

## Submission on Belém Mission to 1.5

July 2026

The Government of Japan welcomes the launch of the Belém Mission to 1.5, established at COP30 in Belém to support enhanced ambition and effective implementation of nationally determined contributions (NDCs) and national adaptation plans (NAPs). Japan also expresses its appreciation to the Presidencies of COP31, COP30 and COP29 for their leadership in stewarding this process. In response to the call for inputs to the Belém Mission to 1.5, the Government of Japan hereby submits its views.

### **1. High-Impact Action Areas and Solutions to Support the Submission, Ambition and Implementation of NDCs and NAPs**

Based on Japan's domestic experience and lessons learned, Japan proposes the following action areas and solutions as those with the highest potential impact to support the submission, ambition and implementation of NDCs and NAPs.

#### **1.1 Establishment of effective legal and institutional frameworks**

To ensure the implementation and achievement of NDCs, it is effective to formally anchor emission reduction targets in domestic legislation, develop institutional frameworks for implementing mitigation measures towards these targets, and track progress towards achieving them. In Japan, the Act on Promotion of Global Warming Countermeasures is enacted as a dedicated law governing climate change mitigation policies and measures, and the Plan for Global Warming Countermeasures is formulated. The long-term goal of achieving carbon neutrality by 2050 is explicitly stipulated in the Act on Promotion of Global Warming Countermeasures, while the emission reduction targets for FY2030 and FY2040, as set out in the NDCs, are clearly specified in the Plan for Global Warming Countermeasures. The Plan positions mitigation policies and measures to achieve these medium- to long-term goals and conducts annual reviews of the progress of individual policies and measures.

For climate change adaptation policies, it is also important to establish legal and institutional frameworks and to track progress of actions. Under the Climate Change Adaptation Act, Japan conducts periodic climate impact assessments, formulates a Climate Change Adaptation Plan, and follows up on the implementation of adaptation measures defined in the Plan.

In our experiences, it is very useful for Each Party to formulate legal, institutional frameworks, and action plans to achieve target of NDCs and NAPs, and establish mechanisms to implement and follow up on the actions defined in these plans.

## **1.2 Promoting energy transition through various approaches tailored to national circumstances**

The energy transition is a crucial endeavor that not only contributes to climate change mitigation, but also enhances Parties' resilience in terms of energy security. To appropriately promote energy transition, it is important to respect various transition pathways suited to each Party's circumstances.

In Japan, emissions from the energy sector account for roughly 90% of total GHG emissions, making decarbonization of the energy sector the highest priority, while securing stable energy supply. Japan is therefore strongly promoting a variety of measures for energy transition. Specifically, through the Strategic Energy Plan based on the Basic Act on Energy Policy, and through laws, plans and strategies such as the Act on the Promotion of a Smooth Transition to a Decarbonized Growth-Oriented Economic Structure (the "GX Promotion Act") and GX 2040 Vision, Japan is advancing Green Transformation (GX), which aims to shift the industrial and social structure from one centered on fossil energy to one centered on clean energy, and to simultaneously realize energy security, economic growth and decarbonization.

To realize GX, Japan has operationalized the Pro-Growth Carbon Pricing concept, which is designed to attract over JPY 150 trillion (approximately USD 1 trillion) in public and private investment by leveraging JPY 20 trillion (approximately USD 133.3 billion)-level upfront government support over ten years.

With regard to the Pro-Growth Carbon Pricing concept, Japan is implementing support and incentive measures in an integrated manner with regulatory and institutional measures in order to enhance the medium- to long-term predictability of the profitability of GX investment by businesses. Specifically, in order to encourage the front-loading of corporate GX investment, Japan is issuing GX Economy Transition Bonds and providing upfront investment support totaling approximately JPY 20 trillion over ten years, while gradually introducing carbon pricing measures such as an emissions trading system and GX-surcharge (surcharge on fossil fuel supply). Upfront investment support is implemented in line with the "Sectoral Investment Strategies" compiled for 16 priority areas.

Japan is supporting large-scale capital investment associated with the conversion of manufacturing processes in hard-to-abate sectors such as iron and steel, chemicals and cement through upfront investment support utilizing the GX Economy Transition Bonds.

As part of a diversified approach to power sector decarbonization, Japan is also exploring and demonstrating co-firing of ammonia and hydrogen in existing fossil fuel-fired power plants as a transitional measure to reduce emissions. Technological development and efforts toward social implementation have already materialized, and medium- to long-term plans include increasing co-firing ratios and moving towards dedicated firing. Japan also envisages expanding the use of hydrogen and ammonia not only in power generation but also in the industrial and transport sectors.

## **1.3 Promoting demand-side measures, including energy efficiency and electrification**

### **1.3.1 Industrial sector**

In addition to the promotion of thorough energy efficiency improvement, heat demand and the manufacturing process itself will need to be transformed toward 2040, especially in the manufacturing industry. Therefore, fuel switching, electrification, and shift to non-fossil energy must be boldly promoted in conjunction with supply-side efforts for decarbonized power sources such as renewables and nuclear energy, as well as decarbonized energy sources such as hydrogen and its derivatives.

It is necessary for the public and private sectors to work together to promote initiatives in order to strengthen Japan's industrial competitiveness, with particular consideration of the following factors, especially in energy-intensive industries: the high cost of equipment and facilities associated with the change of production processes; the timing of equipment replacement considering the durability of existing equipment; the relative deterioration of energy efficiency of production equipment, including machine tools, which have been used for many years while energy-saving technologies have been improving; and the need to improve 27 electrical infrastructure such as receiving equipment and piping, in addition to production equipment.

To promote investment in facility renewal, the Japanese Government will provide seamless support for multi-year investment plans. In particular, the government will encourage the introduction of high-efficiency equipment, significant energy savings across factories and business sites, electrification and shift to non-fossil energy, and optimization of operations using digital technology. Regarding SMEs, in order to uncover potential needs for decarbonization, energy audits will be strengthened, and a system will be established to support their efforts to improve energy efficiency in the region in cooperation with financial institutions and energy efficiency support organizations. In order to enhance the support system, the government will also work to secure human resources who can provide advice on energy efficiency.

Japan will consider institutional measures to encourage the use of digital technology, taking into account the progress of DX, including AI to promote further energy efficiency by using digital technology to visualize energy consumption.

With regard to periodic reporting under the Energy Efficiency Act, efforts will be made to expand the number of businesses that actively disclose information. In addition, from the perspective of expanding energy efficiency efforts, the regulatory targets of the Energy Efficiency Act will be appropriately reviewed. Furthermore, in order to strongly promote shift to non-fossil energy and Demand Response (DR), Japan will advance studies, including institutional measures, while paying attention to the potential for adopting non-fossil energy in factories and other sites.

### **1.3.2 Commercial and residential sector**

In the commercial and residential sectors, it is necessary to promptly improve energy efficiency of homes and buildings, as well as promote shift to non-fossil energy and DR, as homes and buildings become long-term assets once constructed.

The Government has set a goal of ensuring average performance across the building stock by 2050 at the level of the ZEH (Net Zero Energy House) and ZEB (Net Zero Energy Building) standards, and of ensuring energy efficiency at the same level for new houses and buildings constructed in FY2030 and beyond. The Government will promote the improvement of energy efficiency and expansion of renewable energy introduction while integrally utilizing regulations, such as the Act on the Energy Efficiency of Buildings, and support measures.

In terms of regulations and systems, energy efficiency standards for homes and buildings will be raised in stages by FY2030 at the latest, in order to be consistent with these goals. Regarding the "ZEH," which aims to achieve a net-zero energy balance, the definition of "ZEH" was revised to promote photovoltaic power generation for self-consumption, as well as to substantially increase energy efficiency from the perspective of further promoting zero-energy consumption. In addition, a framework will be established to encourage the supply of homes with a higher level of energy efficiency, and the standards in the Housing Performance Indication System was enhanced. Furthermore, in order to support such improvements in energy efficiency from the viewpoint of building materials

and equipment, we will revise the target standard values for windows and other components under the Top Runner Program and expand the scope of the program.

In addition to the above, from the perspective of promoting shift to non-fossil energy and DR in the residential sector as well, institutional measures will be taken, such as accelerating energy efficiency and shift to non-fossil energy of water heaters, which account for approximately 30% of energy consumption in the household sector, promoting the provision of functions necessary for DR, and strengthening efforts by energy suppliers through disclosure.

Regarding support measures, combined with these regulatory standards and institutional methods, in addition to providing support for introduction of homes with energy efficiency that meet the level of the ZEH standards, support will be provided for the introduction of homes with energy efficiency that far exceeds that level. In addition, in order to improve energy efficiency in existing houses and buildings, support will be provided for the renovation of houses and buildings to improve higher energy efficiency, including installation of insulated windows and high-efficiency water heaters.

Support will also be extended to include high-efficiency water heaters such as heat pump water heaters, hybrid water heaters, and residential fuel cells, as well as condensing-type water heaters for rental housing complexes where it is difficult to install high-efficiency water heaters due to installation space and other constraints.

An environment will be created in which the GX value of construction materials and equipment used in buildings is valued by the market, while also establishing a system for promoting the calculation and valuation of the CO<sub>2</sub> emitted throughout the lifecycle of a building not only at time of use but all the way up from its construction to its dismantling (lifecycle carbon), based on close cooperation with relevant ministries and agencies, in order to facilitate the decarbonization of buildings.

### **1.3.3 Transport sector**

With regard to electrification, Japan sets deployment targets for electrified vehicles (electric vehicles, fuel cell vehicles, plug-in hybrid vehicles, and hybrid vehicles) and introduces purchase subsidies for EVs, PHEVs and FCVs as well as electricity charging infrastructure and hydrogen refueling infrastructure.

## **1.4 Promoting reductions of non-CO<sub>2</sub> greenhouse (GHG) gases**

Globally, methane is the second most impactful GHGs after CO<sub>2</sub> and is estimated to account for about one-third of the temperature increase since the pre-industrial era. Because methane is short-lived, its reduction can deliver climate benefits over a relatively short timeframe and is therefore recognized internationally as a “high-impact, near-term measure”. Under the Global Methane Pledge launched at COP26, participating countries aim to reduce methane emissions by 30% by 2030 compared to 2020 levels. However, even if current national mitigation plans are fully implemented, the overall emission reduction would still be limited, and accelerating methane reduction is a major challenge. Furthermore, emissions of fluorinated gases (F-gases) continued to increase even during the global COVID-19 pandemic period (UNEP Emissions Gap Report 2024). With growing demand for refrigeration and air-conditioning equipment, F-gas emissions are expected to rise further, increasing the importance of reduction measures.

Japan has steadily implemented measures to reduce non-CO<sub>2</sub> gases. For methane, Japan aims to reduce emissions by 11% by FY2030 and by 25% by FY2040 compared to FY2013 and is promoting measures in the energy, waste and agriculture sectors. In the waste sector, Japan advances the reduction of final waste disposal through the

3Rs+Renewable in agriculture, Japan promotes technological development; and in the energy sector, Japan supports the Coalition for LNG Emission Abatement toward Net-zero (CLEAN), a voluntary, market-based mechanism to reduce methane emissions through transparency and best practice sharing across the LNG supply chain. Japan's strengths lie particularly in practical, field-deployable technologies and their international dissemination.

A representative example of promising emission reductions technologies is the “Fukuoka Method”, a semi-aerobic landfill structure that introduces oxygen into waste and promotes microbial decomposition, thereby suppressing methane generation. This method is low-cost and requires modest technical capacity, allows significant reductions in GHG emissions, and also contributes to improving water quality and preventing landfill fires. It has been introduced in more than 20 countries and is highly regarded, particularly in developing countries, as a solution that simultaneously improves waste management and reduces methane.

For F-gases, Japan promotes the introduction of non-fluorocarbon products and low-GWP products by gas and equipment manufacturers, based on the Act on Rational Use and Proper Management of Fluorocarbons. In addition, Japan launched the Initiative on Fluorocarbons Life Cycle Management (IFL) at COP25 in 2019, which promotes life-cycle management of F-gases and supports capacity-building in developing countries.

Thus, Japan not only delivers solid non-CO<sub>2</sub> emission reductions domestically but also provides practical contributions combining technology, institutions and capacity-building, and can share a variety of good practices. Non-CO<sub>2</sub> mitigation offers multiple benefits, contributing not only to climate action but also to air quality and health improvement. It is important to support realistic emission reductions reflecting each country's circumstances through international deployment of practical solutions such as the Fukuoka Method.

## **1.5 Promoting action at subnational, bilateral and multilateral levels**

### **1.5.1 Promoting domestic local-level initiatives**

In addition to national-level measures, regional decarbonization efforts led by local governments, which are closely tied to communities and daily life, are also important. Regional decarbonization aligned with regional characteristics helps address high energy prices, stimulates local industries by utilizing unused resources, strengthens disaster prevention and resilience by securing energy supply in emergencies, improves regional energy and economic balances, and contributes to solving various local challenges and building robust local economies.

In Japan, local governments are requested to develop their own decarbonization plans and manage progress consistent with the national long-term goal of net-zero by 2050. More than 1,200 of Japan's roughly 1,700 local governments have declared net-zero by 2050, and more than 1,100 have formulated their own plans.

Japan has also introduced the “Decarbonization Leading Areas” initiative, under which advanced regions are selected and supported. Japan actively disseminates information on the categories of advanced and model characteristics and on good practices and cases of overcoming challenges identified in more than 100 selected areas. Drawing on lessons related to project viability and efficiency, improvements in KPIs in cases contributing to regional revitalization, and other practical know-how accumulated through Decarbonization Leading Areas, Japan aims to accelerate regional decarbonization and expand it nationwide.

### **1.5.2 Promoting bilateral and multilateral cooperation**

The implementation of Article 6 of the Paris Agreement can deliver additional GHG emission reductions. As discussed in Section 14.3.2.7 (“Cooperative Approaches”) of the IPCC AR6 WGIII report, Article 6-consistent market mechanisms are effective tools to promote emission reductions through the introduction of advanced decarbonization technologies that some Parties would find difficult to deploy on their own due to upfront investment burdens or technical barriers.

Japan is actively implementing the Joint Crediting Mechanism (JCM) to contribute to GHG emission reductions by introducing advanced decarbonization technologies and infrastructure to developing countries. As of 2026, the number of JCM partner countries has expanded to 32. Around 300 decarbonization projects, including those introducing renewable energy and energy-saving technologies, have been implemented to date.

Japan also launched the Paris Agreement Article 6 Implementation Partnership at COP27. More than 90 countries and over 360 institutions and companies currently participate in this Partnership, which aims to support international cooperation for capacity-building on Article 6 and to ensure rapid and robust implementation of high integrity carbon markets. Furthermore, at COP28, Japan announced the Article 6 Implementation Support Package, which supports the implementation and enhancement of NDCs through capacity-building tailored to countries’ needs.

Supporting the formulation and implementation of NDCs in developing countries requires not only financial and technological support but also assistance for policy development to enhance transparency and strengthen decarbonization policies through collaboration among countries.

Japan supports the formulation of NDCs in developing countries, improves the accuracy of national GHG inventories by utilizing the greenhouse gas observation satellite GOSAT series (GOSAT, GOSAT-2 and GOSAT-GW), and supports decarbonization policy development in Asia, including the BTR preparation and corporate GHG accounting and reporting schemes. Japan also cooperates with ASEAN countries in preparing reports on the simultaneous achievement of decarbonization and economic growth as an input to GST2.

Many developing countries have insufficient adaptive capacity to address the impacts of climate change. To support decision-making that takes climate risks into account and to promote effective climate adaptation in the Asia-Pacific region, Japan has established and utilizes the Asia-Pacific Climate Change Adaptation Information Platform (AP-PLAT). Through AP-PLAT, Japan promotes the following in cooperation with countries and relevant organizations in the region: (1) sharing scientific knowledge on climate risks; (2) providing tools for policy decision-making; and (3) strengthening capacities to implement adaptation measures.

## **2 Strengthening International Cooperation to Enhance Ambition and Enable the Effective Implementation of NDCs and NAPs**

Japan proposes the following three points.

### **2.1 Importance of formal spaces for international coordination to enhance NDC ambition and ensure implementation**

According to the Emissions Gap Report 2025 (UNEP), a decade after the Paris Agreement entered into force, climate action has advanced, but the ambition and implementation of measures remain below the required level. Temperature projections based on current NDCs are in the range of 2.3–2.5°C, far from the 1.5°C goal of the Paris

Agreement. To keep the 1.5°C goal within reach, all available spaces should be used to explore ways to accelerate the implementation of mitigation measures in all countries.

In this context, the Mitigation Work Programme (MWP), established under the Glasgow Climate Pact in 2021 to “urgently scale up mitigation ambition and implementation in this critical decade”, plays a key role. The MWP is scheduled to run until CMA 8 in 2026, when the question of its continuation will be considered. Given the current status of global mitigation, it is clear that MWP activities must not only be maintained but further strengthened. In discussions on continuation, it is important to objectively assess the MWP’s activities, outcomes and challenges to date, and to clarify its respective role and complementarity with the Belém Mission to 1.5.

Taking into account mitigation discussions under related agendas including the MWP, the Belém Mission to 1.5 will need to identify policy challenges relevant to enhancing ambition towards the 1.5°C goal and strengthening implementation of NDCs by all Parties, and to translate them into concrete proposals. In doing so, the Belém Mission to 1.5 should clearly position itself as a process that complements existing mechanisms and supports implementation. It is also necessary to provide a space for continuous consideration of NDC ambition and implementation, with a view to further promoting international coordination.

## **2.2 Utilization of international institutions and networks**

Accelerating global mitigation and adaptation requires working organically with a wide range of international initiatives, networks and institutions, beyond the UNFCCC framework alone. Japan places importance on support delivered through such cooperation.

For example, Japan promotes the Asia Zero Emission Community (AZEC), a platform involving 11 partner countries, namely Japan, Australia and 9 Southeast Asian countries, which aims at the simultaneous realization of decarbonization, economic growth and energy security. Japan also supports the Asia-Pacific Adaptation Network (APAN), a regional network of the Global Adaptation Network (GAN), and the Asia-Pacific Network for Global Change Research (APN), which contributes to strengthening the capacities of researchers and policymakers in developing countries in the Asia-Pacific region. In addition, Japan promotes CEFIA (Cleaner Energy Future Initiative for ASEAN), which accelerates mitigation ambition by enabling long-term decarbonization in the energy sector in host countries through a step-by-step implementation approach in collaboration with ASEAN Center for Energy (ACE). As an initiative in adaptation, SUBARU (Sustainable Business of Adaptation for Resilient Urban future) Initiative has been implemented in collaboration with UN Habitat to enhance the resilience of urban community in Asia-Pacific region.

To enhance the ambition of NDCs and NAPs and strengthen their implementation, it is crucial that UNFCCC-related initiatives, such as Belém Mission to 1.5, Global Implementation Accelerator and MWP, effectively utilize these existing international activities, networks and institutions, and further enhance actions and support that are tailored to the specific needs of each country.

## **2.3. Use of the best available science**

As reflected in paragraph 26 of decision 1/CMA.5, the IPCC provided a crucial input to GST1. Japan’s updated NDC also sets ambitious targets that are consistent with the global 1.5°C goal and on a linear pathway towards net-zero emissions by 2050, based on scientific findings from the IPCC and other sources. Japan welcomes the

COP30 decision recognizing the critical importance of the outputs of the IPCC to the GST and encouraging the scientific community to provide best available scientific inputs to feed into the GST.

Compared with GST1, scientific and technological knowledge related to climate change has advanced significantly. For example, last year, Japan launched the GOSAT-GW (Global Observing SATellite for Greenhouse gases and Water cycle), which enables more precise estimation of CO<sub>2</sub> and methane emissions. For GST2, in addition to IPCC assessments, it will be important to utilize up-to-date scientific and objective data, including satellite observation data.

Science provides objective insights into what concrete actions are needed to achieve the 1.5°C goal globally; it is not subject to negotiation. To enable all countries to formulate and update NDCs consistent with the 1.5°C goal and ensure their implementation, Parties should respect and make maximum use of the knowledge provided by the best available science.

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