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

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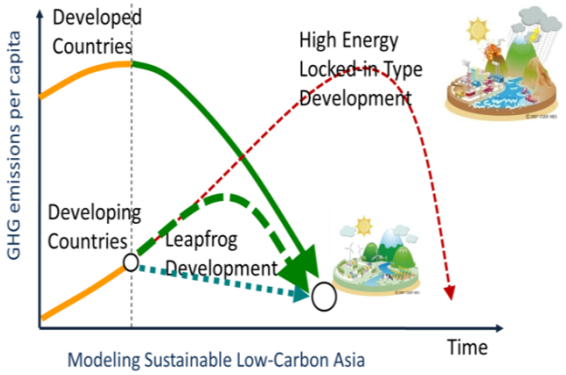
(1) Japan's New Support Program Enabling "Leapfrog" Development

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.

Knowledge, Experience, Technology,
(Participation of Various Stakeholders)

MOE

Research Institutes, Universities, Local governments

Capacity Building
(Improvement of environment law)

Identifying Development needs

Establishing business models

Financial Support
(Cooperation with JICA and ADB)

Developing Countries

Key target countries (tentative): Developing countries in Asia-Pacific, such as Indonesia, Vietnam, Myanmar, Mongolia and Palau

Subject area

Environmentally Sustainable Cities

Energy Saving and Renewable			Transport	Waste management	Water treatment
✓ Photovoltaic	✓ Independent distributed power	✓ ESCO Project	✓ Public transportation system	✓ Incinerator	✓ Water supply
✓ Wind	✓ Battery, HEMS	✓ Inverter	✓ Electric bike and vehicle	✓ Separate collection	✓ Sewage system
✓ Micro hydro	✓ Smart meter	✓ Heat pump	✓ Logistics and traffic flow measure	✓ Compost	✓ Water saving device
✓ Marine energy	✓ Waste heat recovery			✓ Landfill	
✓ Biomass					

(2) Joint Crediting Mechanism (JCM)

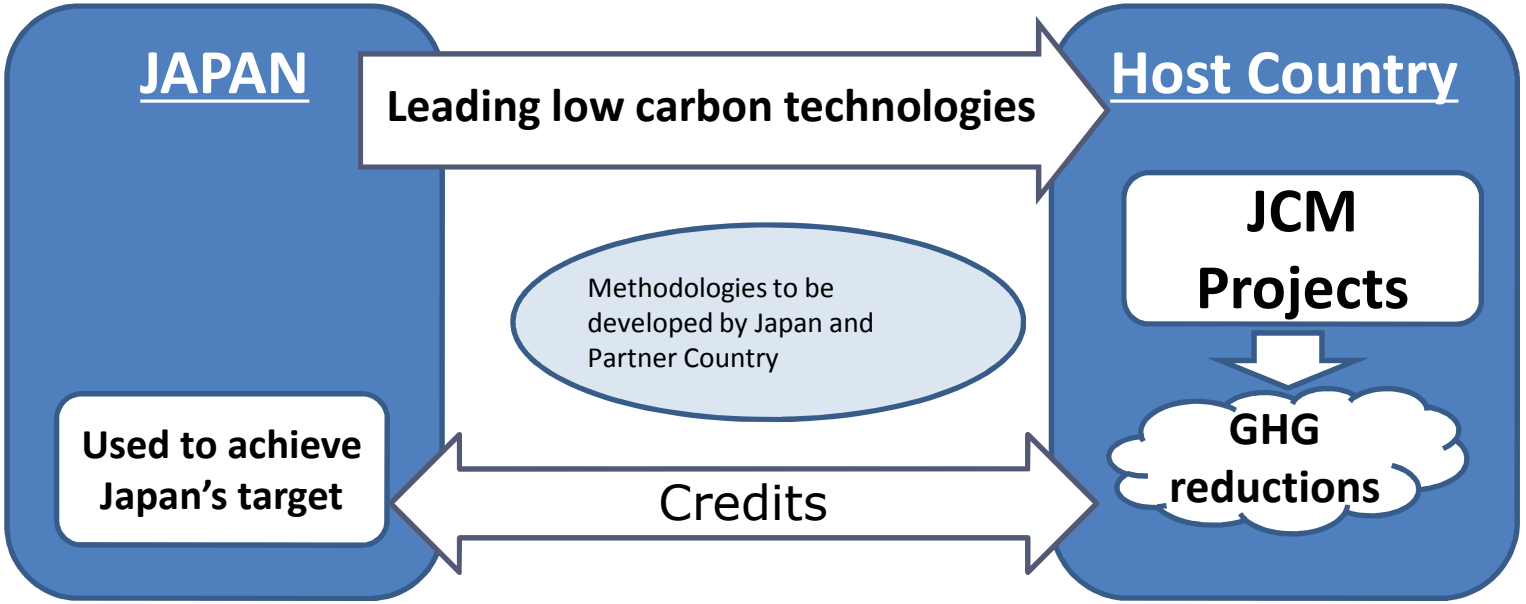
Purpose of JCM

- **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**

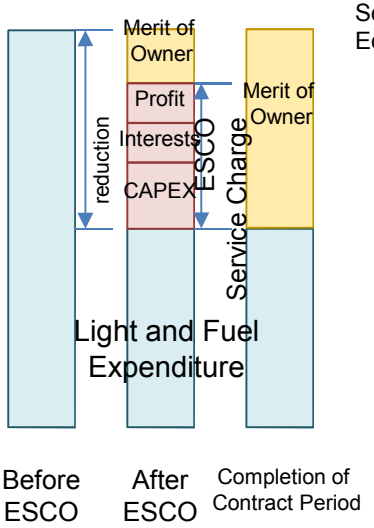


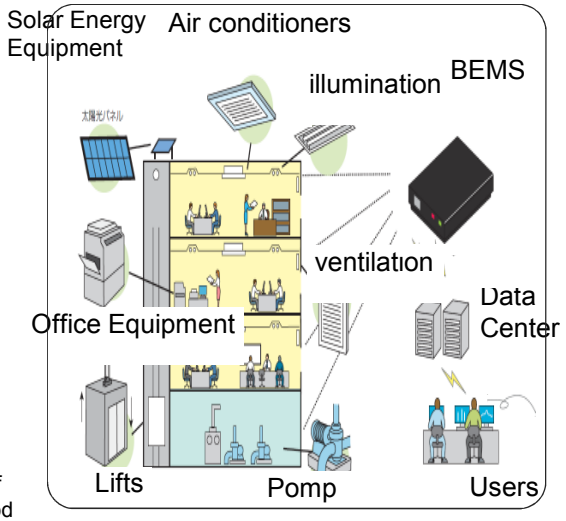
Signatory Countries
Mongolia, Bangladesh, Ethiopia, Kenya, Maldives, Viet Nam, Lao PDR, Indonesia

(3) Advanced Low Carbon Technologies

ESCO (Energy Service Company) Business

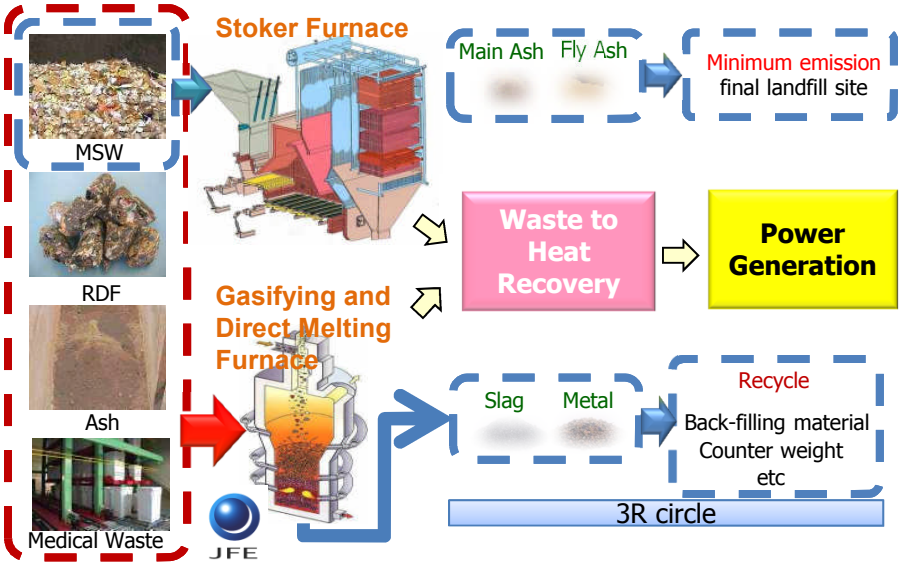
- No initial cost for building owners
- Cost for Installation of Energy Saving Technologies is paid by ESCO company
- ESCO company will get a part of energy saving benefits
- Market size of ESCO: US$ 9 billion,000 (China), US$ 400 M(Japan), US$ 70 M (Thailand).
- ESCO are NOT familiar in the developing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



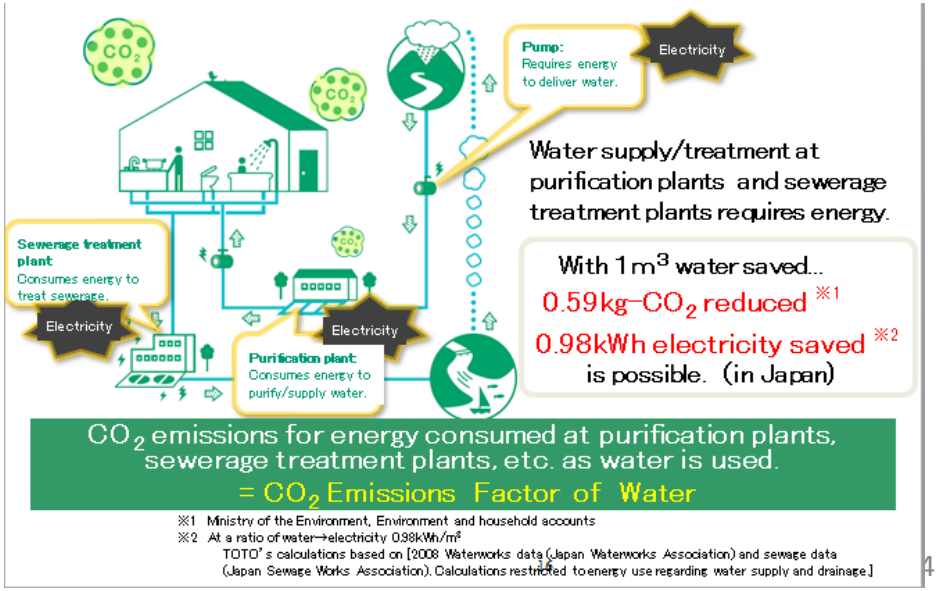


＜Business Model of ESCO＞ Reduction of Energy Consumption and CO2

Waste to Energy (WTE)



Water Saving (The relation of water and CO2)



(4) 17 FSC 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	Feasi… …y of dissemination of Japanese standard digital tachometer and unification of regional standard for the … …ntermeasur… …ASEAN metropolis
4	Indonesia	Jakarta	…overy and destruction of fluorocarbons
5	Indonesia	Jakar…	…g scheme deve…pment project for promoting energy efficiency equipment
6	Indonesia	Me…	…ate supp… …em in ASEAN countries:CO2 half water supply project
7	Indonesia	Nor…	…g develop…ment i… …aste and wastewater management sector
8	Indonesia	Su…	…e for designing a low-carbon city plan
9	Malaysia	Iska…	…r large-scale formation of greenhouse gas emission reduction projects
6	Malaysia	Iska…	…ply system in ASEAN countries:CO2 half water supply project
4	Malaysia	Iska…	…of r…overy and destruction of fluorocarbons
10	Malaysia	Per…	…eloping a low carbon society through "Waste to Energy technology" in
11	Mongolia	Ula…	…ficie…cy improvement of …ergy supply side and demand side
12	Myanmar	Yangon	Supp… …carbon city …rough Joint Crediting Mechanism(JCM) project formulation
13	South-Pacific Island Countries		…ation of GHG mitigation and ad…ptation measures
3	Thailand	Bangkok	…ssemination of Ja…nese standard digital tachometer and unification of regional standard …countermeas… …in ASEAN metropolis
4	Thailand	Bangkok	Strategic promotion o… …very and destruction of fluorocarbons
14	Vietnam	Ho Chi Minh	…Osaka city… …tion project f…r developing … …arbo…
6	Vietnam	Ho Chi Minh	Eco-frien… …syst…m … ASEAN coun…ies:CO2 half wate… …oject
15	Vietnam	Ho Chi Minh	Wide scale… …ulation …ea…ility study under JCM through diffusion of water saving equipment and …ergy saving equipment
16	Vietnam	Ho Chi Minh City and Da Nang City	…carbon commu…ty developm…nt … …by promo… …and motor bikes
17	Vietnam	Da Nang City	Introduction, issue identification and evaluation of …hnologie… …aste management and processing