

Japan's support to realize “Leapfrog” Low Carbon Development in Asian Cities

Kotaro Kawamata

Director, International Cooperation Office

Ministry of the Environment, JAPAN

13 November, 2013

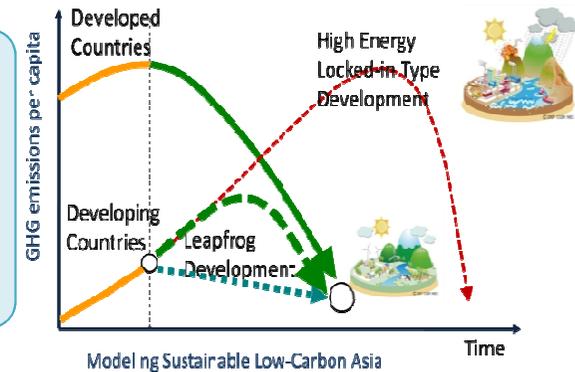
Table of Contents

1. Japan's New Support Program
Enabling "Leapfrog" Development
2. Joint Crediting Mechanism (JCM)
3. Advanced Low Carbon
Technologies
4. 17 ESC Feasibility Studies using JCM

(1) Japan's New Support Program Enabling "Leapfrog" Development

Objective

- To support **developing countries to leapfrog to low carbon societies** with Japan's knowledge, experience, technology, human capital and finance by utilizing **JCM (Joint Crediting Mechanism)**, with establishing the concept of a **"human society that harmonizes and enriches the environment and life"** as a new paradigm for the 21st century.



Scheme

Achieving "Leapfrog" Development through creation of low carbon society in Asia-Pacific.



Subject area

Environmentally Sustainable Cities

Energy Saving and Renewable			Transport	Waste management	Water treatment
<ul style="list-style-type: none"> ✓ Photovoltaic ✓ Wind ✓ Micro hydro ✓ Marine energy ✓ Biomass 	<ul style="list-style-type: none"> ✓ Independent distributed power ✓ Battery, HEMS ✓ Smart meter ✓ Waste heat recovery 	<ul style="list-style-type: none"> ✓ ESCO Project ✓ Inverter ✓ Heat pump 	<ul style="list-style-type: none"> ✓ Public transportation system ✓ Electric bike and vehicle ✓ Logistics and traffic flow measure 	<ul style="list-style-type: none"> ✓ Incinerator ✓ Separate collection ✓ Compost ✓ Landfill 	<ul style="list-style-type: none"> ✓ Water supply ✓ Sewage system ✓ Water saving device

(2) Joint Crediting Mechanism (JCM)

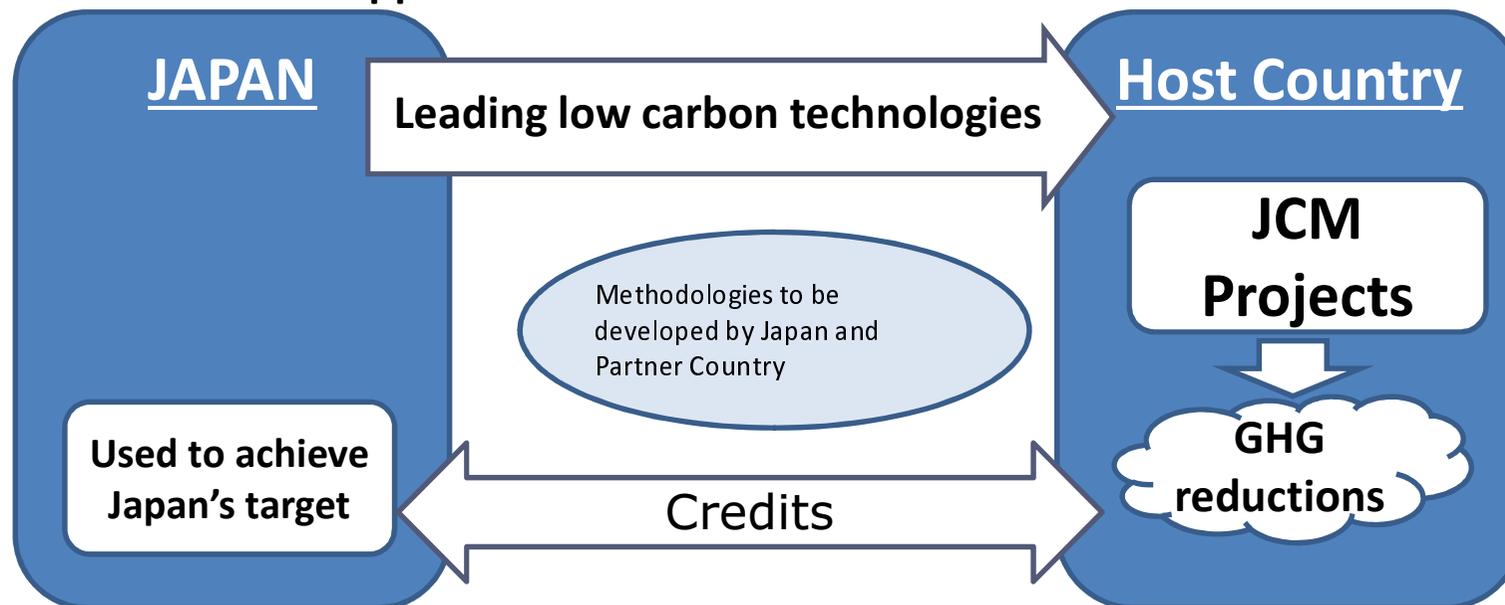
Purpose of JCM

- To facilitate diffusion of low carbon technologies
- To evaluate GHG emission reductions
- To contribute to the ultimate objective of the UNFCCC

Advantage of JCM

(Compliment to CDM)

- Maintaining simplicity and practicality based on the rules and guidelines
- Applied to broader areas with co-benefits, including energy saving, transport, wastewater and waste management
- Applied to various countries



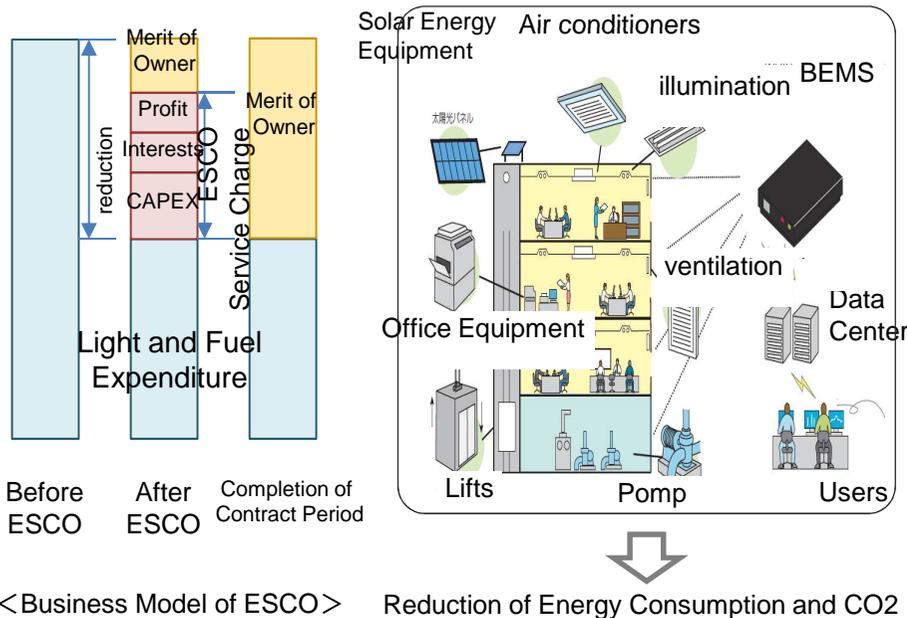
Signatory Countries

Mongolia, Bangladesh, Ethiopia, Kenya, Maldives, Viet Nam, Lao PDR, Indonesia

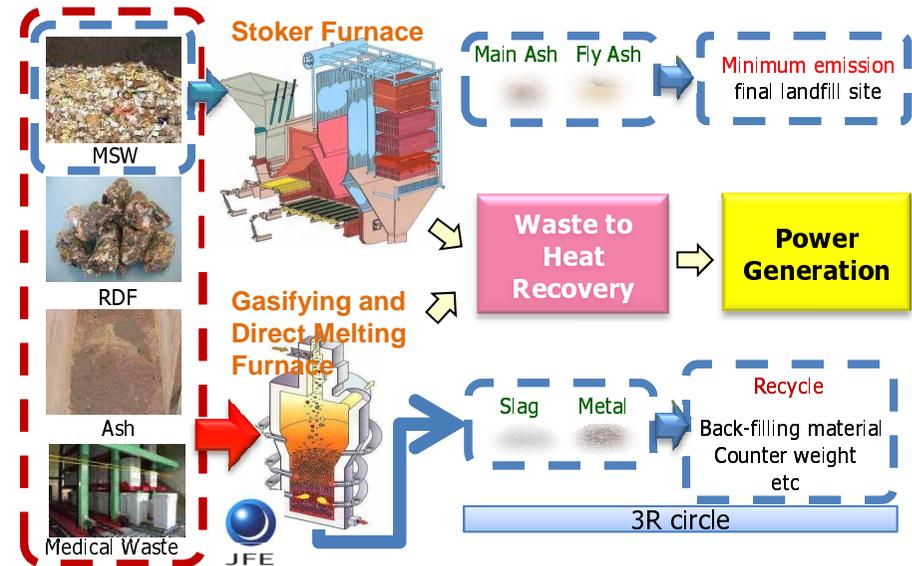
(3) Advanced Low Carbon Technologies

ESCO (Energy Service Company) Business

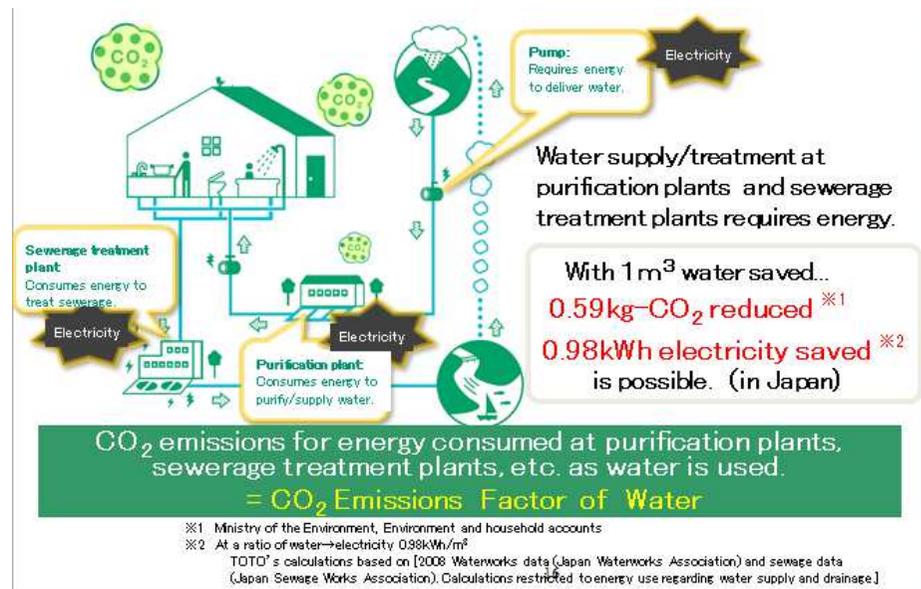
- No initial cost for building owners
- Cost for Installation of Energy Saving Technologies is paid by ESCO company
- ESCO company will get a part of energy saving benefits
- Market size of ESCO: US\$ 9 billion,000 (China), US\$ 400 M(Japan), US\$ 70 M (Thailand).
- ESCO are NOT familiar in the developing countries in Asia yet.



Waste to Energy (WTE)



Water Saving (The relation of water and CO2)



(4) 17 ESC Feasibility Studies using JCM

	Country	Area	Projects
1	Bangladesh	Dhaka,	Law carbon & safe water supply in rural area;CO2 free & green water supply project
2	Cambodia	Phnom Penh City	Quantification of GHG reduction effect of countermeasures in water supply sector and study of MRV methodology
3	Indonesia	Jakarta	Feasibility study of dissemination of Japanese standard digital tachometer and unification of regional standard for the water supply countermeasures in ASEAN metropolis
4	Indonesia	Jakarta	Recovery and destruction of fluorocarbons
5	Indonesia	Jakarta	Energy saving scheme development project for promoting energy efficiency equipment
6	Indonesia	Medan	Water supply system in ASEAN countries:CO2 half water supply project
7	Indonesia	North Sumatra	Energy saving development project in waste and wastewater management sector
8	Indonesia	Surabaya	Study for designing a low-carbon city plan
9	Malaysia	Iskandar	Large-scale formation of greenhouse gas emission reduction projects
6	Malaysia	Iskandar	Water supply system in ASEAN countries:CO2 half water supply project
4	Malaysia	Iskandar	Recovery and destruction of fluorocarbons
10	Malaysia	Perlis	Developing a low carbon society through "Waste to Energy technology" in
11	Mongolia	Ulaanbaatar (Ulan Bator)	Efficiency improvement of energy supply side and demand side
12	Myanmar	Yangon	Support for carbon city through Joint Crediting Mechanism(JCM) project formulation
13	South-Pacific Island Countries		Introduction of GHG mitigation and adaptation measures
3	Thailand	Bangkok	Dissemination of Japanese standard digital tachometer and unification of regional standard for the water supply countermeasures in ASEAN metropolis
4	Thailand	Bangkok	Strategic promotion of recovery and destruction of fluorocarbons
14	Vietnam	Ho Chi Minh	Osaka city cooperation project for developing low-carbon
6	Vietnam	Ho Chi Minh	Water supply system in ASEAN countries:CO2 half water supply project
15	Vietnam	Ho Chi Minh	Wide scale regulation feasibility study under JCM through diffusion of water saving equipment and energy saving equipment
16	Vietnam	Ho Chi Minh City and Da Nang City	Low-carbon community development project by promoting energy saving equipment and motor bikes
17	Vietnam	Da Nang City	Introduction, issue identification and evaluation of waste management and recycling technology