



NDC CHECKLIST

The Republic of Korea Analysis

WWF'S NDC RATING GRADES

- ✔ NDC We Want
- ⓘ Short Way to Go
- / Some Way to Go
- ✗ Long Way to Go
- ✘ NDC We Don't Want

| | | 2016 NDC | 2020 NDC | Analysis |
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| AMBITION | | | | |
| MITIGATION | | | | |
| 1 | Strengthened mitigation targets | <p>The Republic of Korea plans to reduce its greenhouse gas emissions by 37% from the business-as-usual (850.6 MtCO₂eq) level by 2030 across all economic sectors.</p> <p>The scenario is based on the BAU projection of the Korea Energy Economics Institute Energy and GHG Modeling System (KEEI-EGMS), taking into account projections for key economic variables, including population, GDP, industrial structure and oil price.</p> | <p>The updated target is to reduce 24.4% from the total national GHG emissions in 2017, which is equivalent to 709.1 MtCO₂eq (excluding LULUCF), by 2030. The Republic of Korea aims to limit the national GHG emissions to 536 MtCO₂eq by 2030 and enhance capacity of all sectors to implement the Paris Agreement.</p> <p>This is an absolute emissions reduction target that is more predictable and transparent than the target relative to Business-As-Usual (BAU) emissions projection in the previous first NDC. The updated target also includes an increased share of domestic reduction.</p> | <p>South Korea did not enhance its ambition. An analysis by CAT (2021) concludes that the updated NDC does not change the targeted 2030 emissions level in absolute terms. The updated NDC aims for a reduction of 24.4% below 2017 levels by 2030, whereas the previous NDC set the goal of reducing business-as-usual emissions by 37% by 2030. Both targets lead to an emissions level of 540 MtCO₂e by 2030.</p> |
| 2 | An economy-wide absolute 2030 target | Economy-wide absolute target to reduce greenhouse gas emissions by 37% from the business-as-usual (850.6 MtCO ₂ eq) level by 2030. | Economy-wide absolute 2030 target to reduce emissions by 24.4% from the total national GHG emissions in 2017. | Both NDCs present economy-wide targets. The Republic of Korea has replaced its BAU-based reduction target with an economy-wide absolute emissions reduction target. |
| 3 | A 2021-2030 carbon budget aligned to 1.5°C | Not mentioned. | The 2nd Basic Plan for Climate Change Response envisions a sustainable and low-carbon green society. Under this vision, the Republic of Korea aims to limit the national GHG emissions to 536 MtCO ₂ eq by 2030 | The 2020 presents a carbon budget for 2030, but not aligned to 1.5 according to CAT (2021). |

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| 4 | <p>NDC targets aligned to a 2050 or earlier Net-Zero Long-term Strategy</p> | <p>Not mentioned.</p> | <p>The NDC mentions that from 2021, the Republic of Korea plans to analyze 2050 carbon neutrality scenarios as well as 2030 emissions reduction potentials for the consideration of raising its ambition level in further updating its 2030 target. To lay a more solid foundation for carbon neutrality by 2050, the Korean government will further raise its ambition level for its 2030 national GHG reduction target and communicate a further updated NDC at the earliest possible time before 2025.</p> | <p>Both NDCs signal an interest in reaching a net-zero target by 2050. Although not mentioned in the 2020 NDC, the Republic of Korea submitted a comprehensive long-term strategy to UNFCCC, called "2050 Carbon Neutral Strategy of the Republic of Korea towards a sustainable and green society" in December 30 2020, the same date in which the new NDC was submitted. In fact, President Moon Jae-in had announced the commitment to achieving carbon neutrality by 2050 previously in October 28, 2020.</p> |
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| ADAPTATION | | | | |
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| 5 | Clear adaptation objectives | <p>The NDC mentions that the Republic of Korea developed the National Climate Change Adaptation Plan in 2010 and that it is under implementation. 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.</p> <p>Korea aims to strengthen its capacity for climate change adaptation by implementing the following strategic actions:</p> <ul style="list-style-type: none"> i) Strengthening infrastructure for climate change monitoring, forecasting and analysis; ii) Developing a management system for disaster prevention and stable water supply; iii) Developing a climate-resilient ecosystem; iv) Making a systemic transition to a climate-resilient social and economic structure; and v) Enhancing the system for the management of negative impacts of climate change on health. | <p>The Republic of Korea established the 1st National Climate Change Adaptation Plan for 2011–2015 in 2010 and its implementation has been continuously monitored and evaluated. The 3rd National Climate Change Adaptation Plan for 2021-2025 was laid out in 2020. During the course of the policy design, a national climate change risk assessment was conducted in 2019. In July 2020, the 2020 Korea's Climate Change Assessment Report, a comprehensive survey on the impact of climate change and vulnerabilities in such sectors as water management, ecosystem, health, and agriculture and fishery, was published. The assessment and research results served as valuable inputs to mapping out detailed implementation measures to enhance climate resilience across all sectors.</p> <p>The NDC also mentions initiatives such as the Korea Adaptation Center for Climate Change, a think tank that provides systematic support for the country's adaptation policy and research activities, and global events on adaptation. The Korean government made adaptation planning a legal obligation of municipal and local governments in 2012 and 2015, respectively. Accordingly, 17 municipal governments and 226 local governments have established and implemented their own adaptation measures.</p> | <p>The NDC mentions priority sectors and developments in adaptation planning, as well as the engagement of municipal and local governments and other stakeholders, with the support of the Federal Government.</p> |

| FINANCE | | | | |
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| 6 | Finance Commitments | Not mentioned | The NDC mentions the Green New Deal 3 key pillars; green transition in cities/spatial planning/living infrastructure, diffusion of low-carbon and distributed energy, and establishment of innovative green industry ecosystems. A total of KRW 73.4 trillion will be invested by 2025 and the Green New Deal will facilitate GHG emissions reduction and help sustaining climate-resilient recovery. | A total cost for the implementation of the NDC is not mentioned. The NDC brings a figure for the implementation of the Green New Deal project, "an additional countermeasure to accelerate actions for its implementation". It also mentions that the Republic of Korea has been operating a series of international programs to support developing countries' capacity-building for adaptation. |
| 7 | Clear conditional targets | N/A | N/A | N/A |
| 8 | Moving from conditional to unconditional targets | N/A | N/A | N/A |
| FOSTERING SYSTEMIC CHANGE | | | | |
| 9 | Increased sectoral coverage | Economy-wide sectoral coverage, including the sectors of energy; industrial processes and product use; agriculture; and waste. It is mentioned that a decision on whether to include land use, land-use change and forestry (LULUCF) will be made at a later stage, as well as the method for doing so. | Economy-wide sectoral coverage, including the sectors of energy; industrial processes; agriculture; LULUCF; and waste. | Both NDCs present an economy-wide sectoral coverage. |

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| 10 | Quantitative Sectoral targets | <p>The NDC mentions that 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.</p> <p>It is mentioned that in the transport sector, the government is continuing to expand infrastructure for environment-friendly public transportation, while introducing low-carbon standards for fuel efficiency and emissions produced from automobiles; and that it provides various incentives, including tax reductions for electric and hybrid vehicles.</p> | <p>The NDC mentions that mitigation measures in the transformation sector (electricity and heating) include a significant reduction of coal power generation (e.g. ban on constructing new coal-fired power plants, additional reduction of existing coal power plants, conversion to eco-friendly fuels such as LNG) as well as the scale-up of renewable energy (to increase the share of renewable energy up to 20% by 2030 and 30-35% by 2040).</p> <p>In the transport sector, the Republic of Korea has set the target of deploying 3 million units of electric vehicles and 850,000 hydrogen vehicles by 2030 with a view to scaling up the deployment of zero-emission vehicles.</p> <p>The NDC informs that under the Green New Deal, the solar and wind power capacity is expected to increase three-fold from the 2019 level by 2025 (from 12.7GW to 42.7GW) and smart meters will be provided for 5 million household units of apartment. For future mobility, the government plans to deploy 1.13 million electric vehicles and 200,000 hydrogen vehicles, and their charging infrastructures (45,000 charging equipment, 450 hydrogen fueling stations, hydrogen production bases, etc.). For the building sector, a total of KRW 20 trillion will be invested in green remodeling of 225,000 public rental homes and 2,000 public buildings (daycare centers, healthcare centers, etc.) used by vulnerable populations, and transformation of 2,890 units of school into green smart schools.</p> | <p>The 2020 NDC advances by presenting some quantitative sectoral targets and the Green New Deal, the national policy to guide the objectives and targets within national sectors.</p> |
| 11 | Key structural sectors included | <p>The National Adaptation Plan mentions enhancing the system for the management of negative impacts of climate change on health as a strategic action.</p> | <p>It is mentioned that in July 2020, the 2020 Korea's Climate Change Assessment Report, a comprehensive survey on the impact of climate change and vulnerabilities, addressing the health and other sectors, was published. The assessment and research results served as valuable inputs to mapping out detailed implementation measures to enhance climate resilience across all sectors.</p> | <p>The 2015 NDC mentions that adaptation measures were detailed for the health sector, while the updated NDC refers that detailed implementation measures were mapped to enhance climate resilience in this sector.</p> |
| 12 | Just transition policies | <p>Not mentioned.</p> | <p>Not mentioned.</p> | <p>Both NDCs do not mention social and just transition policies.</p> |

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| <p>13</p> | <p>Cross-sectoral approaches</p> | <p>The NDC mentions that Korea adopted the Act on the Allocation and Trading of Greenhouse Gas Emission Permits in 2012, and launched a nationwide Emissions Trading Scheme (ETS) in 2015. The ETS covers 525 business entities which account for 67.7% of national greenhouse gas emissions.</p> | <p>The NDC mentions the Republic of Korea's nationwide ban on construction of new coal-fired power plants. The country also plans to reduce GHG emissions efficiently based on the market mechanism by utilizing Korea's Emissions Trading Scheme (K-ETS), which covers 73.5% of the national GHG emissions. In December 2019, the 3rd Basic Plan for the K-ETS for 2021–2030 was introduced. It set out ways of operations for the next decade including effective reduction measures, improved allocation methods, enhanced market functions, and linkage and collaboration with international carbon markets for contributing to achieving the 2030 national GHG reduction target. The 3rd Basic Plan for the K-ETS specifies that the updated 2030 target should be considered when setting the emissions cap and allocating tradable permits on a 5-year basis, underlining the role of the ETS for the achievement of the NDC. The Phase 3 Allocation Plan for 2021-2025, introduced in September 2020, specifies the emissions cap as well as allocation standards and methods by sector and sub-sector, based on the principle of contributing to achieving the NDC.</p> | <p>Both NDCs mention cross-sectoral approaches related to the country's Emissions Trading Scheme (ETS), while the updated plan mentions the nationwide ban on construction of new coal-fired power plants.</p> |
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INCLUSIVENESS AND PARTICIPATION

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| 14 | <p>Inclusive process to invite inputs from institutions and citizens in the NDC design</p> | <p>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.</p> <p>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. In addition, the NDC refers that 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.</p> | <p>The NDC states that in 2016, the Republic of Korea introduced the 2030 Basic Roadmap for Achieving the National Greenhouse Gases Reduction Target (2030 Roadmap). Later on, civil society pointed out that the 2030 Roadmap should serve to incentivize companies sufficiently to develop their investment plans for emissions reduction. Also, some argued to increase the role of domestic reduction rather than relying on mitigation efforts in overseas countries as suggested in the 2030 Roadmap.</p> <p>Another moment for public participation was the domestic Talanoa Dialogue in September 2018, which provided an opportunity to collect opinions from governments, private sector, academia, civil society, and the youth. The collected various views have served as a reference to this updated NDC.</p> <p>Ahead of communicating an updated NDC in 2020, preparatory consultations commenced in 2019 among relevant ministries including the Ministry of Environment, the Ministry of Trade, Industry and Energy, and the Ministry of Foreign Affairs to determine the country's updated GHG reduction target.</p> | <p>The 2020 NDC describes moments when civil society and other stakeholders provided views on the NDC that informed the establishment of goals.</p> <p>Since the beginning of 2020, civil society has been actively participating in online and offline demonstrations calling out for a climate emergency with a relevant role played by youth organizations, as well as a focus on organized campaigns to send letters to parliamentarians calling for climate action.</p> |
| 15 | <p>Disclosure of information</p> | <p>Not mentioned.</p> | <p>Ahead of communicating an updated NDC in 2020, preparatory consultations commenced in 2019 among relevant ministries including the Ministry of Environment, the Ministry of Trade, Industry and Energy, and the Ministry of Foreign Affairs to determine the country's updated GHG reduction target. The NDC mentions that it collected opinions for the design of the NDC in the Talanoa Dialogue in 2018, but does not mention to what extent information was disclosed and made available for effective participation from civil society and other non-state actors.</p> | <p>Both NDCs do not provide information on disclosure of information.</p> |

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| 16 | Reporting back on process | The NDC mentions that the Republic of Korea collected feedback from various stakeholders but does not build on how that was incorporated. | <p>The NDC informs that, based on inputs from civil society, the Korean government revised the 2030 Roadmap and added GHG reduction pathways on a 3-year basis to provide a clearer signal of its mitigation policies. Also, the share of the overseas reduction was reduced by increased domestic mitigation efforts</p> <p>The Republic of Korea mentions that it collected opinions for the construction of the NDC in the Talanoa Dialogue in 2018, but does not elaborate on how these contributions were taken in account.</p> | The 2020 NDC presents information on how civil society input was incorporated in the revision of the 2030 Roadmap. |
| 17 | Participatory Climate governance structures | The NDC mentions that the country established a dedicated task force comprising relevant ministries to conduct the preparation of the NDC. A technical analysis for setting the 2030 mitigation target was conducted by a Joint Working Group of national research institutions and reviewed by a group of experts put forward by different stakeholder groups such as business and civil society. No information on permanent participatory governance structures is provided. | The NDC informs that, ahead of communicating an updated NDC in 2020, preparatory consultations commenced in 2019 among relevant ministries including the Ministry of Environment, the Ministry of Trade, Industry and Energy, and the Ministry of Foreign Affairs to determine the country's updated GHG reduction target. In December 2019, the updated target was legislated through the amendment to the Enforcement Decree of the Framework Act on Low Carbon, Green Growth. Following the ensuing review by the Committee on Green Growth and the government, the Republic of Korea finalized the update of its NDC that includes the 2030 national GHG reduction target. | The NDC mentions consultations among relevant ministries and a review by the Committee on Green Growth. However, information about civil society and other stakeholders' participation in such bodies is not provided. |
| CONTRIBUTION TO SUSTAINABLE DEVELOPMENT | | | | |
| 18 | Linkages with SDGs | Not mentioned. | Not mentioned | Not mentioned. |
| 19 | Measurable Nature-based Solutions | Not mentioned. | The NDC mentions the country continues to practice sustainable forest management, not confined to a specific age-class, to ensure its forests serve as reliable carbon sinks. Forestation projects will be carried out to increase capacity of carbon sinks in the forest sector. The Republic of Korea continues to practice sustainable forest management, not confined to a specific age-class, to ensure its forests serve as reliable carbon sinks. | The NDC mentions sustainable forest management and forestation projects but does not present any further data or indicators. It is necessary to develop targets and plans for the oceans in terms of NbS as Korea is a peninsular country that also has a strong aquaculture industry. |

TRACKING PROGRESS

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| 20 | A transparent national system to track implementation | <p>The NDC mentions that the Republic of 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.</p> | <p>The NDC mentions that the Republic of Korea established a government-wide scientific and quantitative system for implementation to achieve the national GHG reduction target. The Office for Government Policy Coordination and the Ministry of Environment will analyze and assess the mitigation performance of each ministry every year under the principle of transparency, timeliness, responsibility, and open communication and release the assessment results to the public. In this process, relevant ministries designated to reduce GHG emissions collect and submit their reduction data to the Greenhouse Gas Inventory and Research Center of Korea (GIR) which then prepares an assessment report. This assessment process will be initiated from 2020 and is expected to add more certainty in implementing and achieving the national GHG reduction target.</p> | <p>The 2020 NDC progresses by presenting more information on governance and transparency related to the national system to track implementation, mentioning that all Ministries can report their reduction data to the Greenhouse Gas Inventory and Research Center of Korea (GIR). More certainty in implementing and achieving the national GHG reduction target is expected to be established from 2020 onwards.</p> |
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WWF checklist for South Korea's 2020 NDC assessment

- Mitigation
- Adaptation
- Finance
- Fostering system change
- Inclusiveness and Participation
- Contribution to Sustainable Development
- Tracking progress

South Korea's rating grade after assessment: ✘ Long Way to Go

For more information

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