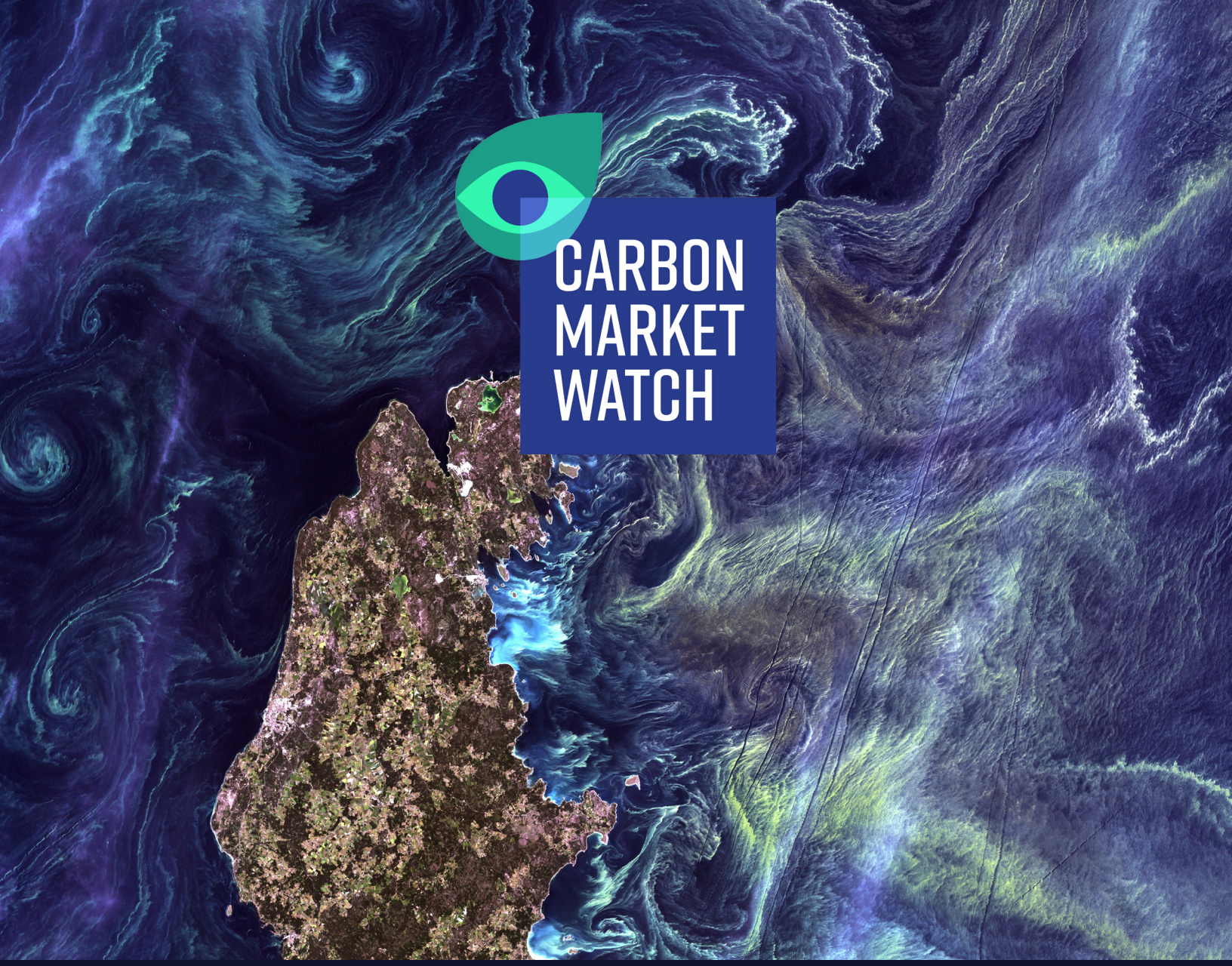
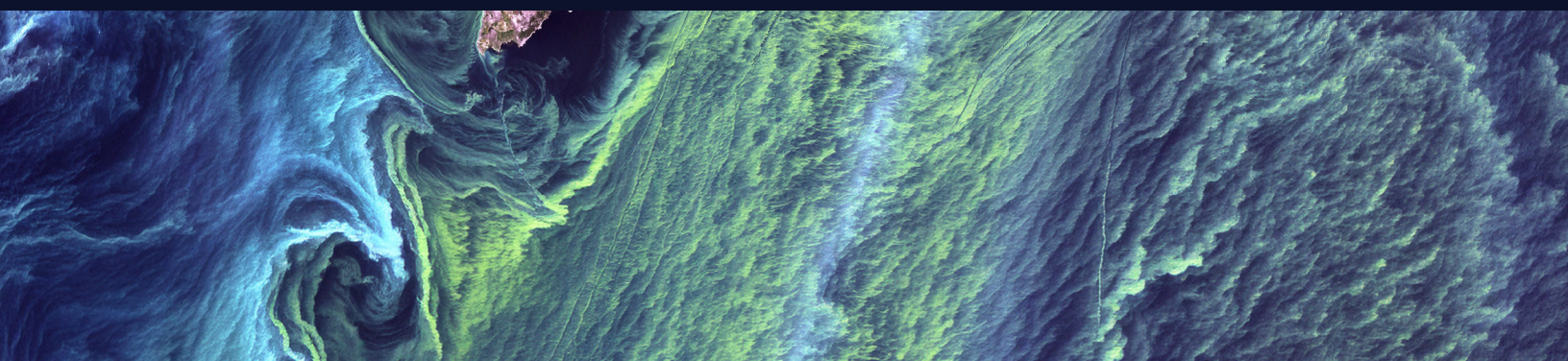


CARBON MARKET WATCH

AN OVERSEAS ODYSSEY

Why South Korea must change course on its international carbon offsetting plans

OCTOBER 2026



Executive Summary

South Korea plans to use 37.5 million international carbon credits, accounting for approximately 13% of total emission reductions, to meet its 2030 Nationally Determined Contribution (NDC). According to ongoing government deliberations, the credits in question would originate from problematic sources that are expected to amount to 45.43 million credits. The largest portion comprises 34.92 million credits from Clean Development Mechanism (CDM) projects transitioning to the Paris Agreement Crediting Mechanism (PACM): in order of magnitude, gas pipeline leakage (14.02 million), cookstoves (12.48 million), and renewable energy (5.1million), as well as other project types (3.32 million). The South Korean government also considers using 7.84 million legacy CDM credits, so called Certified Emission reductions (CERs), potentially issued in the period between 2013 and 2020 under the Kyoto Protocol, as well as an additional 2.67 million credits from government-led initiatives, including three REDD+ projects in Cambodia, Myanmar, and Laos. We also observe developments that indicate possible VCM integration in future government and corporate climate plans.

The briefing warns this national climate strategy carries significant risks due to the quality of the credits. Credits from CDM transition projects bear risks stemming from outdated methodologies and documented over-crediting. Legacy CERs could be 15+ years old by the time they are used in 2030. The government-led REDD+ projects are also unlikely to deliver the benefits they claim. Moreover, Article 6 provisions lack adequate transparency, accountability and human rights safeguards. Reliance on international credits undermines domestic climate measures, which can be seen from problematic experiences from Switzerland, Japan, and the EU. There is also a big risk for developing country partners that could jeopardise their own climate targets by overselling credits.

We urge the South Korean government to prioritise domestic decarbonisation over importing international credits. Legacy CDM credits must especially be excluded and VCM credits should not be streamlined into the South Korean climate framework. South Korea should showcase climate leadership through domestic action instead of relying on questionable offsetting to reach its climate targets on paper.

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Introduction

Countries must urgently curb their carbon pollution if we are to have any chance of mitigating the worst impacts of the climate crisis. Governments that signed up to the Paris Agreement's goal of limiting global warming to 1.5°C are required to set ambitious climate targets, known as "Nationally Determined Contributions" (NDCs). The Paris Agreement has been crucial to catalysing global climate action, most likely averting the most catastrophic climate impacts. However, current NDCs and government policies remain highly inadequate, setting the planet on course for severe and extremely dangerous climate impacts.

The trade of international carbon credits poses a significant risk to the ambition of NDCs and wider government policies to reduce greenhouse gas emissions. Article 6 of the Paris Agreement permits countries to use carbon credits as a means to reach their climate targets – the controversial outcome of years of tense UN negotiations. This loophole enables wealthy, highly polluting countries to undertake less ambitious climate action at home while outsourcing their emissions responsibility to developing countries.

The Republic of Korea (hereafter "South Korea") plans to use tens of millions of carbon credits to reach its 2030 and 2035 NDCs: 37.5 million in 2030 and 29.8-34 million in 2035.[1] South Korea's reliance on carbon credits accounts for approximately 13% of its total planned emission reductions in 2030 and remains at 9-10% in 2035. As one of the most developed economies in the world, South Korea's plans to purchase substantial amounts of carbon credits is highly concerning as this compromises the ambitious domestic climate action which South Korea must instead prioritise.

South Korea, which has historically integrated problematic cookstoves credits from the Clean Development Mechanism (CDM)[2] into its domestic emissions trading scheme (K-ETS), is considering to primarily use CDM credits towards its 2030 NDC. In current discussions, the government considers purchasing 34.92 million credits from CDM projects that are

[1] It appears these volumes will be accounted for on a single-year basis. In effect, for the 2030 NDC, zero use of credits through 2029, then the complete volume drawn in 2030 alone. Source: Climate Response Committee of the Republic of Korea, "Agenda of the Subcommittee on International Reduction (Document Submitted to the National Assembly)", Aug. 5, 2026.

[2] A UN carbon crediting programme established under the Kyoto Protocol which produced problematic methodologies and carbon credits, and which will be shut down by 1 July 2027.

transitioning to the Article 6.4 carbon credit market. Even more concerningly, it has considered opening the door to 7.84 million outdated CDM credits issued between 2013 to 2020 to reach its 2030 NDC. Such a heavy reliance on CDM era credits is extremely alarming given their notable shortcomings, including concerns over quality stemming from the main project types that South Korea considers to buy from: gas pipeline leakage, clean cookstoves, and renewable energy.

Beyond CDM credits, the South Korean government is also currently discussing plans to integrate carbon credits from the voluntary carbon market (VCM) in its wider compliance framework. Linking the VCM to the achievement of South Korea's, and its companies', climate plans exposes the country to considerable risk given long running and well-documented problems in the VCM, which require considerable regulatory and safeguarding protocols that are absent from the South Korean policy framework that should be adhered to before integration is even considered.

The government also considers to use 2.67 million credits towards its 2030 NDC from projects it is directly involved in, predominantly (2 million tonnes) stemming from the forestry, land use, agriculture and forestry, and fisheries sector. Academic analysis conducted in 2026 has found that three REDD+ pilot projects developed by South Korea in Cambodia, Myanmar, and Laos are unlikely to deliver the benefits the projects claim.

Against this backdrop, this policy briefing sets out the risks associated with using overseas credits for NDC achievement, with special attention dedicated to the questionable quality of the credit types the South Korean government is discussing to integrate into its NDC, notably CDM-era credits. In addition, we assess ongoing policymaking developments seeking to scale and integrate VCM credits in South Korea's wider climate framework. Carbon Market Watch calls on the South Korean government to prioritise domestic decarbonisation instead of offsetting climate ambition.

Article 6 of the Paris Agreement: a flawed framework for international offsetting

South Korea plans to use international credits procured through the Article 6 mechanism of the Paris Agreement to reach its 2030 NDC and 2035 NDC (fuller details of South Korea's plans are discussed below). In principle, Article 6 is meant to raise overall climate ambition by encouraging international action, but in reality, it risks doing the opposite as can be witnessed in the case of Switzerland and Japan, where the governments rely heavily on the loose Article 6.2 framework for the achievement of insufficient climate targets.

Under Article 6, countries are permitted to trade carbon credits via two approaches. First, there is a decentralised system under Article 6.2, whereby countries can approve carbon crediting projects they have established themselves or from the voluntary carbon market, with limited UN scrutiny. Second, there is a centralised system under Article 6.4, where a UN-supervised carbon market - the Paris Agreement Crediting Mechanism (PACM) - is being established. Both approaches, especially the first, suffer from major shortcomings.

Carbon Market Watch's assessment of the Article 6 rulebook, found that the Article 6.2 and Article 6.4 carbon market mechanisms fall far short of satisfying critical criteria concerning transparency, accountability, equity, and carbon credit quality. This is alarmingly problematic given that the Article 6 rulebook provides the basis for how countries are permitted to use credits towards their NDCs. While countries will renegotiate Article 6 rules during a UN review in 2028-2030, any changes would likely only apply to the post-2030 NDC cycle.[3] South Korea will therefore be able to use the existing Article 6 rules to achieve its 2030 NDC with credits, representing a major risk to ambition and credibility since the framework has significant gaps.

Article 6.2: no guarantee for quality

Under Article 6.2, countries can trade emission reductions and removals with one another

[3] All Article 6 rules are up for review between 2028 and 2030 (Decision 2/CMA.3, paragraph 14). This represents both a window of opportunity to raise the bar as well as a major risk of further weakening the rules, especially since many countries heavily involved in using credits towards their NDCs may have an interest in blocking, or limiting, stricter rules.

through bilateral or multilateral agreements. These traded credits are called Internationally Transferred Mitigation Outcomes (ITMOs) and each credit is meant to represent one tonne of mitigation in carbon dioxide equivalent (CO_2eq).[4] ITMOs must represent mitigation occurring in 2021 or later, though certain outdated CDM credits are troublingly permitted to be used towards countries' first NDCs (detailed further below). Overall, Article 6.2 performs poorly in terms of its carbon credit quality criteria as well as its provisions for transparency, accountability, and equity.

The Article 6.2 framework cannot ensure ITMOs are high quality as it fails to define detailed criteria or implement meaningful checks. For example, ITMOs must be "additional", but no specific rules or mandatory additionality tests are required. Regarding permanence, countries must publish information on how non-permanence risks are being "minimised" but no binding safeguards are established. Provisions for ambitious carbon crediting baselines and leakage are also left vague. Trading in ITMOs through Article 6.2 also risks the seller country's ability to reach its own climate targets (see Box).

The significant discretion left to countries to trade ITMOs exposes a fundamental flaw of Article 6.2. Countries can set up projects themselves, following their own self-defined methodologies, which are eligible to generate ITMOs. Countries are also free to convert carbon credit from the VCM into ITMOs, even if the underlying VCM projects suffer from major shortcomings. In this way, potent VCM flaws, addressed in the below subsection, can be transposed into the Article 6.2 architecture, at risk of falsely awarding low-quality projects with a layer of undue legitimacy. In addition, the Article 6.2 framework's requirements for the timely disclosure of complete information on ITMOs is seriously lacking, allowing countries to submit vague, non-specific information and still be considered compliant.

The ambiguity of Article 6.2's quality criteria, which countries flexibly and loosely interpret, is further compounded by the fact that the UN's review of ITMOs carries no real consequences. Carbon Market Watch's assessment of the first UN reviews of Article 6.2 trades found that weak transparency rules and the limited mandate of reviewers undermined the process to

[4] In principle, ITMOs could also be in other metrics such as kilowatt hours (KWh) of renewable energy, but in practice no country yet plans to trade non-greenhouse gas metrics. For the definition of an ITMO, see: UNFCCC, Decision 2/CMA.3, Annex, "Internationally transferred mitigation outcomes", paragraphs 1-2, https://unfccc.int/sites/default/files/resource/cma2021_10a01E.pdf

the extent that the process resembles a tick-the-box exercise. Even when presented with credits that are evidently low in quality, UN reviewers were unable to halt their trade or require involved countries to rectify the flaws. Moreover, regarding equity, countries must only disclose how their ITMOs avoid negative environmental, economic, and social impact, but without genuine accountability or clear safeguards against misconduct.

Overall, Carbon Market Watch found the Article 6.2 framework to be "severely lacking" in addressing accountability, equity, and key carbon credit quality criteria (additionality, quantification, permanence), and "lacking" in respect to transparency.[5] Simply put, the Article 6.2 framework does not represent a benchmark for high quality and any ITMOs emanating from this framework must be closely reviewed by independent third parties. In the South Korean context, the successful approval and use of ITMOs towards its 2030 NDC would thus not, in and of itself, demonstrate high quality.

Article 6.4: a higher standard, but important gaps remain

Article 6.4 provides the basis for a centralised, UN-supervised carbon crediting market called the Paris Agreement Crediting Mechanism (PACM). In many ways, the PACM builds on the Kyoto Protocol's CDM, but applies more stringent rules and carbon crediting projects can be set up in any country (under the CDM, projects could only be located in developing countries). Under the PACM, carbon crediting projects must be approved by both the countries where they are implemented, as well as by the Article 6.4 Supervisory Body, a UN entity tasked with establishing detailed rules and requirements with which projects must comply to issue PACM carbon credits. PACM carbon credits can be bought by countries, companies, or even individuals. The host country of the PACM project can authorise credits for use towards NDC achievement of the buyer country.[6]

To oversee carbon credit quality, the PACM defines clear additionality tests and sets

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[5] Carbon Market's Watch's full review of the Article 6.2 framework can be found in our briefing, "By the book: how effective are Article 6 carbon market rules?" Using a scoring system ranging from "good" to "severely lacking", we ranked Article 6.2 against key quality criteria: environmental integrity, transparency, accountability and equity.

[6] For simplicity, we will refer to these as Article 6.4 or PACM carbon credits. In reality, they are either "authorized emission reductions" (A6.4ERs), when authorised by governments for use towards Paris Agreement compliance purposes like NDC achievement (confusingly, they are then also labelled ITMOs), or "mitigation contribution units" (MCUs), when they have not been authorised for compliance purposes but can still be part of a "beyond value chain mitigation" approach. For more info, see our briefing "By the book" and the PACM webpage.

conservative baselines to reduce the risk of over-issuance, unlike the situation under Article 6.2. While these provisions are positive and go beyond the CDM as well as several VCM and government crediting systems, the PACM does not properly uphold an appropriate definition of "permanence", which refers to the need to ensure that CO_2 sequestered by a project is permanently and securely stored. Notably, the PACM does not mandate a suitable minimum time period to continuously monitor whether sequestered CO_2 has been re-released to the atmosphere after a project has stopped selling carbon credits; instead, exceptions are possible and the duration of this permanence monitoring period is left to each PACM methodology, generating a significant risk of a race to the bottom whereby the shortest approved duration becomes the norm. While the PACM is in the process of finalising other permanence provisions, current rules exhibit major weaknesses.

Concerning transparency and accountability, the PACM also fares better than the Article 6.2 framework. PACM procedures and project documentation are generally transparent and accessible, and the PACM will ultimately set up a carbon credit registry that will, in principle, display real-time information on PACM projects and their carbon credit issuances and retirements (the registry is still under development).

While better than Article 6.2, the PACM's social safeguards and protections against human rights infringements are nonetheless inadequate. A joint investigation carried out by the Land Matrix Institute and Carbon Market Watch of the PACM's safeguards found many shortcomings, including: a lack of clarity on whether international human rights standards should prevail when domestic law is weak or exclusionary; few safeguards in circumstances where Indigenous Peoples lack formal recognition or where other customary rights-holders are affected; and too narrow an approach to Free, Prior and Informed Consent (FPIC). In addition, the PACM's grievance and appeal processes have limited accessibility, given the high costs (for certain stakeholders) and language barriers since submissions are only accepted in English.

Overall, the PACM sets a higher bar than the Article 6.2 framework.[7] However, when it comes to South Korea's planned use of international carbon credits, the relative stringency

[7] As for the Article 6.2 framework, Carbon Market's Watch's full review of Article 6.4 can be found in our briefing, "By the book: how effective are Article 6 carbon market rules?"

of Article 6.4 rules are less relevant, since South Korea plans to purchase the overwhelming majority of its carbon credits from Clean Development Mechanism era projects rather than from new PACM projects.

The Clean Development Mechanism: a roadblock for higher ambition

After years of controversial negotiations, the first set of Article 6 rules decided at COP 26 allowed the flawed carbon crediting programme under the Kyoto Protocol, the Clean Development Mechanism (CDM), to transition its projects into the PACM.[8] Many CDM projects have been found to be ineffective from a climate perspective, including several thousand likely non-additional wind power projects. In addition, certain CDM projects violated human rights, causing bodily harm and even death, such as by exposing residents of Delhi to toxic substances.

Re-registering CDM projects under the PACM is problematic as it lends them legitimacy, allowing issuance of Article 6.4 branded credits while still using outdated CDM carbon crediting methodologies that cannot guarantee quality. As part of a contentious compromise at COP26, it was agreed that transitioning CDM projects could use their old methodologies to issue PACM credits until as late as 31 December 2025 (or until the end of their original CDM crediting period, if earlier). This means that certain transitioned CDM projects have a grace period of 5 years, from 2021 through 2025, during which they can retroactively generate carbon credits with a PACM label despite the fact that these relied on CDM rules.[9] The risk posed by transitioning CDM projects is not merely theoretical, as our own analysis has found.

Carbon Market Watch's assessment of the first two CDM projects that transitioned to the PACM and that are set to issue the first "Article 6.4" carbon credits underscores significant quality issues. Both cookstove projects, PoA 10415 and PoA 10471, replace household cookstoves with more efficient versions but massively overestimate their climate impact:

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[8] UNFCCC, Decision 3 / CMA.3, Annex, "A. Transition of clean development mechanism activities", paragraphs 73-74, https://unfccc.int/sites/default/files/resource/cma2021_10a01E.pdf

[9] Even if a CDM project that transitions to Article 6.4 is registered in the PACM in 2026 or later, it can retroactively issue credits for the years 2021 through 2025 (or until the end of its original crediting period if earlier than the end of 2025). For example, a CDM project with an original crediting period ending on 31 December 2023, that is registered under PACM in 2026, can still issue credits in 2026 (or later) covering the years 2021 through 2023. Similarly, a CDM project with an original crediting period ending on 31 December 2025, that is registered under PACM in 2026, can still issue credits covering the years 2021 through 2025.

PoA 10415 is likely set to issue 26 times more carbon credits than is justified by the latest science, while PoA 10471 is set to issue 7 times more. Core methodological flaws cause the over-crediting risk, including through both the inflation of values as well as the negligence of other, critical values. Additionally, civil society has raised serious concerns about both Myanmar-based projects over their potential human rights impacts. This has led 28 civil society organisations, including Carbon Market Watch, to demand that SK Telecom, the largest investor in one of the projects, cut off its investment.

Beyond the CDM transition to the PACM, the Article 6 rules from COP 26 controversially allow countries to use carbon credits issued under the CDM to reach their first NDC. This means that countries can use CDM carbon credits, called certified emission reductions (CERs), that were issued as far back as 2013 to reach a 2030 NDC.[10] With nearly one billion CERs having been issued since 2013,[11] countries could theoretically use tens-to-hundreds of million towards their first NDCs. Beyond deterring a buyer country's own urgently needed mitigation, the purchase of CERs is also a bad use of financial resources for climate action given their low quality.

The controversy regarding the use of CERs towards first NDCs is one of the reasons that 32 countries joined together to back the San José Principles in 2019. The San José Principles were put together during UNFCCC negotiations on Article 6 to push for more ambition in the final rulebook. Acknowledging the major flaws of the CDM, the principles critically sought to "prohibit the use of pre-2020 units, Kyoto units and allowances, and any underlying reductions toward Paris Agreement and other international goals."

If South Korea decides to use 2013-2020 CERs towards its 2030 NDC, which is an option on the table, this will stand in stark contrast to the commitments made by the group of 32 countries, including major developed economies, that signed the San José Principles. The use of such old and outdated CDM credits would reflect very poorly on the South Korean government's efforts to distinguish itself internationally as delivering meaningful climate action.

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[10] UNFCCC, Decision 3 / CMA.3, Annex, "B. Use of certified emission reductions towards first or first updated nationally determined contributions", paragraph 75, https://unfccc.int/sites/default/files/resource/cma2021_10a01E.pdf

[11] UNFCCC, Clean Development Mechanism registry, data accessible via the CDM website, CER potential database, and CDM database for PAs and PoAs.

South Korea's troubling plans to meet its climate targets with low quality international carbon credits

In March 2023, South Korea set out the intention to achieve part of its 2030 NDC using 37.5 million carbon credits from overseas. This reliance on carbon credits accounts for around 13% of its total planned emission reductions in 2030[12] and represents an increase of four million credits from the 33.5 million planned in 2021. South Korea also plans to use between 29.8 and 34 million carbon credits to achieve its 2035 NDC, representing 9-10% of its total planned emission reductions.

Ongoing government deliberations indicate that most carbon credits that South Korea considers to use are related to the CDM, causing significant concern due to the quality issues arising from that scheme. In addition to CDM credits, the government also considers generating credits from its own co-developed projects. According to a recent government document,[13] South Korea specifically considers to use 37.5 million carbon credits towards its 2030 NDC from a pool of 45.43 million credits constituted by the following sources (see Table 1): 34.92 million credits from CDM projects transitioning to the PACM; 7.84 million CERs already issued between 2013-2020; and 2.67 million credits from government-led projects under Article 6.2.

Table 1: South Korea's planned sources of carbon credits for its 2030 NDC

Source of carbon credits	Number of carbon credits
CDM transition projects	34.92 million
"Pre-2021" credits (i.e. CERs)	7.84 million
Government-led projects	2.67 million
Total	45.43 million[14]

Source: Climate Response Committee of the Republic of Korea, "Agenda of the Subcommittee on International Reduction (Document Submitted to the National Assembly)", Aug. 5, 2026.

[12] This relates to a 2018 base year. See for more info the South Korean 2030 NDC.

[13] Climate Response Committee of the Republic of Korea, "Agenda of the Subcommittee on International Reduction (Document Submitted to the National Assembly)", Aug. 5, 2026.

[14] The total is greater than the 37.5 million carbon credits that South Korea plans to use towards its 2030 NDC, likely because the government wishes to ensure it has a large enough pool of credits in case the CDM transition projects or government-led projects deliver fewer credits than projected.

Substantial risk factor in planned CDM transition project types

The 34.92 million carbon credits from CDM projects transitioning to the PACM that South Korea considers to use come predominantly from gas-pipeline leakage projects (14.02 million), cookstove distribution projects (12.48million), and renewable energy projects (5.1 million), with the remaining 3.32 million carbon credits aligned to other project types (Table 2).[15]

As discussed above, there is extensive evidence demonstrating significant credit quality problems across CDM. These flaws are particularly problematic for the project types from which the South Korean government seeks to purchase most of its credits.

Table 2: South Korea's envisioned CDM transition project types

CDM transition project type	Number of carbon credits
Gas pipeline leakage	14.02 million
Cookstoves	12.48 million
Renewable energy	5.1 million
Drinking water	2.72 million
Methane recovery	0.6 million
Total	34.92 million

Source: Climate Response Committee of the Republic of Korea, "Agenda of the Subcommittee on International Reduction (Document Submitted to the National Assembly)", Aug. 5, 2026.

Gas pipeline leakage projects comprising the main source of planned credits raise significant concerns as these are often susceptible to overestimated baseline emissions. Moreover, undetected leaks present a significant risk area for these projects, as these are often overlooked by leak detection and repair programmes and can be ongoing while projects receive credits for supposed emissions reductions. There is substantial uncertainty regarding what constitutes a 'leak', leading to many cases of over-crediting. In the 'Recipe for greenwashing' report, Carbon Market Watch, Plan 1.5, and UC Berkeley also documented how avoided gas leakage projects could provide perverse incentives, where

[15] Climate Response Committee of the Republic of Korea, "Agenda of the Subcommittee on International Reduction (Document Submitted to the National Assembly)", Aug. 5, 2026.

the owner of the infrastructure could delay necessary maintenance in order to qualify for carbon crediting, raising risks of non-additionality. A report from Oeko-Institut on this matter highlights perverse incentives wherein operators could deliberately drive pipeline pressure up, increasing emissions from leaks, in order to qualify for more credits.

CDM cookstove projects represent the project type from which the South Korean government considers to purchase the second largest amount of its carbon credits. Academic literature and independent analysis finds that carbon crediting methodologies used to generate carbon credit from cookstove projects offer considerable flexibility to project developers, leading to significant over-crediting. This creates uneven standards, with the lowest bar of project quality found in CDM-era methodologies AMS-I.E and AMS-II. G - both of which were rejected by the Integrity Council for the Voluntary Carbon Market's Core Carbon Principles label. The quantification methods and underlying assumptions are demonstrably wrong, creating high over-crediting risks and rendering these approaches unfit for purpose. Given the well-documented problems with CDM cookstove methodologies, including in CDM cookstove projects transitioning to Article 6.4 as assessed above, it is highly concerning that the South Korean government plans to buy 12.48 million credits for its NDC.

Renewable energy projects account for the next largest category of CDM transition credits according to the plans. A large body of research has found that grid-connected renewable energy methodologies, especially under the CDM, produced a huge volume of low-quality carbon credits that were unlikely to be "additional".[16] This is because grid-connected renewable energy is an inexpensive and common practice technology in most parts of the world and no longer requires additional carbon credit revenue to be implemented.

Overall, the South Korean government's consideration to purchase around 31.6 million carbon credits from CDM projects transitioning to the PACM using these three controversial project types is a major cause for alarm. They will be labelled as PACM carbon credits with

[16] See for example: Haya and Parekh (2011), "Hydropower in the CDM: Examining Additionality and Criteria for Sustainability"; CCQI (September 2023), Factsheet on Wind Power (Onshore); CCQI (September 2023), Factsheet on Solar Photovoltaic Power; ICVCM (August 2024), "Carbon credits from current renewable energy methodologies will not receive high-integrity CCP label"; Probst et al. (2024), "Systematic assessment of the achieved emission reductions of carbon crediting projects"; Carbon Market Watch (2024), "Hidden in plain sight: Flawed renewable energy projects in the voluntary carbon market"

an accompanying perception of high quality, but in reality, these are risky CDM-era credits that should have no place in South Korea's NDC.

Yesteryear's credits cannot solve today's climate crisis

The South Korean government is also currently considering to use 7.84 million outdated, pre-2021 credits from the CDM to count towards its 2030 NDC. These credits are simply referred to as "pre-2021" in government documentation.[17] However, given that certified emission reductions (CERs) already issued under the CDM between 2013-2020 are the only "pre-2021" carbon credits eligible to count towards a country's first NDC, this means that the South Korean government is considering to reserve the option to exploit a glaring loophole in the Article 6 framework.

It would be extremely alarming and controversial if South Korea ultimately decided to use Kyoto Protocol-era CERs towards its Paris Agreement NDC. While it was bad enough that South Korea did not sign on to the San José Principles back in 2019, which explicitly oppose the use of CERs for NDC achievement, it would be even worse for South Korea to actively oppose these robust and scientifically backed principles. CERs issued between 2013 and 2020 represent an even greater risk of being low quality than CDM transition project credits: the older the issuance year of a credit, the more outdated the methodological and programme rules, which is of particular concern given the established problems of the CDM which have not kept pace with changing market standards.

It is also a troubling precedent to use credits issued over a decade ago toward today's and tomorrow's climate targets. The 7.84 million CERs issued between 2013 and 2020 under the Kyoto Protocol could be 10-16 years old at the time of their use in 2030. While such CERs are likely to be very inexpensive, which may be one reason the South Korean government is considering using them, they are clearly inappropriate to meet climate targets.

[17] Climate Response Committee of the Republic of Korea, Agenda of the Subcommittee on International Reduction (Document Submitted to the National Assembly), Aug. 5, 2026.

The flawed design of government-led projects

Parallel concerns emerge regarding the government-led avoided deforestation (REDD+) carbon crediting projects that South Korea is helping set up abroad in Cambodia, Myanmar and Laos. Extensive research has exposed systemic flaws across REDD+ methodologies which have led to widespread and significant over-crediting as well as negative impacts for local people and even human rights infringements in some cases.[18] These shortcomings were also prominently featured in media outlets like the Guardian.

In principle, the approach of the South Korean government to fund and design carbon projects from the inception, rather than purchasing from existing projects, provides advantages by allowing them to shape the project design. However, this influence carries responsibilities which have not sufficiently been met, as recent research demonstrates.

The portfolio of REDD+ projects the South Korean government is co-developing has attracted little-to-no public scrutiny. According to academic research conducted in 2026, all three activities misidentify deforestation drivers by blaming smallholders while ignoring commercial and state-authorised actors, rely on agencies implicated in prior clearing decisions to govern forests, substitute cheap enforcement for sustainable livelihood alternatives, all while failing to generate measurable impact as funding remains too small to alter local land-use choices.

Integration of the voluntary carbon market in South Korea's climate framework

Over the last year, the South Korean government has taken key steps in the direction of integrating the voluntary carbon market (VCM) credits in its wider climate framework.

The South Korean Ministry of Planning and Budget endorsed the creation of a VCM exchange by the end of 2026, and "plans to seek ways to link voluntary emissions reduction

[18] See the following non-exhaustive list of studies on REDD+: West et al. (2020), "Overstated carbon emission reductions from voluntary REDD+ projects in the Brazilian Amazon", Proc. Natl. Acad. Sci.; West et al (2023). "Action needed to make carbon offsets from forest conservation work for climate change mitigation", Science; Haya et al. (2023), "Quality Assessment of REDD+ Carbon Credit Projects. Berkeley Carbon Trading Project", Berkeley Carbon Trading Project; West et al. (2024), "Methodological issues with deforestation baselines compromise the integrity of carbon offsets from REDD+", Global Environmental Change; Carbon Credit Quality Initiative (2024), "Avoiding Planned Deforestation" & "Avoiding Unplanned Deforestation".

outcomes with CORSIA and the domestic ETS." The ministry also recently signed a memorandum of understanding with the South Korean Chamber of Commerce and Industry and the VCM carbon crediting certifier, the Global Carbon Council, in order to "build a South Korean-style voluntary carbon market ecosystem [...] invigorate the domestic voluntary carbon market and lay the groundwork for linking it to global markets." The partnership envisions the upscaling of the VCM in South Korea by streamlining and enhancing the quality and reliability of the domestic trading infrastructure and creating private sector demand for VCM credits. Moreover, the government announced plans to purchase 200,000 carbon credits to stimulate the VCM and appears to consider the possible use of international VCM credits for its NDC achievement.[19] In August 2026, a bill concerning the VCM was proposed, but which - in several key areas - seems more concerned with scaling the market and ensuring there is corporate demand for credits, rather than establishing robust safeguards.[20]

These ongoing developments in South Korea heighten concerns since these signal a shift towards bolstering demand for VCM credits while seemingly overlooking many of the quality problems in the market.

The VCM includes an array of private carbon credit certification standards, such as Verra, Gold Standard, and the Architecture for REDD+ Transactions. These private standards have their own carbon crediting methodologies and rules that govern the projects they certify to generate carbon credits. In the Paris Agreement era, the distinction between the VCM and compliance carbon markets can become blurry, since a government can authorise VCM projects to generate ITMOs under Article 6.2, as previously discussed.

Many VCM methodologies are in fact based on CDM methodologies, with major VCM standard setters like Verra and the Global Carbon Council even directly adopting CDM methodologies as their own.[21] While it is comprehensible why early VCM actors would have adopted and adjusted CDM methodologies, it is also clear that the share of low-

[19] Climate Response Committee of the Republic of Korea, Agenda of the Subcommittee on International Reduction (Document Submitted to the National Assembly), Aug. 5, 2026.

[20] National Assembly of the Republic of Korea, Act on Fostering the Voluntary Carbon Market and Promoting Trade in Voluntary Reduction Credits (Bill) (proposed by Rep. Bae Jun-young et al., Bill No. 2220793), Aug. 26, 2026

[21] Verra's Verified Carbon Standard (VCS) integrates 56 CDM methodologies, and VCS's VMR0006 methodology was adapted from the CDM methodology AMS-II.G. The Global Carbon Council has also adopted numerous CDM methodologies.

quality VCM credits emanating from CDM methodologies is significant. The Global Carbon Council has notably registered projects that nearly exclusively use CDM-era renewable energy methodologies, which are highly contested as previously detailed, raising significant concerns about the aforementioned MoU recently signed with the South Korean Ministry of Planning and Budget.

Beyond the overlap between the CDM and VCM, the overall quality of most credits generated on the VCM has been lacking. A peer-reviewed metastudy covering the VCM and CDM found that less than 16% of nearly 1 billion carbon credits actually had their advertised climate impact, while other researchers concluded that the VCM isn't fit for the purpose of offsetting emissions since over-crediting is an intractable problem.

Shortcomings in the VCM run deep and are often ingrained in structural design flaws that have persisted despite numerous reform attempts. The auditing system exhibits considerable flaws, granting legitimacy to projects where such acclaim is not due, while even the integrity initiatives meant to upkeep integrity harbour conflicts of interest. At the same time, the payment models of market actors incentivise over-crediting while market dynamics exert downward pressure on project quality induced by the quest for the cheapest credits. The market is also characterised by opaque financial flows, where unequal distributions of power and profits favour players in wealthy industrialised countries. Indigenous Peoples and local communities have also had their rights violated, face limited access to grievance mechanisms, and do not necessarily benefit equitably from the implementation of carbon credit projects. Finally, company transactions go undisclosed, and registries sometimes fail to uphold transparency with project documentation being inconsistently maintained and frequently lost.

Opening the door so that the voluntary carbon market can help achieve national and corporate climate targets, as is the current course of the South Korean government, is a dangerous endeavor which risks undermining the national climate architecture of South Korea while granting undue flexibility for climate target achievement to the private sector.

The perils of South Korea's plans to offset millions of tonnes of emissions

South Korea's current market-based approach to reaching its 2030 NDC is notable for several major shortcomings.

First, and most importantly, using international carbon credits to compensate for domestic inaction undermines the intended core purpose of NDCs. Climate action planning by Switzerland, Japan, and the EU suggests that Article 6 mechanisms weaken domestic climate ambition by deferring investments and policies necessary for domestic mitigation measures and raising future mitigation costs. In the case of the EU, the use of international carbon credits could cost €50 billion (assuming a conservative price of €70 per credit), which could be much better invested in reducing dependence on fossil fuels, supporting the green transition, and safeguarding the competitiveness of EU industries. Moreover, credit purchasing requires a heavy financial commitment over many years since a credit can only be used once towards a climate target – in contrast, reducing industrial emissions generally requires one investment.

For this reason, any form of outsourcing responsibility for emissions reductions will have the same consequences: whether it's the purchase of pre-2021 CERs, credits from CDM transition projects, VCM projects, or government-led initiatives, reliance on international credits would set South Korea further off track from 1.5°C compatibility while burdening not only itself but also developing countries with more complex and expensive decarbonisation requirements in the future (also see Box).

The current Article 6 provisions, which will be the basis for South Korea's planned acquisition of international credits, fail to meet quality standards necessary for high integrity carbon markets. The Article 6.2 framework is far too weak to guarantee quality, while the Article 6.4 market suffers from shortcomings regarding permanence, equity, and especially the transition of CDM projects.

South Korea's consideration to use millions of CDM-era credits towards its 2030 NDC is of great concern. The CDM-to-PACM transition provisions cover up the shortcomings of the

CDM era by granting projects the perceived legitimacy of the Paris era: relying on nearly 35 million carbon credits generated by such projects does not set a high quality threshold. Moreover, the nearly eight million legacy, pre-2021 CERs that South Korea is considering to reserve for future use could be more than 15 years old by 2030, setting a negative precedent to achieve NDCs with outdated carbon crediting methodologies. Using legacy carbon credits to meet South Korea's NDC serves to dilute the country's overall climate ambition and illustrates the dangers in approaching NDC achievement purely through an economic lens.

Moreover, the government-led REDD+ projects are problematic as demonstrated by latest research and could have detrimental consequences for local communities in seller countries. Similar risks are associated with the voluntary carbon market, where the design of the market reinforces a race to the bottom prioritising quantity versus quality.

While the European Union stopped integrating international carbon credits in its climate framework in 2021, following its disastrous experience of doing so in the 2010s, its move to re-open the door to their use has sparked controversy. The EU's recent decision to rely on international credits for its 2040 target contradicts scientific analysis presented by its own scientific advisors - the ESABCC[22] - undermines the EU's historical responsibility and potential to address climate change, and has generated strong opposition from civil society and academia, which has condemned the EU's plan to use international credits in an open letter signed by more than 150 organisations.

South Korea should heed the warnings emanating from the negative precedent set by the EU's recent direction. The EU's re-engagement with international credits actively weakened the bloc's climate ambition, while imposing significant future costs on both the public sector as well as businesses. Integrating these credits has created massive pushbacks from scientists, NGOs and citizens that view this mechanism as a loophole that dilutes domestic climate ambition. South Korea can avoid repeating the same strategic errors by deciding against adoption of contested offset reliance that risks delivering no meaningful environmental dividends at massive cost.

[22] The European Scientific Advisory Board on Climate Change (ESABCC) is an independent body providing the EU with scientific knowledge. It was constructed in 2021 by the EU Climate Law.

On the South Korean government's current trajectory, carbon trading risks becoming a wolf in sheep's clothing – at the expense of meaningful climate action. It is apparent that South Korea's proposed approach runs counter to emerging best practices, ignoring the widely known mistakes and flaws emanating from the long history of carbon credit markets.

To maintain climate integrity and fulfill its obligations under the Paris Agreement, South Korea must prioritise domestic decarbonisation over importing overseas carbon credits from questionable sources.

Risks for developing countries selling international carbon credits

While this briefing has focused on how international credits water down climate ambition in developed countries like South Korea, the use of Article 6 also poses particular risks for developing countries that will be generating and selling most carbon credits.

Overselling credits is a significant risk that can threaten a developing country's ability to meet its NDC. Under Article 6 of the Paris Agreement, countries agreed to a double-entry bookkeeping method that requires a "corresponding adjustment" in order to ensure that two entities cannot both count the same carbon credit towards different climate targets (double counting). For each credit sold, the seller country has to adjust its national greenhouse gas inventory to make it appear like it emitted one more tonne of CO_2eq. If a country sells millions of credits (e.g. for South Korea to use towards its NDC), it then risks to miss its own NDC since it must add millions of tonnes of emissions to its climate accounts. Even if a country does not miss its NDC outright, concerns about doing so in the future could disincentivise it from increasing the ambition of its future NDC, thereby pitting the ability to sell international carbon credits against stronger NDCs (developed, well-resourced countries must of course set themselves a higher bar for ambitious climate action).

The cases of Guyana and Kenya illustrate that the overselling risk is not merely theoretical. Guyana currently plans to sell tens of millions of carbon credits under

Article 6.2 using a contested VCM carbon crediting methodology prone to very high levels of over-crediting (carbon credit rating agencies Calyx Global and BeZero have also given the project, respectively, the lowest Tier 3 rating and the lowest D rating).[23] Given that Guyana emitted about 19.4 million tonnes of CO_2eq in 2023, its plan to sell as many as 21 million low-quality ITMOs annually seems incompatible with meeting its own climate targets. Kenya, on the other hand, recently decided to block a VCM project developer, Koko Networks, from being able to generate ITMOs for Kenya to sell internationally. Kenya's refusal was due to concerns the project developer was over-issuing credits as well as the risk that selling so many credits would scupper Kenya's ability to reach its NDC. It is also noteworthy that both cases expose the risks of integrating VCM projects into the Article 6.2 framework to trade ITMOs, which should serve as a clear warning to South Korea, which is considering further VCM integration in its compliance system as detailed above.

Beyond the overselling risk, many developing countries do not always have extensive experience regulating, or overseeing, carbon credit markets. This can generate institutional and capacity constraints, as well as a lack of associated regulatory frameworks, which pose particular challenges in least developed countries. There are also pronounced power imbalances between developed and developing countries regarding negotiating the terms of trading international carbon credits and attracting investment more generally. Together, these factors can obstruct domestic policy making decisions, potentially pushing countries to sell more credits internationally than they otherwise might, despite this bearing longer-term costs. Finally, insufficient government regulation – or enforcement of it – as well as inadequate social safeguards among carbon market standards are largely responsible for the checkered history of human rights abuses linked to carbon credit projects.

[23] In order to view Calyx Global's and BeZero's high-level ratings referenced in the embedded hyperlinks, one needs to have created a log-in to each platform. At the time of publication, no paid subscription is required on either platform to view their high-level ratings (detailed ratings require a paid subscription). BeZero's rating of the Guyana based ART TREES project for the years 2016-2022 was an already low BB rating, which on 13 October 2026 was further downgraded to its lowest D rating for the year 2023, following the revelation that the project was over-credited by 40% in 2023 due to an excel spreadsheet error that had gone unnoticed, including by the project's auditor.

Policy recommendations

South Korea must fundamentally recalibrate its approach to achieving both its 2030 and 2035 climate targets under the Paris Agreement (NDCs). The government's current plan to achieve its 2030 NDC using 37.5 million overseas carbon credits undermines South Korea's climate ambition, poses risks for its developing country partners, and will come at great expense to the country's citizens and businesses that will need to bear the costs of accelerated decarbonisation in the future.

The good news is that the South Korean government still has time to change course. By choosing domestic action over questionable offsetting, South Korea can still demonstrate genuine climate leadership that aligns with the true objectives of the Paris Agreement: urgently and equitably halting the climate crisis through rapid domestic decarbonisation.

We urge the South Korean government to:

- **Prioritise domestic decarbonisation over importing international carbon credits.** The current plans to rely on international credits defer action at home, as evidenced by similar approaches in the European Union, Switzerland, and Japan that weakened domestic ambition. As one of the most developed countries in the world, South Korea has both the opportunity, the capacity and the responsibility to implement the highest level of ambition with regards to domestic climate measures and investments. Outsourcing this responsibility to developing countries, risking to compromise their own climate targets, is neither necessary nor just.
- **Exclude legacy CDM credits and uphold the San José Principles** to safeguard a minimum level of quality. It is startling that the South Korean government is considering the possible use of nearly 8 million outdated CERs issued between 2013 and 2020 to meet its 2030 NDC. This stands in stark contrast to the commitments made by a group of 32 countries, including major developed economies, that have signed the San José Principles. It is also unacceptable for the South Korean government to set such a low standard by considering to buy nearly 35 million credits from problematic CDM projects transitioning to the Paris Agreement Crediting Mechanism. The use of both CERs and CDM transition credits risks undermining the credibility of South Korea's international climate efforts.

- **Regulate the voluntary carbon market rather than scaling and integrating it in South Korea's policy framework.** The voluntary carbon market suffers from deep structural flaws that continue to generate millions of low-quality carbon credits. Integrating VCM credits into South Korea's compliance framework and seeking to scale up corporate demand for offsetting would set a dangerous precedent that grants undue flexibility to the private sector while constraining South Korea's ability to effectively decarbonise domestically. Instead, South Korea should regulate the VCM by excluding VCM credits from eligibility in its compliance framework and in corporate climate target achievement, and by banning greenwashing claims as a start.

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