



Ministry of the Environment
Government of Japan

Japan's Climate Change Policies

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Michihiro Oi

Ministry of the Environment, Japan

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1. GHG Inventory in Japan

National Inventory System

- **Kyoto Protocol** requires each Annex I Party to have its **National System for GHG inventory preparation** in place by the end of 2006 (Article 5).

(Decision 19/CMP.1 - Guidelines for National System)

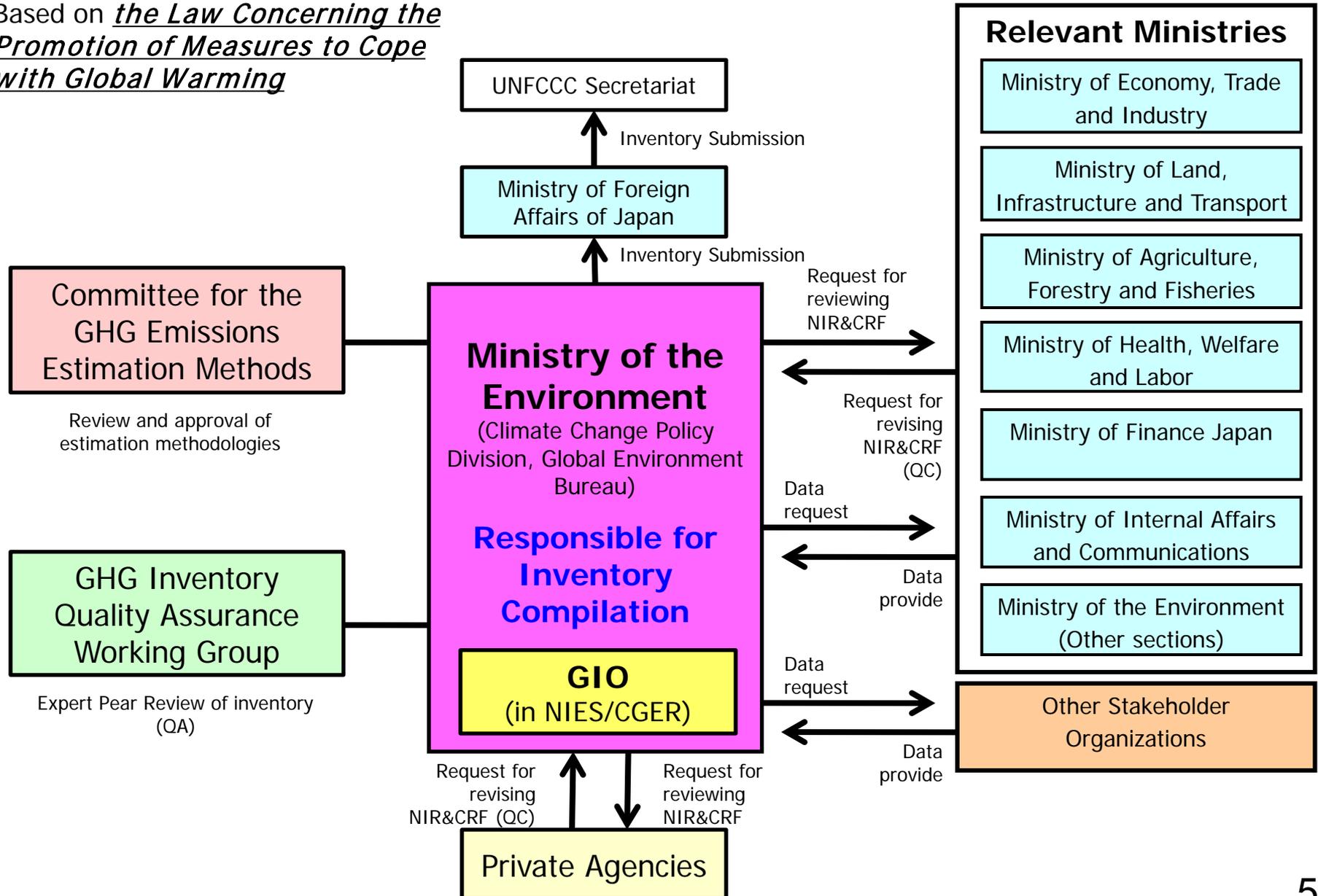
“**National System**” includes everything relevant to national GHG inventory preparation.

(GIO is main part of the System of Japan)

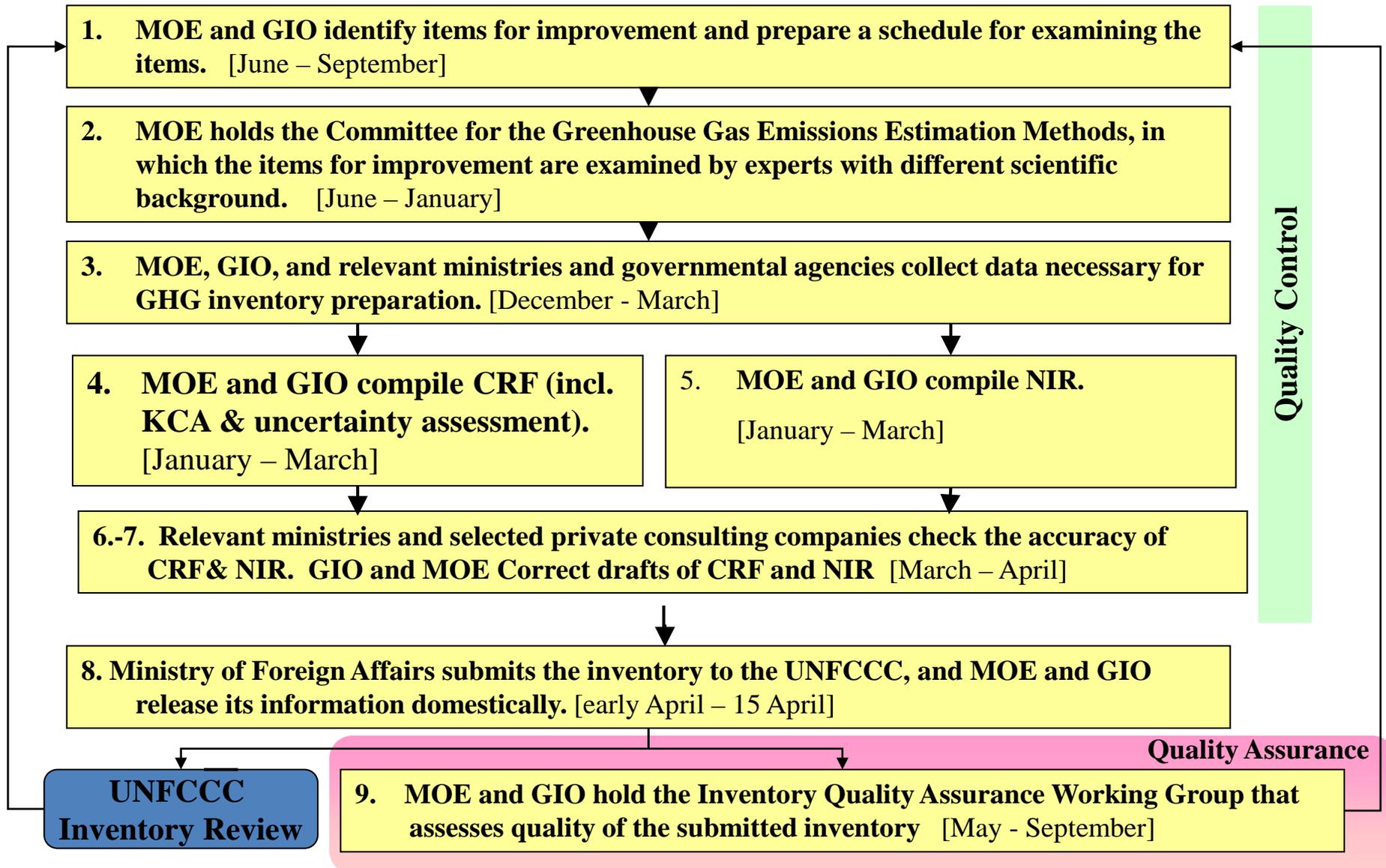
- ✓ Institutional Arrangements
- ✓ Flow of Inventory Compilation Process
- ✓ Quality Assurance and Quality Control (QA/QC) of Inventory
- ✓ Inventory Improvement Plan

Institutional Arrangement

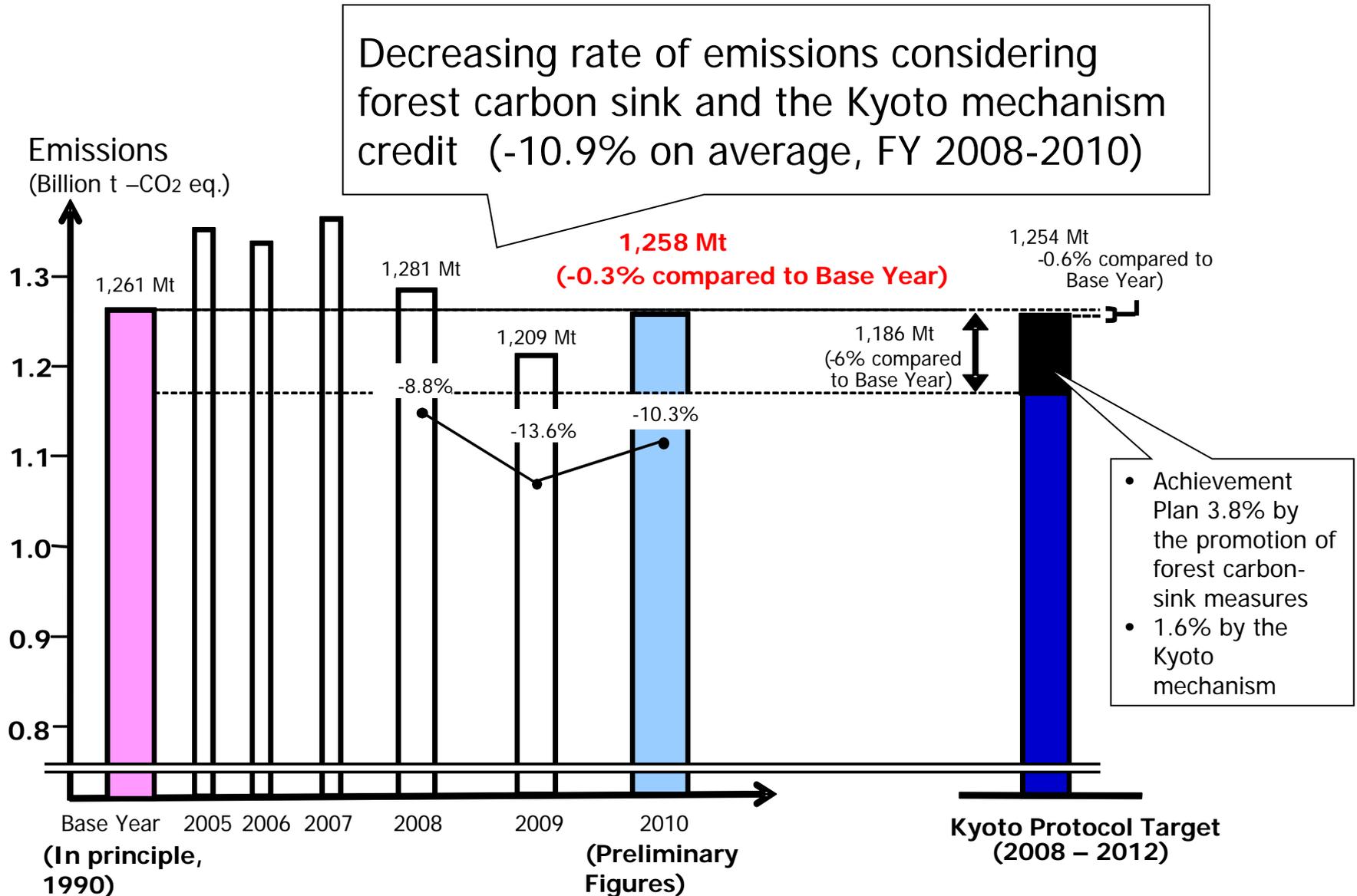
Based on *the Law Concerning the Promotion of Measures to Cope with Global Warming*



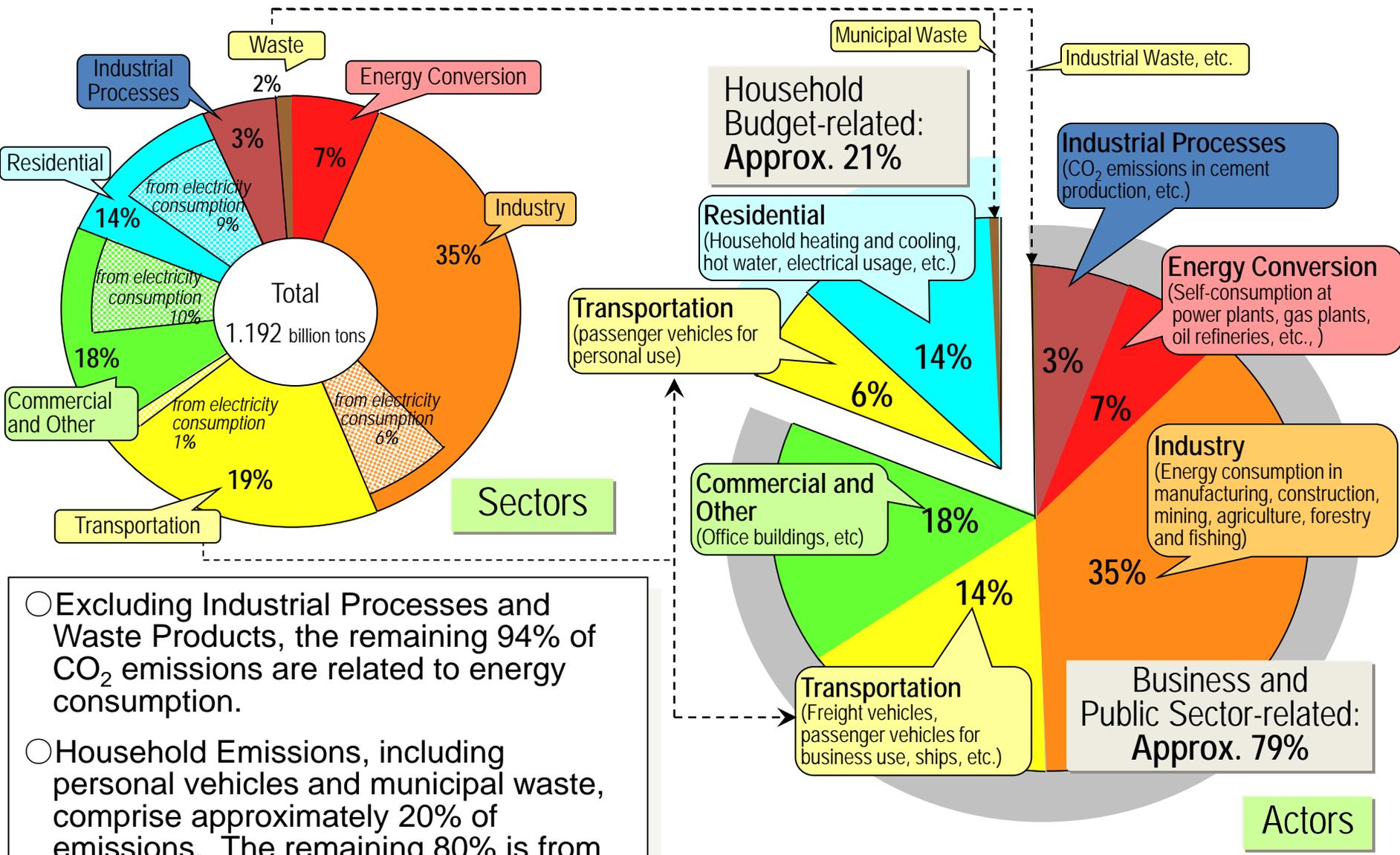
Inventory Development Process



GHG emission in Japan

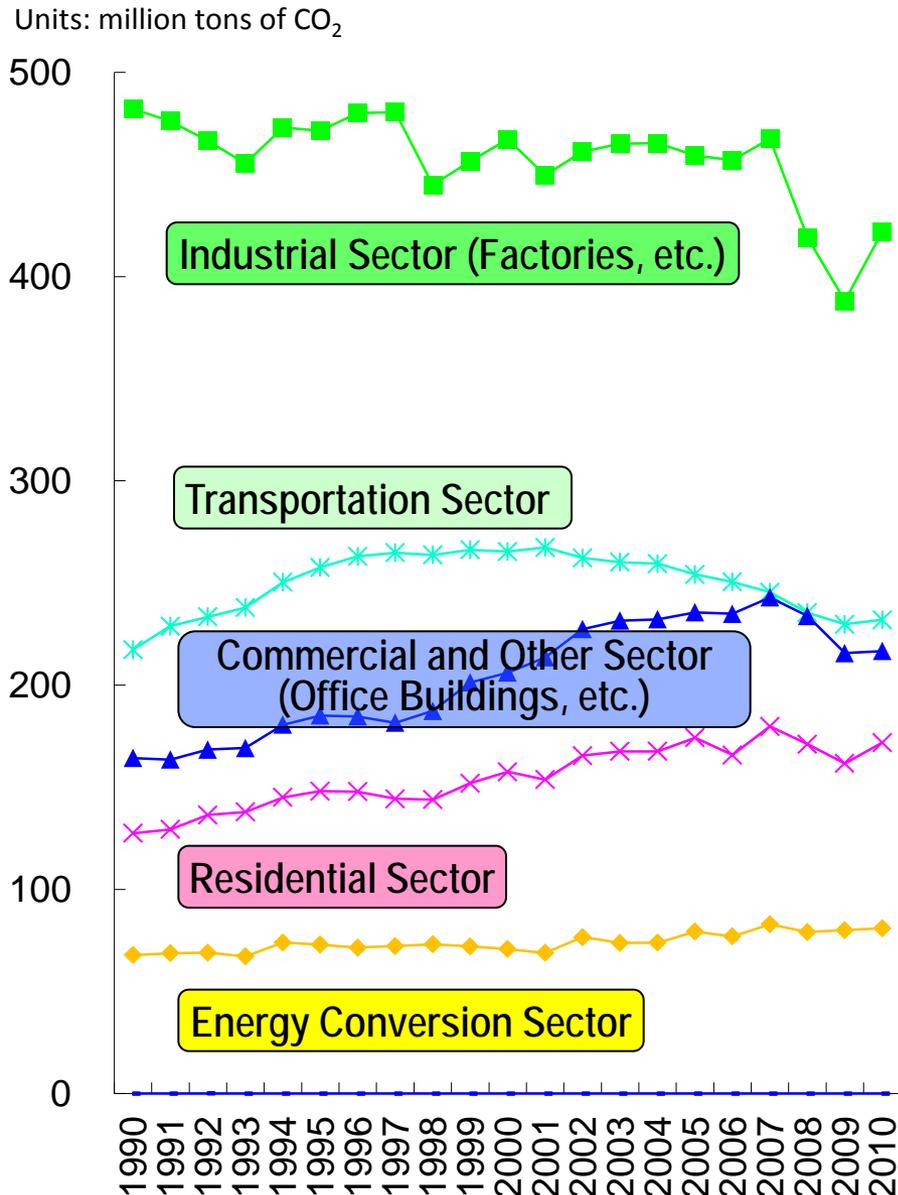


CO₂ Emissions by Sectors and Actors (2010)



- Excluding Industrial Processes and Waste Products, the remaining 94% of CO₂ emissions are related to energy consumption.
- Household Emissions, including personal vehicles and municipal waste, comprise approximately 20% of emissions. The remaining 80% is from Business and Public sector.

Trends of Energy-related CO₂ Emissions by Sectors

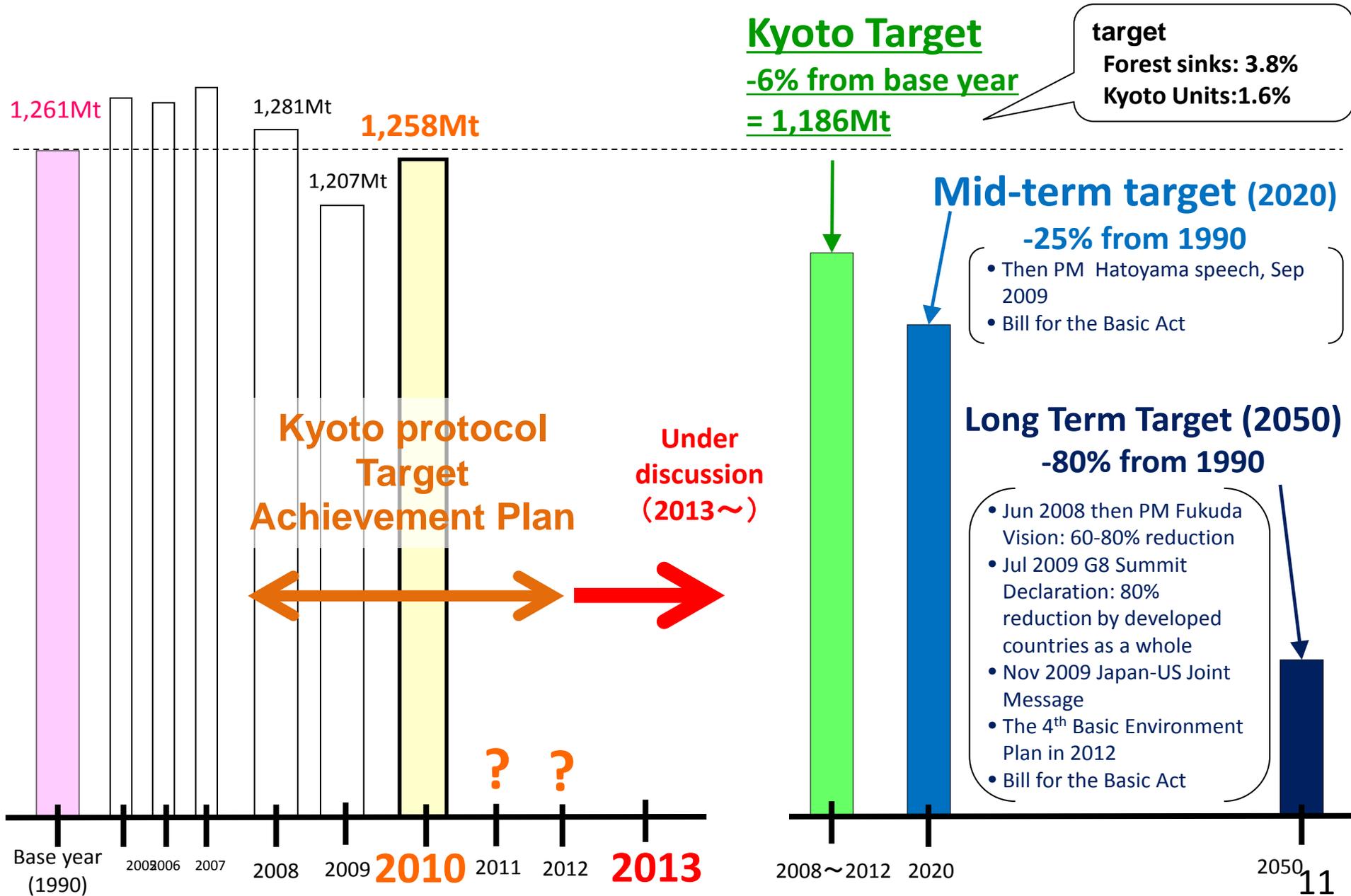


Base year	Change form 1990	2010	Targets* for 2010
482	-12.5% ↓	422	424~428
217	+6.7% ↑	232	240~243
164	+31.9% ↑	217	208~210
127	+34.8% ↑	172	138~141
68	+19.3% ↑	81	66

*Kyoto Target Achievement Plan (Revised in 2008)

2. Climate Change Policies in Japan

Targets for GHG reduction



Examples of global warming countermeasures

- **Carbon tax**
- **Feed-in Tariff for renewable energy**
- Legislations for energy efficiency for vehicles, electric appliances and factories (“Top Runner System”)
- Grant for promotion of energy-saving product “eco-point system “
- Environmental Assessment Law including GHGs
- Mandatory reporting and accounting of GHG emissions from large emission sources (factories etc.)
- Forest Management (Regeneration of neglected forests, Urban Greening)

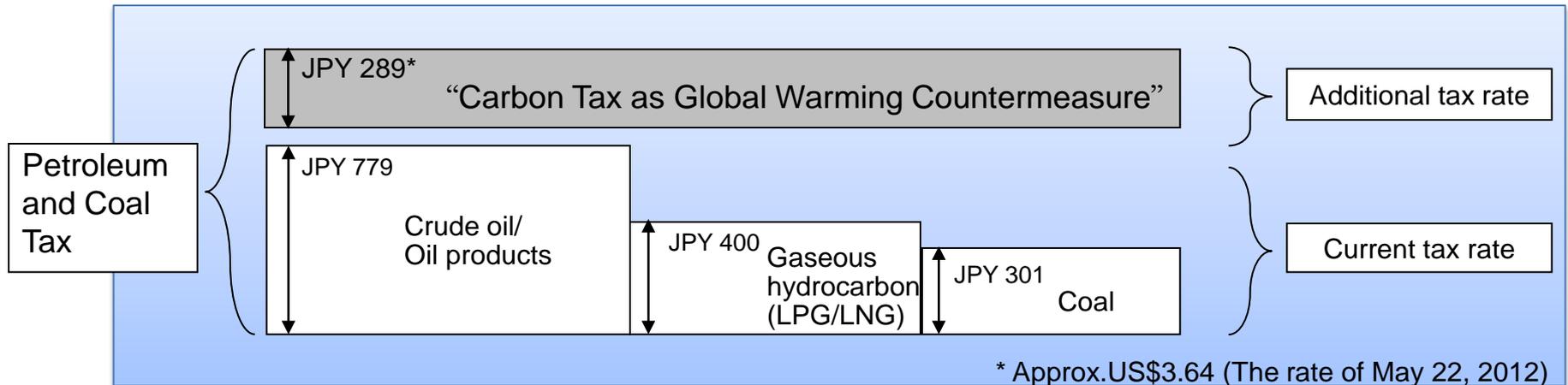
.....etc

New Carbon Tax Scheme

- Tax rate corresponding to the amount of CO2 emissions for all fossil fuels (JPY 289/t-CO2)
- Enforced from Oct. 2012 and increases in the tax rate gradually over 3 and a half years
- All the tax revenue will be allocated for curbing energy-oriented CO2 emissions

Tax Rate

Tax Rate per t-CO2 of “Carbon Tax as Climate Change Countermeasure”



Enforcement Stage

Object of Taxation	Current Tax Rate	From Oct. 1, 2012	From Apr. 1, 2014	From Apr. 1, 2016
Crude oil/Oil products [per 1 kl]	(JPY 2,040)	+ JPY 250	+ JPY 250	+ JPY 260
		(JPY 2,290)	(JPY 2,540)	(JPY 2,800)
Gaseous hydrocarbon [per 1 t]	(JPY 1,080)	+ JPY 260	+ JPY 260	+ JPY 260
		(JPY 1,340)	(JPY 1,600)	(JPY 1,860)
Coal [per 1 t]	(JPY 700)	+ JPY 220	+ JPY 220	+ JPY 230
		(JPY 920)	(JPY 1,140)	(JPY 1,370)

Tax Revenue

[1st year] **JPY 39.1 billion** ; [Normal year] **JPY 262.3 billion** (about US\$3.31 billion)

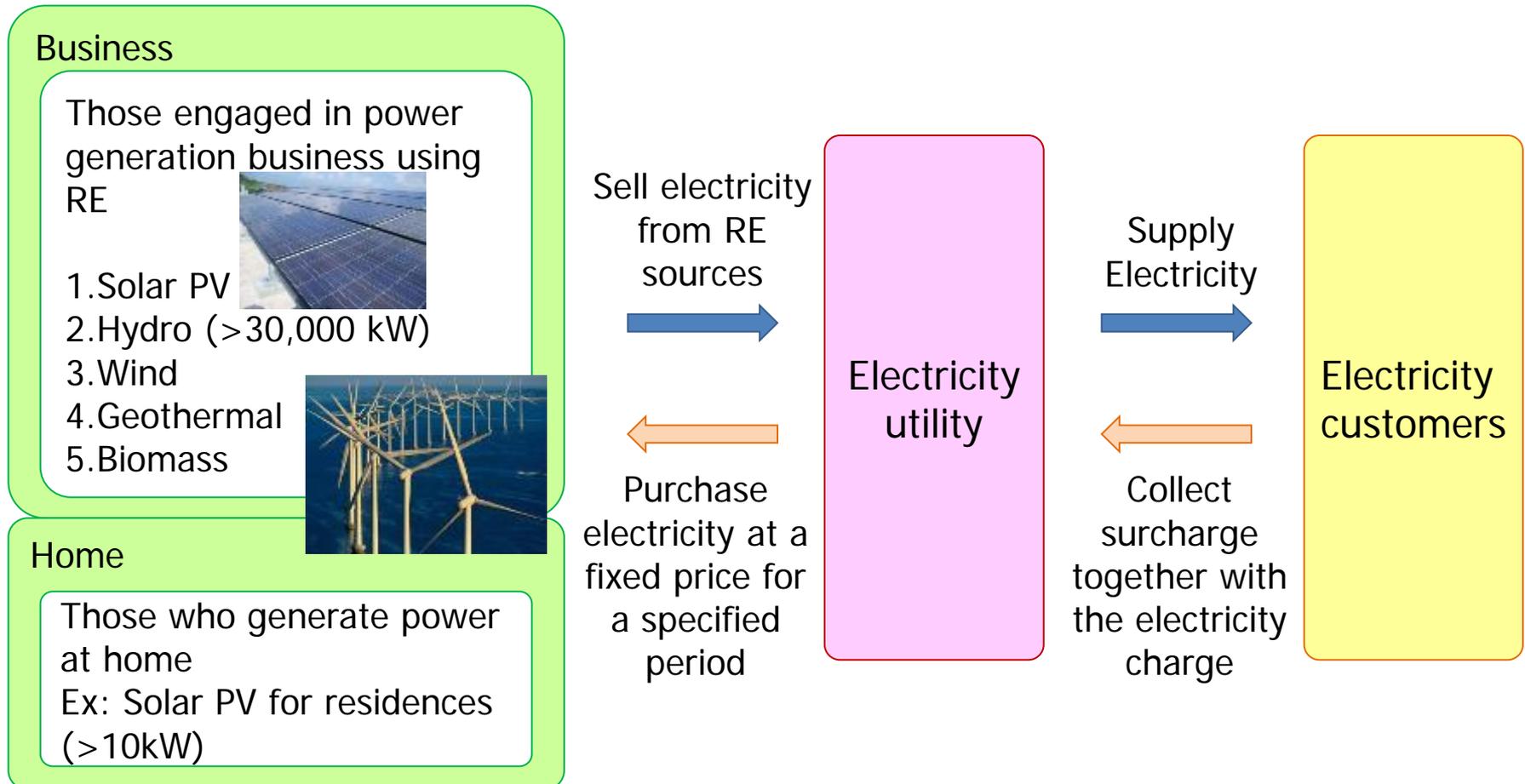


To be used for introduction of renewable energy and enhancement of energy-saving measures, etc.

Feed-in Tariff for Renewable Energy (1/2)

All of generated renewable electricity (excess electricity by residential RE equipment) shall be purchased at a fixed price.

The bill for introducing FIT adopted in July 2011 and came into force from 1 July 2012 .



Feed-in Tariff for Renewable Energy (2/2)

Feed-in tariff (FIT) rate and period proposed by the Assessment Committee on FIT Rate and Period.

April 2012

Source	Capacity or Category	Rate, tax incl. (JPY per kWh)	Period (year)
PV	≥ 10 kW	42.00 yen	20
	< 10 kW	42.00 yen	10
Wind	≥ 20 kW	23.10 yen	20
	< 20 kW	57.75 yen	
Geothermal	≥ 15000 kW	27.30 yen	15
	< 15000 kW	42.00 yen	
Hydropower	1000 - 30000 kW	25.20 yen	20
	200 - 1000 kW	30.45 yen	
	< 200 kW	35.70 yen	
Biomass	Biogas	40.95 yen	20
	Lumber, unused	33.60 yen	
	Lumber, general	25.20 yen	
	Waste biomass	17.85 yen	
	Lumber, recycled	13.65 yen	

(1 yen ≈ 1 euro cent)

Reviewing Energy and Environmental Strategies

Energy and Environment Council

Members:
Chairperson: Minister of State for National Policy in charge of national strategies
Vice Chairpersons: Minister of Economy, Trade and Industry; Minister of the Environment for the Management and Prevention of Nuclear Accidents
Members: Chief Cabinet Secretary; Foreign Minister; Minister of Education, Sports, Science and Technology; Minister of Agriculture, Forestry and Fisheries; Minister of Land, Infrastructure, Transport and Tourism; Minister of State for Economic and Fiscal Policy; and Deputy Chief Cabinet Secretary appointed by the Chairperson
Secretary General (Senior Vice Minister for National Policy)

Atomic Energy Commission

Prepares drafts on atomic energy policy options based on basic policies

Central Environment Council (Global Environment Subcommittee)

Prepares drafts on options for global warming prevention based on basic policies

Review Committee on measures and strategies adopted during or after 2013

Advisory Committee on Natural Resources and Energy (Subcommittee on Fundamental Issues)

Prepares drafts on options for combinations of energy sources based on basic policies

Examinations conducted in close cooperation

Schedule Going Forward

29 June 2012: Systematic presentation of a number of options for energy and environmental strategies at an Energy and Environment Council meeting



August 2012: Formulation of strategies by the Energy and Environment Council based on nationwide discussions

Points for Discussions on Global Warming Prevention from 2013 onward

1. Consider **long-term goals** shared worldwide.

- Limit any global temperature increase to within **2°C**.
- Achieve a **50% reduction worldwide and an 80% reduction in developed countries** by 2050.
- Present goals for **2020 and 2030** without preconditions.

2. Be first among all countries to present **a clear vision** for realizing a low-carbon society for the future.

- (1) The world's best **energy conservation technologies** unrivaled by those of any other country
 - Set global standards for low-carbon manufacturing processes and low-carbon products
 - Develop the most efficient energy-saving technologies for residences and lifestyles
- (2) Catch up to other countries in developing **renewable energy technologies** and achieve the highest level of performance
- (3) Contribute to reducing CO₂ emissions **worldwide** using energy conservation and renewable energy technologies

3. Be first among all countries to **present programs** necessary for realizing a low-carbon society for the future.

- Present specific measures that support policies.

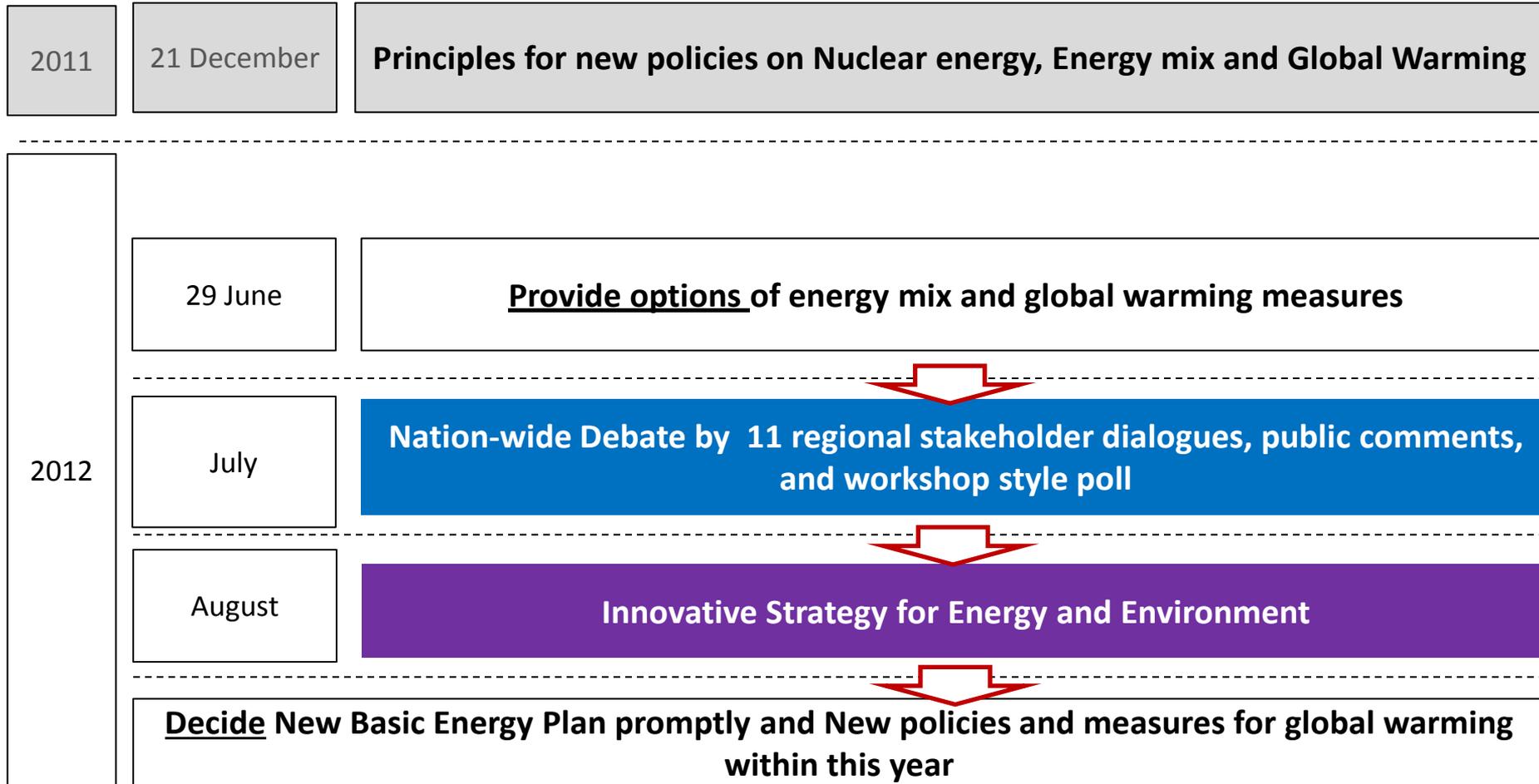


Japan's Future Options on Energy and Environment

	2010	2030			
Option		Basic Energy Plan (2010)	Scenario 1	Scenario 2	Scenario 3
Nuclear Power	26%	45%	0%	15%	20~25%
Renewable Energy	10%	20%	35%	30%	25~30%
Amount of Electricity	1.1 PWh	1.2 PWh (+9%)	1 PWh (-10%)	1 PWh (-10%)	1 PWh (-10%)
Total Energy Consumption	390 GI		300 GI (-23%)	310 GI (-21%)	310 GI (-21%)
Coal : LNG	1:1.2	1:1.2	1:1.8	1:1.5	1:1.5
GHG Emission from 1990 (2020)	-0.3%	-30%*	-23%	-23%	-25%
			(0~-7%)	(-9%)	(-10~-11%)
GDP(trillionJPY) (from BAU)	511		563~628 (-7.6~-1.3%)	579~634 (-4.9~-0.3%)	581~634 (-4.6~-0.3%)

* energy-related CO2 emission only

Schedules of the Policy Revision



Thank you for your attention

Michihiro Oi

Office of International Strategy on
Climate Change, MOEJ
michihiro_oi@env.go.jp