

Promotion of Sound Material-Cycle Society in Japan and 3R Initiative

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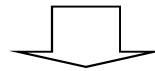
Outline

1. Japan's Experience
2. Development of the 2nd Fundamental Plan for Establishing a Sound Material Cycle Society
3. Promotion of the 3R Initiative

1. Japan's Experience

Japan Was Faced With Serious Waste Issues

- Past policy measures of waste management were far from adequate. A “sweep the trouble under the carpet” attitude prevailed.
- The “cheaper but worse” style was common in waste treatment.



Huge-scale illegal dumping of waste Accumulation of hazardous waste such as PCB

[Improper waste management
by open incineration]



[Huge-scale illegal waste dumping]

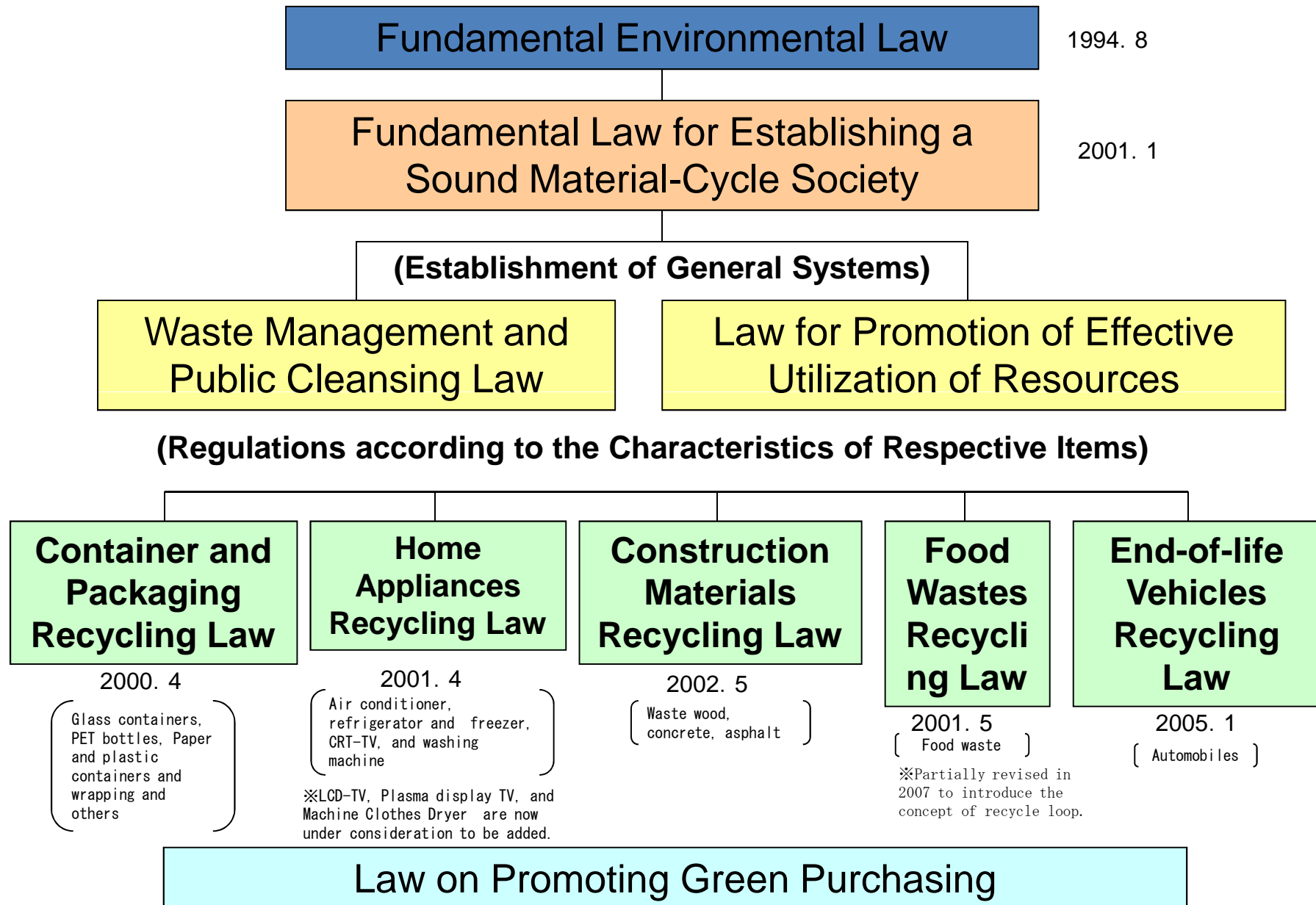


[Improper storage of PCB waste]



Source: Ministry of the Environment

Legislative Framework to Establish a Sound Material-Cycle Society



2. Development of the 2nd Fundamental Plan for Establishing a Sound Material Cycle Society

Overview of the 2nd Fundamental Plan for Establishing a Sound Material Cycle Society

Current situation and Issues

- “final disposal amount” improves towards year 2010 targets .
- Need to respond to global environmental issues such as worldwide resource limitation as well as global warming
Necessary to further develop sound material cycle societies by the 3Rs

Mid-to-long term image of SMS

- Realize “Sustainable Society” by integrating with activities to realize “low carbon society” and “nature harmonious society”
- Realize “Stock-based Society”
Regionally-characteristic SMS(Spheres of sound material cycle) ,

Indicators and targets

【1 Material Flow–based Indicators】

(1) Numerical target setting (FY 2015)

- ① 「Input」 : Resource Productivity → 420 thousand yen/ton
(60% increase from FY2000)
- ② 「Recycle」 : Cyclical use Rate → about 14-15%
(40-50% increase from FY 2000)
- ③ 「Output」 : Final Disposal Amount → about 23 million tons
(about 60% reduction from FY2000)

Activities of stakeholders

○Partnership and Collaboration

Mutual collaboration of every stakeholders

○Citizens

- Campaign of life style change

○Businesses

- implementation of the 3Rs
- inter-industrial collaboration

○NGO/NPO and Universities and others

- Interface of collaboration and partnership
- information dissemination

○Local governments

- Partnership with stakeholders and implementation of nation-wide activities

○National government

- Partnership among stakeholders and implementation of nation-wide activities

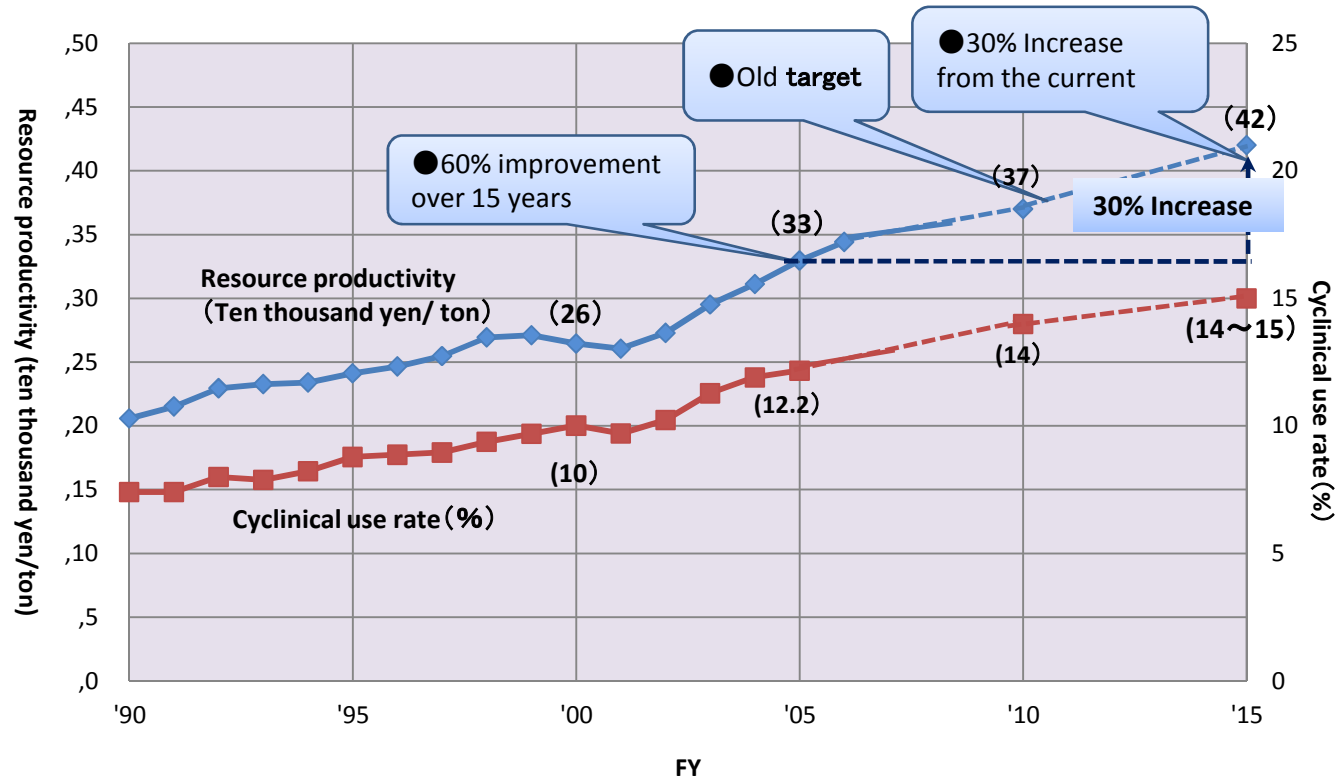
【2 Indices related to effort】

(1) Numerical target setting

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

Material Flow-based Indicators - Indicators with target settings

Resource Productivity and cyclinical use rate



The 2nd Plan

2000→2015

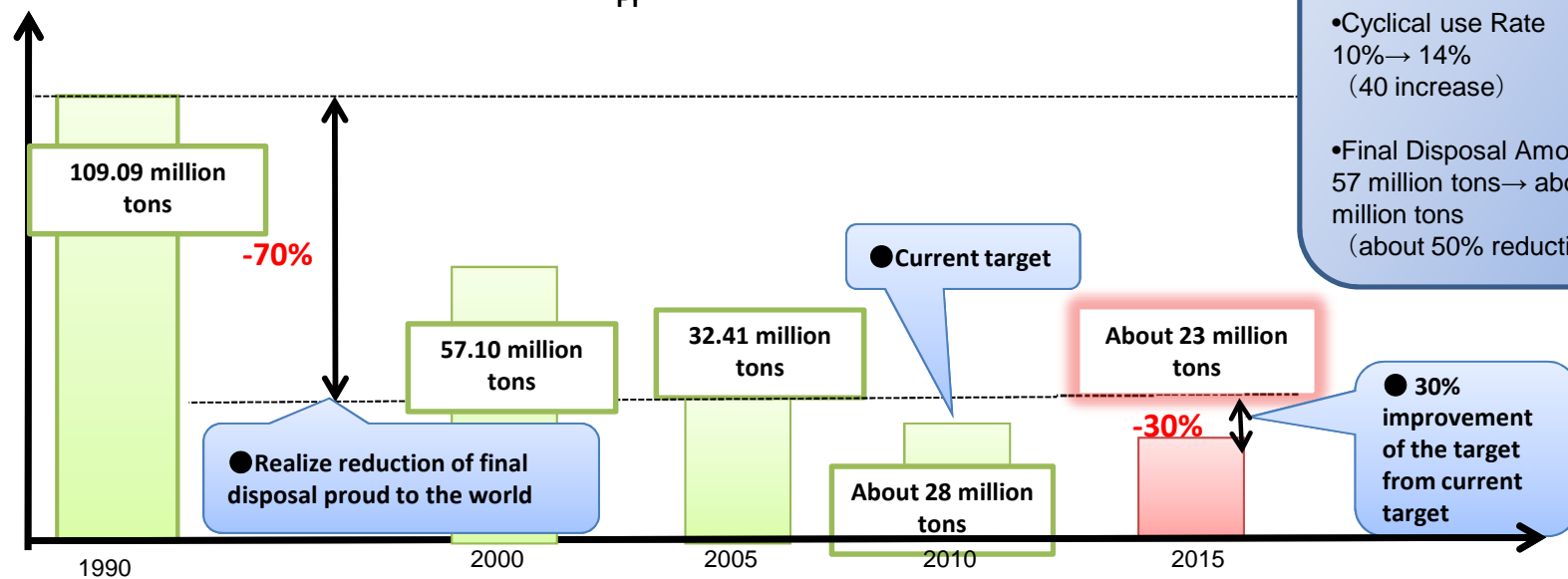
- Resource Productivity 260 thousand yen/ton → 420 thousand yen/ton (60% increase)
- Cyclical use Rate 10%→ about 14-15% (40-50% increase)
- Final Disposal Amount 57 million tons→ about 23 million tons (about 60% reduction)

The 1st Plan

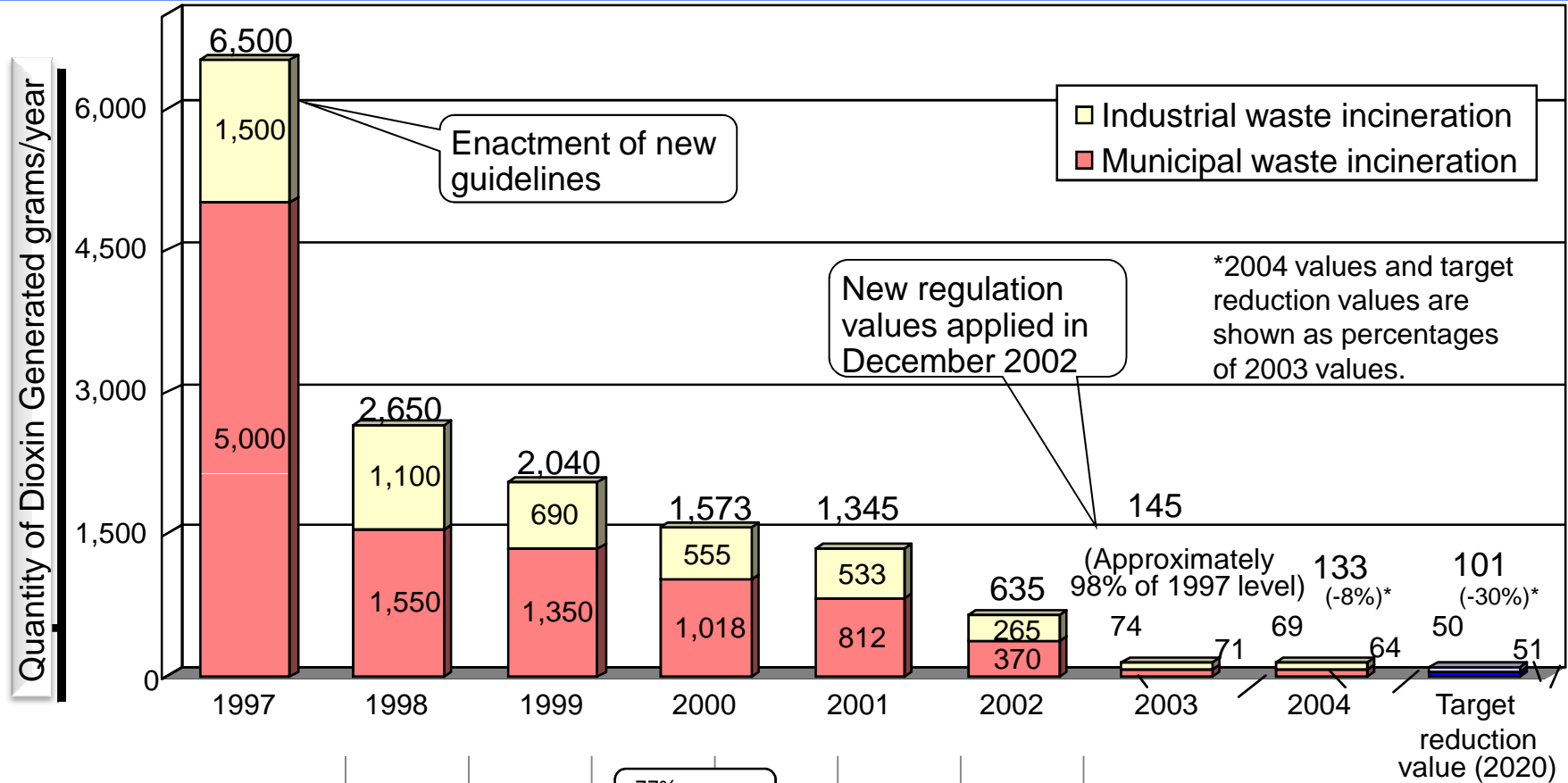
2000→2010

- Resource Productivity 260 thousand yen/ton → 370 thousand yen/ton (40% increase)
- Cyclical use Rate 10%→ 14% (40 increase)
- Final Disposal Amount 57 million tons→ about 28 million tons (about 50% reduction)

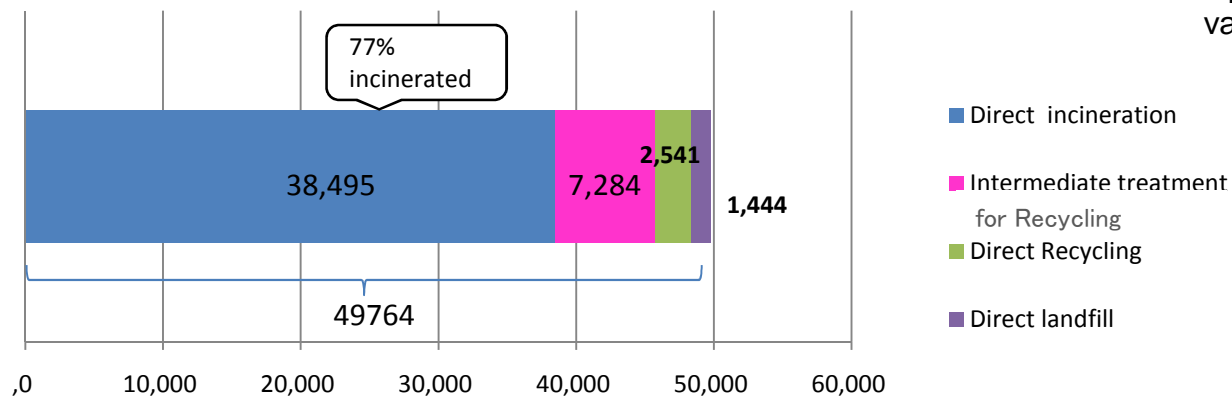
Final disposal



Drastic Reduction of generated from Waste Incineration



The amount of treated of Municipal Waste (thousand tons) Year 2005



Japan's Contribution to Establish International Sound Material Cycle Society

International movement of recyclable resources

Current situation : **Increase in world wide waste generation** by economic development of each country including those of Asia
Rapid increase in transboundary movement of recyclable resources because of the progress of recycling and increase in resource demands

→ **Possible environmental pollution caused by improper treatment or cyclinical use of recyclable resources** (such as E-waste issues)



Japan's contribution to establish international sound material cycle society

Development of international cooperation such as **“New Action Plan to Promote Global Zero-Waste Societies”** to promote the 3Rs in Asia in the world

○ Dissemination of intuitions, technologies and experience of the 3Rs of Japan

World-wide promotion of the 3Rs from Asia to Africa through various measures including assistance of 3R National Strategy Making, international cooperation to establish Eco-towns, and promotion of safe and sanitary treatment of night soil.

○ Realization of Sound Material Cycle in East Asia

- Support bilateral policy dialogue and multilateral process towards making **“Vision of a Sound Material Cycle Society in East Asia”**
- Share basic understanding on the concept of the 3Rs

- (1) Build a sound material-cycle society in each country
- (2) Develop and reinforce activities to prevent the illegal trade of wastes
- (3) Then, facilitate utilization of recyclable resources through international trade

○ Asian Information and Research Network on the 3Rs

Support the 3R efforts of each country by sharing information on policy and experience of the 3Rs

○ Contribution to efforts to improve resource productivity

- Take a leadership in the G8 in promoting the 3R Initiative such as improving resource productivity
- Promote international collaborative research on material flow-based indicators such as resource productivity by taking environmental impact assessment into account

→ Support the OECD's work on material flow and resource productivity

→ Support UNEP International Panel on Sustainable Resource Management

Asia and other regions

G8 and others

3. Promotion of the 3R Initiative

3R Initiative

- ◆ Agreed by Heads of State at the G8 Sea Island Summit in the U.S. in June 2004 as an effort to construct a sound material-cycle society through reduction, reuse, and recycling (3Rs) of waste.
- ◆ Launched at Ministerial Conference on the 3R Initiative in April 2005
- ◆ Senior Officials Meeting held in March 2006
- ★ St. Petersburg Summit in July 2006
 - Agreed to set targets as appropriate taking account of resource productivity

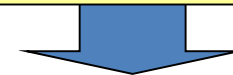
Objectives of the 3R Initiative

- 1 Promote the 3Rs in each country
- 2 Lower barriers to international flow
- 3 Promote cooperation among stakeholders
- 4 Promote science and technology suitable for the 3Rs
- 5 Cooperate with developing countries

Senior Officials Meeting on the 3R Initiative ,
October 2007 (Bonn, Germany)

○ Confirm the progress of the 3R-related efforts in each country

○ Japan proposed the future directions of the 3R Initiative



March 2008 The 2nd Asia 3R Conference
(Tokyo, Japan)

May 2008 G8 Environment Ministers Meeting
(Kobe, Japan)

July 2008 G8 Summit (Hokkaido Toyako)

Development of OECD Council Recommendation on Resource Productivity

OECD EPOC has discussed about a new Council Recommendation on Resource Productivity. The new recommendation will be endorsed at OECD Environmental Ministers Meeting next week. It is to recommend OECD member countries to implement the following:

- Analysis of Material Flow and its environmental impacts (Development and utilization of indicators for evaluation, development of data and so on)
- Policy for improving resource Productivity (Consideration of use of material flow information for planning purpose including target setting, life-cycle approach including the 3Rs)

UNEP (United Nations Environment Programme) International Panel on Sustainable Resource Management

- Accumulation of scientific knowledge towards sustainable use of natural resources
- Established by UNEP in November 2007. Panel members: 20 world-renown scientists
- Mission :
 - To accumulate latest information and establish knowledge base on usage of natural resource and its environmental impacts
 - To provide independent scientific assessment on environmental impacts of selected resources and products
 - Capacity development of developing countries
- Theme :
 - Metal resource
 - Biofuels
 - Freshwater resources
 - Capacity development of developing countries



Promotion of the 3Rs in Asia

Problems

- Increasing quantities and diversifying qualities of wastes
- Transboundary movement of waste and circulative resources
- Soaring resource prices

Approach

Promotion of the 3Rs (Reduce, Reuse, Recycle) and appropriate management of wastes
 ⇒ More efficient use of resources and materials, and reduction of environmental impact

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

Activities

Held Policy Dialogues in Asia

Asia 3R Conference (October 2006, Tokyo,)
 Eco-Asia 2007 (September 2007, Fukuoka)

E-waste measures

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

Regional Forum on Environment and Health

Thematic Working Group on Solid and Hazardous Waste in August 2007
 Japan act as the TWG chair

Supporting the formulation of 3R promotion strategies in individual countries

Supported the formulation of 3R promotion strategies in Thailand, Bangladesh, Vietnam and Indonesia.
 • JICA Malaysia Waste Reduction Plan Survey

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

Disseminate Japan's experience

Published a report summarizing Japan's experience in waste and recycling resources

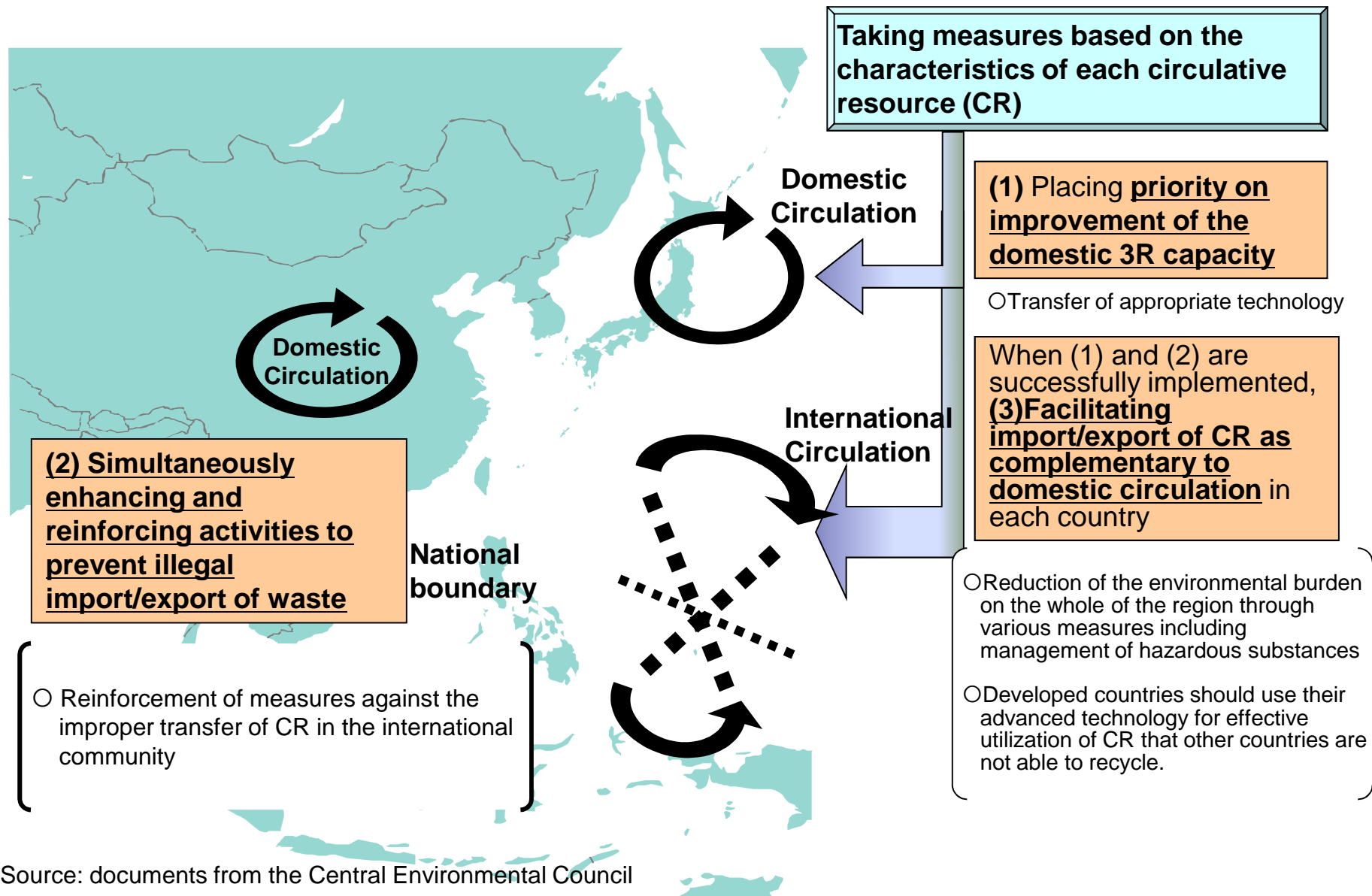
Development of Hub for accumulating information and technology Development of research network

- Support establishing 3R Knowledge Hub
- Support Expert Meeting on Waste Management in Asia-Pacific Islands

Collaboration with international organisations

United Nations Environment Program (UNEP), Economic and Social Commission for Asia and the Pacific (ESCAP), United Nations Center for Regional Development (UNCRD), Basel Convention Secretariat, Asia Development Bank (ADB), Institute for Global Environmental Strategies (IGES)

Basic Approach toward an International Sound Material-Cycle Society



Future Direction of the 3R Initiative

Japan proposes future directions of the 3R Initiative as the chair of the G8 in 2008

- **Prioritized implementation of the 3R policy and increase in resource productivity**
- **Pursuit of co-benefits with measures to reduce green house gas emissions**
- **International collaboration towards capacity development of the developing countries and others.**

Major Schedule of International Promotion of the 3Rs (2007-2008)

