Submission by the Republic of Korea

Intended Nationally Determined Contribution

In accordance with decisions 1/CP.19 and 1/CP.20, the Republic of Korea hereby communicates its Intended Nationally Determined Contribution (INDC) towards achieving the objective of the United Nations Framework Convention on Climate Change as set out in its Article 2, as well as accompanying information to facilitate clarity, transparency, and understanding of its INDC.

1. Korea's Mitigation Target

Korea plans to reduce its greenhouse gas emissions by 37% from the business-as-usual (BAU, 850.6 $MtCO_2eq$) level by 2030 across all economic sectors.

In accordance with the Framework Act on Low Carbon, Green Growth, Korea has made continued efforts to address climate change across all economic sectors and will strengthen its efforts to achieve the 2030 mitigation target.

<table>
<tr><td>Baseline</td><td>($MtCO_2eq$)<table><tr><td>Year</td><td>2020</td><td>2025</td><td>2030</td></tr><tr><td>BAU</td><td>782.5</td><td>809.7</td><td>850.6</td></tr></table>The scenario is based on the BAU projection of KEEI-EGMS (the Korea Energy Economics Institute Energy and GHG Modeling System), taking into account projections for key economic variables, including population, GDP, industrial structure and oil price.</td></tr>
<tr><td>Reduction Level</td><td>Emission reduction by 37% from the BAU level by 2030</td></tr>
<tr><td>Coverage</td><td>Economy-wide</td></tr>
<tr><td>Sectors</td><td>Energy, industrial processes and product use, agriculture and waste (A decision on whether to include land use, land-use change and forestry (LULUCF) will be made at a later stage.)</td></tr>
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Gases	• Carbon Dioxide (CO_2) • Methane (CH_4) • Nitrous Oxide (N_2O) • Hydrofluorocarbons (HFCs) • Perfluorocarbons (PFCs) • Sulphur hexafluoride (SF_6)
Metric	Global Warming Potential (GWP) values from the IPCC Second Assessment Report (1995) used to calculate CO_2 equivalents
Inventory Methodology	• Consistent with methodologies used in Korea's Biennial Update Report (BUR) submitted in December 2014 • 1996 IPCC Guidelines used in general to calculate greenhouse gas emissions and sinks • 2006 IPCC Guidelines used to calculate greenhouse gas emissions from rice cultivation in agriculture (4C) and other waste (6D)
International Market Mechanism	Korea will partly use carbon credits from international market mechanisms to achieve its 2030 mitigation target, in accordance with relevant rules and standards.
Land Sector	In assessment of mitigation performance, a decision will be made at a later stage on whether to include greenhouse gas emissions and sinks of the land sector as well as the method for doing so.

2. Planning Process

2.1 Planning Process for the 2030 mitigation target

In preparation of its INDC, Korea established a dedicated task force comprising relevant ministries, including the Ministry of Environment (MOE) and the Ministry of Trade, Industry and Energy (MOTIE), chaired by the Prime Minister's Office.

A technical analysis for setting the 2030 mitigation target was conducted by a Joint Working Group of national research institutions, including the Greenhouse Gas Inventory & Research Center of Korea (GIR) and the Korea Energy Economics Institute (KEEI).

The results of the technical analysis of the Joint Working Group were reviewed by a group of experts put forward by different stakeholder groups such as business and civil society. The Korean government also collected feedback from various stakeholders through public hearings and a forum hosted by the National Assembly.

On that basis, the 2030 mitigation target was reviewed by the Committee on Green Growth, and finalized in accordance with national authorization procedures.

2.2 Sectoral measures for mitigation

Korea announced its voluntary mitigation target in 2009 to reduce greenhouse gas emissions by 30% from the business-as-usual (BAU) level by 2020. The target was stipulated in the Framework Act on Low Carbon, Green Growth which came into effect in April 2010.

Furthermore, Korea has continued its efforts to provide a legislative framework and national plans for addressing climate change. The Korean government finalized sectoral and annual targets in July 2011, and announced the National Greenhouse Gas Emissions Reduction Roadmap in January 2014 for sectoral action plans and their implementation.

In 2012, Korea launched the GHG and Energy Target Management System (TMS) for the industrial sector. The reduction through the TMS exceeded its industrial sectoral target for mitigation. In promoting cost-effective measures for mitigation, Korea adopted the Act on the Allocation and Trading of Greenhouse Gas Emission Permits in 2012, and launched a nation-wide Emissions Trading Scheme (ETS) in 2015. The ETS covers 525 business entities which account for 67.7% of national greenhouse gas emissions.

Korea obligated the power generators to supply a portion of electricity from renewable sources and is increasing the production of renewable energy in order to reduce greenhouse gas emissions from fossil fuel. The Korean government also supports the installation of facilities for the generation of renewable energy.

In the building sector, the Korean government is seeking to manage energy efficiency from the design stage to the operation stage by means such as establishing the Green Building Standards Code and a system for the Performance Evaluation of Eco-friendly Homes.

In the transport sector, the Korean government is continuing to expand infrastructure for environment-friendly public transportation, while introducing low-carbon standards for fuel efficiency and emissions produced from automobiles. The Korean government has decided to strengthen the average emission standard from 140g/km in 2015 to 97g/km in 2020. The Korean government provides various incentives, including tax reductions for electric and hybrid vehicles in order to promote low-carbon vehicles.

While implementing sectoral measures for mitigation, Korea established a domestic measurement, reporting, and verification (MRV) system to monitor businesses with large amounts of greenhouse gas emissions in the industry, power generation, building and transport sectors.

2.3 Follow-up for the implementation of the 2030 mitigation target

The Korean government will develop a detailed plan to implement the mitigation target in consultation with relevant stakeholders, once the mitigation target is finalized at the international level.

3. Adaptation

Recognizing the urgent need to address climate change and reduce its adverse effects, Korea developed the National Climate Change Adaptation Plan in 2010, which is currently being implemented.

In acknowledgement of their significant roles in adaptation, subnational and local governments are mandated to develop their own action plans for climate change adaptation by 2015 tailored to the local context.

At the national level, Korea is developing guidance and tools to support the assessment of vulnerability and risks, and is implementing projects on research and development for comprehensive and quantitative analysis of climate change impacts.

In order to promote a Climate Friendly and Safe Society, Korea aims to strengthen its capacity for climate change adaptation by implementing the following strategic actions:

- Strengthening infrastructure for climate change monitoring, forecasting and analysis;
- Developing a management system for disaster prevention and stable water supply;
- Developing a climate-resilient ecosystem;
- Making a systemic transition to a climate-resilient social and economic structure; and
- Enhancing the system for the management of negative impacts of climate change on health

4. Fairness and Ambition

Korea accounts for approximately 1.4% of global greenhouse gas emissions (including LULUCF, according to the WRI CAIT 3.0), but has set a fair and ambitious target to the extent possible. Korea will make continued efforts to implement the mitigation target.

Korea's mitigation potential is limited due to its industrial structure with a large share of manufacturing (32% as of 2012) and the high energy efficiency of major industries. Given the decreased level of public acceptance following the Fukushima accident, there are now limits to the extent that Korea can make use of nuclear energy, one of the major mitigation measures available to it.

Despite the challenges, Korea has set a target for 2030, which is expected to be in line with the recommendations of the IPCC Fifth Assessment Report to reduce global greenhouse gas emissions by 40-70% from 2010 levels by 2050.

In order to achieve the objective of the United Nations Framework Convention on Climate Change of holding the increase in the global average temperature below 2°C above pre-industrial levels, Korea also aims to reduce its greenhouse gas emissions in a manner consistent with the recommendations of the IPCC Fifth Assessment Report.