



WGIA14

27 July 2016

Ulaanbaatar, Mongolia

Japan's Climate Change Policies

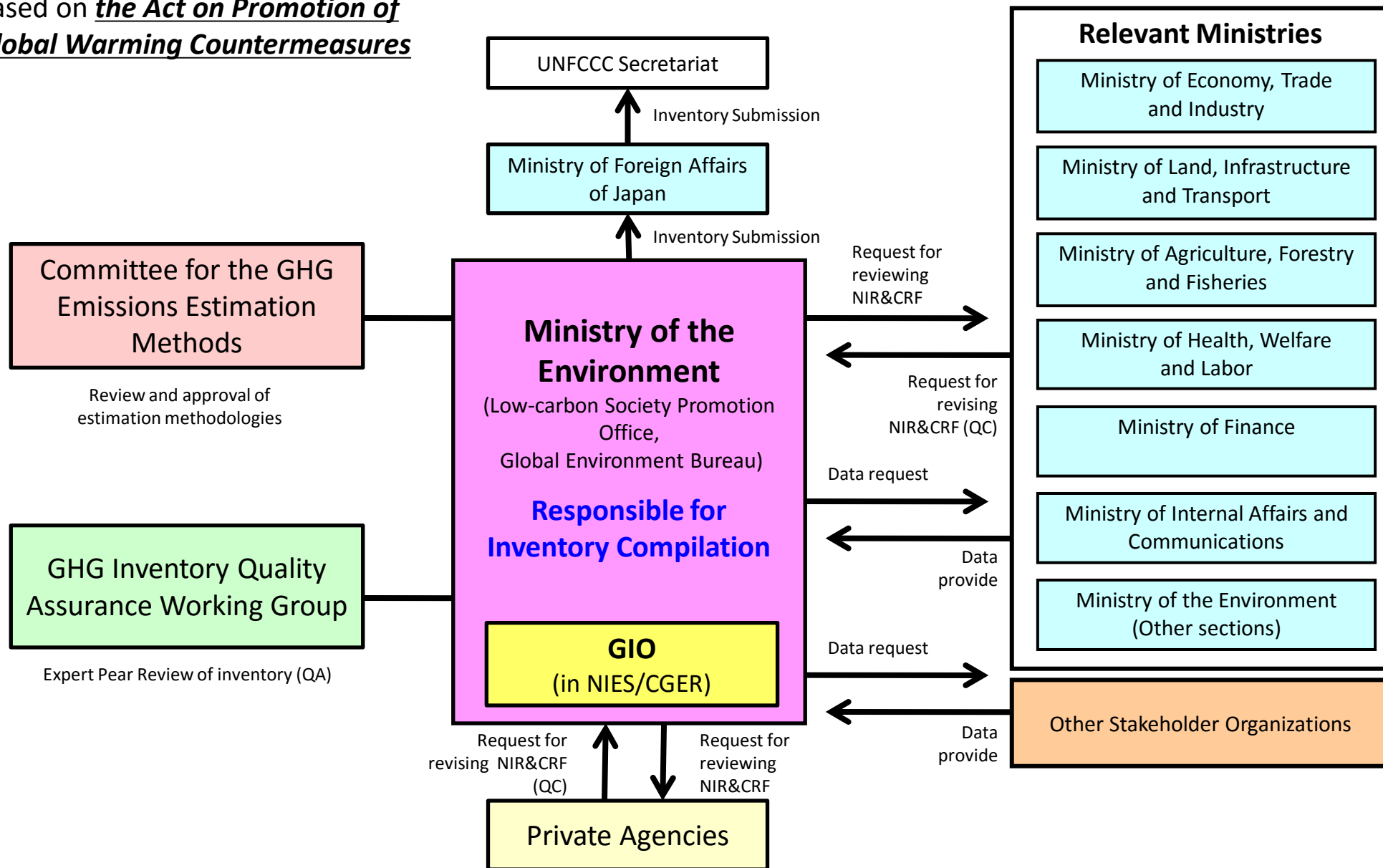
Shigeyoshi Sato

Ministry of the Environment, Japan (MOEJ)

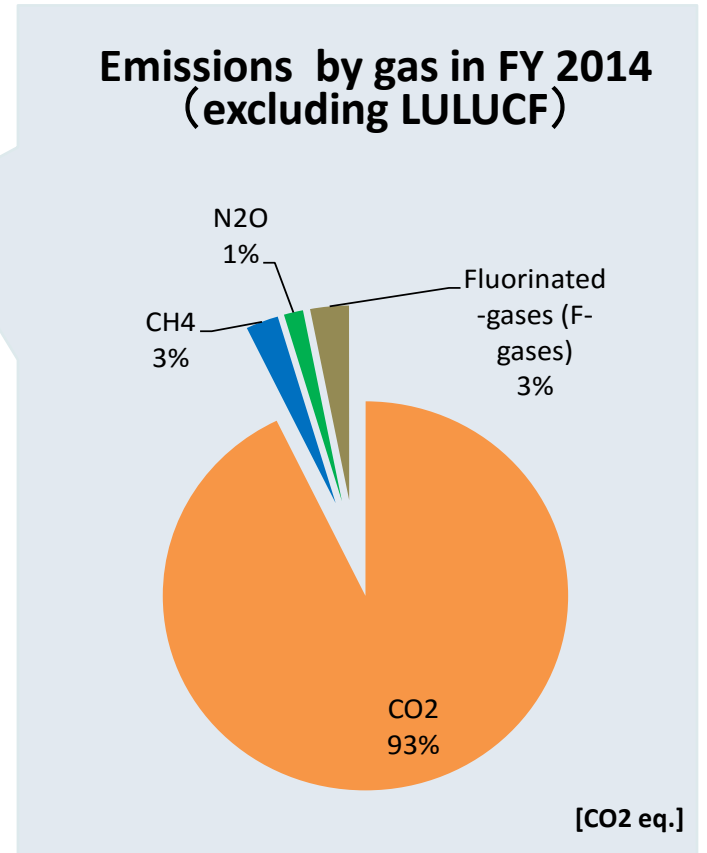
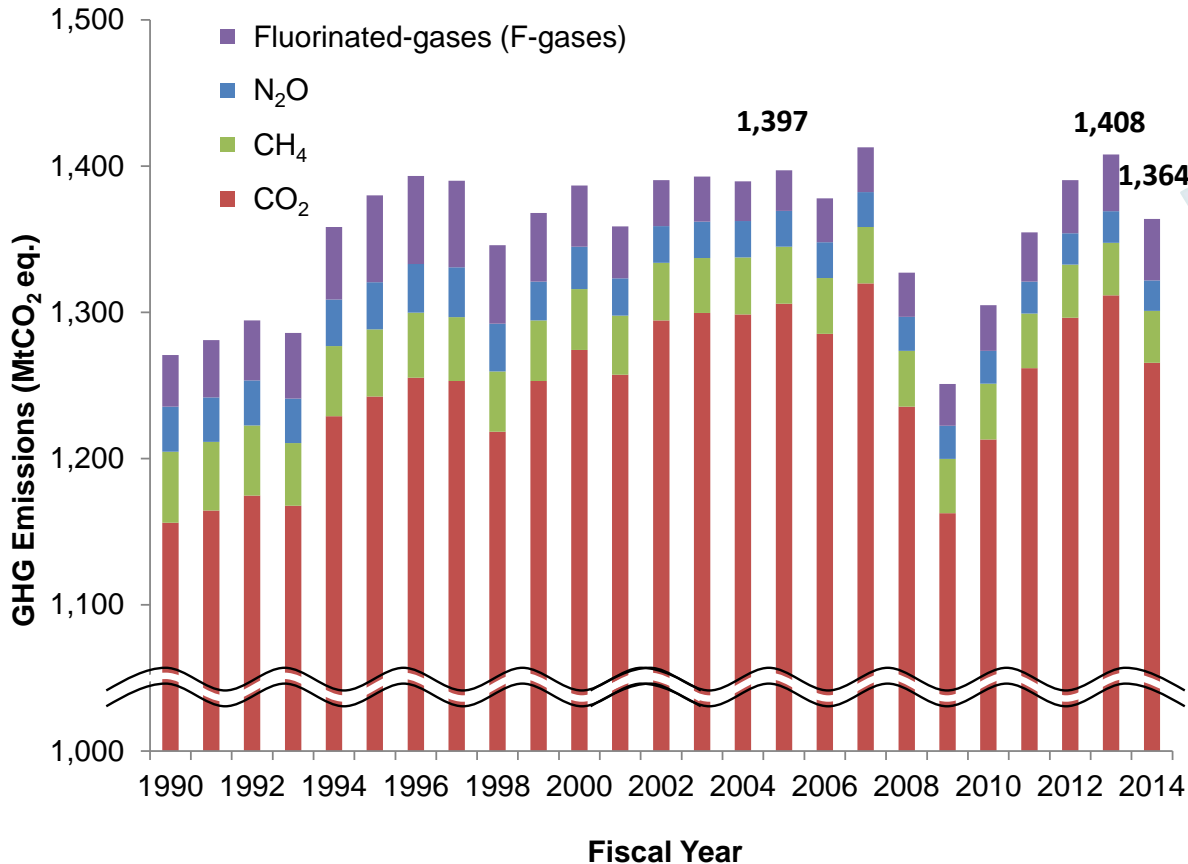
MRV system in Japan

Japan's National Inventory System (Institutional Arrangement)

Based on *the Act on Promotion of Global Warming Countermeasures*

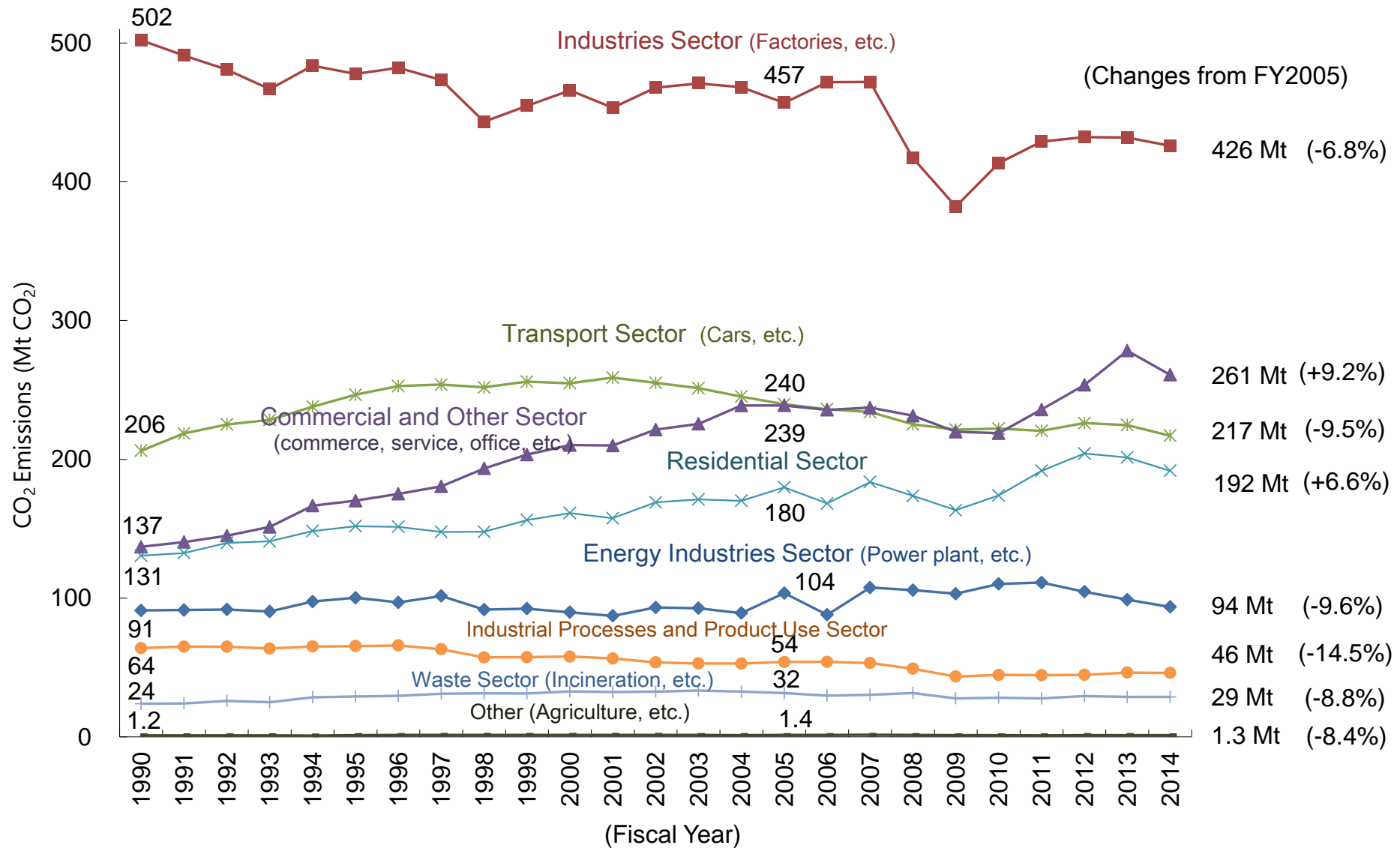


GHG Emissions Trend (1990-2014)

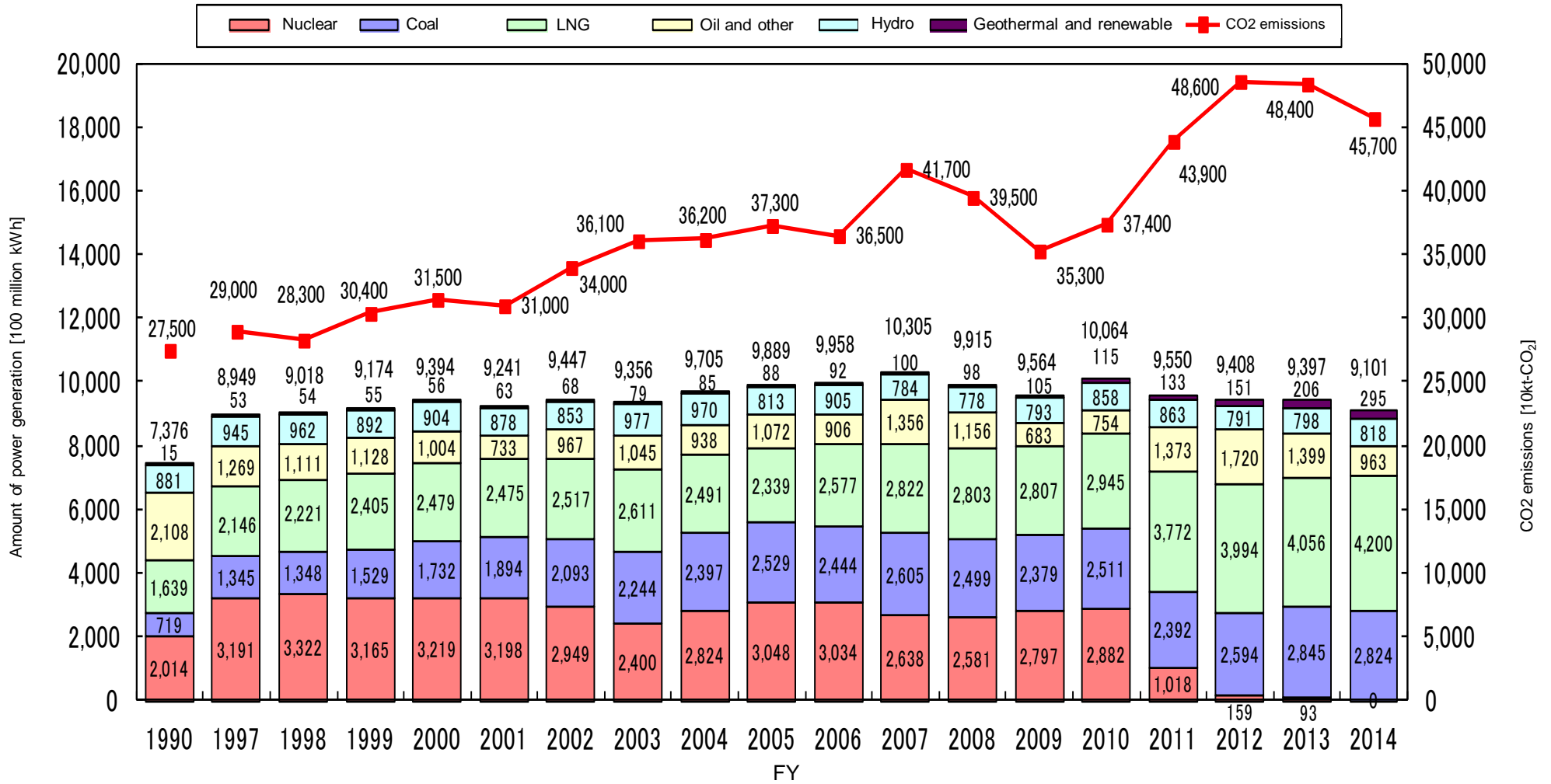


Source: National Greenhouse Gas Inventory Report of Japan (April, 2016)

CO₂ Emissions Trend by Sector (1990-2014)

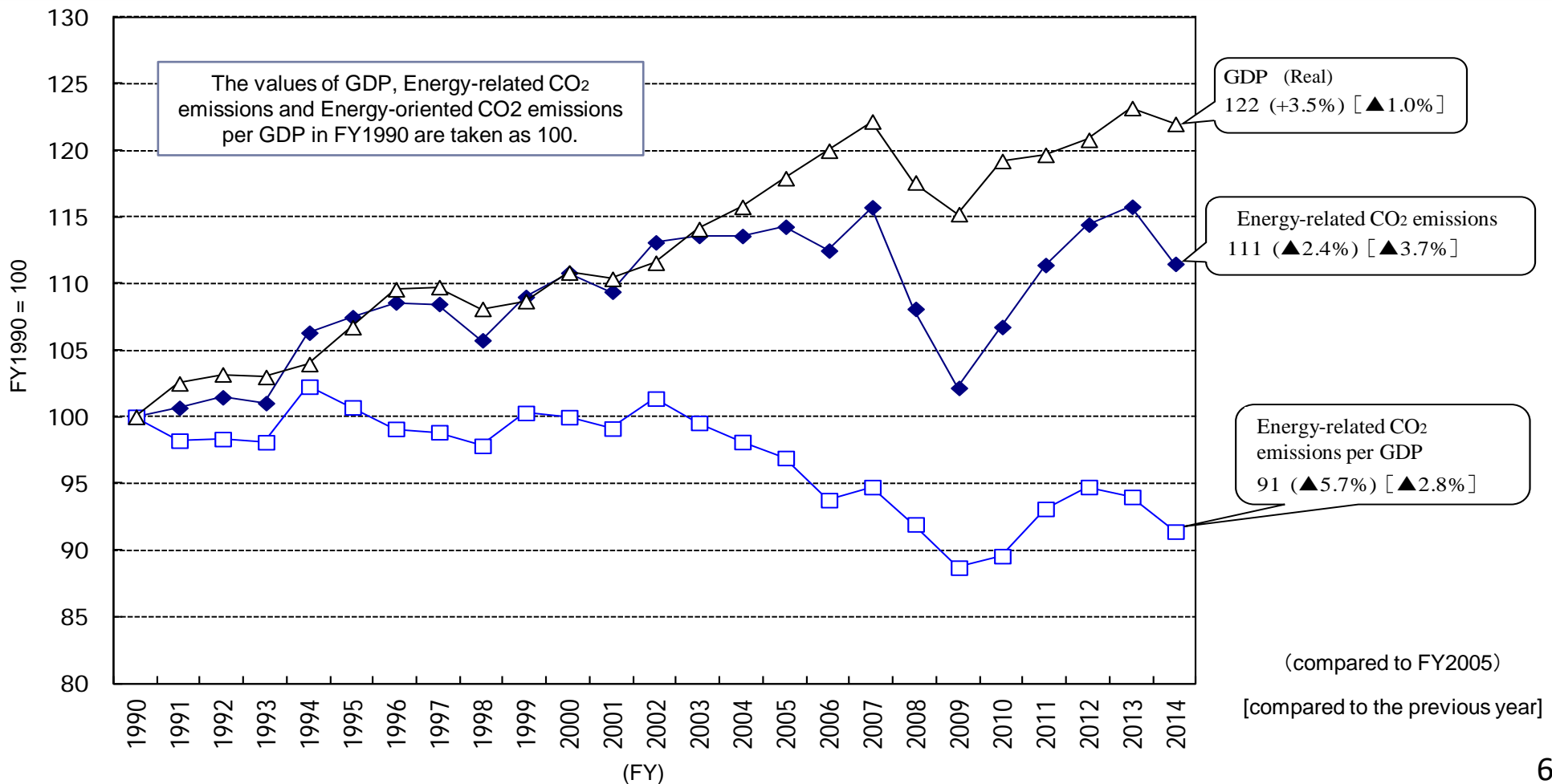


Electricity generation in Japan



Decoupling

GDP and Energy-related CO₂ emissions had indicated a similar increasing trends until the early 2000s, but both have been decoupled since the mid-2000s. The decoupling trend continues until now.



Submission of BR2

Japan's Second Biennial Report
under the United Nations Framework Convention
on Climate Change



- Submitted Date : December 28, 2015
- Technical Review : June 6-11, 2016
- Multilateral Assessment : May 2017

	Submission	Review	MA
2013 (COP19)	NC6/BR1		
2014 (COP20)		In-depth review/ Technical review	
2015 (COP21)	BR2		MA1
2016 (COP22)		Technical review	
2017 (COP23)	NC7/BR3		MA2
2018 (COP24)		In-depth review/ Technical review	

<BR2の出典>

December 2015 The Government of Japan

http://unfccc.int/national_reports/biennial_reports_and_iar/submitted_biennial_reports/items/7550.php

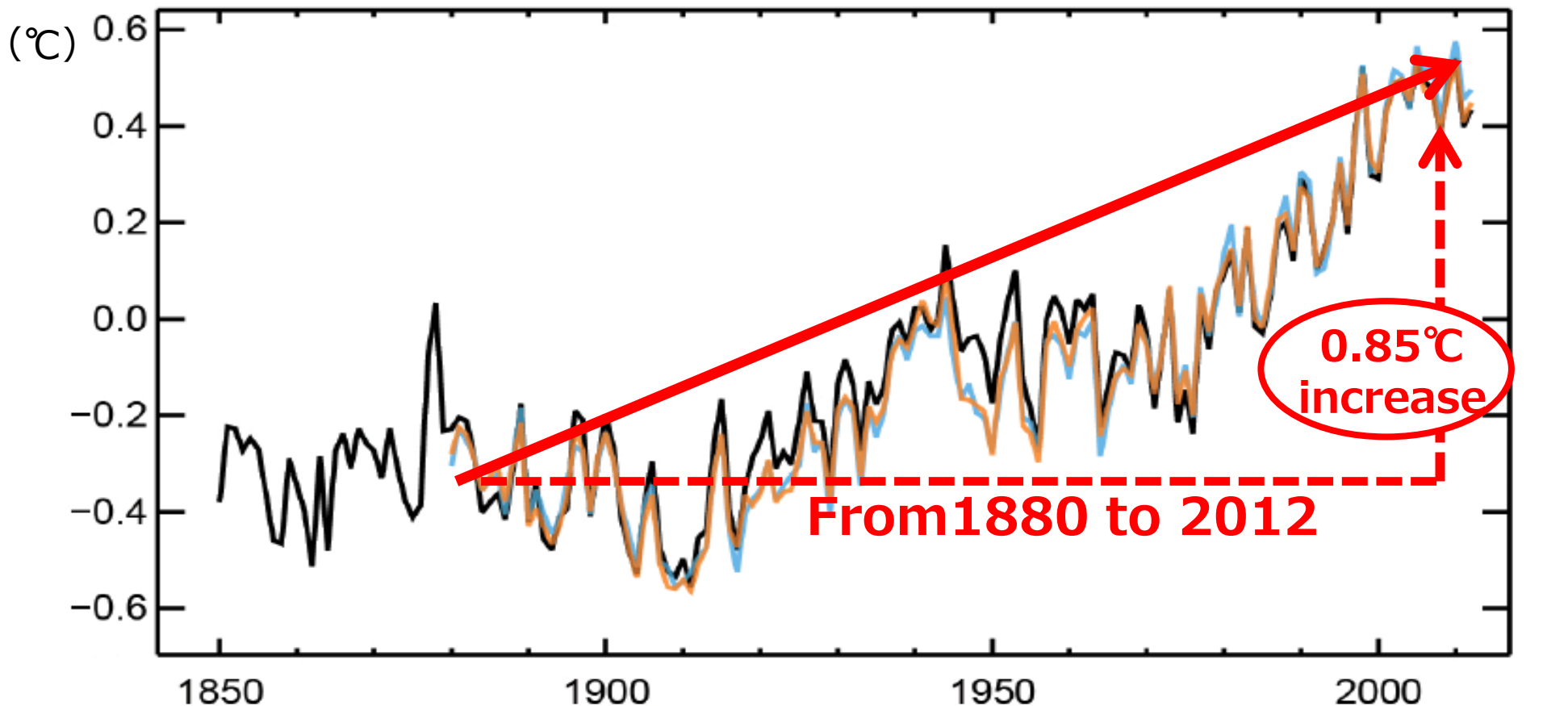
Policy and Measures in Japan

Current condition of global warming

The global average temperature has risen by 0.85°C since the Industrial Revolution.

If this situation is left as it is, it will rise by almost 5°C at the end of this century.

Paris Agreement established the common global objective to limit the increase in temperature to well below 2°C



COP 21 and Paris Agreement

Adopted a new international agreement on climate change in December 2015

Applicable to all

The first universal, legally-binding agreement to take effect from 2020 to keep global warming below 2°C; Aim to limit the global ave. temp. increase to 1.5°C

Comprehensive

Address mitigation, adaptation, finance, technology transfer, capacity-building, and transparency in a balanced manner

Durable

See beyond the time frames stated in their INDCs (e.g., 2025/2030)

Progressive

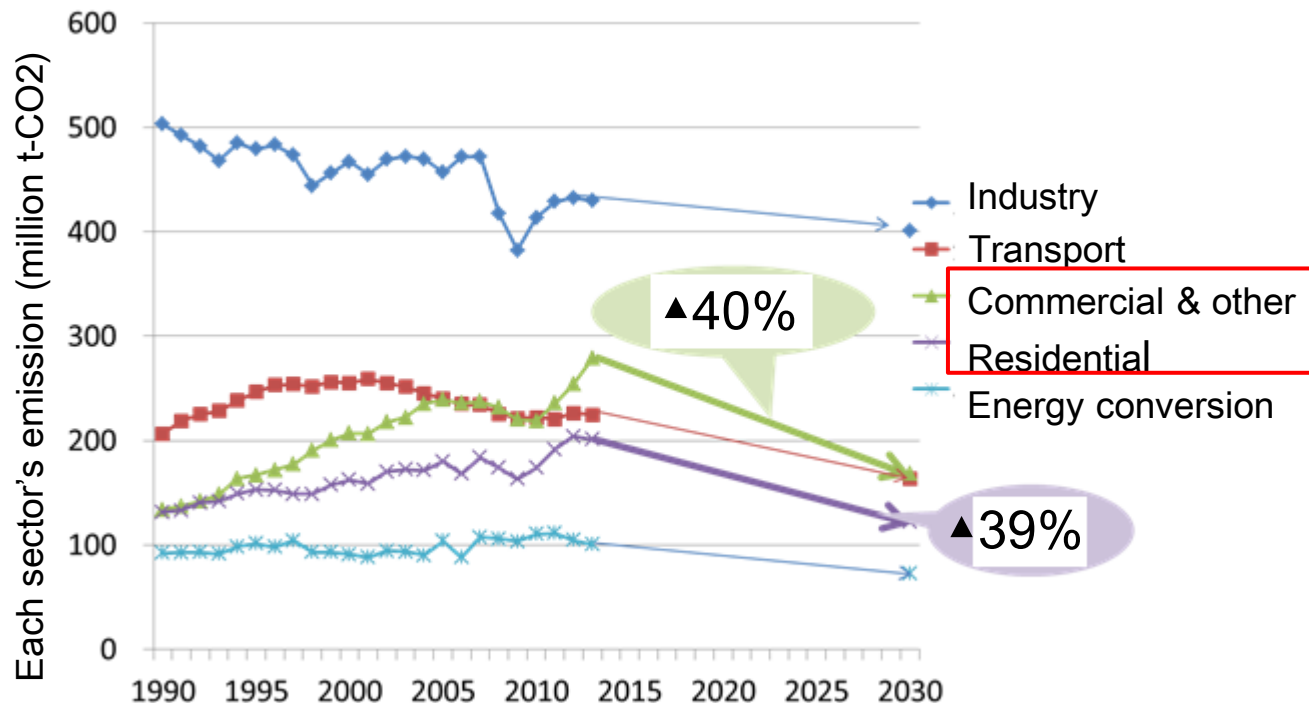
Set more ambitious targets every 5 years; Report and track progress through a robust transparency and accountability system

Turning Point for the World

Japan's INDC and reduction target in each sector

- ◆ Achieve the level of **a reduction of 26.0% by FY2030 compared to FY2013 (25.4% reduction compared to FY2005)** (approximately 1.042 billion t-CO₂ eq.) by securing domestic emission reductions and removals.
- ◆ **Feasible emission reduction target by bottom-up calculation with concrete policies, measures and individual technologies** taking into adequate consideration technological and cost constraints, ensuring consistency with its energy mix.

	Compared to FY2013 (to FY2005)
Energy-related CO ₂	▲25.0% (▲24.0%)
Non energy-related CO ₂	▲6.7% (▲17.0%)
CH ₄	▲12.3% (▲18.8%)
N ₂ O	▲6.1% (▲17.4%)
HFCs, PFCs, SF ₆ and NF ₃	▲25.1% (+4.5%)
Removals by LULUCF	▲2.6% <small>Note1</small> (▲2.6%)
Greenhouse gas emission reduction	▲26.0% <small>Note2</small> (▲25.4%)



Note1: The value of removal by LULUCF is the ratio to total GHG emissions in 2013, not reduction rate compared to FY2013 or FY2005.

Note2: The sum of reduction rate of each gas is not equal to ▲26.0% because each value is the reduction rate of each gas.

Policy for global warming countermeasures based on the Paris Agreement (Summary)

Policy on domestic measures

Decision of Global Warming Prevention Headquarters in December 22, 2015

Japan will steadily work on the achievement of FY2030 emission reduction target shown in "Japan's INDC (Decision of Global Warming Prevention Headquarters in July 17, 2015, and will make a long-term and strategic contribution to global emission reductions, in line with Paris Agreement which established 2°C target as a common global objective and aims at achieving a balance between anthropogenic emissions and removals later in the second half of this century to meet this long-term objective.

1. Development of the plan for global warming countermeasures

The government will **develop the plan for global warming countermeasures by next spring** based on Japan's INDC and the Paris Agreement. For its development, the government will have discussion mainly in the joint meetings of Central Environment Council and Industrial Structure Council.

2. Development of the National Government Action Plan

The government will **develop the National Government Action Plan** containing leading measures based on the plan for global warming countermeasures by next spring and take an initiative to implement the actions.

3. Enhancement of Public Campaign

The government will **take a leadership role to enhance Public Campaign for prevention of global warming** and promote spreading of information, transformation in consciousness and encouragement to actions in cooperation with various entities such as local governments, industry, Japan Center for Climate Change Actions and NPO.

The Plan for Global Warming Countermeasures

- Japan's sole general plan for global warming prevention; in order to promote global warming countermeasures comprehensively and strategically.
- Decided by the Cabinet of Japan on May 13, 2016

<GHG reduction target >

■ Japan's GHG emission reductions target

- Reduction of 26.0% by FY2030 compared to FY2013 (25.4% compared to FY2005)
- 3.8% or more reduction in FY2020 compared to FY2005
- 80% reduction by 2050 as its long-term goal

■ planning period

- From date of cabinet decision (May 13, 2016) to FY2030

<Progress Management of the Plan>

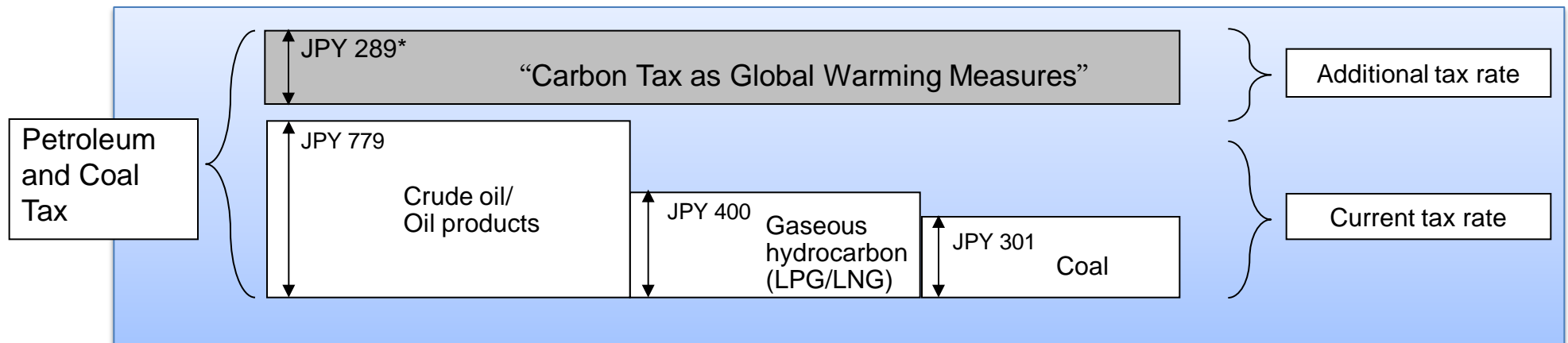
- Yearly progress review, consideration of the plan's revision every 3 years

Carbon tax scheme

- Tax rate corresponds to the amount of CO₂ emissions for all fossil fuels (JPY 289/t-CO₂)
- Enforced since Oct. 2012; Tax rate has been increasing gradually over 3.5 years
- All the tax revenue are allocated for curbing energy-originated CO₂ emissions

Tax Rate

Tax Rate per t-CO₂ of “Carbon Tax as Global Warming Measures”



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 billion**; [After Apr. 2016] **JPY 260 billion**

➔ Used for the introduction of renewable energy and enhancement of energy conservation measures, etc.

Main uses of tax revenue

Promotion of renewable energy and energy savings in whole region including commercial and residential sector

- Model project on advanced CO₂ emission reduction countermeasures from public buildings
 - Promotion of self-reliant diffusion of renewable heat and electric energy
 - Promotion of reducing CO₂ emissions in logistics sector
 - Model project for reducing CO₂ emissions from water supply systems
 - Promotion of reducing CO₂ emissions from commercial buildings
 - Promotion of introduction of LED light in regions
 - Diffusion of energy saving natural refrigerant equipment using advanced technologies
 - Promotion of introduction of L2-Tech (Leading Low-carbon Technology)
- etc



Innovation, demonstration and practical application of technologies for full introduction of renewable energy and implementation of energy saving

- Development and demonstration of CO₂ emission reduction technologies
 - Promotion of hydrogen society using renewable energy
 - Promotion of practical use of next-generation materials like Cellulose Nano-Fiber
 - Promotion of carbon-minus society using CCS
 - Promotion and reduction of cost for low carbon floating wind turbines
- etc



Major changes of environmental finance and public campaign from social systems

- Investment fund for low carbon local society
- Public campaigns for building low carbon society
- Model project for promotion of method to reduce CO₂ emissions cooperate with local economy, etc



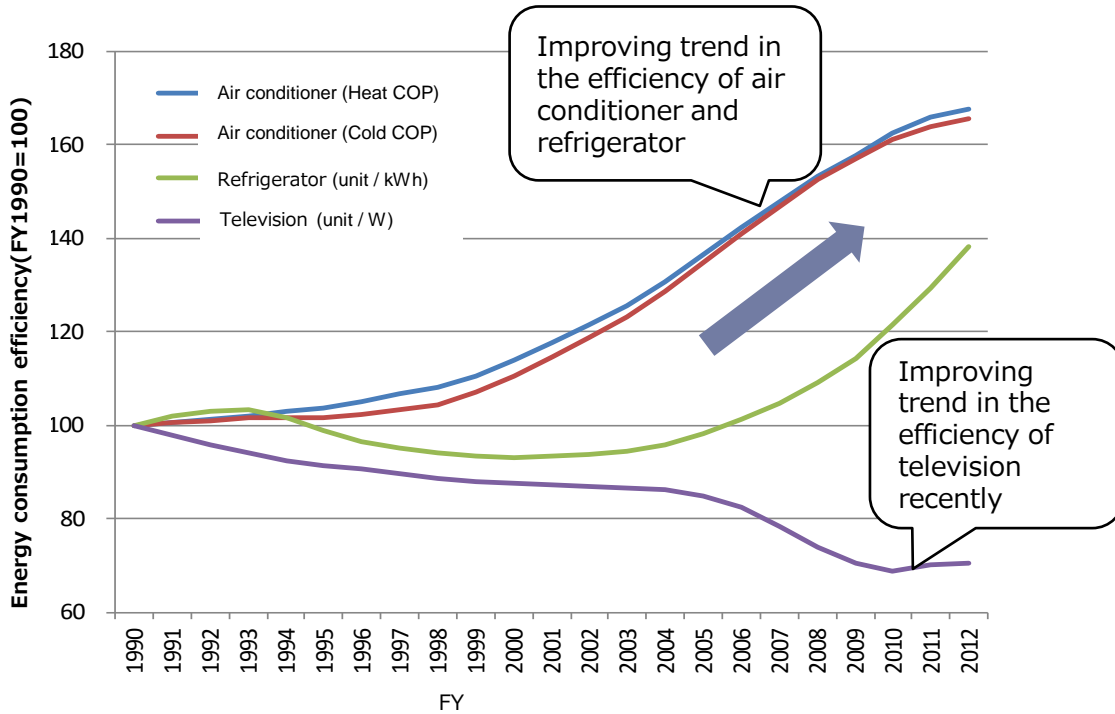
Contributions to global emission reduction through the overseas deployment of Japanese superior low carbon technologies

- Enhancing technology of MRV for JCM promotion
 - Funding support for JCM (Project support, Contribution to ADB)
- etc



Example for the progress of measures

Energy consumption efficiency of household appliances (Stock)



※COP : coefficient of performance, showing the ratio of heat and cold heat generated by air conditioner to energy consumption

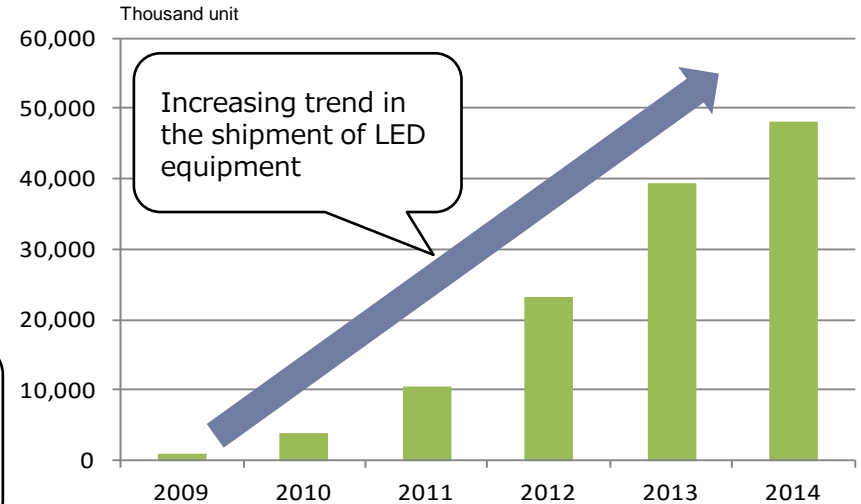
<Source>

Energy consumption efficiency of household appliances : Energy Handbook for households 2014 (Jyukankyo Research Institute Inc.)

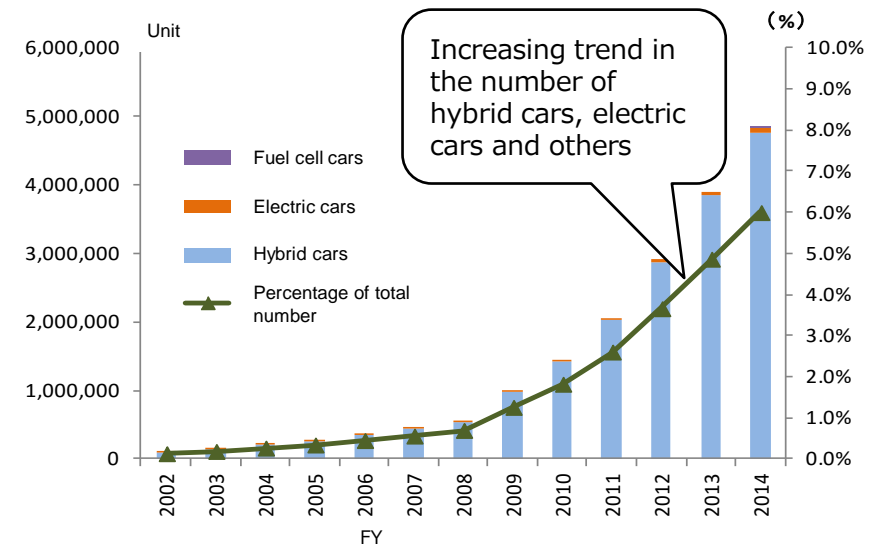
Shipment of LED equipment : Voluntary statistics on Lighting equipment (Japan Lighting Manufacturers Association)

Number of hybrid cars, electric cars and others: Website of Next Generation Vehicle Promotion Center (Number of hybrid cars, electric cars and fuel cell cars), Website of Automobile Inspection & Registration Information Association (total number of cars)

Shipment of LED equipment



Number of hybrid cars, electric cars and others



Summary of the National Government Action Plan

(1) Objectives and Plan period

- ① Aim to reduce the government-wide emissions from energy use in government facilities, use of official cars and so on by 40% in FY2030 from the base year FY2013.
- ② Establish the interim target to reduce the government-wide emissions by 10% by FY2020
- ③ The targeted period is from FY2016 to FY2030. The National Government Action Plan after FY2021 will be reviewed in FY2020.

(2) Contents of major measures

- Implement energy saving diagnosis starting with large government office buildings and operational improvement based on the diagnosis results. In addition, implement reasonable and cost-effective hard measures taking into account the timing of renewals of facilities.
- Make efforts to increase the percentage of government-wide LED illumination introduction in stock to more than 50% by the end of FY2020.
- Make efforts to use next-generation vehicles for almost all official cars by FY2030 unless there is no alternative next-generation vehicle available. Make efforts to achieve the interim target for FY2020 to increase the ratio of new-generation vehicles to government-wide official cars to about 40%.



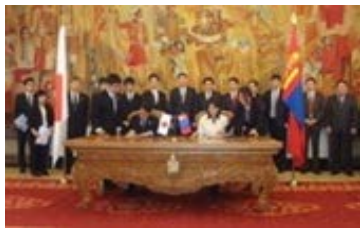
LED illumination was introduced to the room of the Environment Minister

(3) Formulation and review of Implementation plan by each relevant ministries and agencies

Relevant ministries and agencies formulate an implementation plan respectively based on the National Government Action Plan and introduce PDCA cycle to announce the results of review each year.

JCM Partner Countries

➤ Japan has held consultations for the JCM with developing countries since 2011 and has established the JCM with Mongolia, Bangladesh, Ethiopia, Kenya, Maldives, Viet Nam, Lao PDR, Indonesia, Costa Rica, Palau, Cambodia, Mexico, Saudi Arabia, Chile, Myanmar and Thailand.



Mongolia
Jan. 8, 2013
(Ulaanbaatar)

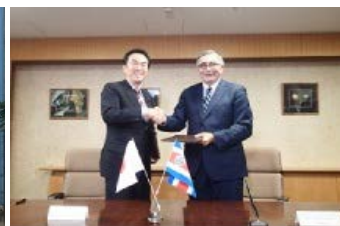
Bangladesh
Mar. 19, 2013
(Dhaka)

Ethiopia
May 27, 2013
(Addis Ababa)

Kenya
Jun. 12, 2013
(Nairobi)

Maldives
Jun. 29, 2013
(Okinawa)

Viet Nam
Jul. 2, 2013
(Hanoi)



Lao PDR
Aug. 7, 2013
(Vientiane)

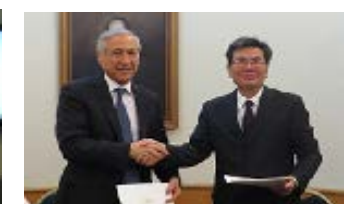
Indonesia
Aug. 26, 2013
(Jakarta)

Costa Rica
Dec. 9, 2013
(Tokyo)

Palau
Jan. 13, 2014
(Ngerulmud)

Cambodia
Apr. 11, 2014
(Phnom Penh)

Mexico
Jul. 25, 2014
(Mexico City)



Saudi Arabia
May 13, 2015

Chile
May 26, 2015
(Santiago)

Myanmar
Sep. 16, 2015
(Nay Pyi Taw)

Thailand
Nov. 19, 2015
(Tokyo)

➤ In addition, the Philippines and Japan signed an aide memoire with intent to establish the JCM.

Summary

- ◆ Japan's total GHG emissions in FY2014 were 1,364 Mt CO₂ eq.
- ◆ Japan has submitted the 2nd BR in December 2015. Technical review for Japan's BR2 was conducting in June, and multilateral assessment for Japan will be conducted in May 2017.
- ◆ Japan's FY2030 target is 26.0% reduction below FY2013 level (INDC).
- ◆ Japan decided the Plan for Global Warming Countermeasures in order to promote global warming countermeasures comprehensively and strategically.
- ◆ Japan is implementing a variety of policies and measures based on carbon tax revenue to reduce GHG emissions.
- ◆ Japan will make full contribution to the implementation of the Paris Agreement.

Thank you for your attention