MOEJ Initiatives on Bilateral Mechanisms for Mitigating Climate Change

February 2011

Office of Market Mechanisms
Climate Change Policy Division
Ministry of the Environment, Japan (MOEJ)

Progress in International Negotiations

Cancun Agreements (COP 17 Decisions)

It was agreed that the Conference of the Parties (COP) "**decides to consider the establishment, at its seventeenth session, one or more market-based mechanisms"**.

High-Level Agreements on Bilateral Cooperation

[India]

At their meeting on October 25, 2010, the prime ministers of Japan and India agreed to enhance bilateral discussions to build a framework for bilateral cooperation in the area of climate change.

Excerpt from the joint statement: *" The two Prime Ministers also reaffirmed the importance of strengthening bilateral discussions on climate change on various occasions, including a possible establishment of a framework of comprehensive bilateral cooperation."*

[Vietnam]

At their meeting on October 31, 2010, the prime ministers of Japan and Vietnam agreed to start consultation on the establishment of a bilateral carbon offset scheme and other initiatives in the area of climate change.

Excerpt from the joint statement: *The two sides agreed to task relevant agencies of the two countries to exchange views for the realization of these objectives* including the potential establishment of bilateral offset credit mechanism.*

* Making the environment and economy compatible, thereby addressing the climate change issues while achieving sustainable growth.

Multilateral Agreement

In Action Plan for "A Decade toward the Green Mekong" Initiative formulated on October 29, 2010, Japan and the Mekong region countries agreed to "**promote the development of bilateral offset mechanisms**."

Government Decisions regarding Bilateral Mechanisms

Bill for the Basic Act on Global Warming Countermeasures (Excerpt)
(Cabinet Decision made on March 12, 2010 and October 8, 2010)

(Measures for International Cooperation)

"Article 29: Recognizing the importance of promoting global warming countermeasures under international cooperation, the government shall work for the establishment of a fair and effective international framework ensuring the participation of all major countries in efforts to prevent global warming, and implement measures to ensure international cooperation for the prevention of and adaptation to global warming, to establish a new framework for providing international financial support, **to create a mechanism for properly valuing contributions to GHG emission reduction efforts overseas such as through the provision of relevant technologies and/or products, and to promote other forms of international cooperation**, while at the same time providing information and taking other necessary steps to promote international cooperation initiatives of local governments and private-sector entities to prevent and adapt to global warming."

New Growth Strategy: Blueprint for Revitalizing Japan (Excerpt) (Cabinet decision made on June 18, 2010)

(1) Strategy for becoming an environment and energy power through "green innovation"

[Targets to reach by 2020]

- "Create over ¥50 trillion in new environment-related markets" and "1.4 million new environment sector jobs."
- **"Reduce worldwide GHG emissions by at least 1.3 billion tons (equivalent to the total emissions of Japan) by using Japanese private-sector technologies."**

<Timetable>

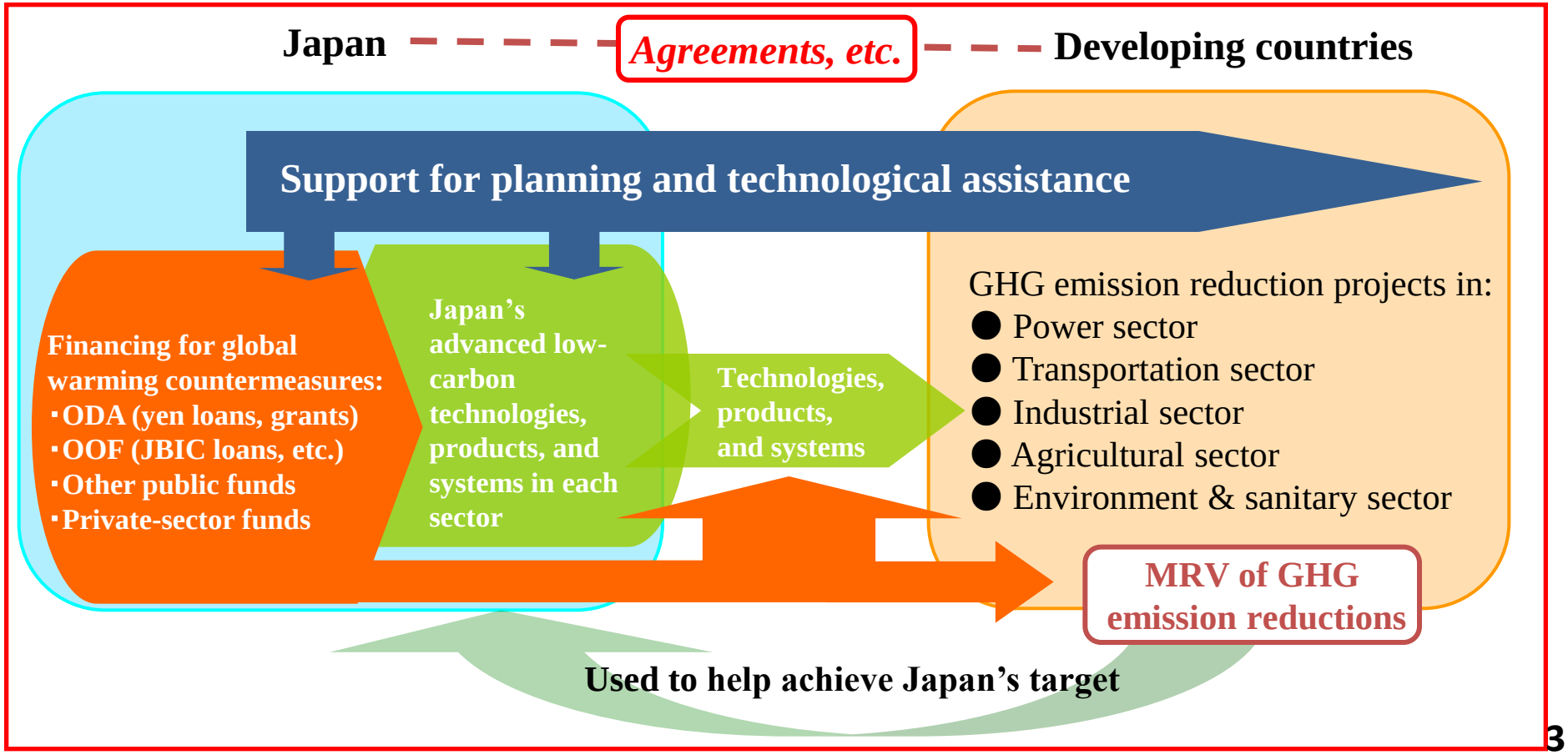
- "**Establish a mechanism that can appropriately evaluate Japanese companies' contributions to GHG emissions reduction efforts overseas, for instance, through the provision of their low-carbon technologies, infrastructure, and products.**"

Image of a Bilateral Mechanism

[Requirement]
Mechanism must be internationally acceptable one.
- GHG emission reductions must be quantitatively evaluable.
- MRV can be implemented.

[Target]
Establish a win-win relationship between developing and developed countries through the promotion of technology transfers and emissions reductions.

Enter into agreements with developing country governments to implement and appropriately evaluate GHG reduction projects in each sector by utilizing Japan's advanced technologies and products, and count such reductions to offset emissions in Japan.



MOEJ Initiatives for the Development of New Mechanisms

Feasibility Studies for CDM/JI Projects

- Call for potential CDM/JI project proposals from Japanese entities and select ones, and request them to develop project design documents (PDDs) and to proceed to the UNFCCC procedures.
- About 20 projects are selected each fiscal year.
- **Three projects (in Thailand, Laos, and Indonesia) have been selected as new mechanisms feasibility studies in FY2010.**

Kyoto Mechanisms Information Platform

- Manage help desk for Japanese entities to provide consultation in implementing CDM/JI projects
- Operate the Kyoto Mechanisms Information Platform website to provide the latest news and information from within and outside Japan
- **Inquiries for new mechanisms are received in FY2010.**
- **Seminars on new mechanisms organized in February and March 2011, in Japan**

CDM Capacity Building Activities

- Support the designated national authorities (DNAs) and private entities in Asian countries to make enabling circumstances for implementing CDM projects.
- Develop and disseminate publications and databases for the CDM.
- **Consultations with developing country DNAs launched in FY2010 on capacity building for new mechanisms.**
- **Presentations on the status of international negotiations on new mechanisms in workshops.**

Feasibility Studies on New Mechanisms

- Since FY1999, CDM/JI feasibility studies have been performed on 183 projects, of which 11 projects have been registered as CDM projects by the CDM Executive Board.
- Starting from FY2010, feasibility studies have been undertaken (by the Global Environment Center Foundation) for projects involving new mechanisms with an aim to accumulate knowledge and experience concerning the new mechanisms.

New mechanism feasibility study projects implemented in FY2010

[Thailand] Feasibility study of comprehensive NAMAs for waste and wastewater management	**[Laos]** Feasibility studies of NAMAs for transportation management	**[Indonesia]** Feasibility study of NAMAs for peatland management

Initiatives related to bilateral mechanisms

- For each of the above three projects, a taskforce has been set up and a feasibility study is now being performed under the guidance of the taskforce.
  - ➢ Each taskforce is composed of university professors, researchers, consultants, and other experts specialized in the respective technology areas concerned and/or in CDM schemes.
- Establishes host nation's committee for each FS, which has government officials and other experts from each host nation, in order for a Japanese FS implementer to directly collect national perspectives on the new mechanisms.
  - ➢ Host nation's committees are to be held in the host nation.
  - ➢ Host nation's committee members are invited to MOEJ by FS implementers.
- About 30 projects are to be expected as new mechanism feasibility study projects in FY2011.
  - ➢ Symposiums will be held in Tokyo and Osaka to disseminate the results of feasibility studies.

CDM/JI and New Mechanism Feasibility Studies (FS) in FY2010

[CDM/JI Feasibility Studies]

Category	Implementing Organization	Description of Feasibility Study
(1) Development of new mechanisms or new areas	Hitachi Zosen Corporation	CDM FS on Eucommia afforestation in Henan Province, China
	PEAR Carbon Offset Initiative, Ltd.	CDM FS on a biogas utility program in in rural Bangladesh
	Mitsubishi UFJ Research and Consulting Co., Ltd.	CDM FS on the production of Jatropha BDF and its use as automobile fuel in Vietnam
	Kyushu Electric Power Co., Inc.	CDM FS of a program promoting the use of energy-efficient textile tenter frames in dye houses in Zhejiang Province, China
(2) Development or improvement of methodologies	Japan Weather Association	CDM FS of a program promoting the installation of idle-reduction devices on local buses in Shandong Province, China
	Pacific Consultants Co., Ltd.	CDM FS on the CO_2 emission-reducing effect of the introduction of motorcycle maintenance techniques in Vietnam
(3) High feasibility	Ichikawa Kankyo Engineering Co., Ltd.	CDM FS of a household waste treatment program in Vietnam aimed at avoiding landfill disposal
	Yachiyo Engineering Co., Ltd.	Combined CDM FS for intermediate waste treatment and methane gas power generation projects in Ipoh, Malaysia
	Eight-Japan Engineering Consultants Inc.	CDM FS on the use of pineapple processing waste and wastewater for power generation in Mindanao, the Philippines
	EJ Business Partners Co., Ltd.	CDM FS on the use of gas from waste disposal sites/sewage sludge for power generation in in Xiamen, China
	EX Corporation	CDM FS on switching to Gliricidia wood chips in plants currently using industrial thermal fuel in Sri Lanka
	Industrial Decisions Inc.	CDM FS on rice husk power generation in Chainat Province, Thailand
	Mitsubishi UFJ Morgan Stanley Securities Co., Ltd.	CDM FS on wind power generation in Galapagos Islands, Ecuador
	E&E Solutions Inc.	CDM FS of an energy saving program using coke-oven gas in Yunnan Province, China
	Tepia Corporation, Japan	CDM FS on waste gas and heat power generation in Shanxi Province, China
	PEAR Carbon Offset Initiative, Ltd.	CDM FS on power generation utilizing ventilation air methane (VAM) from the Dafosi coal mine in China

[New Mechanism Feasibility Studies]

Category	Implementing Organization	Description of Feasibility Study
New mechanism	**Pacific Consultants Co., Ltd.**	**FS of comprehensive NAMAs for waste and wastewater management in Thailand**
	Mitsubishi UFJ Morgan Stanley Securities Co., Ltd.	**FS of NAMAs in transportation management in Laos**
	Shimizu Corporation	**FS of NAMAs for peatland management in Indonesia**

Feasibility Study of Comprehensive NAMAs for Waste and Wastewater Management in Thailand

■ Actions:

Introduce Japanese waste and wastewater management technologies to Thailand to help reduce GHG emissions

[Case examples]

- ◆Reduce methane gas emissions from urban waste landfills by introducing a semi-aerobic landfill system
- ◆Use composting technology to turn organic waste into fertilizer and avoid methane gas emissions
- ◆Collect methane gas from the anaerobic treatment of wastewater with high organic content, and use the gas and heat for power generation and other purposes as substitutes for fossil fuel

■ Estimated emission reduction:

- ◆ If the semi-aerobic landfill system is introduced in all existing landfills in Thailand:

⇒ 6.5 million to 11.5 million t-CO2 between 2011 and 2020

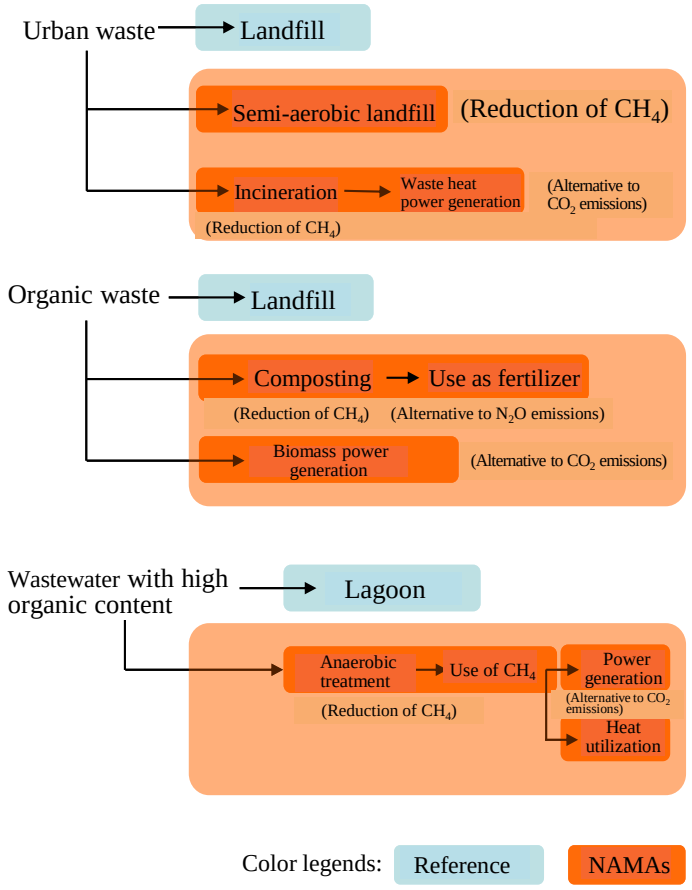
■ Host country counterpart:

Thailand Greenhouse Gas Management Organization (TGO)

Bangkok Metropolitan Administration (BMA)

■ Implementing entity:

Pacific Consultants Co., Ltd.



GHG emission reductions achieved through NAMAs

Feasibility Study of NAMAs for Transportation Management in Laos

■ Actions:

This feasibility study involves identifying specific projects that are likely to reduce GHG emissions and estimating the amount of emission reductions with respect to the Urban Transport Master Plan (road networks, public transportation systems, and traffic management) in the capital city of Vientiane, where an increasing volume of traffic is raising concerns over traffic congestion and air pollution.

[Master Plan Outline]

- ☐ Reducing travel distance by improving road networks
- ☐ Decreasing the number of vehicles by enhancing public transportation systems (BRT, LRT, etc.)
- ☐ Implementing effective traffic management (parking restrictions, traffic volume control, etc.)

■ Estimated emission reduction:

- ◆ Approximately 440,000 t-CO_2 between 2012 and 2020

■ Host country counterpart:

Ministry of Public Works and Transport (MPWT)
Water Resources and Environment Administration (WREA)

■ Implementing entity:

Mitsubishi UFJ Morgan Stanley Securities Co., Ltd.

Current status of traffic conditions in Laos

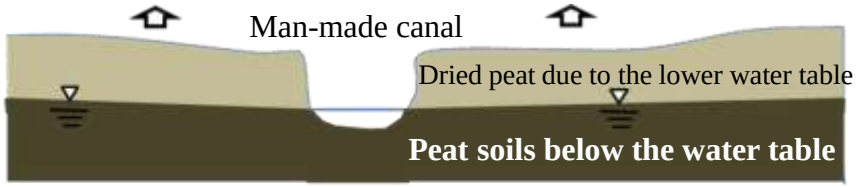
Public transportation systems in other country

Feasibility Study of NAMAs for Peatland Management in Indonesia

- Actions:
  Designating approximately10,000 ha of peatland in Jambi Province on Sumatra Island, Indonesia, as the target area, this feasibility study calls for building sluice gates (or utilize existing ones) in the existing man-made canals thereby controlling and raising the ground water table to increase moisture content in peat soils. The construction of canals has caused the drying out of peat swamps, leading to an increase in CO_2 emissions from aerobic biodegradation of dried peat soils. Thus, rewetting dried peat soils works to mitigate CO_2 emissions by inhibiting biodegradation and preventing forest fires.
- Estimated emission reduction:
  455,000 t-CO_2 per year
- Host country counterpart:
  Ministry of Public Works (PU)
  Provincial Government of Jambi
  Jambi University
- Implementing organization:
  Shimizu Corporation

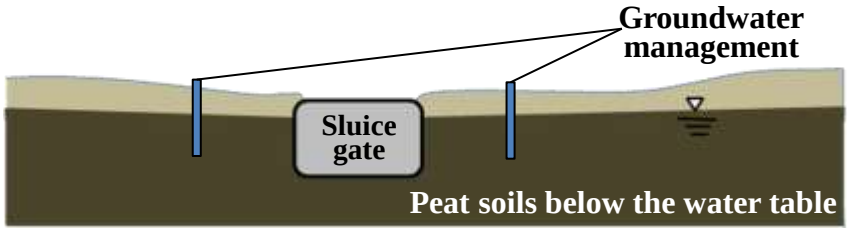
Before improvement

CO_2 and CH_4 emissions from peatland



After improvement

Curbing CO_2 emissions by raising the water table



Reducing CO_2 emissions by raising the water table within peat soils

Development and Operation of Information Platform

- Starting from FY2004, the Kyoto Mechanisms Information Platform website, developed and operated by the Overseas Environmental Cooperation Center, Japan (OECC), has been serving as the integrated portal offering information concerning the Kyoto Mechanisms, including rules and information regarding projects and events.
  - ➢ The platform also issues an online magazine *Kyomecha Express* (in Japanese) to provide timely information.
- Utilizing the platform, consultation services (Help Desk) are made available to accept and answer inquiries from Japanese and overseas businesses regarding Kyoto Mechanisms.

Website visits and inquiries

- The Kyoto Mechanisms Information Platform has received average 290,000 visitors (unique visitors) per year.
- A total of 806 inquiries (average 115 inquiries per year) have been received to date.

Initiatives related to bilateral mechanisms

- Help Desk also accepts and answers inquiries regarding new mechanisms, including those regarding bilateral mechanisms such as:
  - ➢ What benefits will bilateral mechanisms bring to our company? Which country should we choose as the destination and host country for our bilateral mechanism investment? What are the government's plans for negotiating and entering into bilateral agreements?
- MOEJ plans to organize seminars on NAMAs and REDD in Tokyo, inviting government officials from a developing country (Indonesia).
  - ➢ A seminar on NAMA was held on February 18 and one for REDD is planed for late March.
- A new information platform specifically for new mechanisms will be set up in FY2011.
  - ➢ The new platform will disseminate information and collect views on bilateral mechanisms.

Support for Capacity Building of Developing Countries

- Starting from FY2003, Japan has been supporting CDM capacity building in Asian countries to help the establishment of institutional arrangements and procedures, and the building of capacity for implementing the CDM.
- For the implementation of the activity, the Institute for Global Environmental Strategies (IGES) signed MOU/LOI with each of the governments of Indonesia, the Philippines, Thailand, Cambodia, and Laos.
- Through continuous activities, there are trusting relationships with the host countries and Japan.

Status of joint activities (Figures represent a cumulative total since FY2003)

Country	China	India	Indonesia	Philippines	Thailand	Cambodia	Laos (From FY2009)
Counterpart (Host country DNA) (*Excluding India)	National Development and Reform Commission (NDRC)	(TERI/WII)	National Council on Climate Change / MOE	Environmental Management Bureau, DENR	Thailand Greenhouse Gas Management Organization (TGO)	Climate Change Department (CDD), MOE	Water Resources and Environment Administration (WREA)
Number of workshops	16	37	32	26	22	21	4
Number of meetings	71	171	127	92	91	94	19

Initiatives related to bilateral mechanisms

- Building on the existing CDM capacity building initiative, MOEJ plans to launch capacity building for new mechanisms including bilateral mechanisms (starting from FY2011).
- Such capacity building may utilize experience of MOEJ for establishment, operation and improvement of J-VER (Japan-verified emission reduction) and JVETS (Japanese voluntary emission trading scheme), which have very unique features applicable to developing couintries.

Japan's Experience with Domestic Offset Credit System (J-VER)

Outline of J-VER

- MOEJ established a study group in March 2008 to consider institutional frameworks for a domestic offset credit system, followed by the establishment of the Japan-Verified Emission Reduction (J-VER) Scheme in November 2008 with Certification Center on Climate Change, Japan (CCCCJ or 4CJ) serving as the secretariat.
- To date, 24 emission reduction methodologies, three forest sink methodologies, and one methodology in the agricultural sector have been approved.
  - Use of woody biomass, use of biodiesel fuel, improved transport efficiency achieved by the use of information technology, micro-hydropower generation, etc.
- J-VER Certification and Steering Committee is responsible for the registration of projects and the certification of credits.
- A total of 85 projects have been registered (as of February, 2011).

Designing institutions from a new viewpoint based on CDM experience

- Using a **positive list** as a criteria for validation
  - Defining and validating the types of projects that should be promoted as a government policy, rather than assessing the "additionality" of each project
- Judgment based on **eligibility criteria**
  - Ensuring environmental integrity by applying designated eligibility criteria in judging whether or not a proposed project satisfies conditions prescribed in the positive list
- **Addressing a shortage of validators**
  - The secretariat performed internal validation to make up for a shortage of external validators. (This was only in the initial period, and validation is now carried out by external validators.)
- **Reducing monitoring requirements**
  - Exclude low emission sources (those accounting for less than 0.1% of the estimated emission reduction) from monitoring requirements

New International Crediting Mechanism for Emission Reductions/Carbon Sinks
(3.04 billion yen in FY2011 budget plan)

✓Creating an international mechanism for properly valuing Japan's GHG emission mitigation efforts not only in Japan but also overseas (i.e., international crediting mechanism for emission reductions/carbon sinks) is critical to achieving its mid-term reduction target.

✓In doing so, it is important to propose rules and requirements that should be incorporated into a new mechanism and seek the understanding and support from the international community, while steadily implementing specific emission mitigation projects in a way to benefit developing countries.

Projects

Institutional infrastructure and support for Japanese businesses

[Study and feasibility demonstration]

■Designing institutions for a new crediting mechanism and studying ways to reform the existing Kyoto Mechanisms

■Model demonstration of specific reduction projects

[Preparation for developing credit registry]

■Seek to find appropriate registry format for credit management, etc.

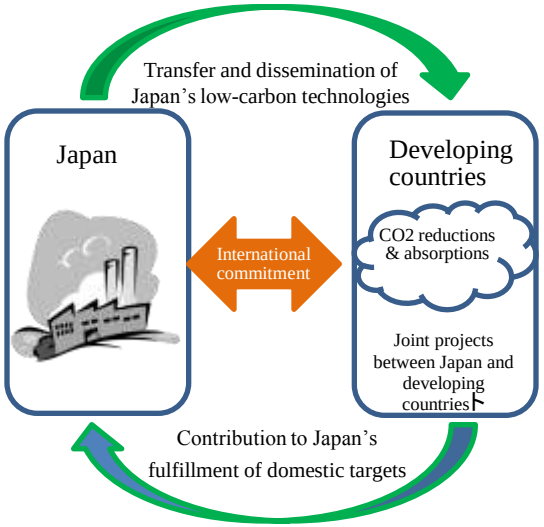
[Collection and dissemination of information; Consultation and support]

■Collection of latest information, provision of a broad range of information to the general public, and the offering of consultation and support to domestic businesses

[Feasibility study]

■Feasibility study of specific emission mitigation projects in developing countries, etc.

New international crediting mechanism for emission reductions and carbon sinks



Enter into agreements with developing countries, properly value emission mitigation projects implemented in those countries utilizing Japan's low-carbon technologies, and count reductions attributable to Japan's efforts as credits to help achieve domestic target.

Support for developing country governments and businesses

[Capacity Building support for project development]

■Organizing workshops in host countries

[Support the development of validation and MRV mechanisms]

■Developing, in cooperation with developing countries, methodologies for valuing Japan's contributions to emission mitigation, for instance, through the provision of technologies

■Dispatching experts to developing countries to help with the validation of specific projects and inviting personnel of developing countries to training programs in Japan

*MRV: Monitoring, reporting and verification of GHG emission reductions and carbon sinks

Funding to the Worldbank Partnership for Market Readiness

(3 million yen in FY2011 budget plan)

The Partnership for Market Readiness, the establishment of which was announced by World Bank President Robert Zoellick at COP 16, has already received funding pledges from Australia, the United States, and the European Commission. Japan also intends to contribute to this new fund.

Initiatives expected to be implemented with the fund include:

- Implementing emissions reduction projects in developing countries
- Organizing technical forums for developing and donor countries
- Capacity building to enable the implementation of market-based mechanisms in host countries
- Support the sharing of knowledge and expertise among countries concerned

Near-Term Approach

- Japan will take the following steps for bilateral mechanisms:
  - **Deepening the understanding of bilateral mechanisms through the process of exploring potential projects for such new mechanisms and by utilizing the existing channels such as capacity building.**
  - **Seek to enter into agreements with developing countries after having sufficient understanding of the mechanisms so as to enhance the visibility on the both sides of the aforementioned initiatives, and further expand the initiatives.**
- In parallel with the above steps, and drawing on the outcome of such steps, institutional designs for bilateral mechanisms will be reviewed for further sophistication.
  - **Mechanisms that can address problems with the existing CDM, bring benefits to many developing countries, and promote further emission reductions.**
- Japan will communicate and address its position in international negotiations so as to ensure that improvements will be made to the existing mechanisms under the new framework applicable from 2013 onward, and that bilateral mechanisms will be incorporated into mechanisms permitted under this new framework.