

COMMENTARY

Current Status of Article 6 of the Paris Agreement:

Internationally Transferred Mitigation Outcomes (ITMOs)

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Overview

Internationally transferred mitigation outcomes (ITMOs) use a carbon dioxide equivalent [CO₂e] metric for a new set of market provisions or other greenhouse gas (GHG) mitigation outcomes that are defined under [Article 6](#) of the Paris Agreement. Set to come into effect as of 2020, they are meant to replace other existing forms of international carbon credits such as those issued under the Kyoto-era [Clean Development Mechanism \(CDM\)](#) and Joint Implementation (JI). [ITMOs are not specifically defined yet and could take many forms](#), including through linking emission trading systems (ETs) across jurisdictions, investment in emission reduction projects, technology transfers and even credits from [REDD+](#) schemes. Article 6 could therefore be a useful way to channel technology, finance and capacity building from developed to developing countries. Some argue that it could support [reaching the USD 100 billion climate finance commitment](#) per year, though some countries oppose this approach.

There are [two main avenues](#) to how countries can cooperate using ITMOs as defined under Article 6 of the Paris Agreement:

- Article 6.2: [Countries can participate in international carbon markets by trading ITMOs](#) through a decentralized cooperative approach.
- Article 6.4: Countries can participate in a mechanism governed by the United Nations Framework Convention on Climate Change (UNFCCC).



Article 6 as a Departure From the CDM and JI

Under Article 6.2, ITMOs differ from previous offset schemes, as they count toward countries' Nationally Determined Contributions (NDCs), support overall mitigation in global emissions (for Article 6.4) and involve more substantial government participation than under the CDM. With all countries now having climate targets, unlike under the Kyoto Protocol where only Annex 1 countries did, Article 6 has also become a highly sensitive issue and one that requires careful balancing. There is a danger that developing countries could oversell ITMOs, compromising their own NDC achievement.

Despite these differences, Article 6 still shares similarities with the CDM and JI by building on the [concept of additionality](#), a key criterion for offset projects. Additionality means that projects have to prove that any emission reductions that occur are real, additional and measurable compared to any emission reductions that would have happened in the absence of the offset project.

Although the concept of additionality is not new, it is [still debated under Article 6](#), with parties unable to agree on how to redefine baselines to measure the impacts of offset projects, and governments disagreeing on whether additionality means going beyond current NDC ambition. It is also [difficult to prove additionality](#) with absolute certainty when using hypothetical baseline scenarios that may not materialize in the real world.

Given the heterogeneity of NDC targets, a second key challenge of Article 6 is to ensure [environmental integrity](#) and avoid the double counting of emissions (where two countries claim emission reductions toward their NDC). The risk of double counting is expected to be resolved at the NDC level through corresponding adjustments. This may require adjustments that look into the different offset schemes to harmonize accounting of ITMO credits.

It is also noteworthy that, to date, there is no [rulebook for Article 6](#), despite parties agreeing during the 24th Conference of the Parties (COP 24) on a general Paris Agreement rulebook. [COP 24](#) and the last [Bonn Climate Change conference](#) have left many points unresolved. These include:

1. Divergences about whether to earmark a share of the proceeds from the sale of ITMOs or Article 6.4 activities to an Adaptation Fund
2. Whether REDD+ activities should be considered as part of Article 6
3. If Kyoto Protocol methodology and carbon credits should automatically transition to Article 6 activities
4. How to ensure environmental integrity and avoid double counting emissions with diverging views in terms of using business-as-usual or historical emissions as good baselines to calculate emission reductions
5. Accounting for sectors outside of the NDC coverage

We expect that Article 6 rules will be defined at COP 25 in Madrid, but it is not a given. A block of countries that is fundamentally opposed to the idea of markets is currently holding up the agreement; in order to move forward, some unforeseen compromises and deals will likely have to be made. However, we do not expect any fundamental changes.

Which Climate Offset Projects Are Being Considered Under Article 6?

There are at least [four different ways](#) of categorizing future Article 6 projects: (1) upcoming initiatives specifically intended to be linked to Article 6; (2) pre-existing initiatives under the CDM or JI that might continue to qualify under Article 6; (3) initiatives linked to readiness for carbon pricing; and (4) international carbon market regimes outside the UNFCCC.

Within the first category of projects, a good example is the [NEFCO-Peru](#) pilot project supported by the Nordic Partnership Initiative. This project aims to create collaboration between Peru and another country to reduce



solid waste sector emissions, which is the third-largest GHG contributor in the country. Although it is still at the pilot stage, if implemented, this initiative would enable Peru to receive the necessary funding to increase its waste recovery, reduce its emissions from the waste sector while generating co-benefits such as reducing local air pollution, minimize the spread of diseases, and decrease water and soil contamination. It would also enable the transfer of ITMOs to the partnering country.

Other examples that fall under the first category of projects include virtual pilot studies commissioned by the Swedish Energy Agency (SEA) to use green bonds to mobilize the necessary funds to finance mini-grid implementation and renewable energy in [Nigeria](#). [Similar virtual pilot studies](#) have been conducted by the SEA in Colombia, Chile and Kenya, to name only a few.

Under the second category of projects that predate Article 6, one can find regional and international market approaches, such as the Quebec–California cap-and-trade agreement under the WCI,¹ the EU-ETS and the Swiss ETS. Another example is Japan’s [Joint Crediting Mechanism](#), which was established in 2010 as a way for Japan to cooperate with developing countries to reduce emissions by transferring low-carbon technologies.²

Under the third category of initiatives linked to the readiness for carbon pricing, one can find several multilateral initiatives, such as the [World Bank Transformative Carbon Asset Facility](#). This initiative serves as a platform to enable developing countries to increase their NDC ambition while developing robust carbon accounting measures that will enable the transfer of ITMOs between different parties in the future. There is also the [Asian Development Bank Article 6 Support Facility](#), which seeks to help developing countries test mitigation projects under Article 6. The Support Facility is financed by the German and Swedish governments with a budget of USD 4 million. Another initiative is the [World Bank Warehouse Facility](#), which seeks to expand carbon markets by providing a database of mitigation activities available to investors.

Finally, under the fourth category of possible Article 6 projects, one can find the [Carbon Offsetting and Reduction Scheme for International Aviation \(CORSA\)](#). As an offset scheme, CORSIA has three phases. The pilot (2021–2023) and first phase (2024–2026) will see volunteer countries participating in the system. By the time the second phase rolls out (2027–2035), it will become mandatory for most countries that have individual shares of international aviation activities to participate, making it effectively a compliance mechanism. During its first phases, it is uncertain if CORSIA may be eligible under Article 6 if it becomes part of NDC accounting in the future.

How Are North America and Canada Preparing for Article 6?

Although Article 6 comes into effect in 2020, Canada has already formulated several federal and provincial plans on how it seeks to participate in international carbon markets using ITMOs as a way to meet its NDC. One of these programs includes a partnership with Chile to reduce emissions in the waste sector (Box 1).

¹ The situation is more complicated in the case of the Quebec–California ETS qualifying under Article 6, as ITMOs and Article 6 provisions require the approval of federal governments. This point could be complicated with the United States withdrawing from the Paris Agreement.

² Currently, Japan has established partnerships with 17 countries under the Joint Crediting Mechanism.



Box 1: Canada–Chile Program to Reduce Emissions in the Waste Sector

As part of its 2015 climate pledge to deliver CAD 2.65 billion in climate finance over five years to developing countries, Canada has also offered [CAD 7 million to Chile to support NDC implementation in the waste sector](#) as part of a four-year program (2017–2021). The aims of the program are for Canada to assist Chile financially and technically in order to reduce methane emissions; to enable solid monitoring, reporting and verification of emissions that can then serve as a springboard for the transfer of ITMOs to Canada; and to leverage co-financing in order to upscale the project while communicating it effectively to the public. The last two goals will be particularly important to replicate the model in other communities and facilities, enabling the transfer of information and knowledge to other Latin American countries such as Mexico, Peru and Colombia through the Pacific Alliance. With this type of financial support and scale-up from the initial project, it is possible that Chile would exceed its NDC target by reducing emissions per unit of GDP by 5–15 per cent more by 2030 compared to 2007 levels (with its initial NDC seeking a 30 per cent reduction by 2030).

Beyond this initiative, Canada is also looking to obtain emission credits by [exporting liquefied natural gas \(LNG\) to Asian markets](#) as a way to replace coal-fired power in these countries. This is also the view adopted by [LNG Canada](#), a consortium of different oil and gas companies, including Shell, Petronas, PetroChina and Korea Gas Corporation. [The Canadian Association of Petroleum Producers](#) is also thinking along these lines. However, several environmentalists, First Nations and energy analysts see this as problematic, as it would lock in natural gas production for the long run.

[Other analysts within the energy landscape, such as John Drexhage](#) (former IISD Climate Change Director until 2011), see the potential for Canada in obtaining ITMOs through financial and technical support to other countries, such as in Eastern Europe, aimed at reducing their gas leakages. In general, although there is still little information available to date, [several of Canada’s other financing programs could also qualify under Article 6](#). This is the case in the waste management sector, with Canada providing CAD 1 million in Vietnam, or in the renewable energy sector, with Canada providing CAD 10.8 million to Burkina Faso to support the construction of a 26.6 MW solar power plant.

At the provincial level, there are also efforts to align with Article 6. For example, Saskatchewan is eager to transfer carbon, capture and storage (CCS) technology to other countries in order to receive ITMOs as part of its [Climate Change White Paper](#). Notably, the Government of Saskatchewan [states](#) that it “strongly encourages the Government of Canada to rapidly support and enhance efforts by SaskPower to establish an ITMO focussed [sic] on CCS technology” (p. 34). In its sector-specific, output-based performance standard, Saskatchewan [allows for firms to trade ITMOs](#) as part of the compliance measures. The Quebec–California cap-and-trade program linking, as mentioned previously, could also serve as an entry point for future Article 6 discussions. [Alberta](#) is also thinking of using forestry and agricultural offsets as a way to trade ITMOs. In all cases, it is difficult to judge how realistic these ideas will be until Article 6 rules are written.

In the United States, due to the current unfavourable political climate and its withdrawal from the Paris Agreement, there is little information about any plans to use ITMOs or climate finance as part of Article 6. The Quebec–California cap-and-trade program, which could qualify under Article 6, is one example that could see further linking with the [states of Washington and Oregon](#), who are also eager to join the system.³ Democratic candidates for the 2020 presidential election are also all in favour of rejoining the Paris Agreement if elected, with certain candidates

³ Despite the benefits of expanding the Western Climate Initiative by reducing carbon leakage, there are still many legal hurdles to its full implementation, including exemptions for different sectors across states.



making specific green finance pledges for developing countries. For Bernie Sanders, this includes a [Green New Deal](#), which, among other policies, includes providing USD 200 billion to the Green Climate Fund. If this came to fruition, it could qualify under Article 6 as a global fund that invests in many low-emission and climate-resilient projects throughout the world. Pete Buttigieg has also pledged a [USD 250 billion global investment initiative](#) that would “harness American innovation for clean energy and infrastructure projects around the world and counter China’s Belt and Road Initiative.”

Outlook

Although the exact rulebook to guide countries in exchanging ITMOs and pursuing mitigation projects under Article 6 is not yet known, the evolution of international carbon markets under the Paris Agreement presents many economic and climate benefits in both developing and developed countries. The [International Emissions Trading Association and the University of Maryland](#), with co-funding from the Carbon Pricing Leadership Coalition and other groups, “[undertook an assessment of the economic potential of Article 6 and possible implications of the various design options being negotiated](#).” Key findings from the report show through modelling work that Article 6 has the potential to both reduce the cost of implementing NDCs by 2030 by half (reducing it by USD 250 billion/year by 2030) and remove 50 per cent more emissions if the savings are reinvested in more mitigation projects.

However, in order for Article 6 and ITMOs to be truly beneficial, certain safeguards need to be put in place to prevent the same pitfalls that plagued previous international offset schemes such as the CDM. One of these risks is that developing countries need to carefully manage their emission reduction strategies to avoid overselling ITMOs, which could compromise their own NDC achievement. The trade of ITMOs should also be wary of any transfers of “[hot air](#),” where countries that have mitigation targets that are higher than their business-as-usual scenario would transfer ITMOs without actually reducing emissions, leading to a rise in global emissions. Finally, despite the benefits that ITMOs bring, they should also work to increase overall climate ambition and not as a way for developed countries to circumvent stronger climate action at home.

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