

## Session SBI50 (2019)

Session starts: 15-03-2019 00:00:00 [GMT+1]

Session ends: 08-06-2019 23:59:59 [GMT+1]



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[Question by](#) Canada at Friday, 12 April 2019

[Category:](#) Assumptions, conditions and methodologies related to the attainment of its quantified economy-wide emission reduction target

[Type:](#) Before 12 April

[Title:](#) Sensitivity analysis and costlier renewables

From Japan's 3<sup>rd</sup> BR, table 4-13, p. 134 - What assumptions are behind increasing costs when implementing new renewables?

[Answer by](#) Japan, Monday, 03 June 2019

An increase in the public burden by Feed-in-tariff system is assumed.

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[Question by](#) Canada at Friday, 12 April 2019

[Category:](#) Assumptions, conditions and methodologies related to the attainment of its quantified economy-wide emission reduction target

[Type:](#) Before 12 April

[Title:](#) Modeling framework

Figure 4-1, p. 130 - Does the modeling framework keep track of capital stocks? Are investments from the energy model fed back to the macro model? Do the assumed technologies change over time in terms of efficiency and cost? Does the model account for non-market behaviours?

[Answer by](#) Japan, Monday, 03 June 2019

The macroeconomic model keeps track of capital stocks and energy investments can be fed back.

However, for the analysis, we assumed future evolution of macro economic indicators exogenously and did not consider the feed-back effect explicitly, because they must be consistent with the views of the Council on Economic and Fiscal Policy.

Energy technologies are assumed to be improved as times passes in terms of costs and technological efficiencies.

Some non-market behaviours and externality are implicitly taken into account through estimation of parameters but not all.

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Question by Canada at Friday, 12 April 2019

Category: Assumptions, conditions and methodologies related to the attainment of its quantified economy-wide emission reduction target

Type: Before 12 April

Title: Low carbon industrial furnaces

In Table 3-1: p. 98 - Can Japan offer further information on the nature of the low-carbon industrial furnaces that generate 30.9 Mt of emissions reductions in 2030?

Answer by Japan, Monday, 03 June 2019

To generate 30.9 Mt of emission reductions in 2030, 5 types of low-carbon industrial furnaces have considered as follows;

1. Induction heating type
2. Metal melting type
3. High insulation type
4. Waste heat recovery type
5. Pre-heating type

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Question by Canada at Friday, 12 April 2019

Category: Progress towards the achievement of its quantified economy-wide emission reduction target

Type: Before 12 April

Title: Lighting BAU

From p.100 - Does the -9 Mt in 2030 from LEDs measures against a BAU that accounts for expected technological evolution?

Answer by Japan, Monday, 03 June 2019

Considering the forecasted number of lighting fixtures in 2030, -9Mt have been calculated by subtracting energy consumption of the two cases; the case maintaining the composition ratio of lighting fixtures in 2012 and when all lighting fixtures were replaced with LEDs.

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Question by Canada at Friday, 12 April 2019

Category: Assumptions, conditions and methodologies related to the attainment of its quantified economy-wide emission reduction target

Type: Before 12 April

Title: Calculations of forest estimates in NIR and in NC7

Japan notes in its NC7 that projected removals from forest land (according to its assumption #1) "are calculated by conversion of the net carbon stock changes of the envisaged state of forests that comes from KP-LULUCF activities such as appropriate forest development and conservation based on the Basic Plan for Forest and Forestry forests into CO2 equivalent by multiplying a coefficient". Are the methods used to quantify projected removals the same as those used to calculate forest GHG estimates reported in Japan's NIR? What, if any, are the differences?

Answer by Japan, Monday, 03 June 2019

The projected removals by forests is quantified using the same methods as those used for the supplementary information on LULUCF activities in the NIR in accordance with the decision 2/CMP.8.

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Question by Australia at Friday, 12 April 2019

Category: All emissions and removals related to its quantified economy-wide emission reduction target

Type: Before 12 April

Title: Commencement of mandatory compliance legislation

In your National Communication, regarding the Promotion of Mandatory Compliance with Energy Conservation Standards Targeting New Construction, you state **Japan aims to smoothly start the mandatory compliance as provided in the Act.**

How is Japan preparing for the "smooth start" of the standards, has this been implemented? Has Japan estimated the expected contribution of the energy efficiency standards to its emissions reduction target?

Answer by Japan, Monday, 03 June 2019

Based on the Act on the Improvement of Energy Consumption Performance of Buildings (Act No. 53 of 2015), it became mandatory for large-scale buildings to comply with the energy conservation standards since April 2017.

In order to ensure the smooth implementation of the system, a two-year preparatory period between the establishment of the system and its implementation was established. In addition, activities such as holding seminars for related business operators and sending direct mails to architect offices were conducted to promote the understanding of the system.

The Plan for Global Warming Countermeasure Plan (May 2016, cabinet decision) stipulates that the energy consumption from FY2013 to FY2030 will be reduced by 50.30 million kiloliters. Regarding the new houses and buildings, there is a target to reduce 6.47 million kiloliters (3.142 million kiloliters for new houses and 3.323 million kiloliters for new buildings) by measures including the promotion of compliance with the energy conservation standard. The rate of compliance with the energy conservation standard is calculated, and the status of progress towards the target is estimated and made publicly available.

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Question by Australia at Friday, 12 April 2019

Category: All emissions and removals related to its quantified economy-wide emission reduction target

Type: Before 12 April

Title: HFC emissions growth

What are the drivers of the growth in HFC emissions in Japan between 2005 and 2015? How is Japan addressing HFCs emissions related to refrigeration and airconditioning?

Answer by Japan, Monday, 03 June 2019

The increase in HFCs emissions since 2005 was mainly due to an increase in emissions from refrigeration equipment and air conditioning equipment as a result of an increase in the number of devices using HFCs in operation in the market mainly caused by the replacement of HCFC, which is a ozone-depleting substance(ODS), with HFCs.

In Japan, in addition to the phasing-out of HFCs production/consumption by ensuring the implementation of the Kigali amendment of the Montreal Protocol domestically, emission control measures are being implemented over the life cycle of Fluorocarbon from upstream to downstream, such as a promotion of lowering of GWP through the Designated Product System, inspection of equipment for the prevention of leakage during use, and prevention of emissions from disposal through the obligatory recovery by users.

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Question by Thailand at Friday, 12 April 2019

Category: All emissions and removals related to its quantified economy-wide emission reduction target

Type: Before 12 April

Title: Indirect GHGs emission

The trends of all indirect GHGs of Japan (on the graph in page 34) have decreased since 1990, however in 2010 Carbon Monoxide (CO) was shoot up dramatically. Could Japan please clarify why the emission from CO was different from the other indirect GHGs?

Answer by Japan, Monday, 03 June 2019

The reason for the increase of CO emissions in FY2010 compared to the previous year is the change in the EF for road transportation, and the reason for the decrease of CO emissions in FY2011 compared to the previous year is the change in the share of furnace types in the iron and steel industry.

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Question by United States of America at Friday, 12 April 2019

Category: Assumptions, conditions and methodologies related to the attainment of its quantified economy-wide emission reduction target

Type: Before 12 April

Title: Technology and JCM

We commend Japan for its support on technology to other Parties. Table 5-7 (pp. 157-159) lists information about Japan's projects that provide technology development and transfer support to other nations. Some of the project information indicates that certain projects are related to the Joint Crediting Mechanism (JCM) or feasibility studies for potential future emission reduction projects under the JCM. Are all the projects listed in Table 5-7 directly or indirectly related to the JCM?

Answer by Japan, Monday, 03 June 2019

Not all the projects are related to the JCM. For example, projects implemented other than the JCM partner countries are not directly related to the JCM.

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Question by United States of America at Friday, 12 April 2019

Category: Progress towards the achievement of its quantified economy-wide emission reduction target

Type: Before 12 April

Title: Joint Crediting Mechanism (JCM)

We take note that Japan estimates that the Joint Crediting Mechanism (JCM) will result in cumulative emission reductions of approximately 50-100 million metric tons of CO<sub>2</sub>e (page 92). Japan indicates that “the amount of emission reductions and removals acquired by Japan under the JCM will be appropriately counted as Japan’s reduction” (page 92). Can Japan clarify what this means in practice? Is this a reference to bilateral emission accounting practices to be employed by host nations, where the emission reductions occur, as well as Japan as the funding nation?

Answer by Japan, Monday, 03 June 2019

“The amount of emission reductions and removals acquired by Japan under the JCM will be appropriately counted as Japan's reduction” means that Japan will apply robust accounting consistent with guidance to be adopted under Article 6 by the CMA of the Paris Agreement. Japan is going to contribute to the development of the guidance for robust accounting including for avoidance of double counting to be adopted by the CMA towards COP25.

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Question by Turkey at Thursday, 11 April 2019

Category: All emissions and removals related to its quantified economy-wide emission reduction target

Type: Before 12 April

Title: CH<sub>4</sub> emissions from rice cultivation

Table 4 of the the report on the technical review of the third biennial report of Japan includes a key PaM with the title "Measures for reduction of CH<sub>4</sub> emissions associated with rice cultivation". Could Japan provide more information specifically on how this measure was implemented? Throughout the implementation of this PaM, which challenges had been overcome so far and how?

*[Based on the information given in Paragraph 55 and Table 4 of the document  
FCCC/TRR.3/JPN]*

Answer by Japan, Monday, 03 June 2019

As a result of the research and development of rice cultivation management technique which limit the generation of CH<sub>4</sub> in paddy fields, it was clarified that the generation of CH<sub>4</sub> can be reduced by shifting the organic matters put into paddy fields from rice straw to compost, and extending midseason drainage in paddy fields.

Based on these results, Japan is promoting agricultural activities that are effective in preventing global warming through direct payments for environmentally friendly agriculture and support for installing compost generating facilities.

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Question by Turkey at Thursday, 11 April 2019

Category: Progress towards the achievement of its quantified economy-wide emission reduction target

Type: Before 12 April

Title: Policy and measure for the benefit of the environment, economy and society

Could Japan elaborate the results attained until now by implementing one of the six actions taken against non-compliance, namely promoting PaMs that provide benefits for the environment, economy and society in a holistic way? Is there any mechanism that checks also the holistic approach considering all three aspects - environment, economy and society?

*[Based on the information given in Paragraph 22 of the document FCCC/TRR.3/JPN]*

Answer by Japan, Monday, 03 June 2019

Based on the Plan for Global Warming Countermeasures, Japan is promoting measures such as the thorough promotion of energy conservation and maximum introduction of renewable energy in order to reduce GHG emissions while promoting economic development, the realization of high-quality lives of citizens, and regional revitalization. For example, the maximum introduction of renewable energy leads to the regional revitalization and resilience such as disaster prevention by utilizing the energy existing in the region. It has also contributed to reducing GHG emissions as well as solving economic and social issues like improving Japan's energy self-sufficiency rate. Through these measures, Japan has been achieving the reduction of GHG emissions and the increase of GDP for five consecutive years since FY2013.

Comprehensive promotion of environmentally, economically, and socially beneficial policies and measures is the basic concept of the Plan for Global Warming Countermeasures, and



there is no mechanism for checking the comprehensive approach.

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[Question by](#) European Union at Thursday, 11 April 2019

[Category:](#) Assumptions, conditions and methodologies related to the attainment of its quantified economy-wide emission reduction target

[Type:](#) Before 12 April

[Title:](#) Long-term low GHG strategy under the Paris Agreement

Japan has set a long-term goal to reduce GHG emissions by 80 per cent by 2050, while pursuing economic growth and socioeconomic objectives. *Does this goal include emissions and removals in the LULUCF sector? Could Japan provide any further information regarding the process of developing a long-term low GHG strategy under the Paris Agreement?*

[Answer by](#) Japan, Monday, 03 June 2019

Japan is preparing its long-term low GHG strategies as of 8th June 2019 towards Japan's long-term goals, and actions of the LULUCF sector would be included in actions in the strategies.

The long-term low GHG strategies will be formulated by the Japanese government by no later than G20 based on recommendations from the Advisory Group established under the instruction from the Prime Minister, discussion at relevant councils, and opinions through public comments.

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[Question by](#) European Union at Thursday, 11 April 2019

[Category:](#) Assumptions, conditions and methodologies related to the attainment of its quantified economy-wide emission reduction target

[Type:](#) Before 12 April

[Title:](#) Role of JCM

Japan reported in its BR3 that it intends to use credits from Joint Crediting Mechanism (JCM) to achieve its 2020 emission reduction target. Japan also clarified that it will achieve its 2030 target in its NDC through domestic emission reductions and removals only.

In its BR3, Japan reported that it established JCM to quantitatively evaluate GHG emission reductions and removals associated with the diffusion of low-carbon technologies through relevant projects in developing countries. Japan has explained that as part of the JCM arrangements, host countries usually sign a document stating they will not use JCM credits towards the achievement of their targets under the Convention.

*Do these arrangements extend to Paris Agreement period and tracking progress and accounting towards NDC commitments? How does the baseline for the crediting represent progression from CDM methodologies and take into account the NDC commitments?*

Answer by Japan, Monday, 03 June 2019

Under the JCM, Japan and JCM partner countries sign a bilateral document that states: both sides mutually recognize that verified reductions or removals from the mitigation projects under the JCM can be used as a part of their own internationally pledged greenhouse gases mitigation efforts; and neither side uses any mitigation projects registered under the JCM for the purpose of any other international climate mitigation mechanisms to avoid double counting on greenhouse gases emission reductions or removals.

Japan intends to continue the JCM beyond 2020 and in the process of extension with partner countries. Therefore, the JCM covers the period of the Paris Agreement.

In the JCM, emission reductions to be credited are defined as the difference between reference emissions and project emissions. The reference emissions are calculated to be below business-as-usual (BaU) emissions which represent plausible emissions in providing the same outputs or service level of the proposed JCM project in the host country. This approach ensures a net decrease and/or avoidance of GHG emissions. A net decrease and/or avoidance of GHG emissions can be realized in an alternative way. Using conservative default values in parameters to calculate project emissions, instead of measuring actual values, leads the calculated project emissions to be larger than actual project emissions. This approach also ensures a net decrease and/or avoidance of GHG emissions, as well as reduces burdens of monitoring from project participants.

JCM's conservative emission reduction calculation (reference emissions below BaU emissions) will ensure a net decrease and/or avoidance of GHG emissions. This part of emission reductions will contribute to the achievement of a host country's NDC.

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Question by European Union at Thursday, 11 April 2019

Category: Progress towards the achievement of its quantified economy-wide emission reduction target

Type: Before 12 April

Title: Domestic Emissions Trading Scheme and voluntary action plans by industry

*Does Japan have any further information on the ongoing considerations for developing a domestic emission trading scheme (including considerations regarding the operation of the scheme such as scope, base-line year, number of installations, trading periods)?*

According to the BR3 voluntary action plans in the industry sector reduced CO2 emissions by 4.7 per cent in 2015 compared with the 2013 level. *Are these reductions additional to the other policies and measures? Can Japan provide an estimation of the impact of the voluntary action plans, if fully achieved, for 2020 and 2030?*

[Answer by Japan](#), Monday, 03 June 2019

Emission trading scheme in Japan is still under consideration and so Japan does not have any specific information on preparation for the introduction of ETS.

The emission reductions due to the voluntary action plans in the industry sector include the reduction impacts of other policies and measures. In addition, target indicators and base years are different from industry to industry. Therefore, it is impossible to estimate the reduction impacts of voluntary action plans as a whole.

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[Question by European Union](#) at Thursday, 11 April 2019

[Category:](#) Assumptions, conditions and methodologies related to the attainment of its quantified economy-wide emission reduction target

[Type:](#) Before 12 April

[Title:](#) LULUCF

*Could Japan clarify the role of removals in the LULUCF sector for the achievement of its 2020 Convention target, and how LULUCF emissions and removals are considered in the base year?*

[Answer by Japan](#), Monday, 03 June 2019

The base year emissions are established as the gross total emissions without LULUCF. After the emission reduction amount for the sectors other than LULUCF is calculated by comparing their emissions in 2020 and the base year, the accounted net emissions and removals from

the LULUCF sector, which are calculated by the KP-LULUCF rules, are added.

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Question by European Union at Thursday, 11 April 2019

Category: Progress towards the achievement of its quantified economy-wide emission reduction target

Type: Before 12 April

Title: Increase in emissions from HFCs

According to the the BR3 HFCs emissions in 2015 were 39.2 million tonnes (in CO<sub>2</sub> eq.), accounting for 3.0% of total GHG emissions. They increased by 146.1% since 1990, by 206.7% compared to 2005 and by 9.6% compared to the previous year. The HFC emissions have been projected to increase by approximately a threefold by 2020 compared to the emissions in 2005, but in 2030 decrease by 32.1% compared to 2013.

*Could Japan provide additional information on how the Japanese government aims to curb the increase in HFC emissions in the context of achieving its emission reduction target and the obligations under Kigali Amendment to the Montreal Protocol?*

*Does more recent data confirm the trends in the projections?*

According to your estimation the majority of emissions reductions in 2020 and 2030 from the policy in place (Act on Rational Use and Proper Management of Fluorocarbons) will be achieved from leakage prevention and recovery actions.

*Does the law also establish a binding trajectory for reducing the placing on the market of HFCs, and if it does, why do these actions lead to only moderate amount of emissions savings?*

*Does Japan take action to to curb HFC use in foams and aerosols, given that alternatives are already available on the market?*

Answer by Japan, Monday, 03 June 2019

In Japan, in addition to the phasing-out of HFCs production/consumption by ensuring the

implementation of the Kigali amendment of the Montreal Protocol domestically, emission control measures are being implemented over the life cycle of fluorocarbon from upstream to downstream, such as a promotion of and lowering of GWP through the Designated Product System, inspection of equipment for the prevention of leakage during use, and prevention of emissions from disposal through the obligatory recovery by users.

Among these measures, regarding the promotion of lowering of GWP in its products, the recent data shows that progress is made in line with the expectations for the achievements of reduction target. Regarding measures to prevent leakage during use, a research is being considered in order to evaluate its progress. Regarding the collection of disposed device, the amendment of the system is aimed for the further improvement of the recovery rate.

Under the Act on Rational Use and Proper management of Fluorocarbon, the average GWP target values and target fiscal years are set by each product for domestic products and imported products through the Designated Product System for the promotion of lowering GWP. The reduction target of HFCs as a whole, including this initiative, is an large reduction of approximately 32% compared with 2013 (21.6 million tCO<sub>2</sub>).

For foams and aerosols, voluntary actions by the industry for the promotion of and lowering of GWP are being made through the designated products system. In particular, foams have been already dealt under the designated products system, but the scope of actions is expected to be expanded considering the progress of technologies.

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Question by European Union at Thursday, 11 April 2019

Category: Progress towards the achievement of its quantified economy-wide emission reduction target

Type: Before 12 April

Title: Agriculture

The BR3 refers to potential to increase carbon storage in cropland and grassland soils in Japan by continuous usage of organic matter such as compost and green manure.

*Could Japan further elaborate on the analysis supporting this potential, and clarify if this increased sink potential for croplands is included in the subsequent projections of emission levels from the agriculture sector, such as in Table 4-3 "Estimated emissions of Non-energy related CO<sub>2</sub> by sector" which projects a 39.1% increase in emissions from the agricultural sector by 2020 compared to 2005, and 13.3% increase by 2030 compared to 2013?*

Answer by Japan, Monday, 03 June 2019

It is internationally recognized that organic matters such as compost and green manure applied to cropland become soil organic carbon which are partially difficult to be decomposed and are stored in soil for a long period of time. Japan has developed a model for estimating changes in soil carbon stock in typical soil types in Japan and in line with current soil

management practice, and has calculated the mitigation impact for 2020 and 2030 as 7,080-8,280 kt CO<sub>2</sub> eq and 6,960-8,900 kt CO<sub>2</sub> eq, respectively, based on the future planted area shown in the 2015 Basic Plan for Food, Agriculture and Rural Areas.

The CO<sub>2</sub> removals of Cropland is accounted for in the LULUCF sector according to the reporting rules of inventory. Therefore, the agricultural sector in Table 4-3 does not include the removals of Cropland.

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[Question by China](#) at Wednesday, 10 April 2019

[Category:](#) Progress towards the achievement of its quantified economy-wide emission reduction target

[Type:](#) Before 12 April

[Title:](#) overall progress

It is noticed that in 2016 Japan re-submitted its 2020 target and add “or more” on the 3.6% emission reduction target. Based on the progress Japan has made so far, could Japan indicate how much more might be achieved by 2020?

[Answer by Japan](#), Monday, 03 June 2019

Japan's emission reduction target of GHG emissions for FY 2020 is more than 3.8% compared to FY 2005 (base year). In FY2017, Japan's total GHG emissions was approximately 1,292 million tons, 6.5% reduction from FY2005. We will continue to proceed with the further reduction of the GHG emissions.

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[Question by China](#) at Wednesday, 10 April 2019

[Category:](#) Progress towards the achievement of its quantified economy-wide emission reduction target

[Type:](#) Before 12 April

[Title:](#) tax instrument

What are the social impacts of the ‘special tax for climate change mitigation’ and how it will change the behavior of producers and consumers?

[Answer by Japan](#), Monday, 03 June 2019

The "Tax for Climate Change Mitigation" adds a tax rate (approximately 289 yen/ton CO<sub>2</sub>) in accordance with the CO<sub>2</sub> emissions for crude oil, LNG, coal, etc. to the Petroleum and Coal Tax. Tax revenues from this taxation are used to implement various measures to reduce Energy-related CO<sub>2</sub> emissions, such as energy conservation measures and renewable energy promotion, thereby promoting measures to tackle global warming countermeasures in Japan.

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Question by China at Wednesday, 10 April 2019

Category: Progress towards the achievement of its quantified economy-wide emission reduction target

Type: Before 12 April

Title: next-generation vehicles

Could Japan provide more information regarding the mitigation impacts of next-generation vehicles and the potential for the diffusion of such technology around the world?

Answer by Japan, Monday, 03 June 2019

Please refer to the attached file.

Attachment: Attachment.pdf

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Question by China at Wednesday, 10 April 2019

Category: Progress towards the achievement of its quantified economy-wide emission reduction target

Type: Before 12 April

Title: market mechanism

Could Japan clarify its plan of using market-based mechanism for compliance, including the estimated total amount, type of units/credits, etc.?

Answer by Japan, Monday, 03 June 2019

The JCM is not included as a basis of the bottom-up calculation of Japan's emission reduction target, but the amount of emission reductions and removals acquired by Japan under the JCM will be appropriately counted as Japan's reduction. Apart from contributions achieved through private-sector based projects, accumulated emission reductions or removals by FY 2030 through governmental JCM programs to be undertaken within the government's annual budget are estimated to be ranging from 50 to 100 million t-CO<sub>2</sub>. Types of units/credits are not determined.

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[Question by China](#) at Wednesday, 10 April 2019

**Category:** Assumptions, conditions and methodologies related to the attainment of its quantified economy-wide emission reduction target

**Type:** Before 12 April

**Title:** accounting approach

Could Japan clarify the accounting rules for its 2020 targets, especially the contribution of LULUCF sector? Since Japan intends to use an activity-based approach for accounting LULUCF contribution, will Japan use a budget approach to account its overall 2020 emission reduction target?

[Answer by Japan](#), Monday, 03 June 2019

The overall framework of the calculation method for the achievement of 2020 Convention target basically follows the way we use in the accounting under the Kyoto Protocol. The contribution from the LULUCF is not included in the base year. After the emission reduction amount for the sectors other than LULUCF is calculated by comparing their emissions in 2020 and the base year, the contribution from the LULUCF sector is added.

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[Question by China](#) at Wednesday, 10 April 2019

**Category:** Assumptions, conditions and methodologies related to the attainment of its quantified economy-wide emission reduction target

**Type:** Before 12 April

**Title:** ambition

As agreed by the COP, developed country Parties are urged to revisit its 2020 target, with a view to enhancing ambition. In this regard, what is Iceland's plan to further strength its mitigation actions and enhance its pre-2020



ambition?

[Answer by Japan](#), Monday, 03 June 2019

In light of the global trend towards decarbonization, Japan recognizes the need to promote domestic and overseas initiatives to significantly reduce GHG emissions under the Paris Agreement. From this point of view, Japan is aiming at achieving 26.0% reduction in FY2030 which is a target included in its NDC firstly, and steadily promoting measures to reduce the emissions by 80% by 2050.

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**Session SBI50 (2019)**  
Session closes at 08-06-2019  
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