The Second Meeting of High-Level Political Forum on Sustainable Development New York, 7 July 2014





## 3Rs and resource efficiency policy towards sound material cycle society

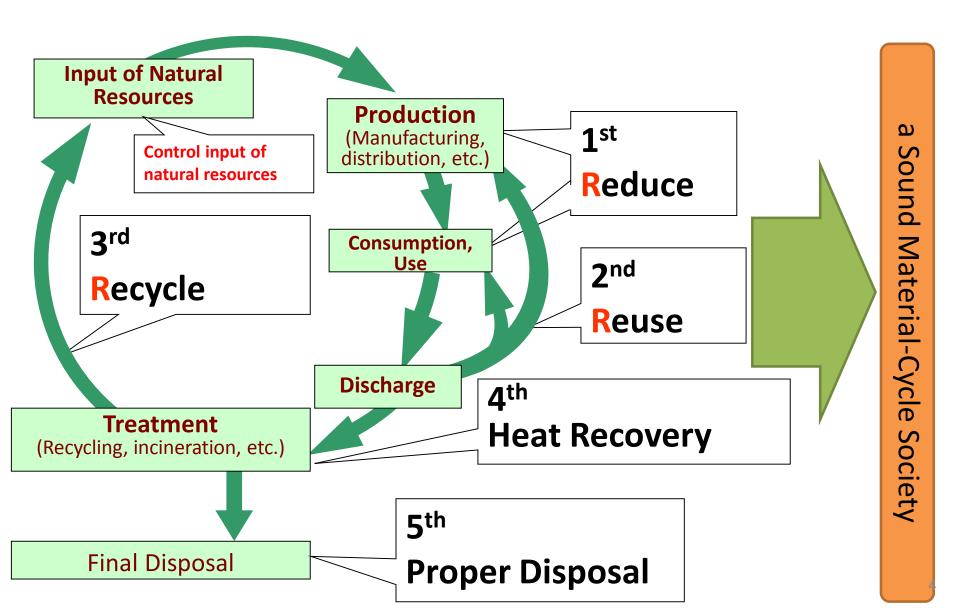
Mr. Shinji Inoue Parliamentary Senior Vice-Minister of the Environment, Japan

## Content

Progress towards Sound Material-Cycle Society

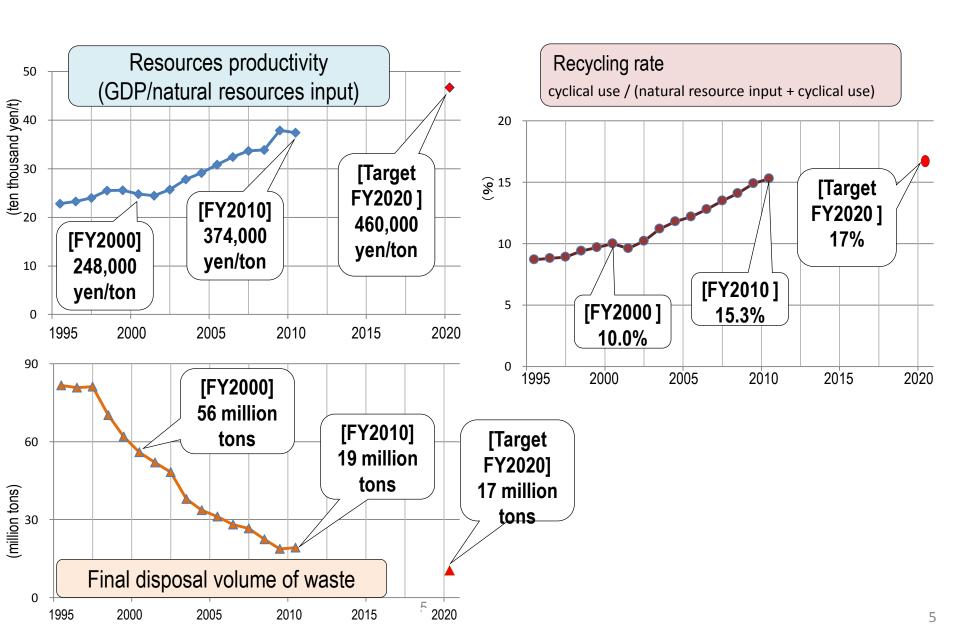
 Cooperation on 3R and Waste Management Policies Progress towards Sound Material-Cycle Society

## The Concept of a Sound Material-Cycle Society



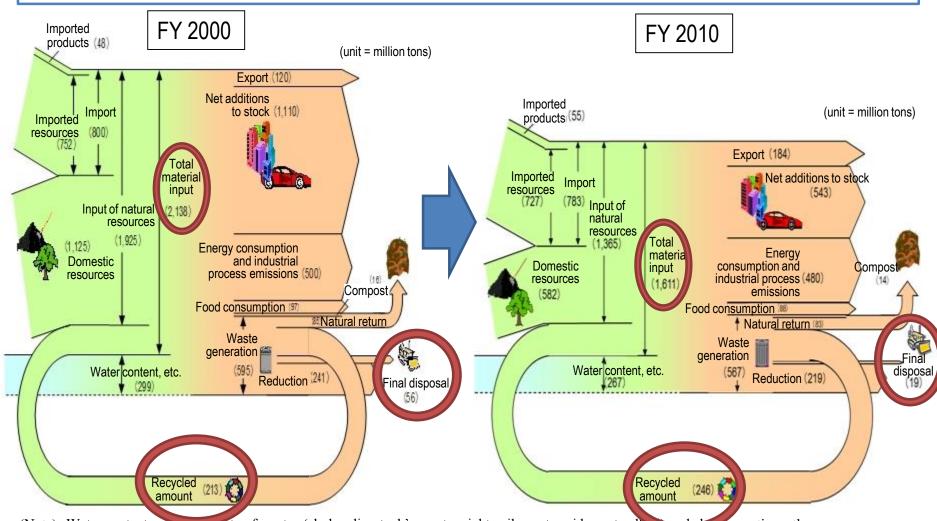
### Japan's progress towards establishing a Sound-Material Cycle society

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



## Material Flow of Japan

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



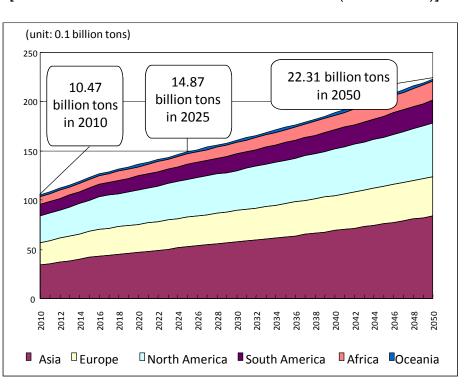
(Note) Water content: water coments of wastes (sludge, livestock's waste, night soil, waste acid, waste alka. "" "ge contingently dumped in the process of economic activities (sludge in mining, construction and in waterworks as well as slag)



#### Critical Waste Problems in Asia

- ◆ In line with the economic growth and population increase, mainly in Asia, the amount of waste generation has been increasing worldwide, the quality of waste diversifying as well. The global waste generation is expected to more than double in 2050, compared to the 2010 level.
- ◆ In developing countries, cases of environmentally inappropriate disposal/recycling have been reported.

[Estimated Total Waste Generation Worldwide (2010 - 2050)]



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

Environmental pollution caused by inappropriate recycling in developing countries

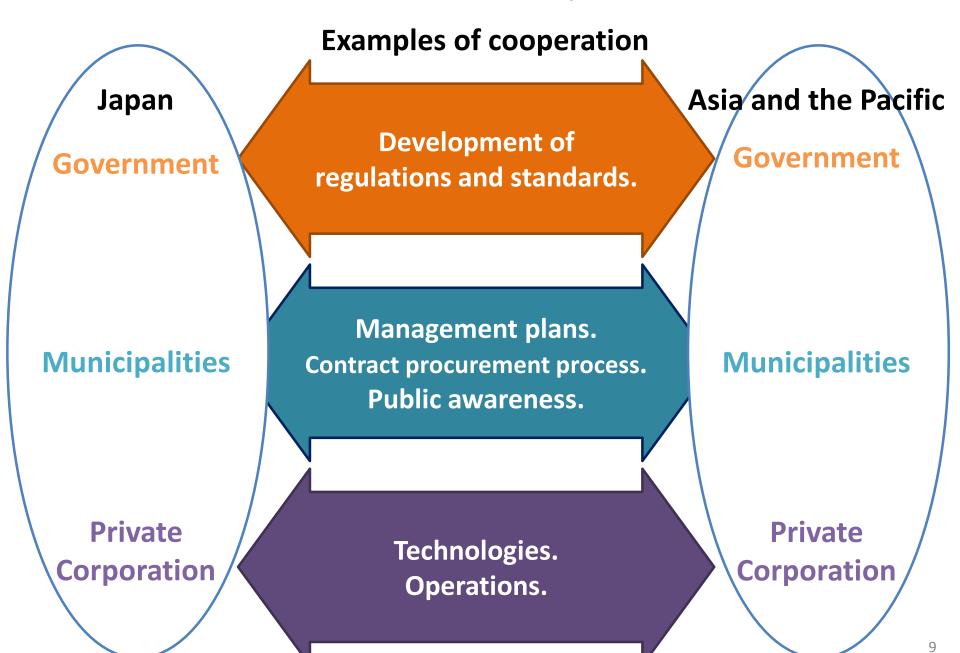
A process of open burning of covered cables to recover copper wires for recycling



A person collecting valuables from open dumping site Source: Japan Industrial Waste Information Center



## Roles Model for cooperation



## City-City Cooperation

#### Japan-side

#### **City of Kitakyushu**

**Project Management** 

#### **IGES**

Kitakyushu Asian Center for Low Carbon Society



**Green Sister City** (Nov. 2012)

#### Indonesia-side

#### **City of Surabaya**

**Development Planning Bureau (BAPPEKO)** 

Cooperation Div.

#### **Energy sector**

NTT DATA Institute of Management Consulting Inc.

NTT Facilities Inc. Fuji Electric Co., Ltd. Nippon Steel & Sumikin Engineering Co., Ltd. AT GREEN Co., Ltd

Energy saving and dispersed power system for buildings

> Cogeneration technology

Dept. of Construction, Institute of Technology Surabaya (ITS), office buildings, hotels, city hall, universities, hospitals, shopping malls

PT SIER, PT PIER, local companies, National **Electricity Company (PT** PLN), gas companies

#### Solid waste sector

recycling, composting Cooperation: Nishihara Co., Ltd.

Dept. of Cleanliness and Landscaping (DKP), Environment Dept. (BLH), fertilizer company (PT Petrokimia)

Hitachi Zosen Co., Ltd.

Waste-to-energy (incineration)

Waste sorting,

Ministry of Energy and Mineral Resources (ESDM), Ministry of Public Work, Ministry of Environment, Dept. of Cleanliness and Landscaping (DKP), landfill management company (PT Sumber Organik)

Waste-to-energy for industrial waste

Amita Co., Ltd.

Ministry of Environment, Dept. of Industry, local companies,

cement companies (PT Semen Indonesia), paper producing companies

#### **Transportation sector**

CNG vehicles for buses and taxis, promotion of CNG vehicles by supporting and maintenance systems

#### ALMEC Co., Ltd.

**Toyota Tsusho Electronics** (Thailand) Co., Ltd., R & Sport Development Co., Ltd. Japan Automobile Research Institute

Ministry of Transport, Ministry of Energy and Mineral Resources (ESDM), Dept. of Transportation (DisHub), bus and taxi companies, CNG station operators (ESDM, PT CNE)

Cooperation: \

Findings of other projects in Surabaya funded by other 10 sources were shared to this project.

## Incubation and Overseas Promotion of Waste Management and Recycling Industry

In Asia, sharp increase in the amount of waste generated as a result of economic development and growing populations

In Japan there is a legal system covering waste management and recycling, and progress is being made in development of various Technologies

Shortage of resources, escalation of prices in the world







Potential huge market for waste management and recycling businesses – approx. 35 billion USD for treatment of MSW in Asia in 2020



Transfer of Japanese environmental technologies and support on institutional arrangement together as a package



Contribution to environment preservation and resource recycling in Asia



Contribution to development for venous industry majors and Japanese economical growth



Contribution to maintenance of rare metal and Japanese resources strategy

## Regional 3R Forum in Asia and the Pacific

Oct 2008 East Asia Summit Environment Ministers Meeting

(Vietnam)

Japan proposed the establishment of "Regional 3R Forum in Asia"

Nov 2009 Inaugural meeting, in Tokyo; from 15 countries

Oct 2010 2<sup>nd</sup>, in Malaysia; from 22 countries

Oct 2011 3<sup>rd</sup>, in Singapore; from 23 countries

Mar 2013 4<sup>th</sup>, in Vietnam; from 31 countries

"Hanoi 3R Declaration"

Feb 2014 5<sup>th</sup>, in Indonesia; from 33 countries

"Surabaya 3R Declaration"

the Regional 3R Forum in Asia and the Pacific

\* Renamed from 5<sup>th</sup> Forum meeting

All the Forums are co-organized with Japan, a host country and UNCRD

#### Ha Noi 3R Declaration

#### - Sustainable 3R Goals for Asia and the Pacific for 2013-2023

Adopted at the Fourth Regional 3R Forum in Asia, 18 -20 March 2013, Ha Noi, Viet Nam (more than 300 participants from 30 Asia-Pacific countries)



- Expression of our resolve to voluntarily develop, introduce and implement policy options, programmes, and projects towards transitioning to a resource efficient and zero waste society.
- a legally non-binding and voluntary document

Consisting of 33 goals under the following areas:

- 3R Goals in Municipal/Urban areas (4 Goals)
- II. 3R Goals in Industrial Areas (5 Goals)
- III. 3R Goals in Rural/Biomass Areas (2 Goals)
- IV. 3R Goals for New and Emerging Wastes (5 Goals)
- V. 3R Goals for Cross-cutting Issues (17 Goals)



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

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 in Asia

and the Pacific, cities, international organizations, etc.

Theme : Multilayer Partnerships and Coalition as the Basis for

3Rs Promotion in Asia and the Pacific

Outcome : Surabaya 3R Declaration

Side event : Indonesia-Japan International 3R Exhibition



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of the Environment, Japan