

International Linkage in Emissions Trading

- Perspective from Env. Ministry, Japan -

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Consideration of Emissions Trading Scheme in Japan

<2005->

Japan Voluntary Emission Trading Scheme (JVETS) by Ministry of the Environment (Apr 2005-)

- Aims at the accumulation of knowledge and experience in Cap and Trade and voluntary GHG reduction.
- Currently operating phases 4-6. So far 359 companies participated with reduction targets.



<2008->

Advisory Committee on the Emissions Trading Scheme, MOE (Jan 2008-)

- Published an interim report in May 2008, with discussion points and four scheme options for cap and trade.

Advisory Committee on Legal Issues for Emission Trading, MOE (Mar 2008-)

- Two interim reports on constitutional and administrative issues and legal nature of emission allowances etc.

Experimental Introduction of an Integrated Domestic Market for Emissions Trading, GOJ (Oct 2008-)

- Started by the previous government to achieve the Kyoto Target, without intention to introduce a mandatory system.
- Continued by the current government with necessary changes, though it will not form the basis of mandatory system.

Offset credits (J-VER), MOE (Nov 2008-)

- Verify emission reduction and removal by SMEs, agriculture and forestry as reliable credits for market transaction.



<2010->

Bill for the Basic Act on Global Warming Countermeasures (Cabinet decision 12 Mar 2010, Passed the Lower House 18 May)

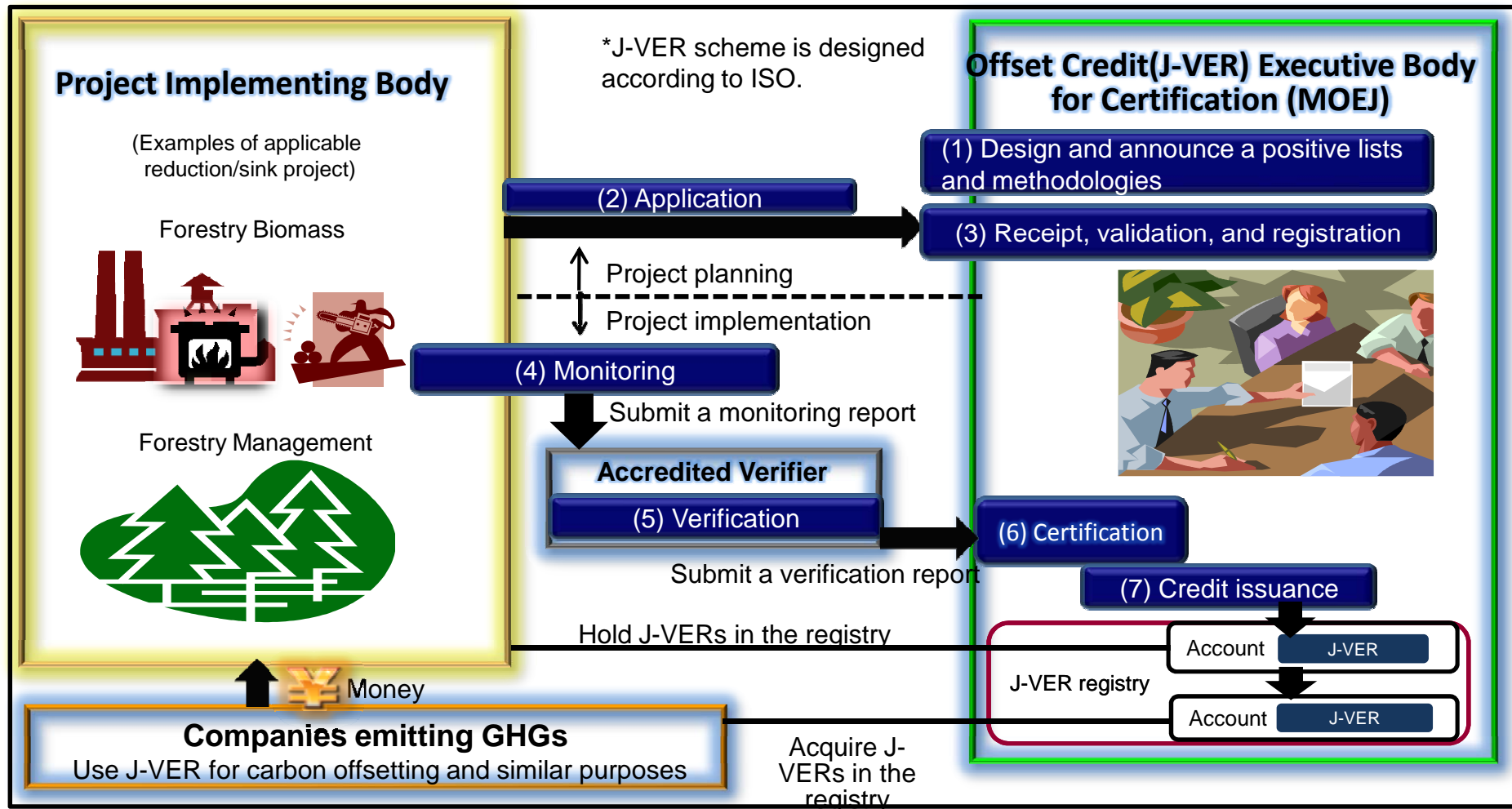
- Introduce a cap and trade, by producing draft legislative instrument within one year of the enactment of Basic Act.
- Consider absolute targets basically, and also consider intensity targets.

Domestic Emission Trading Subcommittee, Central Environment Council (Apr 2010-)

- Based on the Bill for the Basic Act, contribute to the scheme design by analyzing various discussion points.

Offset Credit (J-VER) Scheme

- J-VER Scheme, established by MOEJ in November 2008, is a verification scheme for credits generated through the reduction/removal by sinks of greenhouse gases carried out via domestic projects.
- By utilizing the J-VER scheme, funds for carbon offsetting by individuals, businesses, local governments and others can be directed to domestic project proponents in forest management or local industries. J-VER is a new mechanism to promote the domestic *Green New Deal* program through a global warming prevention campaign, expansion of job opportunities, and economic measures by using private-sector capital.



Outline of the Bill for the Basic Law on Climate Change Countermeasures

Background

- To clarify all mobilized policies in order to achieve the 25% reduction goal and Japan's position
- Announced by Ministry of the Environment on Feb 17, this bill is under inter-ministerial consultation, and is scheduled to be proposed to the Diet in March

Summary of the Bill

Purpose

- Promote climate change countermeasures to conserve the global environment, and health and cultured living for both the present and future generations of the nation, through creating new industries and increasing job opportunities

Mid- & Long-term Targets

- GHG reduction target: 25% reduction by 2020, 80% by 2050 compared with the 1990 level*
 - * Assumes the establishment of a fair and effective international framework in which all major economies participate and on agreement by those economies on ambitious targets
- Renewable energy target

Policy Measures

Most important concrete measures

- **Introduction of emissions trading scheme**
- Review of taxation system as a whole including consideration of a global warming tax
- Expansion of a feed-in-tariff for renewable energy

Daily life

- Promotion of the use of renewable energy
- Promotion of energy-saving equipment and buildings
- Promotion of voluntary activities
- Promotion of education and learning
- Dissemination of information on GHG emissions

Principles

- Implement countermeasures with a view to establishing a low-carbon society through ensuring new lifestyles, etc.
- Promote policies under international coordination
- Develop industries and job opportunities that help prevent climate change
- Align with energy policy and consider the right balance between the environment and the economy

Basic Plan

- Establish a basic plan that comprehensively and systematically promotes climate change countermeasures

➤ Manufacturing

- Promotion of the energy efficiency of equipment and buildings
- Promotion of transformation to less GHG energy
- Creation of new projects which will help tackle climate change
- Promotion of the development of innovative technologies

Regional development

- Promotion of the expansion of public transportation systems
- Enhancement of sinks
- Adoption of necessary measures by local government

Others

- Taking measures to secure international collaboration and promote international cooperation
- Taking measures to adapt to climate change

ETS Provision in the Bill for the Basic Law on Climate Change Countermeasures (Article 13)

- 1 In order that the reduction of the emission of greenhouse gases be implemented steadily, **the Government shall establish a domestic emission trading scheme** (a scheme to set limits to the emission of greenhouse gases by emitters in a certain period, and to allow trading of emission amount with other emitters and other means for complying with the limits). The Government shall investigate legislative measures necessary for this, concurrently with the investigation on the tax for the global warming countermeasures stipulated in the next article, clause 2, and **produce an agreed draft within one year after the enactment of this act as a milestone.**
- 2 The investigation referred to in the previous clause shall include the investigation into the coverage of emitters, methods to set limits of greenhouse gas emission of the emitters within the coverage in a certain period, a scheme to disclose the situation of greenhouse gas emission of these emitters, and other matters that are needed for the appropriate implementation of the domestic emission trading scheme.
- 3 With regard to the methods to set limits of greenhouse gas emission in a certain period referred to in the previous clause, investigation shall be made basically into the method to set the limits as those to the total amount of greenhouse gas emission in a certain period, while also investigating into the method to set the limits as those to the amount of emission per a unit of activity such as production volume.

Discussion in the Domestic Emission Trading Subcommittee

■ Timeline

○April 23 1st meeting

○May 13 to June 1 2nd to 5th meetings

Public hearings from 21 stakeholder groups

E.g.) NGO, Verifiers, Prefectures, Industrial Groups, Labor Associations, Consumer Associations, TMG

○June 8 6th meeting

➤ Publicized results of the public hearings and public comments

- Other than the public hearings, MOEJ called public comments from April 28 to May 26. MOEJ also held “Public Dialogue on Climate Change Policy” nationwide from May 18 in Tokyo.

○June 14 7th meeting

➤ Presentations and discussions with officials from EC, UK and US

○June 25 to July 23 8th to 10th meetings

➤ Discussions on “Classification of Discussion Points for Scheme Design”

○August 31 11th meeting

➤ Discussions on “Scheme Design Options”

○September 10 12th meeting

➤ Discussions on “Scheme Design Options,” which is revised considering subcommittee members’ opinion.

Further discussions are being scheduled....

Development of Scheme Design Options

Key design elements were debated and labelled into:

(A) areas where views can converge

(B) areas with common understanding of directions for further deliberation

(C) areas where views are divergent.

List of design elements

1. Scheme period

2. Total amount of emission allowances

3. Covered gases

4. Entities subject to allowance allocation

5. Allocation methods

(1) Free allocation vs auctioning (2) Direct/indirect allocation for electricity

(3) Absolute/intensity target (4) International competitiveness and leakage

(5) Considerations for contribution by technology and products to emission reduction in Japan and abroad (life cycle evaluation)

6. Cost containment measures (banking, borrowing, etc)

7. Others

(1) Commitment period and compliance rules

(2) Emissions monitoring, reporting and third-party verification

(3) Registry system (4) Appropriate market rules

(5) Roles of national and local governments (6) Policy mix

Converging design elements

Scheme Period

- Initially divide the mid-term target period (2013-2020) into two phases (eg 2013-2015 and 2016-2020)

Covered gases

- Initially cover energy-generated and non-energy-generated CO₂.
- Non-CO₂ gases may be added later, considering accuracy of monitoring

Entities subject to allowances allocation

- Allowances should be allocated to downstream entities (fuel consumers and other emitters).
- Allowances should be allocated to legal entities, while MRV should be conducted on a facility basis.
- New entrants should receive allocation. Need further consideration on closures.

Cost Containment Measures

Prevent excessive high cost of allowances, for example by the following measures:

- **Banking and Borrowing**
- **Offset credits:** Allow the use of domestic offset credits and international credits such as Kyoto Units
- **International link to other ETS:** Need further consideration
- **Strategic reserve:** Government to reserve certain amount of allowances for further allocation

Other issues

Commitment periods, compliance rules, MRV, registry system, market surveillance...

Design elements towards convergence

Total Amount of Emission Allowances

- Total amount of emission allowances should be determined on the basis of best available technologies.
- For example, total amount of emission allowances can be calculated on the basis of the amount of emissions from the mid and long term emission roadmap.

Allocation Methods

- Consider international competitiveness and carbon leakage in the allocation of allowances. For this, establish criteria for:
 - Magnitude of GHG emissions entailed by production (carbon intensity)
 - Extent of international competition to which an entity is exposed to (trade intensity)
- Consider contribution by technology and products that contribute to emission reduction.

Other issues

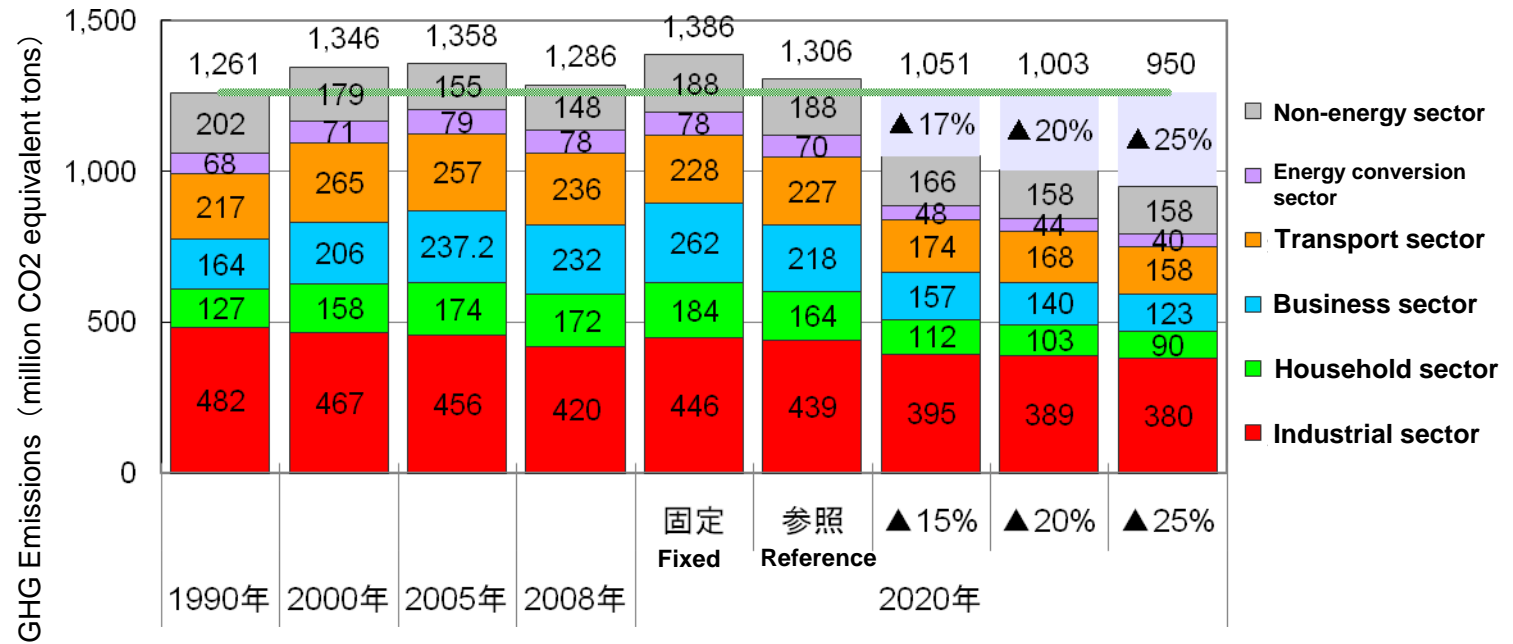
Roles of national and local governments policy mix...

GHG Emissions Roadmap

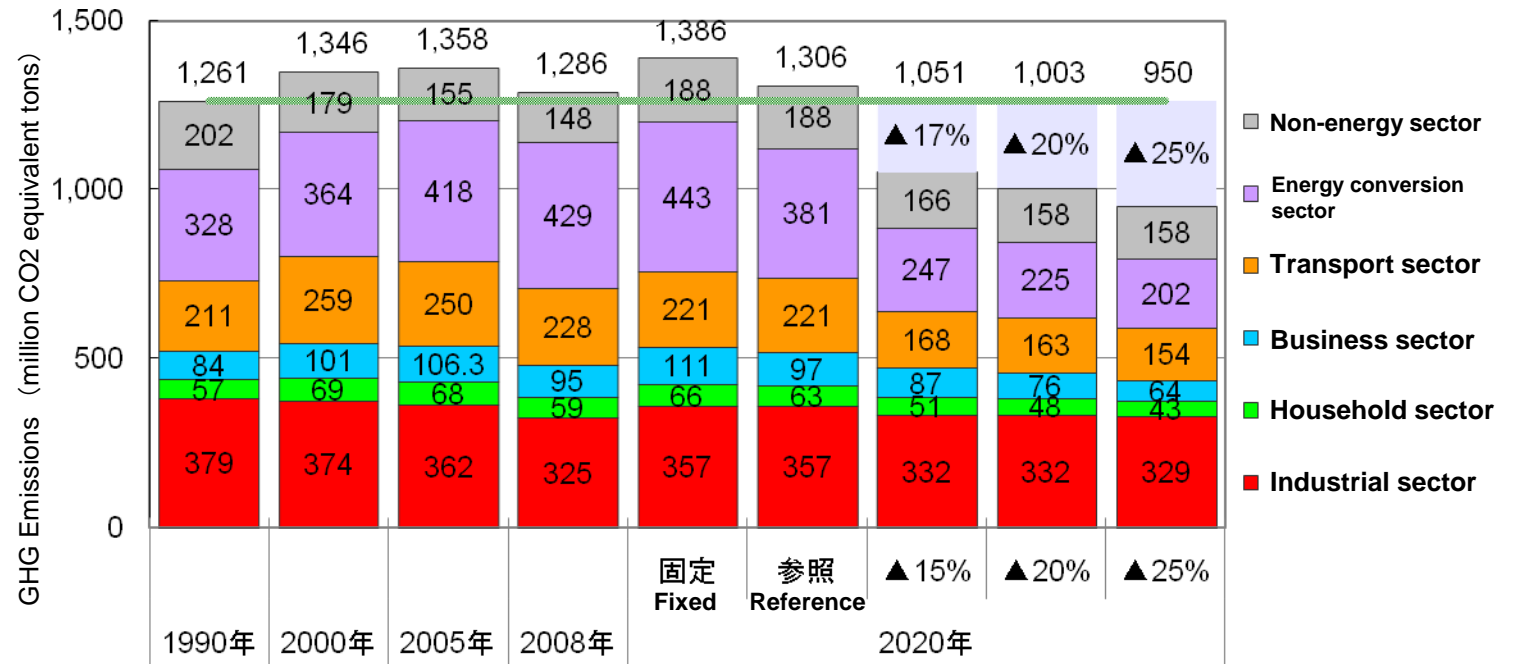
Fixed Industrial Macroframe Scenario

Source: Subcommittee on Mid- and Long-term Roadmap (29 July 2010)

[Indirect emission]



[Direct emission]



Note) 2020 ▲15% · ▲20% · ▲25%: denotes scenarios where GHG emissions in Japan are reduced by 15%, 20%, or 25%, respectively, relative to 1990 by domestic countermeasures. 2030 : 2030 emissions estimated by assuming the continued enforcement of measures for 25% emission reduction in 2020.

Divergent design elements

Allocation Methods

- Free allocation (benchmarking and grandfathering) vs auctioning
- Absolute vs intensity targets
- Treatment of electricity (direct vs indirect)



Three options are presented from the viewpoints of environment conserving effects and consideration for economic activities

A	Electricity as direct emissions + Absolute target (Auctioning)
B	Electricity as indirect emissions + Absolute target (Free allocation) + Intensity target for electricity
C	Electricity as indirect emissions + Intensity target

International Linkage

“Scheme Design Options” says...

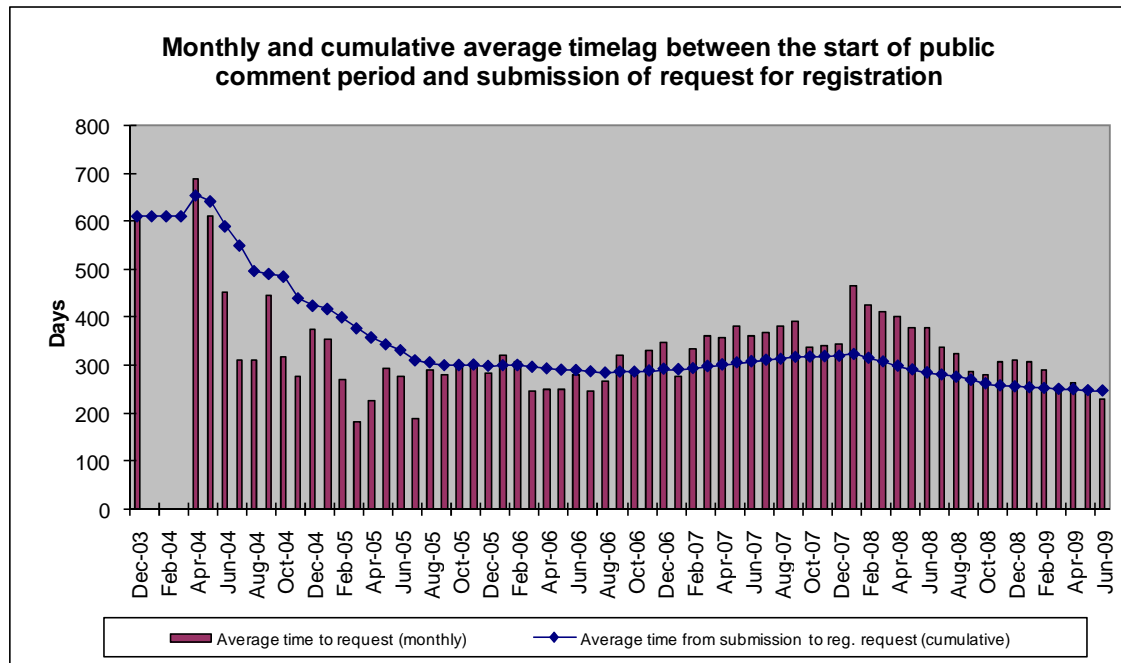
➤ **Whether Japan’s emissions trading scheme should be linked with other schemes internationally is an issue to be considered in the future,** taking into account merits such as restraining allowance price increase and demerits such as financial resource outflow to overseas allowance market, and cautiously examining harmonization of schemes (e.g. MRV level, allocation method, level of cap).

➤ Considering mid- and long-term GHG reduction goal, and in order to contribute global GHG reduction, **new mechanisms which can appropriately assess developed countries’ contribution to emission reduction in developing countries are indispensable.**

➤ However, Kyoto Mechanisms have some problems, such as long and complicated examination process, little focus on energy efficiency projects, and regional unbalance of project distribution.

➤ Taking into account the Copenhagen Accord, **a new “bilateral and multilateral mechanism” should be considered, which shows and promotes effective mitigation solutions for each developing country.**

Problems with current CDM (1):Lengthy procedures



Approx. **2.5 years** from public comment to first issuance.

Approx. **1.2 years** from registration to first issuance.

Average times delays for all CDM projects	Days	Months	Years
Validation (from public comment until registration request)	320	10.7	0.9
Registration (from registration request to actual registration)	148	4.9	0.4
Ave. days from registration until date of first issuance	443	14.8	1.2
Total from start comment to first issuance	910	30.3	2.5

Source: UNEP CDM pipeline

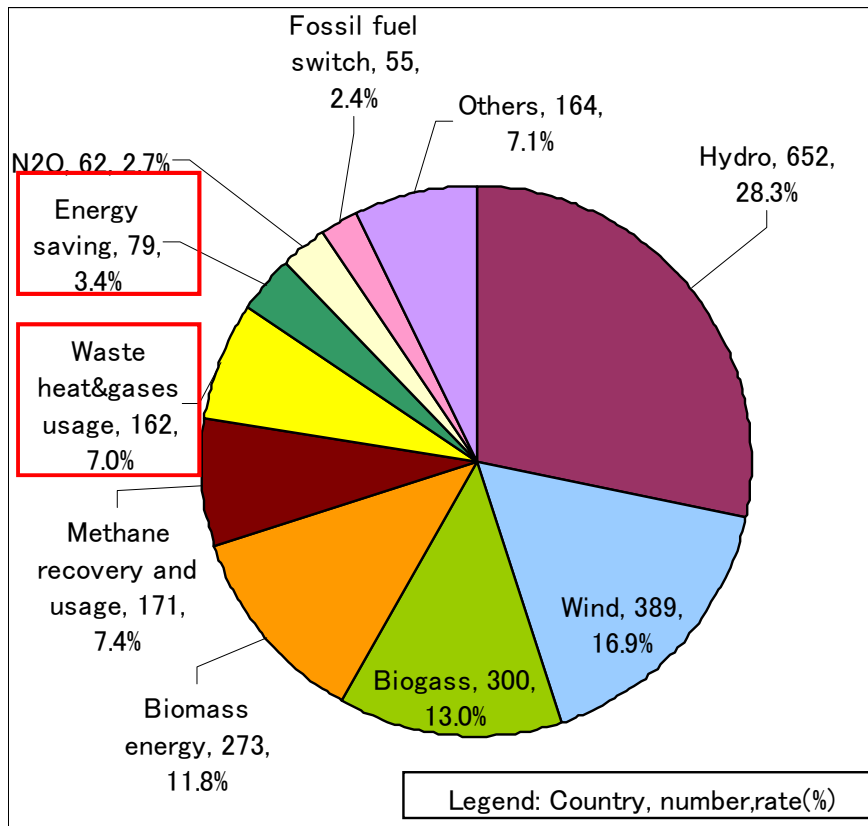
Average time lag in projects where CERs issued (estimated by Ministry of Environment, Japan)

- **Ave. days from public comment to registration: 343 days**
- **Ave. days from registration until date of first issuance: 467 days**
- **Ave. days from start comment until date of first issuance: 810 days**

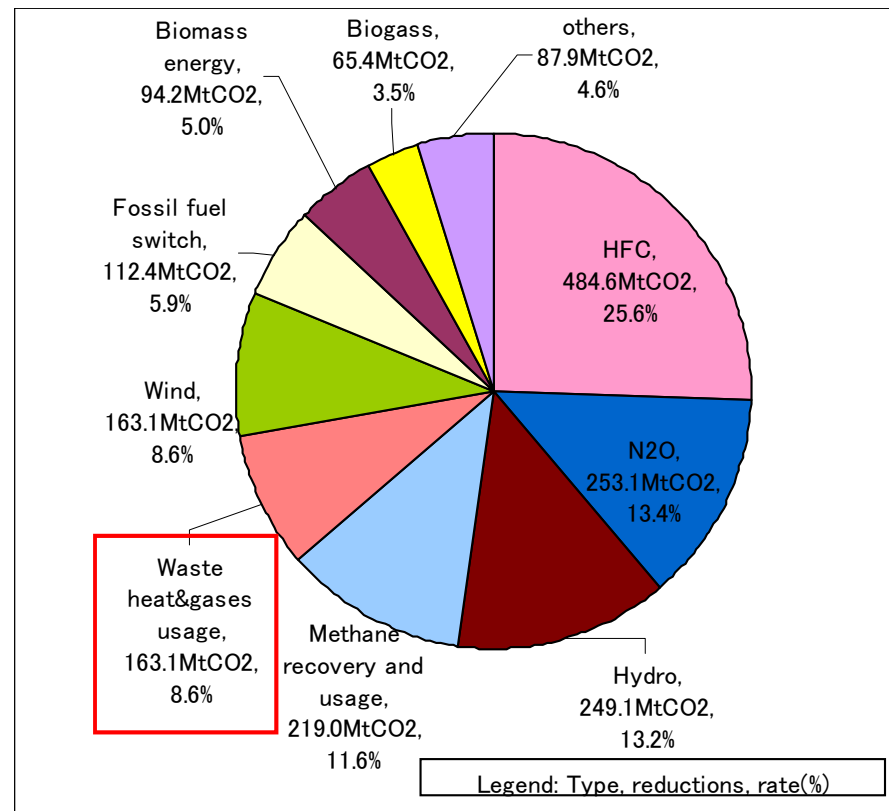
Problem with current CDM(2): Project types not reflecting the reduction potentials

Only 241 registered energy-efficiency projects (10% of all registered projects), expected emission reduction approx. 180 million t-CO₂ by 2012.

➔ Few energy-efficiency projects (only 10% of total)



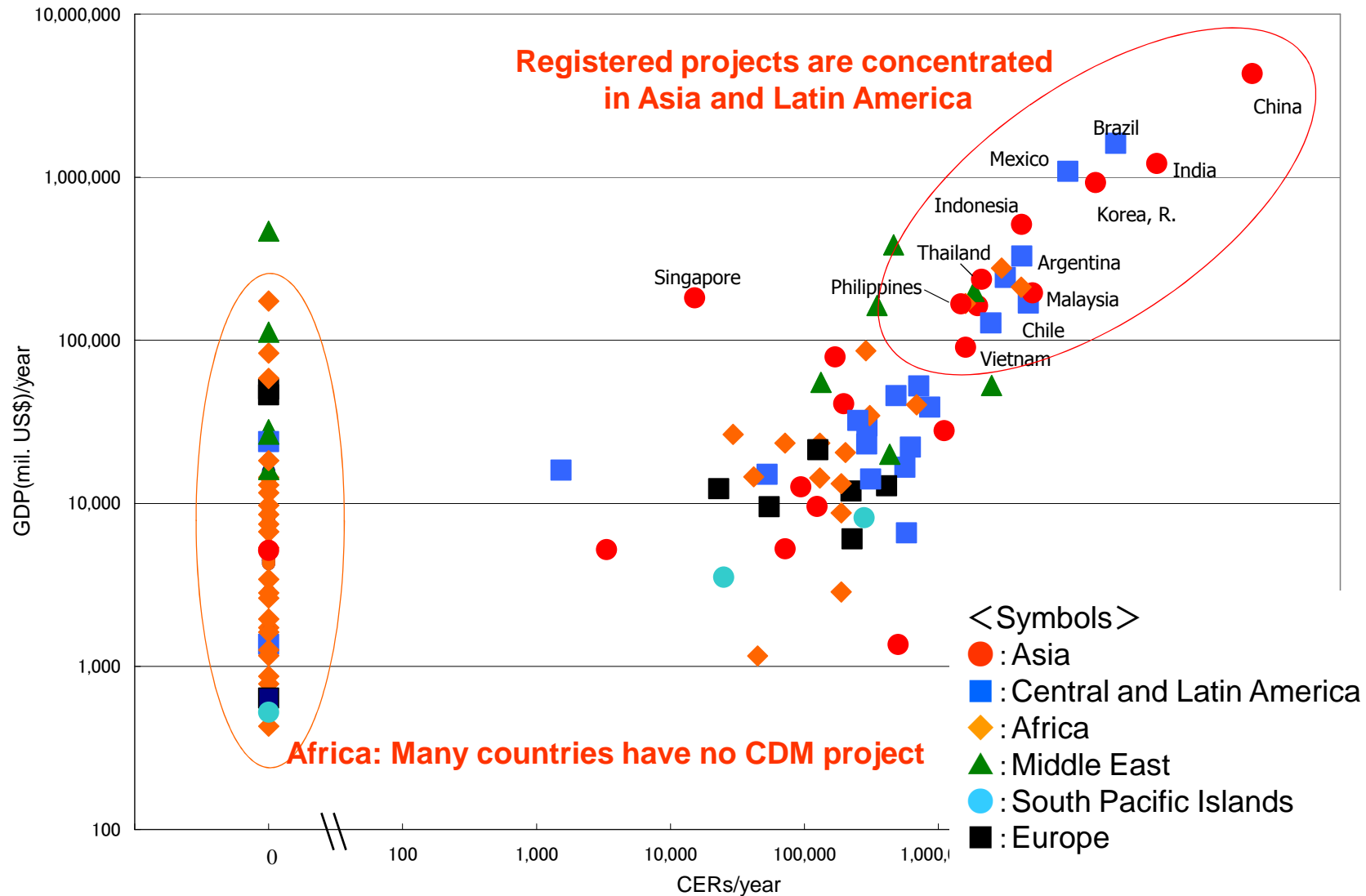
Number of projects (by type)



Expected emission reductions (by project type)

Source: Created using data from UNFCCC website, UNEP CDM pipeline (as of July 2010)

Problem with current CDM (3): Concentrated in countries with large economies



New international offset mechanisms: proposals already on board

NAMA (nationally appropriate mitigation action) credits

- Proposed by: Republic of Korea, New Zealand
- Methodology: Give emission reduction credits to a developing country's voluntary "nationally appropriate mitigation actions" (NAMAs)
- Challenges: How to secure verifiable methodologies for crediting.

Sectoral crediting mechanism (SCM)

- Proposed by: EU, etc.
- Methodology: Give emission reduction credits when actual emissions or emissions per unit from a sector are less than baseline set below BAU line.
- Challenges: Methodologies for baseline setting, sector boundary, incentives for private companies.

Provisions of international credits in US Climate Change Bill

- Sector-based credits from a specific sector in a developing country
- UNFCCC credits approved by EPA administrator

New mechanisms: perspectives from developing and developed countries

For developing countries, new mechanisms should:

- **Contribute to enhancement of development and employment**
- **Contribute to prevention of specific problems such as air pollution**
- **Contribute to capacity building for climate change mitigation**
- **Ensure transparent and reliable MRV from the international perspective**
- **Enable developing countries to participate easily, and contributes to implementation of NAMAs as defined in Copenhagen Accord**

For developed countries, new mechanisms should:

- **Allow appropriate evaluation of advanced low-carbon technologies, products, and infrastructure from sponsor countries**
- **Be flexible enough to be adapted to actual situation in each developing country**
- **Make efficient use of existing institutions, with low social costs**
- **Ensure transparent and reliable MRV**
- **Towards a post-2012 framework, be a rational mechanism that can be accepted by other countries**

Concept of a bilateral / multilateral mechanism

<Requirement>

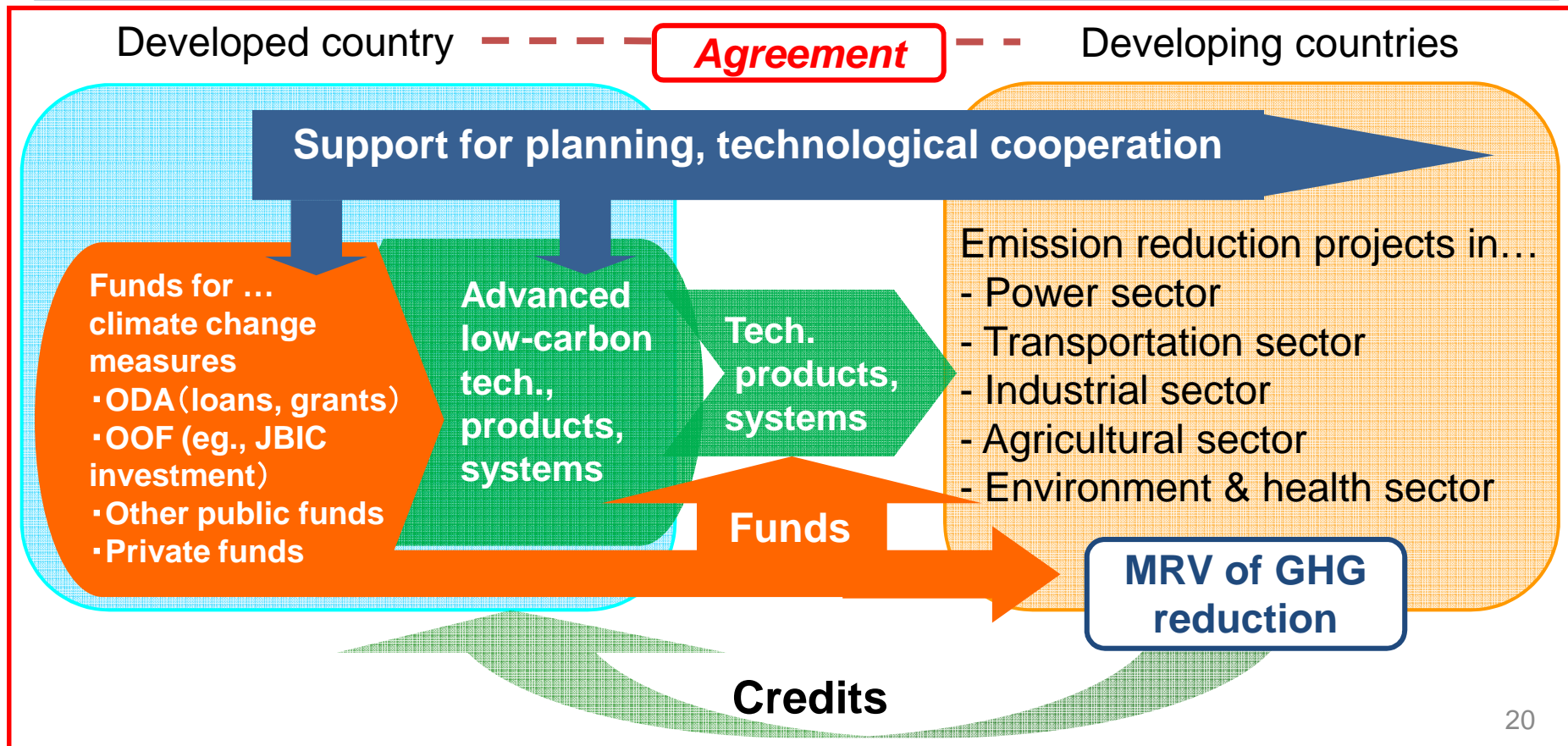
Be internationally acceptable.

- GHG reductions with environmental integrity and quantifiable evaluation
- Able to conduct MRV under international standards

<Aim>

Establish 'win-win' relations between developed and developing countries through promotion of technology transfer and emission credits

GHG reduction activities in each sector in developing countries - implemented by provision of advanced technologies and/or products from developed countries **with bilateral/multilateral agreement** - are evaluated and certified as emission reduction credits to offset the emission from developed countries.



Feasibility Study on CDM/JI and New Flexible Mechanisms”

(Ministry of the Environment, Japan, 3 Aug 2010)

CDM/JI Feasibility Study

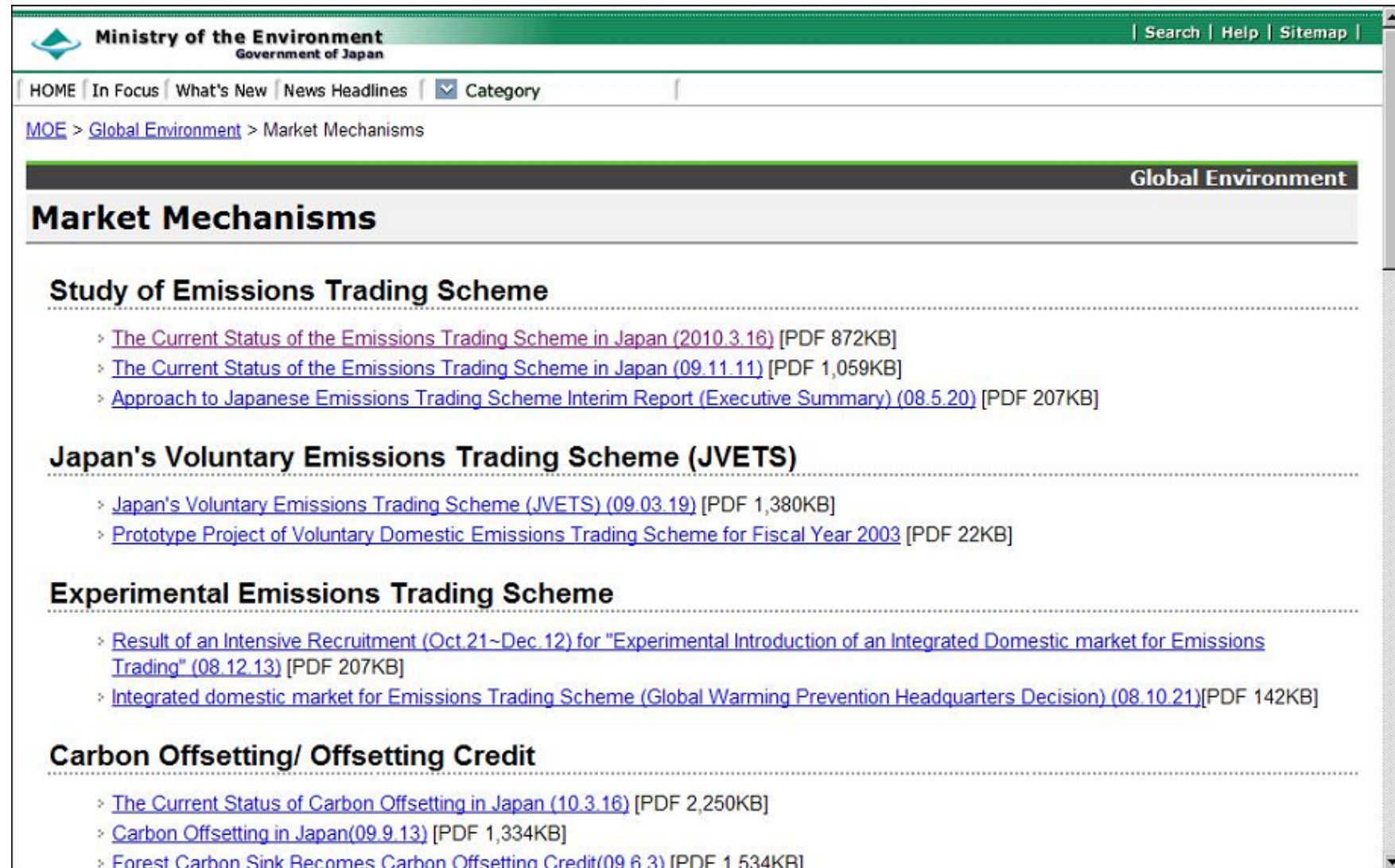
Segment	Group	Research Title
Mechanism development or new field	Hitachi Zosen Corporation	FS on a Eucommiales A/R CDM in Henan province, China
	PEAR carbon offset initiative, Ltd.	FS on a biogas utility program CDM in an agricultural community in Bangladesh
	Mitsubishi UFJ Research and Consulting Co., Ltd.	CDM FS on a production of Jatropha BDF and its use for automobiles in Viet Nam
	Kyusyu Electric Power Co., Inc.	Program CDM FS on diffusion of energy-efficient tenter in Zhejiang province, China
Methodology	Japan Weather Association	Program CDM FS on addition of idling-stop equipment on buses in Shandong province, China
	Pacific Consultants Co., Ltd.	CDM FS on CO ₂ reduction by introduction of motorcycle maintenance techniques in Viet Nam
High feasibility	Ichikawa Kankyo Engineering Co., Ltd.	Program CDM FS on avoidance of landfill waste in Viet Nam
	Yachiyo Engineering Co., Ltd.	CDM FS on combined systems with waste disposal and methane generation in Ipoh, Malaysia
	Eight-Japan Engineering Consultants Inc.	CDM FS on use of process residues of pineapple and drainage water generation in Mindanao, Philippines
	EJ Business Partners Co., Ltd.	CDM FS on use of gas in a waste disposal plant and sewage disposal in Amoy, China
	EX Corporation	Program CDM FS on fuel switch to Gliricidia sepium tip at an industrial heat utilization plant in Sri Lanka
	Industrial Decisions Inc.	CDM FS on rice husk generation in Chainat province, Thailand
	Mitsubishi UFJ Morgan Stanley Securities Co., Ltd.	CDM FS on wind generation in Galapagos Islands, Ecuador
	E & E solutions Inc.	CDM FS on energy savings by humidity control of coal in Yunnan province, China
	Tepia Corporation, Japan	CDM FS on generation by utilization of emission gases and residual heat in Shaanxi province, China
	PEAR carbon offset initiative Ltd.	CDM FS on generation by methane in coal mines in China

Feasibility Study on new Flexible Mechanisms

Segment	Group	Research Title
New flexible mechanism	Pacific Consultants Co., Ltd.	NAMA FS on wastes and wastewater management divisions in Thailand
	Mitsubishi UFJ Morgan Stanley Securities Co., Ltd.	NAMA FS on transportation in Laos
	Shimizu Corporation	NAMA FS on peat management in Indonesia

“Market Mechanisms” (MOEJ’s website)

http://www.env.go.jp/en/earth/ets/mkt_mech.html



The screenshot shows the website interface for the Ministry of the Environment, Government of Japan. The page is titled "Market Mechanisms" under the "Global Environment" section. It features a navigation menu with options like HOME, In Focus, What's New, News Headlines, and a Category dropdown. The main content is organized into four sections, each with a list of links to PDF documents:

- Study of Emissions Trading Scheme**
 - [The Current Status of the Emissions Trading Scheme in Japan \(2010.3.16\)](#) [PDF 872KB]
 - [The Current Status of the Emissions Trading Scheme in Japan \(09.11.11\)](#) [PDF 1,059KB]
 - [Approach to Japanese Emissions Trading Scheme Interim Report \(Executive Summary\) \(08.5.20\)](#) [PDF 207KB]
- Japan's Voluntary Emissions Trading Scheme (JVETS)**
 - [Japan's Voluntary Emissions Trading Scheme \(JVETS\) \(09.03.19\)](#) [PDF 1,380KB]
 - [Prototype Project of Voluntary Domestic Emissions Trading Scheme for Fiscal Year 2003](#) [PDF 22KB]
- Experimental Emissions Trading Scheme**
 - [Result of an Intensive Recruitment \(Oct.21~Dec.12\) for "Experimental Introduction of an Integrated Domestic market for Emissions Trading" \(08.12.13\)](#) [PDF 207KB]
 - [Integrated domestic market for Emissions Trading Scheme \(Global Warming Prevention Headquarters Decision\) \(08.10.21\)](#)[PDF 142KB]
- Carbon Offsetting/ Offsetting Credit**
 - [The Current Status of Carbon Offsetting in Japan \(10.3.16\)](#) [PDF 2,250KB]
 - [Carbon Offsetting in Japan\(09.9.13\)](#) [PDF 1,334KB]
 - [Forest Carbon Sink Becomes Carbon Offsetting Credit\(09.6.3\)](#) [PDF 1,534KB]