



To trade or not to trade?

OPTIONS FOR OPERATIONALIZING CORRESPONDING
ADJUSTMENTS UNDER ARTICLE 6

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ADJUSTMENTS UNDER ARTICLE 6**

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Acronyms

AEF: Agreed Electronic Format

BTR: biennial transparency report

CARP: Centralized Accounting and Review Platform

CDM: Clean Development Mechanism

CERs: Certified Emissions Reductions

DNA: Designated National Authority

ITMOs: internationally transferred mitigation outcomes

MtCO₂e: million tonnes of carbon dioxide or equivalent

NDCs: nationally determined contributions

SB: Supervisory Body

SBTi: Science-based Targets initiative

SOP: Share of Proceeds

OMGE: Overall Mitigation of Global Emissions

VCM: voluntary carbon markets

Executive Summary

The Paris Agreement laid the groundwork for a new era of carbon credit trading with the establishment of Article 6. Article 6 allows countries to cooperate in achieving their nationally determined contributions (NDCs) and raise collective global ambition to limit temperature rise to 1.5C by 2050. However, this is only possible with clear and transparent accounting around how countries plan to meet their NDCs and what is traded. At the heart of carbon accounting lies the concept of corresponding adjustments, which requires seller countries to subtract emission reductions and removals from their NDC before the buyer country adds the credits to their NDC target.

Countries face three key decisions around Article 6 trading, including:

1. Which credits to authorize for corresponding adjustments ([page 13](#))

Successful achievement of a seller country's NDC is essential if the country plans to sell Article 6 credits with a corresponding adjustment. Seller countries must consider trade-offs: the more credits (with a corresponding adjustment) a seller country sells, the fewer emission reductions or removals they can claim against their own NDC. This creates an incentive for seller countries to keep low-cost mitigation for themselves and offer higher cost mitigation to buyers and introduces new risks around overselling credits before the NDC has been achieved. Some countries have sought to address this risk with requirements for a percentage of traded credits to be set aside or with restrictions around the types of authorized credits. Negotiations

are also underway debating whether a seller country could change the authorization of a corresponding adjustment.

2. Which credits to authorize for non-corresponding adjustments ([page 17](#))

The latest negotiations concluded in 2022 with a new term: "mitigation contribution" credits, which can be used, "inter alia, for results-based climate finance, domestic mitigation pricing schemes, or domestic price-based measures, for the purpose of contributing to the reduction of emission levels." This option only applies to Article 6.4 credits for now.

3. How to authorize credits ([page 19](#))

While countries began piloting Article 6 agreements in the last few years, no transfers have yet occurred, and the first authorization letter only appeared in late 2022. That's because countries have been waiting for additional guidance from the Article 6 negotiations *and* have been hard at work making domestic decisions needed before authorizing credits for a corresponding adjustment. These decisions differ based on the type of Article 6 approaches:

- **Article 6.2** allows countries flexibility in designing their rules and establishing quality controls, but also may take more time to scale multiple deals.
- **Article 6.4** relies on a centralized Supervisory Body to create a framework and approve eligible methodologies for trade. This may take longer to create but will likely prove easier to scale.

While Article 6 sets up a general framework for international cooperation, many decisions on how to operationalize these trades may be made individually and could vary country by country. This report looks at the examples of Ghana ([page 25](#)), The Bahamas ([page 26](#)), Indonesia ([page 27](#)), Tanzania ([page 28](#)) from the seller side and Japan ([page 31](#)) and Switzerland ([page 32](#)) from the buyer side to summarize existing trading approaches.

Finally, there has been a vigorous debate in the voluntary carbon markets about whether such credits should require or request a corresponding adjustment ([page 33](#)). A few factors that may influence the outcome of this debate are:

1. Country requirements ([page 34](#))

Countries have the authority to determine whether adjustment is required for non-Article 6 trades, for example, where voluntary buyers are seeking to purchase credits from the country. The decision to authorize was straightforward for some countries whereas for others it involves more nuance (e.g. no decision has been made yet or corresponding adjustments are only required for buyers making offsetting claims). Most countries do not have a clear stance at present. This uncertainty poses a risk for project developers and traders, who make decisions on investments years in advance.

2. Standard requirements ([page 39](#))

VCM standards and initiatives can require corresponding adjustments; however, none require this to date (though the Gold Standard has indicated it plans to require adjustments in the future). Additionally, key initiatives for quality such as the Voluntary Carbon Markets Integrity Initiative (VCMI) and Integrity Council for the Voluntary Carbon Market have yet to weigh in on the debate for a corresponding adjustment requirement in the VCM.

3. Market norms ([page 39](#))

Voluntary buyers themselves have the potential to create a market for correspondingly adjusted credits. However, there does not appear to be clear consensus on whether buyers will expect a corresponding adjustment with their credits as of this time.

In conclusion, the world of corresponding adjustments is dynamic and complex. Everyone from policy makers to buyers to project developers is trying to gauge what they can expect going forward. Implementation will take time, though we have little to spare in our pursuit of a 1.5C future.



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Introduction

The Paris Agreement laid the groundwork for a new era of carbon credit trading with the establishment of Article 6. Article 6 allows countries to cooperate in achieving their nationally determined contributions (NDCs) and sets up opportunities for countries to trade internationally transferred mitigation outcomes (ITMOs).

At its best, Article 6 offers countries a way to invest in actions outside their borders and raise collective global ambition to limit temperature rise to 1.5C by 2050. However, this is only possible with clear and transparent accounting around how countries plan to meet their NDCs and what is traded. At the heart of carbon accounting lies the concept of corresponding adjustments, which requires seller countries to subtract emission reductions and removals from their NDC before the buyer country adds the credits to their NDC target.

Countries only established the framework for corresponding adjustments in late 2021. One year later, in Sharm el-Sheik, countries shed additional light on the process of corresponding adjustments, though many questions around the implementation and operation remain.¹

This paper seeks to take stock of the existing Article 6 guidance around accounting and to draw insights from how countries are currently implementing this guidance. We focus exclusively

on the topic of corresponding adjustments, and not on other – equally crucial – aspects of Article 6 implementation, such as how these trades may include or impact Indigenous Peoples and Local Communities. Finally, this paper reflects on the role of the voluntary carbon markets (VCM) as it increasingly intersects with guidance and norms developed under Article 6.

Table 1: What are the main components of Article 6?

Article 6.1	Invites countries to “cooperate” on implementing climate activities to achieve new levels of mitigation not available on their own. Current country targets, if implemented, would only limit global temperature rise to 2.4-2.6 Celsius ² .
Article 6.2	Countries can trade credits bilaterally or multilaterally with each other.
Article 6.4	Countries can purchase credits approved by a United Nations Supervisory Body (and by the seller countries), which will create standardized approaches towards measuring and producing credits (similar to the Clean Development Mechanism under the Kyoto Protocol)
Article 6.8*	Countries can finance non-market approaches instead of trading credits.

**Note: This report is only focused on how countries may trade credits under Article 6.2 and Article 6.4.*

1 See Article 6 Explainer for more information about the latest decisions from Sharm el-Sheik.

2 [Emissions Gap Report, 2022](#) (UNEP)

Box 1: Terminology

Article 6 establishes many new terms, largely based on more familiar terms used within carbon markets today. This report defaults to using the more commonly known terms, though readers should be aware that there are subtle differences in Article 6 and carbon market terms. For example:

Carbon credits: Article 6 establishes the units of trade known as ITMOs. In many ways, ITMOs are nearly the same as carbon credits with a few differences around how verification is conducted, etc. In this report, we use carbon credits synonymously with ITMOs, as more readers are familiar with the term carbon credits.

Trade: Article 6 sets up the ability for countries to cooperate via “transfers” of mitigation outcomes. Most of these transfers mirror carbon market trades, so we use trade and transfer synonymously in this report (and default to using “trade”, as it is more widely understood).

Seller country: As countries may “transfer” and not trade credits, they may not always “sell” credits. Again, for simplicity, we use the term “seller country” instead of “host country” because it is the more widely understood phrase.

Authorization: Because Article 6 is negotiated by governments, all trading and production of carbon credits must be “authorized” by the seller country. Article 6 also allows countries to determine *what* the authorization includes: credits may be authorized for sale to a particular buyer or for a particular purpose.



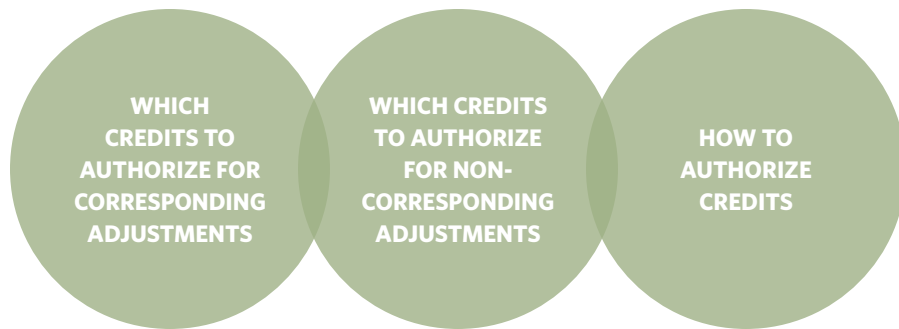
I

Decoding Corresponding Adjustments

**UNDERSTANDING THE LATEST RULES AND
GUIDANCE IN ARTICLE 6**

Under the Kyoto Protocol, the precursor to Article 6, only developed countries had targets for decarbonization - either through in-country efforts and/or through the purchase of international carbon credits. Now, under the Paris Agreement, every country has committed to reducing emissions through its NDCs. This means that trading of carbon credits must mirror traditional trading approaches: that is, a sold credit must be deducted from the seller country's target and counted only against the buyer country's target (under the Kyoto Protocol, developing countries had no targets and thus this deduction was not required).

This simple concept is the outcome of over six years of complex negotiations to avoid double counting; negotiators agreed that all countries must subtract and add any carbon credits traded through Article 6. Now, countries must examine the opportunities and costs that Article 6 offers and determine if, when, and how to authorize a corresponding adjustment to any traded credits. We have identified three stages:



Actual examples of country pilots are included on [pages 23-32](#).

WHICH CREDITS TO AUTHORIZE FOR CORRESPONDING ADJUSTMENTS

CREDITING TO DATE: TARGETING LOW-HANGING EMISSIONS

The purpose of carbon credits has begun to shift since its initial conception: originally, carbon credits represented cheaper, easier mitigation activities – the “low-hanging fruit – that companies or governments could purchase for the same impact as internal decarbonization efforts.

In the Kyoto Protocol’s Clean Development Mechanism (CDM), for example, developed countries with decarbonization targets purchased carbon credits from developing countries (who did not have any binding targets). The idea here was that it would be cheaper to reduce emissions in Zambia than in Canada; as such, the use of the CDM offered a low-cost fallback for developed countries looking to meet their targets.

More recent compliance markets continued to use carbon credits in a similar vein, with limits: California’s cap-and-trade program, for example, only allows businesses to purchase credits to cover up to 4% of their obligation. The program allows credits generated from projects outside the state or from projects within the state that originate from sectors not covered under the program (like the forestry sector).

In the voluntary carbon markets, buyers have typically purchased credits to cover their emissions each year (to become “carbon neutral”). Historically, there have not been many guidelines around the percentage of credits that could cover these emissions; most buyers prioritized lower

cost abatement options as a result (though some have chosen to purchase more expensive credits that align with a corporate strategy or some other specific request, such as biodiversity benefits, social outcomes, or project location).

More recently, organizations like the Science-based Targets Initiative (SBTi) have begun to quantify the internal emissions reductions that companies must first complete before purchasing any credits. This is reflective of a greater trend to ensure that buyers decarbonize internally in line with meeting their net zero or other targets *before* purchasing credits.

FLIPPING THE SCRIPT: SELLING HIGH

Historically, buyer countries would only want to purchase if the credits *cost less* than their own mitigation efforts. Seller countries would not need to subtract the credits and there was no downside to selling at any cost.

Now, however, successful achievement of a seller country’s NDC is essential if the country plans to sell Article 6 credits with a corresponding adjustment. Seller countries must now consider trade-offs: the more credits (with a corresponding adjustment) a seller country sells, the fewer emission reductions or removals they can claim against their own NDC.

Thus, seller countries will want to carefully consider the type of eligible mitigation activities and the capacity and/or technology needed for these activities – and may want to limit eligible credits to those from specific sectors, years, or technology types.³

3 [The birth of an ITMO: Authorisation under Article 6 of the Paris Agreement](#) (OECD/EIA)

This will require a thorough understanding of NDC targets, NDC implementation plans and future NDC updates,⁴ and these considerations should be consistently re-assessing these costs, as countries begin implementing their NDCs and better understand whether the NDC will be met and surpassed.

In some cases, seller countries may wish to preemptively address the risk of selling an adjusted credit before achieving their NDC. Indonesia, for example, recently released new rules that require all projects

to save a percentage of credits in a buffer account, to keep credits in reserve in case Indonesia needs them later. The amount that each project must set aside differs depending on the risk to Indonesia's achievement of its NDC: credits sold domestically (which won't require a corresponding adjustment, and thus pose little risk to Indonesia's NDC achievement) must contribute 0-5% to the buffer. Meanwhile, credits sold internationally must contribute 10% (if within Indonesia's NDC) or a minimum of 20% (if originating from a sector outside Indonesia's NDC).

4 [Promoting Article 6 readiness in NDCs and NDC implementation plans](#) (Perspectives Climate Group, Climate Focus)

Box 2: Seller country considerations before making a corresponding adjustment

SAMPLE NDCS:

Seller Country A has committed to reduce emissions by 30% in the energy, transportation, and industry sectors by 2030, and a conditional target of reducing emissions 30% from the forestry sector by 2030.

Seller Country B has committed to reduce emissions across all sectors 5% each year from 2020-2030.

SAMPLE DECISIONS:

What to authorize: Assuming that the seller country feels comfortable with [the potential risks of overselling](#) and is ready to make an authorization, the next question is whether the seller country wants to limit authorization based on specific considerations of:

- **Price:** If Country B has reduced 6% of emissions in 2022 (1% more than anticipated), and estimates the cost of emissions in 2023 at \$10/t, then it may wish only to authorize that 1% excess at >\$15/t.
- **Sector:** Country B has committed to reduce emissions across all sectors but is having a particularly hard time finding finance for the forestry and agriculture sector. As such, Country B only approves projects from these sectors, in order to target private investment there.
- **Difficulty of implementation:** As part of Country A's energy commitment, they must install new LED bulbs in households but find it difficult to implement this project. They decide to only approve LED switching projects to help with the most difficult part of their energy NDC or will only authorize credits selling at \$30/t or more to pay for a program designed to educate households about this switch.
- **Conditionality:** Some countries have made their NDCs conditional on receiving external finance. Countries have not yet discussed whether these conditional targets might merit exceptions to requiring a corresponding adjustment (see [page 15](#)) – or if a corresponding adjustment is required regardless of whether the credit helps fund a conditional target.
- **NDC achievement:** How likely is it that the country will meet *and exceed* its NDC? What is the extent of these excess reductions or removals? This will depend on having clear milestones and details around NDC achievement. Seller countries may wish to wait until they have achieved their NDC before authorizing credits – or may require project developers to place some credits aside in case the country needs to use them at the end of its NDC period.
 - **Timing:** Countries with single-year targets (e.g., a commitment through 2030) will find it more difficult to assess if they are on track to meet their NDCs than countries with multi-year targets (e.g., multiple commitments every other year from 2020-2030). Single year targets allow for more flexibility but less certainty about whether the country is progressing on track towards its NDC. Further guidance around single-year and multi-year target accounting will likely emerge in negotiations later in 2023.

THE INSIDE SCOOP: MANAGING RISK FROM SECTORS OUTSIDE NDCS

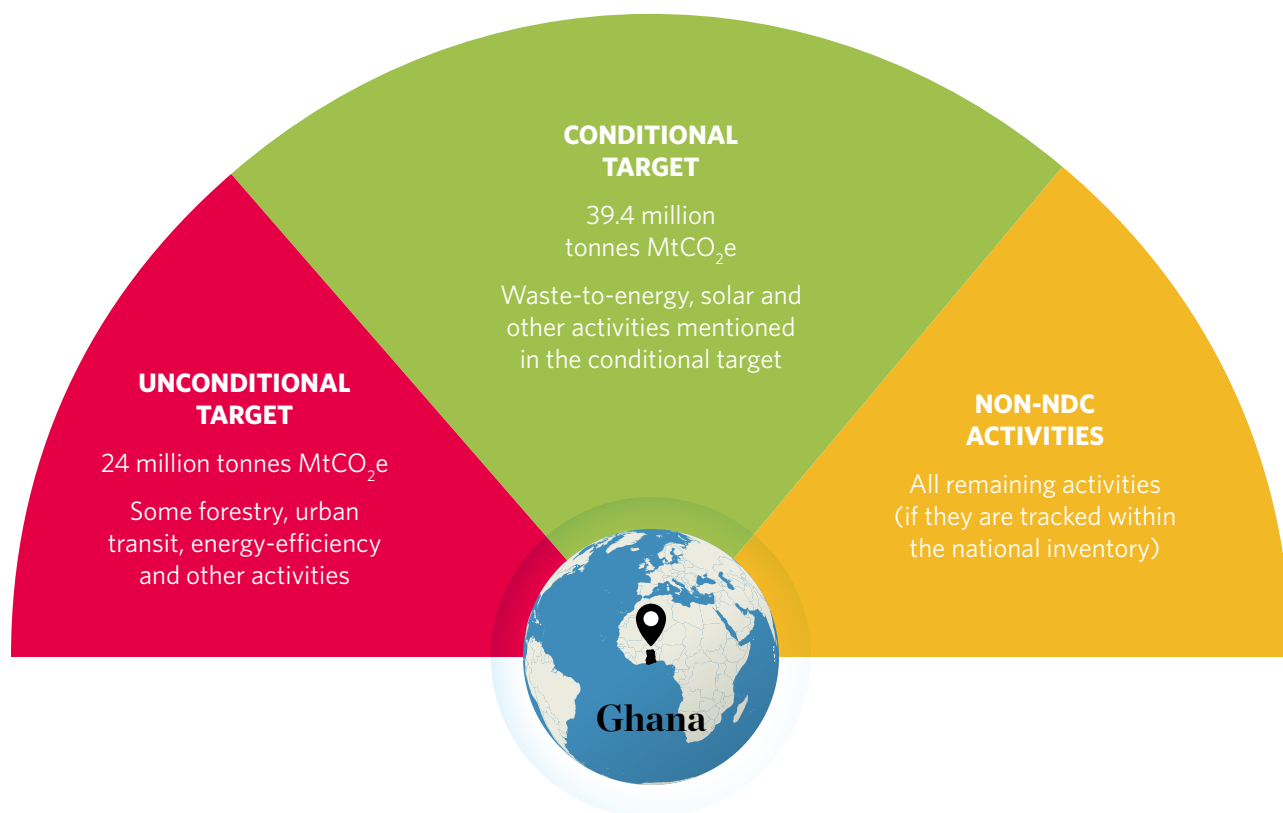
When considering eligible sectors, seller countries may question whether they want to authorize activities *outside* of their NDC or prioritize activities identified in their *conditional* NDC targets: some countries created both unconditional targets (which they pledged to meet) and conditional targets (which they pledge to meet, contingent on additional finance or capacity building).

Per the Article 6 rules agreed at COP26, transfers from sectors outside of NDCs must also include a corresponding adjustment, but exactly *when* seller countries will apply such an adjustment is uncertain (as the credit must be subtracted from the NDC, even though the activity is from outside the NDC).

The Article 6 text has not clarified this process, and it remains to be seen if additional guidance will appear in the future – or if individual countries will figure out their own system for ensuring adjustments.

Ghana, for example, announced a goal to reduce 24 million tonnes of carbon dioxide or equivalent (MtCO₂e) by 2030 unconditionally, with a conditional target of reducing an additional 39.4 MtCO₂e. Following this, in December 2022, Ghana announced that it would not authorize any carbon credits from its unconditional program activities and has created a “[red list](#)” around these activities; instead, only carbon credits that help Ghana meet its conditional target may be considered for trade under Article 6. Activities outside Ghana’s NDC entirely (conditional or unconditional) may also be considered – only if the activities may be tracked in Ghana’s latest national greenhouse gas inventory.

Figure 1: Prioritization of Activities in Ghana



TRADING RISKS OR RISKY TRADES?

In addition to domestic approaches towards managing risk of authorizing a credit before achieving an NDC (see [Box 2](#)), some countries may employ a mixed buy/sell strategy to manage risk, by trying to sell certain types of credits at high prices while buying others at lower prices.⁵ This could also reduce risk by having a pool of different sectors that may under- or over-perform depending on future implementation of policies and activities.

Additionally, buyer countries will now have to navigate new risks, as the seller country's willingness to sell may change depending on progress towards their NDC targets.

At COP27, some countries raised the idea of options to change authorization status, which might include amending, revoking, or withdrawing authorization. However, this concept has only been initially discussed and there is no official agreement yet. Depending on

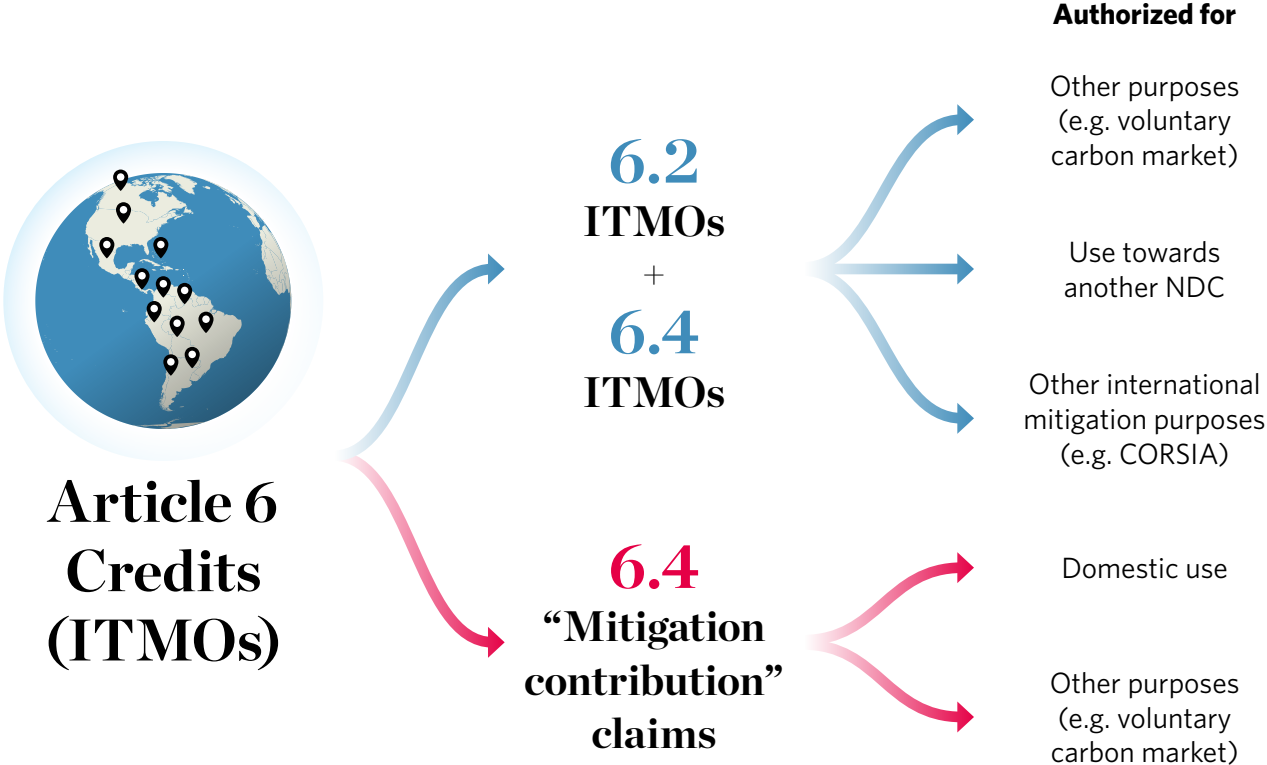
the outcome in future negotiations, countries may feel empowered to change authorization status of a credit if the seller countries believe they will not meet their NDC commitment (and thus, do not want to subtract additional mitigation for corresponding adjustments). A reversal, however, could strongly impact the market for future buyers, who will want to avoid this risk-increasing possibility at all costs.

Finally, this approach towards trade assumes that all buyer and seller countries will view Article 6 as a "pure" market approach. However, it is important to note that the key basis of Article 6 lies around cooperation and raising ambition (see [Table 1](#)) and some buyer countries may wish to meet their NDC and to purchase additional Article 6 credits for the sole purpose of raising global ambition. Both Sweden and Finland, for example, have been piloting Article 6 trades as a buyer country, while noting that they do *not* intend to use these credits towards achievement of their NDC commitments (see "Article 6 Pilots", [page 29](#)).

5 [Promoting Article 6 readiness in NDCs and NDC implementation plans](#) (Perspectives Climate Group, Climate Focus)

WHICH CREDITS TO AUTHORIZE FOR NON-CORRESPONDING ADJUSTMENTS

Figure 2: When does an Article 6 credit require a corresponding adjustment?



**EXCEPTIONS, EXCEPTIONS:
WHEN IS A CORRESPONDING
ADJUSTMENT NOT NEEDED?**

While most Article 6 credits *must* be “authorized” by the seller country, there are a few exceptions. The latest negotiations concluded in 2022 with a new term: “mitigation contribution” credits that can be used, “inter alia, for results-based climate finance, domestic mitigation pricing schemes, or domestic price-based measures, for the purpose of contributing to the reduction of emission levels” in the seller country.⁶

These credits occur when a country does not authorize the credits for international transfer (meaning, a corresponding adjustment is not required); however, this means that these credits cannot be used for Article 6 trading. Instead, this opens the door for uses in other markets, such as in the voluntary carbon markets or in domestic compliance markets. At the moment, only Article 6.4 credits may be authorized for use as “mitigation contribution” credits.

In December 2022, draft legislation in Peru gave a nod to this, stating that voluntary carbon projects

6 [Article 6.4, Decision -/CMA.4, para 29 \(b\)](#)

can request a corresponding adjustment, but encouraging these projects to allocate a certain percentage of these credits towards Peru’s NDC.⁷

CORRESPONDING ADJUSTMENTS AND NON-ARTICLE 6 CREDITS

So far, this report has focused solely on *Article 6* credits. However, other carbon credits already

exist: these include both voluntary carbon credits (like Verra’s Verified Carbon Units or the Gold Standard’s Verified Emissions Reductions) and credits authorized for compliance markets (like Carbon Offsetting and Reduction Scheme for International Aviation’s CORSIA-eligible credits). More details are provided in the section, “Paving the Way” ([page 33](#)) but an overview is provided here for clarity:

Table 2: Voluntary standard requirements for corresponding adjustments

Standard	Corresponding adjustments required for voluntary use?	Templates and Resources	Progress to Date
American Carbon Registry	Will provide more guidance once corresponding adjustment guidance is further developed - initial proposal does not require corresponding adjustment for domestic purchases	Letter of Authorization template ; this proposed approach has been approved by CORSIA to supply post-2020 units.	No projects have submitted letters yet, either for CORSIA or the VCM.
Architecture for REDD+ Transactions’ The REDD+ Environmental Excellence Standard (ART/TREES)	Does not require a corresponding adjustment for voluntary use, but recognizes that governments may decide to authorize these credits	ART’s Letter of Authorization template has been approved by CORSIA to supply post-2020 units	Governments have not yet issued any letters but also have not yet issued any credits. However, this process would likely be more seamless than under a project-based approach (given that ART is a jurisdictional approach).
Clean Development Mechanism (CDM)	A corresponding adjustment is not needed for credits issued before 2021; post-2020 credits must transition to Article 6.4	The Article 6.4 Supervisory Body is developing rules for eligible CDM projects to transition to 6.4 credits, which would require a corresponding adjustment.	Not applicable: any CDM projects wishing to obtain a corresponding adjustment will need to transition to Article 6.4. Pre-2020 CDM credits may be used by countries to count towards achievement of their first NDC.
Climate Action Reserve (CAR)	Will not require a corresponding adjustment	n/a	No projects have submitted letters yet, either for CORSIA or the VCM.
Gold Standard (GS)	Originally planning to require a corresponding adjustment for all offsetting (including domestic purchases), but recently changed the requirements in a reflection about actual availability of adjusted units	Letter of Authorization template ; this exact template is not required, depending on seller country preferences, but all of this information is required.	No projects have submitted letters yet, either for CORSIA or the VCM. One project developer, Atmosfair, has reported progress in obtaining such a letter. ⁸
Verra’s Verified Carbon Standard (VCS)	Will not require a corresponding adjustment	Published a consultation in June 2022 about labeling credits as authorized “for use toward an NDC”, “for use toward a CORSIA offsetting requirement” or “for use toward a VCM target”, recognized by a Letter of Authorization.	No projects have submitted letters yet, either for CORSIA or the VCM. Once submitted, letters will likely be hosted under “Other Documents” on individual project pages.

7 [Peru’s regulatory framework for carbon markets: Current legal and policy developments in the context of REDD+ \(CIFOR\)](#)

8 [Article 6 Transaction Structures](#) (World Bank, Climate Focus, Transformative Carbon Asset Facility)

Table 3: Market requirements for corresponding adjustments

Market	Standards	Position on corresponding adjustments
Voluntary Carbon Market	ACR, ART, CDM, CAR, GS, VCS, etc.	Dependent on standard requirements and market demand (i.e., not required)
CORSIA	ACR, ART, CDM, CAR, GS, VCS, etc.	Required
Domestic Compliance markets		
Australia	Domestic standard	Not required
California	Domestic standard	Not required
Canada	Domestic standard	Not required
China	CDM, Domestic standard	Not required
Colombia	CDM, GS, VCS	Not required
Singapore	ART, GS, VCS	Required
South Africa	CDM, GS, VCS	Not required
South Korea	CDM, Domestic standard	Not required

HOW TO AUTHORIZE A CORRESPONDING ADJUSTMENT

While countries began piloting Article 6 agreements in the last few years, no transfers had yet occurred, and the first authorization letter only appeared in late 2022. That's because countries have been waiting for additional guidance from the Article 6 negotiations *and* have been hard at work making domestic decisions needed before authorizing credits for a corresponding adjustment.

These decisions differ based on the type of Article 6 approaches:

- **Article 6.2** allows countries to trade bilaterally or multilaterally; this provides more flexibility for countries to design their preferred rules and establish quality controls and safeguards but also may take more time to scale multiple deals.
- **Article 6.4**, on the other hand, will likely take longer to start but then will be easier to use once the centralized Supervisory Body has created

the framework and begun to approve eligible methodologies for trade.

Additionally, while many of the decisions around corresponding adjustments have been made, a few key questions remain for countries to provide more details on:

- **Changes to authorization status:** Can countries amend or revoke authorization? Negotiators began to discuss this in Sharm el-Sheik, but no decisions have been made yet. More clarity may appear as countries finalize the minimum information required for any authorization statements in Article 6.4.
- **Applying corresponding adjustments to sectors outside an NDC:** While countries agreed in 2021 to ensure that a corresponding adjustment must occur, regardless of whether a sector or activity is included or not in the seller country's NDC, there

remain unanswered questions about how, where and when this adjustment would take place (see [page 15](#), “The Inside Scoop”). Some countries, however, have stated that these answers will not be in the agenda of further negotiations, leaving it to governments to decide how to apply a corresponding adjustment to sectors outside of an NDC.

OPERATIONALIZING ARTICLE 6.2

Several Article 6.2 “pilots” have already been signed, but no bilateral trades have yet been concluded, partially because seller countries are still in the first steps of developing their domestic frameworks to operationalize Article 6 and partially because countries have been waiting for more guidance on reporting and tracking from the 6.2 negotiations.

In 2022, many of these questions around guidance on reporting and tracking have been resolved. Here is the general timeline for how and when countries must authorize credits under Article 6.2 for a corresponding adjustment:

- 1. Submit initial report:** After agreeing to a cooperative approach, both seller and buyer countries must submit an initial or initial updated report [before](#) authorization or “where practical.”
- 2. Authorize credits prior to trade:** Countries may choose to track the issuance and transfer of credits via their own registry, a third-party registry, or the upcoming international registry (developed by the UNFCCC for all 6.2 transactions if countries wish to use it).
- 3. Submit annual summaries via an Agreed Electronic Format (AEF):** Countries must submit annual summaries about their cooperative approaches via the Agreed Electronic Format. The

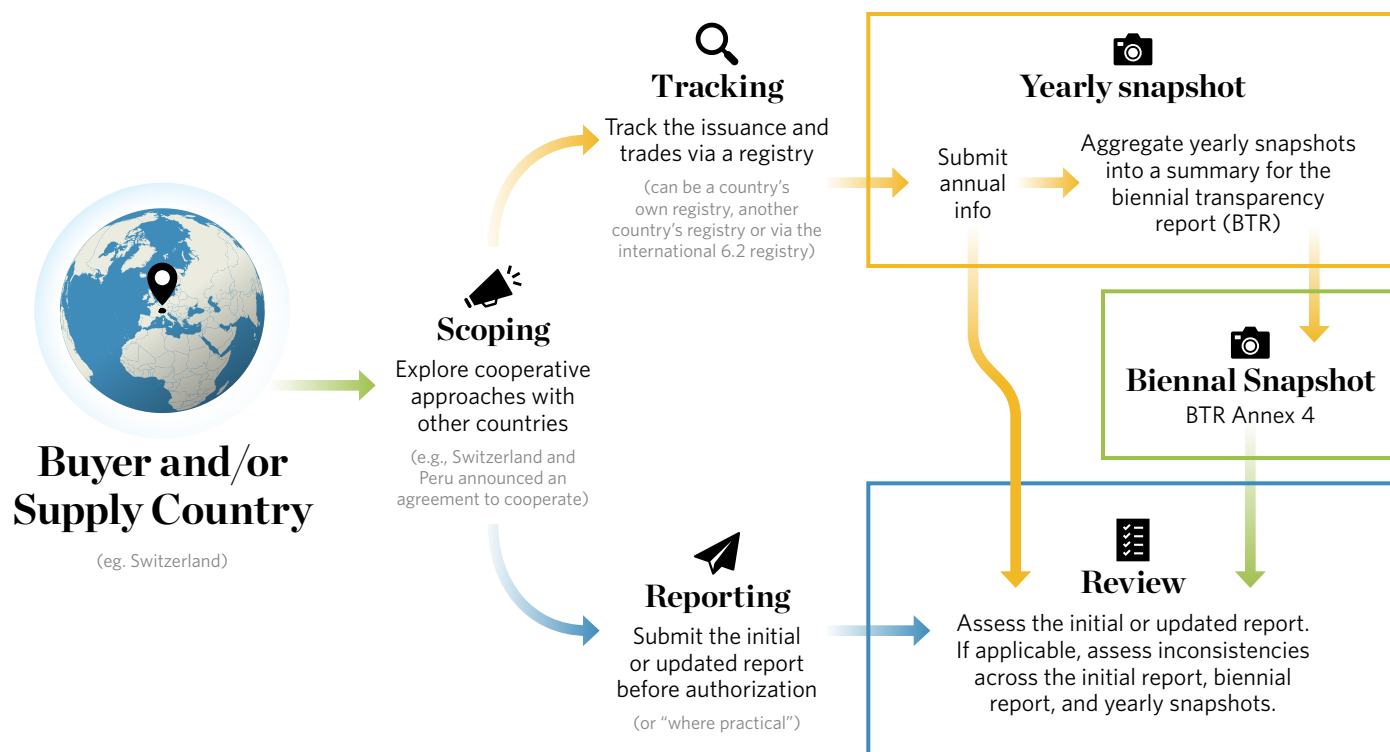
AEF draft currently includes three authorization types: for NDCs, other international mitigation purposes, or for NDC and other international mitigation purposes. In this report, countries “may” link to public evidence of authorization.

While Article 6.2 allows more flexibility in how and what countries trade, the UNFCCC Secretariat will provide some guidance and templates for countries to use, if they wish, in tracking, reporting, and reviewing corresponding adjustments. Here are a few of those key dates:

- **November 2022:** countries agreed to a [draft initial report template](#),⁹ which will be further tested, negotiated, and refined. Countries don’t need to use these templates but must submit an initial report before authorization or “where practical.”
- **January 2023:** The Secretariat has provided an “[interim solution](#)” for countries to submit information about their transactions to the Article 6 database and centralized accounting and review platform (CARP) to track and review authorizations. A test version of the CARP and Article 6 database will not be available until June 2024 and not finalized until June 2025, so an interim solution is important for countries wishing to begin operationalizing 6.2 trades before then.
- **Sometime in 2023 (no specified date):** The Secretariat must provide an “interim solution” for an international registry: countries do not need to use this registry to track their 6.2 transactions, but this will be available for countries that do not want to create their own registry or use an existing third-party registry. As the international registry will not be final until December 2024, this could also be an important tool in streamlining country 6.2 transactions.

9 [Article 6.2, Annex V](#)

Figure 3: Sample Structure of an Article 6.2 Transaction



OPERATIONALIZING ARTICLE 6.4

Countries authorize credits through a centralized mechanism supervised by the UNFCCC called Supervisory Body (SB), which operates similar to how the CDM worked for the Kyoto Protocol. The SB will determine eligible methodologies and other rules (such as baselines, safeguards, etc.) needed to operationalize Article 6.4.

The first methodologies likely to be approved by the Supervisory Body will be adapted CDM methodologies, as CDM projects may transition to Article 6.4 through December 2023. It is unclear if the Supervisory Body will consider allowing the transfer of other, non-CDM methodologies (such as those developed under Verra or the Gold Standard). However, there are no official limitations on the sectors or activities for which methodologies can be created.

Because CDM projects have a deadline to transition by the end of this year (2023), the Supervisory Body has been tasked with providing an "interim solution" for these projects if there are no approved methodologies available during this time. As such, the earliest, best-case scenario for approval of any methodologies will likely be in late 2023, with operational rules in 2024.

In the meantime, countries can begin considering who will authorize Article 6.4 credits for trade. Once the rules have been agreed, project developers will need to get approval from the seller country at two separate points:

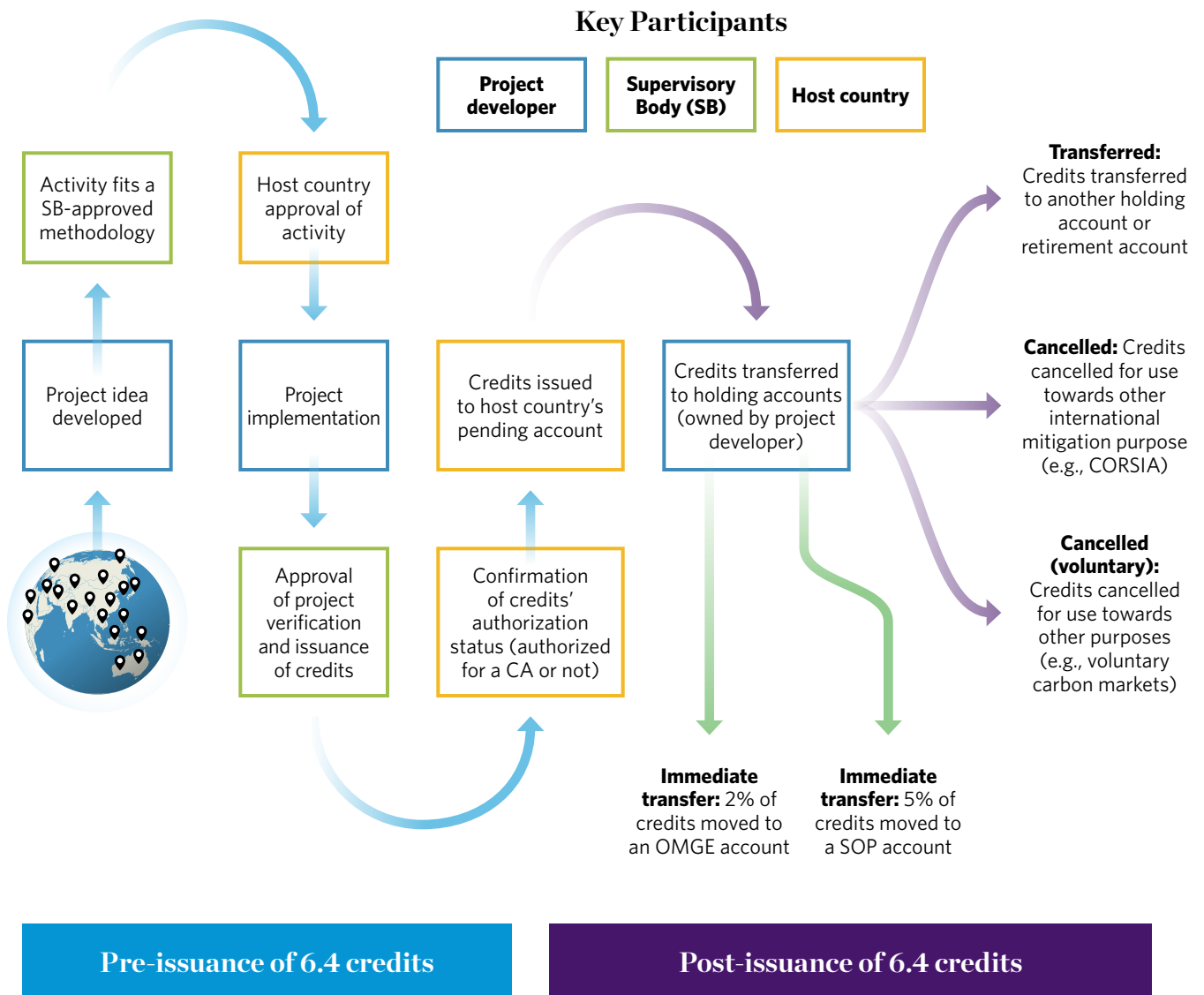
- 1. Approval:** Before starting the activity, project developers must get approval to begin by the seller country's designated national authority (DNA). All countries must designate the national

authority before they can participate in Article 6.4 and approve of corresponding adjustments.

- 2. Authorization:** At the point when an activity may issue credits, the seller country must tell the Supervisory Body if the units are authorized or not.
- 3. Adjustment:** Issuance of credits triggers an immediate corresponding adjustment to account for, essentially, two taxes:

- 2% Share of Proceeds (SOP) tax, which transfers the credits to the Adaptation Fund
- 5% Overall Mitigation of Global Emissions (OMGE) tax, which requires these credits to be permanently retired to raise global ambition via trades.
- Additional corresponding adjustments are then needed when the seller country trades or cancels the credits (see Figure 4)

Figure 4: The Structure of an Article 6.4 Transaction



2

Case Studies of Supply and Buyer Countries

DOMESTIC LEGISLATION AROUND ARTICLE 6

While Article 6 often sets up a general framework for international cooperation, many decisions on how to operationalize these trades may be made individually and could vary country by country. As a result, several countries have begun working on their domestic frameworks to clarify who can issue authorizations, who will authorize trades, what will be authorized, and to establish processes to comply with reporting requirements, etc.

WHO?

Seller countries must consider which government entities have the authority to approve any Article 6 trades, and issue corresponding adjustments for those trades.

- Under Article 6.2, countries are beginning to determine which department, ministry or body will have this authority, oftentimes designating multiple offices to serve as different functions (see [page 25](#))
- Under Article 6.4, countries must appoint a designated national authority (DNA) to approve and authorize projects. As of January 2023, [31 countries have submitted a DNA](#); oftentimes through some variation of a climate, environment and/or sustainable development ministry, though a handful of countries also have designated specific offices for Article 6 or within a President or Prime Minister's office. Generally, most countries to date (see [page 25](#) and [page 28](#)) have selected the same office to authorize both Article 6.2 and Article 6.4 trades.

HOW?

Countries will need to build or have access to registries to track trades and develop templates or forms for authorization. Many countries have already started working on registries, even before Article 6 was agreed on. Additionally, under CORSIA, many standards have already started to develop template letters that countries can use to approve authorization of a corresponding adjustment to projects.

WHAT?

Countries have started to think about which **sectors, methodologies, project types, or standards** may be eligible for trading.

- **Article 6.2** allows for flexibility around eligible standards; seller countries may choose to:
 - **Approve existing standards**, either voluntary or compliance
 - **Approve existing standards (voluntary or compliance), but add additional requirements or adapt them into country-specific standards**
 - **Create standards** unique to their country circumstances
 - **Create principles** and accept any standards that meet those requirements
 - **Use standards** required by a buyer (see [page 32](#), Japan's case study)
- **Article 6.4** establishes a Supervisory Body that will convene and approve eligible methodologies via a new mechanism, similar to what was created under the Kyoto Protocol that established the Clean Development Mechanism



Ghana

Ghana Framework on International Carbon Markets and Non-Market Approaches, 2022

WHO?

- **Ministry of Environment, Science, Technology, and Innovation (MESTI):** Oversees implementation of 6.2 and 6.4 approaches, and is authorization entity
- **Environmental Protection Agency (EPA):** Implements technical requirements, transferring entity, hosts the Carbon Market Office (CMO)
- **Carbon Market Office (CMO):** Secretariat providing administrative and technical support for international carbon market and non-carbon market approaches in Ghana (including 6.2 and 6.4)
- **Carbon Market Committee (CMC):** Develops and approves rules for Article 6.2 transactions and grievances
- **Carbon Market Inter-Ministerial Committee (CM-IMC):** Determines strategic decisions around Ghana's Article 6.2 engagements
- **Carbon Market Technical Advisory Committee (CM-TAC):** Provides technical support around authorization, methodologies, verification, etc.

HOW?

- **Registry:** [Ghana Carbon Registry](#), launched in 2022
- **Authorization:** Must receive authorization from MESTI through a Letter of Authorization

WHAT?

- **Standard(s):** For Article 6.2, the CDM, Gold Standard, VCS, ISO 14064, and TREES are pre-approved, but still subject to additional decisions by the CMO; Ghana is also designing a national procedure to design methodologies; Article 6.4 methodologies will need to be first approved by the UN Supervisory Body
- **Methodologies:** Additional specifics around eligible Article 6.2 methodologies apply, based on whether the activities relate to Ghana's conditional, unconditional and/or are not part of Ghana's NDC at all
- **NDC Achievement:** 1% of mitigation outcomes are reserved in a national buffer account to minimize the risk of over-crediting against the NDC target. This buffer could be also used to contribute to overall mitigation of global emissions (OMGE).

AUTHORIZATION REQUIRED FOR VCM TRADES?

- **Authorization:** All projects must register and receive authorization from the CMO
- **Corresponding adjustment required?** corresponding adjustments are not required for VCM projects, but projects can seek corresponding adjustments



The Bahamas

Climate Change and Carbon Market Initiatives Act, 2022



WHO?

- **Office of Prime Minister:** Provides general oversight and appoints Advisory Council to the Management Company(s)
- **Ministry of Finance:** Provides financial oversight and appoints a Management Company(s)

- **Management Company(s):** Operates on behalf of The Bahamas in national and international markets; oversees carbon credits in The Bahamas
- **Ministry of Environment:** Reports to the UNFCCC on its climate obligations, including Article 6



HOW?

- **Registry:** National Emissions Registry (to be established)
- **Authorization:** Unclear, potentially through Management Company(s)



WHAT?

- **Standard(s):** “internationally recognized standards” (specific standards not defined)



AUTHORIZATION REQUIRED FOR VCM TRADES?

- **Tax:** All sales will be subject to a share of proceeds (SOP) and overall mitigation of global emissions (OMGE) levies.
- **Corresponding adjustments required?** Yes



Indonesia

Minister of Environment and Forestry Regulation No. 21 of 2022 on the Procedures for Carbon Pricing Implementation (MOEF Reg 21/2022); Presidential Regulation No. 98 of 2021 on Carbon Pricing for Achieving Nationally Determined Contribution (NDC) Target and Controlling GHG Emission in National Development (PR 98/2021)

WHO?

- **Ministry of Environment and Forestry (MOEF):** Authorizes all credits for international and domestic use
- **Sector Ministries:** Must establish and deliver a roadmap for NDC implementation relevant to their sector
- **Indonesian buyers and international buyers:** Indonesia is establishing a carbon tax and cap-and-trade scheme that will allow offsetting; the new rules apply to both domestic companies and international companies or countries wishing to purchase credits

HOW?

- **Registry:** [Climate Change Control National Registry System \(SRN PPI\)](#)
- **Authorization:** Relevant ministers or businesses must make a request to the MOEF with their proposal and draft cooperation agreement; authorization must be given by the MOEF Director General. If approved, the credits will be issued by MOEF or by another standard that has “mutual recognition” with Indonesia

WHAT?

- **Standard(s):** Activities determined by MOEF or National Standardization Agency (domestic standard), IPCC guidelines or, if external standards if there is “mutual recognition” between certification schemes or countries (this may allow for Verra, etc.)
- **NDC Achievement:** All credits must contribute to a domestic buffer established to manage the risk of trading before the NDC is completed in 2030:
 - Credits sold domestically contribute 0-5%
 - Credits sold internationally contribute 10-20%
 - Credits sold internationally, from outside the NDC, contribute 20%+

AUTHORIZATION REQUIRED FOR VCM TRADES?

- **Corresponding adjustment required?** Corresponding adjustments are required for all international sales, voluntary or through Article 6, *unless*:
 - There is no transfer to another country’s NDC, *and* no claim of those emissions reductions or removals, *and* the credits have no connection to a target of a foreign partner. Essentially, this allows for mitigation contribution claims but not offsetting claims.



Tanzania

Environmental Management (Control and Management of Carbon Trading) Regulations, 2022

WHO?

- Ministry of the Environment:** the Designated National Authority for mainland Tanzania, responsible for authorizing projects and developing a National Carbon Assessment Technical Committee to review project concepts for all international trades (6.2 and 6.4)
- Other Ministries:** will provide clearance letters for projects proposed in their sector
- Ministry responsible for local government authorities:** oversees policies and guidelines of carbon projects and issues directives related to revenues and expenditures of projects
- Regional Secretariat:** oversee projects in its jurisdiction
- Local government authorities:** oversee projects in their areas of jurisdiction
- Village government or Mtaa:** oversee contracts related to carbon projects while safeguarding community interests

HOW?

- Registry:** The DNA is responsible for the registration of projects, but no specific mention of a registry
- Authorization:** Required by the DNA (Ministry of Environment) before starting a project

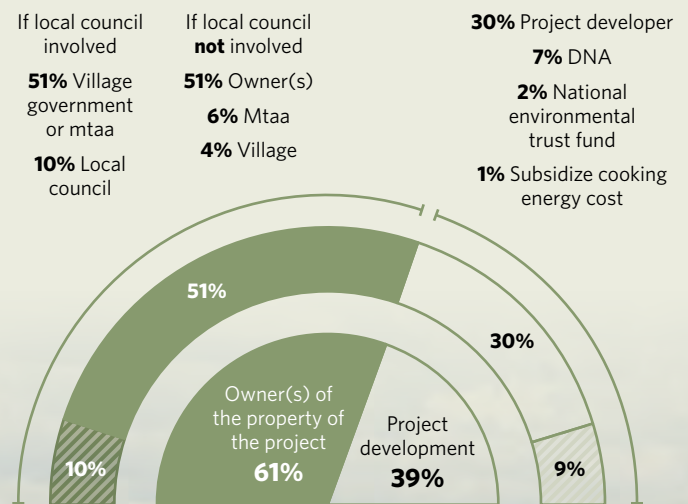
WHAT?

- Standard(s):** "accepted international carbon trading standards" (specific standards not defined)
- Sectors Inside/Outside of NDC:** Projects must indicate how the activity will contribute to the NDC, possibly restricting activities to only those sectors covered by NDC targets

AUTHORIZATION REQUIRED FOR VCM TRADES?

- Corresponding adjustment required?** Unclear, but all VCM projects must register with the Tanzanian Government and pay a levy: 8% of the income from sold credits and 1% of expected credits from the project

Figure 5: Tanzania's proposed financial allocation of sales



ARTICLE 6 PILOTS

POSSIBLE BUYERS TO DATE

While Article 6 has been touted as a way to increase both ambition and cost-effectiveness of country climate commitments, not all countries are keen on participating. It is, after all, a voluntary approach for cooperation.

Around [80 countries \(representing 43% of all NDCs\)](#) mentioned they would consider using Article 6 to achieve their climate targets. However, several other countries have said they will not rely on Article 6 to meet their NDCs. Countries currently *not* intending to use Article 6 include (though, of course, these countries can always change this stance):

- **the European Union** (Ireland, however, announced they wish to use credits, and Sweden and Finland have been piloting Article 6 trades to potentially go beyond their NDC commitments); **Iceland, Malaysia, Marshall Islands, Tonga, United Kingdom, and the United States**

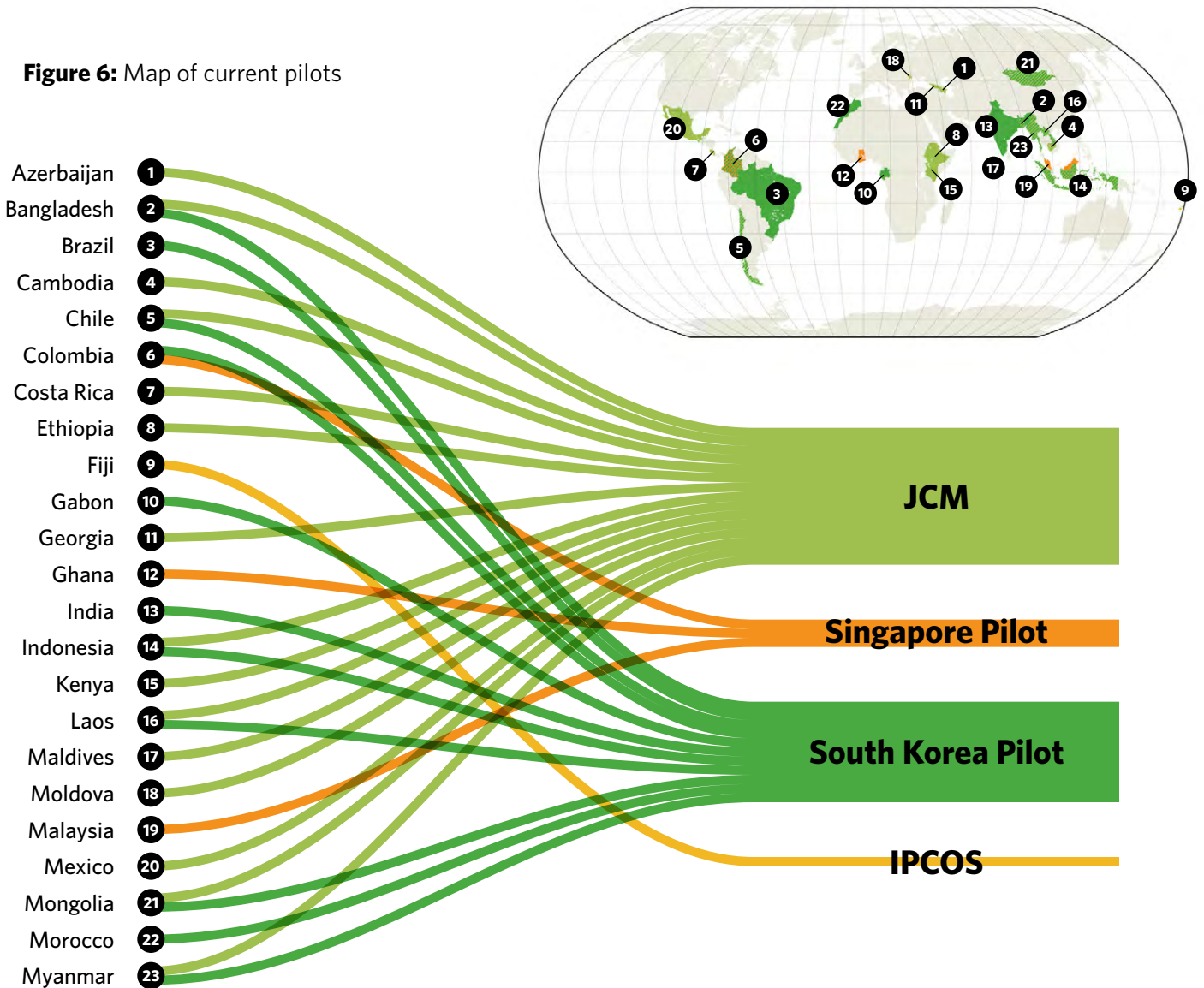
Others have expressly said they are interested in purchasing carbon credits through Article 6 – and many of those countries are at the forefront of Article 6.2 pilots. These include:

- **Australia:** plans to launch the [Indo-Pacific Carbon Offset Scheme \(IPCOS\)](#), beginning with pilots in Fiji and Papua New Guinea
- **New Zealand:** has not launched any pilots yet, but has expressed interest in exploring a [“Climate Action Team”](#) with Chile, an idea proposed by the Environmental Defense Fund
- **South Korea:** launched an International Reduction Council to oversee Article 6 trading and has begun a number of discussions with countries (but final details not available). Last year, in 2022, South Korea held two calls for proposals, primarily focused on funding waste and water treatment projects in other countries.¹⁰
- **Singapore:** has secured agreements with several countries on Article 6 trading, and allows Singaporean companies to fulfill up to 5% of their carbon tax through the purchase of credits with a corresponding adjustment from Verra, the Gold Standard, or (most recently) the Architecture for REDD+ Transaction (ART)
- **Switzerland:** The Klik Foundation has been piloting Article 6.2 trades and represents a group of fossil fuel importers with obligations to compensate a share of their transportation emissions under Swiss law.¹¹

10 [South Korea sets up Article 6 council, announces second round of funding for pilot projects](#) (Carbon Pulse; paywall)

11 [SR 641.711: Ordinance of 30 November 2012 for the Reduction of CO2 Emissions \(CO2 Ordinance\)](#)

Figure 6: Map of current pilots



MANY PILOTS, FEW AUTHORIZATIONS

While some Article 6 pilots began even before Article 6 had been agreed on at COP26, most have firmly remained in the “pilot” phase. However, that is starting to change:

In November 2022, Ghana and Switzerland authorized the first trade from an [enhanced rice production project that helps reduce methane](#). In the same week, Senegal announced the first Article 6.2 agreement with the private sector to help them develop projects; this is the

first example of a supplier country dealing directly with the private sector first, *before* securing a buyer country. In Senegal’s case, an investment firm and project developer (Carbon Growth Partners and Allcot) will take on the financial risk of a compost program under the National Integrated Waste Management Company of Senegal. More recently, Thailand authorized a project for the operation of e-buses in Bangkok under the cooperation agreement with Switzerland.

Additional details about current buyer-focused approaches towards Article 6 pilots are included below:



Switzerland

Klik Foundation



WHO?

- **Supplier country agreements (to date):** Peru, Senegal, Malawi, Ghana, Morocco, Georgia, Thailand, Dominican Republic; agreements found [here](#)
- **Buyers' companies:** Fossil fuel importers must meet their obligations under the Swiss CO2 Law (as of January 2022, Klik had 39 bilateral agreements with these companies).¹²
- **Klik Foundation:** Non-profit foundation that supports projects within and abroad of Switzerland for fossil fuel companies to meet their obligations under Swiss law
- **Swiss Federal Office for the Environment (FOEN):** All projects must be registered for FOEN to transfer the credits through attestations.¹³



HOW?

- **Bilateral agreement:** Switzerland (FOEN) and the seller country authorize proposed activities through a bilateral agreement. The Swiss government is not involved in commercial transactions but simply authorizes the transfer in the context of Article 6; post-purchase, the attestations can now be transferred internationally to private buyers.
- **Commercial agreement:** Private actors involved in the project sign a commercial agreement to carry out the activity
- **Corresponding adjustments:** Mandatory for all transactions. The supplier country must authorize and cancel domestic units from a domestic registry system; Switzerland then re-issues the canceled units as "international attestations" in the Swiss registry and the supplier country applies a corresponding adjustment



WHAT?

- **Activities:** Projects to date mostly focused on solar, clean cookstoves, waste management, biogas, and energy efficiency/fuel conversion; no forestry projects allowed
- **Project developers:** some local, some international (Allcot, First Climate, Microsol, etc.)

¹² [Annual Report 2021](#) (Klik Foundation)

¹³ [Brief Portrait of the KliK Foundation](#) (Klik Foundation)





Japan

Joint Crediting Mechanism

WHO?

- Supplier countries agreements (to date):** Azerbaijan, Bangladesh, Cambodia, Chile, Costa Rica, Ethiopia, Georgia, Indonesia, Kenya, Lao PDR, Maldives, Mexico, Moldova, Mongolia, Myanmar, Palau, Papua New Guinea, Philippines, Saudi Arabia, Senegal, Sri Lanka, Thailand, Tunisia, Uzbekistan, Vietnam,
- Global Environment Center Foundation:** An entity that supports the UNEP's International Environmental Technology Centre (IETC), based in Japan that houses the Joint Crediting Mechanism (JCM)
- Buyers:** Japanese government and Japanese companies; Japanese companies must invest in the project

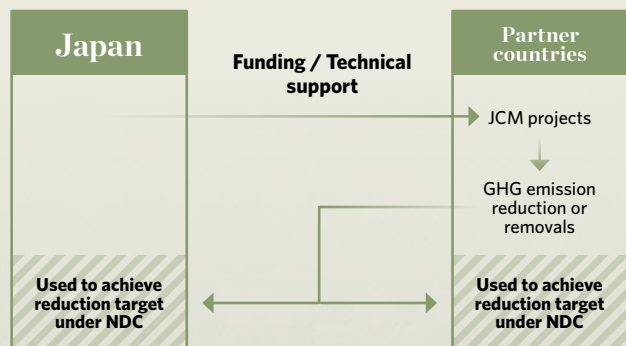
HOW?

- Registry:** Japan and each partner country must maintain a [JCM Registry](#), either independently or within a broader registry system (as long as the JCM Registry "[remains distinct](#)", essentially allowing seller countries to simply use the JCM Registry or incorporate it into a broader national registry of their own. Use of the JCM Registry includes accounting rules to assure that the credits are not double claimed by Japan and the seller country
- Corresponding adjustments:** Credits from each project are then split equally: Japan receives half of the credits, and the seller country keeps the other half of the credits

WHAT?

- Activities:** Methodologies are developed specific to each country and sector
- Project developers:** Based in the supplier country

Figure 7: Overview of the Joint Crediting Mechanism¹⁴



14 Figure adapted from [a webinar on the JCM](#) (JCM)



3

Paving the Way:

How VCM and other carbon markets may innovate from Article 6 rules, and vice-versa

Article 6’s impact on existing voluntary projects is a complex discussion. As countries are still finalizing negotiations around accounting, emission avoidance, activities involving removals, methodologies, etc., many pieces of this puzzle are still missing; yet countries have been forging ahead to create Article 6 pilots, define carbon rights, and – in many cases – to opine on the role of the voluntary carbon markets.

Although there’s not a definitive answer to how Article 6 will impact projects on the ground, in the following section we outline how this complex landscape is fast developing and what voluntary market players should be taking into consideration now to better align with the Article 6 mechanism when it is fully operational.

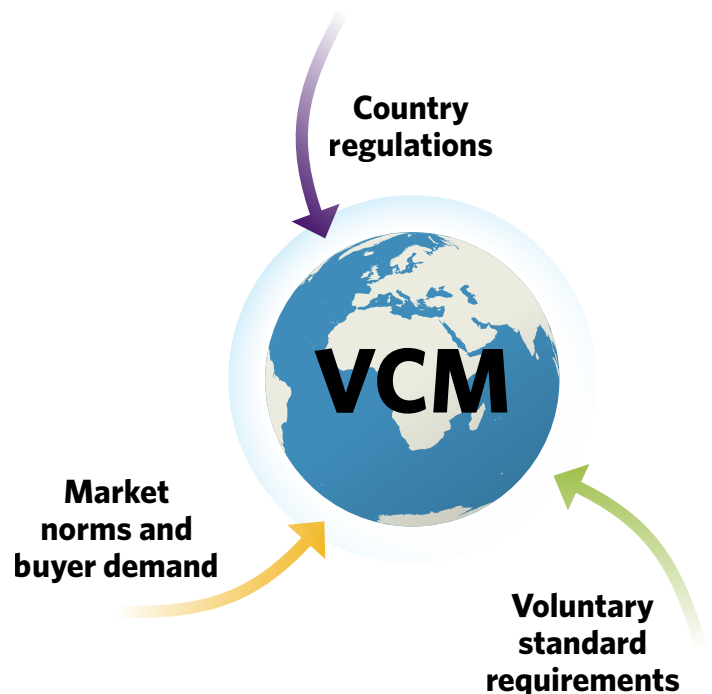
COUNTRY REQUIREMENTS

Article 6 establishes countries’ right to authorize any credits for international trades under Article 6.2 or 6.4, or for “other international mitigation purposes” (OIMP). These other purposes include an umbrella of objectives, including use in the CORSIA, domestic markets, and the VCM.

The decision of whether to require authorization, and thus a corresponding adjustment, for these other purposes is left up to individual countries and will likely lead to a variety of approaches dependent on specific country circumstances. Here are how countries are currently considering whether to regulate – or not – the VCM:

- **Option 1, Authorization required for VCM credits:** Some countries may mandate that all carbon credits exported to international buyers

Figure 8: Direct and indirect influences on corresponding adjustment requirements in the VCM



– be it for voluntary or compliance purposes – must have a corresponding adjustment. The Bahamas’ Climate Change and Carbon Market Initiatives Act, 2022 requires this.

- **Option 2, Authorization not required for VCM credits:** Some countries may not mandate the use of corresponding adjustments for voluntary purposes. Ghana, for example, states that VCM projects do not need a corresponding adjustment but may request one, if the buyer wishes to have a CA.
- **Option 3, Authorization not required, depending on the type of claim:** Some countries may wish to require authorization for credits used by voluntary buyers for offsetting claims, while credits used towards “mitigation contribution” or “beyond value chain mitigation” (a similar concept defined by SBTi) claims would not require a corresponding adjustment.

- **Option 4, Undecided:** Many countries don't yet have a position on whether a corresponding adjustment is required or not. In this case, some countries have opted to err on the side of caution: for example, Indonesia, before finalizing its legislation this year, placed a temporary freeze on any issuance of VCM credits from 2021-2022.¹⁵ India has indicated a similar approach. See Figure 9 below for more details.
- **Pathway 3:** Private sector investors provide results-based payments, but still take title to the emissions reductions. The seller country still counts the reductions against their NDC, and the buyer must communicate that the credits count towards the seller country's NDC achievement.
- **Pathway 4:** Private sector investors take title; supplier country makes a corresponding adjustment.

Most countries have not yet given clarity around their intention of requiring authorization for VCM credits, as they need additional information, including capacity building and risk assessments, before deciding on corresponding adjustment options. This option also results in the risk for project developers and traders, as a later decision could impact multi-year sales agreements, and for buyers, who might assume risk in a sales agreement.

An interesting example of country considerations around authorization and corresponding adjustments can be seen in the LEAF Coalition, which gives countries four pathways to sell credits:

- **Pathway 1:** Country investors provide results-based payments, with no ensuing title transfer from the supplier country to the investor country
- **Pathway 2:** Private sector investors provide results-based payments, with no ensuing title transfer from the supplier country to the investor company

Most countries that submitted applications to LEAF's first call for proposals did not choose a pathway; instead, they cited a need for more internal discussion, either with the federal government (many submissions came from subnational governments) or wished to make a decision after further Article 6 rules or pending discussions with relevant stakeholders. Only a very small percentage of countries such as Ghana, Nepal and Guyana stated they would be open to corresponding adjustments.¹⁶

Additionally, some countries have not made public decisions but have still engaged with project developers privately. The nonprofit project developer Atmosfair, for example, reached out to over twenty supplier countries and signed agreements with two – Rwanda and Nepal – to secure a Letter of Authorization that their projects can receive a CA.¹⁷ No transaction of corresponding adjustments has occurred yet though.

15 [Carbon credit issuances from Indonesia on hold, developers await clarity](#) (S&P Global)

16 [LEAF Country Brochures](#) (LEAF)

17 [Article 6 Transaction Structures](#) (World Bank, Climate Focus, Transformative Carbon Asset Facility)

Figure 9: Country decisions around VCM in 2021-2022

	Corresponding adjustment required?	Restrictions on VCM development?	Additional details
Bahamas	Yes		Climate Change and Carbon Market Initiatives Act (2022)
Belize		Yes	Authorization needed for all VCM projects (unclear if an adjustment is also required)
Colombia	Maybe		San Jose Principles signatory
Costa Rica	Maybe		San Jose Principles signatory
Fiji	Maybe		San Jose Principles signatory
Ghana	No		Ghana Framework on International Carbon Markets and Non-Market Approaches (2022)
Honduras		Yes	Moratorium on some activities (REDD+ projects)
India		Yes	VCM credit exports may be restricted if India is not meeting its NDC
Indonesia	Yes	Yes	Authorization and adjustment required unless the buyer is not claiming the offset, but making a mitigation contribution claim (Minister of Environment and Forestry Regulation No. 21 of 2022 on the Procedures for Carbon Pricing Implementation, MOEF Reg 21/2022)
Marshall Islands	Maybe		San Jose Principles signatory
Papua New Guinea		Yes	Moratorium on REDD+ projects
Peru	Maybe		San Jose Principles signatory ; draft resolution appears to distinguish between credits used towards another country's NDC and those not used towards an NDC (Resolucion Ministerial No. 156-2022-MINAM)



Forest Carbon Partnership Facility (FCPF)

WHO?

- **World Bank:** Host of the FCPF
- **Investors:** A mix of (mostly) investor countries like the Australia, Canada, France, Germany, Norway, Switzerland, United Kingdom, United States, alongside two non-country investors (BP and The Nature Conservancy)

- **Supplier Countries:** Chile, Costa Rica, Côte d'Ivoire, Dominican Republic, Democratic Republic of Congo, Fiji, Ghana, Guatemala, Indonesia, Lao PDR, Madagascar, Mozambique, Nepal, Republic of Congo, and Viet Nam

HOW?

- **Registry:** Countries can either establish their own registry or use a centralized registry provided by the World Bank (CATS)
- **Corresponding adjustments:** As the FCPF began before the Paris Agreement, corresponding adjustments are not mentioned by name; however, the FCPF's purchase agreements require that any credits can only be used or claimed once.

WHAT?

- **Activities:** Jurisdictional REDD+



Lowering Emissions by Accelerating Forest finance (LEAF)

WHO?

- **Emergent:** Administers the LEAF Coalition and mobilized over \$1.5B in commitments to purchase credits
- **Buyers:** public and private buyers, including the governments of Norway, the UK, the US, and private sector companies (e.g., Amazon, Salesforce, Delta, Airbnb, etc.)
- **Supplier countries and sub-national jurisdictions approved for the first round of applications:**¹⁸ Burkina Faso, Ghana, Kenya, Nigeria, Democratic Republic of Congo's Tshuapa Province, Uganda, Zambia, Nepal, Papua New Guinea, Vietnam, multiple Brazilian states, Costa Rica, Ecuador, Guyana, Mexican states of Jalisco and Quintana Roo

¹⁸ This list contains seller country applications, not necessarily a list of countries with signed purchase agreements or actual sales to date.

HOW?

- **Registry:** ART/TREES registry
- **Authorization:** LEAF provides four options for buyers and sellers, which includes various degrees of authorization:
 - **Pathway 1:** Country investors provide results-based payments, with no ensuing title transfer from the supplier country to the investor country
 - **Pathway 2:** Private sector investors provide results-based payments, with no ensuing title transfer from the supplier country to the investor company
 - **Pathway 3:** Private sector investors provide results-based payments, but still take title to the emissions reductions. The supplier country still counts the reductions against their NDC, and the buyer must communicate that the credits count towards the seller country's NDC achievement.
 - **Pathway 4:** Private sector investors take title; supplier country makes a CA.
- **Preferred authorization pathways to date:** Many supplier countries are still debating the merits of each pathway, but the majority have expressed a willingness to sell via Pathway 1 or Pathway 2. Fewer supplier countries are considering Pathway 3, and the fewest supplier countries are considering Pathway 4.

WHAT?

- **Activities:** ART/TREES credits are only allowed credits so far.



MARKET REQUIREMENTS AND NORMS





Outside of regulatory decisions by countries, the VCM is driven by two things: requirements set by standards and norms developed and/or enacted by market participants.

Requirements set by Standards: Over the last few years, VCM standards have contributed to the debate about corresponding adjustments, and, in some cases, updated or changed their positions over time (see Table 4). Additionally, upcoming meta-standards and guidelines may be developed around corresponding adjustments, though, to date, initiatives like the [Integrity Council for the Voluntary Carbon Market \(IC-VCM\)](#) and the [Voluntary Carbon Markets Integrity initiative \(VCMI\)](#) have not yet indicated that a corresponding adjustment will be mandatory for VCM credits.

Norms developed and/or enacted by market participants: Even if corresponding adjustments are not required by countries, corporate demand for CAs could ensure the market moves towards the use of CAs. This sort of informal rule-setting has already happened in the VCM before, with the use of standards: when buyers first started purchasing carbon credits for voluntary purposes in the early 2000s, many of today's standards (Verra, Gold Standard, etc) did not exist. Instead, companies often purchased credits using their own methodology or using a methodology developed by a project developer – but not vetted by a standard. Now, however, the overwhelming majority of credits purchased come from reputable, verified standards.

Here is a quick overview, non-exhaustive, of common reasons why buyers should demand a corresponding adjustment – or not:

Table 4: Arguments for and against corresponding adjustments for VCM credits (non-exhaustive)

	Why a corresponding adjustment should be required:	Why a corresponding adjustment should not be required:
 <p>For trading credits sold internationally</p>	<p>The atmosphere doesn't distinguish between accounting systems; all voluntary and compliance transfers should have the same accounting system to maximize environmental impact and result in greater effectiveness (instead of having potentially competing systems).</p>	<p>These are two different accounting systems, as the VCM allows private purchasers to claim their tonnes against net zero commitments and countries make their claim against the NDCs. For example, similar separate accounting systems can be seen in Guarantee of Origin (GO) claims, which are essentially voluntary renewable energy certificates. Companies can purchase and claim GO certificates towards their own zero-emissions Megawatt hour (MWh) target, while the country also claims the same MWh against its own target.</p>
 <p>For trading credits sold domestically</p>	<p>The VCM is built on right to make exclusive claims; without a corresponding adjustment, corporate claims are exclusive and may cause buyers to question value of the market.</p> <p>Additionally, there may be risk of the “waterbed effect”: domestic voluntary reductions and removals could allow the country to relax implementation of its NDC; the voluntary activity would then not help achieve global emissions (thus, companies would not be able to claim that as part of their carbon credit purchase).</p>	<p>If a credit is claimed by a buyer within the country and that same country counts that credit toward its NDC, then the claims are not competing but are complementary. This is already allowed in many domestic compliance markets, which do not require carbon credit purchases to include a corresponding adjustment (except for Singapore).</p>
 <p>For trading of credits sourced inside a country's NDC</p>	<p>If VCM credits fall within a country's NDC, then the credits are not additional because were already included in the country's NDC plan. Additionally, the country may relax its NDC implementation if it perceives that it is meeting its NDC with little effort (because the country did not have to incentivize the VCM activities). This “waterbed effect” has also been noted in compliance markets, like the European Union's Emission Trading Scheme so it's reasonable to think a similar risk exists for the VCM.</p>	<p>No disagreement here: If a VCM activity falls within a country's NDC, then it would not be additional and should not become a project approved by the standard.¹⁹</p>
 <p>For trading of credits sourced outside a country's NDC</p>	<p>While a corresponding adjustment may not be required for credits outside an NDC, over time, countries must include <i>all</i> sectors in their NDC. However, if the VCM provides a lot of funding to sectors outside the NDC, it may create a perverse incentive for the country to lag in expanding its NDC coverage.</p> <p>Additionally, if all sectors will be covered at some point, it makes sense to require a corresponding adjustment sooner than later.</p>	<p>There is a risk that such a requirement will reduce the capital available and disincentivize project development, which is needed immediately. Even if there is an eventual requirement, due to increasing coverage of new sectors in later NDCs, it does not make sense to require a corresponding adjustment sooner than later.</p>
<p>Other considerations</p> <p>Equity: The majority of voluntary carbon offset buyers to date are based in North America or Europe; if buyers are only allowed to purchase credits without a corresponding adjustment domestically, this approach will disproportionately drive purchases to projects based in developed countries. This could restrict developing countries from accessing climate finance that they arguably need more than developed countries. Alternatively, this impact on developing countries may be lessened by continued purchases from large multinational companies with operations in many countries around the world.</p> <p>Timing: Standards and project developers that wish to obtain corresponding adjustments may not be able to currently, as countries are still working through the processes and logistic elements of authorizing an Article 6 credit – much less a VCM credit. So far, only one project developer – Atmosfair – has reported obtaining a Letter of Authorization from two countries, after contacting over twenty, and has not yet sold an adjusted credit.</p>		

19 [The Future of the Voluntary Carbon Market](#) (Verra)

NEXT STEPS FOR PROJECT DEVELOPERS AND GOVERNMENTS

PROJECT DEVELOPERS:

- **Identify** what your local government is already doing and/or ask if they plan to offer guidance around authorizing credits for a corresponding adjustment.
- **Consider** offering technical support and information sharing with governments (not all government officials are familiar with carbon market details)
- **Share** examples of what other governments have done (such as the case studies presented earlier in this report). These may be useful framing as countries begin to think through their own domestic context.

POLICY MAKERS:

- **Provide** transparency to market participants around decision-making processes, such as when decisions around authorization may be made.
- **Communicate** whether decisions are final or interim. For example, many project developers were alarmed at Indonesia's suspension of VCM crediting which was only temporary (which, if known, might have caused less worry).

It's safe to say that nearly everyone – domestic policy makers, negotiators, investors, buyers and project developers – are all trying to figure out exactly how to navigate this new world around authorization and correspondingly adjusted credits.

Implementation will take time but cannot take *too* much time – we don't have long to wait. The world needs more action and more ambition to keep temperature rise below 1.5 Celsius. This paper hopes to lay out some options and pathways in the hopes of reducing some uncertainty around trading correspondingly adjusted credits.

