

**Briefing Note to the Committee on the Rights of the Child
for the consideration of the List of Issues on the Republic of Korea:
Republic of Korea's climate policy and its obligations under
the Convention on the Rights of the Child**

November 2018

As noted by the UN Human Rights Council and the Committee on the Rights of the Child (CRC), children are among the groups most vulnerable to climate change, which represents ‘one of the biggest threats to children’s health.’¹ The CRC has previously highlighted that climate change results in interference with many of the rights protected by the Convention on the Rights of the Child (the Convention), including the rights to education, to the highest attainable standard of health, to safe and drinkable water, to sanitation, to food and nutrition security, and to adequate housing and an adequate standard of living.² The magnitude of the risk that climate change poses to these rights increases as temperatures continue to rise.

According to the Ministry of Environment of the Republic of Korea (RoK), climate change has already had significant detrimental impacts on people living in the Korean Peninsula. This includes an increase in the frequency of weather extremes, including heavy snowfall, intense heat and heavy rain, together with increased human mortality as a result of heatwaves; and a rise in the occurrence of air pollution-related respiratory diseases.³ According to the Korea Meteorological Administration, average temperatures have risen 1.7°C over the past 100 years (from 1912 to 2008).⁴

The projected impacts of climate change in Korea are even more severe. According to the findings of the Intergovernmental Panel on Climate Change (IPCC), the World Bank, the Korean Ministry of Environment, and peer-reviewed scientific papers, they include: a significant increase in heat and disease-related

¹ Human Rights Council Resolution 32/33 (2016) and Resolution 35/20 (2017); General Comment No. 15 on the right of the child to the enjoyment of the highest attainable standard of health (2013); see also, e.g., CRC Concluding Observations on New Zealand (2016)

² See CRC Concluding Observations on Tuvalu (2013), Saint Lucia (2014), Jamaica (2015) and Kenya (2016).

³ National Institute of Environmental Research, Ministry of Environment, ‘Korean Climate Change Assessment Report’ (2010): <http://webbook.me.go.kr/DLi-File/NIER/09/5254103.pdf>

⁴ Korean National Institute of Meteorological Research, “Understanding of climate change II” (summarised in YS Shin and J Ha, “Policy Directions Addressing the Public Health Impact of Climate Change in South Korea: The Climate-change Health Adaptation and Mitigation Program” (2012) 27 *Environmental Health and Toxicology*: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3524451/>)

mortality related to the increased duration and severity of heatwaves,⁵ and an increase in insect-driven and water-borne diseases;⁶ a significant increase in heavy precipitation and flood volumes;⁷ increased frequency and intensity of typhoons;⁸ increased frequency of droughts;⁹ and rising sea levels that will have significant implications for coastal populations.¹⁰ Children are especially vulnerable to the expected health-related impacts.¹¹

Preventing risks to children's rights by mitigating climate change

Under the Paris Agreement on climate change, States have committed to limit the increase of 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.”¹² States have recognised that keeping global temperature increase to below this threshold would ‘significantly reduce the risks and impacts of climate change.’¹³ The IPCC’s recent special report on 1.5°C of warming confirms, however, that even an increase of 1.5°C will entail significant harm to human and natural systems, including an increase in heat and rainfall extremes and the risk of triggering climate tipping points that cause abrupt, irreversible changes in the environment, such as multi-metre sea level rise.¹⁴

Consistent with this, the Committee on the Rights of the Child has previously stated that the protection of children’s rights against climate change ‘requires urgent and aggressive reductions in greenhouse gases, guided by the best available science.’¹⁵ In line with its obligations under the Convention and the

⁵ See, e.g., World Health Organisation, ‘Climate Change Country Profile: Republic of Korea’ (undated, circa 2007) presenting data on trends between 1991 and 2005; National Institute of Environmental Research, Ministry of Environment, ‘Korean Climate Change Assessment Report’ (2010); E-S Im, Y-W Choi, and J-B Ahn, “Worsening of Heat Stress Due to Global Warming in South Korea Based on Multi-RCM Ensemble Projections” (2017) 122(21) *Journal of Geophysical Research: Atmospheres* 11444; Young-Min Kim, Soyeon Kim and Yang Liu, “The impact of climate change on heat-related mortality in six major cities, South Korea, under representative concentration pathways (RCPs)” *Frontiers in Environmental Science*, 19 February 2014.

⁶ See, e.g. IPCC, Fifth Assessment Report, WGII, Chapter 24, p.1348; World Health Organisation, ‘Climate Change Country Profile: Republic of Korea’ (undated, circa 2007) presenting data on trends between 1991 and 2005; Hyojung Lee, Jung Eun Kim, Sunmi Lee, and Chang Hyeong Lee, “Potential effects of climate change on dengue transmission dynamics in Korea” (2018) 13(6) *PLoS ONE* e0199205.

⁷ See, e.g. National Institute of Environmental Research, Ministry of Environment, ‘Korean Climate Change Assessment Report’ (2010);

⁸ Sooyoul Kim, Jihee Oh, Kyung-Duck Suh and Hajime Mase, “Estimation of Climate Change Impact on Storm Surges: Application to Korean Peninsula 59(2) *Coastal Engineering Journal* (2017).

⁹ See, e.g., World Bank, Green Growth in Action: Promoting Green Growth through Water Resources Management: The Case of Republic of Korea (undated);

¹⁰ See, e.g. UK Department for Energy and Climate Change “Climate: Observations, projections and impacts: South Korea (2011).

¹¹ See, e.g., IPCC, Fifth Assessment Report, WG II, Chapter 12, p.809; National Institute of Environmental Research, Ministry of Environment, ‘Korean Climate Change Assessment Report’ (2010).

¹² Paris Agreement, Article 2.1.a.

¹³ *Ibid.*

¹⁴ IPCC, Global Warming of 1.5°C (2018).

¹⁵ Committee on the Rights of the Child, Report of the 2016 General Day of Discussion: Children’s Rights and the Environment (2016).

Paris Agreement, the RoK Government should therefore be undertaking significant reductions in the RoK's greenhouse gas emission.

Republic of Korea's climate policy

Despite its obligations under the Convention and the international climate change framework, RoK's greenhouse gas emissions have continuously increased over the past two decades, with the exception of 1998 due to the economic crisis that the country was then experiencing. Its emissions more than doubled between 1997 and 2015 (emissions increased by 137%) and emissions are expected to increase slightly towards 2030.¹⁶ It has among the fastest growing emissions of any OECD country.¹⁷

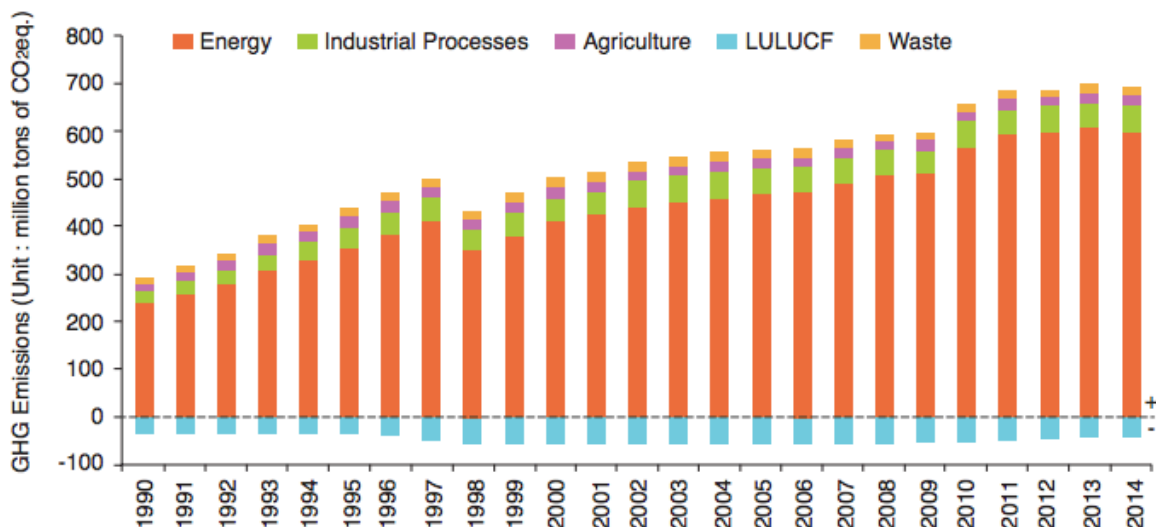


Figure 1: Historic emissions of Greenhouse Gases emitted in the Republic of Korea (source: Second Biennial Update Report of Korea under the UN Framework Convention on Climate Change)

Further, the Government's commitments to reducing greenhouse gas emissions are exceptionally weak. In its Nationally Determined Contribution (NDC), RoK has set a target of reducing GHG emissions by 37% below business-as-usual emissions (or 18% below 2010 levels) by 2030. This would allow emissions in 2030 to more than double from 1990 levels.¹⁸ This is the opposite of the deep cuts in emissions that the

¹⁶ Climate Transparency, 'Brown to Green: The G20 Transition to a Low-Carbon Economy: South Korea'(2018).

¹⁷ Climate Action Tracker, Country Profile: South Korea <https://climateactiontracker.org/countries/south-korea/>

¹⁸ Climate Action Tracker, Country Profile: South Korea <https://climateactiontracker.org/countries/south-korea/>

IPCC has identified as necessary if global warming is to be kept to 1.5°C.¹⁹ The NDC also represents a weakening of the Government's previous 2020 pledge.²⁰

Moreover, on the basis of its current policies, the Government is likely to miss that target, with emissions projected to increase by 147% - 153% above 1990 levels by 2030.²¹

The Government's recent 15 year "Plan for Electricity Supply and Demand" increases the share of renewables in RoK's energy mix to 20% by 2030, and the Government also recently revised its roadmap for meeting its NDC so that a larger share of its reduction commitments would be met through domestic cuts.²² While these represent steps in the right direction, RoK's mitigation commitments have been assessed by international experts as being 'highly insufficient'. If all national government targets were in this range, warming would reach between 3°C and 4°C by the end of the century.²³ Given the joint and individual responsibility of all countries to reduce emissions under the international climate change framework and their responsibility to prevent the harms associated with climate change, RoK's failure to do its 'fair share' means it is contributing to the global risks associated with climate change, including impacts in RoK and abroad.

The upcoming review of the Republic of Korea's obligations under the Convention on the Rights of the Child offers an **opportunity for the CRC to ask RoK to provide further information regarding how its climate mitigation policy complies with the legal obligations of the country to protect the rights of the child as provided under the Convention on the Rights of the Child and its obligations under the Paris Agreement.**

Republic of Korea's Financing of Coal Power Plants Domestically and in Third Countries

As demonstrated by Figure 1 above, energy production and use are overwhelmingly responsible for RoK's greenhouse emissions. Emissions from the energy sector increased by 6% between 2012 and 2017,²⁴ and overall power demand increased by 162% between 1990 and 2013.²⁵ The majority of RoK's energy supply is derived from fossil fuels, with a particular dependence on coal which made up 28% of RoK's energy mix in 2017.

¹⁹ To limit long-term temperature rise to 1.5°C, global net anthropogenic CO₂ emissions need to decline by about 45% from 2010 levels by 2030 and need to reach net zero around 2050: IPCC, Global Warming of 1.5°C: Summary for Policy Makers (2018).

²⁰ Climate Action Tracker, Country Profile: South Korea <https://climateactiontracker.org/countries/south-korea/>

²¹ Climate Action Tracker, Country Profile: South Korea <https://climateactiontracker.org/countries/south-korea/>

²² See the Government's 2030 National Roadmap for Greenhouse Gas reductions at <http://www.2030ghg.or.kr>

²³ Climate Action Tracker, Country Profile: South Korea <https://climateactiontracker.org/countries/south-korea/>

²⁴ Climate Transparency, 'Brown to Green: The G20 Transition to a Low-Carbon Economy: South Korea'(2018).

²⁵ <http://climateactiontracker.org/countries/southkorea.html>

The country hosts the world's second largest coal power plant and has the highest concentration of coal power plants among OECD countries. The energy intensity of the country's economy (energy use per unit of GDP) is also higher than the average among G20 countries.²⁶

Despite the Government's commitment to reduce emissions by 2030, coal is still projected to account for more than a third of generated electricity in 2030.²⁷ The Government currently operates 53 coal-powered plants²⁸ and, while planning to close ten ageing plants by 2022, it is likely that several more will be built in the coming years.²⁹

The reliance on coal-fired power and the resulting pollution has significantly interfered with the enjoyment of the right to health among children and the broader population in RoK. In a 2016 report on energy and air pollution, the International Energy Agency estimated that coal is responsible for the largest share of air pollution in the power sector worldwide - leading to respiratory illnesses and premature deaths.³⁰ One estimate suggests that 14,000 people die prematurely every year in RoK as a result of air pollution,³¹ and the OECD has projected that three times as many people will die in 2060 as a result of air pollution compared to 2010.

Due to the operation of new coal power plants expected in the coming years, this pollution is expected to contribute to grow significantly.³² A survey by the Korean Medical Association in 2016 also found that two-thirds of South Koreans oppose the construction of new coal-fired power plants.³³

Children whose mothers were exposed to particulate pollution during pregnancy, including the pollution generated by coal-fired power plants, are at risk of a range of health conditions, including lower birth weight, impaired fetal growth, premature birth, and impaired physical and mental development.³⁴ The Human Rights Commission of Korea also recently made recommendations to the Minister of Environment and the Minister of Health and Welfare in relation to the disproportionate impact of particulate pollution

²⁶ Climate Transparency, 'Brown to Green: The G20 Transition to a Low-Carbon Economy: South Korea' (2018).

²⁷ Climate Transparency, 'Brown to Green: The G20 Transition to a Low-Carbon Economy: South Korea' (2018).

²⁸ B Harris, K Buseong, 'South Korea joins ranks of world's most polluted countries' *Financial Times* (March 29, 2017)

²⁹ Climate Action Tracker, Country Profile: South Korea <https://climateactiontracker.org/countries/south-korea/>

³⁰ International Energy Agency, World Energy Outlook Special Report 2016, available at <https://www.iea.org/newsroom/news/2016/november/world-energy-outlook-2016.html>, page 57.

³¹ The Korea Herald, 'Air Pollution causes 14,000 additional deaths a year in Korea: report' (12 Jun 2017).

³² Shim, C., & Hong, J. (2016). Impact of a national plan for future electricity supply on ambient air quality in South Korea. *Energy Policy*, 88, 278-288.

³³ <https://www.yna.co.kr/view/AKR20170516149200017>

³⁴ See for instance : Fleischer NL, Merialdi M, van Donkelaar A, et al. Outdoor Air Pollution, Preterm Birth, and Low Birth Weight: Analysis of the World Health Organization Global Survey on Maternal and Perinatal Health. *Environmental Health Perspectives*. 2014;122(4):425-430. doi:10.1289/ehp.1306837.

on certain groups including children.³⁵ The Commission recommended that the relevant Ministries improve systems for the protection and promotion of these groups.

The energy policy of RoK also has significant extra-territorial implications. Aside from the contribution of RoK's emissions to global warming and its associated harms, RoK continues to promote the construction of coal power plants in third countries (like Vietnam and Indonesia) through public financial institutions such as the Korea Development Bank (KDB) and the Export-Import Bank of Korea (Korea Eximbank). Given that the lifespan of new coal-fired power plants is several decades, these new projects will result in long-term adverse impacts for local communities in the regions where they are built, in particular in relation to atmospheric air pollution. Additionally, these power plants will generate large amounts of greenhouse gases for several decades, further contributing to climate change and the risk of violations of children's rights.

The CRC could express its concern at the impacts of coal-fired power generation on children, both in RoK and extraterritorially and the inconsistency of these actions with RoK's domestic and international human rights obligations. The CRC could recommend that South Korea revise its energy policy – including through rapidly phasing out coal-fired power – to prevent the disproportionate impacts on children. The CRC could recommend that RoK also cease its financial support for coal-fired power plants in third countries to prevent climate and pollution-induced impacts on children.

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³⁵ National Human Rights Commission of Korea, Press Release No. 3028 (06 Sep 2018): <https://www.humanrights.go.kr/site/program/board/basicboard/view?currentpage=6&menuid=001004002001&pagesize=10&boardtypeid=24&boardid=7603228>