Submission on the topics of dialogues to be held under the work programme for urgently scaling up mitigation ambition and implementation

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1. Introduction

Japan welcomes the adoption of the "work programme for urgently scaling up of mitigation ambition and implementation" (hereinafter referred to as "MWP") at CMA4 in November 2022. It is crucial that all Parties urgently scale up mitigation ambition and implementation in this critical decade to align with 1.5°C pathway, and that the dialogues be held under the MWP. As specified in paragraph 8 of decision X/CMA.4¹, the dialogues are expected to function as a core element of the MWP. Japan welcomes the opportunity to submit its views on the topics of the dialogues.

2. Basic concept

(1) Paragraphs of Decision X/CMA.4

 In decision X/CMA.4, taking into account that the objectives of the MWP "to urgently scale up mitigation ambition and implementation in this critical decade" (paragraph 1), the scope of the MWP is defined as "all sectors covered in the 2006 IPCC Guidelines for National Greenhouse Gas Inventories of the Intergovernmental Panel on Climate Change, thematic areas in the contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC AR6 WGIII report), and relevant enabling conditions, technologies, just transitions and cross-cutting issues" (paragraph 4).

(2) Approach to topic selection

- To achieve the objectives of the MWP, it is crucial that each Party prepares high-ambition NDC aligned with the 1.5°C pathway. Therefore, the priority of the dialogue should be given to topics with high mitigation potential. In this regard, the concept of the dialogues should cover wide range areas such as supply-side issues, including energy transitions, as well as demand-side issues and cross-cutting issues, including carbon credits.
- As paragraph 4 of decision X/CMA.4 states "all sectors covered in the 2006 IPCC Guidelines for National Greenhouse Gas Inventories of the Intergovernmental Panel on Climate Change" should be included in the MWP. Therefore, the dialogues should, in general, cover all sectors of the IPCC guidelines, such as Energy Industrial Processes and Product Use (IPPU), Agriculture, Forestry and Other land Use (AFOLU) and Waste, as topics within the period of the MWP (until 2026).

¹ Decision X/CMA.4 means the decision on matters relating to the work programme for urgently scaling up of mitigation ambition and implementation referred to in paragraph 27 of 1/CMA3.

(3) Preparation of technical papers

- In order "to facilitate a focused exchange of views, information and ideas, as well as the active participation
 of and interaction between Parties and relevant non-Party stakeholders" (paragraph.10), Japan requests the
 secretariat to prepare a technical paper on topics selected by the co-chairs of the MWP in advance of each
 dialogue.
- The technical paper should provide a summary of the current and projected GHG emissions, mitigation potential, implementation status, good practices, barriers of policies and measures, etc., based on the Emissions Gap Report, NDC Synthesis Report, GHG inventory reports, Biennial Reports (BRs), Biennial Update Report (BURs), Biennial Transparency Reports (BTRs), NDCs, and other scientific findings, taking into account that the MWP should promote Parties to address an emission reduction gap to achieve the 1.5°C goal. It is desirable that the structure and content of the paper be such that participants can easily understand an overview of the selected topic at-a-glance. The technical paper would also enable Parties to visualize the progress of their mitigation policies, and facilitate the secretariat to identify key findings, opportunities, and barriers when preparing its annual report.

(4) Invitation of stakeholders

 Based on the selected topics, the secretariat will identify stakeholders from international organizations, relevant initiatives, the private sector, etc., and invites them to participate in the dialogues. Especially, public and private financial institutions should be included among the stakeholders, expecting that "investment-focused events" (paragraph 11) will be held on the margins of the dialogues.

3. Proposal of the topics

Based on 2.(2) above, Japan proposes the following topics for the dialogues to be held in 2023.

(1) Energy Transition

- While anthropogenic emissions are causing severe effects on climate change, it is important to reduce GHG emissions in the energy sector, which is the majority contributor of the global GHG emissions. Parties are required to pursue net zero targets, while ensuring a stable supply of energy through diversification of energy sources and other measures, in the occasion of the global energy crisis. In order to achieve net zero by 2050, Parties need to pursue diverse and practical approaches with the utilization of a wide range of energy sources and technologies, taking into account the importance of various pathways according to the different national circumstances. Therefore, it is important that Parties share information on energy security and approaches for energy transition in the MWP.
- According to the IPCC AR6 WGIII report Chapter 6, global warming cannot be limited to well below 2°C without rapid and substantial reductions in CO2 from the energy system. In a scenario where warming is limited to 1.5°C (>50%) with no or limited overshoot, CO2 emissions from the energy sector need to be reduced by 87-97% by 2050 (IPCC AR6 WGIII report Chapter 6). Accelerating the energy transition would not only contribute to addressing climate change, but also stabilize energy prices and improve the resilience of Parties to energy supply.
- With regard to the technical paper proposed in 2.(3) above, it is preferable to summarize the current status of transitions to renewable energy on good practices regarding effective reduction approaches (policies

(especially those contributing to private investment incentives), fiscal measures, national plans, etc.) and barriers to their implementation.

In Japan, through the realization of the Green Transformation (GX), measures including maximum use of clean power sources will be taken to rebuild a stable supply of energy. Japan will transform the entire economic, social, and industrial structure to pursue net zero GHG emissions by 2050 while strengthening industrial competitiveness and realizing economic growth. Furthermore, Japan will further encourage energy transitions together with Asian countries and promote efforts towards decarbonization in a practical way while ensuring energy security. These approaches can be shared from Japan.

(2) Non-CO₂ Emissions

- Despite the relatively high impact of non-CO₂ gases on climate change, effective emission reduction measures for non-CO₂ gases are not yet sufficiently taken comparing to those for CO₂, and implementation rates of those measures in Parties are low. In fact, according to the NDC Synthesis Report (FCCC/PA/CMA/2022/4), about 10% of Parties do not cover methane and N₂O in their NDCs, and more than half do not include fluorinated gases (F-gases). The reasons for these Parties not covering non-CO₂ gases in their NDCs may be attributed to data unavailability or inaccuracy, and/or lack of technical capacity.According to the *Global Methane Assessment: Benefits and Costs of Mitigating Methane Emissions (UNEP, CCAC (2021))*, currently available measures could reduce methane emissions from major sectors, such as fossil fuels, waste, and agriculture, by approximately 180 Mt/yr, or as much as 45%, by 2030, and more than 60% of the available measures are considered low-cost ones. On the other hand, the same report also identifies that incomplete knowledge and monitoring of emissions in some sectors limit the potential for technical mitigation innovation and strategic decision-making to efficiently reduce methane emissions.
- F-gases emissions have continued to surge even during the global COVID-19 pandemic (Emissions Gap Report, 2022 (UNEP)). They are expected to increase further due to expanding demand for refrigeration and air conditioning equipment especially in developing countries.
- In fact, as mentioned in paragraph 37 of the Glasgow Climate Pact (decision 1/CMA.3) and paragraph 29 of the Sharm el-Sheikh Implementation Plan (decision X/CMA.4), Parties are invited to consider further actions to reduce by 2030 non-carbon dioxide greenhouse gas emissions, including methane. Discussing mitigation of non-CO₂ gases at the dialogues would benefit the Parties to consider scaling up their mitigation ambition and implementation.
- For example, it would be useful to share policies and measures, knowledge, and experience on mitigation measures of non-CO₂ emissions, such as methane emissions from fossil fuel leakage and solid waste disposal, hydrofluorocarbons (HFCs) emissions from refrigeration and air conditioning equipment, methane and N₂O emissions from livestock and agricultural land.
- In order to promote discussions, Japan requests the secretariat to prepare the technical paper as proposed in 2.(3) above, with inclusion of basic information on non-CO₂ emissions (the impact of non-CO₂ emissions on climate change, the current status of emissions, future projections, reductions required to achieve net zero, expected emission pathways, etc.), information on each Party's coverage of non-CO₂ emissions in its GHG inventory and NDC, the non-CO₂ emissions reduction policies and measures reported in the NDCs, BRs, and BURs, effective reduction approaches (good practices in policies, technologies, initiatives, etc.),

and barriers for the implementation of non-CO2 gas emission reduction.

Japan endorsed the Global Methane Pledge and the Fluorocarbons Initiative and has been a partner of Climate & Clean Air Coalition (CCAC), an international initiative to reduce short-lived climate pollutants. Furthermore, Japan has set reduction target and estimate in fiscal year 2030 of 21.8 million t- CO2 for F-gases (44% reduction from fiscal year 2013). Japan has enacted the *Law Concerning the Discharge and Control of Fluorocarbons* to implement comprehensive reduction measures for the entire life cycle of fluorocarbons, from production to disposal. In terms of international cooperation, Japan has provided support for policy review, NDC updates, and long-term strategies formulation, mainly in Asia. This was done by evaluating policy options and quantifying various future scenarios, by supporting NDC implementation under the Paris Agreement, and by utilizing the Asia-Pacific Integrated Model (AIM), a large-scale simulation model. If non-CO₂ emissions are selected as one of the topics of the dialogues, Japan can share its experiences in this area.

(3) Demand-side mitigation

- In the IPCC AR6 WGIII report, it is stated that demand-side measures and new ways of end-use service provision can reduce global GHG emissions in end-use sectors (buildings, land transport, and food) by 40–70% by 2050 compared to baseline scenarios (SPM C.10). In particular, with policy support, socio-cultural options and behavioral change can reduce global GHG emissions of end-use sectors by at least 5% rapidly with most of the potential in developed countries (SPM C.10.2).
- Despite its huge mitigation potential, the demand side has so far received less focus than the supply side. According to the NDC Synthesis Report (FCCC/PA/CMA/2022/4), the proportion of Parties identifying the demand side (transport, buildings, and industry) as priority areas in their NDCs is lower than the energy supply side. In order to promote mitigation globally, not only supply-side but also demand-side mitigation strategies and measures need to be enhanced, and all Parties should further strengthen demand-side mitigation actions in their NDCs and respective national mitigation plans. By addressing demand-side mitigation in the dialogues, it can be expected that the initiatives, opportunities, and barriers of Parties, which have not been regarded as demand-side related issues, should be highlighted.
- As for the technical paper proposed in 2.(3) above, it should include basic information on emissions from the end-use sectors as reported by intergovernmental and international organizations such as the IPCC and IEA (e.g., the current status of emissions, future projections, reductions required to achieve net-zero emissions and expected emission pathways), the status of demand-side emission reduction policies and measures reported in each Parties' NDC, BR or BUR, effective reduction approaches (best practices in policies, technologies, reduction efforts, etc.) and barriers for the implementation of demand-side mitigation.
- In addition, Japan launched a nationwide action to build a new prosperous lifestyle as a demand-side measure that leads to net zero by encouraging behavioral changes in consumers, including product and service selection. This experience can be shared in the dialogue.

(4) Use of Article 6 of the Paris Agreement.

• It is estimated that the implementation of Article 6 of the Paris Agreement could reduce up to 9 billion tons of additional CO2 emissions annually by 2030 (J. Edmonds et al., 2021). This corresponds to

approximately 30% of the global CO2 emissions in 2018. IPCC AR6 WGIII addresses the potential of international coordination in promoting more ambitious NDCs while saving a cost (IPCC AR6 WGIII report Figure 14.2). In this respect, as discussed in the Cooperative Approaches section of IPCC AR6 WGIII 14.3.2.7, the market mechanisms being consistent with Article 6 are effective means of promoting emission reductions through the introduction of advanced decarbonization technologies that are difficult for some Parties to introduce on their own due to initial costs and/or technical barriers.

- At COP27, there was a growing interest in the use of carbon markets and Article 6 to achieve targets set in the NDCs and further increase ambition, as seen at the launch of the *Paris Agreement Article 6 Implementation Partnership*, involving more than 70 countries and organizations in the aim of designing high-integrity carbon markets. In order to promptly establish international carbon markets and realize emission reductions, the dialogues under MWP could serve to promote knowledge sharing.
- In the preparation of the technical paper by the secretariat prior to the dialogue, it would be beneficial to
 introduce a quantitative analysis on the global contribution to mitigation through the implementation of
 Article 6, the present case studies of countries using Article 6 to contribute to their mitigation ambition,
 identify areas where further reductions can be promoted through the use of Article 6 and summarize
 possible areas of examples of technologies being introduced. On this basis, Japan proposes that the
 dialogues should take up the following topics:
 - > A quantitative estimation of mitigation potential for the use of Article 6
 - > Establishment of institutional arrangements to implement Article 6
 - > International collaboration, cooperation, and capacity-building support
- In particular, regarding capacity-building support, it would be useful to obtain inputs from Parties, the secretariat and other relevant bodies and promote information sharing on the institutional arrangement including authorization process by Parties, reporting and review on Article 6, the registry and other recording systems and promote information sharing among them.
- Japan initiated the above-mentioned 'Paris Agreement Article 6 Implementation Partnership' and can share its experience in building capacity for Article 6 implementation during the dialogues.

Reference:

IPCC (2022) Climate Change 2022: Mitigation of Climate Change. Contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change

J. Edmonds et al. (2021) How much could article 6 enhance nationally determined contribution ambition towards Paris Agreement goals through economic efficiency?

UNEP (2022) Emissions Gap Report 2022

UNEP, CCAC (2021) Global Methane Assessment: Benefits and Costs of Mitigating Methane Emissions UNFCCC (2022) Nationally determined contributions under the Paris Agreement, Synthesis report by the secretariat (NDC Synthesis Report)