

CDM Feasibility Study Scheme

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Global Environment Centre Foundation

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Objective of F/S

Finding projects for CDM/JI
Knowledge accumulation



Targeted technical fields for the F/S

1 . Waste Management

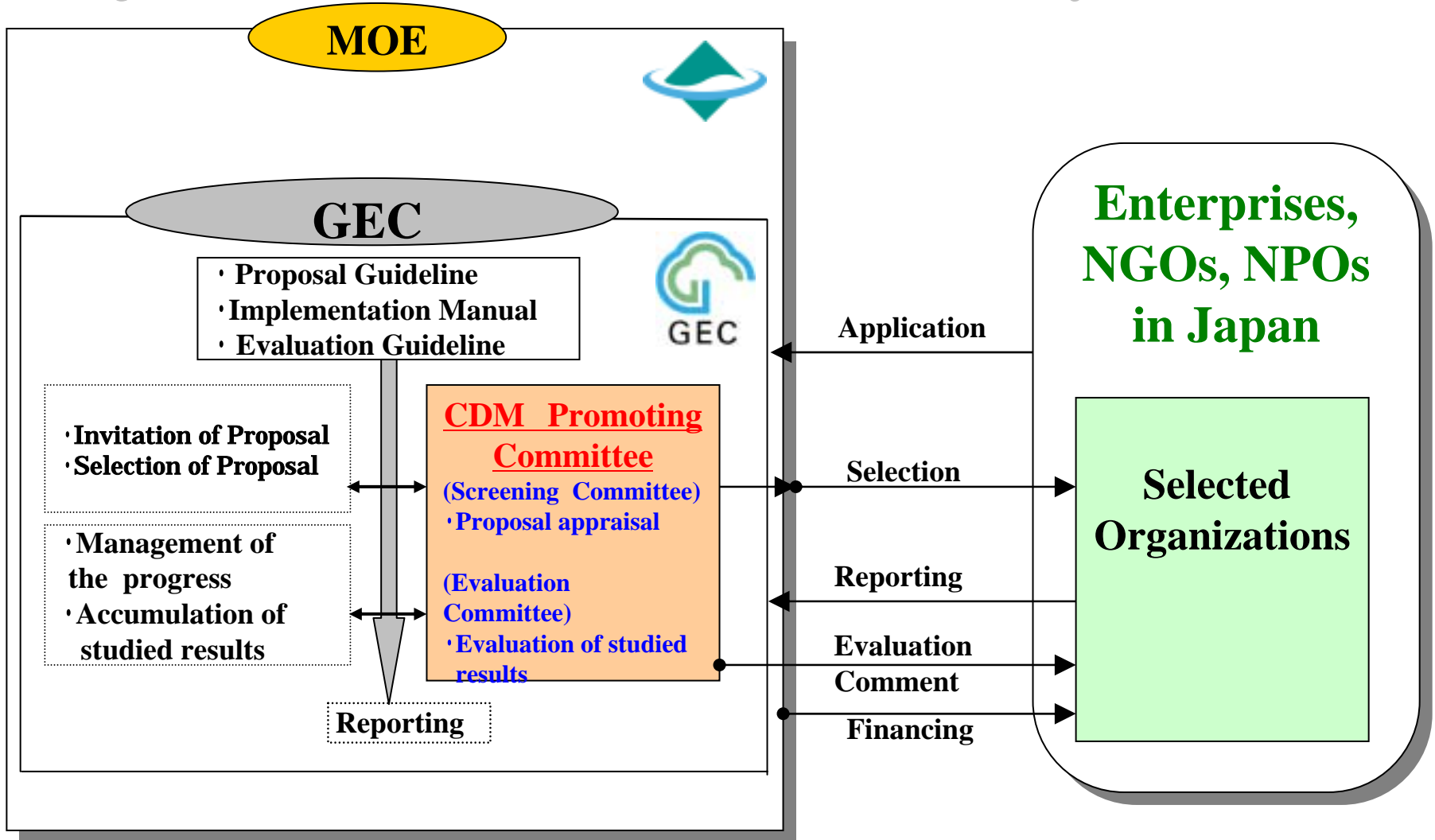
2 . Utilization of biomass

3 . Afforestation/Reforestation

4 . Others

(Utilization of natural energy etc.)

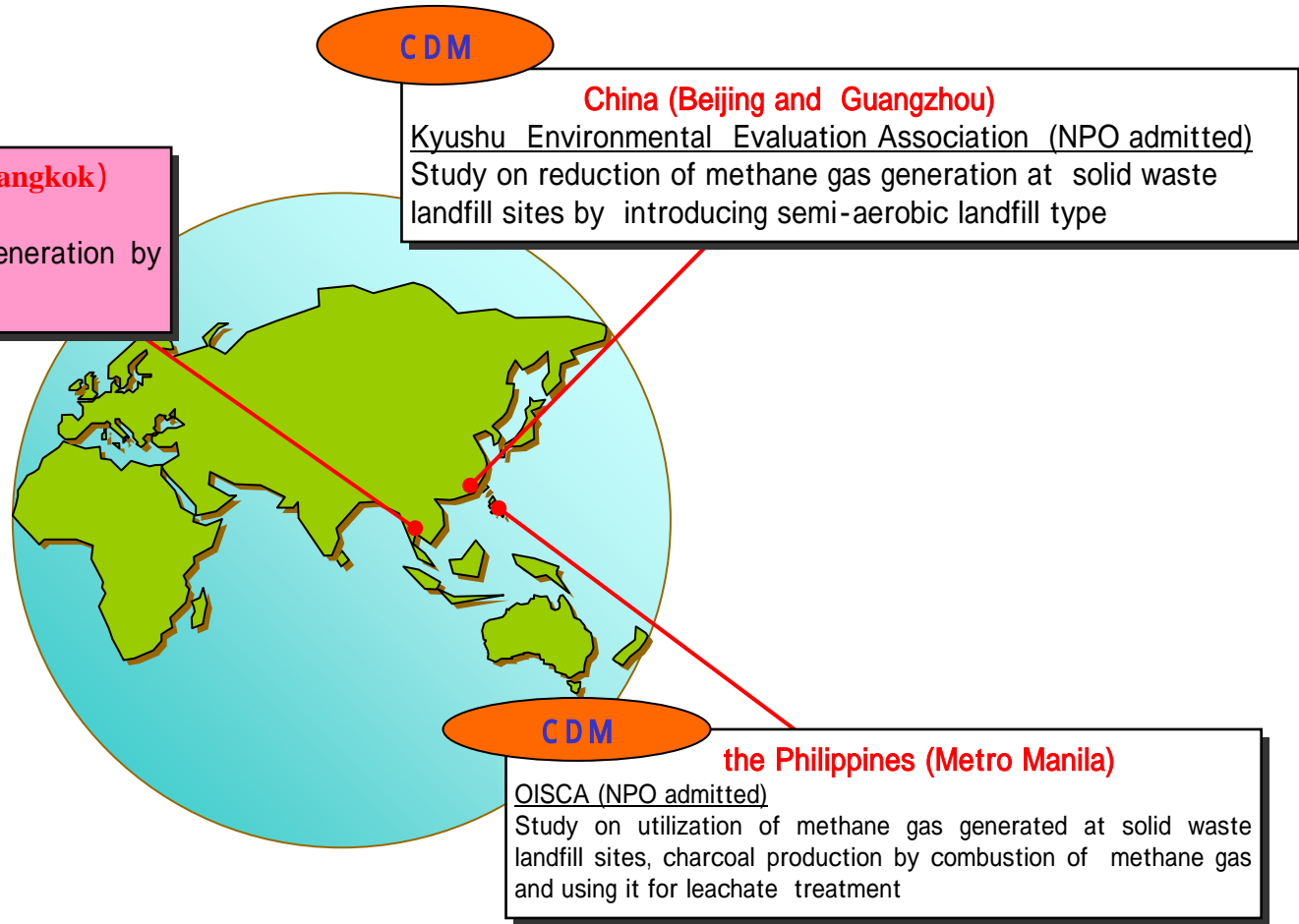
Project Scheme of CDM Feasibility Studies

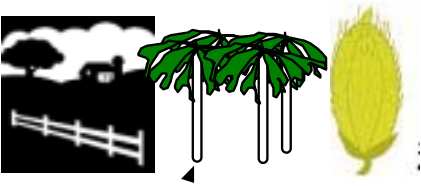


Implemented F/Ss in FY 1999-2002

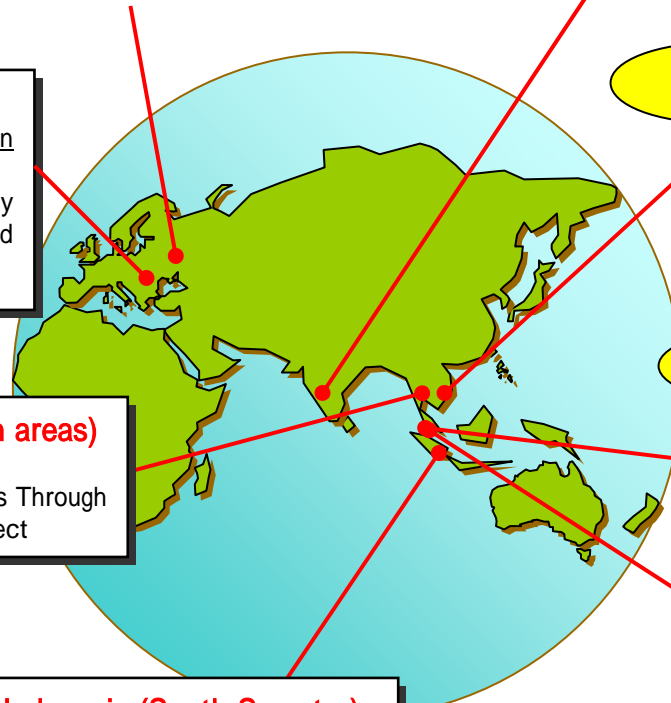


Waste Management





Utilization of Biomass



JI

Ukraine (around Khar'kov)
Non Profit Organization Japan PFI Association
 Feasibility Study on Biomass Recycling Project
 Using Livestock Waste

CDM)

India (Koihapur)
Japan Energy Research Center Co., Ltd.
 Feasibility study on fuel ethanol production from
 molasses in India

JI

Under research

Bulgaria (Haskovo)
Overseas Environmental Cooperation
 Center, Japan
 Feasibility study on centralized heat supply
 sytem by utilization of Waste Wood and
 adoption of high-efficiency boiler in Bulgaria

CDM)

Viet Nam (Southern Part)
Japan Energy Research Center Co., Ltd.
 Study on production of ethanol-containing gasoline,
 with ethanol made from sugar cane refuse

CDM

Thailand (5 central urban areas)
Tokyo-Mitsubishi Securities Co., Ltd.
 Practical Steps in Obtaining Carbon Credits Through
 a Thai Biomass Electricity Generation Project

CDM

Under research

Malaysia (Pantai Remis)
Tokyo-Mitsubishi Securities Co., Ltd.
 Practical Steps in Obtaining Carbon Credits through
 Malaysia Biomass Electricity
 Generation Project

CDM

Indonesia (South Sumatra)
Kansai Environmental Engineering Center
 Co., Ltd.
 Feasibility Study on Charcoal Production and
 Power Generation Projects Using Biomass from
 Industrial Afforestation Projects

CDM)

Malaysia
EX Corporation
 Project Development Study for Reducing
 Methane Emissions from Anaerobic Lagoons
 Treating Effluents from Palm Oil Production



Afforestation (Reforestation)



Social Afforestation (CDM)

Social Afforestation (CDM)

Myanmar (South Shan)
KARAMOSIA (NGO admitted)
- Feasibility study on afforestation

Mongolian (Tov and Selenge)
Hyogo Environmental Advancement Association
(NPO admitted)
Survey for supporting a reforestation project plan

Social Afforestation (CDM)

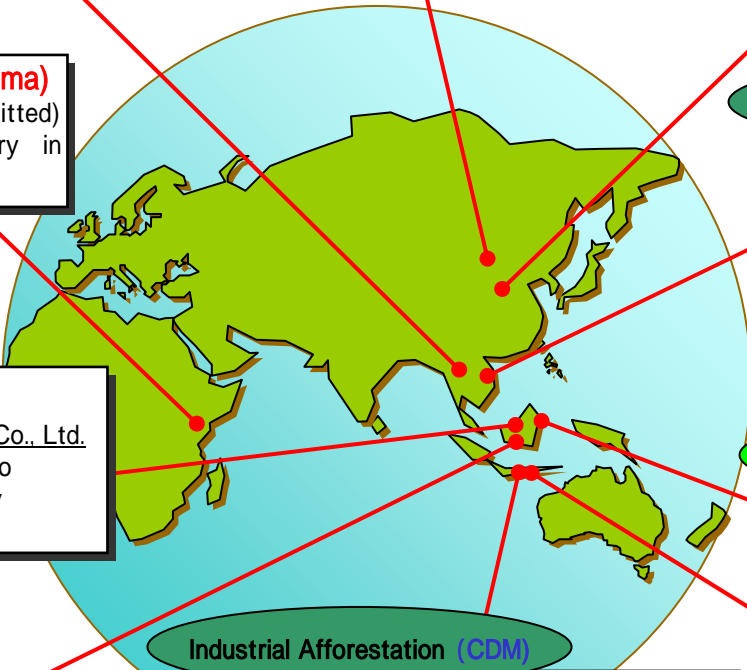
China (Datong, Shanxi)
Green Earth Network (NGO admitted)
Study on afforestation in the Huangtu Plateau

Social Afforestation (CDM)

Tanzania (Dodoma)
Earth Greenery Activities Japan (NGO admitted)
Study on reforestation and agroforestry in symbiotic relation with white ants

Industrial Afforestation (CDM)

Viet Nam (Hue Province)
Nissho Iwai Research Institute .LTD
Feasibility Study for an Environmental Forestation Project to obtain CO2 emission credit in CDM, which will be implemented by private initiative and capital in Vietnam



Industrial Afforestation (CDM)

Malaysia (Sarawak)
Kansai Environmental Engineering Center Co., Ltd.
Study on sustainable forest management to enhance carbon sinks and stabilize CO₂ by carbonization

Social Afforestation (CDM)

Indonesia (East Kalimantan)
Sumitomo Forestry Co., Ltd.
Study on evaluation of afforestation project

Social Afforestation (CDM)

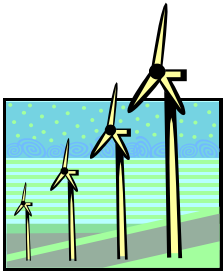
Indonesia (Pontianak, West Kalimantan)
International Charcoal Cooperative Association (NGO)
Pilot study to establish highly productive and environmentally sound forest management method

Industrial Afforestation (CDM)

Indonesia (East Kalimantan and East Java Province)
Sumitomo Forestry Co., Ltd.
CDM Study on Forest Plantation Projects in East Kalimantan and East Java Province, Indonesia

Social Afforestation (CDM)

Indonesia (West Nusa Tenggara)
Japan International Forestry Promotion & Cooperation Center (JIFPRO) (NPO admitted)
Feasibility study of a participatory reforestation project on Lombok Island



Others

Wind Power (JI)

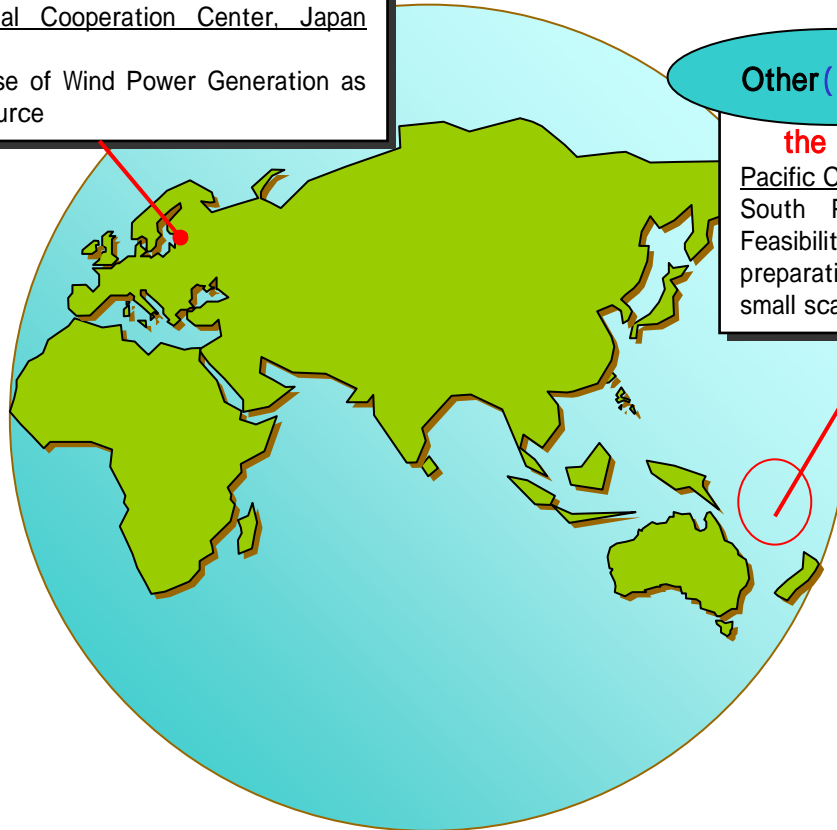
Estonia (around Paldiski)

Overseas Environmental Cooperation Center, Japan
(NPO admitted)
Pilot Project on the Use of Wind Power Generation as
an Alternate Energy Source

Other (CDM)

the South Pacific Island Countries

Pacific Consultants Co., Ltd.
South Pacific Island Nation CDM Project
Feasibility Study and Assistance for the
preparation of Project Design Documents of
small scale CDM projects



Experiences of Feasibility Studies



Landfill gas capture and power generation (flaring) project

Contribution to sustainable Development for host countries

Energy supply

Measures for waste disposal, offensive odor and water pollution

Advantages

Large amount of GHG reduction (CH_4 : GWP=21)

Additionality of the project activity

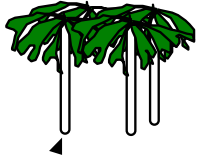
High sensitivity to CER value

Disadvantages

Difficulty in defining a scale of generator

(Difficulty in foreseeing production pattern of LFG)

Biogas Power Generation (Palm oil mill effluent , etc.)



Contribution to Sustainable Development for host countries

Energy supply

Measures for water pollution

Advantages

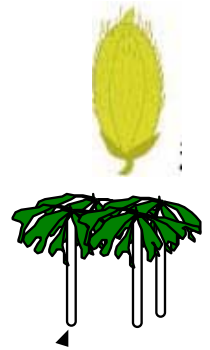
Large amount of GHG reduction (CH_4 : GWP=21)

Additionality of the project activity

High sensitivity to CER value



Biomass Power Generation (Bagasse, Rice husk, EFB of Oil palm, Waste wood , etc.)



Contribution to Sustainable Development for host countries

Energy supply

Measures for waste disposal

Disadvantage

Difficulty in collecting raw materials constantly



Gasohol -Ethanol Fermentation-

(Ex. Malasses (waste sugar syrup) , etc.)

Contribution to Sustainable Development for host countries

Energy supply

Measures for Lead pollution by leaded gasoline

Disadvantages

Difficulty in collecting raw materials constantly

Technique problems in technique

(Dewatering, Saccharification in case of using Bagasse)

Low sensitivity to CER value



Afforestation/Reforestation

Contribution to Sustainable Development for host countries

Measures for Deforestation

Promotion of forest industry

(in case of industrial forestation)

Environment restoration (in case of social forestation)

Disadvantage

Risk and Uncertainty

(Forest fires, Diseases and pests, Leakage)

Low cost-effectiveness(in case of social forestation)

Temporary-CER decline of CER value

Overall Issues

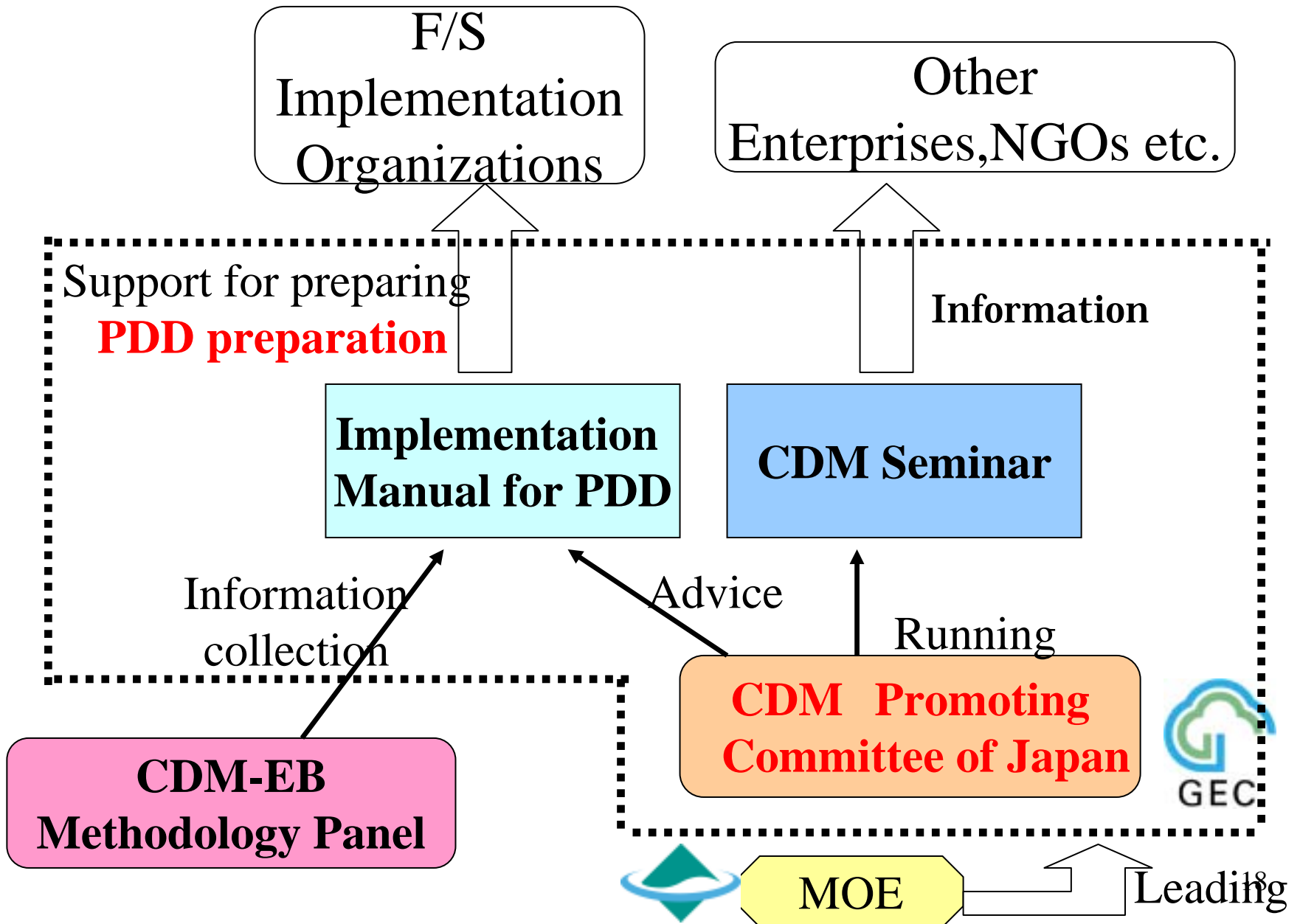
Difficulty in knowing an accurate
cost-effectiveness
(i.e. initial cost in host countries)

Improvement about the Baseline
scenario and Additionality of
the project activity

History of F/Ss

FY	MOE·GEC F/S (Number of F/S)	COP		CDM-EB Meeting	
1999	Waste Management : 2 Forestation : 6				
2000	Forestation : 7 Biomass Use : 1	6			
2001	Biomass Use : 4 Forestation : 1 Wind Power Generation : 1 Others : 1	6.5	Bonn Agreement 7 Marakesh Accord	1	START
2002	Waste Management : 1 Biomass Use : 4 Forestation : 2 Others : 1	8	(Small Scale CDM)	6 7 8	CDM-PDD ver01 SSC-PDD ver01
2003	Waste Management : 7 Biomass Use : 5 Forestation : 5 Wind Power Generation : 1 PFC·SF6 : 1 Geothermal Heat Pump : 1	9	(CDM Sink)	9 10 12	Deliberation about proposed Methodologies 2 Revised Methodologies Approve

GEC's roles for CDM/JI F/S





MOE Scheme for next step



1. Financial support for preliminary practice of
Validation

Training of OE in Japan

2. Financial support for an initial cost of actual
CDM project

***Thank you for
your Attention***

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