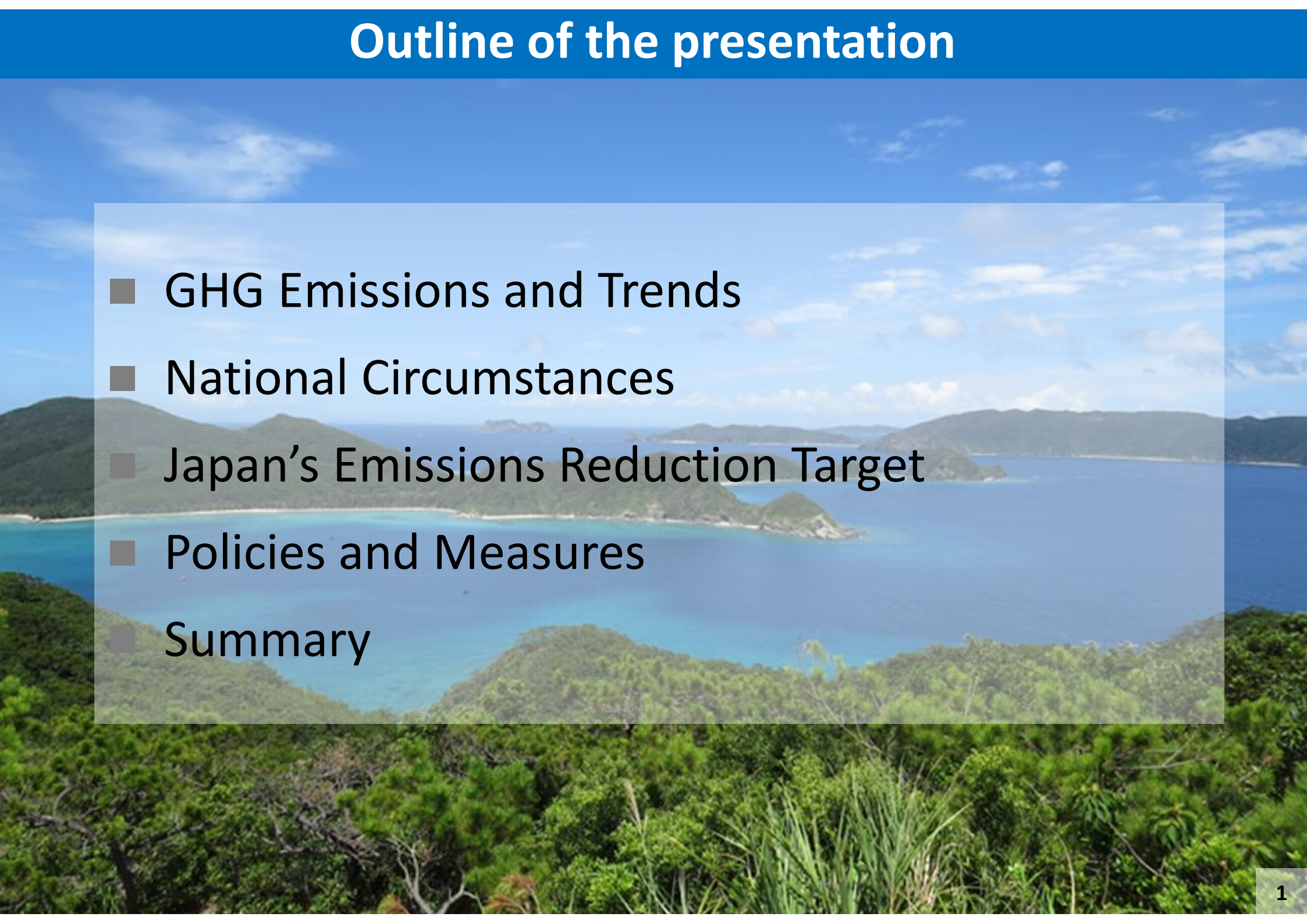
Multilateral Assessment Japan

SBI46, Bonn, 12 May 2017

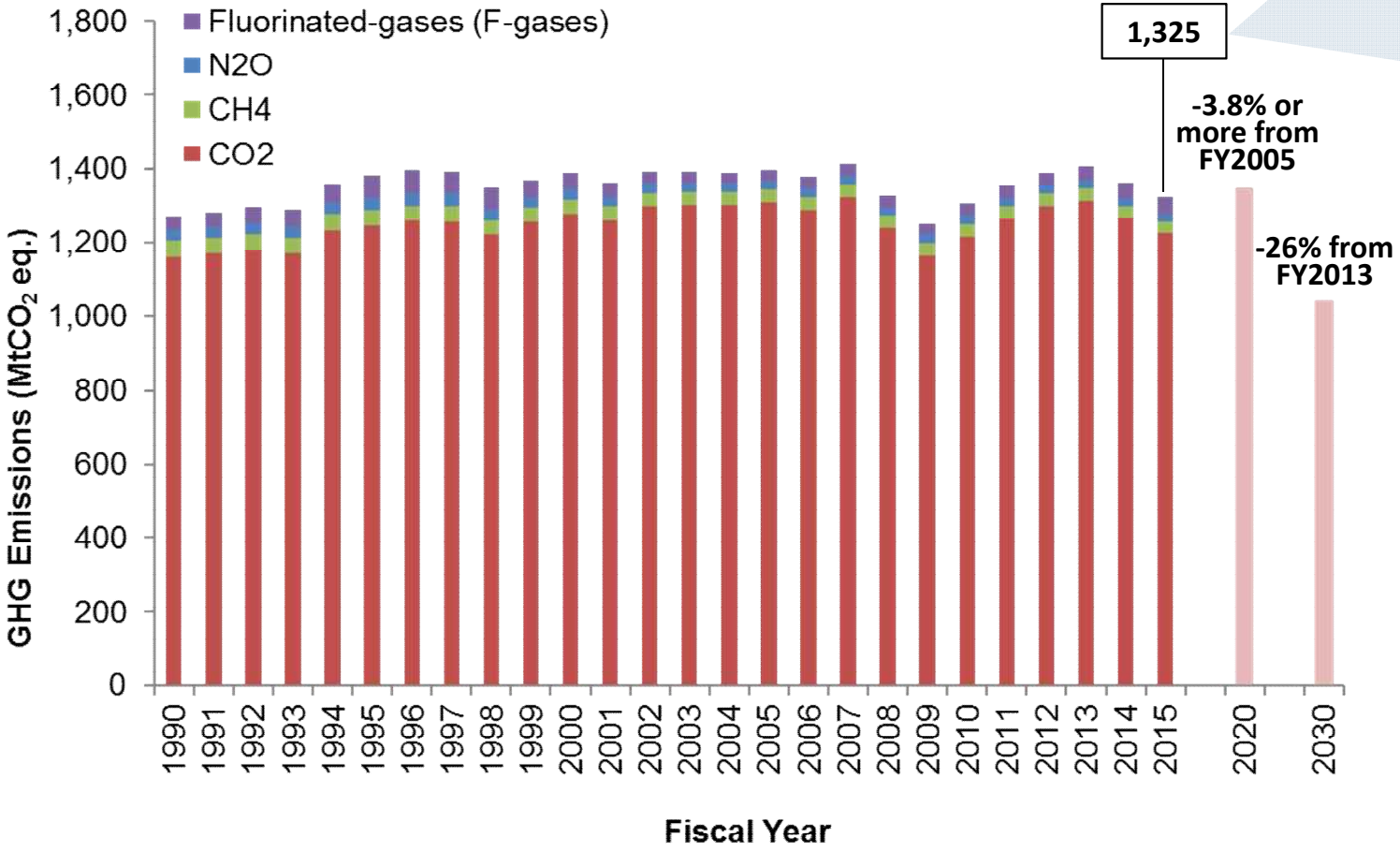
Outline of the presentation

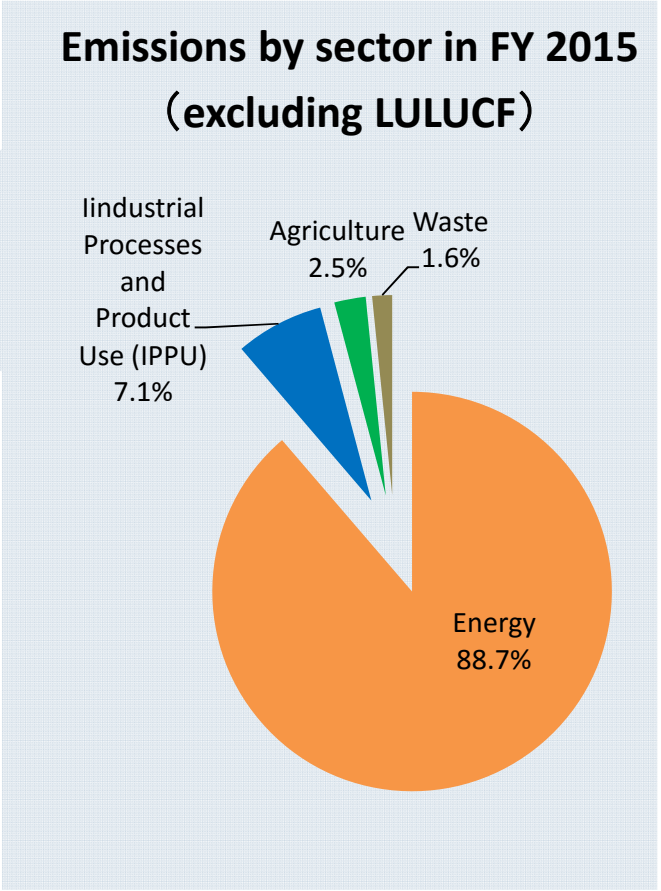


- GHG Emissions and Trends
- National Circumstances
- Japan’s Emissions Reduction Target
- Policies and Measures
- Summary

GHG Emissions and Trends

GHG Emissions Trends (1990-2015)



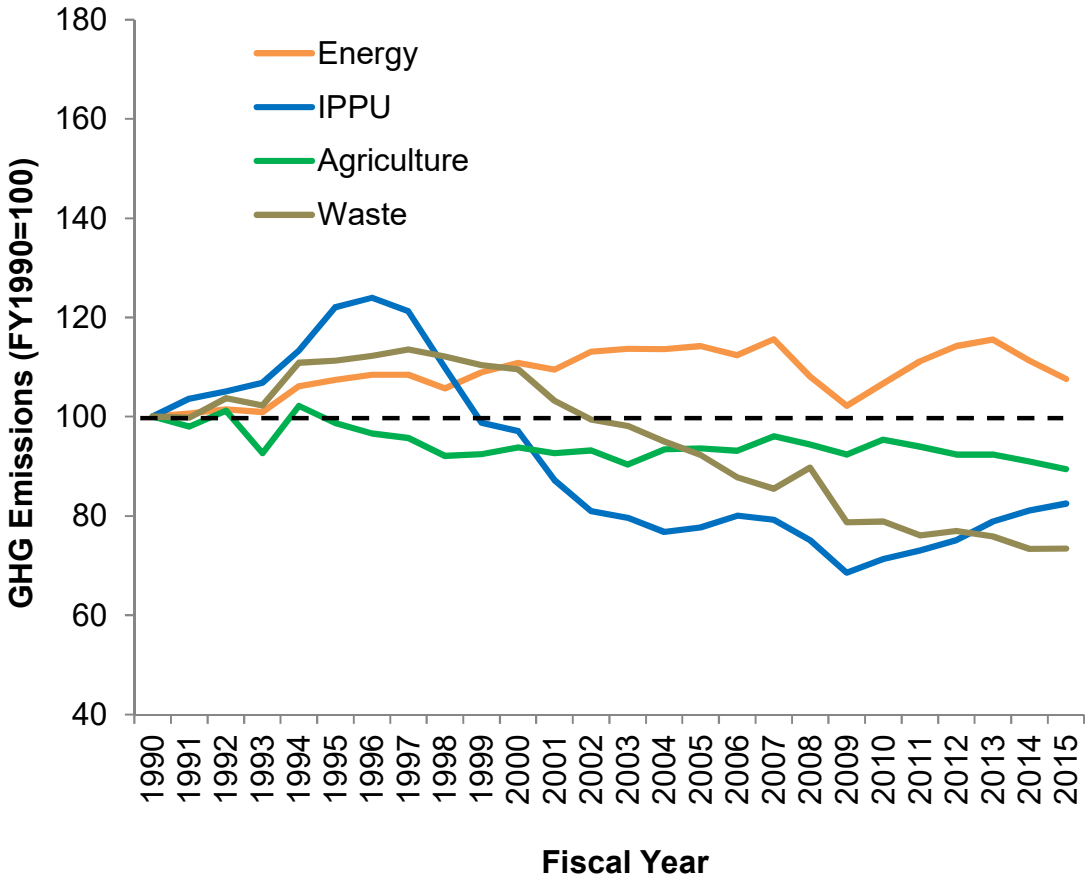


(Source) National Greenhouse Gas Inventory Report of Japan (April, 2017), Global Warming Countermeasures Plan

Note: The values of GHG emissions are based on the 2017 GHG inventory submission, which were revised from the values reported in the BR2. In the right pie chart, total is not equal 100% due to rounding.

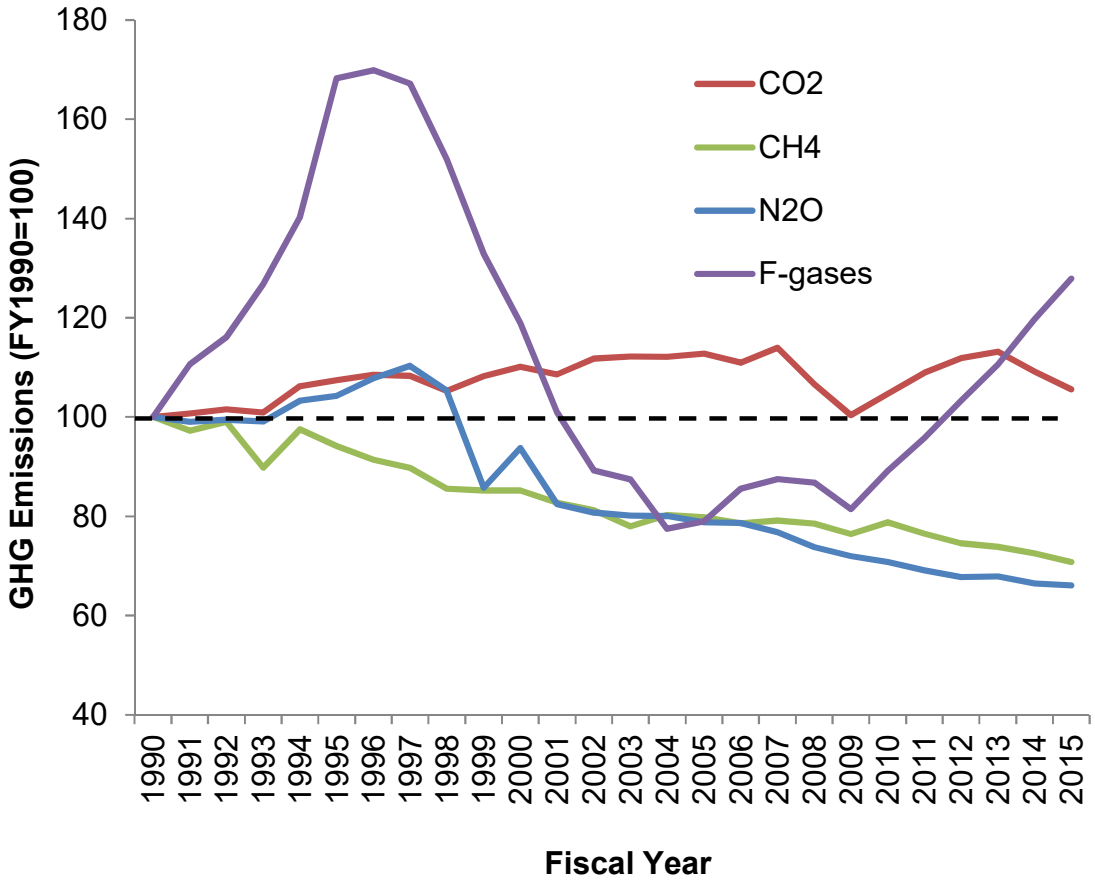
GHG Emission by Sector / by Gas (1990-2015)

Emissions trend by sector



(Source) National Greenhouse Gas Inventory Report of Japan (April, 2017)

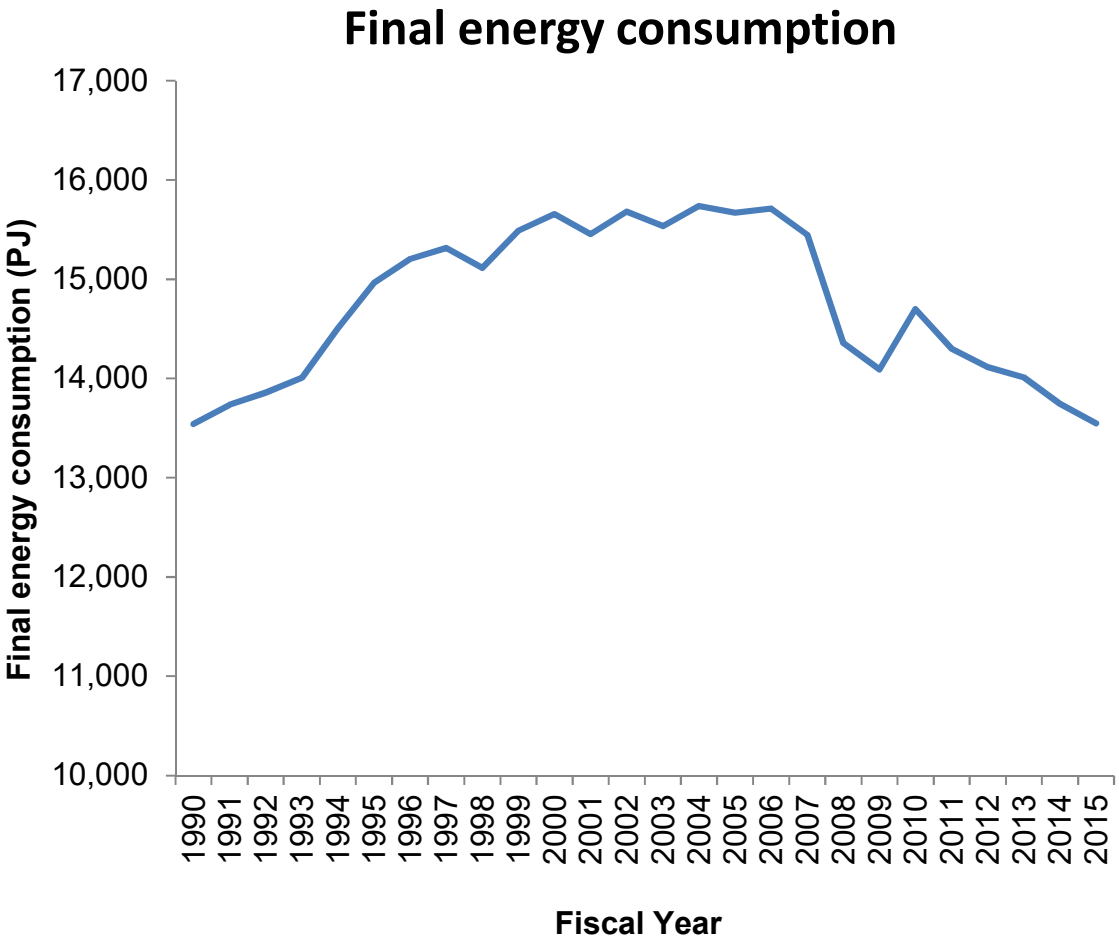
Emissions trend by gas



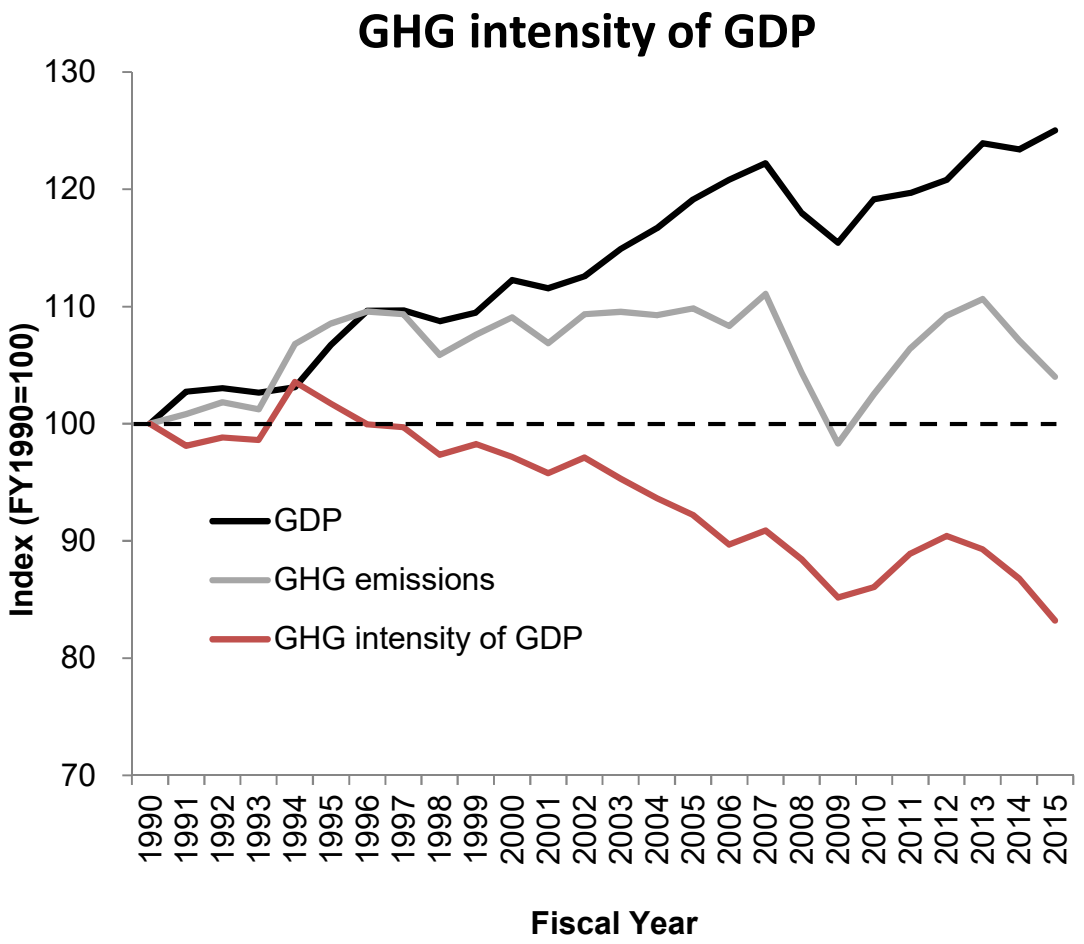
(Source) National Greenhouse Gas Inventory Report of Japan (April, 2017)

Note: The values of GHG emissions are based on the 2017 GHG inventory submission, which were revised from the values reported in the BR2.

Trends of Energy Consumption and GHG Intensity



(Source) General Energy Statistics of Japan (April, 2017)



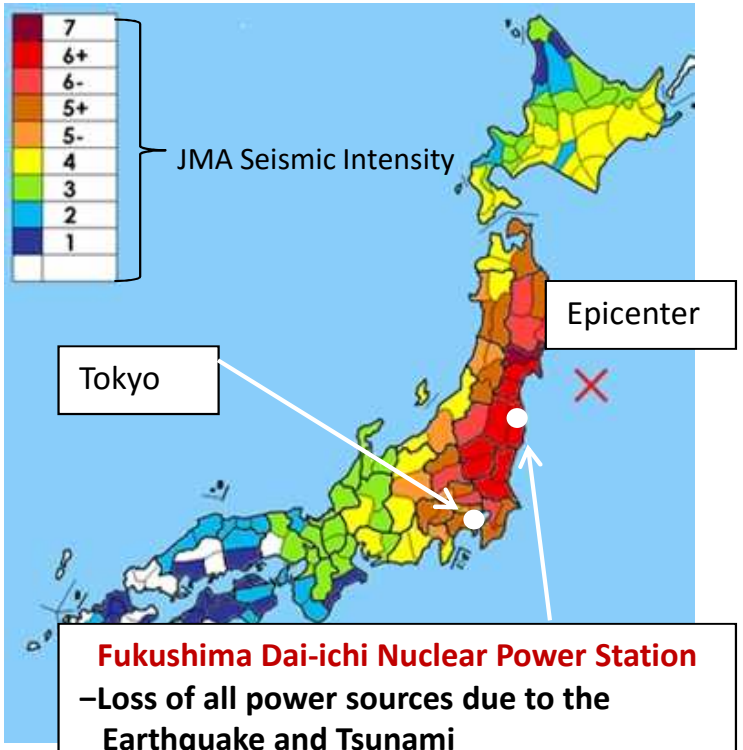
(Source) National Greenhouse Gas Inventory Report of Japan (April, 2017), Annual Report on National Accounts

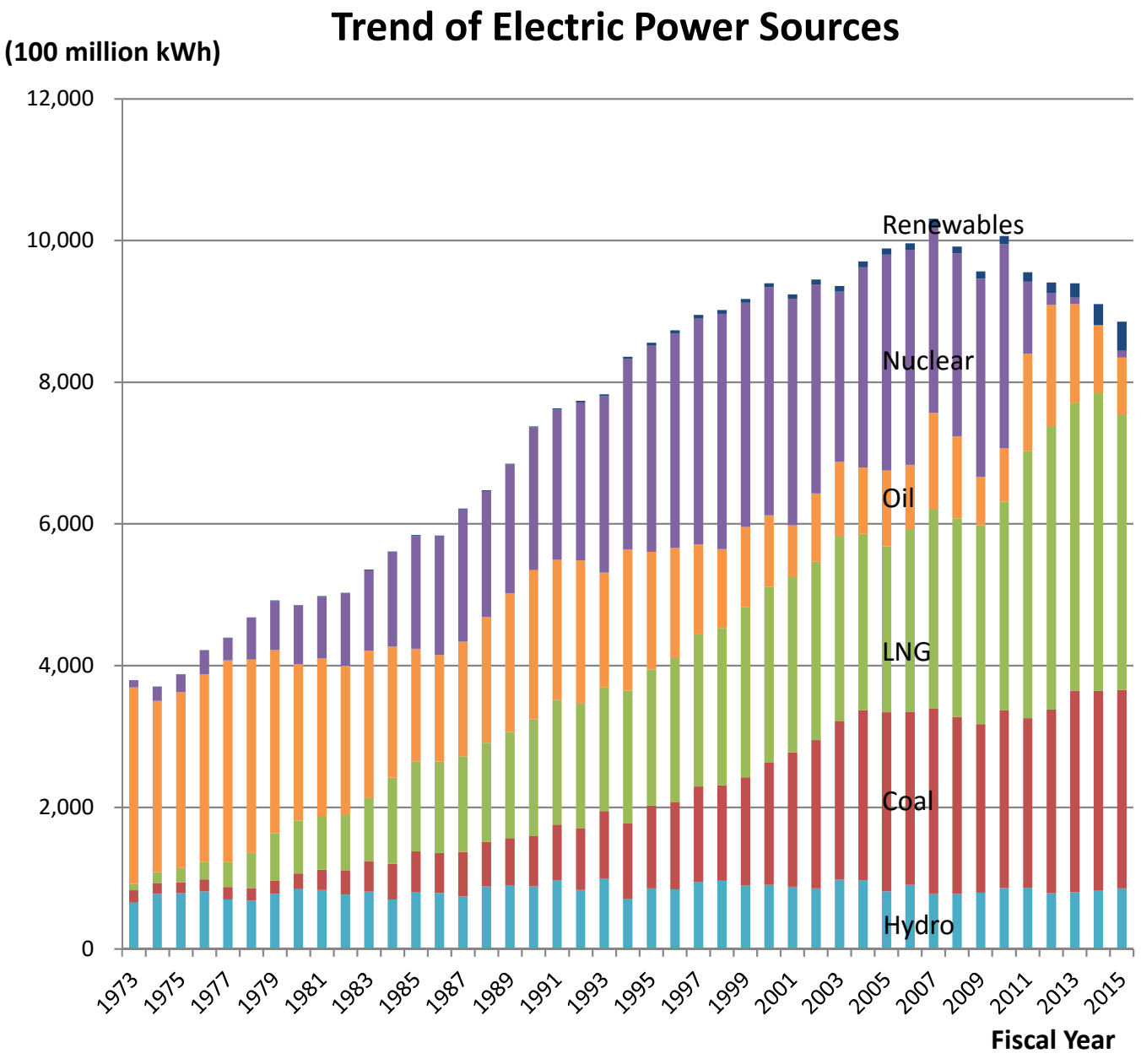
Note: The values of GHG emissions are based on the 2017 GHG inventory submission, which were revised from the values reported in the BR2.

■ National Circumstances

Change of National Circumstances after the Great East Japan Earthquake

- Date : 11 March 2011
- Magnitude : 9.0 (the largest magnitude recorded in Japan's history)





■ Japan’s Emissions Reduction Target

Japan's Emissions Reduction Target

- 2020 target: 3.8% or more emission reduction by 2020 compared to 2005 (Updated on May, 2016)
- 2030 target (Japan's NDC): 26.0% reduction by 2030 compared to 2013 (25.4% reduction by 2030 compared to 2005)

	2020	2030
Emissions reduction target	3.8% or more reduction	26.0% reduction (25.4%)
Base year	FY2005	FY2013 (FY2005)
Target year	FY2020	FY2030
Covered gases	CO_2, CH_4, N_2O, HFCs, PFCs, SF_6 and NF_3	CO_2, CH_4, N_2O, HFCs, PFCs, SF_6 and NF_3
GWP	IPCC AR4	IPCC AR4
Covered sector	Energy, Transport, IPPU, Agriculture, LULUCF and Waste	Energy, Transport, IPPU, Agriculture, LULUCF and Waste
Removals from the LULUCF	Included (Activity-based approach)	Included (Activity-based approach)

■ Policies and Measures

Plan for Global Warming Countermeasures (May 2016)

Purpose of the Plan

Promote Japan's global warming countermeasures in a comprehensive and a well-planned manner

Contents

✓ Basic direction regarding the promotion of global warming countermeasures pursuing actions toward:

- National mid-term target : 26% reduction by 2030
- National long-term goal : aim for 80% reduction by 2050
- Global GHG reduction

✓ GHG reduction target

BY FY2030 : 26% (25.4%) reduction compared to FY2013 (FY2005)

BY FY2020 : 3.8% or more reduction compared to FY2005

✓ Progress Management of the Plan

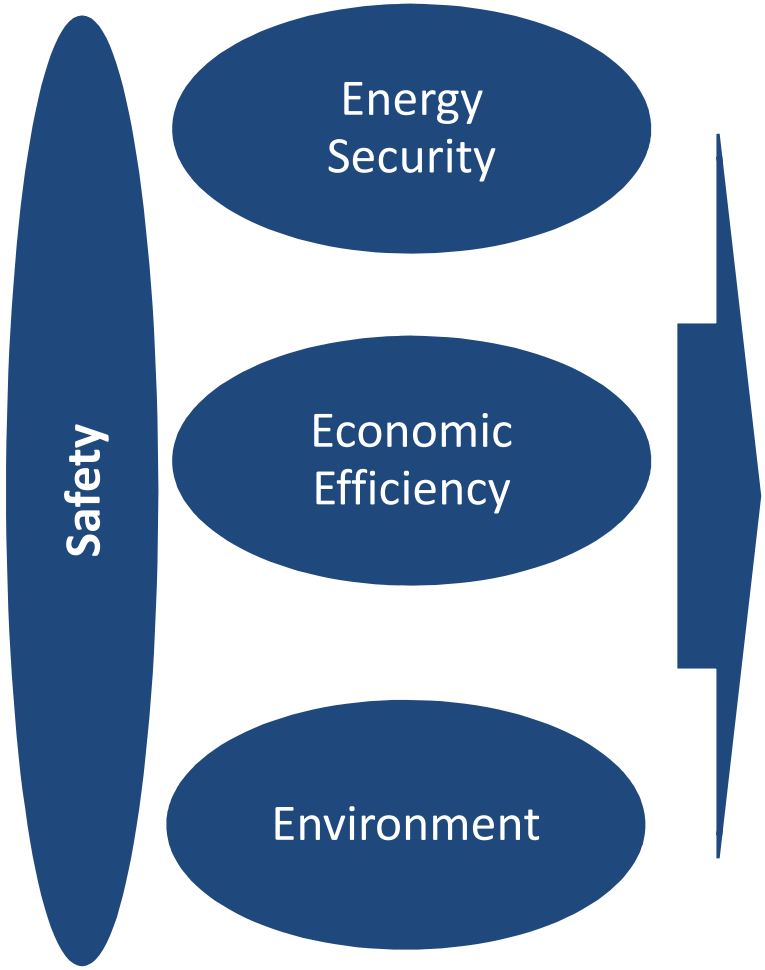
Progress review : every year

Revision consideration : every 3 years

✓ Polices and measures for achieving targets

Japan's Energy Policy

- Energy-originated CO2 emissions:
  approximately 90% of Japan's GHG emission
- Basic principles of Japanese energy policy:
  3E+S ("Energy Security", "Economic Efficiency", "Environment" and "Safety")



Energy Efficiency	Significant Improvement of Energy Efficiency
Renewable Energy	Maximum Introduction and Expansion Lowering cost
Fossil Energy	Improving the Efficiency of Thermal Power Generation Securing access to resources
Nuclear Power	Lowering Dependency to the Extent Possible Proceeding with the Restart on the Major Premise of its Safety
Fukushima	Reconstruction of Fukushima

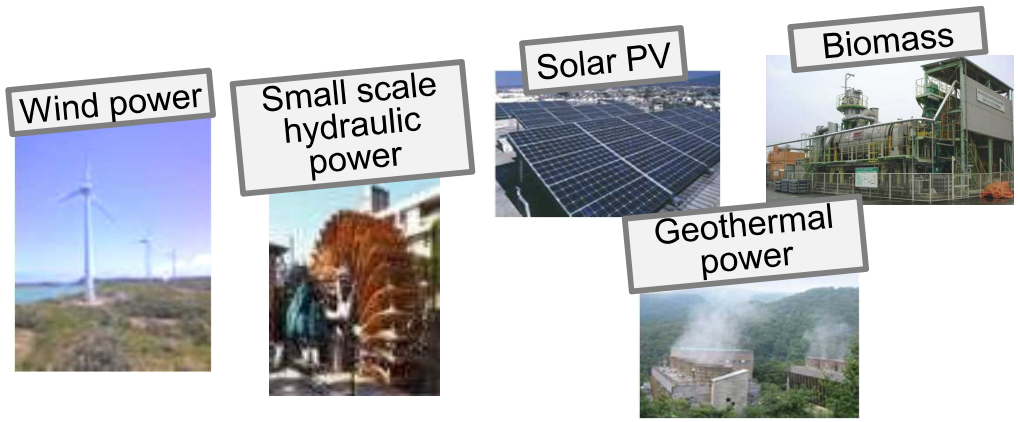
Examples of Policies and Measures (1)

Industry's Action Plans

- GHG emissions reduction plans for 2020 and/or 2030:
  114 industry groups cover 80% of energy related CO_2
- Based on "Pledge & Reviews" and "Public Private Partnership"

Low-Carbonization of Electricity

- 44% of non-fossil fuel power supply in 2030 (renewable and nuclear).
- Reform and operation of FIT (feed-in-tariff) scheme for renewable energies
- Utilizing nuclear power generation whose safety is confirmed
- Improving the Efficiency of Thermal Power Generation



Examples of Policies and Measures (2)

The Act on the Rational Use of Energy

- Measurement and reporting of energy consumption by business operators
- Improving energy-efficiency: more than 1% annually for major factories and offices
- “Top Runner program” for household appliances, equipment and automobiles

Top Runner Program

- Mandatory program for manufacturers and importers to fulfill energy efficiency targets, encouraging competition and innovation

Improvement in energy efficiency

Air-conditioners **30.7%** (FY2001→FY2014)

Passenger cars **96.7%** (FY1996→FY2014)

Examples of Policies and Measures (3)

Highly Energy-Efficient Vehicles

- Share of next-generation vehicles: 50 to 70% by FY2030

Electric vehicles (EV)

Plug-in Hybrid vehicles (PHV)

Fuel cell vehicles (FCV)

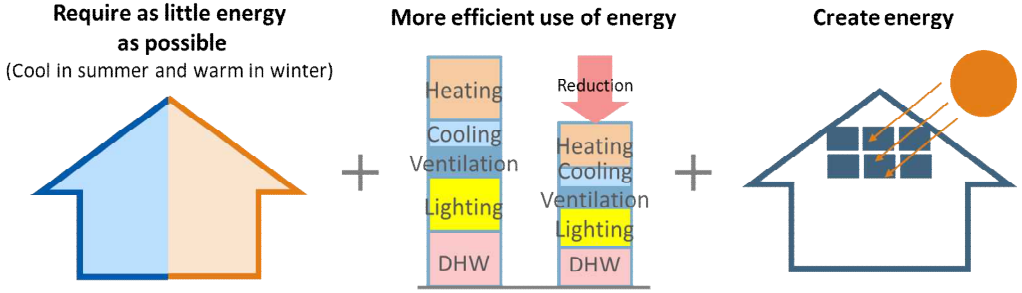
EV charger

Low-Carbonization of Houses and Buildings

- Mandatory energy efficiency standards for newly constructed houses and buildings: gradual introduction by 2020

- Promoting ZEH (Net-zero-energy houses)/ZEB (Net-zero-energy buildings)

ZEH/ZEB: Net annual energy consumption in the house/building is around zero or below



Examples of Policies and Measures (4)

“COOL CHOICE” campaign

COOL CHOICE

Choose now for our future

Develop a sense of urgency on global warming crisis

- ✓ Help people to relate global warming issues with their personal lives
- ✓ Encourage their voluntary actions as individuals

  e.g. : Production of effective content for crisis education

(1) Replacement to low-carbon products

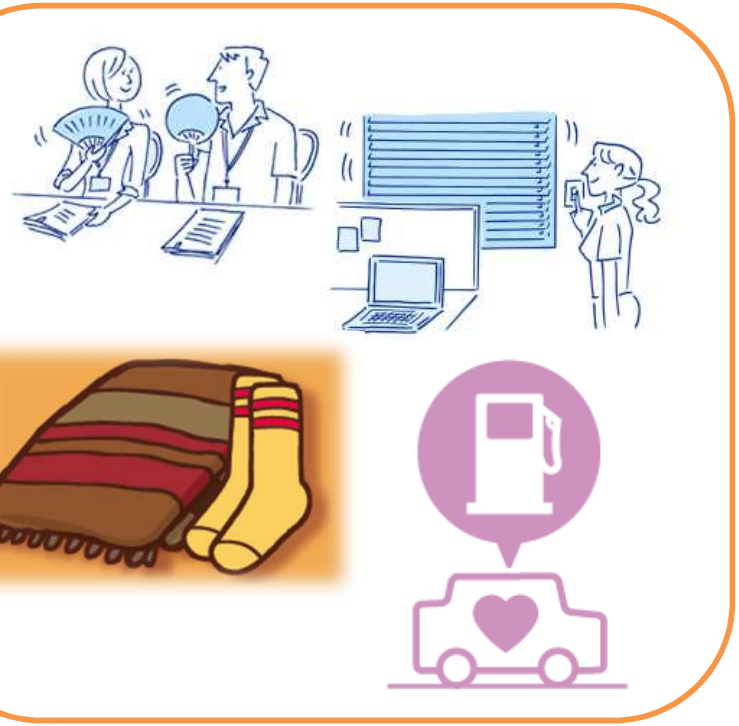
e.g. : LED and energy efficient appliances

(2) Low-carbon services

e.g. : Promote use of public transport

(3) Low-carbon lifestyle

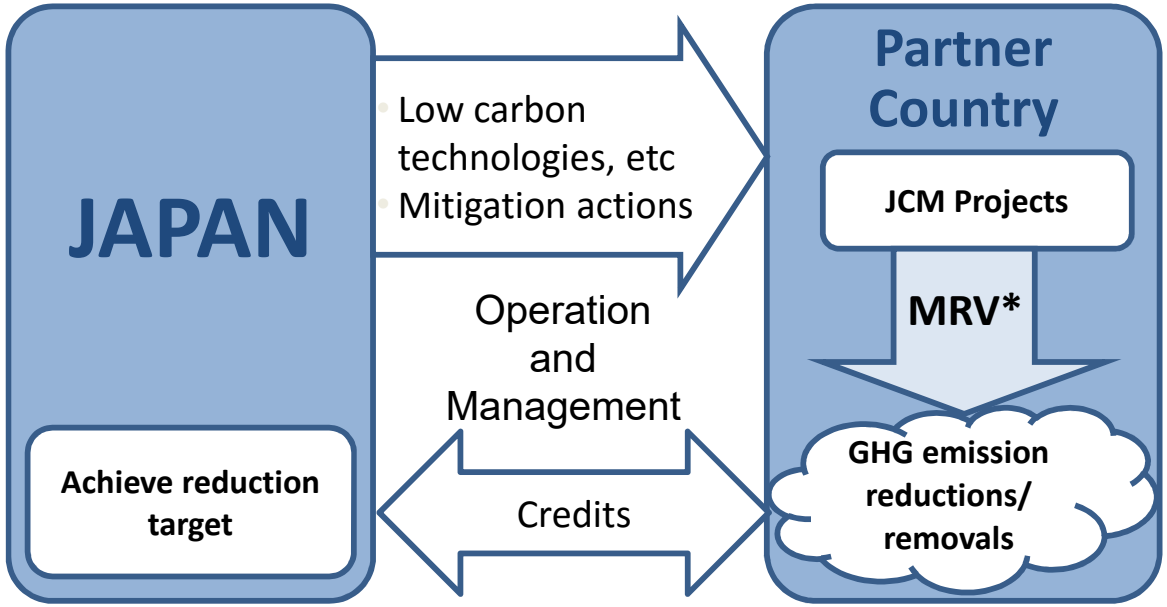
e.g. : Public relations activities on campaigns such as COOL BIZ, WARM BIZ, Eco-drive



Joint Crediting Mechanism (JCM)

Progress:

- 17 partner countries with 105 projects in the pipeline
- Credits already issued from 5 projects
- 35 MRV* methodologies



MRV: measurement, reporting and verification

(Example of pipeline projects)

【Waste heat recovery in cement industry】
(Indonesia)
122,000tCO2/y.

【Waste to Energy plant】
(Myanmar)
4,732tCO2/y.
Start operation: Apr. 2017

【Energy-efficient data center】
(Laos)
1,074tCO2/y.
Start operation Jan. 2017

【Low carbon hotel by development of BEMS】
(Viet Nam)
605tCO2/y.
Start operation: Jan. 2017

Japan's Assistance

Actions for Cool Earth: ACE 2.0

- Mobilize JPY 1.3 trillion of climate finance in 2020 to commit USD 100 billion goal

Olkaria geothermal plant, Kenya

Innovation for Cool Earth Forum: ICEF

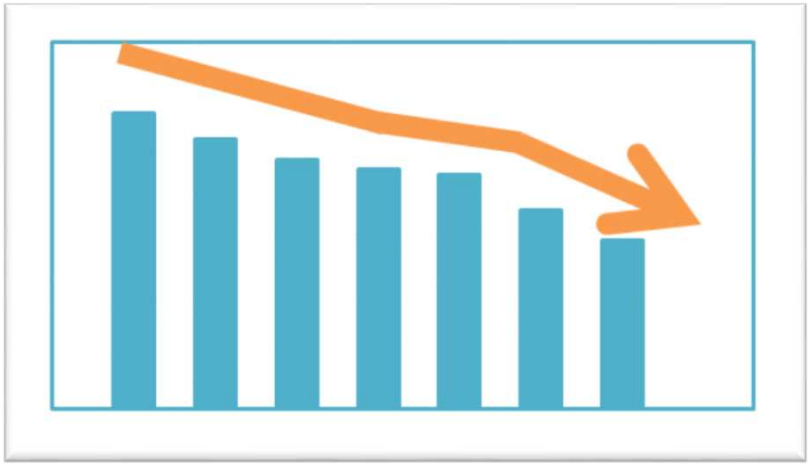
- Annually host a global conference on innovative technologies to tackle climate change

Japan's Assistance Initiatives to address Climate Change

- Meet the needs of developing countries
- Main areas of Japan's contribution
  - ✓ Mitigation
  - ✓ Adaptation
  - ✓ Transparency
  - ✓ Measures against fluorocarbons
  - ✓ SDGs

Long-term low GHG emission development strategy

- Relevant ministries convene to consider and discuss long-term strategy.



- Japan is committed to formulate and communicate well ahead of 2020 deadline, stated in G7 Ise-Shima Leaders' Declaration. The timing of submission to be decided.

G7 Ise-Shima Summit 2016

Summary

Summary

- Japan succeeded in reducing its emissions in the recent 2 years, overcoming challenges of the Great East Japan Earthquake.

- Japan is committed to achieve emission reduction targets.
  - ✓ By 2020: 3.8% or more emission reduction compared to 2005
  - ✓ By 2030: 26.0%(25.4%) reduction compared to 2013(2005) (Japan's NDC)

- Japan established "the Plan for Global Warming Countermeasures" that
  - ✓ helps to implement a variety of policies and measures,
  - ✓ requires continuous progress review, and
  - ✓ promotes government and public-private partnerships to achieve the reduction targets