Submission under the Paris Agreement

The Republic of Korea's 2035 Nationally Determined Contribution (NDC)

December 2025

1. Background

The Republic of Korea has been actively participating in the international community's collective efforts to address climate change since ratifying the United Nations Framework Convention on Climate Change (UNFCCC) in 1993. Following the adoption of the Paris Agreement, a new global agreement for combating climate change in the post-Kyoto Protocol era, the Republic of Korea submitted its Intended Nationally Determined Contribution (INDC) to the UNFCCC in June 2015. Subsequently, in 2016, the Republic of Korea introduced a sectoral implementation plan by establishing *the 2030 Basic Roadmap for Achieving the National Greenhouse Gas Reduction Target*. In the same year, following ratification procedures in the National Assembly, the Paris Agreement entered into force for the Republic of Korea on 3 December, and its INDC was registered as its first NDC. The Republic of Korea had domestically formulated and improved specific policies and measures for implementation of the NDC, including the revision of the 2030 Roadmap in 2018. In accordance with paragraph 24 of decision 1/CP.21, on December 30, 2020, the Republic of Korea communicated its updated NDC that had replaced its BAU-based reduction target with an economy-wide, absolute target so as to contribute to the faithful implementation and achievement of the goals of the Paris Agreement in the lead up to its full implementation.

In the same month, the Republic of Korea declared "2050 Carbon Neutrality" as its national vision and enacted *the Framework Act on Carbon Neutrality and Green Growth for Coping with Climate Crisis (Carbon Neutrality Act)*, becoming the 14th country in the world to enshrine both a 2050 carbon neutrality vision and its implementation framework in legislation. Subsequently, the Republic of Korea communicated its enhanced update of the 2030 NDC which sets an ambitious target of reducing national GHG emissions by 40% from the 2018 level. This was a significantly enhanced target from the previous 24.4% reduction compared to 2017 level (26.3% reduction from 2018 level).

In light of the urgency underscored by the first Global Stocktake (GST) and the importance of advancing toward 2050 carbon neutrality, the Republic of Korea hereby communicates its 2035 NDC.

2. 2035 NDC

Despite challenges that follow having an industrial structure with a high share of manufacturing, the Republic of Korea has adopted a more ambitious target to achieve carbon neutrality by 2050.

In order to align with the temperature goal of the Paris Agreement, as underscored by the first GST, the Republic of Korea's 2035 NDC sets a target at 53 to 61% reduction in net GHG emissions by 2035 compared to the 2018 level (742.3 $MtCO_2eq$). The 53% reduction represents a target along the linear pathway from the base year, 2018, to the target year for carbon neutrality, 2050, while the 61% reduction reflects a more ambitious target enabled by enhanced government efforts, technological innovation and industrial transformation.

In particular, whereas the existing 2030 NDC used total emissions for the base year under the 1996 IPCC guidelines, the new 2035 NDC reflects the 2006 IPCC guidelines, using net emissions for the base year. In doing so, the 2035 NDC demonstrates progression and reflects the ROK's efforts to put forward its highest possible ambition under the Paris Agreement.

To ensure the effective implementation of the 2035 NDC, the Republic of Korea will develop a new roadmap setting out annual and sectoral reduction targets and detailed implementation measures, and will systematically review progress. In addition, the Republic of Korea will formulate the "K-GX (Korea-Green Transformation) Strategy" to generate new growth engines by advancing the transition toward a carbon neutrality and to drive the shift to a decarbonized economy. Through this strategy, the Republic of Korea will promote the decarbonization of existing carbon-intensive industries, while prioritizing the development of green industries and innovative technologies such as solar power, wind power, electric vehicles, batteries and heat pumps, and further strengthening financial and investment support, including transition finance.

Furthermore, the Republic of Korea will pursue measures for a just transition to minimize adverse impacts on vulnerable groups, including protecting workers in regions or industries that may be directly or indirectly affected by the transition to carbon neutrality.

3. Sectoral Mitigation Measures to Achieve the NDC

The sector-specific mitigation measures for achieving the 2035 NDC are outlined below.

- **Power generation**: The Republic of Korea will expand the deployment of renewable energy and reduce coal and other fossil fuel-based power generation. The share of renewables in power generation, which stands at around 9% in 2024, aims to increase to at least 30% by 2035, while coal-fired power generation is expected to be phased down with a view to achieving a coal phase-out by 2040. The Republic of Korea will diversify sites for solar power installations, including agrivoltaics, floating and industrial-complex solar projects, expand onshore and offshore wind power infrastructure, and reinforce the power grid, including through the establishment of an "energy highway."
- **Industry**: The Republic of Korea will promote the low-carbon transition of carbon-intensive industries by decarbonizing fuels and raw materials, improving energy efficiency, and expanding the production of low-carbon products by utilizing circular resources such as steel scrap and waste plastics.

- **Buildings**: The Republic of Korea will mandate zero-energy building standards for newly constructed buildings, while green remodeling of existing buildings will be scaled up. In addition, the government plans to accelerate the deployment of heat pumps as a means of electrifying heat supply.
- **Transport**: The Republic of Korea will expand the deployment of electric and hydrogen vehicles, aiming to increase electric vehicles' share in new passenger car sales to 40% by 2030 and 70% by 2035. At the same time, it will reduce conventional vehicle-kilometers traveled by promoting the use of public transport, while further cutting GHG emissions by improving energy efficiency in railways and aviation and expanding the deployment of eco-friendly ships.
- **Others**: The Republic of Korea will restrict the use of high-GWP refrigerants; improve the treatment of livestock manure through energy recovery facilities; reduce waste generated and expand recycling; increase clean hydrogen production; strengthen forests' role as carbon sinks; use domestic timber; preserve and enhance carbon sinks through afforestation; advance the development and commercialization of CCUS technologies; and implement international mitigation projects under Article 6 of the Paris Agreement.

4. Adaptation

The Republic of Korea is pursuing a wide range of policy efforts to reduce the adverse impacts of the climate crisis on its people. Since the adoption of *the First National Climate Change Adaptation Plan* in 2010, the government has formulated national climate crisis adaptation measures every five years through an inter-ministerial process, and metropolitan and local governments, as well as public institutions, are also required to develop their own adaptation plans.

In 2025, the government adopted *the Fourth National Climate Crisis Adaptation Plan (2026−2030)*. The key elements of the Plan include strengthening design and operation standards for national infrastructure by reflecting future climate risks, based on a whole-of-government cooperation framework, and enhancing the society's overall adaptive capacity to respond to the climate crisis through targeted support measures for vulnerable groups and industries.

Infrastructure such as dams, buildings and harbor, which were previously designed based on past meteorological data, will now be designed in line with revised standards that allow future climate crisis scenarios to be taken into account, and Korea will strengthen rapid early warning systems for floods, wildfires and other hazards by using AI technologies. On the basis of nationwide surveys, the government will expand infrastructure support projects such as shelter, as well as energy voucher programmes to help reduce energy costs for vulnerable groups.

To prepare the industry sector for climate disclosures, Korea plans to establish a "climate risk analysis platform" capable of assessing physical and transitional climate risks, and to provide

tailored meteorological information for industry, including data relevant to renewable energy. To ensure food security, Korea will expand the rollout of smart production systems in rural and fishing communities, alongside measures such as developing climate-resilient crop varieties, securing domestic and overseas stockpiles, and diversifying supply chains.

5. NDC Implementation Framework

The Republic of Korea has established the following implementation framework to support the implementation of its NDC.

First, in accordance with *the Carbon Neutrality Act* the Republic of Korea is pursuing policies to achieve its NDC and 2050 carbon neutrality. The Act not only designates 2050 carbon neutrality as a national vision, but also institutionalizes the setting of annual and sectoral reduction targets, the formulation of national framework plans, and the monitoring of implementation progress. It also provides the legal basis for GHG mitigation policies such as Climate Change Impact Assessments, Greenhouse Gas Reduction Cognitive Budget System, and Greenhouse Gas Emissions Trading System (ETS), as well as for the measures for climate change adaptation and a just transition. On this basis, the Republic of Korea is pursuing economy-wide and society-wide carbon neutrality.

Second, to elaborate annual plans and sectoral strategies to achieve the NDC, the Republic of Korea will expeditiously formulate *the Second National Basic Plan for Carbon Neutrality and Green Growth*. In parallel, to achieve the 2035 NDC target while also creating new engines of growth, the Republic of Korea will develop the "K-GX (Korea−Green Transformation) Strategy." Through this strategy, the Republic of Korea will not only focus on fostering green industries and innovative technologies such as solar power, wind power, power grids, electric vehicles, batteries and heat pumps, but also actively promote the decarbonization of existing industries. To this end, the Republic of Korea will seek to mobilize a range of support measures, including green finance and transition finance, as well as the creation of markets for low-carbon products.

Third, the Republic of Korea is promoting robust fiscal support for the transition to a carbon-neutral society. To secure the financial resources necessary to advance the transition to carbon neutrality and foster green growth, the Republic of Korea established the Climate Response Fund in 2022 under *the Carbon Neutrality Act*, financed in part by the auctioning of allowances under the ETS. The Fund is being used to support GHG reductions across all sectors-including industry, buildings, transport and waste-as well as the creation of a low-carbon industrial ecosystem, R&D of relevant technologies, and a just transition.

In addition, since 2023, the Republic of Korea has been operating a climate-responsive budgeting system. Under this system, government budget programmes which are expected to reduce GHG emissions are identified in advance, and their anticipated annual mitigation impacts or contribution pathways will be assessed. This information is then attached as an annex to the budget and settlement documents. Through this system, the government

conducts ex-ante quantitative assessments of the mitigation effects of fiscal programmes—including expected outcomes, performance targets and impact analyses and evaluates ex post whether public expenditure has been used in a manner that contributes to GHG reduction. Furthermore, through amendments to the Local Finance Act, the Republic of Korea plans to extend this system to sub-national finances.

Fourth, the Republic of Korea is actively utilizing its emissions trading system (K-ETS), which covers 70% or more of national GHG emissions, to promote cost-effective emission reductions based on market mechanisms. In 2024, the Republic of Korea adopted *the Fourth Basic Plan for Emission Trading System (2026−2035)*, setting out the direction for ETS operation over the next decade. In line with the objective of contributing to the achievement of the 2030 NDC, the Plan identifies as key priorities: contributing to the attainment of mitigation targets; providing clear incentives for mitigation efforts; ensuring transparent and sound operation in line with global standards; operating the system on the basis of market principles; and fostering a new carbon-neutral industrial ecosystem. In particular, the Plan stipulates the expansion of differentiated auctioning rates by sector and industry, the inclusion of the Korean Market Stability Reserve (K-MSR) within the overall cap on allowances, and the expansion of emissions allowance auctions and market participants, thereby enhancing the role of market mechanisms under the ETS in contributing to the achievement of the 2030 NDC.

The National Allocation Plan for 4th Commitment Period (2026−2030), adopted in November 2025, specifies the total quantity of allowances as well as the allocation criteria and methods by sector and industry, in line with the overarching principle of contributing to the achievement of the 2030 NDC. In particular, to address the surplus of allowances resulting from oversupply in Phase III (2021−2025)and to maintain allowance prices at levels that support effective mitigation incentives, the total quantity of allowances follows a linear reduction pathway. At the same time, through the introduction of the Korean Market Stability Reserve, the Republic of Korea has enhanced the flexibility of allowance supply so that companies can better respond to fluctuations in emissions associated with economic cycles. Taking into account domestic mitigation conditions and international developments in ETS operation, the Republic of Korea has also decided to increase the auctioning ratio for the power sector to 50% by 2030 (compared with 15% for non-power sectors) and to expand both the coverage and the benchmarks of output-based allocation (benchmark-based allocation), thereby strengthening the policy foundation for achieving the 2030 NDC.

Fifth, as a governance mechanism to collect views from all sectors of society to achieve carbon neutrality, the Republic of Korea operates the Presidential Commission on Carbon Neutrality and Green Growth. The Commission deliberates on and decides major policies and plans related to carbon neutrality. Composed of government officials, experts, youth and future-generation, workers, farmers and civil society members, it collects diverse stakeholder views throughout the carbon-neutrality transition process and reflects them in NDC implementation, thereby enhancing trust and transparency. In particular, from 2026, the Commission will be restructured as the Presidential Commission on Climate Crisis Response, thereby strengthening the function of the Commission.

(Annex) Information to facilitate clarity, transparency and understanding of the Republic of Korea's nationally determined contribution

1. Quantifiable information on the reference point (including, as appropriate, a base year)

	Information	Information submitted by the Republic of Korea
(a)	Reference year(s), base year(s), reference period(s) or other starting point(s)	2018
(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	Base year: 742.3 $MtCO_2eq$ (including LULUCF) Target year: 348.9 ~ 289.5 $MtCO_2eq$ (including LULUCF)
(c)	For strategies, plans and actions referred to in Article 4, paragraph 6, of the Paris Agreement, or polices and measures as components of nationally determined contributions where paragraph 1(b) above is not applicable, Parties to provide other relevant information	N/A
(d)	Target relative to the reference indicator, expressed numerically, for example in percentage or amount of reduction	53−61% reduction in national net GHG emissions by 2035 compared to the 2018 level
(e)	Information on sources of data used in quantifying the reference point(s)	2024 National GHG Inventory Document of the Republic of Korea

(f)	Information on the circumstances under which the Party may update the values of the reference indicators	If emissions calculation method, activity data, and emissions factor are improved, the values of the reference indicators may be updated. The achievement of the Republic of Korea's NDC will be assessed by comparing its net GHG emissions in 2035 with its base year (2018) emissions. The final emission figures for the base year and the target year will be those reported in the National Greenhouse Gas Inventory Report (NID) of the Republic of Korea to be submitted to the UNFCCC in 2037.

2. Time frames and/or periods for implementation

	Information	**Information submitted by the Republic of Korea**
(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)	1 January 2031 – 31 December 2035
(b)	Whether it is a single-year or multi-year target, as applicable	A single-year target in 2035

3. Scope and coverage

	Information	Information submitted by the Republic of Korea
(a)	General description of the target	In order to align with the 1.5°C temperature goal highlighted, as underscored by the first GST, the Republic of Korea's 2035 NDC sets a target at 53 to 61% reduction in net GHG emissions by 2035 compared to the 2018 level (742.3 $MtCO_2eq$). The 53% reduction represents a target along the linear pathway from the base year, 2018, to the target year for carbon neutrality, 2050, while the 61% reduction reflects a more ambitious target enabled by enhanced government efforts, technological innovation and industrial transformation.
(b)	Sectors, gases, categories and pools covered by the nationally determined contribution, including, as applicable, consistent with Intergovernmental Panel on Climate Change (IPCC) guidelines	Sectors: Energy, Industrial Process and Product Use (IPPU), Agriculture, Land Use Land Use Change and Forestry (LULUCF) and Waste Gases: Carbon dioxide (CO_2), Methane (CH_4), Nitrous Oxide (N_2O), Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs), Sulphur hexafluoride (SF_6), Nitrogen trifluoride (NF_3)
(c)	How the Party has taken into consideration paragraph 31(c) and (d) of decision 1/CP.21	Emissions and removals from all sectors and gases are covered.
(d)	Mitigation co-benefits resulting from Parties' adaptation actions and/or economic diversification plans, including description of	N/A

	specific projects, measures and initiatives of Parties' adaptation actions and/or economic diversification plans.	

4. Planning processes

	Information	Information submitted by the Republic of Korea
(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:	
(i)	Domestic institutional arrangements, public participation and engagement with local communities and indigenous peoples, in a gender-responsive manner	**< NDC planning process >** The Republic of Korea submitted its Intended Nationally Determined Contribution (INDC) in 2015, setting a target of reducing its GHG emissions by 37% from the business-as-usual (BAU) projection by 2030. In 2016, the Republic of Korea introduced *the 2030 Basic Roadmap for Achieving the National Greenhouse Gas Reduction Target*, which set out mitigation plans for 8 sectors and 30 industries, and confirmed the previously submitted INDC as its first NDC. In 2018, through *the Revised Basic Roadmap for Achieving the 2030 National Greenhouse Gas Reduction Target*, the Republic of Korea added intermediate milestones at three-year intervals to provide clearer policy direction for emissions reductions and

		substantially reduced the share of overseas mitigation, while increasing the share of domestic mitigation. In 2020, in order to enhance the clarity and transparency of its mitigation target, the Republic of Korea converted its target-setting approach from a BAU-based to an absolute emissions-based target and finalized its 2030 NDC, which set a target of reducing emissions by 24.4% from 2017 level (26.3% reduction from 2018 level). The Republic of Korea submitted its 2030 NDC and *2050 Long-term Low Greenhouse Gas Emission Development Strategy (LEDS)*, which presented the vision of achieving carbon neutrality by 2050. In 2021, the Republic of Korea developed the 2050 carbon-neutrality scenarios and an enhanced update of its 2030 NDC. By enacting *the Framework Act on Carbon Neutrality and Green Growth for Coping with Climate Crisis (Carbon Neutrality Act),* the Republic of Korea enshrined 2050 carbon neutrality as a national vision. Contributing to the global response to the climate crisis, the Republic of Korea significantly raised its 2030 NDC to a 40% reduction from 2018 total emissions and submitted the enhanced target to the UNFCCC. In 2023, the Republic of Korea formulated *the First National Basic Plan for Carbon Neutrality and Green Growth*, which sets

		out annual and sector-specific mitigation targets and implementation measures. From 2024, the government launched technical assessments for the formulation of the 2035 NDC by establishing a technical working group and an external advisory group comprising experts from national research institutes, industry, academia and other stakeholders. Over the course of more than 100 meetings, the Republic of Korea developed mid to long term emissions projections and analyzed sector-specific mitigation options and potentials. During the process of formulating the 2035 NDC, the government also convened six rounds of public debates to discuss various mitigation options and levels of ambition put forward by industry, civil society, the international community and other stakeholders. Relevant ministries, including the Ministry of Climate, Energy and Environment, the Ministry of Trade, Industry and Resources, and the Ministry of Land, Infrastructure and Transport, took into account the diverse stakeholder views expressed during these debates in developing the 2035 NDC. As a result, in order to align with the 1.5°C temperature goal highlighted in the GST, the Republic of Korea set its NDC target as a 53−61% reduction in national net GHG gas emissions by

		2035 compared to the 2018 level of 742.3 $MtCO_2eq$. In particular, unlike the 2030 NDC, the 2035 NDC defines its mitigation target as a range, taking into account uncertainties such as the pace of technological development. The lower bound of 53% corresponds to the linear pathway between the 2018 base year and the 2050 carbon neutrality target year, while the upper bound of 61% assumes enhanced government efforts, technological innovation and structural transformation of industry. This target was finalized on 11 November 2025 following public hearings and deliberation and approval by the Presidential Commission on Carbon Neutrality and Green Growth and the Cabinet. < Sectoral mitigation measures to achieve NDC > The sector-specific mitigation measures for achieving the 2035 NDC are outlined as below: In the power generation sector, the Republic of Korea will expand the deployment of renewable energy and reduce coal and other fossil fuel-based power generation. The share of renewables in power generation, which stood at around 9% in 2024, aims to increase to at least 30% by 2035, while coal-fired power generation is expected to be phased down with a view to achieving a coal phase-out by 2040. The Republic of Korea will

		diversify sites for solar power installations, including agrivoltaics, floating and industrial-complex solar projects, expand onshore and offshore wind power infrastructure, and reinforce the power grid, including through the establishment of an energy highway. In the industrial sector, the Republic of Korea will promote the low-carbon transition of carbon-intensive industries by decarbonizing fuels and raw materials, improving energy efficiency, and expanding the production of low-carbon products by utilizing circular resources such as steel scrap and waste plastics. In the buildings sector, zero-energy building standards will be mandated for new constructions, while green remodeling of existing buildings will be scaled up. In addition, the government plans to accelerate the deployment of heat pumps as a means of electrifying heat supply. In the transport sector, the Republic of Korea will expand the deployment of electric and hydrogen vehicles, aiming to increase electric vehicles' share in new passenger car sales to 40% by 2030 and 70% by 2035. At the same time, it will reduce conventional vehicle-kilometers traveled by promoting the use of public transport, while further cutting GHG emissions by improving energy efficiency in railways and aviation and

		expanding the deployment of eco-friendly ships. In addition, the Republic of Korea will pursue further GHG reductions by: restricting the use of high-GWP refrigerants; improving the treatment of livestock manure through energy recovery facilities; reducing waste generated and expanding recycling; increasing the production of clean hydrogen; strengthening forests' role as carbon sinks; using domestic timber; preserving and enhancing carbon sinks through afforestation; advancing the development and commercialization of CCUS technologies; and implementing international mitigation projects under Article 6 of the Paris Agreement.
(ii)	Contextual matters, including, inter alia, as appropriate	
a.	National circumstances, such as geography, climate, economy, sustainable development and poverty eradication	The territory of the Republic of Korea consists of the Korean Peninsula and its adjacent islands, with a total area of 223,663km², about 63% of which is covered by forests. Located in the mid-latitude temperate climate zone, the Republic of Korea has four distinct seasons, and its average annual temperature over the past 30 years (1994−2023) has been around 12.7°C. As of 2024, the total population of the Republic of Korea is approximately 51.75 million, its nominal gross domestic product

		(GDP) stands at 2,556.9 trillion KRW, and its economic growth rate (real GDP growth) is recorded at 2.0%. Manufacturing accounts for 27.6% of GDP, while exports account for about 36% of GDP, indicating an economic structure with a high share of manufacturing and a strong dependence on exports. The Republic of Korea ratified the Paris Agreement in November 2016, declared 2050 carbon neutrality in 2020, and has formulated its 2030 NDC and 2035 NDC in line with the principle of progression, thereby making proactive efforts to contribute to the global response to the climate crisis.
b.	Best practices and experience related to the preparation of the nationally determined contribution	The Republic of Korea, as a responsible member of the international community, is striving to contribute to global GHG mitigation. Following the declaration of carbon neutrality by 2050 in 2020, the Republic of Korea enacted *the Carbon Neutrality Act*, establishing 2050 carbon neutrality as a national vision, and set up the 2050 Carbon Neutrality and Green Growth Commission, a public-private joint governance body tasked with steering carbon neutrality policies. From the early stages of its preparation, the 2035 NDC was developed on the basis of analyses of projected emissions, sector-specific mitigation options and mitigation potentials, conducted together with experts, industry and academia. The government has also sought to engage closely with a wide range

		of stakeholders, including civil society, future generations and the industry, through public debates and hearings. In particular, the 2035 NDC sets a target of reducing net GHG emissions by 53−61% from 2018 level, representing a clear progression from the 2030 NDC target of 40% reduction from 2018 levels. With an economic structure characterized by a high share of manufacturing and strong export dependence, the Republic of Korea aims to achieve reductions of up to 61% through the expansion of renewable energy, the decarbonization of industry and technological innovation, thereby contributing to the Paris Agreement's goal of limiting the increase in the global average temperature. Furthermore, whereas the existing 2030 NDC set its mitigation target against the base-year total emissions in line with the 1996 IPCC Guidelines, the 2035 NDC reflects the 2006 IPCC Guidelines and sets its mitigation target against the base-year net emissions, thus representing a more ambitious target. To ensure the systematic implementation of the NDC and the achievement of carbon neutrality, the Republic of Korea has formulated *the National Basic Plan for Carbon Neutrality and Green Growth*, which sets out annual and sector-specific mitigation targets and implementation measures, and conducts annual reviews of implementation to identify necessary improvements. Building on the newly established 2035 NDC,

		the Republic of Korea will prepare a new *National Basic Plan for Carbon Neutrality and Green Growth* and further strengthen implementation monitoring, including by assessing implementation progress at an early stage, supplementing underperforming mitigation measures in advance, and introducing new measures where necessary.
c.	Other contextual aspirations and priorities acknowledged when joining the Paris Agreement	N/A
(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	N/A
(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	The Republic of Korea fully recognizes the importance of the GST under Article 14 of the Paris Agreement, and, reflecting the outcomes of the first GST concluded in 2023, has decided to set its 2035 NDC at a 53−61% reduction from 2018 levels, covering all greenhouse gases and all sectors. In particular, the upper end of the target range, 61%, reflects a more ambitious target

		enabled by enhanced government efforts, industrial transformation and technological innovation. In addition, as set out in paragraph 28 of the decision 1/CMA.5 on the outcome of the first GST, the Republic of Korea plans to contribute to global efforts to transition away from fossil fuels, scale up renewable energy capacity and improve energy efficiency.
(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	
(i)	How the economic and social consequences of response measures have been considered in developing the nationally determined contribution	N/A
(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,	N/A

	tourism, real estate, agriculture and fisheries	

5. Assumptions and methodological approaches, including those for estimating and accounting for anthropogenic greenhouse gas emissions and, as appropriate, removals

	Information	Information submitted by the Republic of Korea
(a)	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	The Republic of Korea's current national GHG inventory has been prepared on the basis of the 2006 IPCC Guidelines, in accordance with paragraphs 17 and 20 of the MPGs, while for certain emission sources, the latest methodologies from the 2019 Refinement have been applied.
(b)	Assumptions and methodological approaches used for accounting for the implementation of policies and measures or strategies in the nationally determined contribution	N/A
(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	In accordance with the Paris Agreement guidance (decisions 4/CMA.1 and 18/CMA.1), the Republic of Korea compiles its national GHG statistics based on the 2006 IPCC Guidelines, while applying the 2019 Refinement and the 2013 Wetlands Supplement to certain emission sources.

(d)	IPCC methodologies and metrics used for estimating anthropogenic greenhouse gas emissions and removals	The Republic of Korea has applied the inventory methodologies of the 2006 IPCC Guidelines, in accordance with paragraphs 17 and 20 of the MPGs, to estimate anthropogenic GHG emissions by sources and removals by sinks. For more accurate estimates, the Republic of Korea has, in a supplementary manner, applied advanced methodologies from the 2013 Supplement to the 2006 IPCC Guidelines for Wetlands and the 2019 Refinement to selected source categories. The 2013 Wetlands Supplement has been applied to the LULUCF coastal wetlands subcategory (4.D.1.c.i.), specifically for the methodologies and CO_2 emission factors used to estimate CO_2 emissions and removals from tidal wetlands. The 2019 Refinement has been applied to the following: CO_2 and CH_4 emission factors for the underground coal mines subcategory (1.B.1.a.i.) in the energy fugitive emissions sector; methodologies for estimating N_2O emissions from manure management (3.B.) in the agriculture sector; and the methodologies and emission factors for estimating CO_2 emissions and removals for harvested wood products (4.G.) in the LULUCF sector. In addition, to quantify the impact of each GHG on climate change, the Republic of Korea has applied 100-year global warming potentials from the IPCC Fifth Assessment Report (AR5), in accordance with paragraph 37 of the MPGs.

(e)	Sector-, category- or activity-specific assumptions, methodologies and approaches consistent with IPCC guidance, as appropriate, including, as applicable	
(i)	Approach to addressing emissions and subsequent removals from natural disturbances on managed lands;	The Republic of Korea does not estimate information on emissions and subsequent removals resulting from natural disturbances.
(ii)	Approach used to account for emissions and removals from harvested wood products	The Republic of Korea has estimated emissions and removals from harvested wood products using the production approach set out in the 2019 Refinement.
(iii)	Approach used to address the effects of age-class structure in forests	The Republic of Korea's forests are largely concentrated within certain age classes as a result of large-scale national reforestation efforts carried out in the 1970s and 1980s. To secure stable carbon removals, the Republic of Korea is continuously managing its forests so as to improve the age-class structure and maintain a sustainable level of forest carbon sinks.
(f)	Other assumptions and methodological approaches used for understanding the nationally determined contribution and, if applicable, estimating corresponding emissions and removals, including	
(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,	The base indicator for the Republic of Korea's NDC is the 2018 national net GHG emissions, including LULUCF, as reported in the 2024 National Greenhouse Gas Inventory Report (NID). This report has been prepared and submitted in accordance with

	methodologies, data sources and models used	the relevant IPCC Guidelines.
(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	N/A
(iii)	For climate forcers included in nationally determined contributions not covered by IPCC guidelines, information on how the climate forcers are estimated	N/A
(iv)	Further technical information, as necessary	N/A
(g)	The intention to use voluntary cooperation under Article 6 of the Paris Agreement, if applicable	The Republic of Korea intends to make use of voluntary cooperation under Article 6 of the Paris Agreement.

6. How the Party considers that its nationally determined contribution is fair and ambitious in the light of its national circumstances

	Information	Information submitted by the Republic of Korea
(a)	How the Party considers that its nationally determined contribution is fair and ambitious in the light of its national circumstances	The Republic of Korea has a high share of manufacturing in its economy, with manufacturing accounting for 27.6% of GDP, and its key industries—such as steel, petrochemicals, oil refining and cement—are largely made up of carbon-intensive sectors. In particular, the top four high-emitting industries account for 74.7% of GHG emissions from the industrial sector as of 2024, and these industries are also export-oriented. As a result, the Republic of Korea has an economic structure that is highly dependent on manufacturing and exports, making it relatively challenging to mitigate GHG emissions. The Republic of Korea's GHG emissions had increased with its economic growth, but the rate of increase began to slow in the 2000s, and after peaking in 2018, emissions shifted to a downward trend. In particular, since reaching this emissions peak in 2018, emissions have decreased even as GDP has continued to grow, indicating a decoupling of economic growth from emissions. This reflects the impact of GHG mitigation measures, including the shutdown of aged coal-fired power plants, the expansion of the foundation for renewable energy deployment, and support for technological development and

		investment in the industrial sector. The Republic of Korea has declared its commitment to achieving carbon neutrality by 2050 in order to further accelerate this decoupling trend and actively contribute to the global response to the climate crisis. As intermediate milestones towards this goal, the Republic of Korea has established its 2030 NDC and 2035 NDC. The 2035 NDC sets a target of reducing net GHG emissions by 53−61% from 2018 level. In particular, by assuming enhanced government efforts, structural transformation of industry and technological innovation, the upper bound of the target range has been set at 61%, reflecting the Republic of Korea's strong mitigation ambition. Compared to the 2030 NDC, the 2035 NDC is particularly significant in that it further strengthens the mitigation target under challenging circumstances by setting its mitigation target to net emissions basis and aligning statistical methodologies with the 2006 IPCC Guidelines. To ensure the effective implementation of the 2035 NDC, the Republic of Korea will develop a new roadmap that sets out annual and sector-specific mitigation targets and accompanying implementation measures, and will systematically monitor implementation progress. In addition, the Republic of Korea will formulate the "K-GX (Korea-Green Transformation)

		Strategy" to generate new growth engines by advancing the transition toward a carbon neutrality and to drive the shift to a decarbonized economy. Through this strategy, the Republic of Korea will place a particular focus on fostering green industries and innovative technologies such as solar power, wind power, electric vehicles, batteries and heat pumps, while also strengthening fiscal and financial support - including green finance and transition finance for the decarbonization of all sectors. At the same time, the Republic of Korea will implement measures to ensure a just transition and to protect vulnerable groups throughout this process.
(b)	Fairness considerations, including reflecting on equity	The Republic of Korea also plans to put in place support measures to protect vulnerable industries, regions and workers that may be directly or indirectly affected by the transition to a carbon-neutral society. For example, in the case of fossil fuel-based power generation companies and internal combustion engine vehicle manufacturing and maintenance businesses, the government intends to support job transitions and retraining for affected workers, provide assistance for local economies, and promote the shift towards new industries. In addition, since 2010, the Republic of Korea has adopted five rounds of national climate crisis adaptation measures, through which it has been implementing policies to protect and support

		populations vulnerable to the climate crisis. From 2026, the government plans to expand nationwide surveys on climate-vulnerable groups. To enhance the adaptive capacity of those vulnerable to the climate crisis, the government is supporting the installation of tailored climate adaptation infrastructure such as heat-shield coating, cooling shelters and green roofs and walls on buildings, and it will continue to provide support for climate adaptation among energy-vulnerable households, including assistance for cooling and heating costs and improvements to residential energy facilities.
(c)	How the Party has addressed Article 4, paragraph 3, of the Paris Agreement	While the Republic of Korea's 2030 NDC aims for a 40% reduction from total 2018 emissions, the 2035 NDC significantly raises this ambition by targeting a 53−61% reduction from 2018 net emissions. As a result, the target range for net emissions in 2035 is 348.9 to 289.5 million tonnes, representing a reduction of approximately 300 to 360 million tonnes compared with the 2024 net emissions level of 651.4 million tonnes. In particular, unlike the 2030 NDC, the 2035 NDC is based on net emissions and reflects the 2006 IPCC Guidelines for national GHG inventories, which underscores the enhanced nature of the Republic of Korea's mitigation efforts for 2035.

(d)	How the Party has addressed Article 4, paragraph 4, of the Paris Agreement	The Republic of Korea's NDC has been established on the basis of an economy-wide absolute emissions reduction target.
(e)	How the Party has addressed Article 4, paragraph 6, of the Paris Agreement.	N/A

7. How the nationally determined contribution contributes towards achieving the objective of the Convention as set out in its Article 2

	Information	**Information submitted by the Republic of Korea**
(a)	How the nationally determined contribution contributes towards achieving the objective of the Convention as set out in its Article 2	The Republic of Korea has declared its commitment to achieving carbon neutrality by 2050, in line with the IPCC's recommendation for limiting the increase in the global average temperature to 1.5°C, and has submitted its 2035 NDC as an intermediate target towards this goal. The 2035 NDC aims to reduce net GHG emissions by 53−61% from 2018 levels, taking into account best available science, as reflected in relevant IPCC reports. Through this target, the Republic of Korea will contribute to the Paris Agreement's objective of limiting the rise in the global average temperature.

(b)	How the nationally determined contribution contributes towards Article 2, paragraph 1(a), and Article 4, paragraph 1, of the Paris Agreement	The Republic of Korea will make every effort to achieve its 2050 carbon neutrality target. This aim is consistent with the shared goal of the international community to reach carbon neutrality in the second half of this century and contributes to the achievement of the objectives set out in Articles 2.1 and 4.1 of the Paris Agreement. In particular, to ensure the full achievement of the 2035 NDC - a key interim milestone on the pathway to 2050 carbon neutrality - the Republic of Korea will specify annual and sector-specific mitigation targets and implementation roadmaps, and will establish the "K-GX (Korea-Green Transformation) Strategy" as a lever for realizing a carbon-neutral society and advancing the country's transition to a decarbonized civilization.