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Paris Agreement Article 6 and Implications for Korea's NDC Implementation

Jione JUNG Senior Research Fellow, Center for International Development Cooperation (jjung@kiep.go.kr)

I. Introduction

Unlike the Kyoto Protocol, the Paris Agreement stipulates that each country should set its national greenhouse gas reduction target and contribute to solving the global climate change problem by implementing its own low-carbon or carbon-neutral policies. Each country can implement its 'Nationally Determined Contribution (NDC)' in various cost-effective ways, following the criteria and procedures set out in the Agreement.

Article 6 of the Paris Agreement is a foundational provision that specifies the possibility of cooperation between countries to achieve the agreement's objective of "limiting the temperature increase to 1.5°C". The Paris Agreement states that Parties may engage in voluntary cooperation to enhance their ambition for mitigation and adaptation actions and that internationally transferred mitigation outcomes (ITMOs) can be used to achieve NDCs. The agreement of the implementation rules for Article 6, the so-called rulebook, at the Glasgow COP26 in 2021 is an improvement in the uncertainty of international mitigation activities.

Korea plans to use voluntary cooperation under Article 6 of the Paris Agreement as a complementary measure to its domestic mitigation efforts. There is an urgent need to establish a plan to promote international emission reduction and to prepare specific implementation measures.

* This is a brief summarization of Jung et al. 2022. "Utilizing Paris Agreement Article 6 for Achieving Korea's NDC towards 2030." KIEP ODA Study Series, no.22-05. Korea Institute for International Economic Policy. (in Korean)

II. Korea's NDC and Utilization of Article 6

Korea submitted an enhanced NDC to the UNFCCC Secretariat in 2021, increasing its emissions reduction target from 26% below 2018 to 40%. Korea's 2018 emissions were 727.6 MtCO2e, and its 2030 emissions target is 436.6 MtCO2e. The government has established sector-specific reduction strategies, some of which are as follows. Korea aims to phase out coal-fired power generation while increasing renewable energy. It focuses on driving a low-carbon transition in emission-intensive sectors such as steel, petrochemicals, and cement industries. Efforts will be made to promote zero-energy construction solutions for new buildings and the use of zero-emission vehicles. The methane gases emitted from landfills will be recovered for use as an energy source. Korea will maintain and improve its carbon sinks through sustainable forest management, conservation, and restoration.

As mentioned in the introduction, Korea is one of the few countries that have indicated their intention to use Article 6 of the Paris Agreement in their NDCs. Korea plans to use voluntary cooperation under Article 6 of the Paris Agreement as a supplement to its domestic mitigation efforts. The expected reduction target through Article 6 of the Paris Agreement is 37.5 MtCO2e, which is close to the building sector emission target of 35 MtCO2e. The Korean government will establish an institutional foundation for implementing overseas mitigation projects and develop and implement sector-specific projects with selected countries.

Table 1. Korea's 2030 Emission Reduction Targets by Major Sectors

Sector	2030 Targets (Reduction from 2018)	Policy Direction
Energy Transformation	145.9 (45.9%)	• Switch energy sources for decarbonization • Build infrastructure for renewable energy • Increase demand efficiency
Industries	230.7 (11.4%)	• Secure reduction technology • Improve ETS scheme
Buildings	35.0 (32.8%)	• Zero-energy building, green remodeling
Transport	61.0 (37.8%)	• Zero-emission vehicles (electric and hydrogen)
Agriculture, Livestock, and Fisheries	18.0 (27.1%)	• Smart-farm, low-methane feed • Low-carbon fishing vessels
Waste	9.1 (46.8%)	• Reduce disposable products • Circular use
Overseas Reduction	-37.5	• Develop guidelines and projects

Source: Ministry of Environment, Republic of Korea. 2023. "The Yoon's administration's blueprint for achieving carbon neutrality and green growth revealed." Press Release, March 3.

III. Policy Implications

To achieve its ambitious 2030 emissions reduction target, Korea has the potential to use Article 6 of the Paris Agreement more actively than any other country. At the same time, the government needs to play a role in securing funding and providing support for international emissions reduction projects, as well as establishing laws and regulations to promote emissions reduction activities abroad.

First, consider the host country's perspective. By participating in Article 6 activities of the Paris Agreement, host countries of emission reduction projects would receive financial resources and low-carbon technologies to help them meet their NDCs and transition to a low-carbon economy. They also need to implement their own emission reduction targets. The country that hosts a project funded by the Korean government will view it as a transaction in which the project has generated emission reduction outcomes in its country, and the Korean government is purchasing those emission reductions for the amount of funding provided. In other words, the country is providing resources (such as solar, wind power, waste, or forestry) or business opportunities (such as converting fossil fuel-based facilities to renewable ones) in fair exchange for the revenue generated by the project. By understanding how host countries view these projects, the Korean government can build more effective partnerships and ensure that the projects are mutually beneficial.

Second, international emission reduction projects to implement the NDC require government financial support. Some have suggested promoting international emission reduction activities using official development assistance (ODA), since international emission reduction activities are likely to be carried out in developing countries. However, it is not appropriate to use ODA to pursue national interests (in this case, the implementation of greenhouse gas reduction targets). The OECD Development Assistance Committee (DAC) concluded that ODA should not be used to acquire clean development mechanism (CDM) credits in developing countries. There is also discussion in the ongoing negotiations that public funds invested in Article 6 activities of the Paris Agreement cannot be counted as ODA or climate finance. Of course, local environments and institutional capacity are required to promote emission reduction projects in developing countries, so ODA can be used to improve the readiness in the field. A strategic direction for fostering international emission reduction projects should be prepared so that related ODA projects can be linked to global emission reduction projects. ODA can be used to provide the basis for participating in ITMO activities of partner countries (infrastructure, institutions, and human resources).

The Korean government has set a target of increasing climate change-related ODA to above the OECD DAC average of about 30% by 2025. The Green New Deal ODA strategy proposes the following policy directions:

1. Strengthening support for green transformation in developing countries
2. Leading global cooperation on green new deals
3. Expanding support for partnerships for shared prosperity

Increasing climate change-related ODA can be utilized to construct infrastructure and capacity building in the host country, which is necessary for emission reduction projects in developing countries.

Currently, the share of mitigation-related ODA in Korea's bilateral ODA is only 3.2%, which is a significant imbalance compared to the share of support for adaptation (7.2%). Therefore, it is strategically possible to consider expanding the scale of mitigation-related support this time. However, in the case of the least developed countries, although they have natural resources that are favorable for emission reduction projects, the need for adaptation is more important than mitigation because they are more likely to be vulnerable to the impacts of climate change.

Third, large-scale projects with private investment are needed to achieve the significant target of 37.5 MtCO2e of international emission reductions. It is essential to provide economic incentives to attract the private sector to emission reduction projects abroad, especially those in developing countries with political and social risks and high upfront costs. A blended finance approach can be helpful. For example, it is possible to support feasibility studies and pilot projects using ODA resources while mitigating the investment risk and securing profits for the private sector with other public financial resources based on various financial instruments.

Finally, institutional uncertainty needs to be addressed as soon as possible. As the international community has recovered from the COVID-19 pandemic, it has focused on building resilience and establishing policies to promote a low-carbon economy. Greenhouse gas reduction projects are expected to expand, and competition to enter promising projects will be just as fierce. While government financial support, as mentioned above, is essential to activate private sector participation, institutional support is also needed. In particular, there is an urgent need to resolve the uncertainty surrounding the use of international emission reduction results. Companies must decide whether to participate in international emission reduction projects to contribute to the national reduction target, NDC, or to use emission reduction outcomes to meet their emissions allowances. This is due to the characteristics of Korea's NDC, which sets a reduction target through international emission reductions separately. The former is counted as implementing the overseas reduction target in the NDC, while the latter is used to meet domestic targets. Therefore, it is necessary to encourage Korean companies to actively participate in overseas reduction projects by resolving these issues institutionally. KIEP