

Mainstreaming 3Rs towards achieving a sound material cycle society

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History for Japan's Legislative Framework for a Sound Material-Cycle Society

Era	Situations	Establishment of Law
Post WWII ~ 1950s	<ul style="list-style-type: none"> Waste Management for good environmental hygienic Keep the environment hygienic and comfortable 	<ul style="list-style-type: none"> Public Cleansing Law(1954)
1960s ~ 1970s	<ul style="list-style-type: none"> Clear increase of industrial waste etc. and "Environmental Pollution" with the high Economic Growth Waste management for environmental protection 	<ul style="list-style-type: none"> Basic Law for Environmental Pollution Control (1967) Waste Management Law (1970) Amended Waste Management Law (1976)
1980s	<ul style="list-style-type: none"> Promotion of the development of facilities for waste management Environmental Protection on Waste Management 	<ul style="list-style-type: none"> Law for Bay Area Marine and Environment Consolidation Centers(1981) Septic Tank Law (1983)
1990s	<ul style="list-style-type: none"> Reduce/Recycle of Waste Establishment of Recycling Laws Measures against hazardous materials (inc. Dioxins) Appropriate waste management depends on the diversity of the types/properties of wastes 	<ul style="list-style-type: none"> Amended Waste Management Law(1991) Law to Promote the Development of Specified Facilities for the Disposal of Industrial Waste (1992) Fundamental Environmental Law (1993) Container and Packaging Recycling Law(1995) Amended Waste Management Law(1997) Home Appliances Recycling Law(1998) Law Concerning Special Measures against Dioxins(1999)
2000 ~	<ul style="list-style-type: none"> Promotion of 3R towards the establishment of a Sound Material-Cycle Society strengthen the measures for industrial waste management Strengthen measures against illegal dumping 	<ul style="list-style-type: none"> Fundamental Law for Establishing a Sound Material-Cycle Society(2000) Construction/Food Waste Recycling Laws(2000) Amended Waste Management Law(2000) Law Concerning Special Measures Against PCB Waste (2001) End-of-life Vehicles Recycling Law(2000) Law on Special Measures Concerning Removal of Environmental Problems Caused by Specified Industrial Wastes(2003) Amended Waste Management Law(2003-2006)

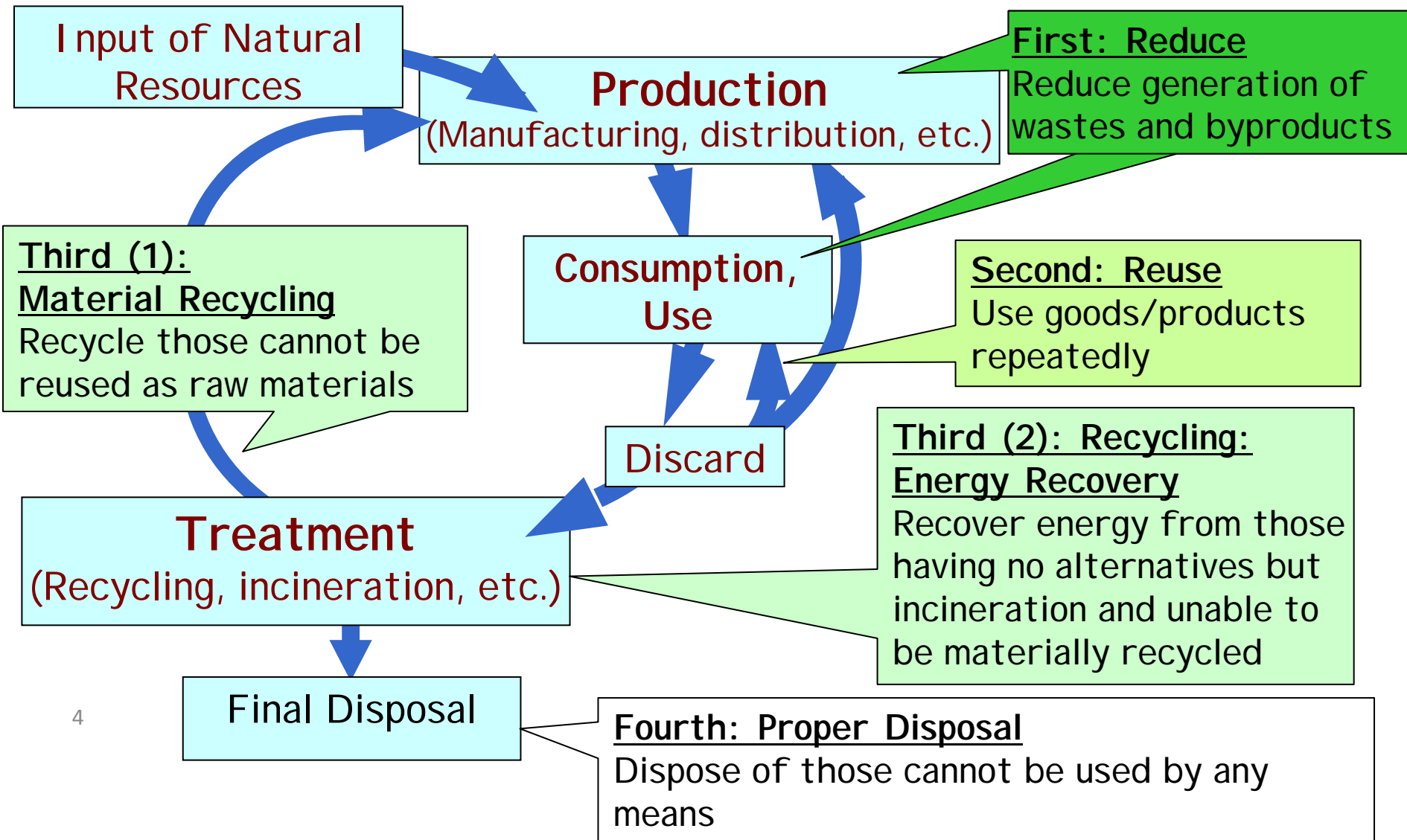


Concept of a Sound Material-Cycle Society

- Japan is undertaking the transition to a Sound Material-Cycle Society.

A sound material-cycle society, in which the consumption of natural resources is minimized and the environmental load is reduced as much as possible by promoting Reduce, Reuse, Recycle, energy recovery and appropriate disposal.

Concept of a Sound Material-Cycle Society in Japan



Legislative Framework to Establish a Sound Material-Cycle Society

Fundamental Environmental Law

1994 . 8

Fundamental Law for Establishing a Sound Material-Cycle Society
(Fundamental Plan for Establishing a Sound Material Cycle Society)

2001 . 1

2003, 2008

(Establishment of General Systems)

Waste Management and
Public Cleansing Law

Law for Promotion of Effective
Utilization of Resources

(Regulations according to the Characteristics of Respective Items)

Container and
Packaging
Recycling Law

2000 . 4

[Glass containers,
PET bottles, Paper
and plastic
containers and
wrapping and
others]

Home
Appliances
Recycling Law

2001 . 4

[Air conditioner,
refrigerator and freezer,
TV, washing machine and
machine clothes dryer]

Construction
Materials
Recycling Law

2002 . 5

[Waste wood,
concrete, asphalt]

Food
Wastes
Recycling
Law

2001 . 5

[Food waste]

End-of-life
Vehicles
Recycling Law

2005 . 1

[Automobiles]

Law on Promoting Green Purchasing

Material Flow Indicators (1)

Material Flow Indicators and numerical targets are set in the “Fundamental Plan for Establishing a Sound Material-Cycle Society”

March 2008

Indicators and targets

【 1 Material flow–based indicators 】 Numerical target setting (FY 2015)

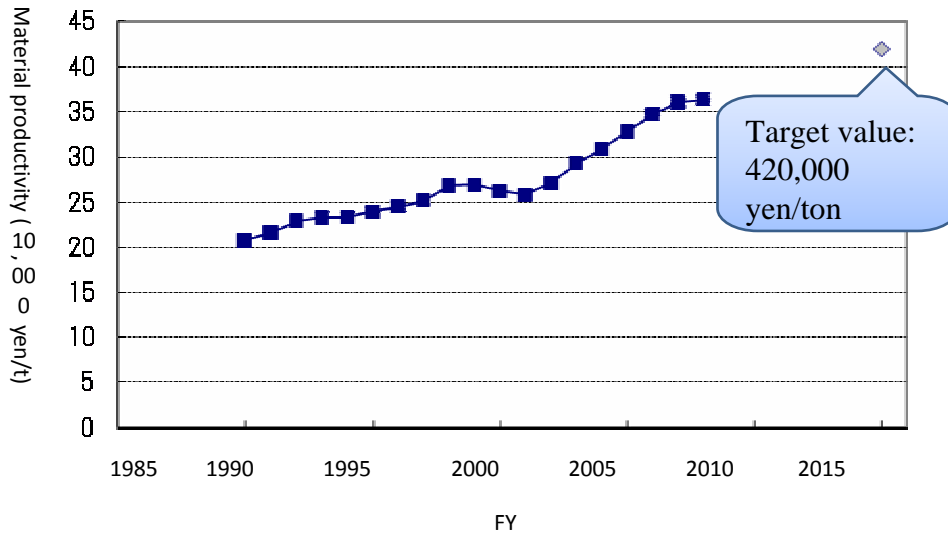
1. Input: Resource productivity → 420 thousand yen/ton (60% increase from FY 2000)
2. Circulation: Cyclical use rate → 14-15% (40-50% increase from FY 2000)
3. Output: Final disposal amount → 23 million tons (60% reduction from FY 2000)

【 2 Other Indices related to effort 】 Numerical target setting(FY 2015)

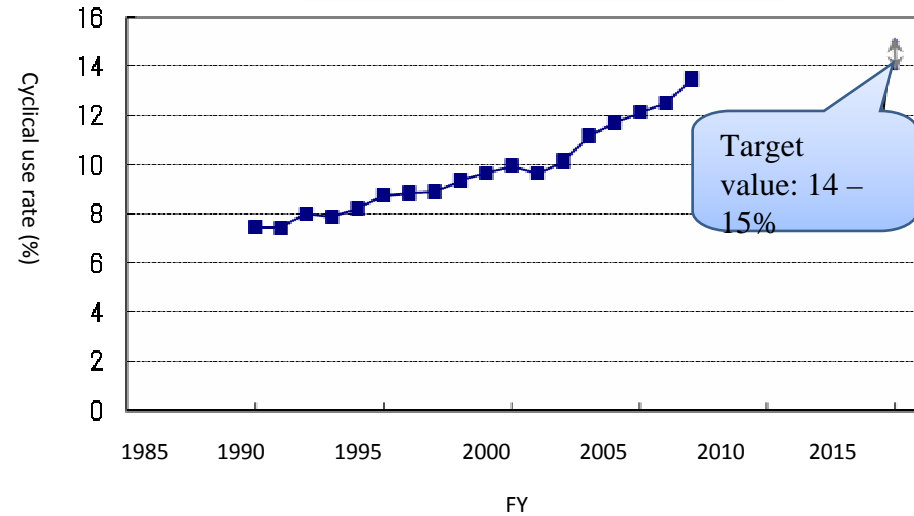
- 1.Reduction of municipal solid waste
- 2.Reduction of final disposal of industrial waste
→ 60% reduction from FY 2000
- 3.Changes in awareness and actions of citizens
→ Awareness: 90%, Actions: 50%
4. Promotion of Sound Material Cycle Businesses
→ Double the market for Sound Material-Cycle businesses from FY 2000

Material Flow Indicators

Inlet: resource productivity



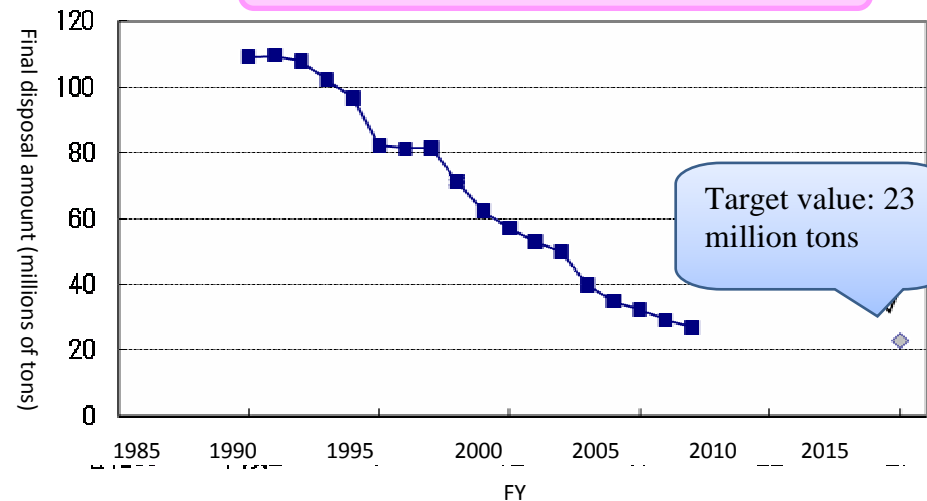
Cycle: cyclical use rate



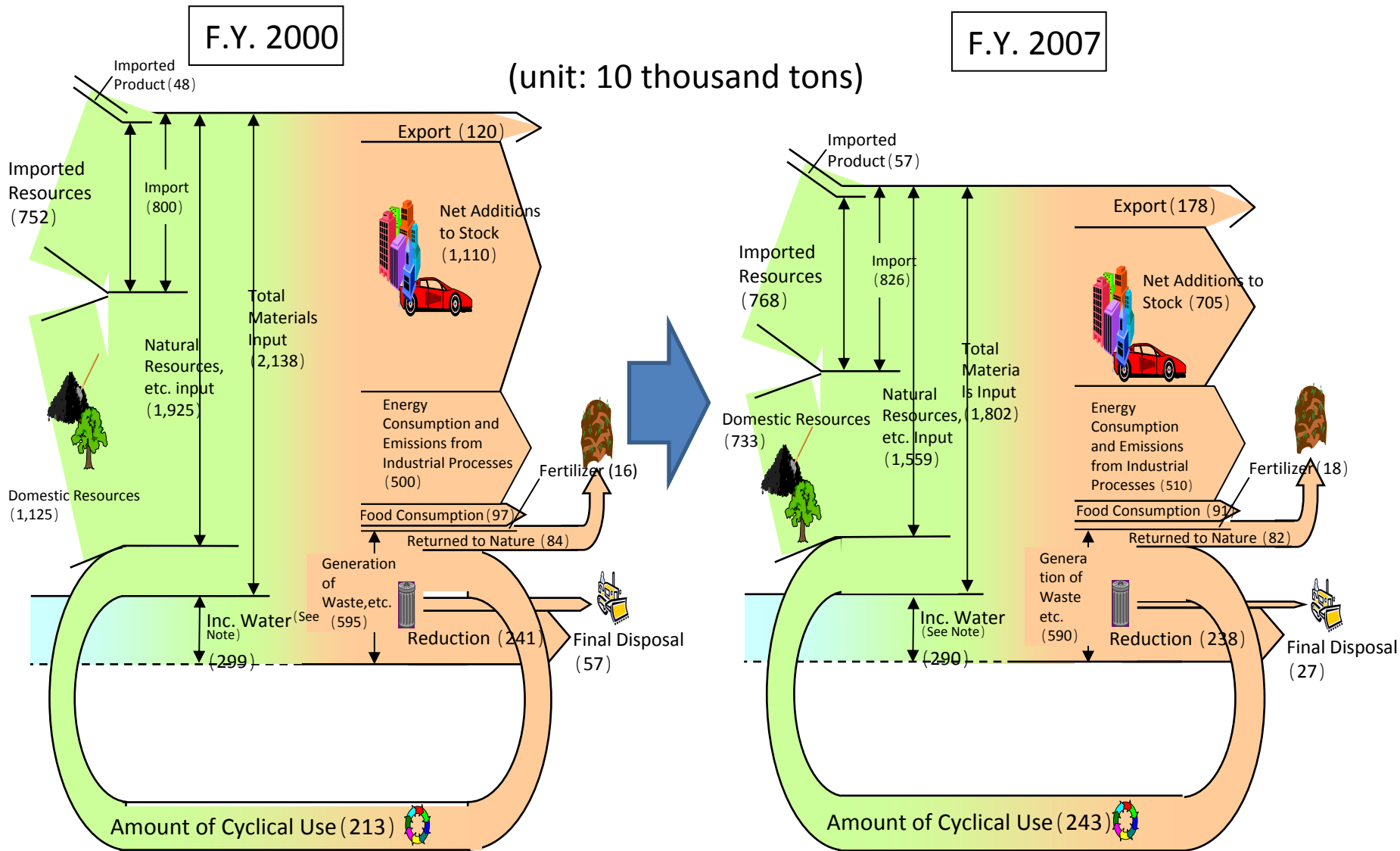
Favorable progress toward the index targets

		FY 2015 (target year)	FY 2000	FY 2006	FY 2007	Compared with FY 2000
Resource productivity	10,000 yen/t	42	26.3	34.7	36.1	+37%
Cyclical use ratio	%	14 - 15	10.0	12.5	13.5	+3.5%
Final disposal amount	Municipal solid waste (millions of tons)	-	11	7	6	-40%
	Industrial waste (millions of tons)	-	45	22	21	-54%
	Total (millions of tons)	23	57	29	27	-53%

Outlet: final disposal amount



Change of Material Flows in Japan



(Note) Including water: Input of water included in waste and the like (sludge, animal manure, human waste, waste acid, and waste alkali) and sediment and the like associated with economic activities (sludge from mining, building and water works and tailing from mining))

Market size of 3R business in Japan

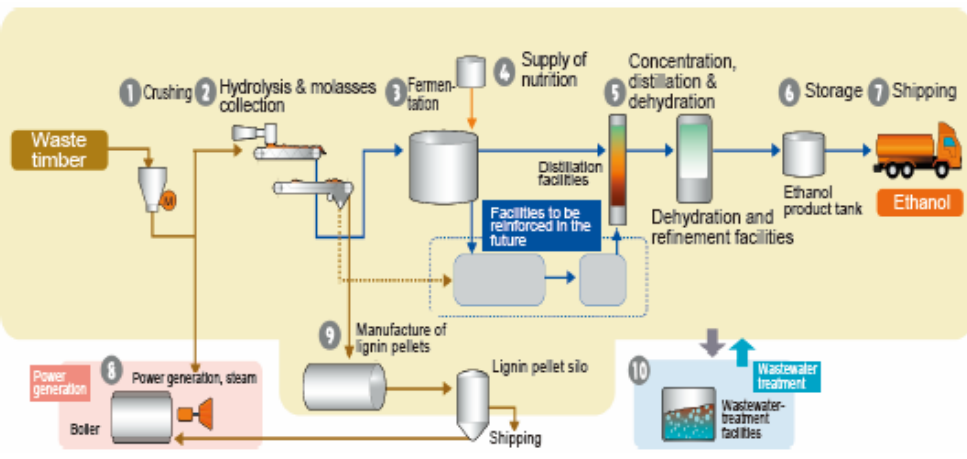
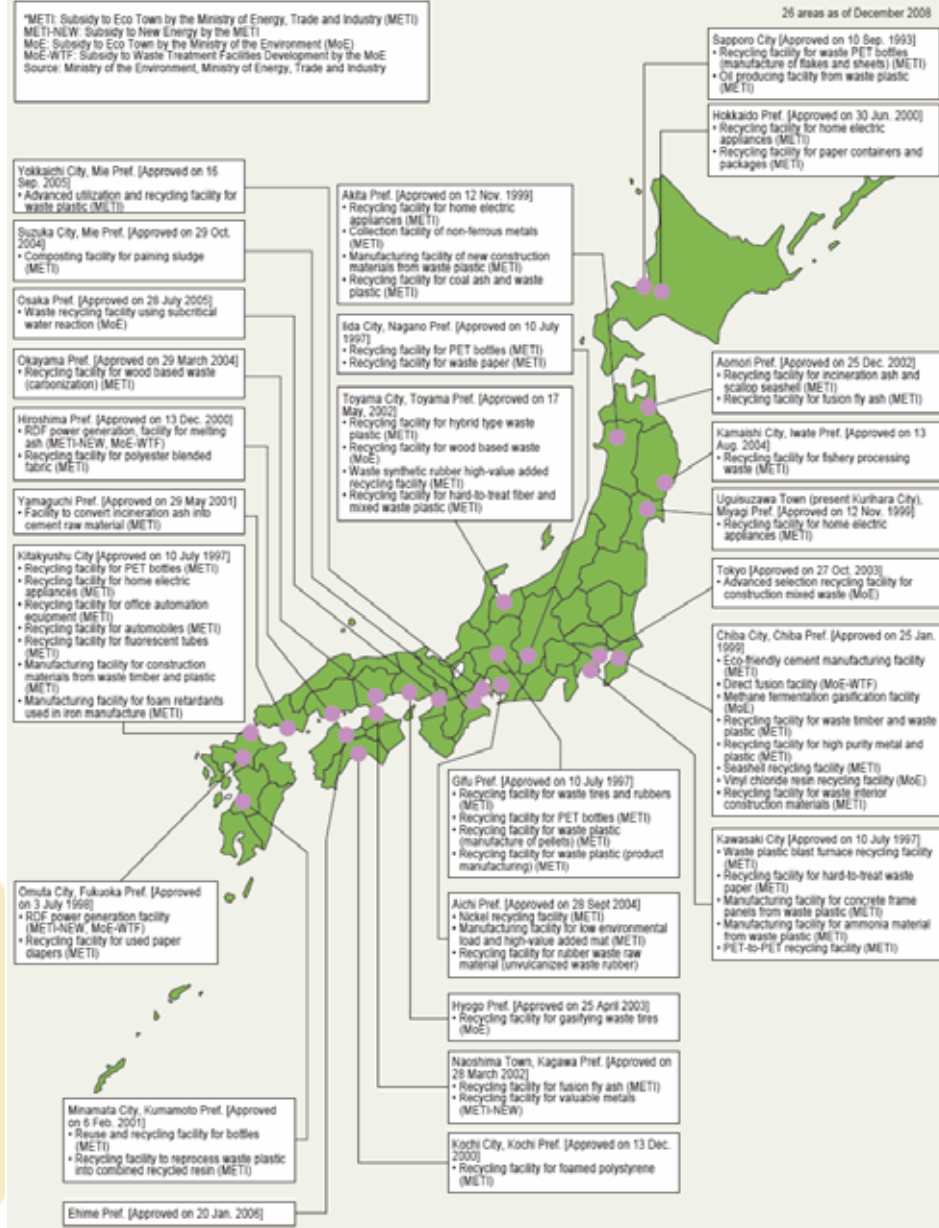
	Business examples	Market (trillion yen)		Employment (thousand people)	
		2000	2007	2000	2007
Supply of machinery, equipment and plants	<ul style="list-style-type: none"> • Intermediate treatment plants • Melting equipment • Oil manufacturing facilities from plastics • Composting equipment • Construction of final disposal sites 	0.8	0.5	2	8
Supply of services	<ul style="list-style-type: none"> • Waste treatment • Resource recovery • Recycling 	2.8	3.0	195	130
Supply of materials, consumer goods	<ul style="list-style-type: none"> • Reclaimed oil from plastics • PET-recycled fiber • Products made of timber from forest-thinning • Recycled products (e.g. scrap metals, recycled paper) • Refillable products • Repairs of machinery, furniture 	26	34.6	332	512
Total of 3R business		29.6	38.1	529	650
Total of all eco-business		41	69	1,060	1,300

Source: Survey on Market Size of Environmental Business in Japan By MOEJ

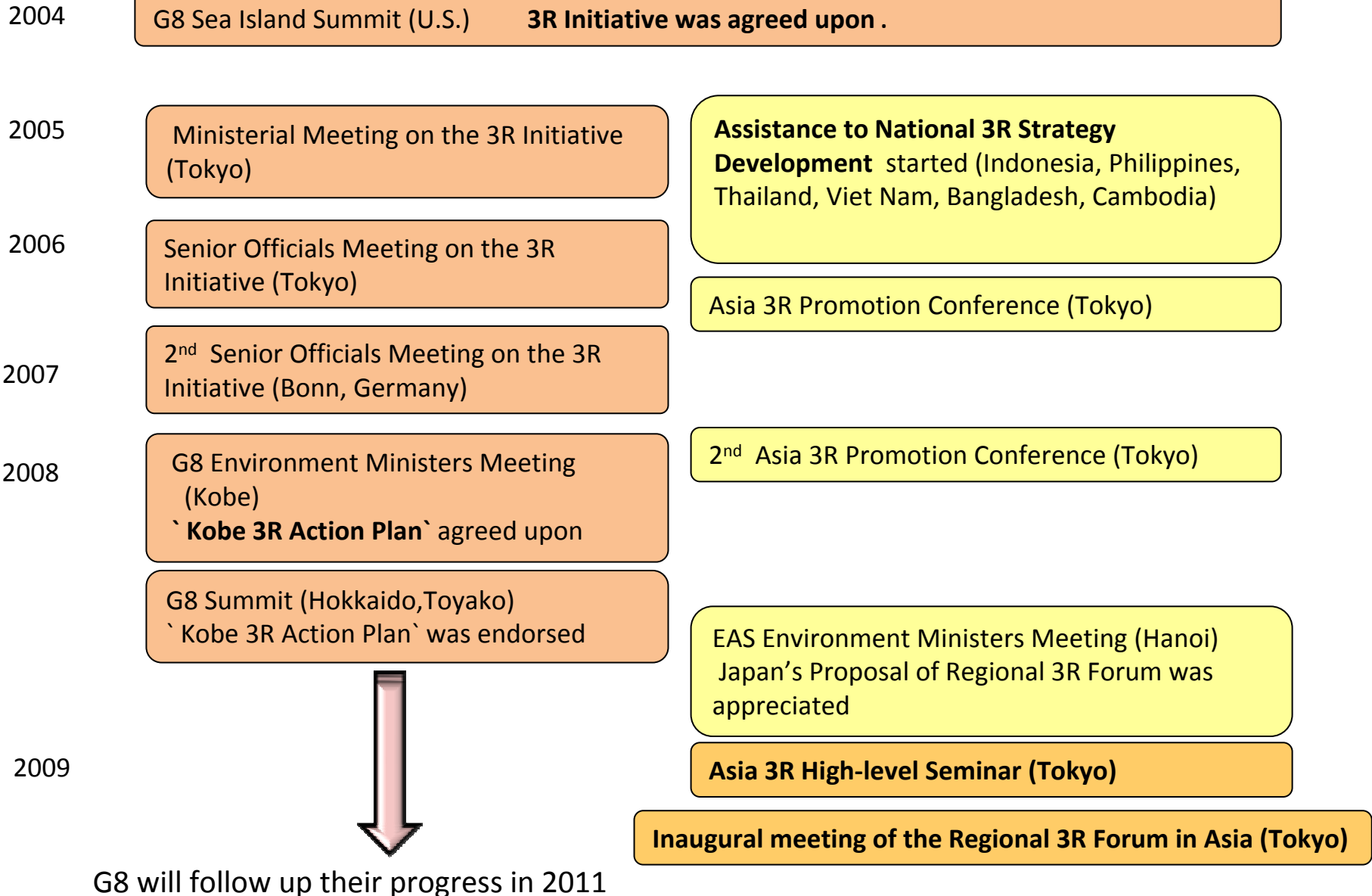
Eco Town

Eco Town:

- an eco-investment program in major industrial estates in which recycling business are operated for implementation of sectoral recycling laws and regulations.
- Central government provides subsidies to private sectors for construction of recycling plants.



Japan's Initiative for 3Rs



Promotion of the 3Rs in Asia

Establish a Sound Material Cycle Society in Asian region as a Win-Win solution

Policy Dialogues in Asia

Regional 3R Forum in Asia

Supporting national 3R strategies development in Asian countries

Collaborate with UNCRD and UNEP in some Asian countries

Regional Forum on Environment and Health

Thematic Working Group on Solid and Hazardous Waste

Development of Information and Knowledge Hub and Research Networks

- Support establishing 3R Knowledge Hub
- Support Society of Solid Waste Management Experts in Asia-Pacific Islands

UNEP International Panel on Sustainable Resource Management

MOEJ support the activities of the panel by providing a fund.

Prevention of illegal export and import

- Asian network for the prevention of illegal export and import of hazardous wastes
- Formulating international guidelines to ensure appropriate export and import

E-waste measures

- Implemented regional action plans for e-waste appropriate management in Asia and Pacific.
- Constructing appropriate used goods recycling systems in Asia.

UNEP, ESCAP, UNCRD, Basel Convention, ADB, IGES, APN

International Consultative Meeting on Expanding Waste Management Services in Developing Countries

1. Meeting in March, 2010

Organizer :

Ministry of the Environment, Government of Japan
United Nations Department of Economic and Social Affairs
(UNDESA)
United Nations Centre for Regional Development (UNCRD)

Date and Place: March 18-19, 2010, Tokyo, Japan

Participants: Representatives of stakeholders on waste management and 3R from all over the world

Result: Chair's summary. It is reported to CSD-18

2. Next Meeting

Ministry of the Environment of Japan, in collaboration with UNDESA and UNCRD, will convene a next meeting in early 2011 that would provide input to the policy discussion on waste management theme at CSD-19.

Date: 17-19 January, 2011

Place: Tokyo, Japan

Support “Venous Industries” to Advance Their Business Utilizing 3R and Waste Management Technologies into overseas

- The policy is to support so-called “venous industries” that are going to advance their business utilizing 3R and waste management technologies into overseas, particularly Asian countries.
- The policy was announced in “Green Economic Growth Vision” created by the Ministry of the Environment in April 2010.
- We are now requesting a new budget to implement this policy to the Ministry of Finance for fiscal year 2011.
- This policy aims to implement concrete 3R and proper waste management projects in the Asian region by conducting feasibility studies.

Expectation from Regional 3R Forum in Asia

- More people in each country are to know via the participants of the forum that 3Rs contribute to bringing about multi-benefit, that is, waste reduction, environmental protection, along with increase in resource and energy efficiency.
- Good practices of policies, technologies, know-how to facilitate 3Rs should be shared.
- Cooperation among various stakeholders such as citizens, private sector, municipalities, research institutes will be facilitated and that planning and implementation of 3R policies and projects will be promoted.