



Waste management and Public Cleansing Act

December 10, 2019

**Ministry of the Environment
Environment Regeneration and Resource
Recycling Bureau
Waster Proper Disposal Promotion Division
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- 1. Introduction**
- 2. What is Waste?**
- 3. What is Waste Treatment?**
- 4. Present State of Waste
Treatment and Recycling**
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Oriented Society**
- 6. Treatment of Disaster Waste**

1. Introduction

History of Waster Management Issues

Hygiene Issues

Ocean and land disposal of waste and night soil/vermination from disposal sites
Necessity of hygiene management (from 1945)

Public Cleansing Law
(1954)



Mass spawning of flies
on Yumenoshima (1965)

(Source: 100-year History of Public Cleaning Work in Tokyo)

Pollution Issues

Increase in the amount of waste accompanying high economic growth
Necessity of waste treatment not only by municipalities but also by business operators, and establishment of incineration and landfill treatment sites (from 1955)

Waste Management and
Public Cleansing Act
(1970)



Battles in Tokyo
over garbage (from 1971)

Preventing waste from being brought into Koto Ward (1971)
(Source: 100-year History of Public Cleaning Work in Tokyo)

Environment and Resource Issues

Growing concern about the proper treatment and use of waste as well as environmental issues
Necessity of properly circulating resources by means such as recycling (from the beginning of the Heisei Period [1989])

Several recycling
laws (from 1995)
Basic Act on
Establishing a Sound
Material-cycle Society
(2001)



Work to reclaim land damaged by illegal
dumping (1975-90) at Teshima Island

History of Waste Management Policy in Japan

Date	Contents	Enactment of laws
After the war until the 1950s	<ul style="list-style-type: none"> •Waste treatment as environment and hygiene measures •Maintenance of hygienic and comfortable living environments 	<ul style="list-style-type: none"> •Public Cleansing Law (1954)
1960s to 1970s	<ul style="list-style-type: none"> •Increase in the amount of industrial waste accompanying high economic growth and development of pollution issues •Waste Treatment as an environmental protection measure 	<ul style="list-style-type: none"> •Act on Emergency Measures Concerning the Promotion of Community Facilities (1963) •Waste Management and Public Cleansing Act (1970) •Revision of the Waste Management and Public Cleansing Act (1976)
1980s	<ul style="list-style-type: none"> •Promotion of waste treatment facilities •Environmental protection associated with waste treatment 	<ul style="list-style-type: none"> •Act on Bay Area Marine and Environment Consolidation Centers (1981) •Private Sewerage System Act (1983)
1990s	<ul style="list-style-type: none"> •Discharge control and recycling of waste •Establishment of several recycling systems •Measures against hazardous substances (including dioxins) •Introduction of proper treatment systems to cope with the diversification of the kinds and characteristics of waste 	<ul style="list-style-type: none"> •Revision of the Waste Management and Public Cleansing Act (1991) •Act on Promotion of Development of Specified Facilities for the Disposal of Industrial Waste (1992) •Environmental Basic Act (1993) •Act on the Promotion of Sorted Collection and Recycling of Containers and Packaging (1995) •Revision of the Waste Management and Public Cleansing Act (1997) •Act on Recycling of Specified Kinds of Home Appliances (1998) •Act on Special Measures Concerning Countermeasures against Dioxins (1999)
2000s onward	<ul style="list-style-type: none"> •Promotion of the 3Rs to realize a recycling-oriented society •Reinforcement of measures for industrial waste treatment •Reinforcement of measures against illegal waste disposal •Reinforcement of measures regarding disaster waste 	<ul style="list-style-type: none"> •Basic Act on Establishing a Sound Material-Cycle Society (2000) •Construction Material Recycling Act (2000) •Act Concerning the Promotion of Utilization of Recyclable Food Waste (2000) •Revision of the Waste Management and Public Cleansing Act (2000) •Act on Special Measures Concerning Promotion of Proper Treatment of PCB Waste (2001) •Act on Recycling, etc. of End-of-Life Vehicles (2002) •Act on Special Measures Concerning Removal of Environmental Problems Caused by Specified Industrial Waste (2003) •Revisions of the Waste Management and Public Cleansing Act (2003 to 2006 and 2019) •Act on Recycling of Specified Kinds of Small Home Appliances (2012) •Revision of the Waste Management and Public Cleansing Act and Disaster Countermeasures Basic Act (2015) •Revision of the Waste Management and Public Cleansing Act and the Basel Convention Act (2017)

Hygiene

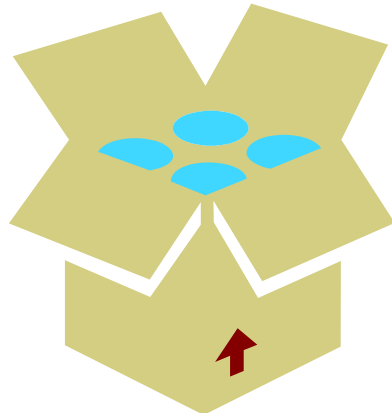
Pollution and the Environment

Resource and Recycling-Oriented

2. What is Waste?

Fundamental Issues in Waste Management

Valuable resources



Materials (valuable resources)



Money (expenses)



Waste



Materials (waste)



Money (treatment fees)



Financial burden for generators

→ Need to dispose of them at low cost

Materials and money flow in the same direction for disposers

→ Realize gains simply by collecting

Definition of Waste

(Waste Management and Public Cleansing Act)

Waste:

Trash, oversized trash, burnt materials, sludge, night soil, waste oil, waste acid, waste alkaline, animal carcasses, and other filthy or unwanted matter in solid or liquid form

Interpretation and Administration of Waste: Comprehensive Determination Theory

(1) Characteristics of materials

- Satisfactory level of quality for the intended use

(2) Generation condition

- Generation in a planned manner accompanying demand

(3) General use

- Existence of a market for selling the product

(4) Market value

- Transfer for value
- No financial transactions equivalent to treatment fees

(5) Intention of appropriator

- Intention to utilize appropriately or to transfer for value

Status as waste is comprehensively determined in consideration of (1) to (5).

General Waste and Industrial Waste

General Waste:

Types of waste other than industrial waste

Industrial Waste:

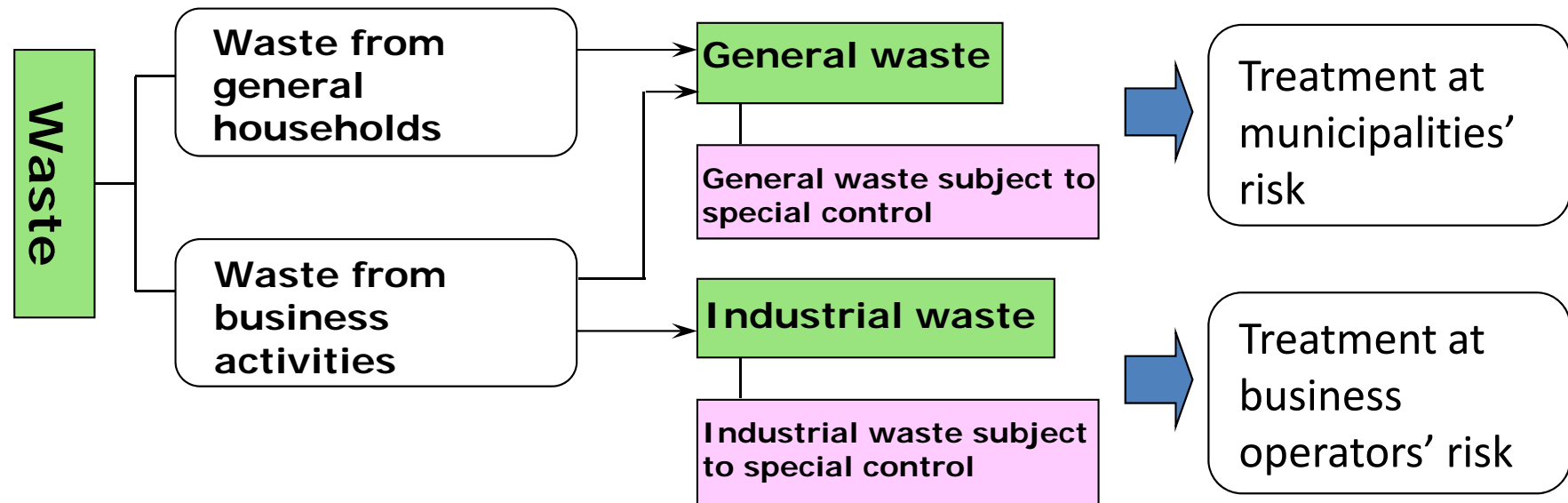
- (1) Burnt materials, sludge, waste oil, waste acid, waste alkaline, waste plastic, and other types of waste designated by government ordinance from among the waste generated by business activities
(20 kinds)
- (2) Imported waste (excluding aviation and portable waste)

Hazardous Waste

General/Industrial Waste Subject to Special Control

General/industrial waste having explosive, toxic, infectious, or other properties which may harm human health or damage living environments as designated by government ordinance

Kinds and Classifications of Waste



- Among waste from business operations, 20 kinds that can hardly be smoothly treated under municipalities' responsibility due to problems such as characteristics, generation volume, and difficulty in treatment are classified as industrial waste and the other kinds are classified as general waste.

Industrial waste (20 kinds)

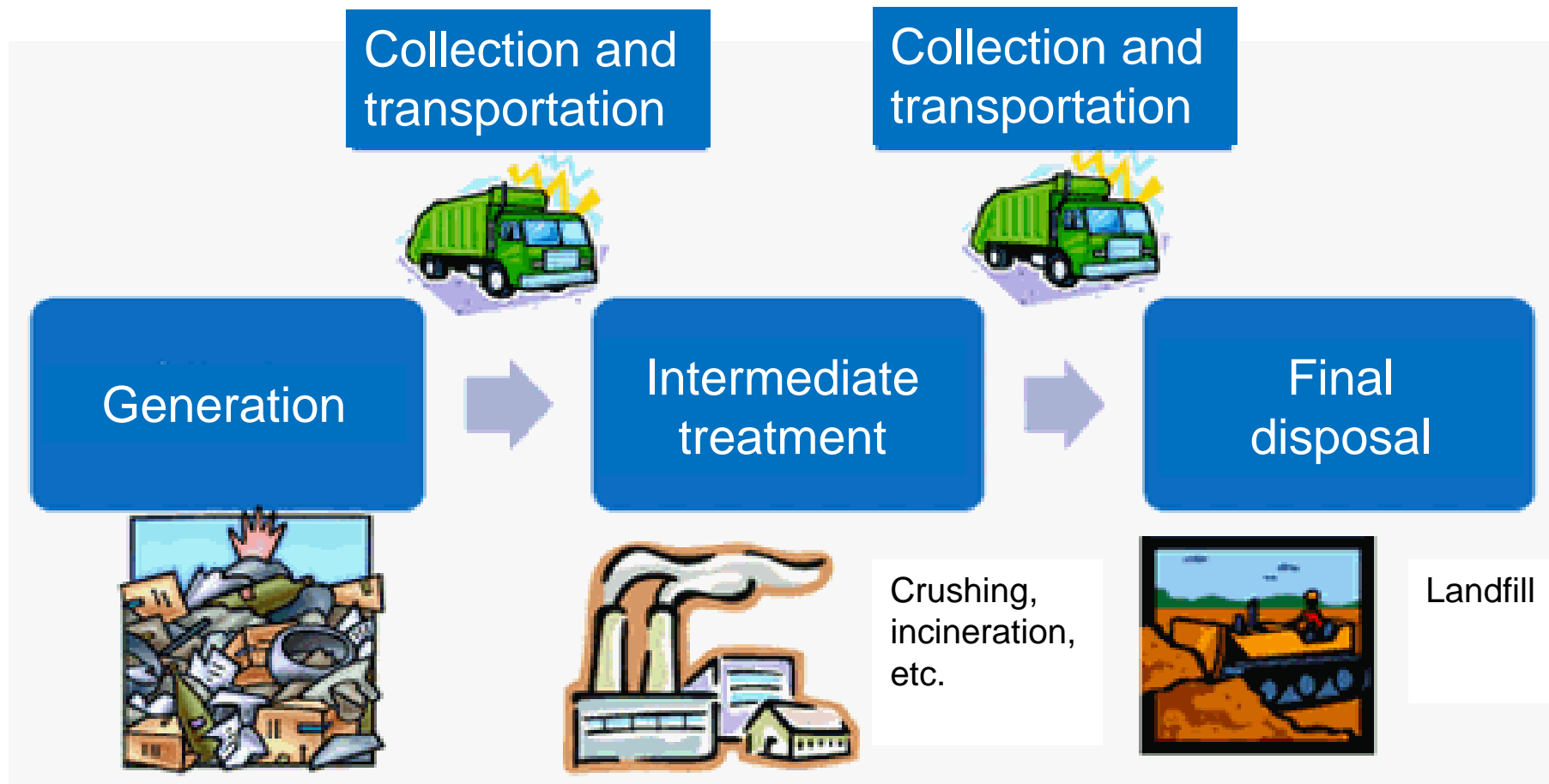
(1) Burnt materials, (2) sludge, (3) waste oil, (4) waste acid, (5) waste alkaline, (6) waste plastic, (7) waste paper (from construction, pulp and paper manufacturing, and the newspaper industry), (8) waste wood (from construction and wood/wood product manufacturing), (9) waste fiber (from construction and the textile industry), (10) animal and plant remains (from medicinal chemical manufacturing), (11) solid animal remains (from slaughterhouses), (12) waste rubber, (13) waste metal, (14) waste glass, waste concrete, and waste pottery, (15) slag, (16) rubble, (17) animal excrement, (18) animal carcasses (from animal husbandry), (19) soot dust, and (20) treated matter not corresponding to any of the above generated for the purposing of disposing of (1) to (19)

Outline of the Waste Management and Public Cleansing Act (*After the revision is enforced)

Classification	Waste Filthy or unwanted matter in solid or liquid form (excluding radioactive materials, etc.)		<u>Hazardous used equipment</u>	
	General waste Other waste than industrial waste (Garbage from households, etc.)	Industrial waste Burnt materials, sludge, waste oil, waste plastic and other waste from business activities	Hazardous ones among used and collected equipment	
National government's role	Establishment of basic policy and waste treatment facility development plan Setting of treatment standards, facility standards, and contract treatment standards Technological development, information collection Waste export check and import approval, etc.			
Major regulations related to waste treatment	Mayors of municipalities	Municipalities Responsible for treatment <ul style="list-style-type: none">Establishment of general waste management planMust treat general waste before conservation of living environments is impairedCompliance with treatment standardsCompliance with contract treatment standards	Prefectural governors and mayors of government-designated cities <ul style="list-style-type: none">Report collectionOn-site inspectionImprovement orderMeasure orderRecommendation related to manifest	
		General waste disposers <ul style="list-style-type: none">ApprovalReport collectionOn-site inspectionImprovement orderMeasure order <ul style="list-style-type: none">Compliance with treatment standardsProhibition of subcontracting		Waste-generating business operators Responsible for treatment <ul style="list-style-type: none">Must treat industrial waste by themselvesCompliance with storage standards and treatment standardsCompliance with contract treatment standardsDuty of issuing and keeping manifest
		General waste treatment facility operators <ul style="list-style-type: none">ApprovalReport collectionOn-site inspectionImprovement order <ul style="list-style-type: none">Compliance with maintenance standardsDuty of reserving maintenance funds		Industrial waste disposers <ul style="list-style-type: none">ApprovalReport collectionOn-site inspectionImprovement orderMeasure orderRecommendation related to manifest
	Prefectural governors and mayors of government-designated cities	Industrial waste treatment facility operators <ul style="list-style-type: none">ApprovalReport collectionOn-site inspectionImprovement orderRegular inspection	Hazardous used equipment storage etc. operators <ul style="list-style-type: none">Report collectionOn-site inspectionImprovement orderMeasure order <ul style="list-style-type: none">Notification dutyCompliance with storage standards, etc.	
		Special measures and certification	<ul style="list-style-type: none"><u>Recycling certification system</u> Minister of the Environment certifies operators who perform large-scale recycling. (Example) ・ Waste meat-and-bone meal is used as cement material.<u>Wide-area certification system</u> Minister of the Environment certifies operators who perform wide-area treatment contributing to waste reduction, etc. (Example) ・ Waste personal computer ・ Waste motorcycle ・ Waste fire extinguisher	
	Punishment		<ul style="list-style-type: none"><u>Detoxifying certification system</u> Minister of the Environment certifies operators who perform detoxifying treatment of asbestos and PCBs.<u>Thermal recovery facility installation operator certification system</u> Prefectural governors certify operators who install facilities having a function of thermal recovery (waste power generation and residual heat utilization).<u>Excellent operator certification system</u> Prefectural governors certify excellent industrial waste treatment operators.	
Illegal dumping, illegal incineration, and unauthorized operation Imprisonment for up to five years, a fine of up to 10 million yen, or both Violation of contracting standards and improvement orders Imprisonment for up to three years, a fine of up to 3 million yen, or both *Fine of up to 300 million yen in the case of corporations				

3. What is Waste Treatment?

Waste Treatment in Japan



Flow of Waste Treatment by Municipalities



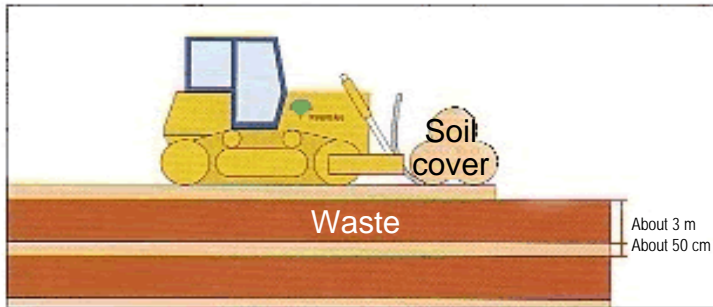
Collection and Transportation



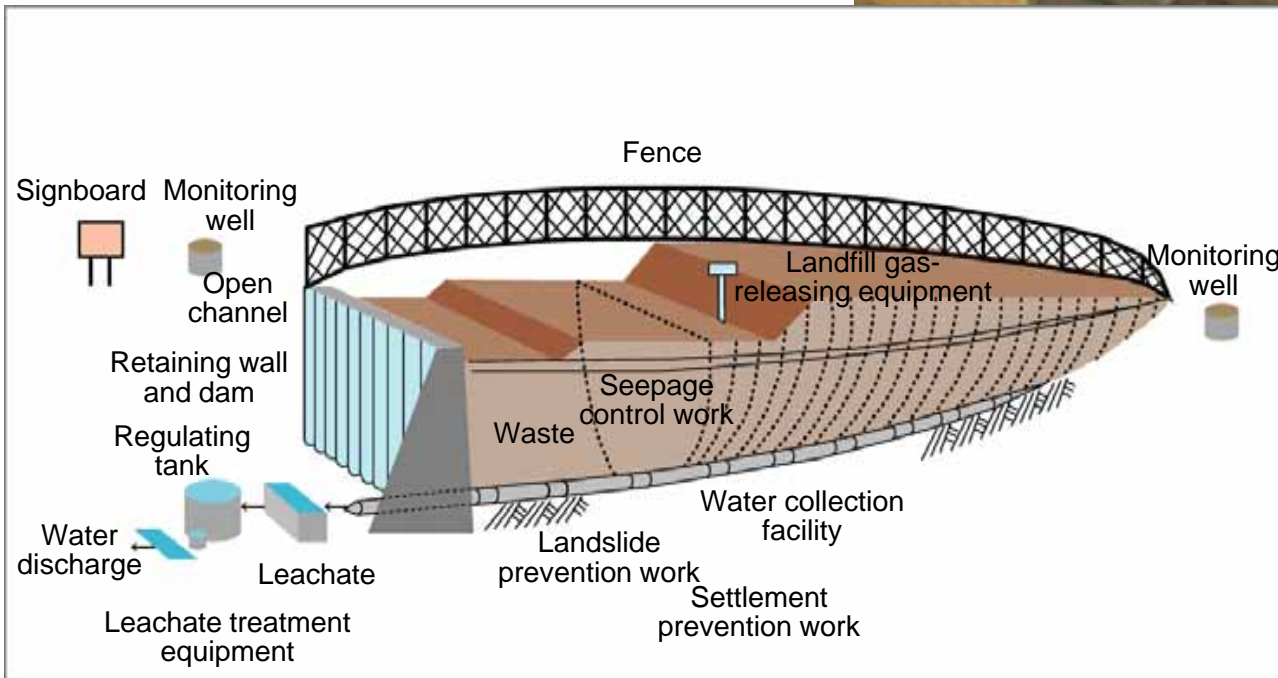
Intermediary Treatment (Incineration, etc.)



Final Disposal



Each layer of waste must be covered with soil.

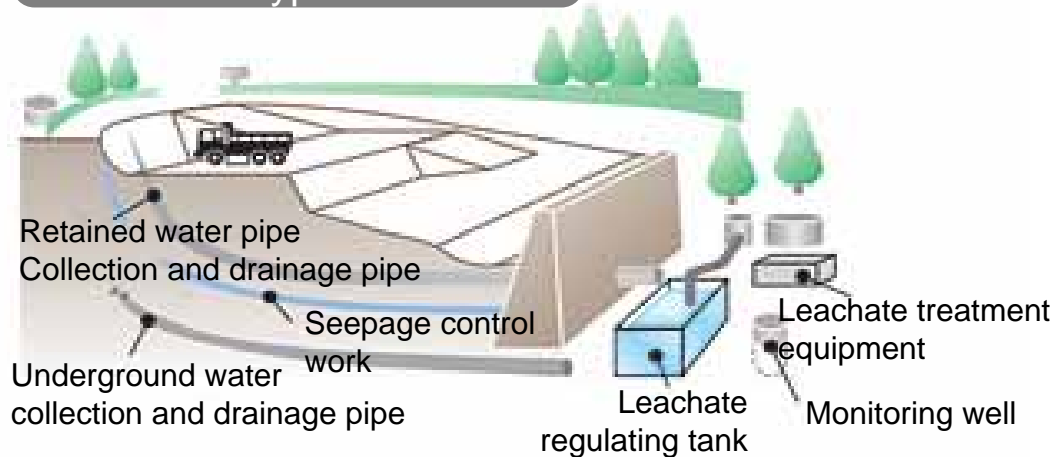


Inert-type sanitary landfill site



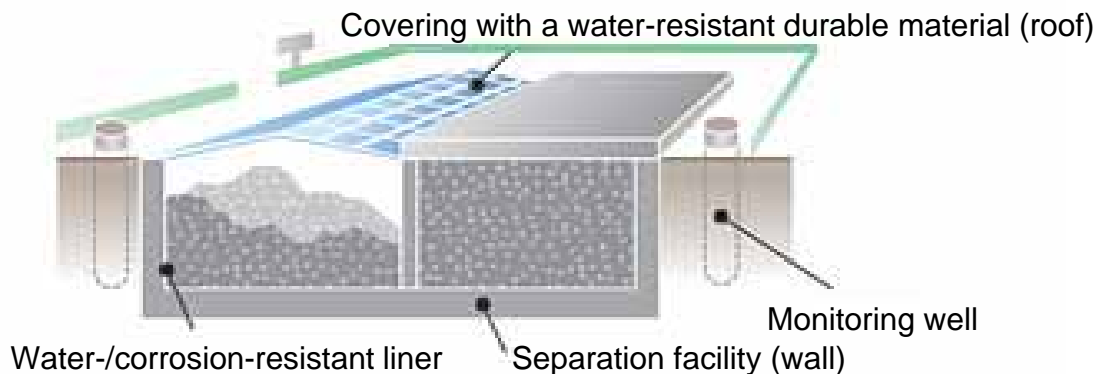
Waste plastic, waste rubber, waste metal, waste glass, and concrete debris (which are nonputrefactive and cause no elution of hazardous substances)

Controlled-type landfill site



Waste other than the above (waste wood, sludge, animal carcasses, burnt materials, etc.)

Isolated-type landfill site



Soot dust and sludge causing elution of hazardous substances

Example: Illegal Treatment at an Intermediary Treatment Facility



Fire Started from Inappropriately Treated Waste



Inappropriate Treatment of Waste Tires



Illegal Dumping Sites



Iron Scrap Including Air Conditioners and Washing Machines



Improper Treatment of Exported Waste Home Appliances



4. Present State of Waste Treatment and Recycling

Trends in Waste Generation Amounts

➤ **The generation amount of general waste is 439,800,000 tons, and the generation amount per person is 903 grams/person (FY 2015)**

○ The generation amount has been intermittently decreasing since fiscal year 2000, and is smoothly decreasing toward the target value (approximately 40 million tons) for fiscal year 2020 in the Waste Management and Public Cleansing Act Basic Policy, which was changed in January, 2016.

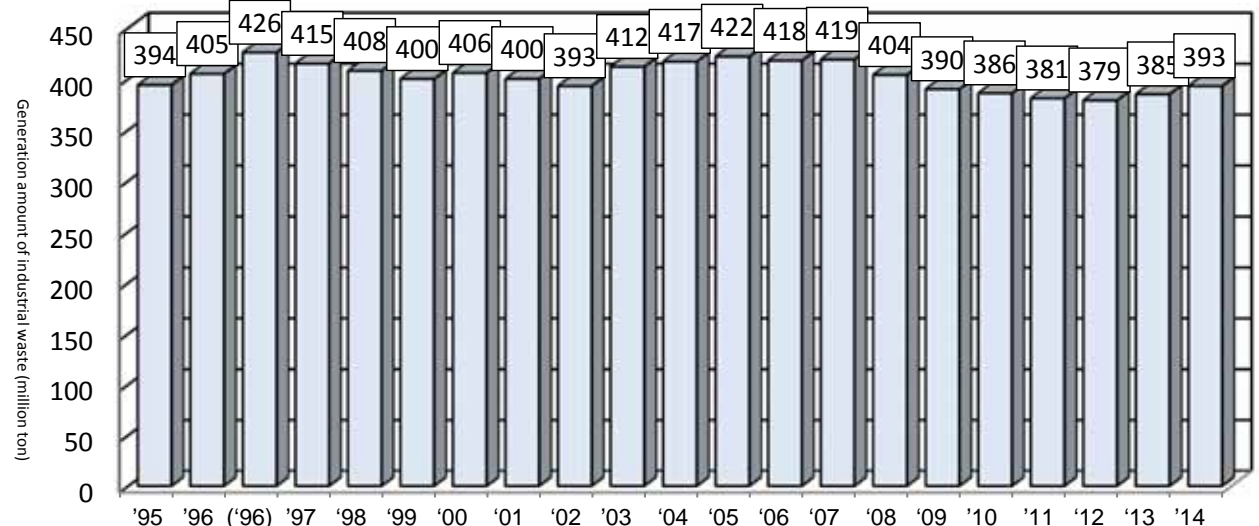
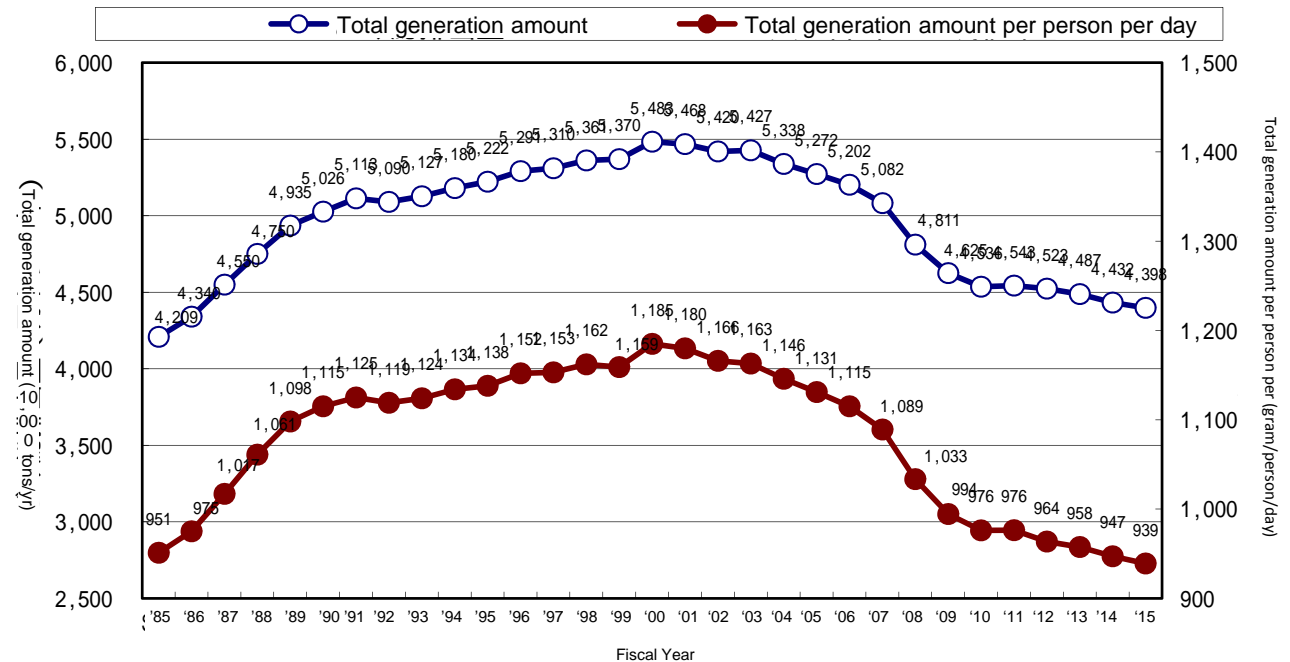
○ The generation amount per person has been intermittently decreasing since fiscal year 2000.

➤ **The amount of industrial waste generated is 393 million tons (FY2014)**

○ The generation amount has remained at around approximately 400 million tons since the collapse of the bubble economy, and no significant change can be seen.

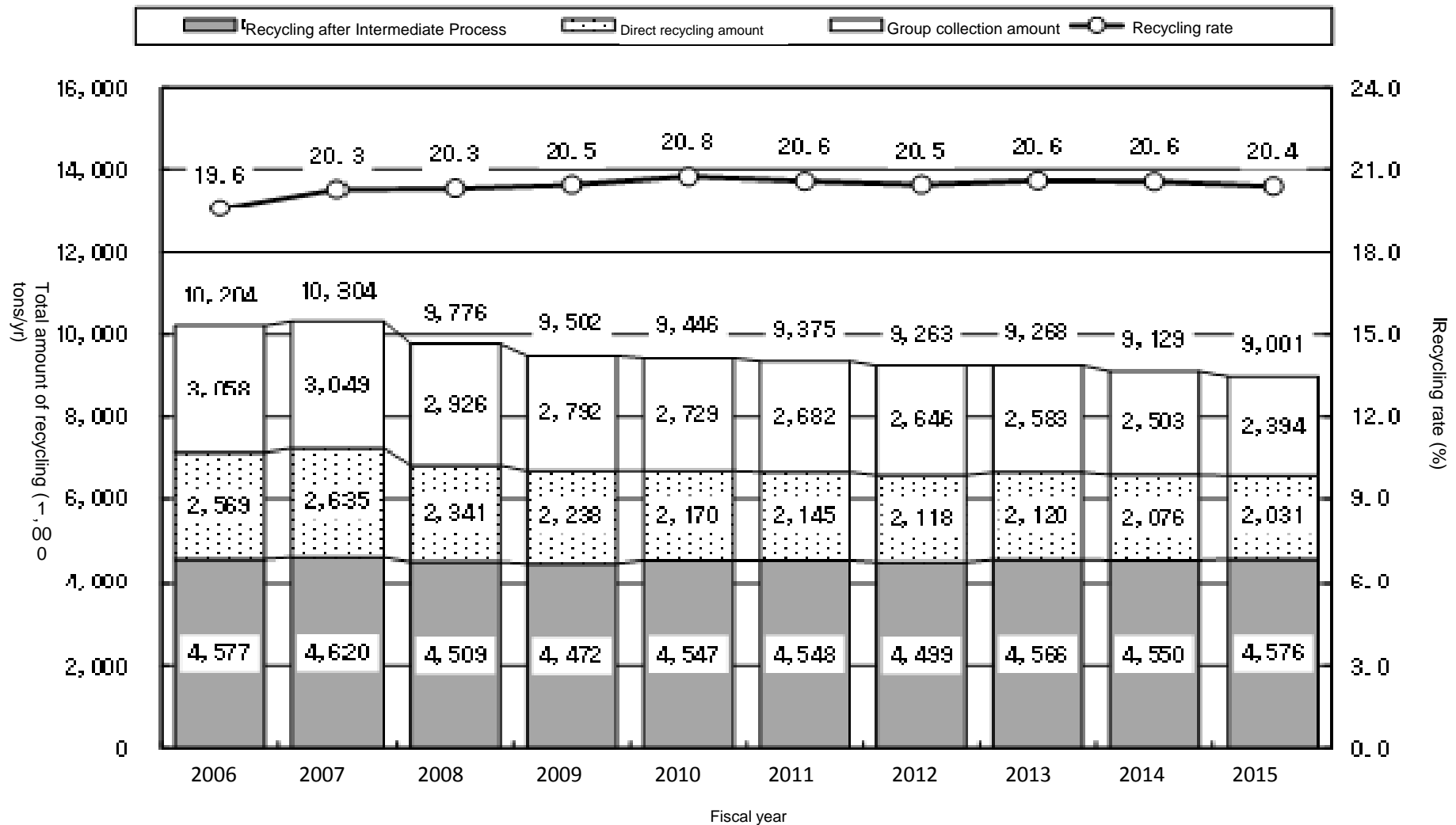
*1: Indicates the generation amount in fiscal year 1996 for "the target amount of waste reduction," regarding which the government set fiscal year 2010 as the target on the basis of the Dioxin Measures Basic Policy

*2: Amounts from 1997 have been calculated on the basis of the same conditions as for *1



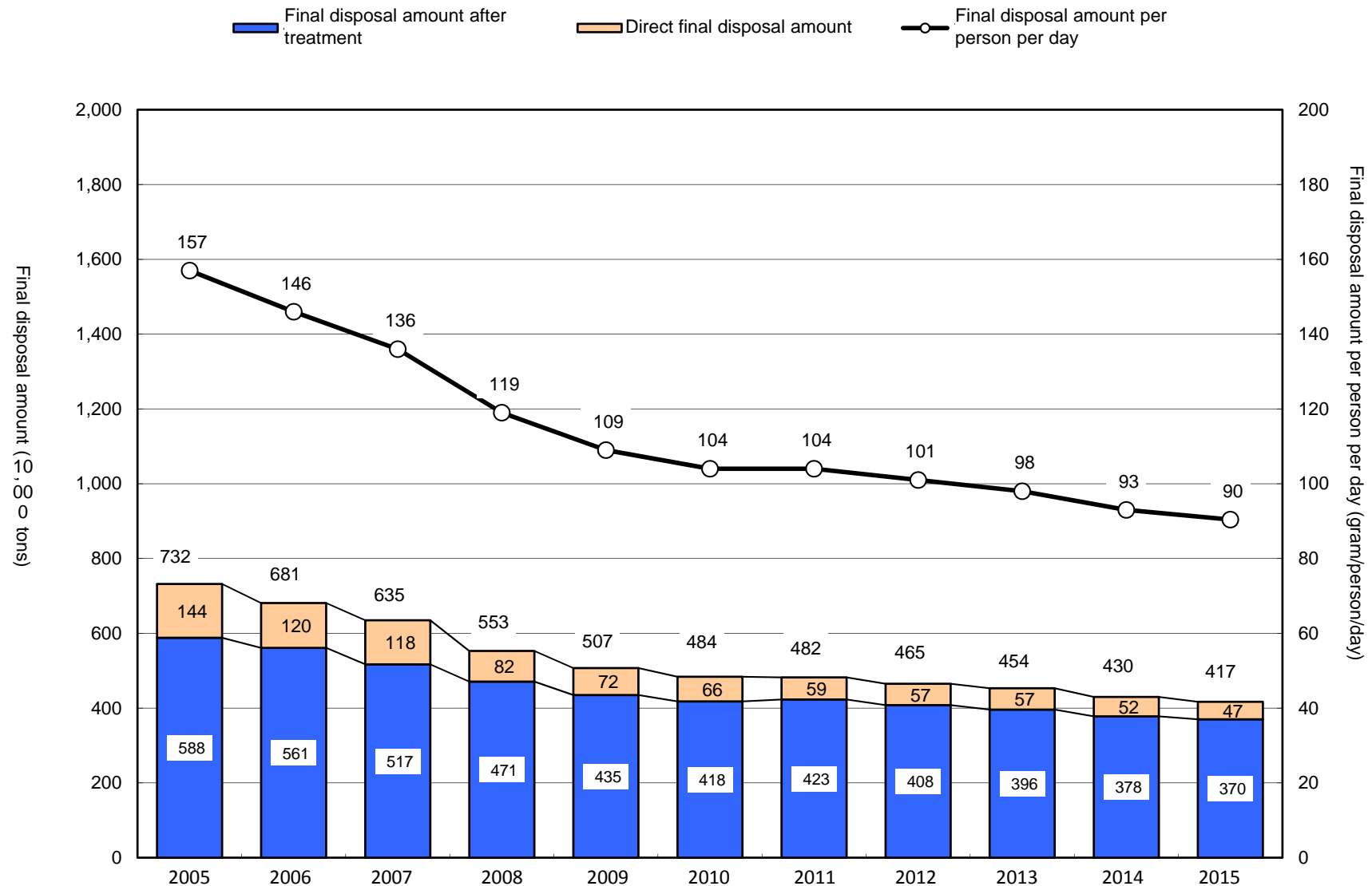
Waste Recycling Rate

- Promotion of the proper preparation of recycling facilities such as stockyards and recycling plazas
- Promotion of recycling containers and packaging made of plastics/paper on the basis of the Act on the Promotion of Sorted Collection and Recycling of Containers and Packaging
- Increase in recycling through garbage utilization and incinerated ash melting



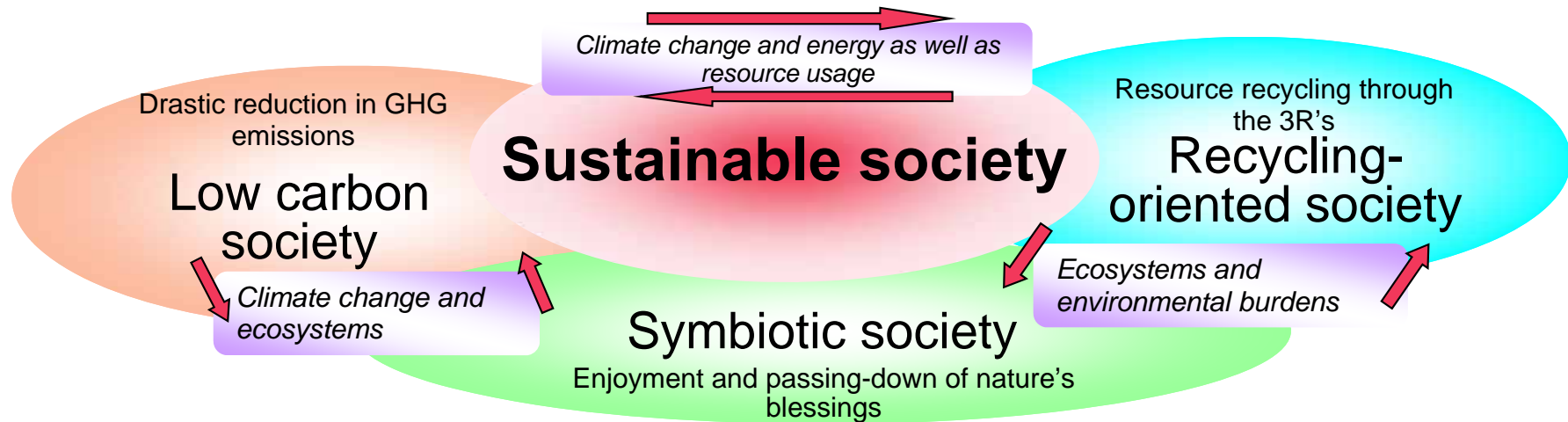
Trends in Final Disposal Amount

○ The final disposal amount has been on a decreasing trend since fiscal year 2000.



5. Efforts to Promote a Recycling-Oriented Society

Development of Comprehensive Efforts toward a Sustainable Society



Comprehensive efforts toward the development of a recycling-oriented, low carbon, and symbiotic society

Realization of a society that grows sustainably and develops while promoting co-existence with nature and achieving a healthy circulation of materials, including carbon, within a human society in harmony with nature and global circulation

○ Promotion of comprehensive efforts to achieve a recycling-oriented, low carbon society

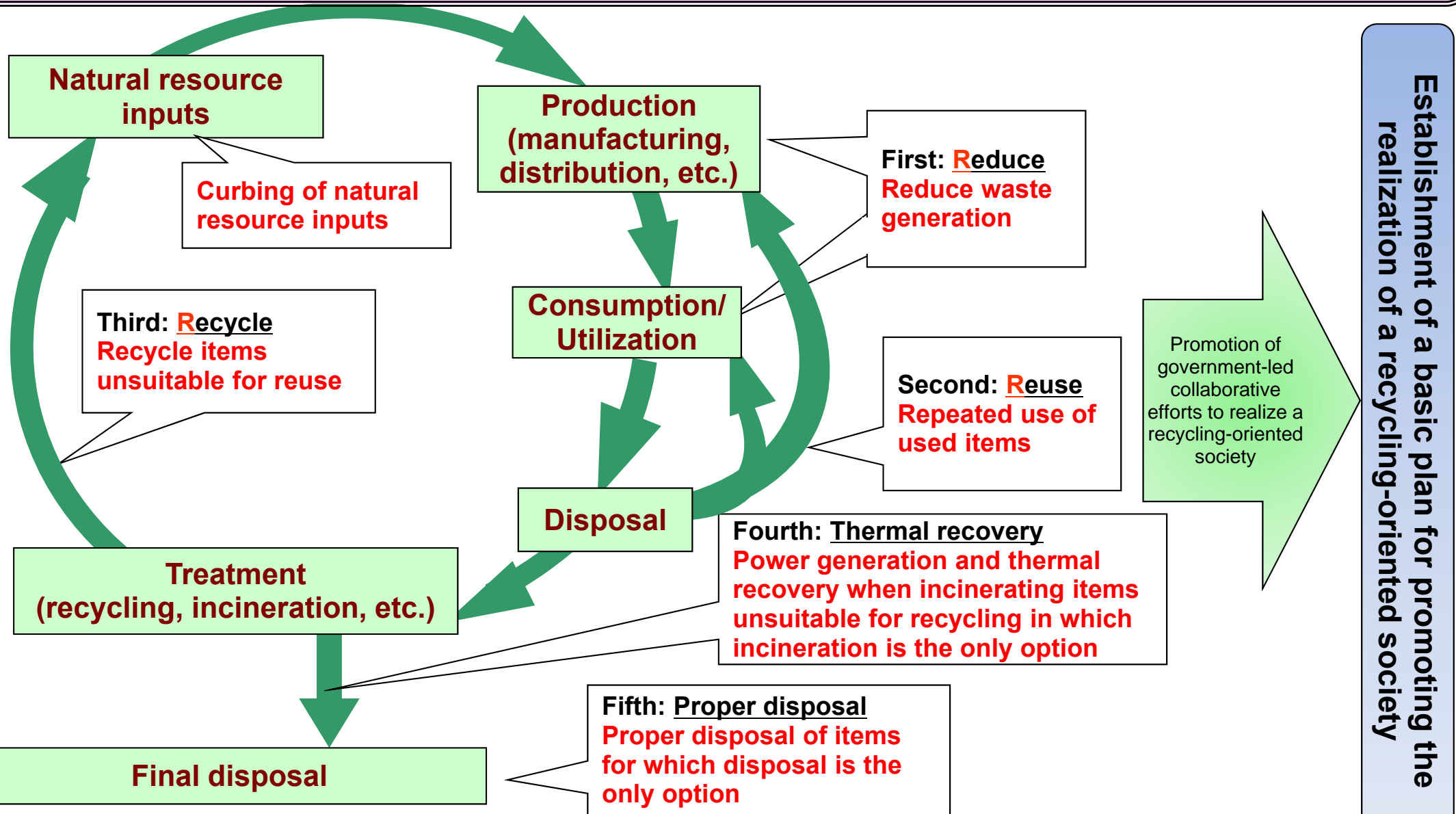
- ✓ Complete heat recovery through the introduction of waste power generation
- ✓ Deliberation of measures to achieve sustainable waste power generation and enhance commercial utilization of medium- and low-temperature heat generated from industrial processes
- ✓ Effective utilization of renewable biomass energy
- ✓ Establishment of a venous distribution system with reduced environmental burden

○ Promotion of comprehensive efforts to achieve a recycling-oriented, symbiotic society

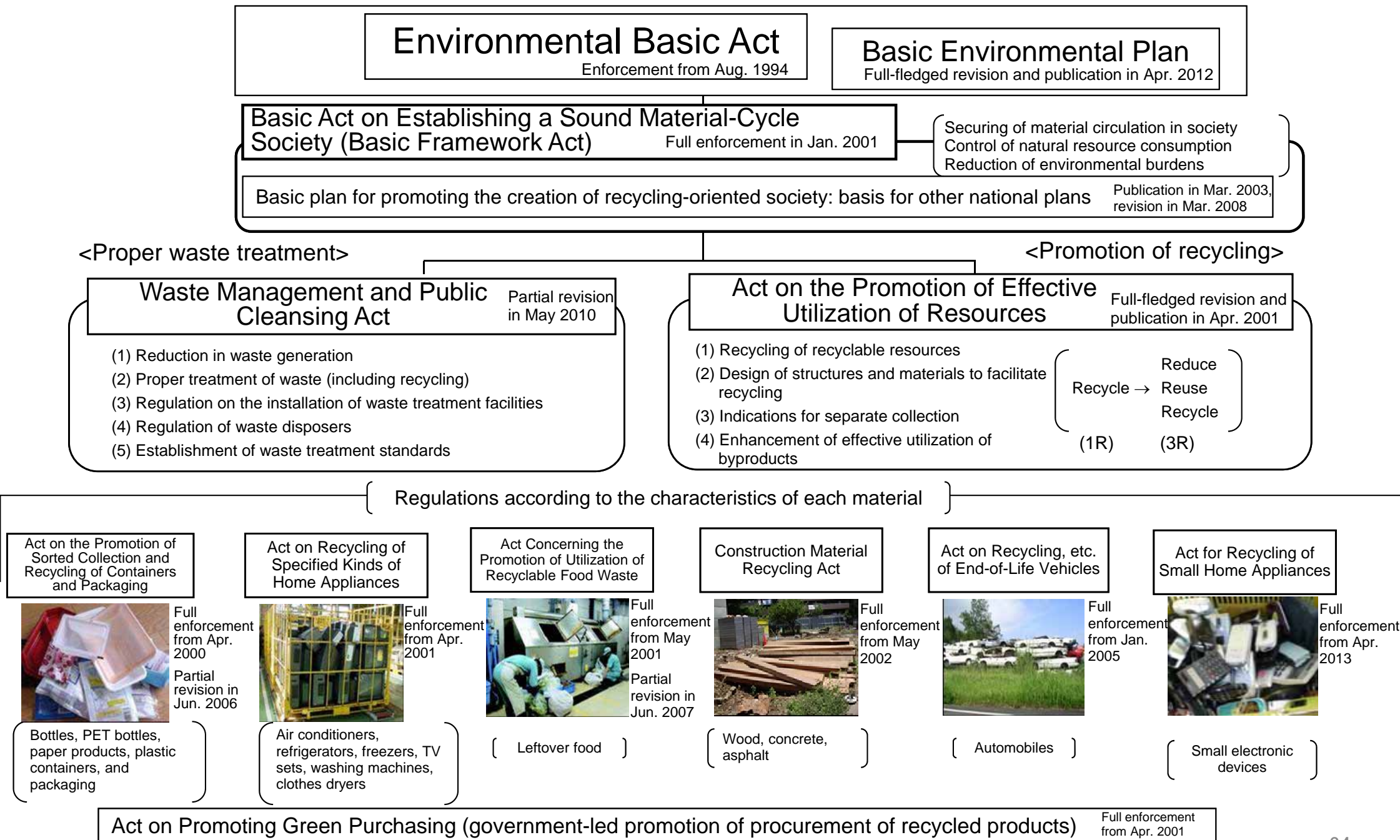
- ✓ Suppression of increased use of exhaustible resources
- ✓ Limiting of new natural resource extraction by fostering social momentum to use long-lasting housing
- ✓ Promotion of sustainable use of renewable resources taking into consideration biodiversity preservation
- ✓ Enhancement of environmentally friendly agriculture, forestry, and fisheries through reduced utilization of chemical fertilizers, etc.

Recycling-Oriented Society and the 3Rs

Realization of a society where environmental burdens are reduced as much as possible by discouraging consumption of natural resources through reduction of waste generation and proper recycling as well as waste disposal (Article 2 of the Basic Act on Establishing a Sound Material-Cycle Society [published in June 2000 and fully enforced from January 2001])



Legal Structure for Realizing a Recycling-Oriented Society



6. Treatment of Disaster Waste

Transportation of disaster waste to a temporary storing site



In use
(Photo taken on May 21, 2011)



After end of use
(Photo taken on March 15, 2013)



Before demolition
(Photo taken on May 30, 2012)



After demolition
(Photo taken on January 21, 2013)

Example of termination of use of a temporary storing site after completion of treatment:
Primary temporary storing site at Akasaki Elementary School of Ofunato City of Iwate Prefecture

Example of demolition of a public building: An elementary school in Ofunato City of Iwate Prefecture

Treatment of disaster waste in afflicted areas



Finely sorting disaster waste by hand
(Higashimatsushima City)



Temporary incinerator in Minamisanriku
treatment area in Miyagi Prefecture
(Full-scale operation started in December 2012)



Temporary incineration in Miyako City of
Iwate Prefecture
(Full-scale operation started in March 2012)

Overview of Revision of the Waste Management and Public Cleansing Act and Disaster Countermeasures Basic Act (Enforced on August 6, 2015)

Act No. 58 of
2015

On the basis of the lessons learned and knowledge gained from recent disasters such as the Great East Japan Earthquake, laws were developed in order to implement and strengthen continuous disaster measures from preparedness in normal times to response in the event of the occurrence of a large-scale disaster, in order to dispose of waste generated as a result of a disaster smoothly and quickly, having ensured proper treatment and recycling.

Partial Revision of the Waste Management and Cleansing Act

Development of relevant regulations for the strengthening of preparedness in normal times

(Related to Clause 3, Article 2, Clause 2, Article 4, Clause 2, Article 5 and Clause 5, Article 5 of the Waste Management and Cleansing Act)

In order to strengthen preparedness in normal times:

- Clarify the basic principles pertaining to the treatment of waste generated as a result of a disaster
- Clarify the responsibilities regarding coordination/cooperation between the parties concerned, such as the national government, local government and business operators
- Carry out expansion, etc. of the provisions in the basic policies stipulated by the government and the basic plans stipulated by prefectures, etc.

Development of special measures pertaining to the new establishment and use of waste treatment facilities in the event of disaster

(Related to Item 2, Clause 3, Article 9, Item 3, Clause 3, Article 9 and Item 5, Clause 2, Article 15 of the Waste Management and Cleansing Act)

In order to quickly establish temporary treatment facilities and make flexible use of existing treatment facilities in the event of a disaster:

- Simplify the procedures for the establishment of general waste treatment facilities established by municipalities or persons who have been contracted by municipalities to dispose of waste generated as a result of a disaster
- Notification when disposing of general waste of a similar nature in industrial waste treatment facilities may be made post-hoc.

Partial Revision of the Disaster Countermeasures Basic Act

Establishment of guidelines regarding the treatment of waste generated from a large-scale disaster

(Related to Paragraph 2, Clause 5, Article 86 of the Disaster Countermeasures Basic Act)

In order to strengthen the measures for large-scale disasters, the Minister of the Environment shall stipulate guidelines on the basic direction, etc. regarding the treatment of waste generated as a result of disasters designated by government ordinance.

Development of measures for treatment with the Minister of the Environment acting as agent, in preparation for a large-scale disaster

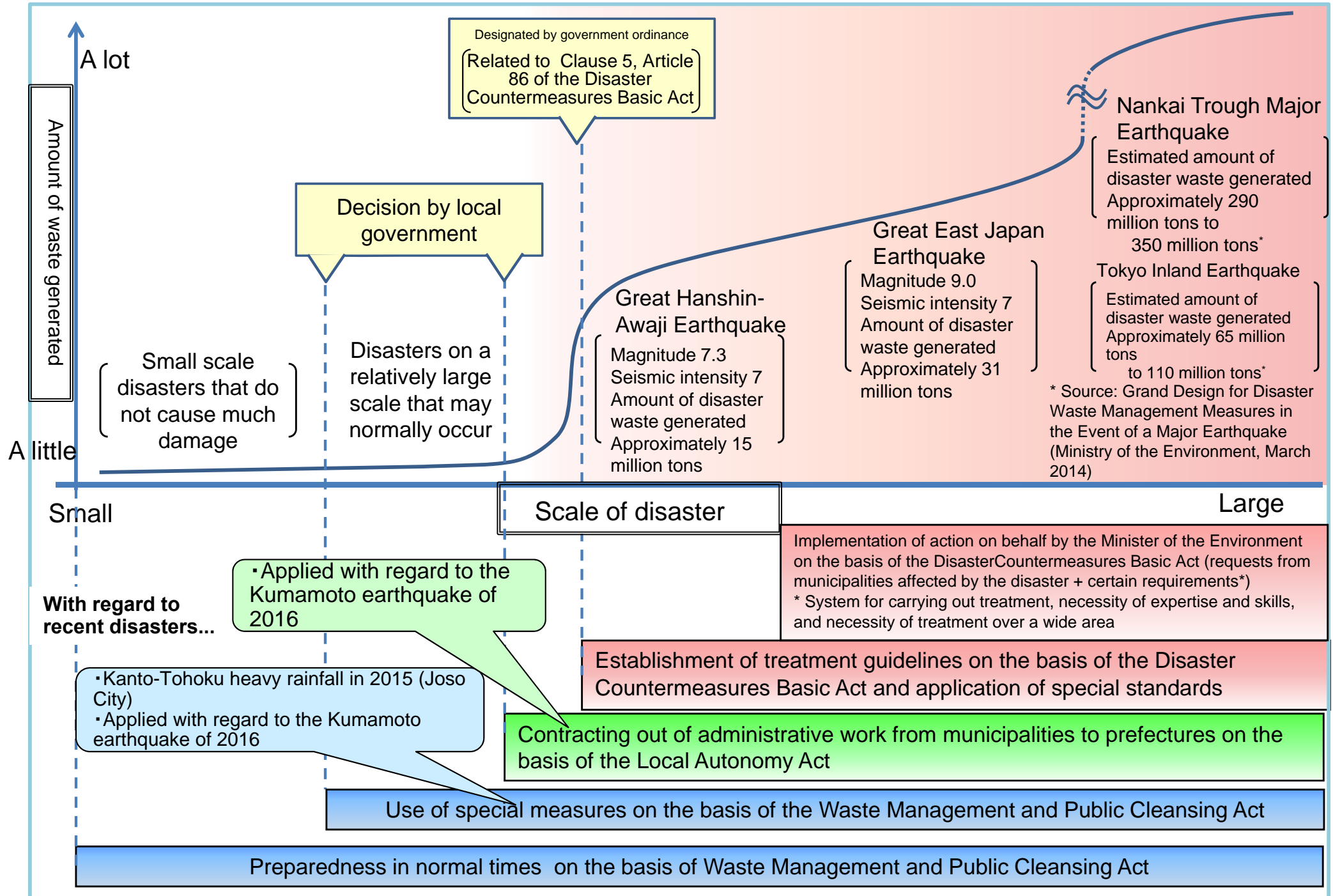
(Related to Paragraph 9 to Paragraph 13, Clause 5, Article 86 of the Disaster Countermeasures Basic Act)

After the occurrence of a specified large-scale disaster, in addition to the existing special measures through which the treatment standards, etc. can be relaxed in certain regions and for certain periods, on behalf of municipalities for which it will be difficult to carry out smooth and quick treatment even in accordance even with the relaxed standards, the Minister of the Environment may carry out treatment on the basis of requests from them.

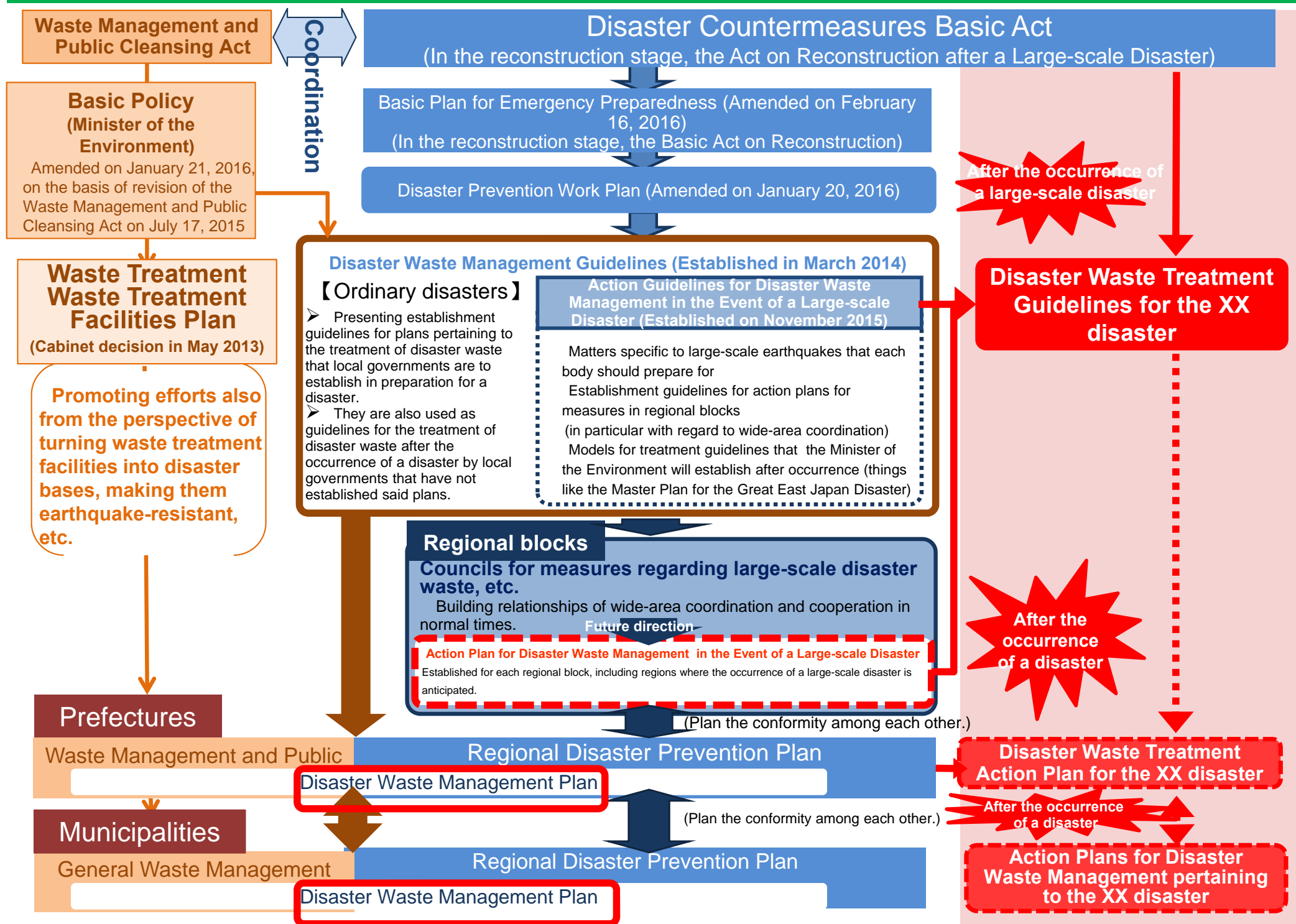
【Revision of Government Ordinance on the Waste Management and Public Cleansing Act (Government Ordinance No. 275 of 2015)】

- Revision of standards for contracting (standards for re-contracting) in cases where persons who have been contracted to collect, convey, dispose of or recycle general waste by municipalities in the event of an emergency or disaster carry out collection, conveyance, disposal or recycling on contract

Ways of thinking with regard to the scale of disasters and the measures to apply, in relation to disaster waste measures



Relationship Diagram for Plans/Guidelines, etc. Pertaining to Waste Measures in the Event of a Disaster



Thank you for listening.