Government of Japan

Submission on the topics of the global dialogues to be held in 2024 under the work programme for urgently scaling up mitigation ambition and implementation

February 2024.

Japan welcomes the opportunity to submit its views on the topics of the global dialogues in 2024, referred to in paragraph 7 of Decision 4/CMA.5. As stated in paragraph 24 of the decision 1/CMA.5 (Outcome of the first global stocktake (GST)), global GHG emissions trajectories are not yet in line with the temperature goal of the Paris Agreement, and there is a rapidly narrowing window for raising ambition and implementing existing commitments in order to achieve it. Taking into account the objective of the Sharm el-Sheikh Mitigation Ambition and Implementation Work Programme (MWP), which is to urgently scale up mitigation ambition and implementation in this critical decade in a manner that complements the GST, Japan believes that the role of the MWP is crucial because the MWP can provide an opportunity for Parties and non-Party stakeholders to enhance their ambition and implementation in this critical decade to keep the window for 1.5 °C goal open.

Japan would like to highlight paragraph 186 of Decision 1/CMA.5, which states that the CMA invites the relevant work programs to integrate relevant outcomes of the first GST in planning their future work, in line with their mandate. Based on the fact that the MWP is the sole agenda focusing on mitigation and the objective of the MWP includes that it complements the GST, Japan proposes the following topics for this year's global dialogues so as to integrate the mitigation components of the first GST outcome into the future work of the MWP. Also, the proposed topics below are consistent with the scope of MWP stated in paragraph 4 of Decision 4/CMA.4, namely sectors covered in the *2006 IPCC Guidelines for National Greenhouse Gas Inventories of the Intergovernmental Panel on Climate Change* and the thematic areas in the contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change and relevant cross-cutting issues.

Japan emphasizes that the need for urgent action and to keep the 1.5 ° C goal within reach in this critical decade was addressed in the outcome of the first GST (Decision 1/CMA.5). We should start our discussion immediately at SB60, as decided in paragraph 13 of Decision 4/CMA.5, so as to make the most the mitigation outcomes of the first GST and deliver an ambitious and action-oriented MWP decision at COP 29. Japan is willing to contribute to this discussion to make the MWP outcome more productive according to its mandate.

I. Proposed Topics

1． Non-CO_2 Gases(based on paragraph 28(f) and 39 of Decision 1/CMA5 and 2006 IPCC guidelines)

(1) Reason for the Proposal

- Despite the relatively high impact of non-CO_2 gases, which account for 24 % of global total GHG emissions as of 2019, NDCs that cover all types of GHGs are limited. In fact, according to the latest NDC Synthesis

Report (FCCC/PA/CMA/2023/12), about 10% of Parties do not cover methane in their NDCs, and more than half do not include fluorinated gases (F-gases). Consequently, effective measures to capture and reduce non-CO_2 gases have not been taken. Based on this fact, the CMA calls on Parties to contribute to accelerating and substantially reducing non-CO_2 emissions and to cover all GHGs in their next round NDC as decided in the first GST.

- As for methane, its emissions have increased by 29% in 2019 relative to 1990, with a continuously increasing trend over the period (Figure 2.5 of IPCC AR6 WGIII report). According to the IPCC AR6 WGIII report, methane emissions need to be reduced globally by 34% in 2030 compared to the 2019 level for the pathways limiting global warming to 1.5°C. Also, its rapid reduction would lower the level of peak warming and less reliance on net negative CO2 emissions to achieve net zero emissions because methane is a short-lived climate pollutant (IPCC AR6 SYR SPM). Because methane is a short-lived climate pollutant, the faster we reduce their emissions, the more we can suppress the global temperature rise.
- Regarding F-gases, their emissions have continued to surge even during the global COVID-19 pandemic (Emissions Gap Report, 2022 (UNEP)). In addition to the limited number of countries taking reduction measures, F-gases are expected to increase further due to the expanding demand for refrigeration and air conditioning equipment.

(2) Possible Subtopics

- Japan proposes that **(a) methane, and (b) F-gases, including hydrofluorocarbons (HFCs)** as possible subtopics. The reduction measures differ from gas to gas, and we need to consider the diverse nature of different gases in order to prepare next round NDC that covers all gases.

【Reference: Japan's Experience】

- Japan has reduced its methane emissions by approximately 40% in FY2021 compared with FY1990 by mainly decreasing the emissions from solid waste disposal with reduced amount of biodegradable waste landfilled. Japan has conducted a technology transfer of innovative semi-aerobic landfill structures with fewer methane emissions (called the "Fukuoka method") to the Asia-Pacific region.
- Japan has promoted non-fluorocarbons and low-GWP products to gas and equipment manufacturers in accordance with the *Act on Rational Use and Appropriate Management of Fluorocarbons*, which contributed to approximately 3 Mt CO_2 eq of emission reductions in FY2020. Furthermore, Japan launched the Initiative on Fluorocarbons Life Cycle Management (IFL) at the COP25 in 2019 to promote the fluorocarbon lifecycle management and provide capacity-building support for developing countries, which has 31 partner entities as of December 2023.

2. **Buildings** (based on paragraph 28(a) of Decision 1/CMA.5, and Chapter 9 of IPCC AR6 WGIII report)

(1) Reason for the Proposal

- According to the IPCC AR6 WGIII report, total GHG emissions in the building sector accounted for 21% of the global GHG emissions in 2019, which was 12 $GtCO_2$-eq. Among such emissions, 57% were indirect CO_2 emissions from offsite generation of electricity and heat, followed by 24% of direct CO_2 emissions produced on-site and 18% from the production of cement and steel used for construction and/or refurbishment of buildings.

- In particular, a strong growth in emissions is expected in developing countries, the potential is estimated to be up to 40–80% in 2050, compared to their sharply growing baselines. In aggregation, the results from all these bottom-up studies translate into a global mitigation potential by 2050 of at least 8.2 $GtCO_2$, which is equivalent to 61% of their baseline scenario.
- In addition, the IEA points out that the buildings sector is important because this sector, which includes energy used for constructing, heating, cooling, and lighting homes and businesses, as well as the appliances and equipment installed in them, accounts for over one-third of global energy consumption and emissions.

(2) Possible Subtopics

The reduction measures of the building sector include various aspects and characteristics. It is essential to discuss them comprehensively to come up with actionable solutions that can be implemented by each Party. With that, Japan proposes the following sub-topics.

(a) Policies and regulations, which include zero-carbon building standards, taxes or incentives for construction and renovation of buildings, instruments to facilitate highly efficient energy management, etc. Enabling environment for incentivizing use of less carbon intensive materials should also be pursued.

(b) Energy efficient and clean energy technology, which is about advanced and disseminatable technologies for insulation, heating, cooling, lighting, appliances and equipment, etc.

(c) Supporting infrastructure, which includes the coordination between renewable energy generation on the building and the electricity grid, district energy network, energy storage, workstyle changes in the office building, etc.

(d) International collaboration, which shares international initiatives related to the building sector, such as the Buildings Breakthrough, Greening Construction with Sustainable Wood, Product Efficiency Call to Action and Clean Cooling Collaborative.

【Reference: Japan's Experience】

- Net Zero Energy Building (ZEB): ZEB is a building that aims to balance the annual primary energy consumption by utilizing energy-saving and renewable energy, thereby achieving zero energy consumption. Japan announced the "Roadmap for Energy Conservation Measures in Housing and Buildings for Decarbonized Society" which aims to ensure that the energy-saving performance of ZEB level is secured for new buildings by 2030, and that solar power generation facilities are introduced to 60% of newly built detached houses.
- Energy-Saving Support Package: The energy-saving support package is a system that subsidizes part of the cost of energy-saving measures for companies and households, for example. introduction of high-efficiency water heaters and renovation support for heat-insulating windows.
- Act for Promotion of Use of Wood in Public Buildings" was revised in 2021 as "Act for Promotion of Use of Wood to Contribute to the Realization of a Decarbonized Society". The revised law establishes the basic principle that the use of wood shall be promoted with the aim of reducing carbon dioxide emissions and other environmental burdens, which can be achieved through replacing materials with higher carbon footprint in the manufacturing process and fossil fuels and through utilizing wood, naturally regenerative resource on forests, in the building sector.

3. **Demand-side measures** (Based on paragraph 36 of Decision 1/CMA.5, Chapter 5 of IPCC AR6 WGIII report)

(1) Reason for the Proposal

- 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).
- Despite its huge mitigation potential, the demand side has so far received less focus than the supply side. In order to promote mitigation globally, not only supply-side but also demand-side mitigation strategies and measures, especially on socio-cultural options and behavioral change, need to be enhanced, and all Parties should further strengthen demand-side mitigation actions in order to enhance transition to sustainable lifestyles and sustainable patterns of consumption and production as stated in paragraph 36 of Decision 1/CMA.5.
- The IPCC's Special Report on Global Warming of 1.5 °C stated that mitigation options in the energy-demand sector have more potential for synergies and less for trade-offs with sustainable development goals than those in the supply-side sector. This analysis implies that demand-side measures can provide just and equitable solutions in the context of sustainable development.

(2) Possible Subtopics

- IPCC AR6 WGIII Report Chapter 5 states that the demand-side mitigation involves individuals (e.g., consumption choices), culture (e.g., social norms, values), corporate (e.g., investments), institutions (e.g., political agency), and infrastructure change (page 546). Also, it provides a variety of knowledge and insights related to demand-side mitigation, including end-use technologies, services, and relevant policies. Based on that, Japan proposes the following subtopics.
  - **(a) Behavior and lifestyle changes**, which are associated with individual choices of action related to consumption and services, considering different social norms and cultures.
  - **(b) Policy and governance,** which includes policies to strengthen Avoid-Shift-Improve (ASI) options, etc.
  - **(c) Technology, infrastructure, and services,** which are related to the design and use of supporting hard and soft end-use technologies and infrastructure and services that enable changes in individual choices.

【Reference: Japan's Experience】

- 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

(Decision4/CMA5 Paragraph 31 and 32, IPCC AR6 WGIII Report Chapter 14)

(1) Reason for the Proposal

- J. Edmonds et al estimated that the implementation of Article 6 of the Paris Agreement could reduce 4 to 12 billion tons of additional CO2 emissions annually by 2030 (J. Edmonds et al., 2021; UNEP and UNEP DTU, 2021; TSVCM, 2021). This corresponds to 10 to 40% 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.

- In line with the urgent need emphasized in paragraph 31 and 32 of Decision4/CMA5, there is a growing interest in the use of carbon markets and Article 6 to achieve targets set in the NDCs and further raise ambition. In order to promptly establish international carbon markets, achieve emission reductions, and raise ambition in the next NDCs, the dialogues under MWP could serve to promote knowledge sharing.

(2) Possible Subtopics

- 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 subtopics:
  - **(a) A quantitative estimation of mitigation potential for the use of Article 6**
  - **(b) Establishment of institutional arrangements to implement Article 6**
  - **(c) International collaboration, cooperation, and capacity-building support**
- In particular, regarding capacity-building support, it would be useful to collaborate with the Article 6 Implementation Partnership to promote information sharing on good practices including authorization process by Parties, reporting and review on Article 6, the registry and other recording systems.

【Reference: Japan's Experience】

- Japan actively implements the Joint Crediting Mechanism (JCM) to contribute to GHG emission reductions by introducing advanced decarbonization technologies and infrastructure to developing countries. In 2024, the number of JCM partner countries increased to 28. To date, more than 240 decarbonization projects have been implemented, including the introduction of renewable energy and energy-saving technologies.
- Japan launched the 'Paris Agreement Article 6 Implementation Partnership' at COP27, which currently includes more than 70 countries and 100 organizations, to support international collaboration for Article 6 capacity building and ensure swift and robust implementation of high-integrity carbon markets. At COP 28, the Partnership announced the 'Article 6 Implementation Support Package' to help countries strengthen the implementation and ambition of their NDCs through tailored capacity building support.

II. Comments on modalities of the global dialogues

- Japan would like to share the views on the improvements in modalities of the global dialogues in 2024 to make them more effective in terms of the contents presented by experts and the summary of the dialogue.
- The presentations prepared by the experts and relevant organizations at last year's global dialogues were very useful not only in setting the scene for the following discussions but also in providing technical and

fundamental information on the subtopics. This material was helpful for participants to deepen discussions at the global dialogues and also for policymakers and practitioners to consider integrating the outcome of the global dialogues into domestic climate action.

- Japan would like to propose that the co-chairs and the secretariat encourage the experts and relevant organizations in the global dialogues this year to include in their presentation a summary of policies and measures and/or technologies that have been effective in reducing emissions, together with an analysis of the reason why they were effective, so as for the Parties to identify possible actionable solutions. It would be beneficial to have a summary of possible actional solutions included in the report of the global dialogue.

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

UNFCCC (2023) Nationally determined contributions under the Paris Agreement, Synthesis report by the secretariat (NDC Synthesis Report)

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