# Outline of the Japan's Presentation Multilateral Assessment, SBI46, Bonn, May 2017

# Introduction

Thank you, Mr. Vice Chair and good afternoon everyone.

I appreciate very much this opportunity to introduce Japan's climate change policies and progress made until today. This multilateral assessment process is an important mechanism to ensure transparency and comparability of mitigation efforts and to share learnings and experiences among all Parties. I also appreciate questions received from colleagues in advance. Japan is fully committed to the IAR process, and I look forward to active discussion following my presentation.

# Outline of the presentation (P.1)

This is the outline of the presentation today. First, I will explain Japan's Greenhouse Gas Emissions and Trends, followed by National Circumstances. I will then provide an overview on Japan's GHG emission Reduction Target, and Policies and Measures Japan has taken to achieve its 2030 target.

### GHG Emissions Trends (1990-2015) (P.3)

Let me begin with trends of Japan's greenhouse gas emissions since 1990. It decreased from 2007 to 2009 mainly due to the global financial crisis. In 2010 the emission increased due to increased economic activities. Additionally, the GHG emissions increased further from 2011 because of the expansion of fossil fuel-fired power plants as a consequence of the suspension of nuclear plants after the Great East Japan Earthquake.

However, 2 years in row from 2014, emissions decreased due to the progress with energy saving activities and improvement of emission intensity of electricity. In 2015, Japan's total emissions were estimated to be 1,325 megaton carbon dioxide equivalent ( $MtCO_2$  eq.).

The pie chart on the right side illustrates the breakdown of 2015 emissions by sector. The largest emission source is the Energy sector, which covers around 90% of total emissions.

### ○ GHG Emissions Trend by Sector / by Gas (1990-2015) (P.4)

This slide shows emission trends inside Japan by sector and by gas. From 2010 to 2013, CO<sub>2</sub> emissions from the Energy sector increased because of increasing economic activities by economic recovery in 2010. The growing operation of fossil fuel-fired power plants as a consequence of the suspension of nuclear reactors from 2011 to 2013 also contributed to this increase.

From 2014, however, CO<sub>2</sub> emissions from the Energy sector decreased due to the progress in energy saving activities and improvement of emission intensity of electricity.

In emissions trend by gas, Methane and Nitrous oxide emissions have decreased as a result of implementation of policies and measures. On the other hand, F-gases emissions are increasing as hydrochlorofluorocarbons (HCFCs), the ozone depleting substances, are replaced by hydrofluorocarbons (HFCs).

# Trends of Energy Consumption and GHG Intensity (P.5)

This slide shows Japan's final energy consumption, GDP, and GHG emissions.

You find in the left graph, the energy consumption decreased even after the accident of the nuclear power plants in 2011. This trend represents the progress in energy-savings activities.

The right graph shows a decoupling trend. In the recent years GDP is growing but the GHG emissions are decreasing. Also, GHG intensity of GDP is presented, and it has been in decreasing trend since the mid-1990s.

### Change of National Circumstances after the Great East Japan Earthquake (P.7)

I would now like to reiterate recent events that enormously affected Japan's economy and society. When it comes to Japan's GHG emission trends, the damage caused by the Great East Japan Earthquake & Tsunami on 11th March, 2011 should not be overlooked. The earthquake with the largest magnitude recorded in Japan's history, and tsunami have had a huge impact on Japanese economy and society.

After the accident at the Fukushima dai-ichi nuclear power station, all 48

reactors for commercial use was suspended. Electricity generation by nuclear power has decreased drastically after the accident, and has been replaced by fossil fuel-fired power. As a result, CO2 emissions since 2011 have increased temporarily as shown in the previous slides.

### Japan's Emissions Reduction Target (P.9)

Let us now move to Japan's Emissions Reduction Target. This slide shows Japan's 2020 and 2030 reduction target.

Japan revised the 2020 target in May, 2016. It is to achieve more than 3.8% reduction against 2005.

Also, Japan submitted the 2030 target as its NDC. The target is to achieve 26.0% reduction against 2013, 25.4% reduction against 2005.

These targets cover all Gas and Sectors, and are calculated with 100-years GWP of the IPCC Fourth Assessment Report. Also, Japan's reduction target includes removals from LULUCF sector, and these are calculated using Activity-based approach.

# O Policies and Measures(P.10)

In this section (Policies and Measures), I would like to provide an overview on Japan's policy against global warming, its energy policy as well as some specific measures.

# Plan for Global Warming Countermeasures (P.11)

In May 2016, Japan formulated "Plan for Global Warming Countermeasures." This Plan was decided by the Cabinet in accordance with Japan's Global Warming Countermeasures Act, in order to promote global warming countermeasures comprehensively and strategically.

The plan defines a path to achieve a mid-term target of 26.0% greenhouse gas emission reduction by 2030 consistent with Japan's NDC, and identifies policies and measures to be implemented. The plan also sets a long-term goal to aim to reduce greenhouse gas emissions by 80% by FY2050, while pursuing the global warming countermeasures and the economic growth at the same time under international coordination. This plan is Japan's foundation to progress the global warming countermeasures.

### Japan's Energy Policy (P.12)

Energy-originated CO2 emission accounts for approximately 90% in Japanese GHG emissions.

Basic principles of Japanese energy policy are "3E+S", namely, Energy Security, Economic Efficiency, Environment and Safety. We are rolling out various energy measures based on these principles.

#### Examples of Policies and Measures (1) (P.13)

Next 3 slides outline examples of measures based on Japan's energy policy. This slide shows the measures in Industry and Energy Conversion sectors. 114 major industrial associations in Electric, Oil & Gas, Iron & Steel, Chemical, Electronics & Machinery, Automobile, etc., have been tackling with climate change actions through their "voluntary action plans (VAPs)."

The VAPs cover more than half of Japanese energy-originated CO2 emissions and roughly 80% of energy & industry sectors. Energy efficient and environmentally friendly products and infrastructures they produce have contributed low-carbonization of economy and society.

Industries' VAPs are rigorously reviewed by government councils and reported to The Global Warming Prevention Headquarters which Prime Minister himself presides.

When industries achieve their own reduction targets, they will set more ambitious targets.

Two decades-long effort (from 1997 to 2015) resulted in nearly 15% reduction in CO2 emissions from energy conversion and industrial sectors.

Low-carbonization of electricity is one of the most challenging and critical issues. Japan set 44% of non-fossil fuel power supply (renewables and nuclear) as a policy goal. Japan introduced the Feed-in-Tariff scheme since July 2012. By this scheme, renewable energy increase 2.5 times over 4 years and a half. We need further effort to achieve 2030 target.

As to nuclear power, Japan is utilizing nuclear power generation whose safety is confirmed.

Next, I will highlight a few measures taken in Japan domestically regarding energy conservation and reduction.

#### Examples of Policies and Measures (2) (P.14)

As to energy conservation, The Act on Rational Use of Energy requires major factories and offices to improve energy-efficiency more than 1% annually. The Act also introduced Top-Runner program.

Top Runner Program is a mandatory program for automobile, home appliances and other consumer products to fulfill the energy efficiency targets within 3 to 10 years.

By this program, the energy efficiency of air-conditioners and passenger vehicles has been improved about 31% and 97 % respectively.

#### Examples of Policies and Measures (3) (P.15)

Japan is also tackling with emission reductions from Housings & Buildings and Transportation sectors.

Emission from transportation sector has already peaked-out in 2001 and in a trend of declining for the past 15 years. Japan is seeking for further reduction by promoting next generation vehicles such as Electric Vehicles and Fuel Cell Vehicles.

For Housing and Buildings sectors, the government plans to make it mandatory to comply with energy efficiency standards for newly constructed houses and buildings by 2020. Both government and industries promote Net-Zero-Energy Building (ZEB) and Net-Zero-Energy Housing (ZEH). By nature, It may take time to spread ZEB and ZEH nationwide, but the government intends to utilize regulatory measures and financial supports to back up this initiative.

### Examples of Policies and Measures (4) (P.16)

Raising public awareness on climate change and global warming countermeasures is another important policy measure Japan is undertaking.

For drastic emission reduction in residential and commercial sector, it's necessary to change the public mindset and behavior.

Japan launched a nationwide campaign called "COOL CHOICE". This campaign aims to develop a sense of urgency on global warming crisis, and communicates the merit of choosing low-carbon products, services, and lifestyle, to encourage citizens to take actions.

The campaign covers activities such as: education and awareness raising, promoting replacement to LED and energy efficient appliances, and promotion of using public transport.

These activities encourage the citizens to carry out proactive and voluntary actions.

In the next two slides, I would like to explain Japan's key efforts in the area of international cooperation and global emission reduction.

### Joint Crediting Mechanism (JCM) (P.17)

Japan has been working on the diffusion of advanced low-carbon technologies through implementation of the Joint Crediting Mechanism (JCM). More than 100 emission reduction projects have been planned and implemented. About a half of them have already started its operation. 16 JCM projects have been registered and approximately 500 tCO2 JCM credits have been issued. Japan will continue to support, among others, further project formulations in order to implement JCM more effectively and efficiently.

#### Japan's Assistance (P.18)

At COP21 in Paris, Prime Minister Shinzo Abe announced the Actions for Cool Earth 2.0, namely, ACE 2.0 and pledged to provide, in 2020, approximately JPY 1.3 trillion (USD 10.6 billion) of public and private climate finance to developing countries. Japan will contribute to achieve the commitment made at COP15, the mobilization of USD 100 billion in climate finance annually to developing countries in 2020.

In addition, Japan puts emphasis on innovation in addressing climate change issues. We continue to hold an annual global conference on innovative technologies, which is called ICEF (Innovation for Cool Earth Forum). ICEF was launched to accelerate global development of innovative technologies by promoting discussions and cooperation among leaders of industry, government, and academia.

At the COP22 in November 2016, we announced "Japan's Assistance Initiatives to address Climate Change".

This initiative introduces Japan's policy and measures for developing countries to support the implementation of the Paris Agreement and achieving their NDCs steadily by sharing knowledge and implementing projects in mitigation, adaptation, transparency, controlling emissions of fluorocarbons and co-benefits with SDGs.

Japan can contribute to play a leading role in international efforts to address climate change by those initiatives.

#### Long-term low GHG emission development strategy (P.19)

Last but not least, I would like to provide an update on Japan's domestic consideration regarding Long-term low GHG emission development strategy.

With regard to its long term strategy, the government established domestic

committees by experts among relevant ministries to consider and discuss the issue. Its submission timing is yet to be decided, however, the whole process of strategy formulation will be progressed in line with the commitment made as per G7 Ise-Shima Leaders' Declaration. It states that the G7 members commit to formulate and communicate ambitions mid-century long-term low greenhouse gas emission development strategies well ahead of the 2020 deadline. Japan is on track to fulfill its commitment.

# O Summary (P.21)

Let me conclude by summarizing today's presentation.

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% reduction compared to 2013

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

Thank you very much for your attention.