

ROBUST ACCOUNTING UNDER ARTICLE 6

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Key to the Integrity of the Paris Agreement

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KEY MESSAGES AND RECOMMENDATIONS

- A robust accounting system for Article 6 transactions will be key to the environmental integrity of the Paris Agreement.
- Article 6 transactions, if not properly accounted for, would provide a misleading picture of global efforts to meet the goal of carbon neutrality.
- Double counting (including double issuance and double claiming) are key issues. The accounting system must provide for clear identification of that risk, through the application of Corresponding Adjustments (CAs).
- Reaching an agreement under Article 6 may unlock significant amounts of carbon finance but will depend on the quality of the negotiation outcome. A poor outcome may lead to significant under-utilization of Article 6, and undermine the viability of the Paris Agreement altogether if the risk of double counting is not properly addressed.

INTRODUCTION

While countries have reached agreement on most aspects of the implementation of the Paris Agreement through the “Katowice Rulebook”, key modalities for putting Article 6 into operation are yet to be decided upon. In this context, accounting of traded emission reductions is one of the key issues to be resolved at COP26 in Glasgow. The successful resolution of this issue is crucial to ensuring the environmental integrity of carbon market transactions and, ultimately, of the Paris Agreement as a whole. The following discussion focuses on this outstanding key issue.

WHAT IS ACCOUNTING?

An accounting system is a set of rules that details which emission reductions are, and which ones are not, allowed to be counted towards the fulfilment of a country's pledge to reduce greenhouse gas emissions – i.e., its Nationally Determined Contribution (NDC). Accounting incorrectly for Article 6 transactions could seriously damage the credibility and integrity of the environmental outcomes of the Paris Agreement. In particular, two different risks are highlighted:

- **Double issuance:** The emission reduction units from a mitigation effort are registered more than once under different mitigation mechanisms, such as under the sustainable development mechanism and an NDC.
- **Double claiming:** Two or more Parties claim the emission reduction units from the same mitigation action to comply with their mitigation targets (Climate Focus 2016).

Either of these would result in a lower global greenhouse gas emission reduction than the total of individual NDC targets under the Paris Agreement. Thus, in the absence of rules on accounting that reduce the risk of double counting, Parties could claim to have reached their NDC targets and yet the environmental effectiveness of the total effort under the Paris Agreement would be less than envisioned.

Accounting's relation to reporting

Accounting must be differentiated from reporting. All countries under the United Nations Framework Convention on Climate Change (UNFCCC) are required to provide information, i.e., to report on their national emissions as well as their efforts under the Convention. The reporting instruments prior to the Paris Agreement entailed the regular development of a national greenhouse gas inventory, a biennial (update) report on policies alongside the inventory and a more extensive National Communication that should be submitted every four years. Prior to Paris, there were significant differences between reporting obligations for developed and developing countries.

The Paris Agreement establishes in its Article 13 an Enhanced Transparency Framework. This article entails new reporting obligations for all countries, with respect to their climate action. Critically, it encompasses not only reporting in relation to levels of emissions, impacts, and policy action, but also reporting in relation to the Nationally Determined Contribution, including information to assess progress made. As described in this brief, through this process a link has been re-established under the Paris Agreement between the reporting and accounting systems.

The accounting system under the Kyoto Protocol

Under the Kyoto Protocol, all Annex I Parties' mitigation targets were expressed as Quantified Emission Limitation and Reduction Commitments (QELRCs), i.e., as average annual greenhouse gas emissions over the 2008-2012 period expressed as a percentage of national 1990 baseline emission levels. The allowed level of targeted annual emissions was known as Assigned Amounts (AAs). Each unit (equal to 1 ton of carbon dioxide equivalent, CO₂e) was termed an Assigned Amount Unit (AAU). Countries could trade these AAUs to meet their targets.

The Kyoto Protocol also allowed for trade in emission reductions from projects to be used for meeting the target, for example via the Clean Development Mechanism (CDM) or the Joint Implementation Mechanism (JI). The Kyoto Protocol accounting system allowed for these specific types of units (all of which were defined on a single metric of 1 ton of CO₂e) to be added to (if purchased) or subtracted from (if sold) countries' AAs and compared with their reported inventory emissions.

Notably, the Kyoto Protocol accounting system reflected the top-down nature of its conception:

- a) Targets were defined through negotiations among Parties.
- b) There was no flexibility for Parties on the metric used (tCO₂e), on the base year (1990, with few exceptions) or on the shape of the target (x% reduction from the base year for the compliance period).
- c) Whether or not Parties engaged in trading of units, all Annex I Parties were required to have a registry infrastructure that allowed for such trading but also for the checking of compliance with targets. This was integral to the architecture of the compliance system.
- d) Only units issued centrally by the Kyoto Protocol (AAUs and project-based units from CDM and JI) could be used to meet targets.

The design of the Kyoto Protocol thus clearly revolved around a compliance system based on a trading architecture.

Accounting under the Paris Agreement

Under the Paris Agreement, trading (under Articles 6.2 and 6.4) is not a central feature of the Agreement. Given its bottom-up, pledge-based system, accounting under the Paris Agreement has as a starting point a much more differentiated approach, with countries expressing pledges towards emission reductions in many different formats (see box 1).

Under Paris, there is a much greater flexibility accorded to countries on how to contribute to the Agreement's goals. But this flexibility carries a cost, with several complexities arising from the different formats and commitments for Nationally Determined Contributions. With respect to Article 6 transactions, this complexity of the NDCs leads to significant challenges in designing a robust system.

Parties report on impacts, emissions, removals and policies. The accounting system, in contrast, is meant to provide an account of Parties' efforts towards their commitments. The reporting system of the Paris Agreement builds on the previous frameworks and is, for the most part, based on the need to understand a Party's emissions – its sources and sinks – using a common reporting format. The accounting system tracks progress towards a Party's NDC and hence will be as distinct as the country NDCs. For example, accounting for a mitigation target expressed in "tonnes of CO₂ deviated from a baseline projection" will need to be differentiated from another target expressed as "square kilometers of photovoltaic panels." See box 1 for the existing diversity of NDCs.

Box 1. The diversity of commitments under the Paris Agreement

The Paris Agreement allowed countries to pledge or commit to action as they saw fit, with very little guidance to Parties (despite calls for such guidance in the lead-up to Paris). Expectedly, countries developed many different types of NDC pledges. Some of the main types are summarized below:

- **QELRCs:** Some of the Annex I Parties with Kyoto experience decided to replicate the same type of target as under Kyoto. For example, the European Union has a target expressed as a % reduction of greenhouse gases across a basket of seven gases. Brazil has set out a similar commitment.
- **Relative target:** Many developing countries with higher economic growth expectations opted for a relative target, expressed as a “deviation from projected emissions for a future year (~2030) under a business-as-usual scenario.” It should be noted that if the future-year projections are fixed based on forecasts (ex ante), then the reduction is equivalent to the QELRC (e.g., in Morocco). The added flexibility is available only to those that would determine the projected emissions for each year based on actual results (ex post) – in which case, questions can again be raised about the ability to trade units out of these NDCs.
- **Intensity target:** This is yet another type of target, usually expressed in terms of the carbon intensity of GDP. As with the previous type of target, an intensity target implies that actual performance is dependent on the level of domestic economic activity. In turn, this implies that the ability to sell or the need to buy in order to meet the pledge will only be ascertained once the GDP is calculated.
- **Peak and decline:** Some pledges (e.g., in China) relate to the earliest date of peaking of emissions, followed by the rate of decline thereafter.
- **Policy pledges:** These may include, for example, the deployment of X gigawatts of solar production capacity, or increasing afforestation, or preventing deforestation efforts (e.g., in India).

This diversity in the form of the commitments under the Paris Agreement is compounded by the diversity in both the greenhouse gas coverage (some pledges are relevant only to CO₂, while others cover more or all the greenhouse gases covered under the Kyoto Protocol) and the scope (some pledges are economy-wide, while others focus on specific sectors or sub-sectors of the economy, etc.).

The process of accounting for progress towards a Party's NDC is now embedded in the Paris Agreement's Enhanced Transparency Framework (ETF). Article 77d of the Decision on the ETF of the Katowice package (Decision 18/CMA.1) requires Parties to provide, in a structured summary:

- information on the annual level of anthropogenic emissions by sources and removals by sinks covered by the NDC on an annual basis reported biennially;
- an emissions balance reflecting the level of anthropogenic emissions by sources and removals by sinks covered by its NDC, adjusted on the basis of Corresponding Adjustments (CAs); and
- information on how each Party's approach ensures environmental integrity and transparency and robust accounting.

It is clear that, under the Kyoto Protocol, “accounting” was strictly an issue for those countries that had targets, i.e., developed countries, as these would be the ones that would need to report on the use of their units to cover their emissions. Developing countries had only a marginal role in the Kyoto accounting system, through the market mechanism of the CDM.

Under the Paris Agreement, however, all countries that pledged mitigation contributions through their NDCs will be asked to account for these.

ISSUES ARISING FROM TRADING ACROSS THE COMPLEXITY OF COMMITMENTS UNDER THE PARIS AGREEMENT

The wide variety of NDCs put forward by Parties under the Paris Agreement entails significant complexity in relation to the accounting system. A variety of issues are at stake, i.e., the types of NDCs (point targets versus trajectory targets), their metric and possible conversions, and the types of units used (see table 1).

In a world with no transactions between countries, and in which countries would all have economy-wide commitments, the accounting system would indeed be similar to the reporting (i.e., inventory) system. However, trading among Parties complicates the issue considerably.

Table 1. Complex issues related to the accounting system of the Paris Agreement

Issue	Description	Options/ outcomes
Definition of an ITMO	What, in Article 6 language, is an “internationally transferred mitigation outcome” or “ITMO”?	Text is nearly agreed on what the main characteristic of an ITMO is.
Unconditional vs. conditional NDCs	Although not required by any decision, many (developing) countries set out their NDCs into two distinct components: an unconditional pledge to be achieved with own resources, and a conditional pledge that is dependent on external support, which could refer to carbon market support.	The current text does not stipulate any distinctive rules for conditional pledges. It will be up to each Party to determine how it will choose to interpret its own NDC in light of the Corresponding Adjustment rules established under Article 6.
Corresponding Adjustments (CAs)	<p>The Paris Agreement text, although mandating that an adjustment be made with respect to trading mitigation outcomes, is silent as to what would get adjusted upon a transaction. Should the inventory be adjusted? Or should the adjustment be made to other quantities?</p> <p>How, and when, does the buyer (and eventual user) account for its purchase? Two separate countries should not be able to account for the same emission reduction twice. How then do the two countries adjust their commitments with respect to the trade between them?</p>	There is broad agreement that adjustments will be made on the basis of inventory data, i.e., by adding any transfer of mitigation outcomes from country A to country B to country A's inventory, thereby making the export of credits carry an opportunity cost in terms of reported emissions. This will be done according to Article 77d of the Katowice package in a structured summary as part of the Biennial Transparency Report.
Trading from inside NDCs and outside NDCs	<p>If a country trades an ITMO from its NDC, how does it account for it internationally?</p> <p>Likewise, if a country trades an ITMO that has been issued with respect to emissions not covered by its NDC, does it still have an obligation to adjust its NDC?</p>	Some Parties are inclined to not consider ITMO generation from outside the scope of NDCs, as this would reward a Party for NOT including emissions within their NDC scope, which would go against the requirement for a progression towards broader NDCs. Some argue for a compromise based on a transition period.
Point targets vs. trajectories	Some countries have a point target, i.e., a commitment to reach a certain level of its emissions by a certain date in the future (usually 2030), but have no commitment for the time between now and the target year. In such cases, should countries account for emissions purchased before the target year? If so, when, and how should they account for the purchase?	The text points to two solutions to the accounting of single-year “point” targets: a) requiring the definition of a trajectory for the entire period and limiting the use of transferred units to the range between the emission level and the designed trajectory level for each year, and b) averaging across the period from the purchase year to the target year.
Metrics	NDCs have very different structures and metrics. Should there be ITMO trade only in quantifiable CO ₂ e, or could there be conversion factors for other units? What about NDCs that do not commit to an outcome, but to a policy? What should be adjusted, accounting-wise?	This is a highly political issue, likely to be subject to a political decision at COP26 followed by an expert process for developing modalities, if any, at a later stage.
Accounting for Article 6.4 transactions	Should Article 6.4, i.e., the centralized mechanism foreseen to replace the former Clean Development Mechanism (CDM) and an alternative route to the bottom-up trading under Article 6.2, be subject to the same discipline of Corresponding Adjustments, and, if so, as of now or after a phase-in period?	A majority of countries seem to favour application of the CA discipline to trades under Article 6.4. This is a political issue.

While no quantification has yet been attempted, the generation and use of ITMOs could lead to seriously undermining the global outcomes of the Paris Agreement, especially given the assessment of the Intergovernmental Panel on Climate Change (IPCC) that current pledges do not meet even the threshold for reaching the overall goal of keeping temperature increase below 2 degrees Celsius, let alone 1.5 degrees Celsius. Therefore, the stakes are very high, and this is why Article 6 remains on the negotiating table as the last holdout of the Paris Agreement issues.

TAKING STOCK AT COP26

1. What progress has been achieved so far?

On many of the issues outlined above, substantial progress has already been made. In particular, at the climate talks in Madrid in 2019, the link between the accounting and the reporting systems was outlined considerably. A clear understanding of how Corresponding Adjustments are made has been reached.

2. What to look out for at COP26?

At this stage and after the last session of the Subsidiary Body of Scientific and Technological Advice (SBSTA), some solutions are close at hand for many of the accounting challenges in the negotiations. There is overwhelming support for Corresponding Adjustments to be applied to national inventories and reported under the biennial reporting procedure foreseen under the Enhanced Transparency Framework, as per the Katowice decision. There is also widespread agreement on how to apply a Corresponding Adjustment with respect to mitigation outcomes from economy-wide, quantified NDCs.

On the issue of adjustments for trades in ITMOs generated outside NDCs, the text also outlines potential areas of convergence around a phase-in period, such that countries may only issue such ITMOs for a limited period. A longer transition period would directly contradict the notion of “progression” in the target. On the issue of point targets, the current text has already considerably narrowed down the scope.

Significant differences remain, however, on other issues, most notably:

- Non-greenhouse gas metrics. This is bound to be an issue of considerable importance. Countries with NDCs expressed in these metrics, such as India, would feel excluded if their NDC, developed prior to the Paris Agreement itself, would prevent them from engaging in Article 6 trading. Significant methodological challenges in applying Corresponding Adjustments across a variety of metrics used in different NDCs nevertheless imply that a clear solution is not yet at hand.
- Corresponding Adjustments for Article 6.4. Brazil will insist on some phase-in period to accommodate the conversion of CDM project credits to new, Article 6.4. credits and to allow for at least a limited period for the issuance of credits without adjustment, at least to the first trade. However, this issue is likely to be linked in the outcome with the related issue of the transition of the CDM (see first briefing note in this series).

Finally, as Parties reach closer to consensus on the full package of options that allow for a successful outcome for Article 6 negotiations, focus will inevitably shift to ensuring the enabling conditions for full participation and engagement. The current draft text already describes in some length the participation conditions, such as timely submission of inventories and Biennial Transparency Reports, provisions for tracking of ITMO transfers (i.e., registries or transaction logs), including annual data on emissions and removals, annual data on the use of ITMOs towards NDCs, and the annual emissions balance.

For developing countries that have not yet considered domestic carbon market mechanisms, a substantial infrastructure will need to be put in place following COP26, including, for example, the set-up of a national emission registry.

3. Conclusions

While agreement may yet be reached on most accounting issues, the question of whether a full agreement on Article 6 can be reached remains an open one, depending on the balance of issues in the Article 6 package, of which the accounting-related questions are only a subset. It is clear, however, that the transparency, integrity and scale of ambition reflected in the sum total of NDCs delivered so far can be significantly dented by flawed accounting rules.

As Parties try to reach an agreement on Article 6, a few points bear emphasizing:

- a) Parties can already now work cooperatively on pilot programmes that can anticipate Article 6 rules (see Greiner et al. 2020). The recent announcements of framework deals between Switzerland and Peru, as well as capacity-building activities and other piloting schemes under the World Bank and others, attempt to provide participants with hands-on experience with the establishment of new carbon market mechanisms.
- b) Carbon markets are already in operation, in some cases with active linkages, without an agreement on Article 6 under the UNFCCC. The European Union's Emission Trading System effectively de-linked from the international system in 2011 and has since concluded linking arrangements with Switzerland. The Japanese government's Joint Crediting Mechanism has already established a significant pipeline of projects in many countries. Resolving satisfactorily the questions under Article 6 would no doubt increase the activity in the carbon market overall and lead to a convergence of efforts.
- c) In particular, the voluntary carbon market, driven by voluntary commitments at the corporate or entity-level, has surged in recent years, with volumes doubling (Ecosystem Marketplace 2021). There is ongoing pressure from many quarters for these transactions (albeit purely voluntary) to be subject to the discipline of Corresponding Adjustments. However, operators of voluntary carbon markets contend that any such requirement would greatly impair the usefulness of the market and is not warranted from an environmental perspective, as there is no environmental integrity risk arising from double claiming of units. In other words, when a company buys units on the voluntary carbon market to comply with its self-imposed carbon neutrality goal, the credits it purchases are likely to show up as emission reductions on the host country's inventory and so contribute to its target (whatever the shape may be), but will not be counted to any purchasing country's NDC¹. However, many stakeholders believe that, although logically correct, it would be unethical for companies not to effect Corresponding Adjustments to their purchases.
- d) On the other hand, one of the lessons from Kyoto is that carbon markets that are de-linked from the UNFCCC process are also better insulated against poor governance and flawed accounting at the international level. Re-establishing the confidence that an international framework for carbon markets can provide sufficient levels of integrity is the litmus test for any agreement on rules for accounting for Article 6 transactions.

¹ Outside the UNFCCC, there are several initiatives related to voluntary carbon markets (VCMs) that are meant to address these issues, including the TSVCM (<https://www.iif.com/tsvcm/Main-Page/Publications>) and the VCMI (<https://vcmintegrity.org>).

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EXPERTS' BIOS



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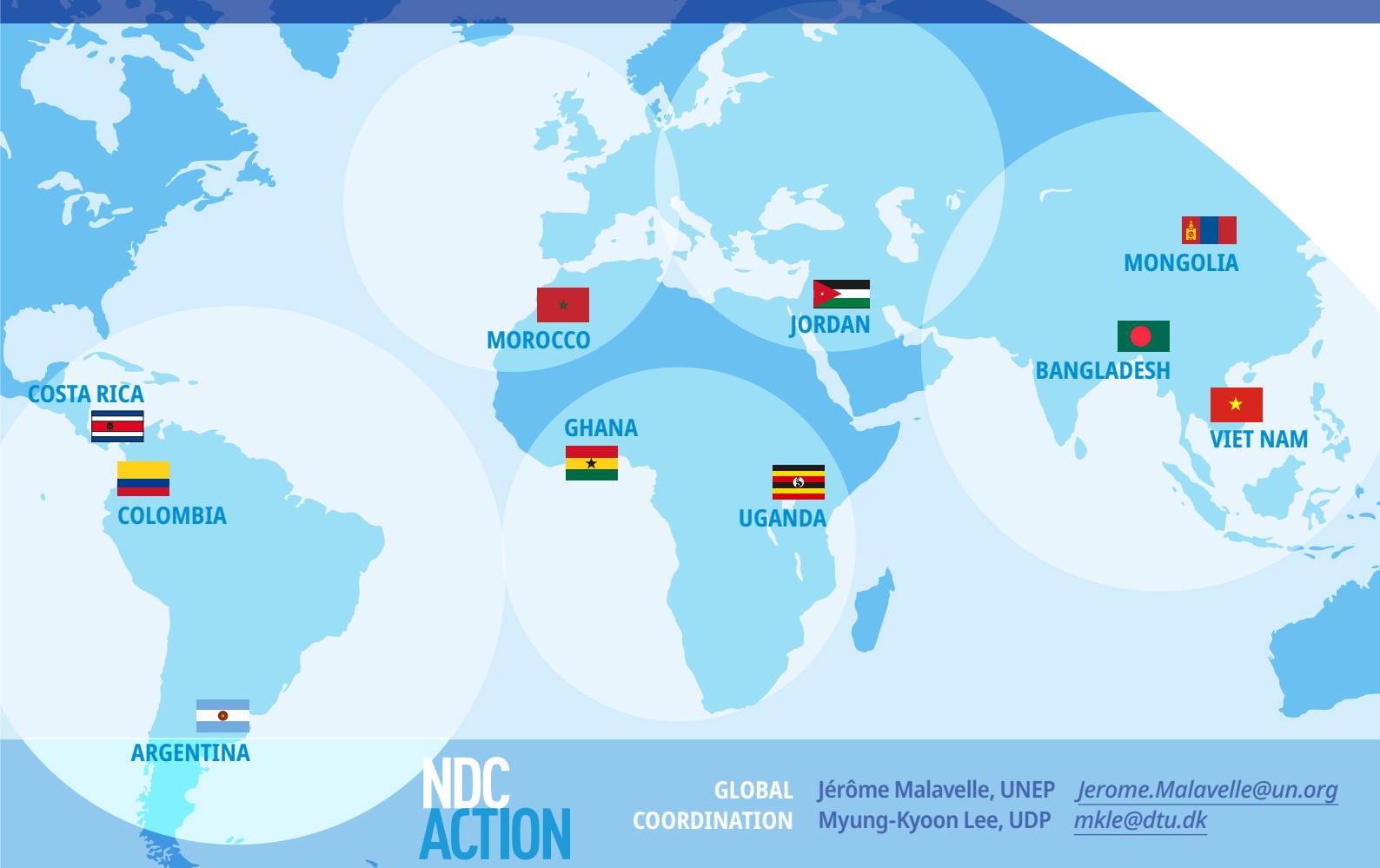
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NDC ACTION

The “NDC Action” Project – jointly implemented by UNEP and the UNEP DTU Partnership (UDP) – supports ten partner countries to translate their Nationally Determined Contributions (NDCs) under the Paris Agreement into concrete strategies and actions ready for financing and implementation, and fosters accelerated public and private investments in sector specific NDC implementation. It builds on three core principles: country ownership, balanced focus between adaptation and mitigation, and integration with national development and climate change priorities.



**NDC
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