

Marine litter and management

- Japanese experience and best practices



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State of Marine Litter in Japanese Coasts



Marine litter washed up on the shore



Marine plastic debris from other countries

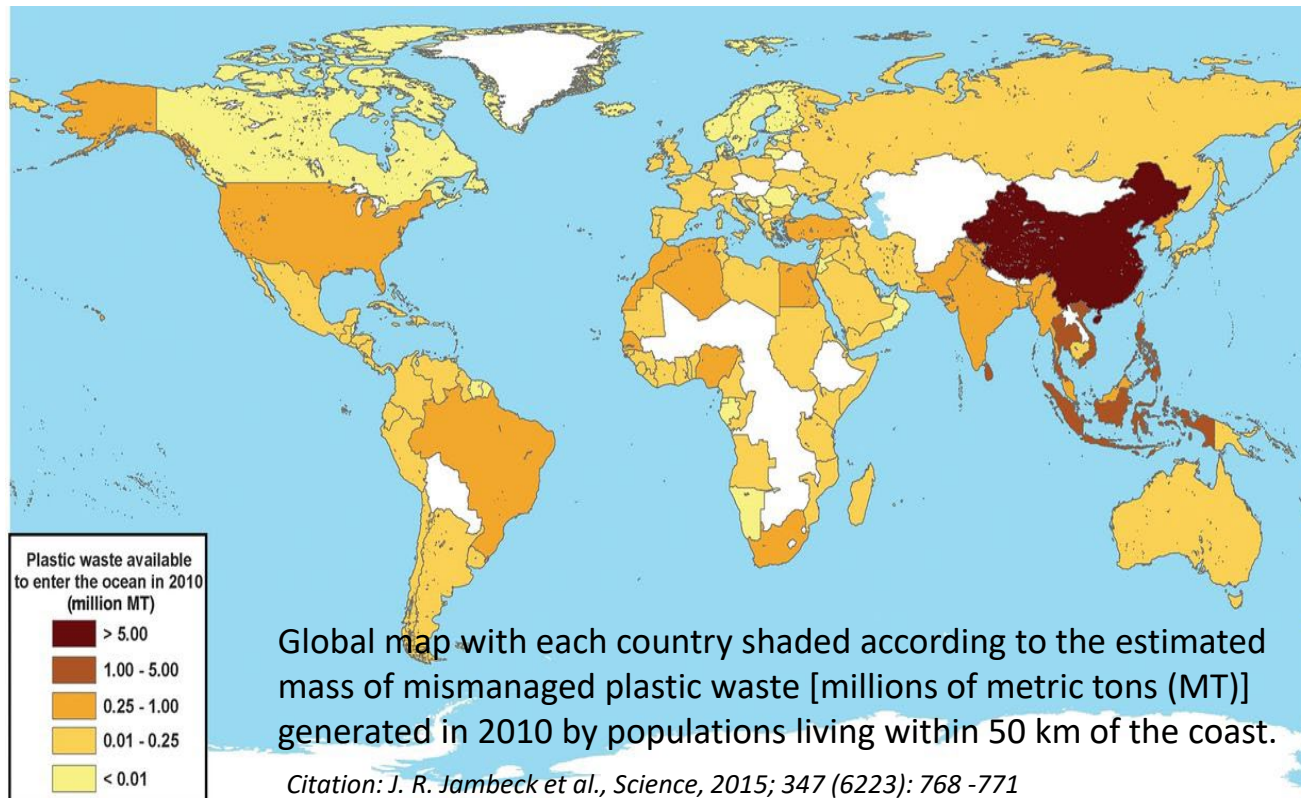


Micro plastics collected offshore



Current of the oceans near Japan

Plastic Waste Inputs from Land into the Ocean



Whole world
12.7 MMT/y

Asia is indicated
as an important
contributor to
marine litter.

⌘ Max of estimated values

- ❑ Higher-ranked countries are those of Asia, where fast economic growth is probably occurring but **waste management infrastructure is lacking**.
- ❑ At the Davos (World Economic Forum) meeting, it was reported that there would be more plastic than fish in the world's oceans by 2050.
- ❑ **It is necessary to improve waste management systems on land for reducing marine litter.**

Reference to Marine Litter in APEC meetings

2016 APEC Leaders' Declaration

*We recognize **the lack of effective solid waste management infrastructure** imposes **great socio-economic and environmental costs**, and we encourage further work on this topic.*

2016 APEC Ministers' Meeting Joint Statement

*Recognizing the health and environmental concerns created by the large and rapidly increasing amount of plastic litter in the ocean from **land-based sources** and an **insufficient waste management system** which is not attracting the attention of investors, **we endorse the Policy and Practice Recommendations of the APEC High-Level Meeting on Overcoming Barriers to Financing Waste management Systems** to Prevent Marine Litter in the Asia Pacific Region.*



Overcoming Barriers to Financing Waste Management Systems and Reducing Marine Litter: APEC Policy and Practice Recommendations

#1 SET AMBITIOUS ATTAINABLE TARGETS: Set ambitious yet attainable waste management targets at the economy-wide and municipal levels in consultation with affected stakeholders, consistent with the Sustainable Development Goals (SDGs) and, as appropriate, The Paris Agreement on Climate Change, and encourage regions or provinces to develop detailed action plans to reach agreed targets.

#4 STREAMLINE DECISION-MAKING: Concentrate the majority of municipal solid waste responsibilities within a single government entity or independent department or agency, while clearly defining the waste-related roles and responsibilities of remaining institutions.

#5 INCREASE FUNDING AND IMPROVE OUTCOMES BY FINANCING ALL PHASES OF INTEGRATED WASTE MANAGEMENT SYSTEMS: Increase financial support from national governments and encourage other stakeholders including the domestic and international financial community and other private sector actors to invest in local waste management.



Reference to Marine Litter in G7 Meetings

❑ G7 Ise-Shima Summit (May 2016)

Leaders' Declaration

“ We reaffirm our commitment to address marine litter, recognizing that *our efforts on resource efficiency and the 3Rs also contribute to the prevention and reduction of marine litter, particularly plastic, from land-based sources.* ”



G7 Ise-Shima Summit

❑ G7 Toyama Environment Ministers' Meeting (May 2016)

Priority measures to implement G7 Action Plan to Combat Marine Litter

1. **Promotion of environmentally sound waste management**
2. Promotion of reducing marine litter and removal actions of plastic litters before it degrades into micro plastics
3. Promotion of international collaboration working with appropriate organizations (UNEP, IMO, FAO, etc.)
4. Promotion of outreach and education activities
5. Actions towards standardizing and harmonizing monitoring methodologies



G7 Toyama
Environment Ministers' Meeting

Japanese Experience on Waste Management

- ✓ We are collecting basically all the wastes. With the quantitative targets, we **legally prioritize the measures** in the following orders; reduction, reuse, recycling, energy recovery, and proper disposal (landfilling).
- ✓ We have developed our policy mix that clarifies **the roles shared by the stakeholders. Central governments financially and technically support local governments** to build waste management facilities.
- ✓ **Waste-to-Energy and incineration are important** for Japan, which has limited space for landfilling, to reduce the volume of landfilled wastes as well as GHG, and total costs of the system.



Three Phases of Japanese Waste Management History

Sanitation problem

Garbage and human waste were disposed of by ocean/land dumping, providing a breeding ground for mosquitos and flies



Public Cleansing Law (1954)

establishing frameworks for dealing with waste in municipalities, which are the major entity involved in such work.



Environmental pollution

- Increasing waste generation during the period of rapid economic growth
- Industrial waste by business entities
- Necessity of incinerating and securing landfill sites



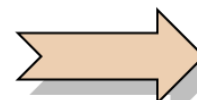
Waste Management Law (1971)

Establishment of disposal standards for industrial waste



Environmental and natural resource problems

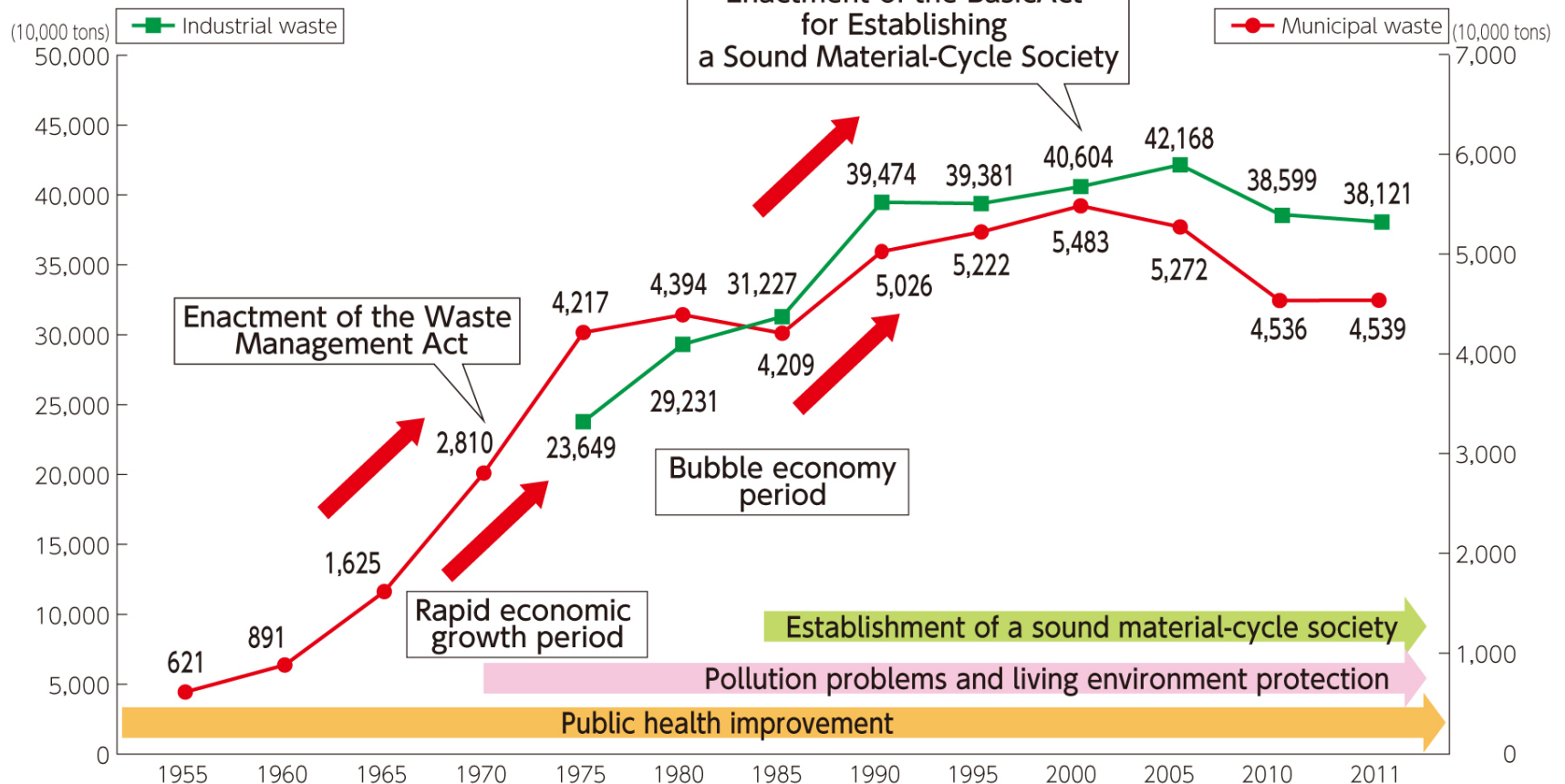
- environmental concerns
- proper waste treatment
- appropriate resource circulation



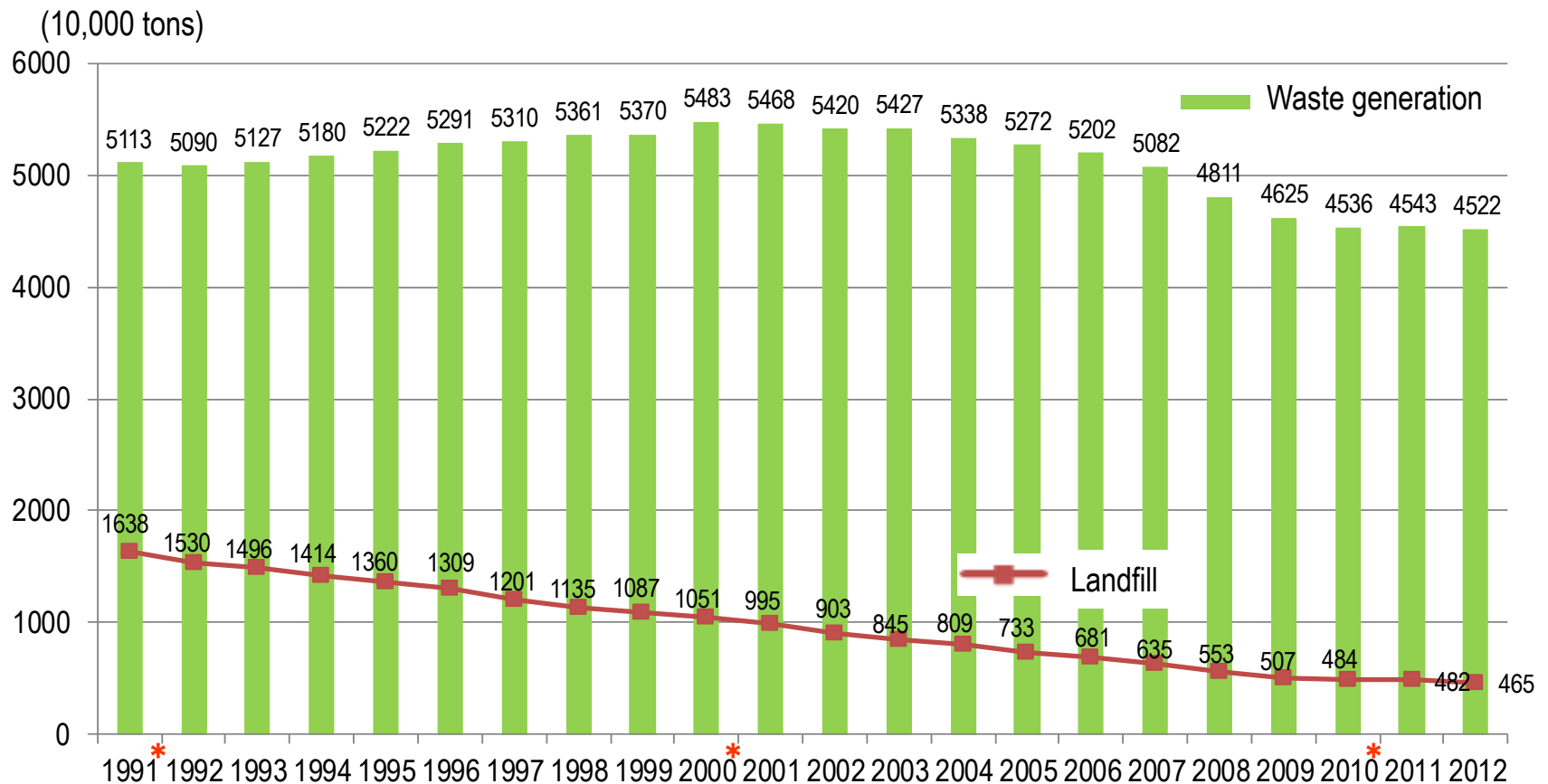
individual recycling acts (1995~)
Basic Act for Establishing a SMC Society (2001)

Trends of Wastes

Total amounts of waste generated

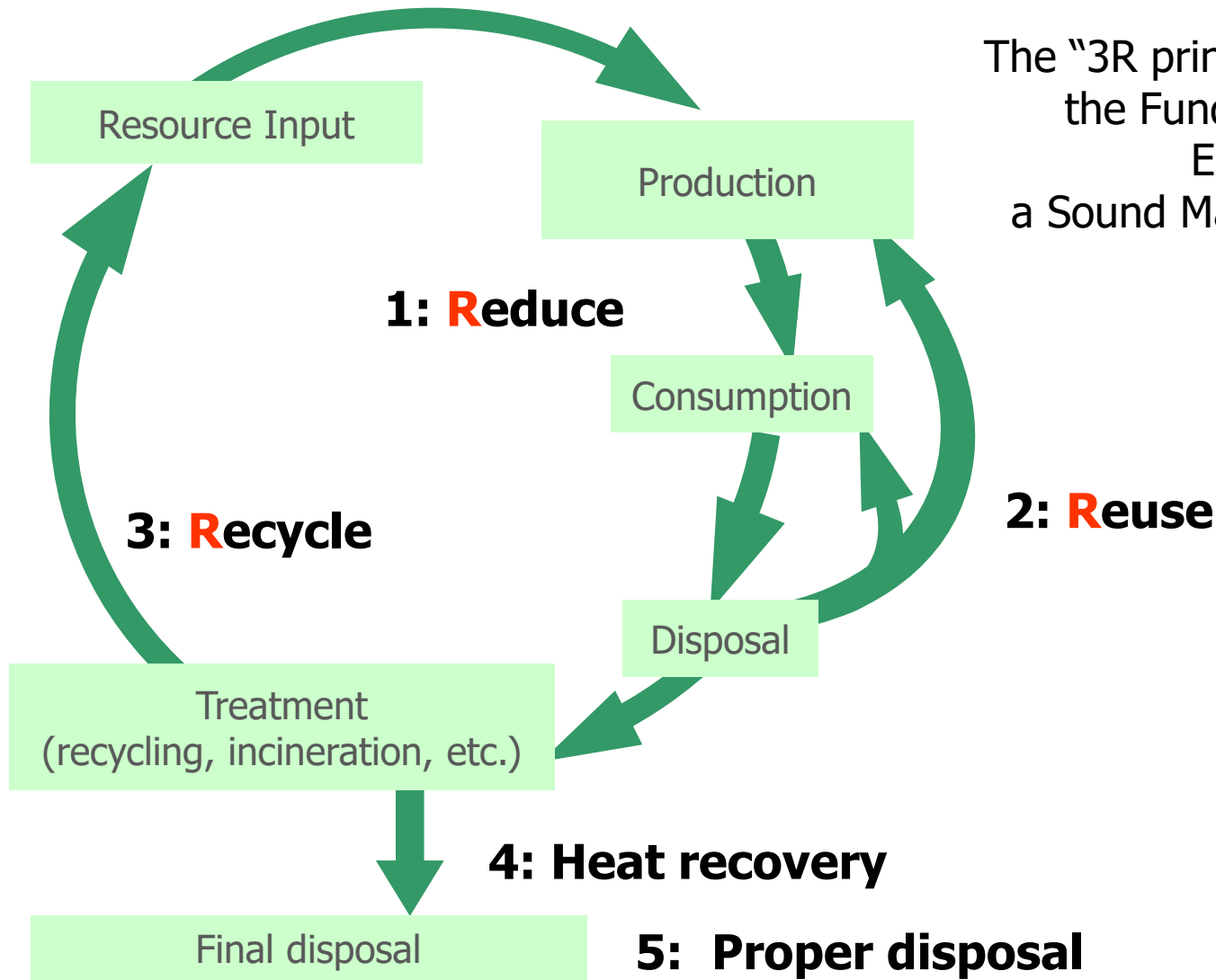


Trend of General Waste (Municipal waste)



* Waste generation per day per head (g/man–day)	- 1991	1,118	(g/man–day)
	- 2000	1,185	(g/man–day)
	- 2010	976	(g/man–day)

3R Principle



The “3R principle” is legislated by the Fundamental Law for Establishing a Sound Material-Cycle Society

Legislative Framework

Fundamental Environmental Law

1994. 8

Fundamental Law for
Establishing a Sound Material-Cycle Society

2001. 1

Waste Management and Public
Cleansing Law

Law for Promotion of Effective Utilization
of Resources

Recycling Laws

Container and
Packaging
Recycling Law



2000. 4

Home
Appliances
Recycling Law



2001. 4

Construction
Materials
Recycling Law



2002. 5

Food Wastes
Recycling
Law



2001. 5

End-of-life
Vehicles
Recycling Law



2005. 1

Small Home
Appliance
Recycling Law



20012. 8

Law on Promoting Green Purchasing

Recycling

- Container and Packaging Recycling Law

Collection and recycling of plastic packaging and PET bottle etc.



- Home Appliance Recycling Act



- Small Electrical and Electronic Equipment Recycling Act



Japanese International Cooperation for the 3Rs

The Regional 3R Forum in Asia and the Pacific

- Organized the 7th meeting in Adelaide, Australia from 2 to 4 November 2016.
- More than 350 people participated. It includes minister and vice minister-level officials of 41 countries like Asian countries, the Pacific Island nations and others, international organization and assistance agency.
- **The 8th meeting will be organized in Hyderabad, India in December 2017.**



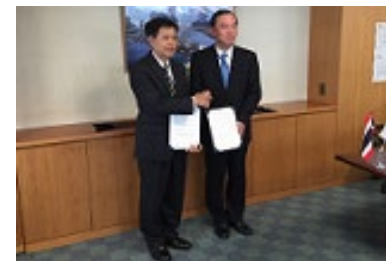
Support for Improvement of Legal Systems and others

Examples:

(Thailand) Concluded MOU on management of industrial waste with Ministry of Industry in March 2016.

(Vietnam) Support for making laws on 3R and waste disposal

(Philippines) Support for formulating guidelines on introduction of WtE facilities



Conclusion

- It is the key to improve globally the waste management systems, including promotion of the 3Rs and finance, for reducing marine litter.
- Japan's experience shows that a good waste management and 3R system can be built with combination of comprehensive regulation, environmentally-friendly technology and stakeholders' role sharing.
- Japan contributes to reduction of marine litter through international cooperation on the 3Rs.