

3R Initiative and the Experience of Japan in Sanitation and Wastewater Management

Hiroaki TAKIGUCHI

**Waste and Recycling Department
Ministry of the Environment, Japan**

Contents

- 1. 3R Initiative**
- 2. Japan's Experience in Solid Waste Management**
- 3. Japan's Experience in Wastewater Management**
- 4. Conclusion**

1. 3R Initiative

Background of the 3R initiative

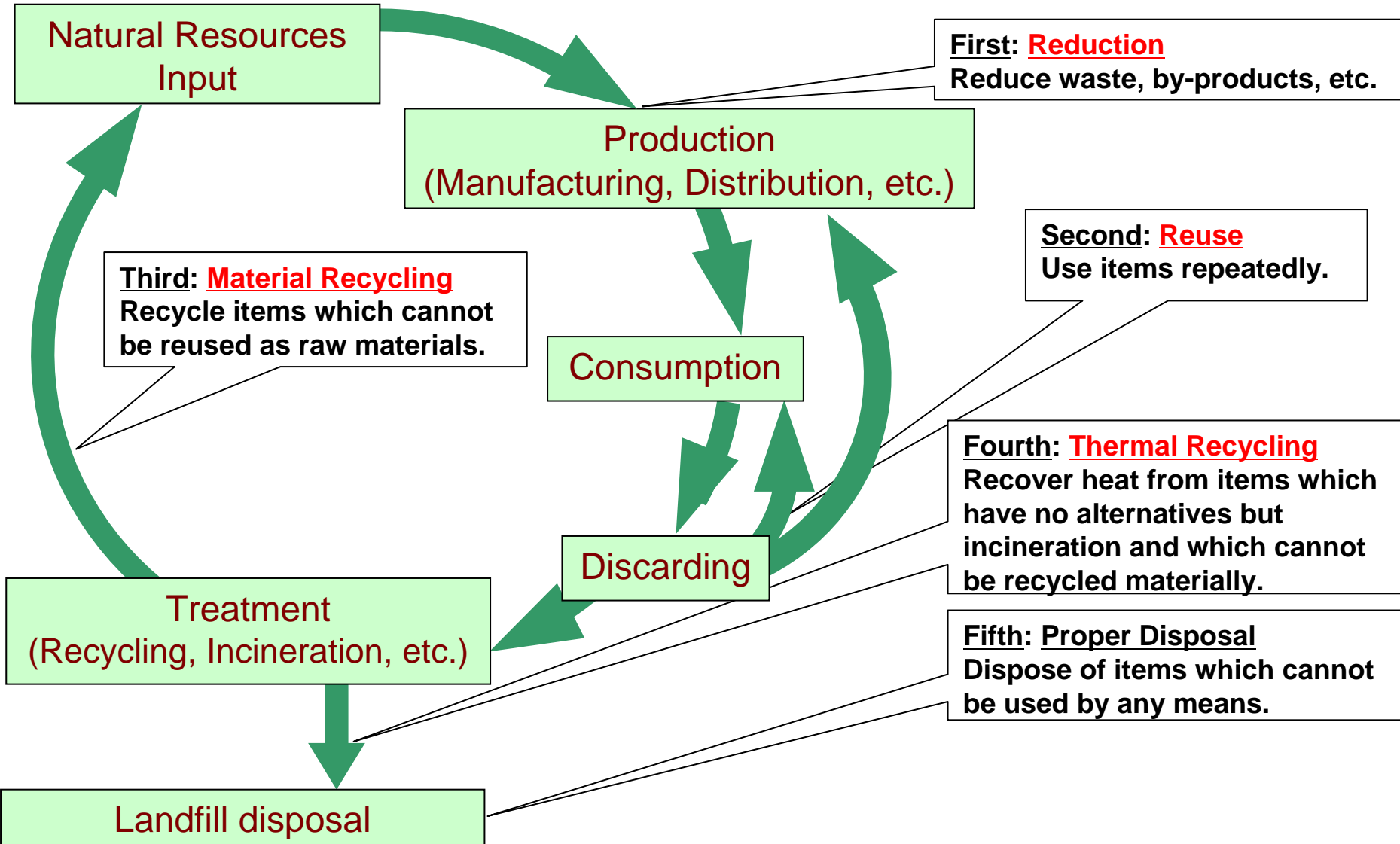
The 3R Initiative was endorsed at the G8 Summit held in 2004 at Sea Island, USA.

Reduce, Reuse, and Recycle Initiative

We will launch the Reduce, Reuse, and Recycle (“3R”) Initiative at a Ministerial Conference in spring 2005 hosted by the Government of Japan

(Source) G8 action Plan on Science and Technology for Sustainable Development adopted at the G8 Sea Island Summit

Concept of 3 Rs



Ministerial Conference on the 3R Initiative

Date: April 28-30, 2005

Venue: Tokyo, Japan

Participants:

G8 countries

Asian countries

China, Indonesia, Malaysia, Philippines, Republic of Korea, Singapore, Thailand, Vietnam

Other countries; relevant organizations

Brazil, Mexico, South Africa; OECD, UNEP, Basel Convention Secretariat, the League of Arab States



Issues Discussed

1. Strengthening of domestic policies to implement the 3Rs
2. Reduction of trade barriers against the international flow of goods and materials
3. Cooperation between developed and developing countries
4. Cooperation among various stakeholders
5. Promotion of science and technology suitable for the 3Rs

Outcome of the Ministerial Conference

Adoption of Chair's Summary

- Agree on further strengthening of a worldwide promotion of 3Rs under international cooperation
- Report to the G8 Government Summit at Gleneagles in the UK
- Hold a senior official level follow-up meeting

Japan's Action Plan for Developing Global Zero Waste Society

Realization of Zero Waste in Japan

- Review of the Fundamental Plan for Establishing a SMC Society
- Review of 3R-relevant policy

Support to Developing Countries for Developing Zero Waste Society

- Assistance to capacity building of developing countries

Collaborative Efforts toward Global Zero Waste Society

- Organizing an official-level meeting for 3R Initiative follow-up
- Development of 3R-relevant policy towards zero waste
- Knowledge and Technology Development in Asia towards zero emissions
- Enhancement of actions toward zero waste through information sharing and networking

2. Japan's Experience in Solid Waste Management

Keys to Success

Law and Regulation

Technology

Economic Incentives

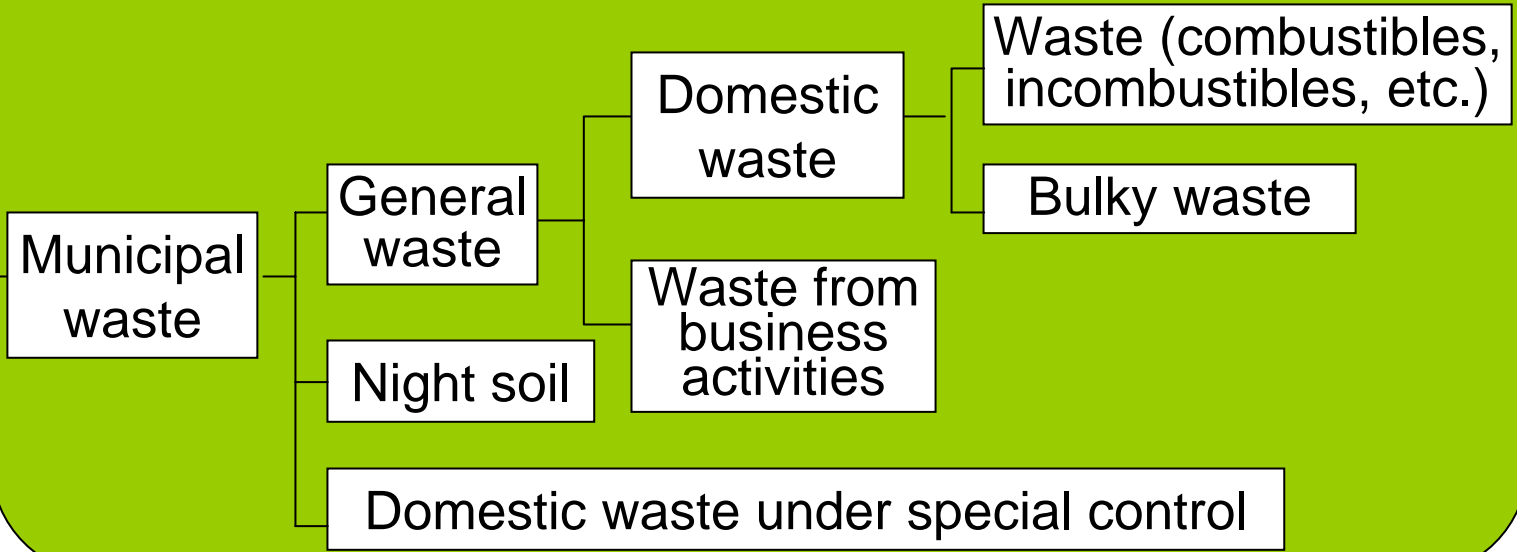
Partnership

Law and Regulation

1954	Public Cleansing Law	Improvements in public health
1971	Waste Management Law	Environmental protection
1991	Law for Promotion of Utilization of Recyclable Resources	Recycle
2000	Fundamental Law on the Establishment of a Sound Material- Cycle Society	Establishment of a sound material-cycle society

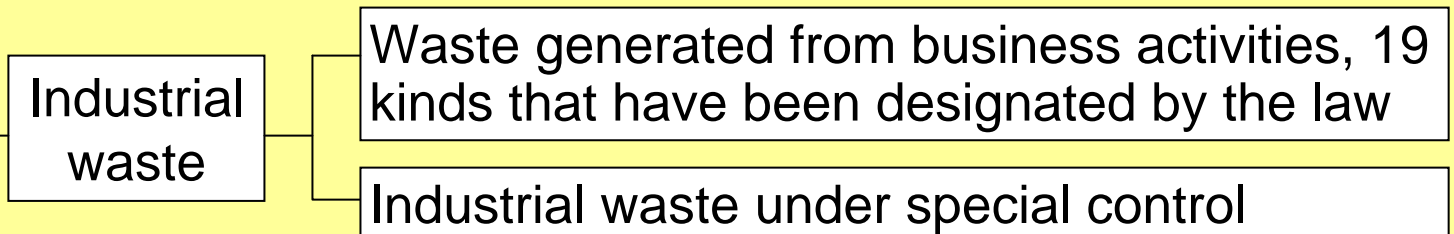
Waste Classification

<Responsibilities for disposal, of the municipalities>

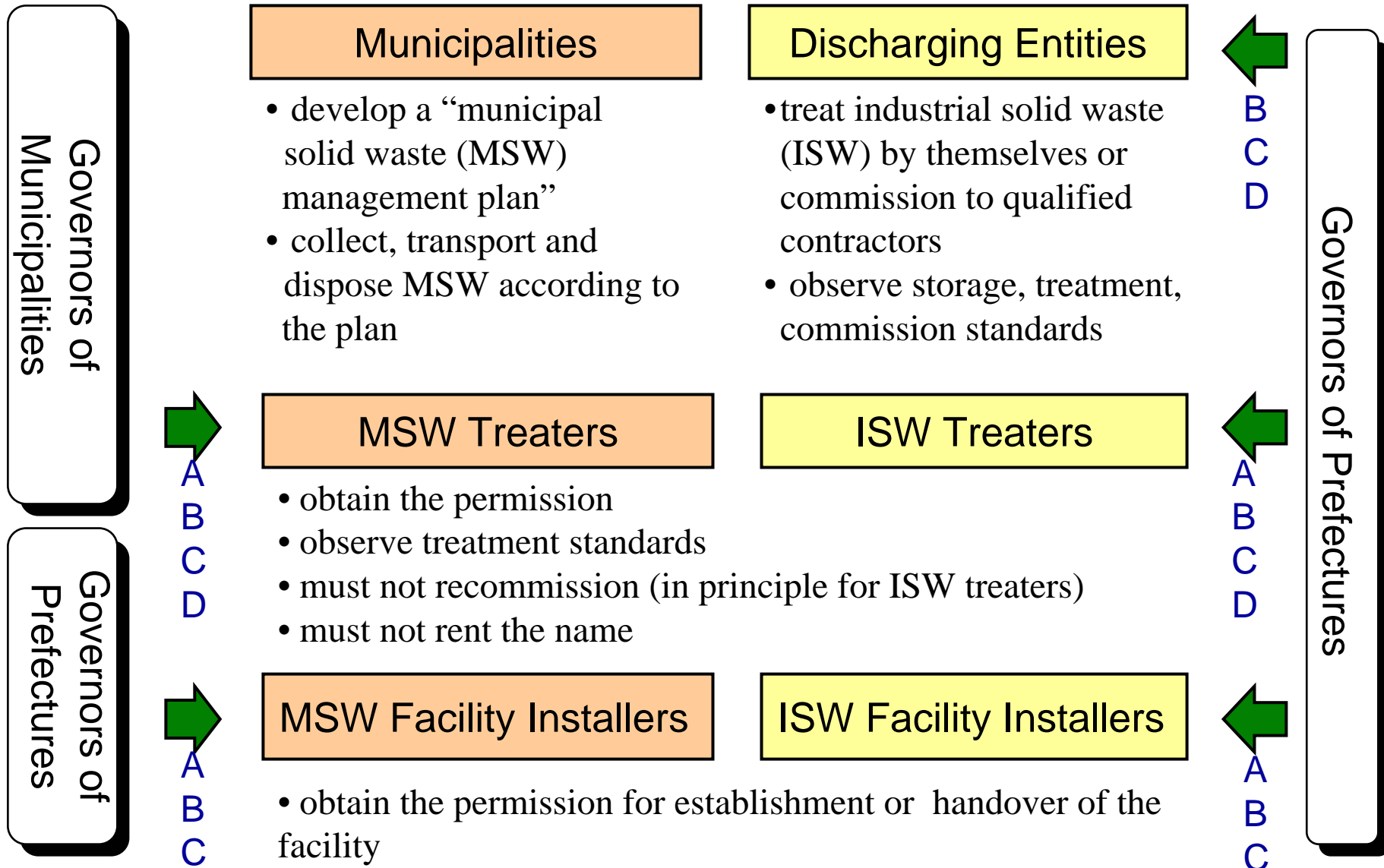


Waste

<Responsibilities for disposal, of business establishments>

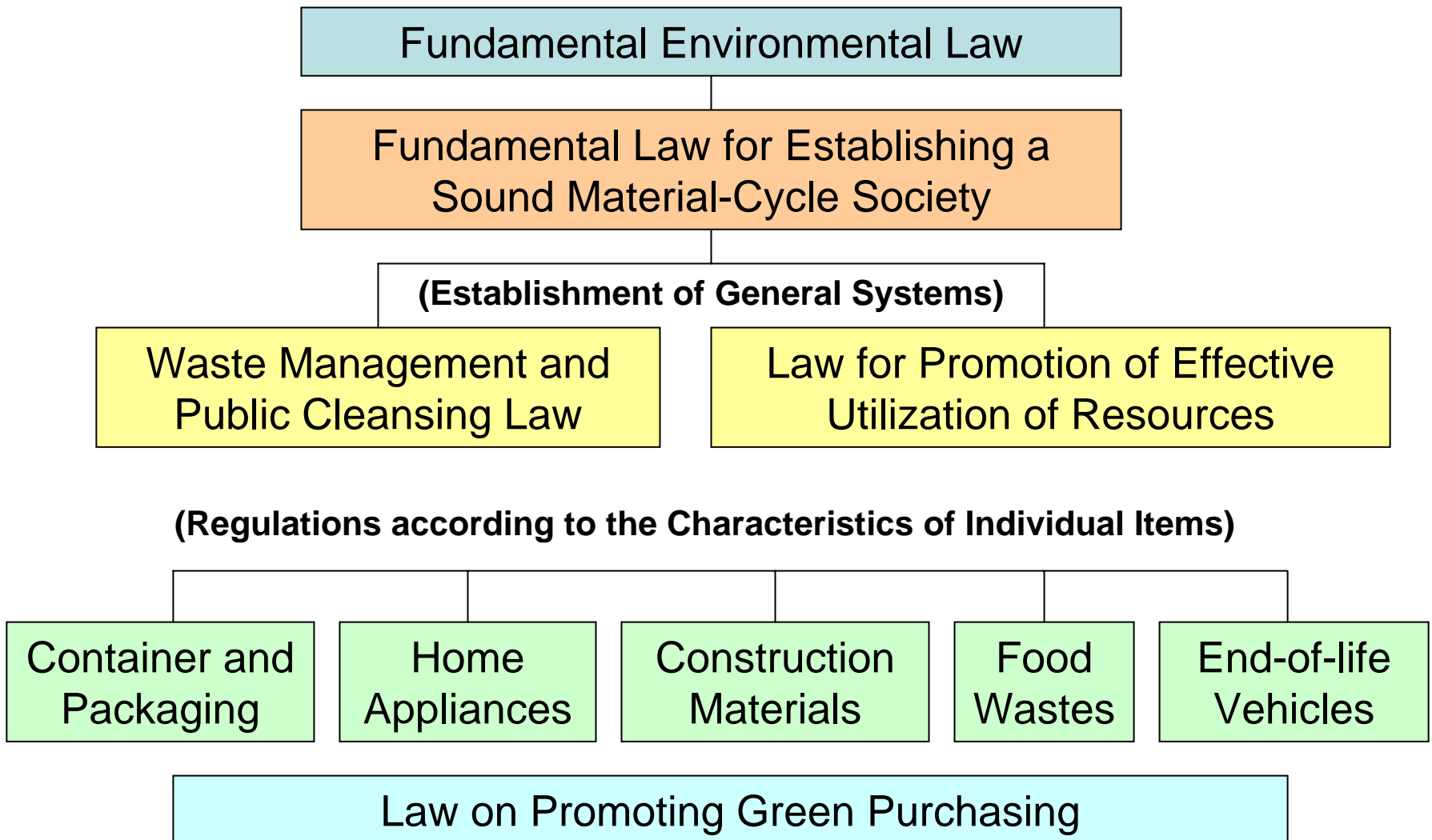


Major Regulations on Waste Management



A: permission, B: collection of reports, C: order for improvement, D: order for actions

Legislative Framework to Establish a Sound Material-Cycle Society



Technology

Technology enables us to manage waste in a sanitary manner.

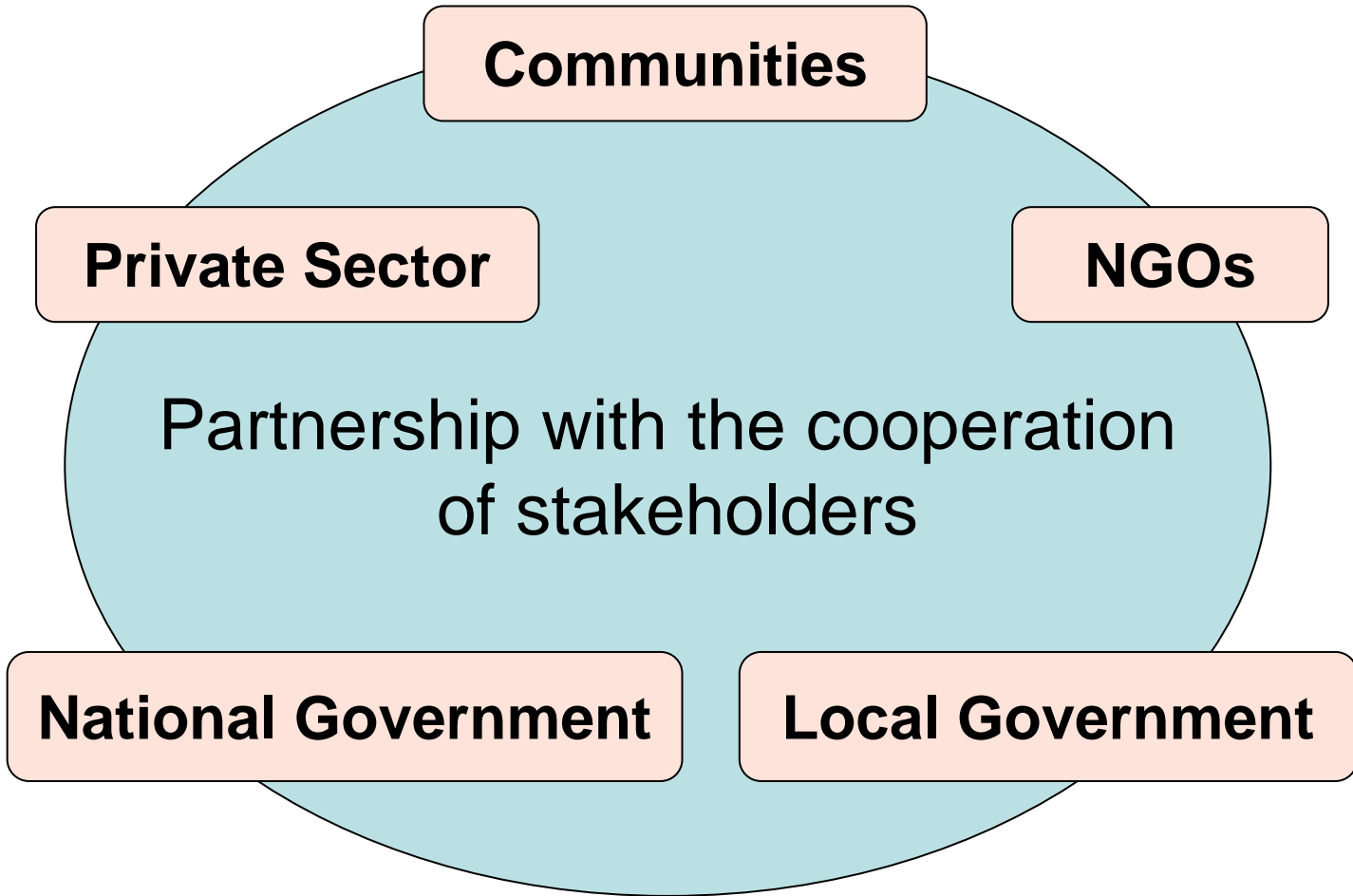
- Waste collection
 - Manual → Packer Trucks
- Incineration
 - Batch-loading → Continuous-loading
- Sanitary landfills
 - Introduction of semi-aerobic landfill and liner sheets
- Reuse and recycle technologies

Economic Incentives

Economic incentives work as a driving force for sound waste management.

- Preferential taxation
- Low interest loans
- Subsidies
- Debt guarantee

Partnership



3. Japan's Experience in Wastewater Management

History of Japan's Wastewater Management

- Mid-1950 Methyl-mercury induced Minamata disease
- 1958 The Water Quality Control Law
The Industrial Effluent Control Law
- 1967 The Basic Law Environmental Pollution Control
- 1971 The Water Pollution Control Law
- 1993 The Basic Environment Law

Japan's Wastewater Management

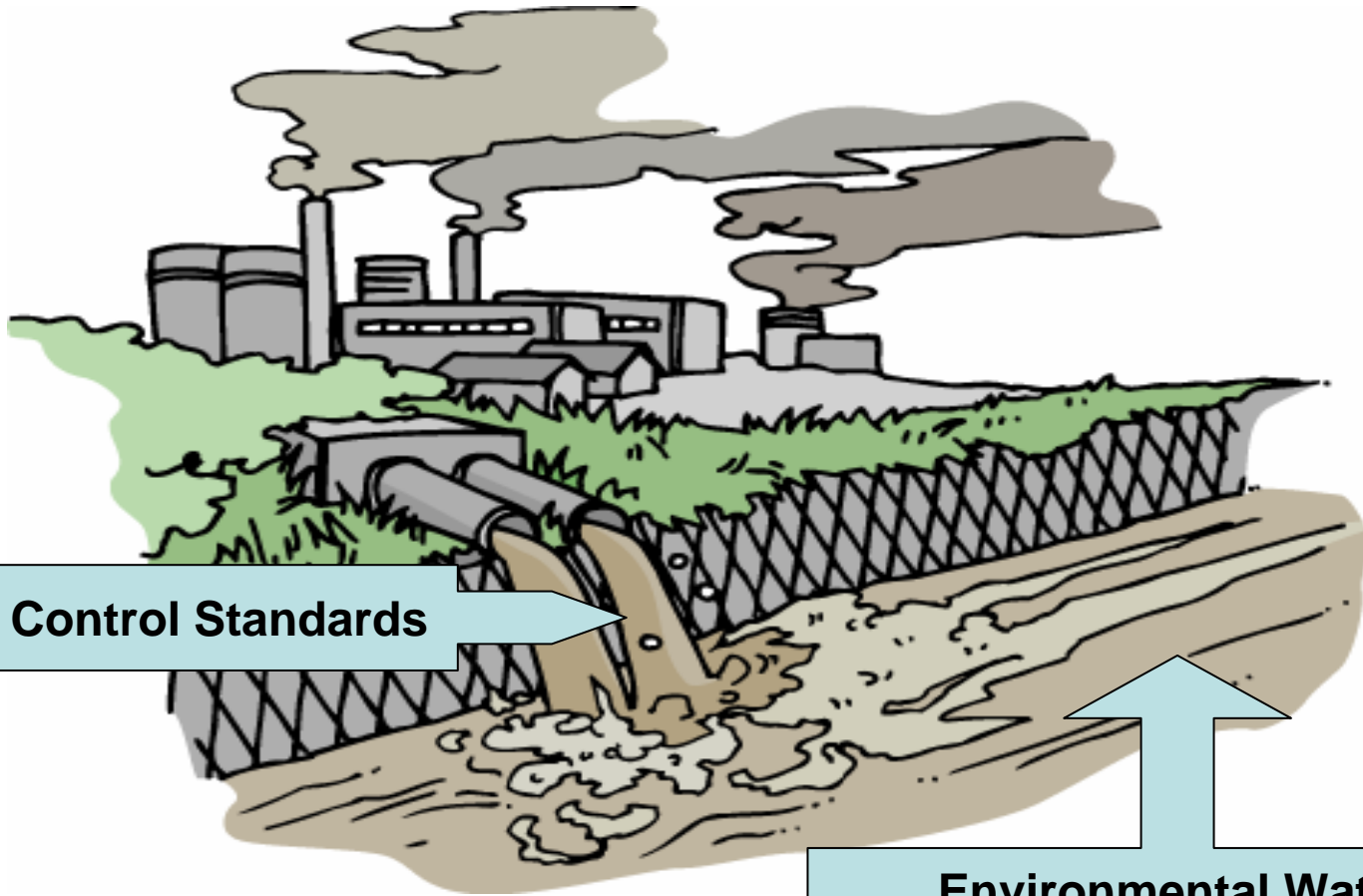
Objective:

- Improvements in public health
- Environmental protection (achievement of environmental water quality standards)

Approaches

- Control of factory effluents
- Maintenance and construction of sewage systems and septic tanks

Water Quality Control



Effluent Control Standards

**Environmental Water
Quality Standards**

4. Conclusion

Conclusion

- ◆ Japan suffered from environmental pollution and solid waste problems.
- ◆ After overcoming those problems, Japan is moving towards the establishment of a Sound Material-Cycle Society through 3R Initiatives.
- ◆ Keys to success are:
 - Law and Regulation
 - Technology
 - Economic Incentives
 - Partnership