



Ministry of the Environment
Government of Japan



Japan's Climate Change Policies and MRV Initiatives

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Stop Global Warming!

Team minus 6%

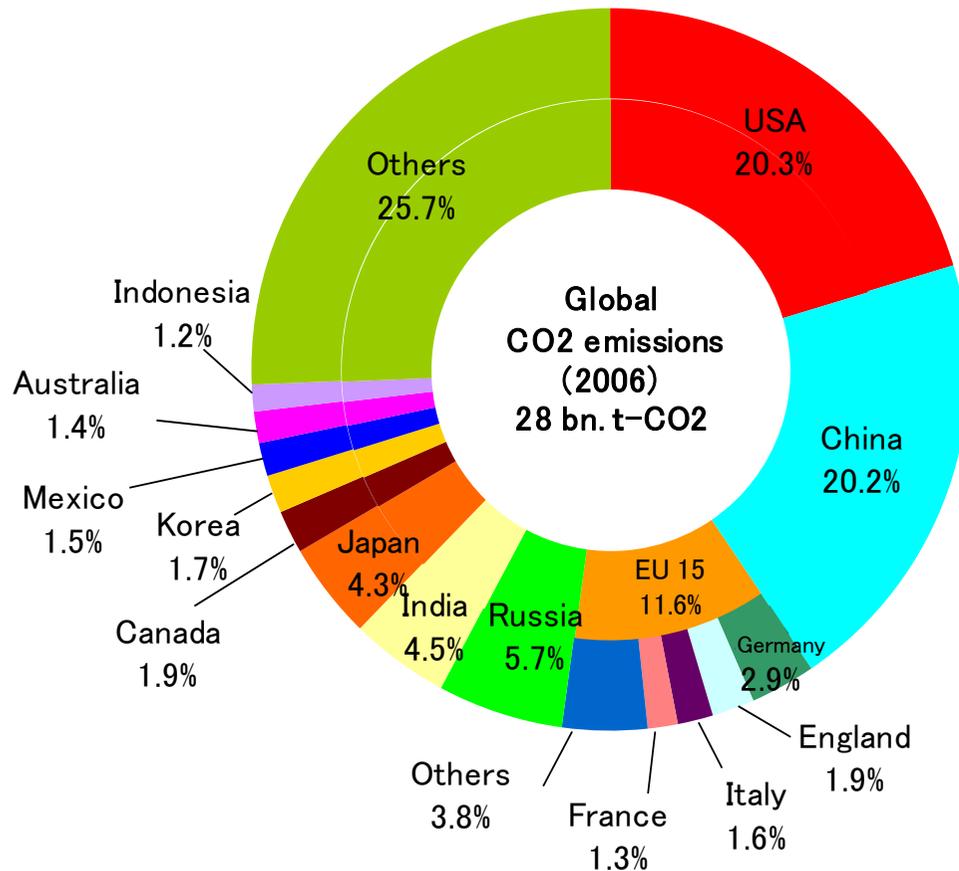
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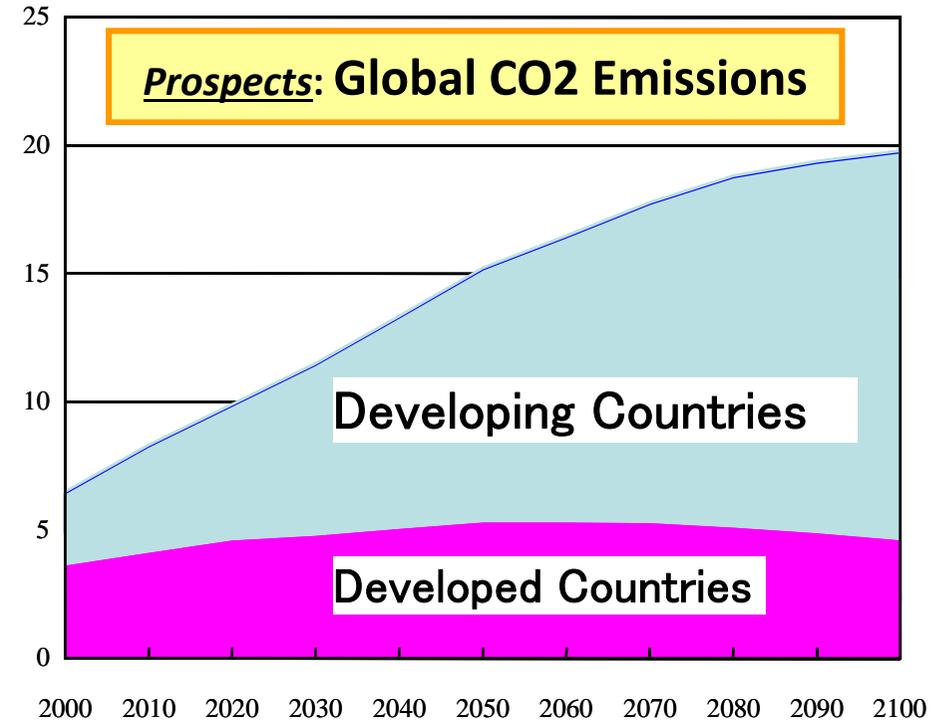
1 . GHG emissions in the World and the importance of MRV

Global CO₂ Emissions & Prospects

Demands for a significant reduction of GHG emissions throughout the world

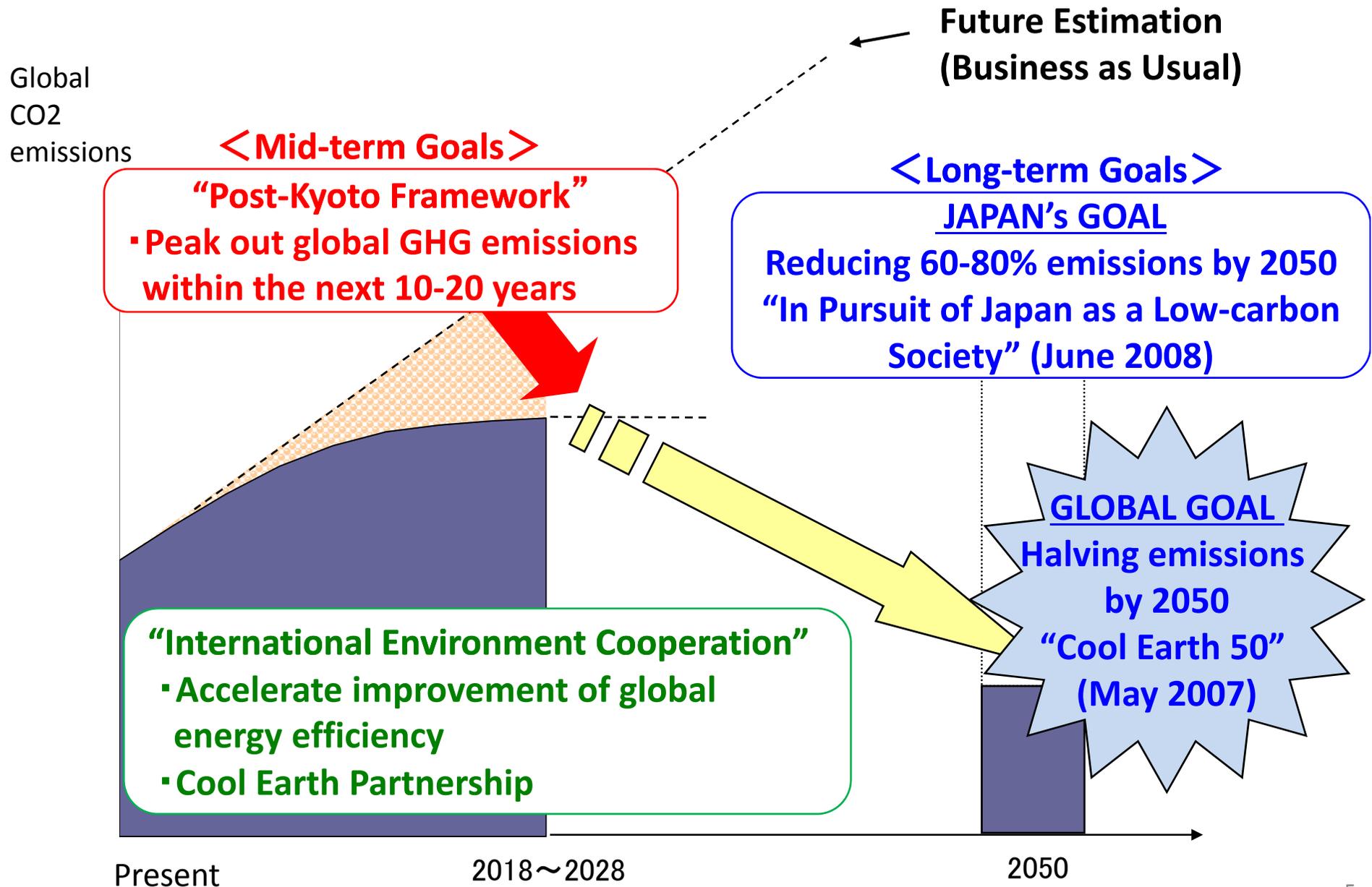


CO₂ Emission



**Source: Kainuma et al., 2002:
Climate Policy Assessment, Springer, p.64.**

Cool Earth Promotion Program (Jan 2008)



G8 Environment Ministers Meeting (May 2008)

Chair's Summary

“It was noted that setting up and running GHG inventories in developing countries is of fundamental importance and G8 countries should consider supporting capacity building in developing countries for the collection and provision of data.”

“Kobe Initiative”

- Aiming at holding meetings together with the outreach countries.

1. International research network on low-carbon societies
2. Analysis on bottom-up sectoral mitigation potentials
3. Promotion of co-benefits among relevant policies
4. Capacity building support for developing countries on inventories and data collection (MRV: Measurability, Reportability, and Verifiability)

Japan's initiative for supporting developing countries in GHG inventories

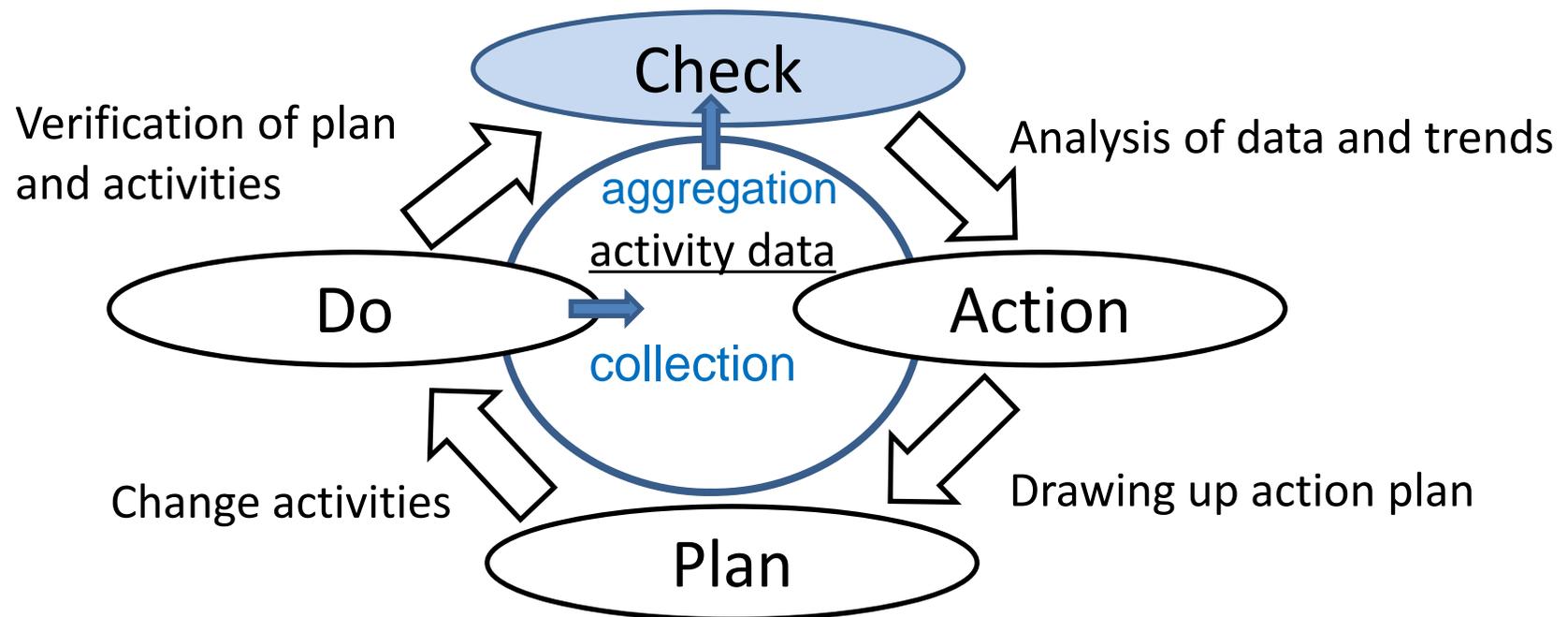
- **WGIA:** Workshop on GHG Inventories in Asia
 - Improve the quality of GHG inventories via regional information exchange
 - Annual workshop in 14 Countries (2003-)
- **SWGGA:** Improvement of Solid Waste Management and Reduction of GHG Emission in Asia (SWGGA)
 - Improve GHG inventories for the waste sector
 - Annual workshop in 8 Countries (2007-2010)
- **SEA GHG Project:** Regional capacity building for sustainable national greenhouse gas Inventory management systems in Southeast Asia
 - Improve the quality of GHG inventories to develop the sustainable inventory management systems
 - Support and Training in 8 Countries (2007-2010)

GHG Inventories and Data Collection

Data collection is key

Why? → Establishment of PDCA Cycle

Understanding of the current situation



→ Clear Understanding of Current Situation is a first step !!

GHG Inventories and Data Collection

Both “macro” and “micro” levels of data collection are key

Macro: GHG inventories in national level

- National communication for UNFCCC
- Main theme for today’s workshop

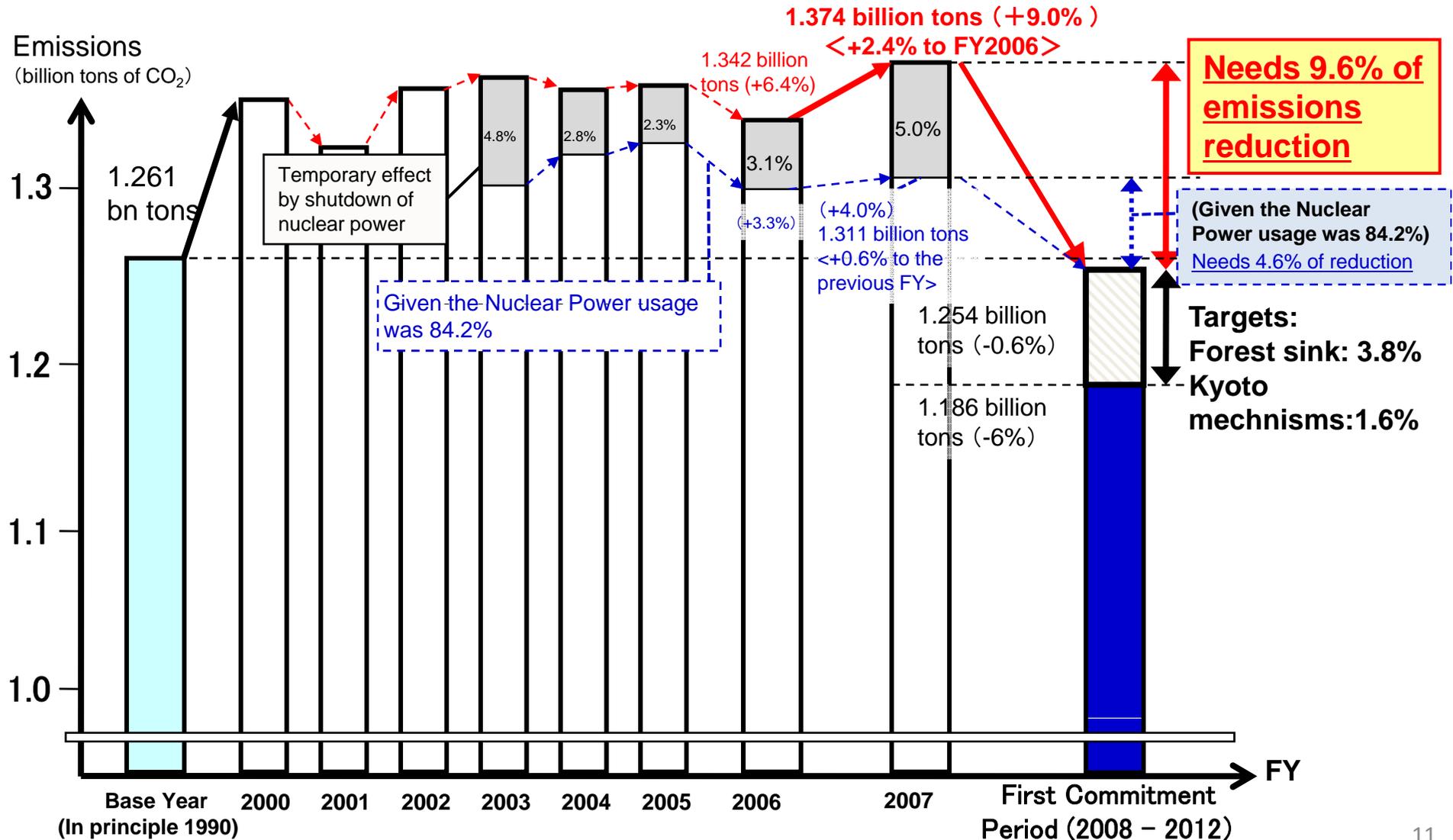
Micro: Emission data in facility level

- IEA (Indicator setting)
- APP Task Force (Reduction potential, indicator)

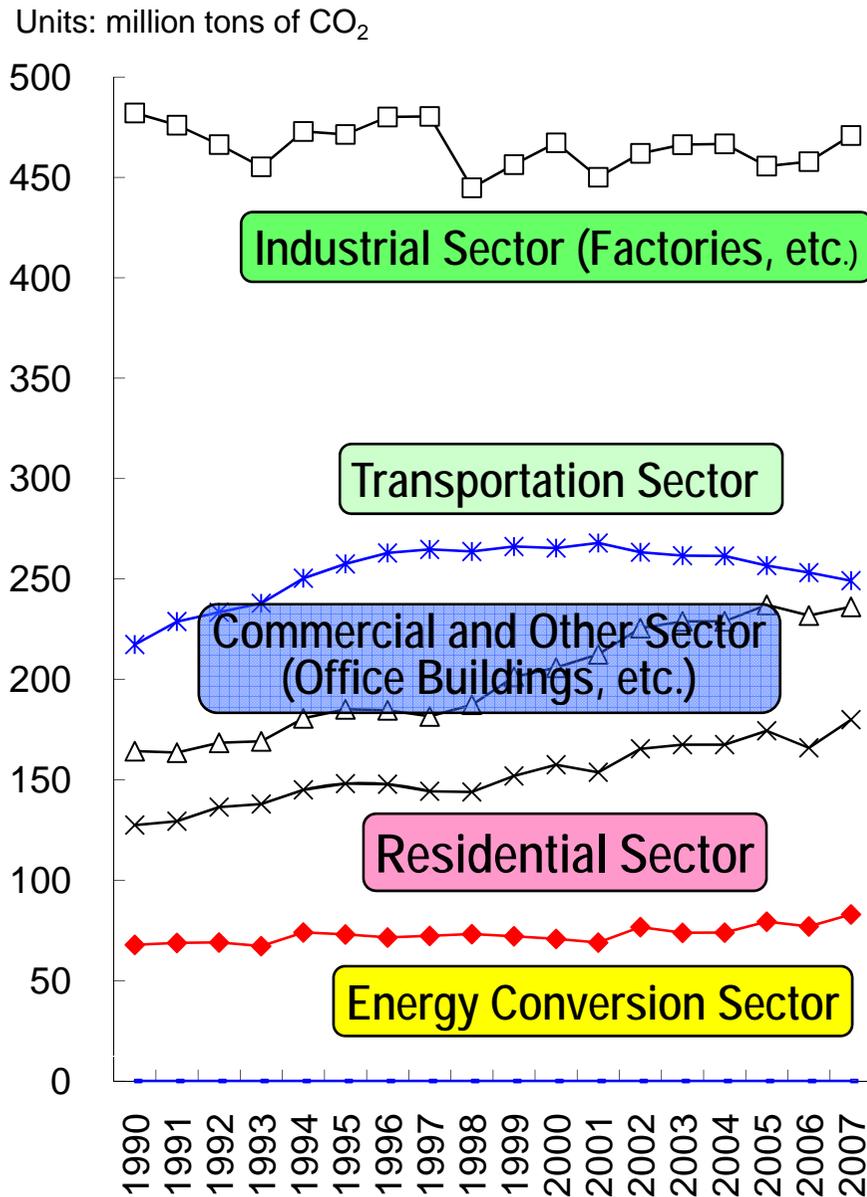
2. GHG Inventories in Japan

Greenhouse Gas Emissions in Japan

Japan's emissions for 2007 were 9.0% more than those for the base year, which means that reductions of 9.6% are needed to achieve the 6% reduction commitment under the Kyoto Protocol.



Trends in CO₂ Emissions from Energy by Sectors and the Targets for 2010



Base year	Change form 1990	2007	Reduction Rate to meet Target	Targets for 2010
482	- 2.3% ↓	471	-9.2%~ -10.0% ↓	424~428
217	+14.6% ↑	249	-2.4%~ -3.8% ↓	240~243
164	+43.8% ↑	236	-11.1%~ -12.0% ↓	208~210
127	+41.2% ↑	180	-21.5%~ -23.9% ↓	138~141
68	+22.2% ↑	83	-20.1% ↓	66

3 . GHG Reduction Policies in Japan

Framework of the Kyoto Protocol Target Achievement Plan

Measures and Policies for Achieving Targets

1. Measures and Policies relating to Greenhouse Gas Emissions Reduction, Removal, etc.

(1) Measures and Policies relating to Greenhouse Gas Emissions Reduction

[Examples of Primary Additional Measures]

- Promotion of Voluntary Action Plans
- Improvement of energy efficiency of equipment that meets Top-runner Standards, etc.
- Improvement of automobile fuel efficiency
- Promotion introduction of new energy sources

(2) Greenhouse Gas Sink Measures

- Forest management such as tree thinning, promotion of the "Beautiful Forest Building National Campaign"

2. Cross-sector Policies

- Mandatory Greenhouse Gas Accounting and Reporting System
- Development of national campaigns

✂ Issues needing to be addressed promptly

- Domestic Emissions Trading System
- Environment tax
- Departure from late-night work and lifestyles
- Introduction of daylight savings

Targets of GHG Emissions and Removals

	Emissions Targets for 2010	
	Million tons of CO ₂	Base Year Total Emissions Comparison
CO ₂ from Energy	1,076~1,089	+1.3%~+2.3%
Industry	424~428	-4.6%~-4.3%
Commercial and Other	208~210	+3.4%~+3.6%
Residential	138~141	+0.9%~+1.1%
Transportation	240~243	+1.8%~+2.0%
Energy Conversion	66	-0.1%
CO ₂ from non-Energy, CH ₄ , N ₂ O	132	-1.5%
HFCs, PFCs SF ₆	31	-1.6%
Greenhouse Gas Emissions	1,239~1,252	-1.8%~-0.8%

For definite progress towards 6% reduction commitment under the Kyoto Protocol, all measures, including sink measures and Kyoto mechanisms, will be implemented.

Points of “Action Plan for Achieving a Low-Carbon Society”

(Cabinet decision, July 29, 2008)

1. Japan's Targets

- Reduce 60–80% of the current level of emissions by 2050
- Announce quantified national target (mid-term target) at an appropriate time next year
- Support for other countries' efforts

2. Technology Development and Diffusion

- Promote innovative technology development, e.g., CCS technology.
- Aim at becoming once again the world leader in solar power generation: installations be 10 times in 2020, 40 times in 2030,
- Increase next-generation vehicle proportion to 1/2 of new car sales by 2020.
- Aim for all newly built houses and buildings to be energy-efficient

3. Framework to move towards a Low Carbon Society

- Start trial phase of domestic emissions trading by around October
- Generally review taxation system including environmental tax introduction; promote taxation greening

4. Support for regional and citizens' initiative

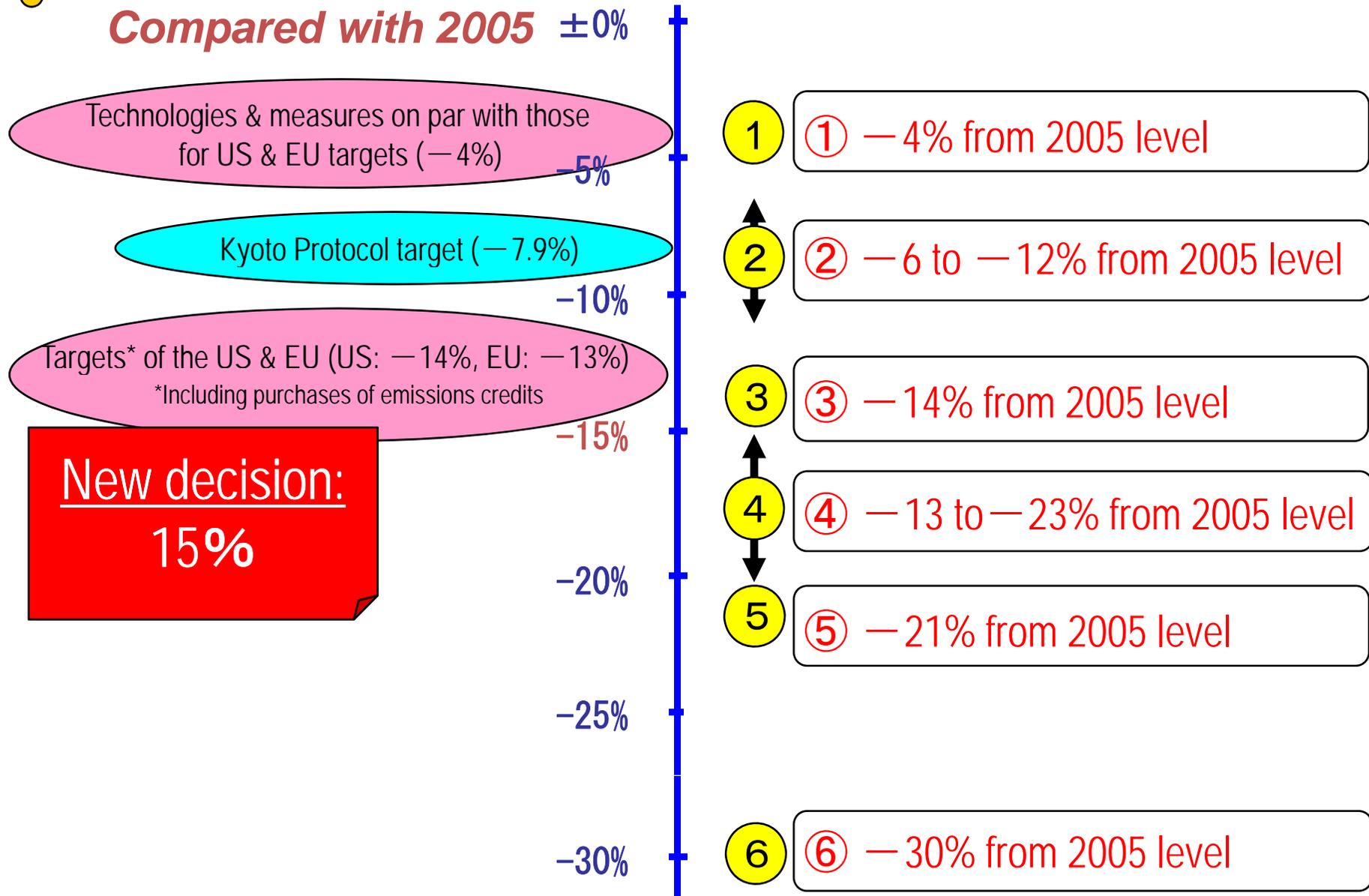
- Reduce carbon using the functions of agriculture, forestry and fisheries Ex: promoting biofuels
- Further promote national campaigns such as “Team Minus 6%”.

4 .Japan's mid-term target

Deciding Japan's Mid-term Target

(The future reduction level without purchases of emissions credits etc)

Compared with 2005 $\pm 0\%$



Mid-term Targets in Various Countries and Regions

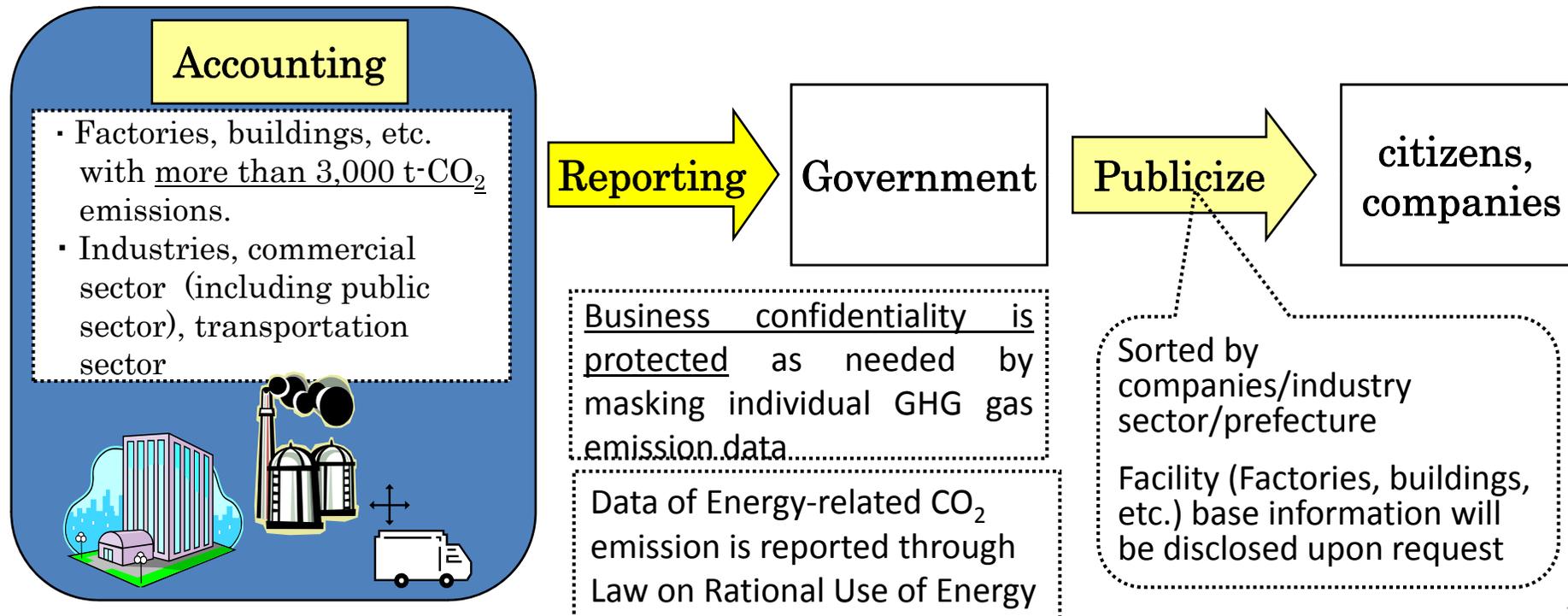
	Comparison with 2005 emissions	Purchases of emissions credits from other countries	Base year
Japan	−15%	<u>Not</u> included in target	2005
EU (27)	−13%	Included in target	1990 (−20%)
USA	−14%	Included in target?	2005

- The announcement on the mid-term target is, so to speak, a first step towards full-fledged international negotiations.
- Japan will decide on such additional reductions under the forthcoming (post-2012) framework after discerning the course of future international negotiations.

5. Japan's MRV in facility level

Mandatory Greenhouse Gas Accounting and Reporting System

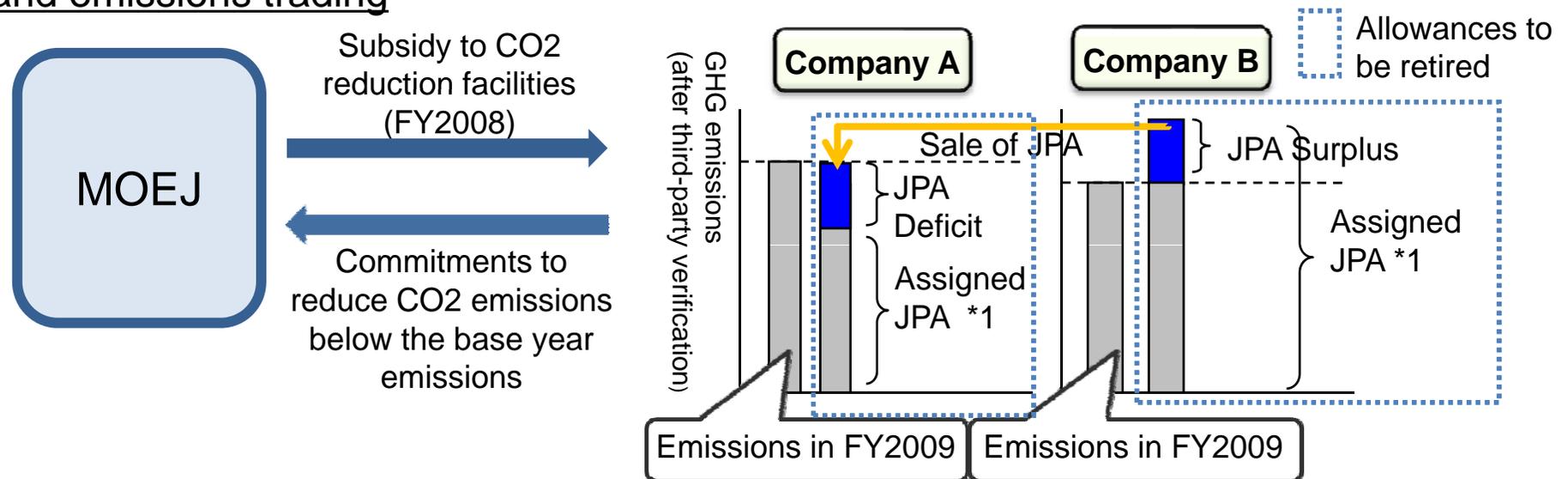
- Provided in the Law on Global Warming Countermeasure
- Mandates entities to account and report their emissions every year to the government, which publicizes the data. (Available: FY2006 and FY2007)
- Encourage businesses to voluntarily reduce GHGs by promoting awareness .
- Covers 15,000 factories and office buildings, etc and 1,400 transportation companies (About 0.2% of business entities in terms of the number)
- Total amount of reported GHG emissions was 650 million t-CO₂ (About 50% of Japan's GHG emissions.)



JVETS overview

(1) Scheme outline

- Launched by MOEJ in 2005
- Supports voluntary CO2 reduction activities by business operators and ensures their target achievement in a cost-effective way using a subsidy to CO2 reduction facilities and emissions trading



(2) Achievements

- Total participants: 232 companies
- Emissions reduction in FY2007 by 2nd phase (FY 2006) participants: 280,192t-CO2 (25% of the total emissions in the base year emissions) cf. their original emissions reduction plan: 19% of the total emissions in the base year emissions
- Total transactions in the 2nd phase: 51 transactions (54,643t-CO2 in total) with the average price of ¥1,250/t-CO2.

*1 : Assigned JPA = Base year emissions (an average for the past 3 years) – Commitments of CO2 reduction

MRV in JVETS

Monitoring and reporting guidelines

- Equivalent to EU-ETS Monitoring and Reporting Guidelines
- Suggest appropriate CO2 emissions monitoring and reporting by participants

Emission verification guidelines

- Encourage appropriate emissions verification for the third-party verifiers

- **Ensure consistency with International standards such as ISO 14064 series and ISO 14065**
- **Secure high accuracy in emissions calculation and verification**
- **Achieve cost-effective verification which contributes to total cost cut of emissions reduction for participants**

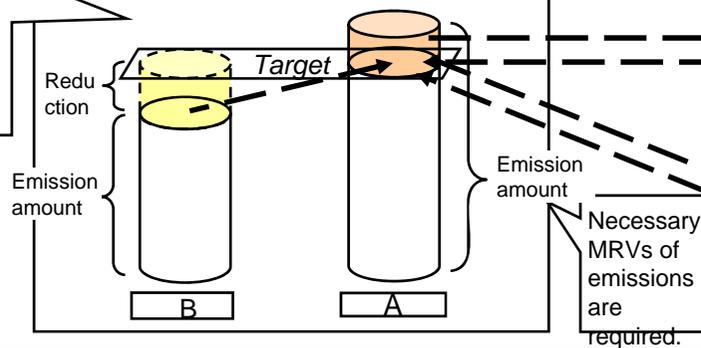
Experimental Introduction of an Integrated Domestic Market for Emissions Trading

Integrated Domestic Market

Experimental emissions trading scheme

Participating corporations set their own emission reduction targets (absolute- or intensity-based) and make efforts to achieve. The following allowances and credits can be used to achieve the targets.

Target is set consistently with VAPs. Government examines each target's validity.



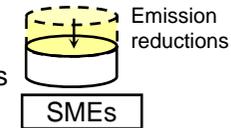
Domestic Credits

Joint reduction projects by large corporations and small- and medium-scale enterprises (SMEs)

Joint projects

Financial, Tech. Resources

Domestic credits



Kyoto Mechanisms Credits

[GHG reduction from projects abroad]

JVETS is incorporated into this scheme as one of participating options.

Target achievement can be reflected to VAP and KPTAP

Key points

- This scheme prepares various options for **substantial emissions reduction** by various entities including large corporations and SMEs in every sector.
- In the **integrated domestic market**, various allowances and credits are available for target achievement.
- Follow-up is scheduled at the beginning of 2009 and in the fall 2009.

Key Features of the Experimental Introduction of an Integrated Domestic Market for Emissions Trading

- **Voluntary cap settings**
 - Participants set their own targets and submit them to the Government.
 - The Government examines the validity of targets and allocates allowances.
 - Interim review and annual follow-up are implemented in Government Councils
- **Target setting methods**
 - Members of Voluntary Action Plan (VAP) adopt their VAP targets.
 - Both quantity and intensity targets are allowed for the VAP members.
 - Non-VAP-members set their targets following JVETS-like methodology
- **Categorized MRVs**
 - VAP members' MRV is in accordance with each VAP's procedure.
 - Those who want allowance transactions must have third-party verification.
 - Non-VAP-members' MRV is in accordance with JVETS-like procedure.

Further information on JVETS and Trial ETS

“Market Mechanisms” (In English)

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

“Domestic Emissions Trading Scheme” (In Japanese)

<http://www.env.go.jp/earth/ondanka/det/index.html>

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