

Era of the establishment of a 3R society



Source: Website of the Miyako Ecology Center

Thank you very much for your attention!

