

Japan's Nationally Determined Contribution (NDC)

Japan's Greenhouse Gas Emission Reduction Target

Japan aims to reduce its greenhouse gas emissions by 60 percent in fiscal year (FY) 2035 and by 73 percent in FY 2040, respectively, from its FY 2013 levels, as ambitious targets aligned with the global 1.5°C goal and on a straight pathway towards the achievement of net zero by 2050¹.

The details of the action policy as well as targets and estimates by greenhouse gases and other classifications are described in the *Plan for Global Warming Countermeasures*, which is a comprehensive implementation plan for achieving Japan's NDCs², and in its related materials.

¹ In October 2020, Japan declared that it would aim to achieve net zero greenhouse gas emission by 2050. In April 2021, Japan declared that it would aim to reduce its greenhouse gas emissions by 46 percent in FY 2030 from its FY 2013 levels, as an ambitious target which is aligned with the 2050 goal, and furthermore, continue strenuous efforts in its challenge to meet the lofty goal of cutting its emissions by 50 percent. Based on the above, in October 2021, Japan submitted its NDC that included the reduction target for FY2030.

² <https://www.env.go.jp/earth/ondanka/keikaku/250218.html>

Information to facilitate clarity, transparency and understanding of nationally determined contributions, referred to in decision 1/CP.21, paragraph 28 (Decision 4/CMA.1 and Annex I)		
1. Quantifiable information on the reference point (including, as appropriate, a base year):		
(a)	Reference year(s), base year(s), reference period(s) or other starting point(s);	FY 2013
(b)	Quantifiable information on the reference indicators, their values in the reference year(s), base year(s), reference period(s) or other starting point(s), and, as applicable, in the target year;	<p>The total emissions in the base year (FY 2013) amount to 1,407 million t-CO₂ (based on the National Greenhouse Gas Inventory Document of Japan (the GHG inventory) (FY 2022), submitted to the Secretariat of the United Nations Framework Convention on Climate Change (hereinafter referred to as “the UNFCCC”) in April 2024).</p> <p>Japan aims to reduce its greenhouse gas emissions by 60 percent to 570 million t-CO₂ in FY 2035 and by 73 percent to 380 million t-CO₂ in FY 2040, respectively, from its FY 2013 levels.</p>
(c)	For strategies, plans and actions referred to in Article 4, paragraph 6, of the Paris Agreement, or policies and measures as components of nationally determined contributions where paragraph 1(b) above is not applicable, Parties to provide other relevant information;	Not applicable.
(d)	Target relative to the reference indicator, expressed numerically, for example in percentage or amount of reduction;	Japan aims to reduce its greenhouse gas emissions by 60 percent in FY 2035 and by 73 percent in FY 2040, respectively, from its FY 2013 levels, as ambitious targets aligned with the global 1.5°C goal and on a straight pathway towards the achievement of net zero by 2050.
(e)	Information on sources of data used in quantifying the reference point(s);	The total emissions in the base year (FY 2013) written above are based on the National Greenhouse Gas Inventory Document of Japan (FY 2022) submitted to the UNFCCC Secretariat in April 2024.
(f)	Information on the circumstances under which the Party may update the values of the reference indicators.	The total emissions in the base year (FY 2013) are subject to further updates, depending on the progress of future international negotiations on estimating and accounting rules, the revision of various statistical data for annually reported figures, and the recalculation of the GHG inventory following the review of estimation methods.
2. Time frames and/or periods for implementation:		

(a)	Time frame and/or period for implementation, including start and end date, consistent with any further relevant decision adopted by the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (CMA);	From April 1, 2031, to March 31, 2041
(b)	Whether it is a single-year or multi-year target, as applicable.	Single-year targets (FY 2035 and FY 2040)
3. Scope and coverage:		
(a)	General description of the target;	Japan aims to reduce its greenhouse gas emissions by 60 percent in FY 2035 and by 73 percent in FY 2040, respectively, from its FY 2013 levels, as ambitious targets aligned with the global 1.5°C goal and on a straight pathway towards the achievement of net zero by 2050.
(b)	Sectors, gases, categories, and pools covered by the nationally determined contribution, including, as applicable, consistent with Intergovernmental Panel on Climate Change (IPCC) guidelines;	<p><Sectors of coverage></p> <p>All sectors and categories encompassing the following:</p> <p>(a) Energy</p> <ul style="list-style-type: none"> - Fuel Combustion (Energy industries, Manufacturing industries and Construction, Transport, Commercial/Institutional, Residential, Agriculture/Forestry/Fishing, and Other) - Fugitive emissions from fuels - CO₂ transport and storage <p>(b) Industrial processes and product use</p> <p>(c) Agriculture</p> <p>(d) Land Use, Land-Use Change and Forestry (LULUCF)</p> <p>(e) Waste</p> <p>(f) Others included in the GHG inventory</p> <ul style="list-style-type: none"> - Activities related to contributions from the LULUCF sector: (afforestation and reforestation (AR), deforestation (D), forest management (FM), cropland management (CM), grazing land management (GM), urban greening (UG), and coastal wetlands (BC)) - Carbon pools for contributions from the LULUCF sector: (above-ground biomass, below-ground biomass, dead wood, litter, soils, harvested wood

		<p>products (HWP))</p> <p><Targeted gases></p> <p>Carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF₆), and nitrogen trifluoride (NF₃).</p> <p><Percentage of coverage></p> <p>100 percent</p>
(c)	How the Party has taken into consideration paragraph 31(c) and (d) of decision 1/CP.21;	Japan's NDC includes all sectors of anthropogenic emissions and removals. Also, the sources, sinks, and activities that were included in Japan's previous NDC have not been excluded.
(d)	Mitigation co-benefits resulting from Parties' adaptation actions and/or economic diversification plans, including description of specific projects, measures and initiatives of Parties' adaptation actions and/or economic diversification plans.	Not applicable.
4. Planning processes:		
(a)	Information on the planning processes that the Party undertook to prepare its nationally determined contribution and, if available, on the Party's implementation plans, including, as appropriate:	<p>At the joint meetings of the Climate Change Countermeasures towards Net Zero by 2050 Subcommittee of the Global Environment Committee under the Central Environment Council and the Working Group for Consideration of Mid- and Long-Term Global Warming Countermeasures of the Global Environment Subcommittee of the Committee on Innovation and Environment under the Industrial Structural Council, with participation of various stakeholders including industry, academics, local governments, labor unions, NGOs, and others, substantive consideration was undertaken on the <i>Plan for Global Warming Countermeasures</i>, a comprehensive plan towards achieving the NDC, in a manner transparent to the public, while holding hearings from future generations and relevant ministries and agencies.</p> <p>With regard to energy policy and energy mix, substantive consideration was undertaken in a manner transparent to the public at the Strategic Policy Committee of the Advisory Committee for Natural Resources and Energy.</p> <p>After the above procedures, the Government prepared a draft of the <i>Plan for Global Warming Countermeasures</i>, including the NDC, which was adopted by the Global Warming Prevention</p>

		<p>Headquarters.</p> <p>Following this, the government invited public comments widely regarding the government draft from citizens and the <i>Plan for Global Warming Countermeasures</i>, including the NDC, was adopted by the Global Warming Prevention Headquarters.</p>
(a) (i)	Domestic institutional arrangements, public participation and engagement with local communities and indigenous peoples, in a gender-responsive manner;	<p>Towards the achievement of a sustainable society, Japan is proactively working to incorporate gender perspectives, including gender equal participation, into concrete actions while aiming at enhanced participation of women in policy decision-making processes for responding to environmental problems, including climate change, in line with ongoing international trends. For example, Japan is promoting the participation of women in councils and other bodies. One initiative ensures that half of the members of the meeting—a joint meeting of the Climate Change Countermeasures towards Net Zero by 2050 Subcommittee of the Global Environment Committee under the Central Environment Council and the Working Group for Consideration of Mid- and Long-term Global Warming Countermeasures of the Global Environment Subcommittee of the Committee on Innovation and Environment under the Industrial Structural Council—are women.</p> <p>In addition, Regional Energy and Global Warming Prevention Promotion Councils established in each regional block are used in cooperation with local governments and regional councils for global warming countermeasures to back up regional efforts for global warming prevention in collaboration with relevant ministries and agencies.</p>
(a) (ii)	Contextual matters, including, inter alia, as appropriate:	
(a) (ii) a	National circumstances, such as geography, climate, economy, sustainable development and poverty eradication;	<p>Please refer to Japan’s First Biennial Transparency Report (BTR1) (2024) for the geographical, climatic, and economic situations of Japan. Japan is implementing efforts towards the achievement of the United Nations’ Sustainable Development Goals (SDGs). Please refer to Japan’s Voluntary National Review (VNR) for further information on Japan’s efforts for SDGs.</p> <p>(Reference) First Biennial Transparency Report https://unfccc.int/documents/642069</p>

(a) (ii) b	Best practices and experience related to the preparation of the Nationally Determined Contribution;	<p>As already mentioned in a (i), specific consideration regarding the <i>Plan for Global Warming Countermeasures</i>, including the NDC, was undertaken in a manner open to the public, at the joint meetings of the Climate Change Countermeasures towards Net Zero by 2050 Subcommittee of the Global Environment Committee under the Central Environment Council and the Working Group for Consideration of Mid- and Long-Term Global Warming Countermeasure of the Global Environment Subcommittee of the Committee on Innovation and Environment under the Industrial Structural Council, as well as at the Strategic Policy Committee of the Advisory Committee for Natural Resources and Energy.</p> <p>On July 17th, 2015, Japan submitted its Intended Nationally Determined Contribution (INDC) to the UNFCCC Secretariat. Following that, on May 13th, 2016, Japan made a Cabinet Decision on the <i>Plan for Global Warming Countermeasures</i>. Every year since the formulation of the plan, the Global Warming Prevention Headquarters, led by the Prime Minister with all Cabinet Ministers as its members, have made rigorous reviews and examinations on, among others, the state of progress in each countermeasure taken by the Government, by using the outcome in emission reductions by greenhouse gases and other classifications, measure evaluation indicators, and related indicators.</p> <p>Specifically, by administering evaluations on each section of measures and policies and identifying sections whose progress is delayed, the Government conducted examinations on, among others, how to improve progress in the identified sections. In so doing, the Government considered not only the enhancement of measures and policies that are already included in the <i>Plan for Global Warming Countermeasures</i> but also the introduction of new measures and policies.</p> <p>Also, with regard to the new target, the Government will continue progress management in a similar manner to the one mentioned above while also flexibly reviewing and strengthening policies and measures.</p> <p>Japan will promote initiatives to contribute to reducing global greenhouse gas emissions, including those that do not count towards achieving Japan's NDC. Building upon the relationship of trust that has been established to date and platforms such as the Asia Zero Emission Community (AZEC), Japan will expand cooperation based on collaboration with partner countries, such as the</p>
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(a) (ii) c	Other contextual aspirations and priorities acknowledged when joining the Paris Agreement;	Not applicable.
(b)	Specific information applicable to Parties, including regional economic integration organizations and their member States, that have reached an agreement to act jointly under Article 4, paragraph 2, of the Paris Agreement, including the Parties that agreed to act jointly and the terms of the agreement, in accordance with Article 4, paragraphs 16–18, of the Paris Agreement;	Not applicable.

(c)	How the Party's preparation of its nationally determined contribution has been informed by the outcomes of the global stocktake, in accordance with Article 4, paragraph 9, of the Paris Agreement;	<p>Japan formulated its new NDC taking into account the outcomes of the first global stocktake at CMA5 (decision 1/CMA.5). At the outcomes of the first global stocktake, the need for urgent action to achieve the 1.5°C goal was emphasized, and the need for global emissions to peak before 2025 was recognized. As concrete actions to achieve this, it was decided to encourage Parties to formulate economy-wide emission reduction targets, covering all greenhouse gases, sectors and categories (paragraph 39), and tripling renewable energy capacity globally and doubling the global average annual rate of energy efficiency improvements by 2030, as well as accelerating efforts towards the phase-down of unabated coal power, transitioning away from fossil fuels in energy systems, accelerating zero- and low-emission technologies (paragraph 28), transitioning to sustainable lifestyles and sustainable patterns of consumption and production (paragraph 36), and others.</p> <p>Japan's new NDC sets ambitious targets aligned with a straight pathway towards the global 1.5°C goal and the achievement of net zero by 2050 based on scientific findings from the IPCC and other sources. This target is an economy-wide emission reduction target, covering all greenhouse gases, sectors and categories.</p> <p>The items listed in decision 1/CMA.5 have been incorporated to the greatest extent possible into the <i>Plan for Global Warming Countermeasures</i>, which is a comprehensive implementation plan for achieving Japan's NDC.</p>
(d)	Each Party with a nationally determined contribution under Article 4 of the Paris Agreement that consists of adaptation action and/or economic diversification plans resulting in mitigation co-benefits consistent with Article 4, paragraph 7, of the Paris Agreement to submit information on:	
(d) (i)	How the economic and social consequences of response measures have been considered in developing the nationally determined contribution;	Not applicable.

(d) (ii)	Specific projects, measures and activities to be implemented to contribute to mitigation co-benefits, including information on adaptation plans that also yield mitigation co-benefits, which may cover, but are not limited to, key sectors, such as energy, resources, water resources, coastal resources, human settlements and urban planning, agriculture and forestry; and economic diversification actions, which may cover, but are not limited to, sectors such as manufacturing and industry, energy and mining, transport and communication, construction, tourism, real estate, agriculture and fisheries.	Not applicable.
5. Assumptions and methodological approaches, including those for estimating and accounting for anthropogenic greenhouse gas emissions and, as appropriate, removals:		

(a)	<p>Assumptions and methodological approaches used for accounting for anthropogenic greenhouse gas emissions and removals corresponding to the Party's nationally determined contribution, consistent with decision 1/CP.21, paragraph 31, and accounting guidance adopted by the CMA;</p>	<p><Sectors of coverage></p> <p>All sectors and categories encompassing the following:</p> <p>(a) Energy</p> <ul style="list-style-type: none"> - Fuel Combustion (Energy industries, Manufacturing industries and Construction, Transport, Commercial/Institutional, Residential, Agriculture/Forestry/Fishing, and Other) - Fugitive emissions from fuels - CO₂ transport and storage <p>(b) Industrial processes and product use</p> <p>(c) Agriculture</p> <p>(d) Land Use, Land-Use Change and Forestry (LULUCF)</p> <p>(e) Waste</p> <p>(f) Others included in the GHG inventory</p> <ul style="list-style-type: none"> - Activities related to the contributions from the LULUCF sector: (afforestation and reforestation (AR), deforestation (D), forest management (FM), cropland management (CM), grazing land management (GM), urban greening (UG), and coastal wetlands (BC)) - Carbon pools for the contributions from the LULUCF sector: (above-ground biomass, below-ground biomass, dead wood, litter, soils, harvested wood products (HWP)) <p><Targeted gases></p> <p>Carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF₆), and nitrogen trifluoride (NF₃).</p> <p><Percentage of coverage></p> <p>100 percent</p> <p><Assumptions and methodological approaches></p> <p>Methods of estimation are in line with the IPCC Guidelines and based on decision 18/CMA.1.</p> <p>The metrics used for GHG emissions and removals (CO₂ equivalent) are the Global Warming</p>
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(b)	Assumptions and methodological approaches used for accounting for the implementation of policies and measures or strategies in the nationally determined contribution;	Not applicable.
(c)	If applicable, information on how the Party will take into account existing methods and guidance under the Convention to account for anthropogenic emissions and removals, in accordance with Article 4, paragraph 14, of the Paris Agreement, as appropriate;	Refer to 5d.
(d)	IPCC methodologies and metrics used for estimating anthropogenic greenhouse gas emissions and removals;	<p>Methods of estimations are in line with the IPCC Guidelines and based on decision 18/CMA.1.</p> <p>The metrics used for GHG emissions and removals (in CO₂ equivalent) are the Global Warming Potentials of a 100-year time horizon which are presented in the <i>IPCC Fifth Assessment Report</i>.</p> <p>These methods of estimation are subject to change depending on the progress of future international negotiations on estimating and accounting rules.</p>
(e)	Sector-, category- or activity-specific assumptions, methodologies and approaches consistent with IPCC guidance, as appropriate, including, as applicable:	
(e) (i)	Approach to addressing emissions and subsequent removals from natural disturbances on managed lands;	Methodologies addressing emissions and subsequent removals from natural disturbances on managed lands are not applied.

(e) (ii)	Approach used to account for emissions and removals from harvested wood products;	The emissions and removals from annual carbon stock changes of harvested wood products are calculated based on the production approach.
(e) (iii)	Approach used to address the effects of age-class structure in forests;	Removals by forests are estimated with consideration to the difference in amounts of carbon accumulation due to the effects of age-class structure.
(f)	Other assumptions and methodological approaches used for understanding the nationally determined contribution and, if applicable, estimating corresponding emissions and removals, including:	
(f) (i)	How the reference indicators, baseline(s) and/or reference level(s), including, where applicable, sector-, category- or activity-specific reference levels, are constructed, including, for example, key parameters, assumptions, definitions, methodologies, data sources and models used;	<p>The reference indicators for Japan's NDC are the total greenhouse gas emissions in FY 2013 published in the National Greenhouse Gas Inventory Document of Japan (FY 2022) submitted to the UNFCCC Secretariat in April 2024.</p> <p>The key parameters, assumptions, definitions, methodologies, data sources, and models used to estimate emissions and removals are provided in the aforementioned the GHG inventory.</p>
(f) (ii)	For Parties with nationally determined contributions that contain non-greenhouse-gas components, information on assumptions and methodological approaches used in relation to those components, as applicable;	Not applicable.
(f) (iii)	For climate forcers included in nationally determined contributions not covered by IPCC guidelines, information on how the climate forcers are estimated;	Not applicable.
(f) (iv)	Further technical information, as necessary;	Not applicable.
(g)	The intention to use voluntary cooperation under Article 6 of the Paris Agreement, if applicable.	Japan will establish and implement the Joint Crediting Mechanism (JCM) in order to quantitatively evaluate the contributions of Japan to greenhouse gas emission reductions and removals which are achieved through the diffusion of, among others, decarbonizing technologies, products, systems, services, and infrastructures as well as through the implementation of measures in global south countries and others, and to use such contributions to achieve Japan's NDC. With these efforts, through public-private collaborations, Japan aims to secure accumulated emission reductions and removals at the level of approximately 100 million t-CO ₂

		<p>by FY 2030 and approximately 200 million t-CO₂ by FY 2040. Japan will appropriately count the acquired credits to achieve its NDC.</p> <p>With regards to the JCM which Japan has initiated to establish, Japan secures environmental integrity and the avoidance of double counting in line with the international rules, including the Paris Agreement. Based on its experience gained through the development and implementation of the JCM, Japan participates in international discussions with regard to Article 6 of the Paris Agreement, thereby taking the lead in the development of appropriate international rules for the use of market mechanisms and its improvement through the implementation.</p> <p>Furthermore, Japan will also make proactive efforts in the area of international cooperation to promote net zero and to improve resilience in global south countries and others, including from developing policies and institutional platforms to promoting sector- and city-level efforts as well as facilitating technology diffusion.</p>
<p>6. How the Party considers that its nationally determined contribution is fair and ambitious in the light of its national circumstances:</p>		

(a)	How the Party considers that its nationally determined contribution is fair and ambitious in the light of its national circumstances;	<p>As ambitious targets aligned with the global 1.5°C goal and on a straight pathway towards the achievement of net zero by 2050, Japan aims to reduce its greenhouse gas emissions by 60 percent in FY 2035 and by 73 percent in FY 2040, respectively, from its FY 2013 levels.</p> <p>At present, while net greenhouse gas emissions in Japan are on a steady downward trend towards the achievement of net zero by 2050, the factors include not only the reduction of energy consumption and decarbonization of electricity, but also the reduction of production volume in the industry sector. Steadily and unflaggingly pursuing the path towards net zero by 2050 while realizing emission reduction and economic growth simultaneously is not an easy task, and it is essential to position net zero as one of the main issues in all socioeconomic activities and to promote the transition to a sustainable and resilient socioeconomic system. In order to achieve this goal, Japan will promote policies that contribute to growth with net zero as the axis, in collaboration with the GX (Green Transformation) policy, which aims to simultaneously achieve stable energy supplies, economic growth, and decarbonization.</p> <p>As a country that supports manufacturing around the world, Japan would like to take a leadership role in the global efforts towards net zero by showing the world that Japan is steadily making progress with an ambitious yet realistic approach.</p>
(b)	Fairness considerations, including reflecting on equity;	<p>Japan's target is highly transparent and concrete, with breakdowns by gases and sectors clearly stated. Each Party's submission and sharing of information by gases and sectors in this manner would contribute to improving transparency, ensuring fairness, and also enabling effective reviews. This would promote gas- and sector-specific actions, which would lead to fair and efficient reductions of global emissions.</p>
(c)	How the Party has addressed Article 4, paragraph 3, of the Paris Agreement;	Refer to 6a.
(d)	How the Party has addressed Article 4, paragraph 4, of the Paris Agreement;	Japan's NDC is an economy-wide absolute emission reduction target.
(e)	How the Party has addressed Article 4, paragraph 6, of the Paris Agreement.	Not applicable.

7. How the nationally determined contribution contributes towards achieving the objective of the Convention as set out in its Article 2:		
(a)	How the nationally determined contribution contributes towards achieving the objective of the Convention as set out in its Article 2;	<p>Refer to 7b.</p> <p>Japan's new NDC and its efforts towards the achievement of net zero by 2050 contribute to the objective of the Convention as set out in its Article 2 to achieve stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.</p>
(b)	How the nationally determined contribution contributes towards Article 2, paragraph 1(a) and Article 4, paragraph 1, of the Paris Agreement.	<p>Japan's new NDC is consistent with the temperature goal of the Paris Agreement as set out in its Article 2, paragraph 1 (a), to hold the increase in the global average temperature to well below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels.</p> <p>Furthermore, this NDC is ambitious as aligned with the global 1.5°C goal and on a straight pathway towards the achievement of net zero by 2050, and contributes to Article 4, paragraph 1 of the Paris Agreement, which stipulates that Parties aim to reach global peaking of greenhouse gas emissions as soon as possible, and to undertake rapid reductions thereafter in accordance with best available science, so as to achieve a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases in the second half of this century.</p>