

Internationally Transferred Mitigation Outcomes

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Summary

Article 6 of the Paris Agreement¹ allows for the use of co-operative approaches, such as internationally transferred mitigation outcomes (ITMOs), to increase ambition and promote sustainable development. However, rules involving the use of ITMOs have yet to be agreed-upon by the parties to the United Nations Framework Convention on Climate Change (UNFCCC). Currently, no countries are on track to meet their nationally determined contributions (NDCs). Climate ambition needs to be significantly scaled up to limit average global temperature rise to 1.5°C to avoid planetary tipping points caused by climate change. The final negotiated text for Article 6 will define our ability to achieve this goal.

- After 20 years of experience with the Clean Development Mechanism (CDM) and Joint Implementation (JI), several accounting and credibility concerns have been identified. These concerns must be addressed, and lessons learned must be applied in the design of ITMOs.
- ITMOs must adhere to the basic rules of a credible offset mechanism. These include ensuring credited emissions reductions are additional to what would have occurred in the absence of the ITMO, can be verified as reductions from a credibly determined and agreed-upon benchmark, and are monitored and reported on over time.
- ITMOs represent a fundamental change from CDM and JI in two important ways. First, all countries, not just developed countries, have now set emissions targets under their NDCs. Within this new context, ITMOs should be used in accordance with the objectives of the Paris Agreement, to increase global climate ambition and not create perverse incentives that impair ambition. Second, while the types of activities and projects eligible to generate mitigation outcomes under Article 6 remain a matter of debate, the eligibility of low-carbon exports (not eligible under CDM/JI), in particular, raises significant challenges. These concerns have yet to be fully addressed and are critical to the integrity and effectiveness of international co-operation on climate action.

¹ Paris Agreement (2015). https://unfccc.int/sites/default/files/english_paris_agreement.pdf

Background

An international emissions trading mechanism (Article 17) was introduced in the Kyoto Protocol.² This included Joint Implementation (JI; Article 6) for trading of emissions between developed countries (with emissions targets or caps) and the Clean Development Mechanism (CDM; Article 12) for trading of emissions from developing countries (with no emissions targets or caps) to developed countries. Under the Kyoto Protocol, emissions credits earned by funding or enabling a specific project (such as reforestation or renewable energy development) could be used toward achieving the purchasing country's emissions target. These international emissions crediting mechanisms have been the subject of numerous academic studies since their implementation in 2001. Research has clearly shown that, without careful design and implementation, the environmental integrity of these systems can be undermined through crediting of emissions reductions that are not additional or are over-estimated. Since 2001, several concerning results have been identified. A comprehensive review³ of CDM projects in 2016 found that 85% of projects had a low likelihood of ensuring environmental integrity, and only 2% had a high likelihood of ensuring environmental integrity (Annex 1).

Internationally transferred mitigation outcomes (ITMOs) are a proposed revised version of international trading that builds upon the existing CDM/JI. Article 6 allows for mitigation outcomes to be exchanged either under decentralized governance with specific guidance from the Paris Agreement or by a centralized mechanism that is governed under the United Nations. The context for trading emissions has shifted, however, as all countries, not just developed countries, now have set emissions reductions targets or caps under their nationally determined contributions (NDCs). Also, Article 6.1 states that co-operative approaches should allow for increasing ambition. It is important to note that the sum of current NDCs falls short of meeting the Paris Agreement's 2°C target.⁴ What's more, no country is currently on track to achieve its NDC target. Climate ambition needs to be significantly scaled up if we are to avoid planetary tipping points caused by climate change.

Adding to these concerns, some stakeholders have been advocating for Article 6 to allow the generation of ITMOs from low-carbon exports (goods produced at a purportedly lower emissions-intensity level in one region than the same goods produced in another region and/or used to displace the use of a more carbon-intensive good). The eligibility of low-carbon exports in exchange for an ITMO represents a fundamental shift from the project-based focus of

² Kyoto Protocol (1998). <https://unfccc.int/resource/docs/convkp/kpeng.pdf>

³ Martin Cames et al., *How Additional is the Clean Development Mechanism?*, prepared by Öko-Institut e.V. for DG CLIMA (2016). https://ec.europa.eu/clima/sites/clima/files/ets/docs/clean_dev_mechanism_en.pdf

⁴ IOP Publishing, "Paris Agreement hampered by inconsistent pledges," *ScienceDaily*, July 25, 2019. <https://www.sciencedaily.com/releases/2019/07/190725193646.htm>

CDM/JI and raises significant challenges,⁵ which are expected to add to and exacerbate the existing challenges that have been experienced regarding the credibility and environmental integrity of CDM/JI credits. While Article 6 will establish rules and guidance for co-operative approaches such as ITMOs that can help inform the eligibility of low-carbon exports, it will be up to individual countries to respect and operationalize those rules. This raises questions with respect to the credibility and consistency of the application of the rules.

Questions to consider on ITMOs

Some fundamental concerns regarding ITMOs must be addressed before they can be considered credible. To ensure the environmental integrity of ITMOs, the following questions regarding key criteria, design, verification, and tracking must be answered.

First, there are fundamental questions around the raising of ambition:

1. Ambition and perverse incentives

- How will the rules under Article 6 define ambition? There are different schools of thought regarding the definition of ambition: *ITMOs are a path to achieve NDCs* versus *ITMOs are a path to exceed NDCs*.
- How can we ensure ITMOs don't create a perverse incentive for countries to reduce the ambition of their NDC, which will be updated/recommitted/declared in 2020?
- Is there a cap on how many ITMOs are acceptable for a country to purchase or sell?

Once these are resolved, basic accounting challenges still need to be addressed:

2. Additionality and leakage

- How can we ensure that emission reductions were achieved because of the ITMO, and wouldn't have been achievable without it?
- How can we ensure that the emissions reductions have not been displaced to another location (i.e. ensure no leakage⁶)?

3. Emissions baseline and verifiable reductions

- Given the record of challenges associated with baselines in the project-based CDM, how will we deal with the additional complications that come with establishing baselines for products (i.e. if low-carbon exports are considered eligible for an ITMO)?

⁵ Jason Dion, "No, Canada cannot get credit for its low-carbon exports," *Canada's Ecofiscal Commission*, June 17, 2019. <https://ecofiscal.ca/2019/06/17/no-canada-cannot-get-credit-low-carbon-exports/>

⁶ Leakage occurs when a reduction credit is claimed for reducing emissions at one location, but instead of those emissions not occurring at all, they are displaced to another location. A hypothetical example of leakage is the following: an investment is made into renewable energy to offset the use of coal and an ITMO is credited. Instead of being removed from the market, that coal is instead used in a different location or for a different purpose. In this case, the ITMO would not lead to a net decrease in emissions, only a displacement in emissions.

- How will ITMOs be shared between countries in the case of bilateral trade, and how will we ensure they are not double-counted? How will credits be adjusted for countries that already have emissions trading systems in place?
 - How can we ensure that a credible and consistent crediting protocol is used by every country?
 - How will baselines change over time, given technological advancements?
- 4. Monitoring, reporting, and verification**
- How will the challenges experienced with the CDM (such as lack of clear criteria and social and human rights safeguards, and poor monitoring, reporting, and verification [MRV; see Annex]) be overcome to ensure all countries and projects follow the same rules for MRV, and that these rules safeguard environmental and social integrity?

Four principles of credible ITMOs

Based on these fundamental questions, and based on the many lessons learned from 20 years of experience with CDM (see Annex), the following four principles should be used to evaluate whether an ITMO is credible. Only by adhering to these principles should ITMOs be supported as a credible component of an international emissions mitigation strategy.

1. **Raises global ambition:** Emissions credits eligible for ITMOs must be for reductions that go above and beyond the ambition of current NDC targets, not used as a pathway to achieve current NDC targets.
2. **Achieves additional emissions reductions:** It must be demonstrable that the ITMO achieves emissions reductions that would not otherwise have occurred in the absence of the ITMO, and that the emissions reduced by the ITMO have not been displaced or leaked to another location.
3. **Achieves verifiable emissions reductions:** It must be verifiable that the ITMO achieves emissions reductions against a globally agreed-upon baseline and can be monitored and reported on over time under clear monitoring guidelines.
4. **Protects human rights and promotes the health and wellbeing of all communities:** ITMOs must respect the rights of all communities and Indigenous Peoples by avoiding undue harm, thoroughly assessing risks, supporting reconciliation, and including safeguards for human rights protection.

Annex

Clean Development Mechanism

The past 20 years of experience with the Clean Development Mechanism (CDM), and the 7,803 registered projects (as of 2018),⁷ should serve as a foundation for internationally transferred mitigation outcomes (ITMOs), as any new crediting mechanism can expect to face similar challenges.

Has the CDM successfully reduced emissions?

Research shows that the CDM has provided many benefits, including technology and financial transfers to developing countries, identification of untapped mitigation opportunities, potential leapfrogging of fossil fuel energy infrastructure, and creation of knowledge, institutions, and infrastructure to facilitate climate action. Some projects have also provided significant sustainable development co-benefits.^{8,9} Despite these benefits, and over a decade of experience, there are enduring limitations of the CDM's emissions crediting mechanisms.

As specified in Article 12 of the Kyoto Protocol, CDM projects must provide emission reductions that are real, measurable, and additional to what would otherwise have occurred, and must qualify through a registration and issuance process, with approval given by designated national authorities (DNAs).¹⁰ Since the first CDM project was registered in 2004, the system has received significant criticism, particularly regarding its environmental integrity. Various analyses have shown that it's likely the majority of certified emissions reductions (CERs) issued under the CDM are not providing real, measurable, and additional emission reductions. Some have even argued that the CDM has led to an increase in emissions due to leakage.¹¹

A comprehensive review¹² of CDM projects in 2016 found that 85% of projects had a low likelihood of ensuring environmental integrity (i.e. emissions reductions that are additional and not over-estimated), and only 2% had a high likelihood of ensuring environmental integrity. Criticisms that have been raised include weak assessment by DNAs due to a lack of

⁷ UNFCCC Secretariat, *Achievements of the Clean Development Mechanism: Harnessing Incentive for Climate Action, 2001–2018* (2018). https://unfccc.int/sites/default/files/resource/UNFCCC_CDM_report_2018.pdf

⁸ *How Additional is the Clean Development Mechanism?*

⁹ Karen Holm Olsen, Christof Arens, and Florian Mersmann, "Learning From CDM SD Tool Experience for Article 6.4 of the Paris Agreement," *Climate Policy* 18, no. 4 (2018). doi:10.1080/14693062.2016.1277686

¹⁰ UNFCCC Secretariat, "The Clean Development Mechanism." <https://unfccc.int/process-and-meetings/the-kyoto-protocol/mechanisms-under-the-kyoto-protocol/the-clean-development-mechanism>

¹¹ *How Additional is the Clean Development Mechanism?*

¹² *Ibid.*

clear and transparent criteria, cases of registered projects with negative impacts, and lack of requirements and procedures for monitoring, reporting, and verification (MRV).

Lessons learned from the CDM

A key feature of both the CDM and Paris Agreement Article 6 (ITMOs) is that credits should generate real and additional emission reductions (i.e. emission reductions that are credited and transferred should not have occurred in the absence of the mechanism and should not be overestimated). Emission reductions should also be measurable and long-term.

Based on the challenges faced by CDM in ensuring environmental integrity, some key lessons have been learned:

On additionality: For an emission reduction to be proven additional, it is necessary to be able to assess whether the CDM was the deciding factor for project investment. The subjective nature of investment analysis limits its ability to assess with high confidence whether a project is additional. This elusiveness of additionality is challenging to address through the improvement of rules, and exists for most project types under CDM. Therefore, it's important to limit crediting mechanisms to project types for which additionality can be relatively assured.

On leakage: CDM projects have the potential to cause carbon leakage, or the shifting of emissions from one place (within project boundaries) to another (outside project boundaries). In order to ensure additionality and environmental integrity, projects must discount emission reduction credits by the amount of carbon leakage caused. However, it is difficult to trace all pathways of potential leakage; market leakage, in particular, is the most difficult to quantify and, as a result, is often neglected. Therefore, consideration of potential carbon leakage in project design and verification is crucial to ensure integrity.

On reduction certainty and baseline emissions: For many project types, the uncertainty of emission reductions is considerable. There are risks of over-crediting or perverse incentives for project owners to inflate emission reductions. It is also challenging to be certain about how long projects will reduce emissions for, as they may have been implemented at a later stage in the absence of the CDM. This issue is not currently addressed under CDM rules. Therefore, it's important to limit crediting mechanisms to project types that have a high likelihood of delivering additional emission reductions.

On monitoring, reporting, and verification: In response to CDM criticism, the UNFCCC Secretariat developed a CDM Sustainable Development (SD) Tool in 2012 that includes indicators to identify and describe the co-benefits of CDM projects, safeguards to mitigate the risks of negative impacts, and enhanced requirements for stakeholder consultation. Experience with this tool, and evaluation of its success in improving the environmental integrity of CDM projects, is highly relevant for informing the design and verification of ITMOs.

On perverse incentives: CDM projects may create perverse incentives for policy makers in host countries not to implement policies or regulations to address emissions, as to reduce potential for international crediting. In the case of ITMOs, the perverse incentive may be for countries to reduce or limit the ambition of their NDCs. There may also be perverse incentives to issue credits for activities that are not additional because they are implemented due to policies or regulations, not due to the CDM. Therefore, it's important to monitor perverse incentives that may lead to CDM projects or ITMO credits that are not additional.