

Nagoya Public Forum on 3R
Nagoya, Japan, 24 April 2014



Japan's International Cooperation on 3R Promotion

Ryutaro Yatsu, Ph.D.

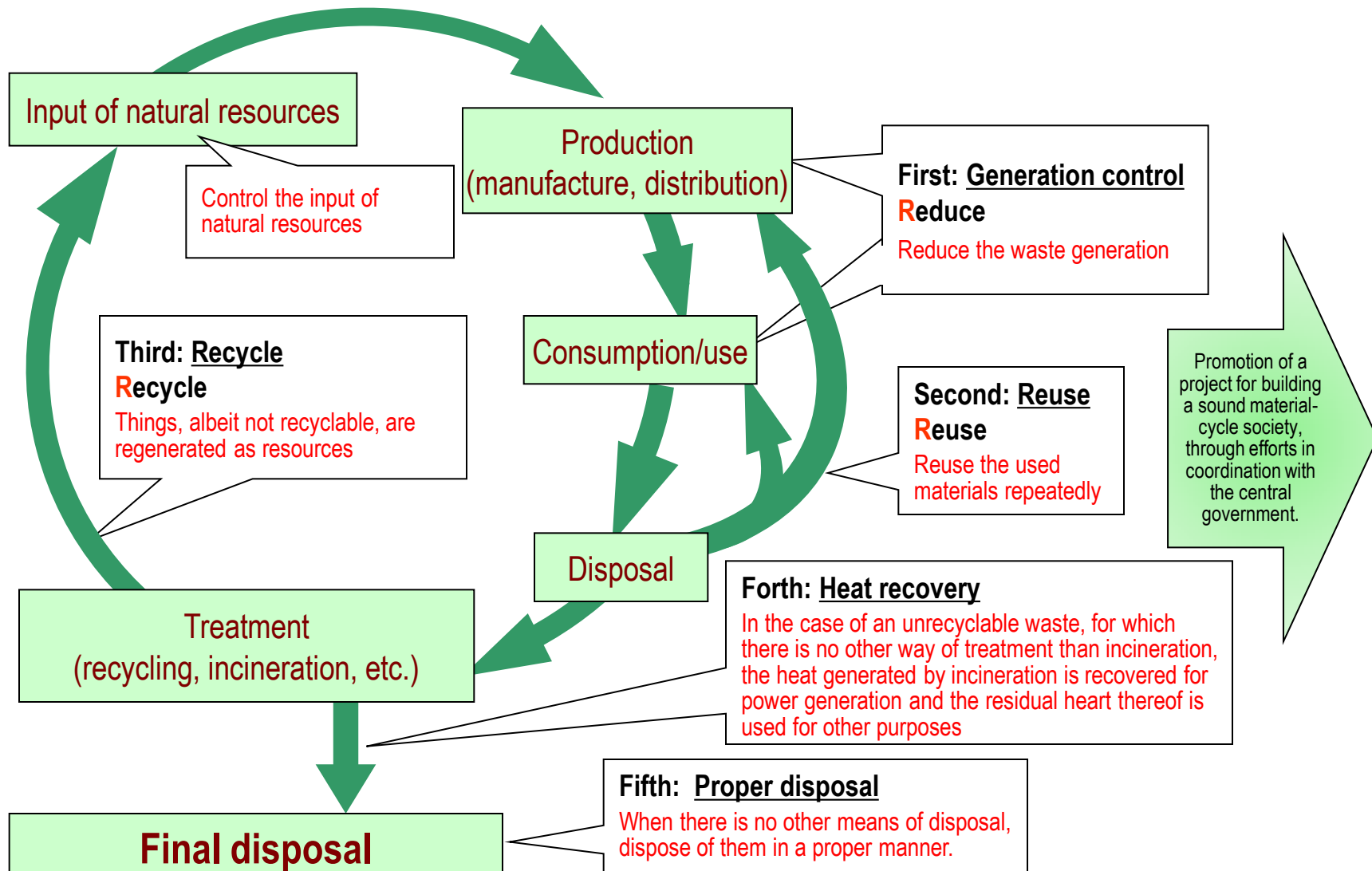
Vice-Minister

Ministry of the Environment, Japan

Japan's International Cooperation on 3R Promotion

1. The concept of 3R
2. The Regional 3R Forum in Asia and the Pacific
3. Formulation of national 3R strategies, legal development, dispatch of experts, and acceptance of trainees
4. Japanese technology transfer
5. Multilateral Cooperation

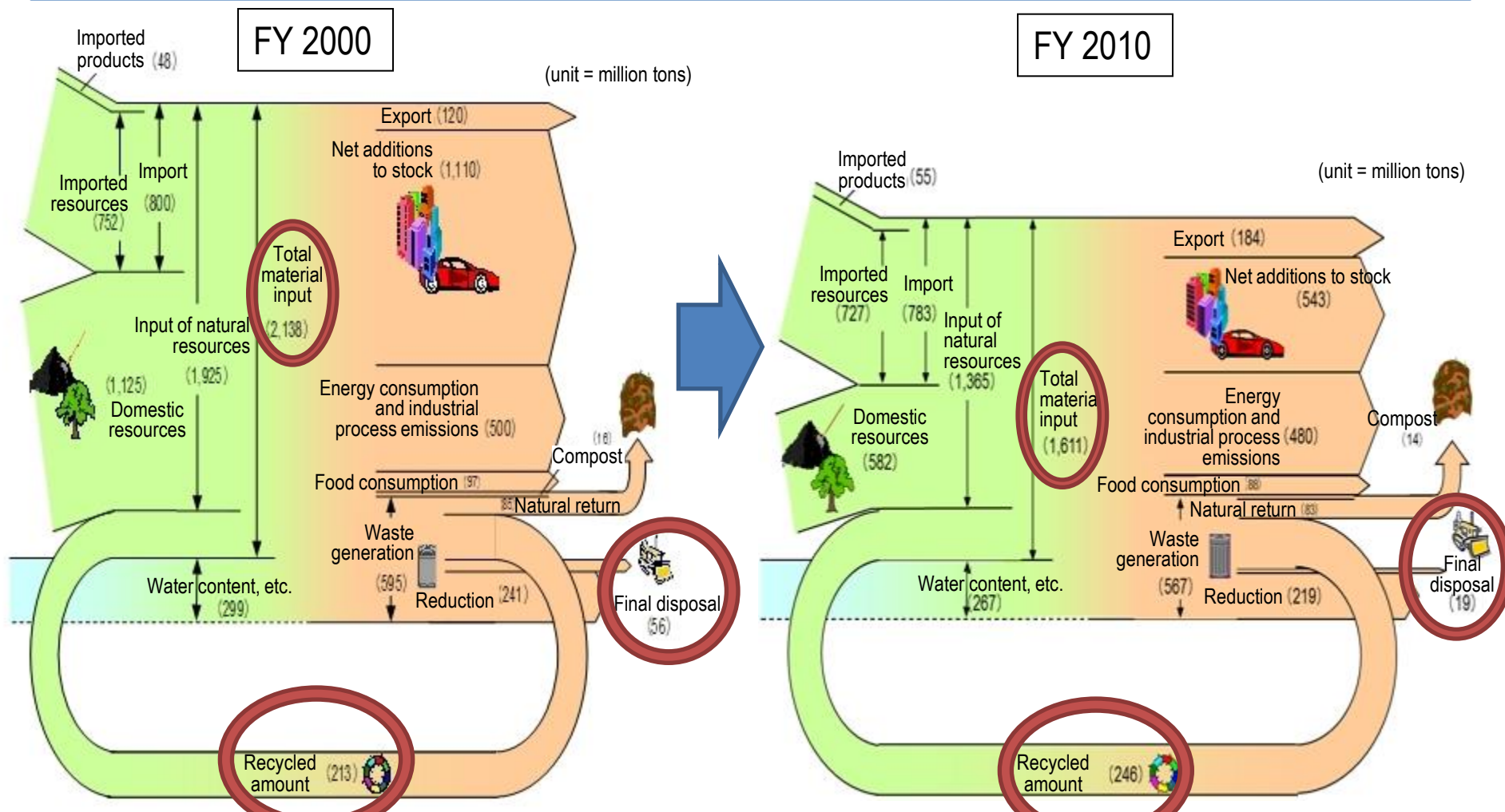
Concept of a Sound Material-Cycle(SMC) Society



Formulate the basic promotion plan for the Sound Material-Cycle Society

Material Flow of Japan

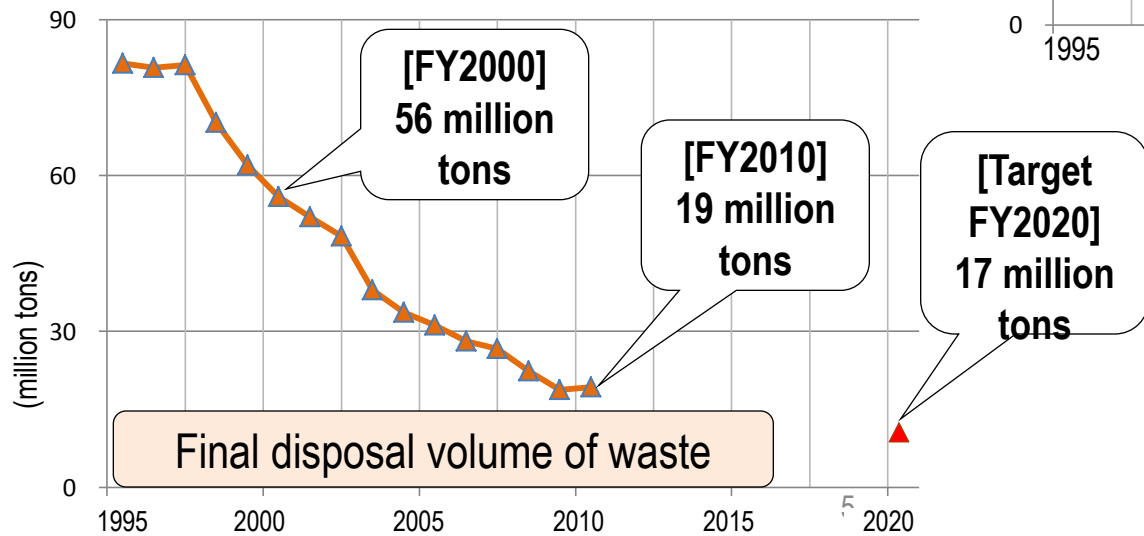
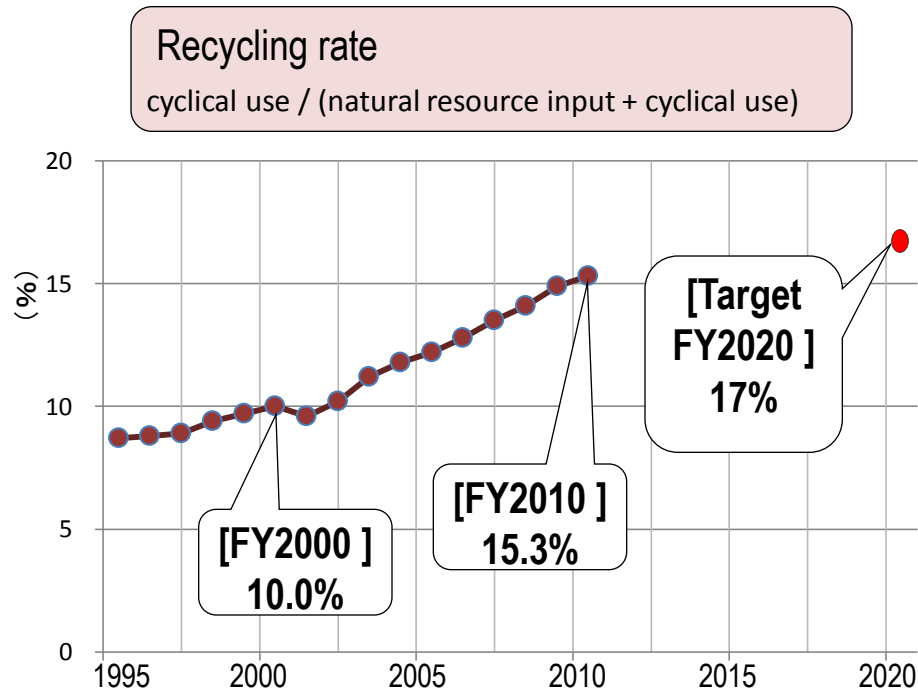
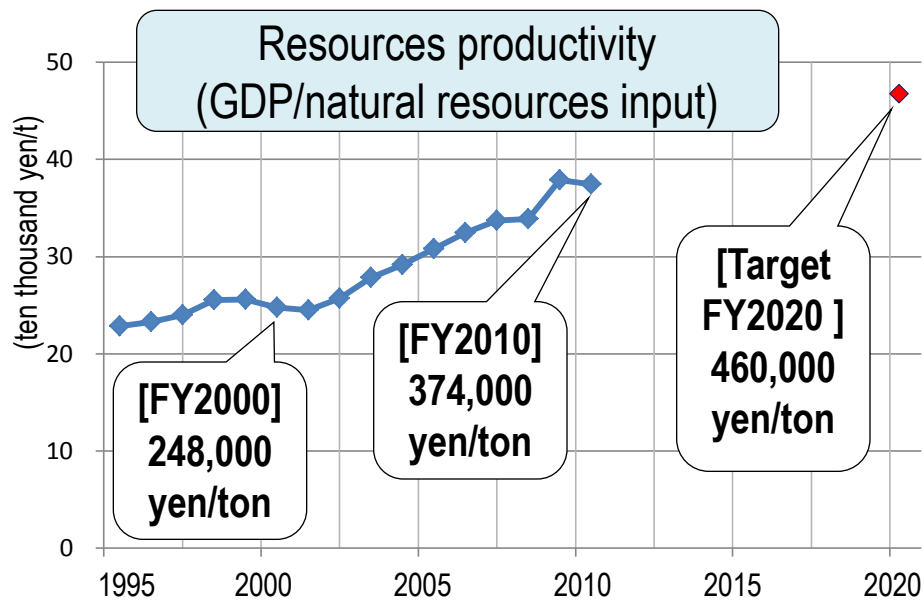
- Total material input: 2.138 → 1.611 (billion tons)
- Final disposal: 56 → 19 (million tons)
- Recycled amount: 213 → 246 (million tons)



(Note) Water content: water contents of wastes (sludge, livestock's waste, night soil, waste acid, waste alkali, and sludge contingently dumped in the process of economic activities (sludge in mining, construction and in waterworks as well as slag)

Japan's progress towards establishing a SMC society

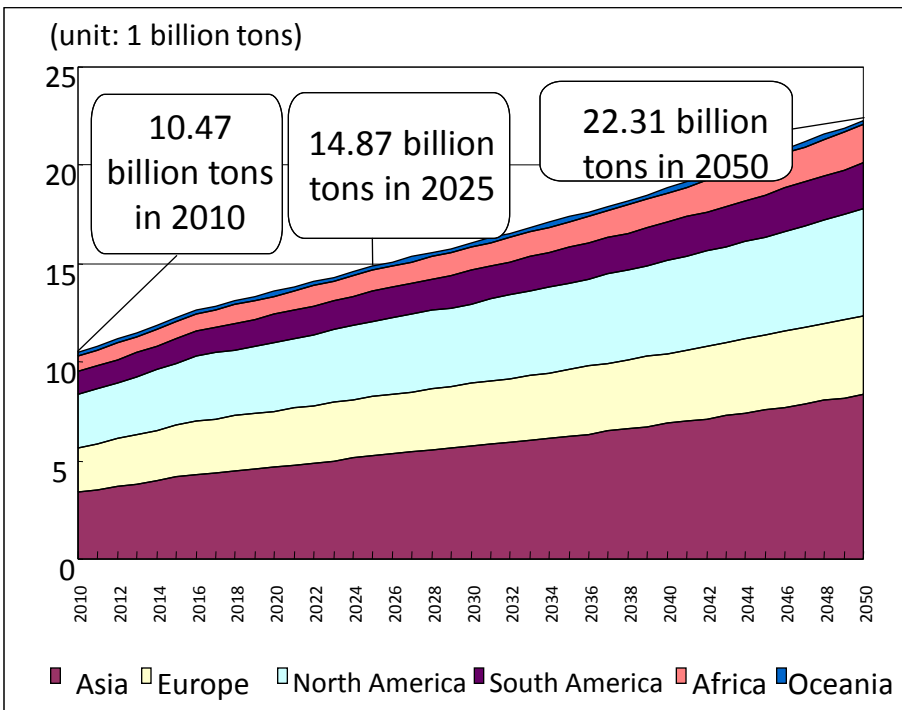
– changes in major indexes and goals targeted by the 3rd Fundamental Plan –



Critical Waste Problems in Asia

- ◆ As a result of the economic growth and population increase;
 - the increasing amount of total waste generation worldwide.
c.f. waste generation more than double in 2050, compared to that in 2010.
 - the diversification of waste streams region-wide
- ◆ Cases of environmentally inappropriate disposal/recycling reported in developing countries.

[Future Prospects of World Waste Generation 2010-2050]



A process of open burning of covered cables to recover copper wires for recycling



A person collecting valuables from open dumping site



Source: Japan Industrial Waste Information Center

Source: *Studies on Estimated Amounts of Waste Generated in the World and Future Prospects*, by Masaru Tanaka

We will launch the Reduce, Reuse, and Recycle (“3Rs”) Initiative at a Ministerial Conference in spring 2005 hosted by the Government of Japan. In cooperation with relevant international organizations such as the OECD, we will seek through this initiative to:

- Reduce waste, Reuse and Recycle resources and products to the extent economically feasible;
- Reduce barriers to the international flow of goods and materials for recycling and remanufacturing, recycled and remanufactured products, and cleaner, more efficient technologies, consistent with existing environmental and trade obligations and frameworks;
- Encourage cooperation among various stakeholders (central governments, local governments, the private sector, NGOs and communities), including voluntary and market-based activities;
- Promote science and technology suitable for the 3Rs; and
- Cooperate with developing countries in such areas as capacity building, raising public awareness, human resource development and implementation of recycling projects.

Global and regional 3R initiatives

2004	G8 Sea Island Summit (the United States) Prime Minister Koizumi proposed the 3R initiatives, being supported by all	
2005	3R initiative cabinet ministers meeting (Tokyo)	The 3R Promotion in Asia Conference (Tokyo)
2006	3R Senior Officials Meeting (Tokyo)	Support of The 3R national strategy was started in several countries (Indonesia, Vietnam, etc.)
2008	G8 Kobe Environment Ministers Meeting G8 leaders agreed to "Kobe 3R action plan".	The 1st meeting of the East Asian Environment Ministers' Summit (Vietnam)
	G8 Hokkaido Lake Toya summit G8 leaders supported the "Kobe 3R action plan".	The 2nd Asia 3R promotion Conference (Tokyo)
2009	The "Kobe 3R action plan was reaffirmed in the final declaration at the G8 Summit.	Inaugural Meeting of the Regional 3R Forum in Asia (Tokyo)
2010	The 18th United Nations Sustainable Development Committee Meeting (New York)	Second Meeting of the Regional 3R Forum in Asia (Malaysia)
2011	The United Nations Waste Management Conference (Tokyo)	Third Meeting of the Regional 3R Forum in Asia (Singapore)
	The 19th United Nations Sustainable Development Committee Meeting (New York)	Fourth Meeting of the Regional 3R Forum in Asia (Viet Nam)
2013		
2014		Fifth Meeting of the Regional 3R Forum in Asia and the Pacific 25-27 February 2014, Surabaya Indonesia

Inaugural Meeting of the Regional 3R Forum in Asia

In November 2009
At Meguro Gajoen, Tokyo



(from left)
Dr. Yatsu, Mr. Otani,
Mr. Onogawa, Mr. Mohanty

2nd and 3rd Meetings of the Regional 3R Forum in Asia



In October 2010
In Kuala Lumpur

In October 2011
In Singapore



The 4th Regional 3R Forum in Asia in Ha Noi

Organizers: Japanese Ministry of the Environment, Vietnamese Ministry of Natural Resources and Environment, United Nations Center for Regional Development

Date: March 18-20, 2013

Place: Ha Noi, Viet Nam

Participants: 7 Ministers and 13 Vice Ministers* from 31 Asia and Pacific countries; approximately 270 representatives from aid organizations such as UN organizations and Asian Development Bank, private businesses, NGOs and NPOs

* Incl. both Senior Vice Minister Inoue and Dr. Yatsu, Vice-Minister for Global Environmental Affairs, of the Environment Japan

Overall theme: 3Rs in the Context of Rio+20 Outcome - *The Future We Want*



➤ Adopted **the Ha Noi 3R Declaration** which clearly expresses sustainable 3R goals for Asia for 2013-2023

The 5th Regional 3R Forum in Asia and the Pacific in Surabaya

Hosts: Ministry of the Environment of Japan , Ministries of Environment and Public Works of Indonesia, United Nations Centre for Regional Development (UNCRD)

Period: February 25-27, 2014 Place: Surabaya, Indonesia

Participants: **Approximately 500 people from 33 countries** (ASEAN, Pacific island countries, East Asia and South Asia, etc.), cities (such as Surabaya and Ho Chi Minh), international organizations and so forth.

***approx. 70 participants from Japan:** 8 officials of the Ministry including Senior Vice Minister of the Environment Mr. Shinji Inoue, a representative from a municipality, approx. 50 representatives from private enterprises, 3 scholars and 9 NGO members.

Theme: Multilayer Partnerships and Coalition as the Basis for 3Rs Promotion in Asia and the Pacific



The Forum adopted, as its outcome, the “Surabaya 3R Declaration” calling for the promotion of public–private partnerships cooperative relations among cities. As a parallel side event of the Forum, **the ”Indonesia-Japan International 3R Exhibition”** was held demonstrating a range of 3Rs and waste recycling technologies, participated by 17 Japanese private enterprises.

Back to back to the 5th Regional 3R Forum,

- **The Regional Workshop Meeting of Climate and Clean Air Coalition – Municipal Solid Waste Initiative**
- **The 5th High Level Seminar on Environmentally Sustainable Cities**

Opening Remarks



By Mr. Shinji Inoue
Parliamentary Senior
Vice Minister of the
Environment



Keynote presentations from MoE-Japan

In Ha Noi, 2013



Title:

Japanese recent efforts of
country- country cooperation
and

Introduction of CCAC as
new framework of international
cooperation

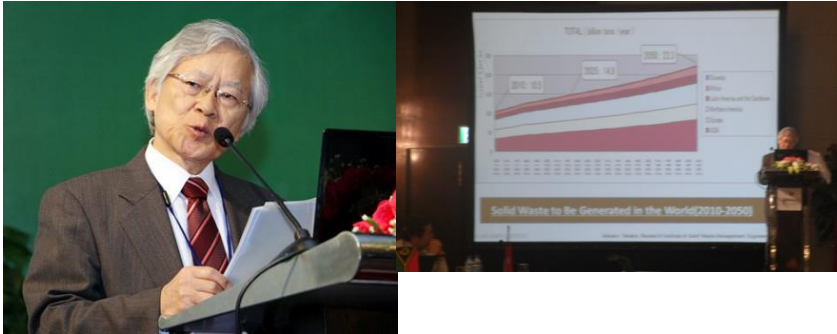
In Surabaya, 2014



- By Mr. Junichi Shiraishi
- Title: Lessons learnt from Japanese policies and experiences towards promotion of 3Rs in Asia and the Pacific

Science Policy Linkage: Keynote presentations

In Ha Noi, 2013



- By Prof. Masaru Tanaka, Tottori Univ. of Environmental Studies
- 3Rs Society in Asia – Lessons Learned from 2011 Great East Japan Earthquake and Tsunami

In Surabaya, 2014



- By Prof. Shinichi Sakai, Kyoto University
- Title: Science Community Cooperation with Policy and Business Model Development in the Fields of 3Rs and Waste Management

Asia and the Pacific 3R White Paper

- Proposal from **Ministry of the Environment Japan** to launch the project to develop a **synthesis and status report of 3R policy implementation** in Asia and the Pacific.
- Emphasis on **data collection and compilation**.
- Reference to existing documents since the 3R Initiative in 2004, **Hanoi 3R Declaration**, presentations, and information accumulated in Regional 3R Forum.
- White Paper consists of synthesis of regional trend and policy analysis, status of 3R implementation in each country, and good practices.
- **Drafting committee** will be organized. **Collaboration with experts such as 3R International Scientific Conference** and Asia Resource Circulation Policy Research Group. About 2 years project to start.

Private Sector Side Event: Japanese technology transfer

- Ha Noi Networking Dinner
- 13 countries
- 17 Japanese companies and organizations
- Indonesia-Japan International 3R Exhibition
- 14 Japanese companies
- Around 250 participants



NGO Side Event: Asia 3R Citizen's Forum

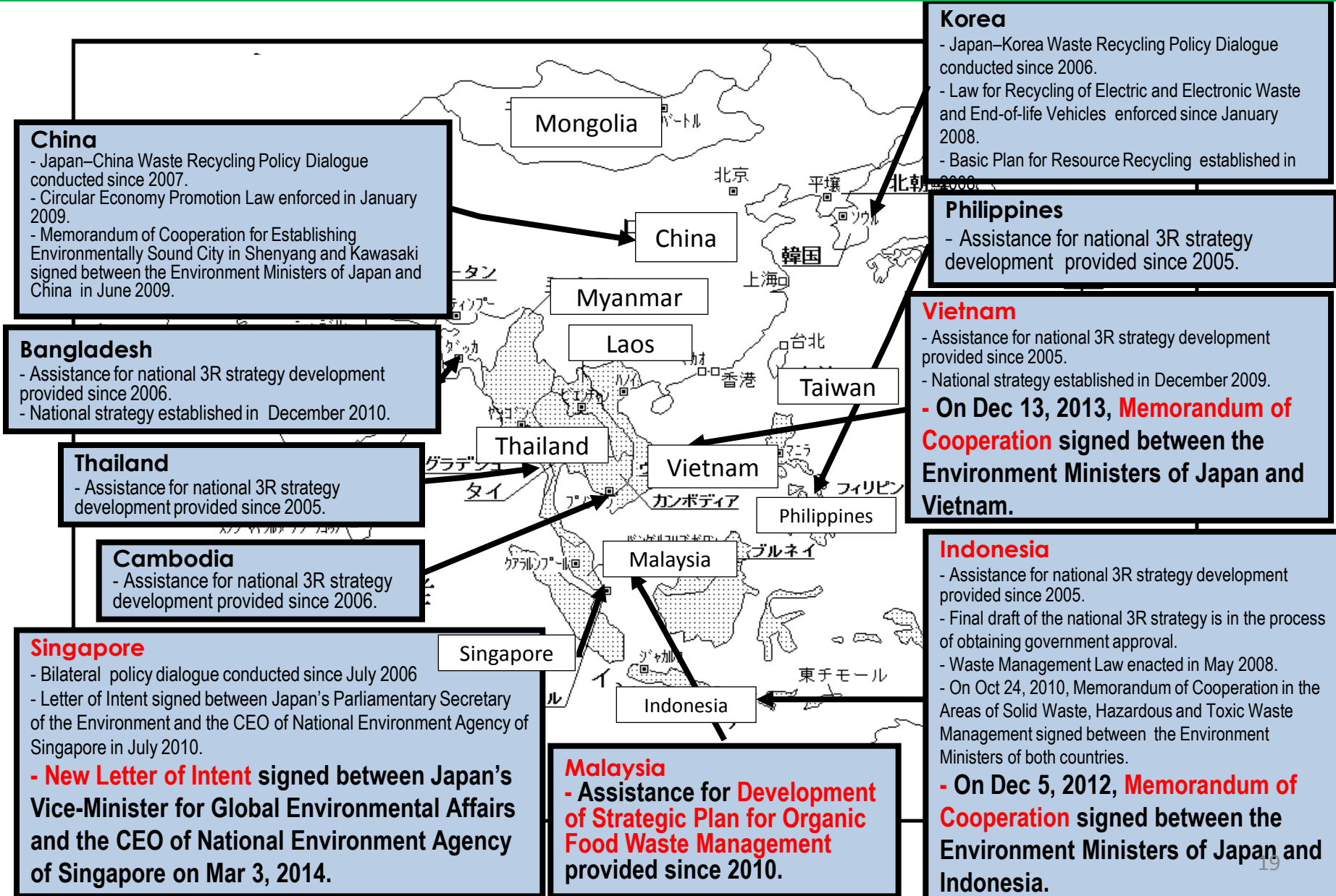
- Ha Noi



- Surabaya



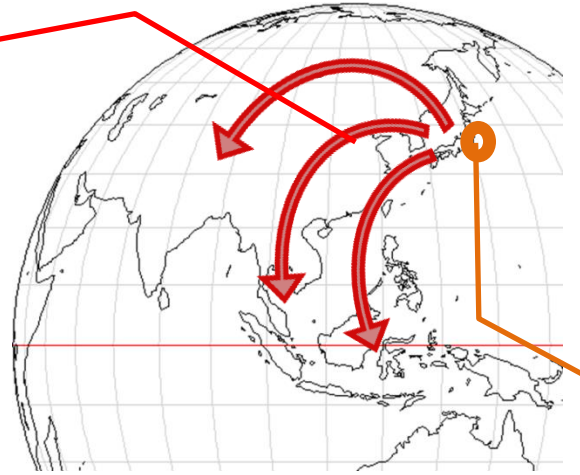
Close Collaboration on 3R and Waste Management Policies with Asian Countries



Incubation and Overseas Promotion of Waste Management and Recycling Industry

[Pioneer group]

- target businesses ready to make int'l operations
- support FS in countries with high potentials for int'l operations



[Next-generation group]

- Incubation of next generation waste management/recycling industry making int'l operations
- Support of recycling business from new perspective
- Imports of virgin circulative resources

Expected outcomeS

- ◆ Spread of appropriate waste management/recycling system to Asian countries and others
→ Reduction of environmental loads on a global scale
- ◆ Active int'l operations by waste management/recycling industry
→ Revitalization of the Japanese economy

Overseas promotion of Japan's waste management and recycling systems as package deal

○ Promotion of pioneer group's operation into countries within the framework of bilateral cooperation such as memorandum of cooperation, etc.

- ① Feasibility studies on concrete overseas business operations
- ② Joint workshops by partners and stakeholders to establish a framework for operations in host countries
- ③ Training programs for responsible personnel from host countries to promote better understanding of Japan's waste management and recycling systems

Incubation of next-generation firms in waste management and recycling industry

○ Support of private enterprises that have effective technology to utilize unused resources for their overseas operations

- ① Plastic bottle-to-bottle recycling
- ② Sophisticated cycle model of containers and wrapping plastics
- ③ reduction of recycling cost in remote islands and depopulated regions
- ④ Extensive utilization and network building in an area of integration of existing 3R facilities such as eco-towns

Projects to improve environment for int'l operations by Japanese WM/R industry

- (1) collection and dissemination of information contributing to int'l operations by waste management/recycling industry
- (2) organizing mtgs for central govt, municipalities, businesses and experts; info. sharing
- (3) organizing local seminars and exhibitions

Support for technology development to contribute to overseas promotion of the waste management and recycling industry
※ Financially supported by the MoEJ's Environmental Research & Technology Development Fund

○ Support for technology development to reduce cost and to tailor waste management/recycling systems to developing countries' needs

Feasibility Study Projects to Promote Technology Transfer by Japanese Waste Management and Recycling Industry

India:

2011-12: Japan Environment Planning Co., Ltd.

Recycling of Small Home Appliance Centered around Mobile Phone in Gujarat, India

2012: Nippon Magnetic Dressing Co., Ltd.

Project for Effective Utilization of Steelmaking Slag in India

2013: Fuji Electric Co., Ltd.

Establishment of waste management and recycling system for industrial park in India

2013: Plantec Inc.

A Feasibility Study on Introduction of Waste-to-Energy Plants and its Technologies in Tiruchirappalli and Other Cities in Tamil Nadu, Republic of India

Turkey:

2012: Kobelco Eco-Solutions Co., Ltd.

A Study on Waste Treatment Business in Marmara Sea Coast City in Republic of Turkey

2012: Toyota Tsusho Corporation

Development Project of Integrated Recycling System of E-waste and EIV Mix Metals in Republic of Turkey

Myanmar:

2012-13: JFE Engineering Corporation

Feasibility Study of Installation, Operation and Maintenance of Waste to Energy (WTE) Plant in Greater Yangon

Thailand:

2011-12: E&E Solutions Inc.

Concentrated Intermediate Treatment of Waste in around Bangkok, Thailand

2013: REMATEC Corporation

Developing 3R System of Industrial and Non-industrial Waste Based on a Cement Plant Located in Northern Thailand

2013: Sanyu Plant Service Co., Ltd.

Project for managing hard-to-treat hazardous industrial waste in Thailand

Malaysia:

2011: JFE Engineering Corporation

Construction and Operation of Municipal Solid Waste-based Renewable Energy Power Plant and Recommendations for Formation of Recycling Society in Kuala Lumpur Metropolitan Region, Malaysia

2012: Shinryo Corporation

Total Recycling System of Wastes from Photovoltaic Cells in Malaysia and other ASEAN Area

Indonesia

2013: Shinryo Corporation

Feasibility study project of recycling system through value chain of electrical industry in the Republic of Indonesia

China:

2011: Mitsui Mining and Smelting Co., Ltd.

Pretreatment Project of Copper and Precious Metals Recycling from Electronic Scrap in Hong Kong

2011-12: NTT Data Institute of Management Consulting, Inc.

Development Project of an Industrial Complex for Plastic Recycling in Tianjin, China

2012: Toa Oil Kogyosho Co., Ltd.

Comprehensive Recycling Project of Oily Waste in Shenyang, China

2013: Kureha Ecology Management Co., Ltd.

Proper and Detoxification Processing of Industrial Solid Waste in Jiangsu, People's Republic of China

Philippines:

2011: EJ Business Partners Go., Ltd.

2012: Eight-Japan Engineering Consultants Inc.

Wide-area Collection, Energy Recovery and Sanitary Landfilling Project of Solid Waste in Province of Isabela, Republic of the Philippines

2013: Nishihara Corporation

Feasibility study of material recycling business of shopping bags and other non-rigid plastic waste in Metro Cebu, the Philippines

Viet Nam:

2011-12: Ichikawa Kankyo Engineering Co., Ltd.

RPF Production and Manufacturing System Business in Socialist Republic of Viet Nam

2012: Kawasaki Heavy Industries, Ltd.

Feasibility Studies for Municipal Waste Treatment System by Using Cement Kiln in Hanoi City, Socialist Republic of Viet Nam

2012-13: Hitachi Zosen Corporation

Study on the Integrated Solid Waste Management System including Energy Recovery in Ho Chi Minh City, Socialist Republic of Viet Nam

2013: Ichikawa Kankyo Engineering Co., Ltd.

D-waste (Demolition waste) recycling business development in Socialist Republic of Vietnam

Multilateral Cooperation on 3R

- UNEP International Resource Panel



The 11th Meeting of the International Resource Panel in November 2012 in Tokyo



Workshop Participants

- CCAC

- The Regional Intergovernmental Consultation on Near-Term Climate Protection and Clean Air Benefits in Asia and the Pacific (Bangkok, in February 2013)
- The Regional Workshop Meeting of Climate and Clean Air Coalition – Municipal Solid Waste Initiative (Surabaya, back to back to the 5th Regional 3R Forum)

Summary : 3R promotion through the Regional 3R Forum

- ✓ The Regional 3R Forum in Asia and the Pacific meets periodically to promote high level 3R policy dialogue, as well as discuss various 3R-related policy, scientific, and capacity issues and share best practices/experiences, among national and local governments, private sector, academia, NGOs, and other stakeholders.
- ✓ The Regional 3R Forum pursues the potential synergy through a multi-stakeholder dialogue process within and between stakeholders mentioned above.
- ✓ MoE-J is committed to support to Regional 3R Forum on a long term basis.
- ✓ MoE-J is keen to continue its cooperation with UNCRD in advancing 3Rs in Asia and Pacific as outlined in the Hanoi 3R Declaration and Surabaya 3R Declaration.



For the 3R Initiative,

<http://www.env.go.jp/recycle/3r/en/index.html>

For the Regional 3R Forum in Asia and the Pacific,

http://www.uncrd.or.jp/env/spc/5th_3r_forum_f.htm

THANK YOU !!!

Ryutaro Yatsu