Introduction
ASEAN Member States (AMS) and Japan have steadily implemented regional cooperation on climate change in the ASEAN region based on the “ASEAN-Japan Climate Change Action Agenda”, which was launched at the Japan-ASEAN Summit Meeting in November 2018. The cooperation between ASEAN Member States and Japan certainly contributed to the progress of climate action in ASEAN countries. As of 2021, the Paris Agreement entered into its implementation period. AMS and Japan need to jointly accelerate the implementation of measures in the field of climate change, and the redesign of the socioeconomic system, including a green and sustainable recovery.

For this reason, AMS and Japan aim to step up the implementation of measures for the realization of a decarbonized and resilient society in the ASEAN region. In line with this goal, Japan and AMS will promote the following measures in this action agenda to address needs in the ASEAN region and according to individual AMS needs. This action agenda is an expansion of the “ASEAN-Japan Climate Change Action Agenda”, referring to prioritized actions indicated in the “ASEAN State of Climate Change Report” (ASCCR) which was compiled through the utilization of the Japan-ASEAN Integration Fund (JAIF).

1. Transparency
   - Strengthen partnerships to globally promote transparency improvement, an essential element to expand ESG (environmental, social, governance) investment, particularly in ASEAN countries by grasping the amount of greenhouse gas emissions of the private sector. Specifically, promote the development of critical tools including guidelines and methodologies for national governments and the private sector in order to reinforce the promotion of compatible Measurement, Reporting and Verification (MRV) systems, while looking ahead to the Global Stocktake starting in 2023, as stipulated in the Paris Agreement.
   - Promote the improvement of the accuracy and transparency of GHG inventories in the ASEAN region through capacity development and sharing of technological know-how. Enhance the utilization of the earth observation satellite data such as Greenhouse Gases Observing Satellite (GOSAT) series and Advanced Land Observing Satellite-2 "DAICHI-2"
(ALOS-2).

2. Mitigation

(1) Long-term Strategy and Policy Making

- Promote the formulation of a long-term strategy and goal for AMS in accordance with the Paris Agreement, specifically by facilitating the conducting of GHG reduction impact assessments and the formulation of GHG reduction scenarios based on scientific models.
- Encourage policy making towards decarbonization among AMS and information sharing of advanced efforts on a data platform.

(2) Decarbonization of Each Sector

- Encourage cooperation with various Japanese ministries, agencies, and governmental institutions to boost decarbonization of facilities and infrastructures in each sector such as green logistics including a cold chain, through the promotion of the Joint Crediting Mechanism (JCM) projects and other mechanisms.
- Encourage the introduction of waste management and recycling facilities such as waste-to-energy, and advance research and activities related to co-benefits approaches, so as to contribute to the simultaneous achievement of SDGs in the ASEAN region such as decarbonization, circular economy, and pollution countermeasures.
- Promote cooperation in formulating and implementing fluorocarbons emission reduction plans, compiling inventories, and capacity building, based on actions under the Initiative on Fluorocarbons Life Cycle Management (IFL).

(3) Dissemination of Decarbonization Technologies through the JCM and related schemes

- Promote the introduction of environmental infrastructures for providing social solutions against environmental issues through enhancing public private partnerships tailored to local needs of respective AMS, in order to promote the transition to decarbonized development in the ASEAN region.
- Promote and scale up JCM projects by cooperating with ADB and other institutions, and considering the JCM scheme utilizing more private finance.
- Accelerate the creation of markets for decarbonized products and
services and decarbonizing technologies by further promoting JCM projects and local co-innovation mutually developed between AMS and Japan, to thereby establish new technologies and/or business models.

- Promote the scaling up of projects with innovative technologies such as CCUS, green and blue Hydrogen and other decarbonizing technologies.

(4) Expansion of Zero Carbon Cities
- Cooperate to expand Zero Carbon Cities to attain “decarbonization domino effect” by promoting city-to-city collaborations which support the capacity development of ASEAN cities through Japanese cities’ experience and sharing cities’ advanced efforts.
- Contribute to decarbonization in the ASEAN region through cooperation in the realization of smart cities.

3 Adaptation
- Provide scientific knowledge and tools through the “Asia-Pacific Climate Change Adaptation Platform (AP-PLAT)” etc. so as to foster the improvement of AMS’ policy making capacity on climate change, to thereby contribute to the development of climate-resilient local communities.
- Facilitate the development and implementation of disaster risk assessment and climate risk mapping to enhance the capacity of AMS to adapt to climate change.
- Strengthen the resilience of ASEAN member countries against increasingly severe weather events such as tropical cyclones by providing observation services using the Himawari satellites and “Global Satellite Mapping of Precipitation (GSMaP)” using multiple satellite data.
- Contribute to the restoration and strengthening of flood control systems in the ASEAN region through development of structural and non-structural disaster risks reduction and prevention technologies such as dam upgrading in the region.

Conclusion
The above actions not only contribute to the enhancement of the Japan-ASEAN climate actions, but also to the achievement of SDGs which is set out as a priority area of the “ASEAN Outlook on the Indo-Pacific” (AOIP), which shares relevant fundamental principles with the “Free and Open
Indo-Pacific” (FOIP).
AMS welcomes Japan to submit concept notes on projects related to implementing the measures in this action agenda to the ASEAN Working Group on Climate Change (AWGCC) for consideration and endorsement. The projects should support the outcomes of the AWGCC Action Plan. “ASEAN-Japan Climate Change Action Agenda 2.0” is a living document agreed between ASEAN and Japan and will be updated after discussion between ASEAN and Japan according to the progress of each project and the needs of AMS.

ANNEX Cooperation Menu
As of making this Agenda

1 Transparency
- Holding the Workshop on Greenhouse Gas Inventories in Asia (WGIA)
- Showing an example of using greenhouse gas observation technology satellites (Greenhouse gases Observing SATellite: GOSAT) in Mongolia at WGIA meeting etc.
- Development of the Sixth ASEAN State of Environment Report (SOER6) (including development of Key Performance Indicators (KPIs) for the environmental programmes and activities and environmental data monitoring and evaluation framework) (JAIF)
- Organization of workshops on Carbon Footprint (CF) of Renewable Energy for ASEAN Countries and Life Cycle Assessment (LCA) Database Development (JAIF)
- Monitoring and sharing data of forest change using Advanced Land Observing Satellite-2 "DAICHI-2" (ALOS-2)
- Providing technical assistance on climate-related risk disclosures of Financial Institutions in developing countries thorough IFC’s Comprehensive Japan Trust Fund (CJTF)

2 Mitigation
(1) Long-term Strategy and Policy Making
- Formulation of GHG reduction impact assessment and GHG reduction scenario under the Asia-Pacific Integrated Model (AIM model)
- Holding Bilateral policy dialogues on measures against climate change
Information and experiences sharing on the recovery from the pandemic and measures against both climate change and environmental degradation under the Platform for Redesign 2020

(2) Decarbonization of Each Sector

- Promotion of decarbonization projects in the waste management sector
- Exchange of knowledge and dialogue on water environmental management of partner countries, sharing the lessons learnt and enhancement of cooperation with donor agencies under the Water Environment Partnership in Asia (WEPA) and bilateral cooperation
- Feasibility studies and pilot projects of water environment improving technologies to be conducted by the Model Project for Improvement of Water Environment in Asia
- Science-based policy recommendations under the Asia-Pacific Clean Air Partnership (APCAP)
- Training and research programs on acid deposition and air pollution under the Acid Deposition Monitoring Network in East Asia (EANET)
- Information sharing on environmentally sustainable transport (EST) at the Regional EST Forum in Asia
- Implementation of a JCM fluorocarbons recovery and destruction project; cooperation on planning and implementing fluorocarbons emission control; and facilitating inventory preparation; capacity building, etc., based on the Initiative on Fluorocarbons Life Cycle Management (IFL)
- Supporting the development of the Policy Inventory of each country and sharing experiences towards the promotion of the use of green ships based on the “ASEAN Green Ship Strategy”
- Training on the use of environmental load reduction technologies at airports for personnel in charge of airport environment in the AMS, with the aim of promoting Eco-Airport
- Information sharing on advanced efforts of Carbon Neutral Port (CNP) between ASEAN and Japan
- Support for holding the Green Logistics Partnership Conference to promote green logistics by strengthening cooperation between shippers and logistics operators

(3) Dissemination of Decarbonization Technologies through JCM and related schemes
Provision of solutions by environmental infrastructures through the Japan Platform for Redesign: Sustainable Infrastructure (JPRSI)

Implementation of JCM projects based on the “MoEJ Initiative for Decarbonized Infrastructure” (aiming to achieve an accumulated 100 million tons of estimated CO2 reduction by the end of FY2030 using JCM projects, which corresponds to the maximum project size of about 1 trillion yen)

Funding to ADB projects utilizing the Japan Fund for the Joint Crediting Mechanism (JFJCM)

Demonstration project on decarbonizing technologies and business models by co-innovation

Implementation of feasibility study on the use of JCM for a large-scale CCUS demonstration project in Southeast Asia

Supporting Japanese companies in the overseas expansion of high-quality infrastructure and overseas business activities toward a decarbonized society through JBIC’s Post-COVID-19 Growth Facility

Facilitation of green investment through Initiative on Overseas loan and Investment for ASEAN

Offering of decarbonizing technologies of Japanese companies by Climate Solutions Technologies Initiative through such means as Grant Assistance for Japanese NGO Projects

(4) Expansion of Zero Carbon Cities

Promotion of City-to-city collaboration projects to realize a decarbonized society

Holding the Zero Carbon Cities international forum

Information Sharing at the ASEAN-Japan Smart City Network High-Level Meeting, etc.

3 Adaptation

Promotion of enhancing resilience in the ASEAN region through Climate change impact assessment / adaptation planning promotion project.

Provision of Target Area observation in response to requests from National Meteorological and Hydrological Services (HimawariRequest)

Promotion of cooperation with relevant ASEAN sectoral bodies on disaster management through ASEAN Mapping Exercise (JAIF)
➢ Provision of technical assistance utilizing Japan’s knowledge on disaster prevention through World Bank Tokyo Disaster Risk Management (DRM) Hub

➢ Contribution to Disaster Management activities including “Sentinel Asia” and Food Security using Advanced Land Observing Satellite-2 "DAICHI-2" (ALOS-2)

➢ Development of the disaster prevention technology of Japanese companies such as dam upgrading based on Ministry of Land, Infrastructure, Transport and Tourism Action Plan for Overseas Development of Japanese Infrastructure 2021 in the ASEAN region.