Municipal Solid Waste Update [JAPAN]

[Kunihiko SHIMADA] GMI Municipal Solid Waste Subcommittee Meeting Vancouver, Canada, 13 March 2013



Implementation of national solid waste plans Revision of Fundamental Plan for Establishing a Sound Material-Cycle Society (forthcoming): Current State and Challenges

	FY2000	FY2009 (change over FY2000)	FY2015 (target yr.)
Resource productivity (10,000/t)	26. 3	40.3 (+53%)	42
Cyclical use rate (%)	10. 0	14. 9(+4.9 points)	14~15
Final disposal (mil. tons)	56	19 (-6.7%)	23
 Mesource productivity excl. soil & stones (Y10,000/t) 00 01 02 03 04 06 06 07 06 06 07 06 07 06 06 06 06 06 06 06 07 06 07 06 06 06 06 06 06 07 06 06 06 06 06 07 06 06 06 07 06 07 07 06 06 06 07 06 0		Target Y770,000/t	

OProgress in 3R efforts, Improvement of individual recycling laws, Material flows performing well, due to people's awareness raising

OWhile restraint on resources is expected to strengthen globally, productivity of resources other than soil /stones has not increased – this being insufficient efforts in "quality"

(1) Restraint on resources consumption and reduction of environmental burdens
 (2) Promotion of efforts in terms of both "quantity" and "quality"
 (3) Building of a sound material-cycle society leading to regional revitalization initiative

Implementation of national solid waste plans Revision of Fundamental Plan for Establishing a Sound Material-Cycle Society (forthcoming): priority item (1)

- 1. Promotion and upgrading of cyclical resource use with emphasis on "quality"
 - OBuilding of new recycle system to recover useful metals from EOL small home appliances, etc.
 - ODevelopment of technology enabling advanced recycling such as horizontal reproducing products from wasted EOL products in the same category

<ongoing recycle>

flake

<u> <horizontal recycle></u>

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2. Raising of environmental industries in cyclical areas

O Aiming to raise environmental industries in cyclical areas, by collecting valuable resources from among wasted domestic resources and making cyclical use
 O Supporting overseas operation by environmental industries, while promoting advanced recycle at home

Implementation of national solid waste plans Revision of Fundamental Plan for Establishing a Sound Material-Cycle Society (forthcoming): priority item (2)

- 3. Strengthening of measures from the viewpoint of safety and security
 - Strengthening of national network of waste disposal facilities
 - Securing tentative storage places for disaster-generated wastes and refuses

4. Promotion of international measures

- O Promotion of multi- and bi-lateral cooperation to strengthen 3R measures in developing countries
- O Accepting wastes from outside of Japan those difficult for developing countries to dispose but possible to dispose in Japan



Integrated efforts in line with a low-carbon society in harmony with nature Change in life-style with emphasis on 2Rs Formation of local recycling zones Implementation of national solid waste plans

Revision of Waste Management and Public Cleansing Law (2011): Problems to Address

I. Problems on appropriate waste disposal

()Many cases of illegal dumping witnessed; necessity to clarify the responsibility

for management of industrial waste- discharging enterprises

②Necessity to strengthen measures for waste management, with due consideration to local residents concerned about environmental contamination at waste management facilities

③Necessity to raise good waste management businesses

I. Problems on promotion of sound cyclical use of waste
①On industrial waste generation, recycling in progress, but insufficient reduce
②Necessity to sound cyclical use of waste
③Insufficient heat utilization at waste incineration plant

Implementation of national solid waste plans

Revision of Waste Management and Public Cleansing Law (2011): Area of Revision 1

- **1.** Enforcement of measures to secure proper disposal by waste-discharging enterprises
 - OCreation of advance notification system for off-site waste storage by waste-discharging enterprises

OMeasures to make prime contractors fully responsible for waste from construction works

OMeasures to enforce punishment on corporations whose employees execute illegal dumping

2. Enforcement of measures for management at waste disposal facilities

Obligatory regular inspection by prefectural governor for establishers of waste disposal facilities

OPublic disclosure of information on management of waste disposal facilities via internet

...etc.

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...etc.

3. Raising good industrial waste disposal businesses

OCreation of special standards for effective licensing period for eligible industrial waste-discharging businesses => Reduction of clerical office work for such businesses

Revision of Waste Management and Public Cleansing Law (2011): Area of Revision 2

4. Enforcement of discharge control

OObligatory development and submission of industrial waste reduction plan by much-discharging such enterprisesetc.

5. Securing of sound material recycle

OExpansion of eligible applicants to enable importers of wastes to assign licensed domestic disposal/recycle businesses for proper recycling or disposal of imported industrial wastes when there is reasonable ground for doing so => import of waste for proper recycling or disposal in Japan can be promoted so that Japan can contribute to the reduction of environmental burdens in foreign countries, especially Asian countries.etc.

6. Promotion of incineration heat utilization

OCreation of institutional framework to enable heat recovery businesses to be authorized by the concerned governor to incinerate waste at their waste disposal facilities when they meet designated standards => Incentives for authorized business

Act on Promotion of Recycling of Small Waste Electrical and Electric Equipment(2013)

Outline

Legal framework for the State to authorize business operators (recyclers) who accept end-of-life compact electrical devices from the local government and perform appropriate recycling securely, as well as to permit the authorized recyclers exemption of waste management law.

[Target items]

Those designated by ordinance, which are efficiently collectable and transportable and are urgent for recycling among electrical and electronic equipment utilized by consumers for their daily life

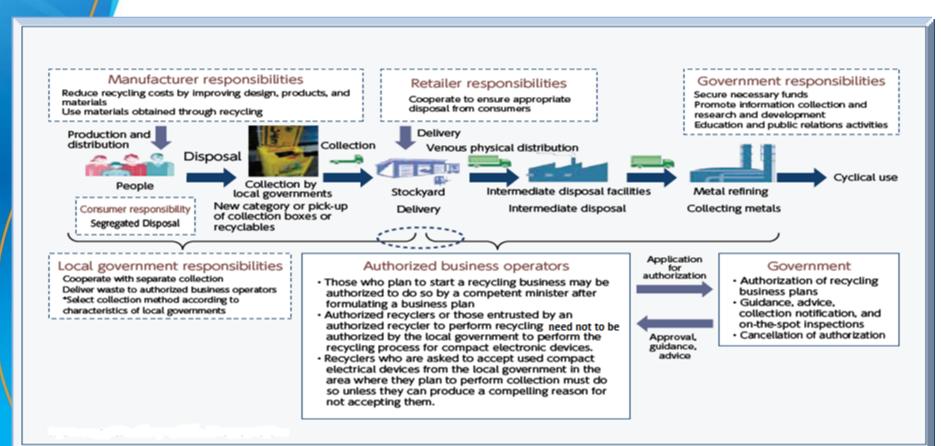
Basic Policy

Basic policy planned and announced by the Minister of the Environment and the Minister of Economy, Trade and Industry (Content)Basic direction, Target amount, Measures for promotion, Protection of personal information and other issues for consideration

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Implementation of national solid waste plans

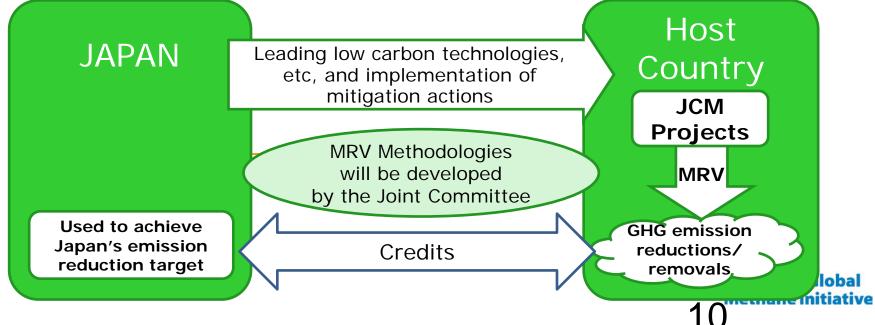
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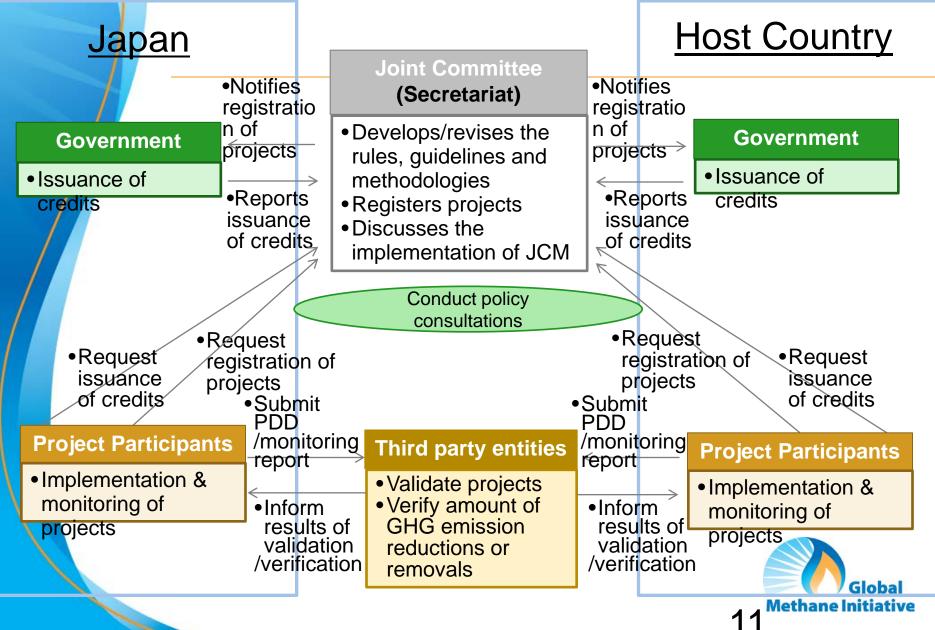


Basic Concept of the JCM

- Facilitating diffusion of leading low carbon technologies, products, systems, services, and infrastructure as well as implementation of mitigation actions, and contributing to sustainable development of developing countries.
 - Appropriately evaluating contributions to GHG emission reductions or removals from Japan in a quantitative manner, by applying measurement, reporting and verification (MRV) methodologies, and use them to achieve Japan's emission reduction target.
- Contributing to the ultimate objective of the UNFCCC by facilitating global actions for GHG emission reductions or removals, complementing the CDM.



Scheme of the JCM



MRV Model Projects and Feasibility Studies

MOEJINE 2012

- Replacement of Coal-Fired Boiler by Geo-Thermal Heat Pump for Heating
- Upgrading and Installation of High-Efficient Heat Only Boilers (HOBs)

India:

 Bagasse-based Power Generation including Waste Heat Utilisation

Moldova:

 Biomass Boiler Heating using Agricultural Waste as Fuel

Nepal:

■ Programme to Reduce Non-Renewable Biomass Consumptions through Introduction of High-Efficient Cook Stoves

Bangladesh:

Programme for Integrated Energy Efficiency Improvement of Dyeing Process

Sri Lanka:

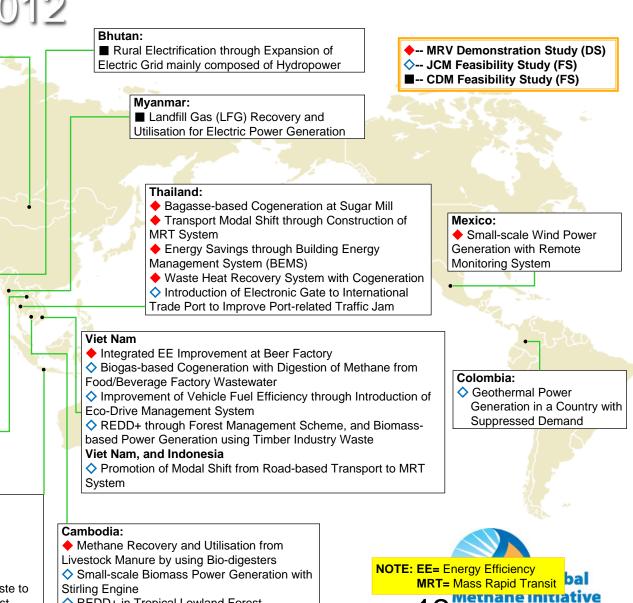
Biomass-based Thermal Energy Generation to Displace Fossil Fuels

Lao PDR:

 Transportation Improvement through introduction of Efficient Buses and Provision of Good Services
 Introduction of Mechanical Biological Treatment (MBT) of Municipal Solid Waste, and Landfill Gas (LFG) Capture, Flaring and Utilisation

Indonesia:

- Solar-Diesel Hybrid Power Generation to Stabilise Photovoltaic Power Generation
- Prevention of Peat Degradation through Groundwater Management, and Rice Husk-based Power Generation
 REDD+ for Conservation of Peat Swamp Forest, and Biomass-based Power Generation using Timber Mill Waste to
- Process Indigenous Trees derived from Conserved Forest



♦ REDD+ in Tropical Lowland Forest