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Country Perspectives: Opportunities and Challenges for International Voluntary Carbon Markets in the context of the Paris Agreement

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List of Acronyms

BTRs	biennial transparency reports
CDM	Clean Development Mechanism
CMA	Conference of the Parties serving as the meeting of the Parties to the Paris Agreement
CORSIA	Carbon Offsetting and Reduction Scheme for International Aviation
CPLC	Carbon Pricing Leadership Coalition
CSR	corporate social responsibility
ESG	environmental, social and governance
ETS	Emissions Trading System
ICAO	International Civil Aviation Organization
ICROA	International Carbon Reduction and Offset Alliance
IETA	International Emissions Trading Association
ITMOs	internationally transferred mitigation outcomes
MRV	measurement, reporting and verification
$MtCO_2e$	million tons of carbon dioxide equivalent
NDCs	nationally determined contributions
PMR	Partnership for Market Readiness
SBTi	Science Based Targets Initiative
SINAMECC	Sistema Nacional de Métrica de Cambio Climático
TSVCM	Taskforce on Scaling Voluntary Carbon Markets
UNFCCC	United Nations Framework Convention on Climate Change
VCS	Verified Carbon Standard

Executive Summary

The Paris Agreement, with its universal requirement on all countries to submit nationally determined contributions (NDCs), marks a significant change for the framework of international cooperation through carbon markets. With all countries committing themselves to climate action to reduce emissions and achieve their NDCs, the ability to exert exclusive claims over the emission impact from carbon market investments and count them towards emission targets is becoming increasingly complicated.

This study seeks to understand perspectives of potential host countries on the role international voluntary carbon markets might play in the context of their NDCs and the Paris Agreement. In doing so, it explores emerging issues and challenges these markets may face and clarifies key aspects host country governments may need to consider in relation to their market participation.

While the role of the private sector, standards organizations, project developers and others in voluntary carbon markets have been explored in relative detail in several studies, the specific role and perspectives of host countries has been lacking. To address this, the study sought the perspectives of experts engaged in their countries' consideration of carbon markets from across three regional groups and reflects perspectives and views gathered and exchanged among them. The intention of this study is not to present the perspectives and views of certain host countries or to make specific recommendations.

In particular, the consultations with experts focused on three questions from the perspective of potential host countries:

- **What role can international voluntary carbon markets play in a post-2020 world?**
- **How can voluntary markets operate in the context of Article 6 and NDCs under the Paris Agreement, in particular in relation to accounting at the national level?**
- **How may interested countries support and facilitate international voluntary markets?**

The study takes voluntary carbon markets to refer to carbon market transactions that are undertaken by entities on a voluntary basis and not as a result of any policy-related regulatory requirements. Recent years have already seen traditional distinctions between voluntary and regulatory markets break down as standards bodies and the push for environmental and social co-benefits begin to cross the old boundaries. And increasingly, companies are adopting net-zero emission targets, which has been accompanied by a surge of interest and investment in the voluntary carbon market. Indications are that voluntary action and voluntary demand for credits is on an upward trajectory and expected to witness substantial growth in the coming years. A greater understanding of host countries' roles in international voluntary carbon markets, aligned with the Paris Agreement, would help to build on this momentum.

What role can international voluntary carbon markets play?

Benefits traditionally associated with the voluntary carbon market, such as access to private sector finance, sustainable development gains and others, remain key reasons for host country interest in these markets. Most importantly, voluntary carbon markets could become channels of increasing mitigation ambition that extend beyond levels planned and regulated by governments. A host country can tap into this and guide that ambition towards mitigation opportunities it identifies as high priority for the voluntary market and in need of international funds and support, while at the same time focusing its domestic mitigation effort in areas it considers most suitable for the country to undertake on its own.

Voluntary markets are valued for their continued emphasis on a broad range of sustainable development benefits, in addition to their drive to reduce emissions or increase removals, in ways that can reinforce host countries' own priorities. They can also improve access to considerable volumes of private sector investment finance, with the value placed on sustainable development in the past often resulting in higher and more stable credit prices than in regulatory markets.

Overall, the experts contributing to this study valued voluntary carbon markets as an option within the range of market opportunities available to them in the future. They also emphasized that the voluntary markets should engage in a way that maximizes benefits and drives more ambitious levels of climate action in their countries.

How can voluntary markets operate in the context of Article 6 and NDC accounting?

The international rules being developed for Article 6 focus largely on accounting, and in particular on the principle that the emission impacts of mitigation efforts should not be 'double counted' towards more than one emissions target. Allowing tons of mitigation outcomes to be double counted can lead to overestimating how much mitigation is actually being achieved and ultimately weakening the level of mitigation effort that is being pursued.

Article 6 accounting makes 'corresponding adjustments' in the level of emissions read from national emissions inventories to show the impact of mitigation occurring in one country but being counted against the NDC of a second country. The negotiation of the rules has already expanded this concept to include mitigation outcomes that are transferred to airlines covered by the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA), as it is recognized that such mitigation should no longer count towards the achievement of the transferring country's NDC.

What is less clear is whether host countries should also make these accounting adjustments when entities, or individuals, in other countries purchase mitigation outcomes from activities implemented that are on their territories. While some countries have sought to have this recognized in the Article 6 rules, the interaction between national level NDC accounting and entity-level accounting for voluntarily set targets is not well understood. Should it be called double counting if the counting occurs in two systems that are not connected?

The consultations with experts highlighted that the term is less important than its impact on the goal of mitigating climate change. If two actors consider they have both achieved their emission targets, they may slow or stop their mitigation efforts. Any such displacement of mitigation effort would undermine the well-intentioned mitigation already achieved and would be detrimental to global efforts to mitigate climate change.

Whether the actors would in fact change their behavior, or slow the introduction of new policy initiatives, is not clear and would in practice depend on many different factors. The experts considered that applying accounting adjustments in host countries can counter the risk of displacing mitigation effort in their countries and remove any disincentive to rely too heavily on voluntary market activities of others to achieve their NDCs. This would strengthen the integrity of mitigation outcomes available through the voluntary market and serve to protect their market value.

Many experts also saw benefit in having a common approach to accounting across all carbon markets, irrespective of whether credits are to supply voluntary or regulatory compliance markets, or whether they are generated from emissions covered by unconditional or conditional NDC pledges or are not covered by NDCs at all. Ultimately, they argued, all crediting has an impact on host country emissions and, increasingly, the achievement of NDCs. Differentiation in accounting treatment would be difficult to enforce and may open the way to greater risk of inadequate environmental integrity.

At the same time, it was recognized that neither countries nor voluntary markets are yet ready to require accounting adjustments of hosts, which may be detrimental to the strong current momentum of the market. Experts discussed the possibility of a transition period as a means to bridge the time needed for host countries and voluntary market entities and services to prepare to work with a new transfer model involving corresponding adjustments. During this transition period, voluntary market activities and transactions could continue without host countries accruing obligations to make corresponding adjustments when they submit their NDC accounting under the Paris Agreement.

How may interested countries support and facilitate international voluntary carbon markets?

Engagement by host countries in the voluntary market may strengthen their attractiveness towards investors and buyers but would need to be undertaken in an effective and facilitative manner. They can provide guidance to the market that gives clarity and certainty while at the same time guiding market investment towards national priorities. This can address countries' priority sectors and activities, any preferences for independent standards or how mitigation outcomes are to be assessed, as well as any specific modalities for how mitigation outcomes should be transferred or shared.

Countries may wish to support this guidance through processes to approve or register crediting activities. If host countries are to make corresponding adjustments, they would need processes to provide authorization in the context of Article 6.3 of the Paris Agreement that the mitigation outcomes may be used by others towards emission goals.

If host countries are to effectively engage and make corresponding adjustments, they may decide to put in place systems that provide an overview and oversight of all market activities on their territories. This would need to include information on the crediting activities themselves and the transactions they lead to.

Countries can rely to a degree on information from the independent standards that register activities and carry out the measurement, reporting and verification (MRV) of the mitigation results. In time, however, in order to have oversight over all relevant activities, countries may need to see how they can integrate information from all sources and contexts. Some countries are already making strong progress in this, including by integrating the needs of tracking activities and transactions with the recording of approvals, authorizations, emission inventories, and national reporting under the transparency framework of the Paris Agreement.

Suggestions from country experts

Country experts considered that several measures could support the development of international voluntary carbon markets through strengthening the environmental integrity of mitigation outcomes and serving to protect their market value. These markets could, in the long term, facilitate both the transfer of claims to mitigation outcomes for use against entities' emission targets, backed by the incorporation of transactions into host countries' accounting for Article 6 and NDCs, and through claims to have made a financial contribution to mitigation in a host country.

It will be important to manage this changing environment for international voluntary carbon markets, in particular so as to not risk disrupting the considerable surge in demand and investment that voluntary markets are currently experiencing and to reflect the fundamentally cooperative nature of carbon markets. For cooperation to be effective, it needs to serve and facilitate the needs of all participants, including private sector stakeholders engaged in the implementation of voluntary carbon markets.

It appears that several routes forward would be helpful:

- Potential host countries can identify priority areas for voluntary market investments and be aware of how these may align best with their NDCs and broader sustainable development; host countries can provide supplemental guidance for crediting activities and ensure that approval and authorization processes are objective, streamlined and well communicated;

- Host countries can establish oversight over the mitigation activities taking place within their jurisdictions, including those supported through voluntary markets and other means of funding, and can begin by exploring ways to collate information from various sources and build systems for tracking activities and transactions;

- Host countries can collaborate with independent crediting standards to incorporate effective interactions between their processes, particularly in relation to approval of activities and authorization of mitigation outcomes for use towards NDCs, and to ensure effective information flows on activities and the robust accounting of mitigation outcomes;

- Countries, independent standards and stakeholders can develop concepts and arrangements for a possible transition period before a requirement to apply corresponding adjustments takes effect. This would need to resolve several issues, in particular the length of the period, whether it should be the same for all countries, where it should be decided, and the appropriate form, such as a standard, code of practice, national policy or decision under the United Nations Framework Convention on Climate Change (UNFCCC).

1 Introduction

The context in which countries engage in carbon markets has changed substantially with the Paris Agreement. It brings a universal obligation on all country Parties to declare their plans for climate action through nationally determined contributions (NDCs). In contrast to the Kyoto Protocol, under which only a limited number of countries adopted such targets, many developed and developing countries have now placed their greenhouse gas emissions under national mitigation targets for the post-2020 period. With submissions of updated NDCs every five years expected to demonstrate greater ambition in combating climate change, the proportion of global emissions covered by evermore stringent country targets and regulation is set to expand.

This new context of the Paris Agreement raises issues for countries that may host mitigation activities with the participation of other countries or entities. In particular, any sharing of emission reductions in return for such participation potentially competes with the host country by impacting its ability to demonstrate the achievement of its NDC.[1] This presents a significant challenge for many countries currently considering how to engage in international cooperation and the consequent transfers of mitigation outcomes under Article 6 of the Paris Agreement.

Countries can directly promote international transfers through compliance market policies under which entities must manage their emission levels, such as through emissions trading systems (ETSs) or provisions that allow emission or carbon tax obligations to be offset by emission reductions achieved in other countries. Entities may also engage in voluntary carbon markets at the international level. These lie outside compliance markets in that the emission reductions pursued and transacted by entities are not required by any specific domestic regulation, or go beyond the emission reductions required by regulation. Nevertheless, voluntary market activities will have an impact on the same national emissions as compliance markets and NDCs and will increasingly interface with host countries' growing international commitments.

So how might potential host countries view the recent resurgence in voluntary market interest? Voluntary carbon markets, backed by tangible investment and knowhow and with transaction volumes and values reaching into the hundreds of millions, have to date been a key vehicle for the private sector to contribute to climate change mitigation. Although voluntary markets have in the past been considerably smaller than compliance markets, corporates are now increasingly setting themselves ambitious net-zero emission commitments that are expected to drive reductions in their emissions and seek to extend climate action beyond their own activities.

The Partnership for Market Readiness (PMR) Secretariat convened a series of regional expert discussions in the second half of 2020 seeking to better understand perspectives of potential host countries on the role international voluntary carbon markets might play in the context of their NDCs and the Paris Agreement. This report offers a summary of these discussions: it explores emerging issues and challenges these markets may face and clarifies key aspects host country governments may need to consider in relation to their market participation. It builds upon discussions at the PMR Technical Workshop in 2018 on options for increased voluntary action by non-state actors through international voluntary carbon markets.

1 *'Emission reductions' in this study refer to mitigation generally, including enhanced removals or avoidance.*

Three questions from the perspective of potential host countries form the core of the assessment:[2]

- What role can international voluntary carbon markets play in a post-2020 world?
- How can voluntary markets operate in the context of Article 6 and NDCs under the Paris Agreement, in particular in relation to accounting at the national level?
- How may interested countries support and facilitate international voluntary markets?

To explore these questions, three regional groups were informally assembled with experts who have been engaged in their countries' consideration of how carbon market instruments and activities on their territories can contribute to mitigation efforts. The consultations and review by these country experts from the Africa, Asia, and Latin America and the Caribbean regions took place in their personal capacities and views expressed are not attributable to their countries or affiliations. Needless to say, there were differences of views among experts on some issues. This study seeks to identify the overall perspectives and directions taken within the discussions.

2 Defining voluntary markets

Voluntary carbon markets refer to carbon market transactions that are undertaken by entities on a voluntary basis and not as a result of any policy-related regulatory requirement. Such voluntary carbon markets predate the emergence of compliance carbon markets but have subsequently been active alongside these regulatory efforts to pursue climate action.

Carbon credits issued in voluntary carbon markets for emission reductions have been transacted to fulfil a range of voluntary, non-regulatory purposes. Traditionally these have focused on offsetting carbon footprints of individuals and companies, reducing the emissions impact of specific products or activities, with travel being a prominent example, or enabling corporates to hit emission targets they set themselves for corporate social responsibility reasons.

Voluntary markets reached a high point in 2008 with an estimated 135 million tons of carbon dioxide equivalent ($MtCO_2e$) being traded at a market value of USD 790 million before falling in the following years of global recession. Information for 2019 indicates a resurgence in voluntary markets on the back of new interest innature-based solutions, with partial information for the year indicating an annual transaction volume for the year of well over 100 $MtCO_2e$ again. Levels at which voluntary credits have been issued and retired – direct parallels to supply and demand – have been rising sharply beyond earlier peaks experienced in voluntary markets (Figure 1).[3]

The predominate volume on voluntary markets in the future is expected to be increasingly driven by net zero emissions targets being established across corporate operations. Over 1000 corporates are working with the Science Based Targets Initiative (SBTi)to adopt net zero goals.[4] The SBTi calls for companies to reduce emissions from their value chains to a net zero level, defined as a level consistent with a 1.5 °C pathway, and allows the purchase of offsets as

2 The full set of questions addressed during consultations is contained in the annex.
3 All data drawn from Forest Trends' Ecosystem Marketplace (2020).
4 https://sciencebasedtargets.org/companies-taking-action/

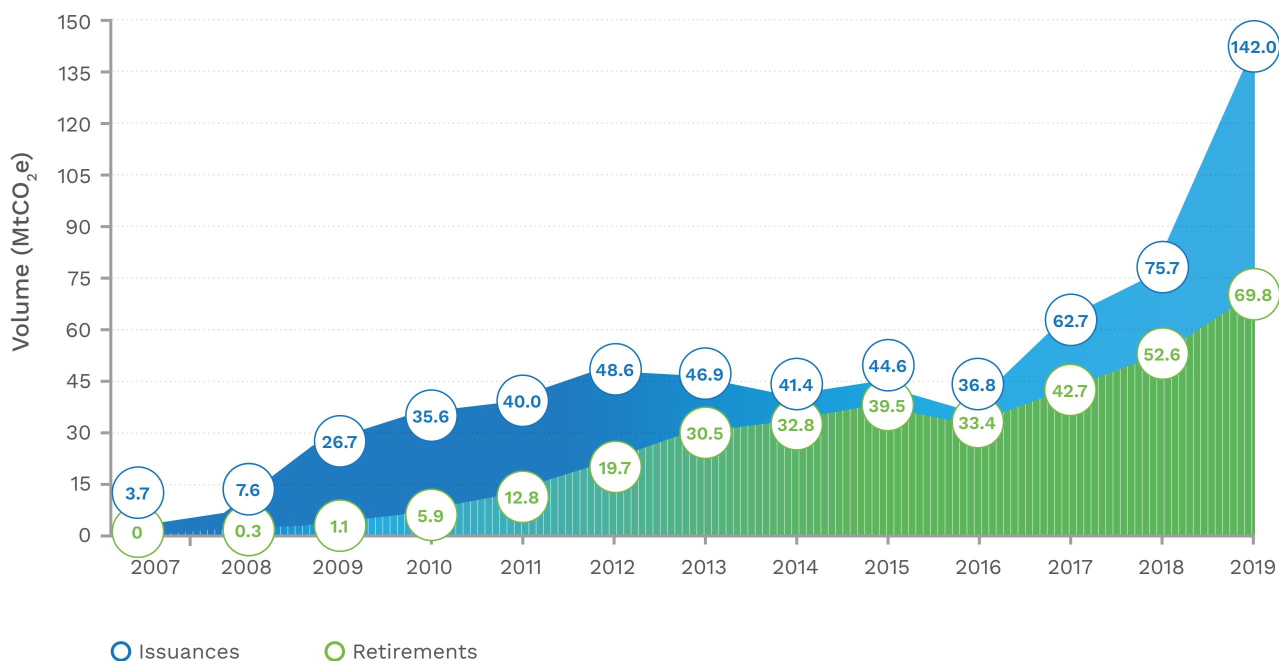
part of the transition to that level and to neutralize residual emissions as part of maintaining that level of emissions thereafter (i.e., emissions that cannot be reduced any further).[5] While it is difficult to predict volumes, such initiatives signal that voluntary market transactions are likely to continue growing. This view is also held by the Taskforce on Scaling Voluntary Carbon Markets (TSVCM).[6]

These transactions are expected to be voluntary in nature in the sense that they fall outside the scope of regulatory emissions obligations set at national or subnational level. It may be that no compliance obligations are in place or that the voluntary action deepens the mitigation beyond the level of an entity's compliance obligation set under, for example, an ETS or a carbon tax.

This distinction of voluntary action from that driven by compliance obligations is important. Entities, taking account of their policy obligations in the jurisdictions under which they operate, can publicize how far they voluntarily exceed the climate action they are legally obliged to perform. Conversely, reducing emissions to compliance levels indicates the impact of policy instruments that governments implement and that they can unquestioningly count towards their NDC achievement.

Figure 1

Annual voluntary market issuance and retirement of credits



Source: Forest Trends' Ecosystem Marketplace (2020)

5 *Science-Based Targets Initiative (2020).*
6 *TSVCM (2021).*

Finally, it is worth stressing that it is the 'use' of carbon credits that may be referred to as 'voluntary'. There is nothing inherently 'voluntary' about the credits themselves or the standards under which monitoring, reporting and verification (MRV) occurs. Standards initiated by non-governmental organizations (NGOs) such as the Gold Standard, Verified Carbon Standard (VCS) and Plan Vivo were once associated exclusively with voluntary markets but this is steadily breaking down, with independent standards now often considered to provide the same or greater quality assurance than some compliance counterparts, and with the credits they generate now also being accepted for use in regulated carbon markets. This is already the case with carbon taxes in Colombia, Mexico and South Africa. Similarly, credits may be generated under a government-regulated standard in the context of Article 6.2 or the Article 6.4 crediting mechanism and still be used for voluntary purposes.

3 A changing international context

Prior to the Paris Agreement, the international climate regime was defined by the Kyoto Protocol, under which only developed country Parties (Annex I Parties) had emission targets while developing country Parties (non-Annex I Parties) did not. Crediting activities in developing countries under the Clean Development Mechanism (CDM) gave rise to carbon credits that could be transferred to developed countries for use against their Kyoto targets without any risk that the emission reductions might be double counted towards emission targets in both the host and acquiring countries.

To support voluntary action by the private sector and to ensure the integrity of emission reductions, voluntary markets also instituted robust accounting measures. For emission reductions in countries without Kyoto targets, registries introduced by independent standards focus on ensuring emission reductions are only issued once as credits and that these credits may be retired only once. Without host country targets under the UNFCCC regime, there was no national-level accounting and no need to question whether the emission reduction would remain counted in the host country for purposes of UNFCCC reporting by the host country.

However, the country context of carbon markets has now changed considerably under the Paris Agreement. In accordance with Article 4, all country Parties – both developed and developing – now have a universal obligation to submit emission reduction goals or actions via their NDCs. Developed countries are to submit economy-wide absolute emission reduction targets while developing countries are encouraged to move towards economy-wide targets over time if these are not yet in place. All countries are to submit new or updated NDCs every five years, each time representing a progression beyond its earlier NDC and reflecting the highest possible ambition.[7]

7 *Least developed countries and small island developing States may instead communicate strategies, plans and actions for low greenhouse gas emissions development reflecting their special circumstances.*

The presence and increasing scope of emission targets in host countries increase the risk that carbon markets will count emission reductions towards more than one target. By default, lower emissions recorded in host country emission inventories will help them achieve their NDCs. The accounting provisions for Article 6 are to address this at the national level by requiring double-entry bookkeeping among all countries – mitigation outcomes sent to another country to lower the emissions counted against its NDC must be added back to emissions in the originating country. In the accounting for Article 6, this double-entry bookkeeping is referred to as 'corresponding adjustments'.[8]

The prospect that this accounting means host countries will not benefit from emission reductions occurring on their own territories results in many being cautious about what is transferred. Host countries also need to implement climate action and demonstrate mitigation results. They will most likely wish to ensure that any transfers result from mitigation efforts that are truly additional to the effort they committed themselves to in their NDCs and are therefore not attributable to their own policies and measures. If this can be assured, transfers may still be beneficial for host countries.

These developments in the Paris Agreement and its Article 6 open numerous questions. Emission reductions achieved through international voluntary carbon markets are used at the entity level – primarily private sector buyers – and not for the NDC purposes of the countries in which they are based. If activities lower emissions and help a host country achieve its NDC while also generating credits that are counted towards an entity-level target, should this be considered double counting? If yes, should host countries apply corresponding adjustments? If not, are there adverse impacts on mitigation and incentives to expand NDCs over time? These critical issues were discussed at length by experts, as reflected in Section 5.

A number of initiatives are now underway to explore and promote options for how voluntary markets may progress going forward. These are typically launched by civil society but often with the support and participation of governments. SBTi concentrates on target setting among companies and also has a focus on considering the role of offsetting.[9] The Gold Standard Foundation has convened a working group that envisions how voluntary carbon markets could operate post-2020.[10] The Environmental Defense Fund, on behalf of the High Tide Foundation, has convened an initiative on voluntary carbon markets and their alignment with the Paris Agreement. The TSVCM, initiated by Mark Carney (United Nations Special Envoy for Climate Action), recently released its final report and recommendations for scaling voluntary markets to help meet the goals of the Paris Agreement.[11] The Carbon Pricing Leadership Coalition (CPLC) has established a Task Force on Net Zero Goals and Carbon Pricing, which aims to explore the nexus between net-zero commitments and strategies of national governments and those of other actors, in particular, the private sector, and examine the role and contribution of carbon markets in this regard.[12] The Gold Standard Foundation has also recently convened a partnership with the support of the German Ministry for the Environment to develop a framework to transition voluntary markets to rules under the Paris Agreement.[13]

8 *The international rules for Article 6, including for how corresponding adjustments are to be implemented, have not yet been agreed and are to be adopted at the next Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (CMA) in November 2021. For the latest draft of the rules concerning accounting under Article 6, see https://unfccc.int/sites/default/files/resource/DT.CMA2_.i11a.v3_0.pdf.*

9 *https://sciencebasedtargets.org*

10 *https://www.goldstandard.org/our-work/innovations-consultations/envisioning-voluntary-carbon-market-post-2020*

11 *TSVCM (2021). See also https://www.iif.com/tsvcm*

12 *https://www.carbonpricingleadership.org/task-force-on-net-zero-goals-and-carbon-pricing*

13 *https://www.goldstandard.org/blog-item/press-release-german-ministry-environment-supports-gold-standard-frame-transition*

4 Host country perspectives on the role of voluntary markets

To date, voluntary markets have sought out and pursued mitigation opportunities relatively independently, with few governments setting conditions or promoting their countries as destinations for voluntary market activities. There have generally been no requirements to seek country approvals, as was done with projects under the CDM, or report on their progress. This is perhaps not surprising, given that voluntary markets have operated beyond the regulation of entities' emission abatement and that credits have not been transferred between any national accounts.

With this in mind, the study explored how host countries may view international voluntary markets and what benefits they may offer within the new context set by the Paris Agreement and operating alongside compliance markets.

4.1 Context

Many countries have distinguished unconditional and conditional components of their NDCs, although the Paris Agreement itself makes no reference to such a separation of targets. Pledges of unconditional targets and actions are made on the basis that they will be undertaken with domestic resources. Crediting activities that address emissions covered by unconditional pledges may therefore have difficulty in demonstrating they are additional, unless they can show that the activities or level of reductions go beyond what was committed unconditionally. Such crediting activities can therefore still go ahead but generally will need to either supplement other mitigation effort that already achieves the host country's unconditional NDC pledge or can generate sufficient credits to satisfy both the host country's unconditional NDC needs and the crediting needs of participating countries.

In contrast, pledges of targets and actions made on a conditional basis make clear from the outset that international support is needed. The term 'conditional' is not defined in the Paris Agreement and countries would be able to determine for themselves what sources of international support may facilitate these pledges. Where countries choose to accept support through Article 6 for reducing emissions that are covered by conditional NDCs, they would be required to make corresponding adjustments for mitigation outcomes that are transferred to other countries. This would include compliance markets, where the demand for credits is driven by compliance obligations in other countries, such as under an ETS or carbon tax, and the acquisition of mitigation outcomes in those countries would be used there towards their NDCs. It is worth noting that the rulebook for the Paris Agreement does not address what is specifically required to demonstrate achievement of a conditional pledge and it is not clear that host countries need to maintain a claim to these emission reductions in order to demonstrate achievement of their NDCs.

Lastly, for host countries that do not have economy-wide NDCs, some emissions in host countries will fall outside the scope of NDCs. Crediting activities relating to such emissions leverage mitigation that is beyond NDC levels. As they would not impact the achievement of host countries' NDCs, there is no risk that double counting could occur between a host country's NDC and the NDC of another country.

In practice, it can be difficult to assess whether crediting activities are inside or outside the scope of NDCs. This can be because NDCs may include activities rather than sectors or because activities may impact emissions in multiple sectors. It is also not always clear what degree of emission reductions are considered a part of the NDC and what is beyond the NDC. A simplified approach may be that only sectors

with no activities mentioned in the NDC should be considered to be outside the NDC.

However, as there is concern that benefiting from market activities outside of the scope of NDCs may isincentivize countries from expanding the scope of their NDCs in the future, it has been proposed in the negotiation of the Article 6 rules that mitigation outside of the scope of NDCs should be subject to the same accounting rules as for unconditional and conditional pledges. This may in fact incentivize emissions being brought within the scope of conditional NDC pledges.

The question therefore arises as to whether crediting activities under voluntary markets should also require host countries to make corresponding adjustments. If this is not the case, this may be seen as an advantage for host countries that choose to limit the use of compliance markets or to adopt NDC pledges that are less ambitious. This issue is discussed in Section 5. What is interesting however, putting aside the issue of corresponding adjustments for a moment, is whether there are inherent advantages or disadvantages in host countries attracting investment via voluntary markets rather than compliance markets or climate finance.

4.2 Experts' perspectives on the role of voluntary markets

To probe deeper into this issue, experts discussed questions concerning the role that international voluntary carbon markets can play in the post-2020 context and, in particular, how they might relate to countries' climate action under NDCs and what advantages voluntary markets may hold for host countries beyond what might be expected from compliance markets.

The country experts were generally of the view that host countries need to treat carbon markets as a whole rather than tailoring treatment to specific types of markets, the different sources of demand, or how the emissions addressed by market activities fit in relation to host countries' NDCs. This is a marked change from the way markets were seen prior to the Paris Agreement and the advent of NDCs. Experts identified a need to pursue a long-term development of carbon markets and to consider how countries may continue to use these markets over time. While there may be shorter-term concerns, such as the time required to build adequate capacity or the strong desire to not hinder the growing demand on voluntary markets, they considered that countries need to take a long-term view and build carbon markets in a manner that will facilitate support for mitigation action that enjoys full confidence of environmental integrity.

Experts generally viewed voluntary markets positively and supported that countries should consider how activities under international voluntary carbon markets may play a role in promoting mitigation. This would need to be done without jeopardizing host countries' abilities to meet their NDCs and without adding undue implementation complexities or strain on domestic capacity. There are several areas in which investment from voluntary markets may offer stronger benefits than investment from compliance markets, although how well these benefits are realized in practice may depend on the nature and effectiveness of guidance and oversight provided by host countries.

First, providing they are established well, voluntary markets are able to increase mitigation ambition beyond regulated or planned levels by identifying and supporting mitigation opportunities that are additional and demonstrate full environmental integrity. The voluntary market represents demand for carbon credits that exceeds any emission-reducing regulation that buyer entities are subject to in their home countries. Such regulations, through for example ETS or carbon tax obligations, establish a base level of international credit demand that is associated with the NDCs of buyer entities' home countries. Voluntary demand adds to these expectations of compliance demand and increases the overall market demand felt by host countries.

On the side of host countries, strong environmental integrity should channel this increase in credit demand into additional activities that would not otherwise have been implemented. Experts expressed the view that voluntary market demand can be considered an opportunity and activities should be guided to areas the host country is not itself addressing through climate action and that promote host country priorities for sectors, activities, technologies, location or abatement costs. It was also noted that voluntary market incentives have been relied upon as an alternative to policies that would have required more intervention and regulation from governments.[14]

It would however be important that this additional mitigation in host countries through international voluntary markets does not displace mitigation activities that were considered necessary to implement host countries' NDCs or other policies and plans. If such displacement were to occur, it would undermine the value and the results of the voluntary market activity.

The increase in mitigation ambition may therefore be seen on different levels. It raises ambition among corporates and other entities to invest in mitigation beyond their own regulatory obligations. It was noted as well that the increased credit demand from some corporates, such as those with net zero targets through the SBTi, comes in addition to pursuing internal emission reductions that are also beyond regulatory obligations. This also represents a rise in mitigation ambition in the host country, as long as the extra mitigation effort flowing into the country do not displace other mitigation effort. At a global level as well, voluntary markets supplement the mitigation effort set through NDCs.

Second, voluntary markets tend to emphasize a broad range of sustainable development benefits, given its link to corporate social responsibility (CSR) and reputational priorities. This can support host countries' own priorities. Though often referred to as 'co-benefits' of activities in addition to the carbon benefits of reduced emissions, in some cases they may form the centerpiece of the activity. Sustainable development benefits may be features of how the crediting activities are set up, what stakeholders are involved, and what benefits are subject to MRV.

In contrast, compliance market demand has in the past tended to prioritize the volume and price of credits. This can be expected to persist as a general trend, though may blur over time as buyers link CSR and reputational priorities to their compliance market purchases. Host countries may also increasingly set sustainable development requirements as prerequisites for activity approval. Country experts considered it would be beneficial if there was more alignment across voluntary and compliance markets with regard to sustainable development requirements.

Third, a distinguishing feature of voluntary demand would be improved access to private sector finance. Effectively addressing climate change requires access to the considerable volumes of investment available to the private sector and greater flows of this climate finance towards countries needing support for ambitious climate action. Voluntary markets can unlock private sector investment beyond amounts provided through compliance markets. The emphasis placed on sustainable development benefits in voluntary markets has resulted in them typically experiencing a greater willingness to pay than their carbon-only counterparts through higher and more stable credit prices.

An issue stressed by experts was that investment and finance through both voluntary and compliance markets is an opportunity that host countries are able to guide towards areas of greater value for the country and that align with their own mitigation planning. Experts were generally of the view that governments would wish in the future to be open to the range of market opportunities and engage in such markets to maximize benefits and drive more ambitious climate action at the domestic level.

14 The specific example raised was the effectiveness of crediting provided for under Colombia's carbon tax in addressing deforestation.

Many country experts were of an overall view that it is not helpful for countries to adopt different regulatory or accounting approaches across different carbon markets, for example on the basis of whether emissions are covered by unconditional or conditional NDCs or are not covered at all, or on the basis of whether the demand for the mitigation outcomes is driven by compliance or voluntary motivations. This overall view was based primarily on a consideration that all carbon market activities in a country impact on its national emissions and that any differences in treatment would open the door to complexities that will at some point lead to inconsistent incentives or a lack of environmental integrity. Related to this was also the view that it is in fact often challenging to distinguish what emission reductions should be considered inside or outside the scope of NDCs.

5 Accounting issues

The universal nature of NDCs under the Paris Agreement now defines the overall context of mitigation ambition and also the accountability of countries for their contributions to it. Future NDC cycles are expected to broaden countries' contributions as well as deepen them. The study explored with experts whether double counting – a situation in which the emission impact of a mitigation effort is counted towards more than one emissions target – is an issue in the context of voluntary markets and what should be the relationship between accounting at the national and entity levels.[15]

The most fundamental issue concerning host country perspectives in relation to voluntary markets is whether there should be an expectation or requirement on these countries to make corresponding adjustments for mitigation outcomes generated on their territories and transferred abroad. This would be required if the receiving entity's country counts the mitigation results towards its NDC but, when it comes to claims by entities in voluntary markets, it is not clear how these claims interact with host country obligations and requirements. The way in which voluntary markets need to interact with the accounting for NDCs needs therefore to be resolved one way or another.

Countries have not yet adopted the international rules for Article 6 and their negotiation continues under the UNFCCC. The considerable technical work undertaken to develop the accounting rules for Article 6 and NDCs means however that what is needed at a technical level to give assurance of environmental integrity and avoid double counting between countries is now well understood. What is less clear is whether and how voluntary, entity-level transactions that are not motivated by compliance with government policy should be integrated in country-level Article 6 accounting.

[15] *'Double counting' can take different forms. 'Double issuance' refers to the same mitigation outcome being issued as a credit more than once and can be addressed through robust issuance processes. 'Double use' refers to the same credit or allowance being counted more than once towards an emissions target and can be addressed through robust transaction tracking. 'Double claiming' is the most relevant in terms of accounting for Article 6 and NDCs and refers to the same mitigation outcome being claimed towards more than one emission target, once as a credit for the buyer or once as lower emissions recorded in a country's emission inventory.*

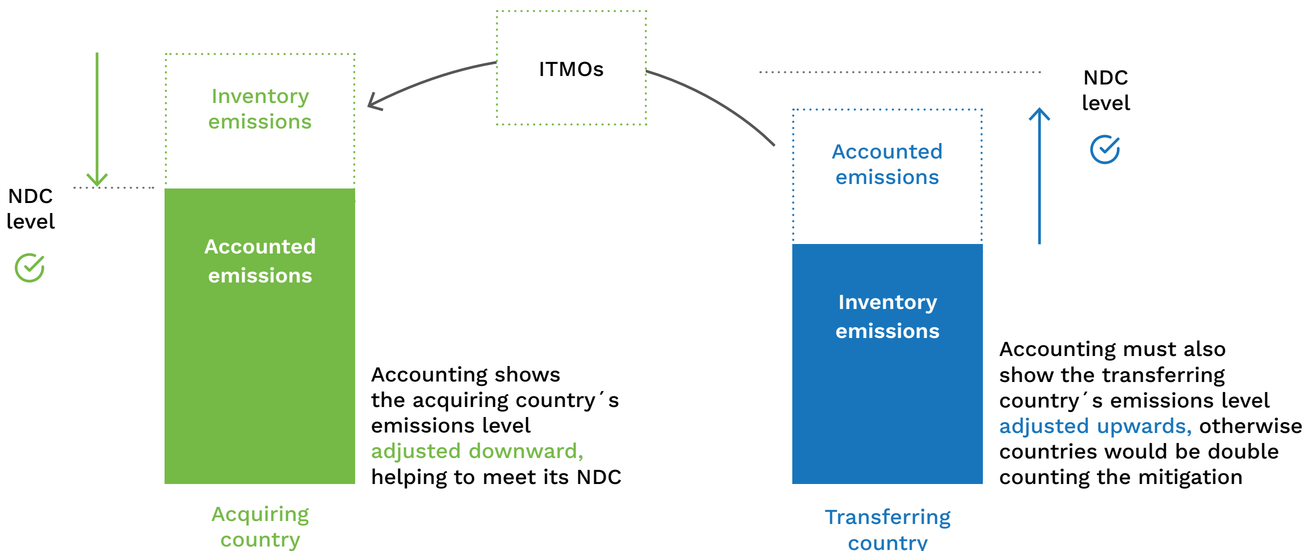
5.1 Context

Accounting in the context of an emission target refers to the tracking of progress toward reaching it. The accounting for the Paris Agreement therefore deals with how countries are to demonstrate they have achieved the mitigation targets or actions set out in their NDCs, including by taking into account the impact of internationally transferred mitigation outcomes (ITMOs) under Article 6 that are used towards achieving NDC targets and for other uses.

Targets for reductions in greenhouse gases are achieved when emissions for the relevant sector or activity, as recorded in the country's national emissions inventory, are reduced to the target emission level either set out directly in the NDC or derived from it. The accounting for Article 6 makes 'corresponding adjustments' in the level of emissions taken from the inventory to show the impact of mitigation occurring in one country but being counted against the NDC of a second country. While the data on information is supplied by inventories, the accounting and its corresponding adjustments are to be applied separately and reported in countries' biennial transparency reports (BTRs).

An acquiring country will wish to make a subtraction from the level of its accounted emissions for the mitigation outcomes it acquires, thus helping it achieve its NDC emissions target (see Figure 2). This makes the accounted emissions less than inventory

Figure 2
Corresponding adjustments conducted in accounting for Article 6 and NDCs



emissions. To balance this, the seller country must make an addition in its NDC accounting by adjusting its level of emissions upwards. This ensures there is no double counting between countries by reflecting that the reductions are used by the acquiring country to achieve its NDC and are no longer used for this purpose by the seller country.

The negotiation of the Article 6 accounting rules has broadened the concept of ITMOs beyond those used towards the achievement of NDCs. Specifically, they include mitigation outcomes used for mitigation purposes under other international agreements such under the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA), as described in Box 1, and 'for other purposes', which could potentially include mitigation outcomes used in voluntary markets.[16] In these cases, there is no acquiring country that would count the ITMOs towards an NDC but the fact that the mitigation outcomes are no longer usable towards the transferring country's NDC would be included.

The sectors in which the emission reductions are made can result in different impacts on countries' NDC accounting. Figure 3 sets out two simplified voluntary market scenarios in which a buyer entity in country A has already reduced its internal emissions from 80 tCO_2e to 40 tCO_2e and now wishes to offset a further 20 tCO_2e through credits from projects abroad. This would allow it to claim – within its own accounting – to have reduced emissions by a total of 60 tCO_2e. However, only the initial 40 tCO_2e reduction in internal emissions is picked up in country A's emission inventory and NDC accounting, as voluntary market offsets purchased by entities are not reflected by the country in its national accounting. The voluntary market purchase therefore has no impact on the NDC achievement of the country in which the buyer entity is based.

In the first scenario, the carbon credits are drawn from a project inside the scope of country B's NDC. The 20 tCO_2e is reduced from the country's emission inventory and that portion of its emissions that are relevant to the achievement of its NDC. This host country therefore receives a 'windfall' benefit of 20 tCO_2e with respect to its NDC position. In the second scenario, the carbon credits are drawn from country C, where the project originating the emission reductions falls outside of the country's NDC scope; while the project impacts the national emission inventory by 20 tCO_2e, the emissions are not part of the NDC calculation and the reductions do not impact the country's ability to achieve its NDC.

These scenarios offer a simplified view of who benefits for accounting purposes from the offsetting activity. Where the project falls inside the scope of the host country's NDC, both the buyer entity and the host country benefit to the level of 20 tCO_2e each and count these against their emission targets.

Lastly, it is important to note that corresponding adjustments are likely to be based on total annual volumes of relevant transactions for a country rather than for each individual market transaction. The question of applying adjustments to voluntary market transactions is therefore not an issue of individual activity participants securing adjustments, but rather whether host countries should incorporate these transactions in their national accounting and reporting under Article 6.

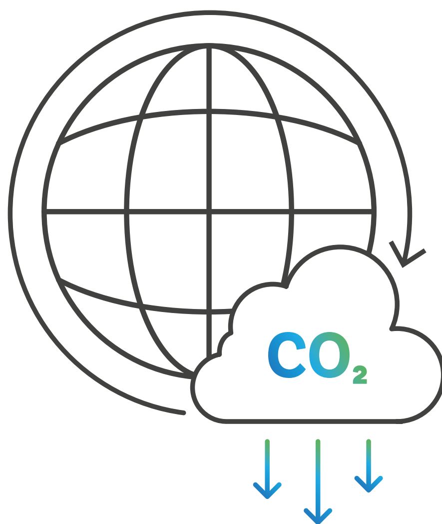
16 https://unfccc.int/sites/default/files/resource/DT.CMA2_.i11a.v3_0.pdf. See paragraph 1(f) of the annex.

Box 1

Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA)

Established by the International Civil Aviation Organization (ICAO), CORSIA is a recently commenced market-based measure with an aspirational goal of maintaining carbon neutral growth in emissions from international aviation from 2020 onwards. Airlines may offset the growth in their international aviation emissions using credits for reductions and removals in emissions that fall under the Paris Agreement. For credits to be eligible, the ICAO Assembly Resolution requires the rules under the Paris Agreement to ensure the avoidance of double counting.[17] The emission unit criteria under CORSIA state that crediting programs should ensure that units and their ownership are tracked in registries and provide information on "how they address double counting, issuance and claiming".[18]

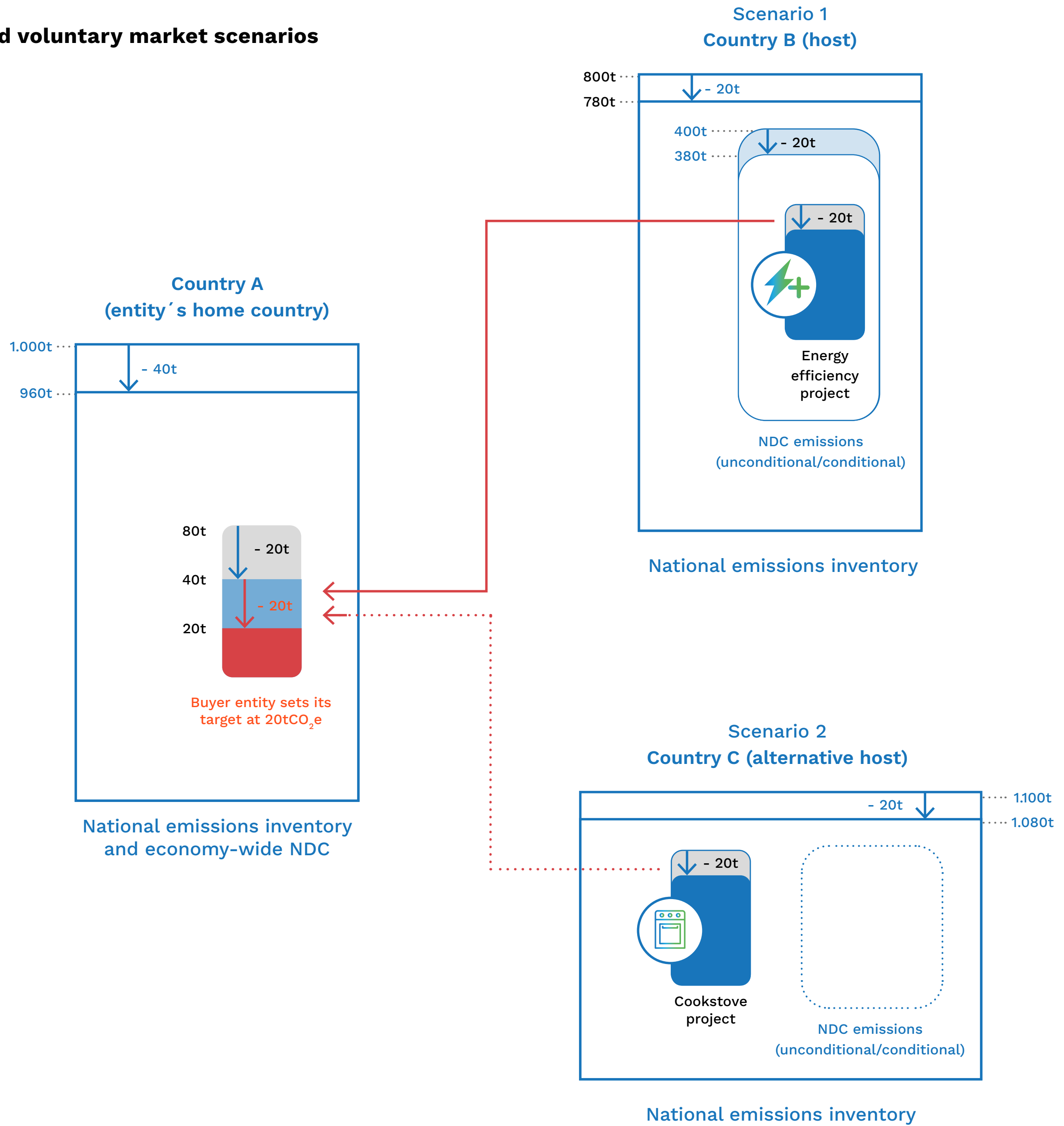
The rules for the transparency framework under Article 13 of the Paris Agreement require accounting to include mitigation outcomes used for CORSIA and any other international mitigation purposes other than NDC achievement. The draft rules for Article 6 also include provision for such uses of mitigation outcomes to be included in the accounting for Article 6 and NDCs.



17 ICAO (2016), paragraph 21.
18 CAO (2019), paragraph 11.

Figure 3

Simplified voluntary market scenarios



5.2 Experts' perspectives on corresponding adjustments

The issue of corresponding adjustments attracted the most attention during the consultations with country experts. They discussed questions regarding how voluntary markets may operate in the context of the climate action and accounting for Article 6 and NDCs under the Paris Agreement, in particular the relationship of accounting at the entity and national levels.

Many experts noted that potential host countries are currently reluctant to engage with voluntary markets due to uncertainty as to whether they will need to apply adjustments for transfers made from mitigation activities on their territories. In principle, if the mitigation is additional to what would otherwise occur, host country adjustments only add back the emissions that were reduced by the crediting activity, returning the host country to the same position vis-à-vis the achievement of its NDC as it had before. But uncertainty over the necessity of adjustments may impact the choice between different funding sources and, as was also stressed by experts, many countries currently lack the capacity, systems and legislation to be able to commit to undertaking corresponding adjustments.

Experts appreciated the simplified scenarios in setting out the accounting issues. One early area of convergence was that voluntary market transactions should not be reflected in the Article 6 accounting of the country of the buyer entity, and hence should not be used towards achieving its NDC target. If the buyer entity's acquired credits were to help its country achieve its NDC, this might lead to a reduction, or 'displacement', of mitigation effort in that country, which would in turn undermine the buyer entity's original intent in increasing the level of mitigation. This contrasts with the situation in compliance markets, in which the acquisition of mitigation outcomes is driven by government policy, making it appropriate that they may be accounted for NDC purposes.

Different views emerged from experts on whether the situation illustrated in the first scenario should be described as 'double counting'. Some considered this to be double counting because the scenario clearly involves a single mitigation outcome (20 tCO_2e) being counted towards two emission targets – the host country's NDC and the buyer entity's carbon neutrality or net-zero pledge – despite these targets not being part of a single accounting system. This view places greater emphasis on the volume of emissions entering the atmosphere than the specific system under which it is accounted.

Others argued that the scope of the accounting system is important for the use of the term and that Article 6 is only concerned with emission targets set at a country level through NDCs. From this viewpoint, there can be no double counting as the mitigation outcome remains counted only once at the country level – in the host country's emission inventory. The fact that the credits are also counted by the buyer entity in its own portrayal of carbon neutrality does not constitute double counting, in this view.[19]

It is apparent, therefore, that whether the term 'double counting' is appropriate is dependent on the chosen frame of reference. Irrespective of the label, however, experts discussed the impact of mitigation outcomes being counted against multiple targets as follows:

- It may create a false impression of how much mitigation is being achieved;
- It may weaken mitigation effort in the host country because the windfall reductions in its inventory may prompt it to slow or halt its mitigation action; the windfall reductions could in effect displace the need for other mitigation effort that would have occurred to achieve the NDC.

19 *It was also pointed out that voluntary action undertaken domestically by entities to reduce their own emissions is counted at both entity and country levels – and yet this is not described as double counting.*

Such weakening of mitigation in host countries could lead to activities implemented in good faith by voluntary market entities being undermined and their emission reductions cancelled out. The country may not even be aware of its improved NDC position, especially if the impact is small. Without such knowledge, it is not able to take measures to safeguard the emissions impact of the mitigation outcomes. That said, it is not clear how much displacement might occur. This may depend on the clarity of NDCs, the status of policy implementation, how often climate policies are reviewed, the willingness to change policy course, and of course the quantities of voluntary emission reductions being transacted.

As a result, despite differences in how double counting may be perceived, experts considered it necessary for host countries to apply corresponding adjustments for mitigation outcomes that are internationally transferred through voluntary carbon markets. Some further clarified that – even if such adjustments are not needed to counter double counting in a strict sense between NDCs – they are needed to counter the risk of displacing host country mitigation and to safeguard both the emission impact and the financial value of voluntary market transactions. If such adjustments are not required, this may even create a perverse incentive that hinders the growth of NDC ambition in countries that can benefit from international voluntary carbon markets.

There were however differences among experts as to when corresponding adjustments should become a requirement for voluntary market transfers. Those experts emphasizing the displacement risk argument over a strict double counting argument considered the application of corresponding adjustments to be an 'end point' towards which the system needs to evolve over time. Experts that saw this issue as being primarily about double counting between emission targets – albeit not at the country level of NDCs – considered it ideal that corresponding adjustments would be applicable immediately but were generally open to the idea of such a requirement being delayed for a period of time in order to ensure a smooth transition and build capacity (see Section 5.4).

Many experts expressed this need for corresponding adjustments as the application of a common approach to accounting across all carbon markets – irrespective of whether credits are supplying voluntary or compliance markets and whether they are generated among emissions covered by unconditional or conditional NDC pledges or are not covered at all in the current NDC. They argued that all crediting activities have an impact on emissions in the host country, and increasingly will impact on the achievement of NDCs, and so should be subject to the same accounting treatment. They argued that any distinctions made in accounting treatment will be difficult to apply and enforce, and ultimately will open the way to greater risk of inadequate environmental integrity.

It was also noted that this accounting treatment of voluntary market transfers would be the same as is required for mitigation outcomes authorized for use under CORSIA (Box 1). As international aviation emissions are not included in national inventories under the UNFCCC, there is no acquiring countries that can make an adjustment under the accounting for Article 6 and an adjustment at country level is made only by the country hosting the crediting activity. As such, the adjustment for mitigation outcomes used under CORSIA is not justified by double counting between two countries but is justified by double counting between two emission targets that span different accounting systems. Furthermore, this adjustment counters what would otherwise be a risk that lower emissions in host countries could prompt reduced mitigation effort that would undermine the use of the mitigation outcomes within CORSIA.

A further parallel with CORSIA is that mitigation outcomes used by that system may not involve an actual transfer of credits outside of the registry they are issued in. This is because there is no technical link established between the originating registry and a CORSIA registry, with the credits used for CORSIA instead being cancelled in the originating registry. Voluntary markets have to date operated registries in the same manner, with carbon credits being issued and retired in the same registry. Nevertheless, both CORSIA and voluntary market transactions involve a transfer of a claim to the underlying

mitigation outcomes from a host country to a buyer entity, even if a transfer of an actual credit between registries does not occur.

Experts also considered whether there is a need to regulate the application of corresponding adjustments for voluntary market transactions and, if so, where and how this should be done. There appear to be several options for such regulation:

- **Through the international rules for Article 6.** There is currently provision for this in the inclusion of 'for other purposes' when setting the scope of mitigation outcomes in latest draft rules for Article 6.2, although it does not specifically mention voluntary market transfers.[20] This option would be the most authoritative approach if it were made specific, especially given that corresponding adjustments are a country-level responsibility, and the issue is relevant to the broader accounting framework of Article 6 (as mitigation outcomes used for CORSIA are also);

- **Through independent standards.** These currently provide for coverage of much of voluntary markets, although there could be a future transition to more use of the Article 6.4 mechanism or ETS allowances. There is however no current coordination mechanism across these standards;

- **Through a governance body established for the voluntary market.** While no overarching governance body currently exists, the TSVCM has recommended that governance structures be developed that address, among other issues, principles for suppliers of credits to the voluntary market. Such structures may include an umbrella governance body; [21]

- **Through guidance by individual host countries or alliances of participating countries.** This would amount to a voluntary undertaking by governments to make corresponding adjustments, rather than the setting of a requirement. There is single no coordination mechanism across all countries – other than the UNFCCC process – but some alliances or 'clubs' of countries are emerging that in future may represent a significant portion of participants, such as the Climate Market Club and Climate Warehouse established by the World Bank.[22]

It is important to note that voluntary market transactions are not always readily visible to host countries, making the application of corresponding adjustments challenging. This approach would necessitate a level of oversight over voluntary market transactions that host countries currently do not have. This issue is further discussed in Section 6.4.

20 https://unfccc.int/sites/default/files/resource/DT.CMA2_.i11a.v3_0.pdf. *See paragraph 1(f) of the annex.*
21 *TSVCM (2021).*
22 https://www.worldbank.org/en/programs/climate-warehouse

5.3 Experts' perspectives on finance contribution claims

The discussion of corresponding adjustments in the preceding section focuses on claims to the mitigation outcomes arising from voluntary market activities, which have to date been the aim of offsetting with voluntary markets. The new context of the Paris Agreement means that host countries also need to demonstrate certain levels of emissions in order to achieve their NDCs, thus creating competition for mitigation outcomes that was previously not a concern in voluntary markets. In light of this, country experts also discussed a possible alternative in the form of claims to have provided valuable private sector finance to support host countries in implementing their climate action.

Experts recognized during the consultations that this alternative model needs further exploration. Entities would claim to have provided voluntary financial contributions to support mitigation in other countries. Entities would only claim they have enabled the host country to reduce emissions through contributing finance or other support, allowing the claim to the mitigation outcomes themselves to remain with the host country to be accounted towards its NDC. This finance contribution claims model may therefore operate similarly to results-based climate finance.

A key advantage of this model is that it avoids issues of double counting and possible displacement of host country mitigation effort. As mitigation outcomes are not transferred, there is no need for corresponding adjustments. However, experts also recognized that such claims may be of considerably less tangible and marketable benefit for entities in voluntary markets. Without offsetting, entities' emissions would remain fully on their books and they would be less able to market themselves as having reached net zero status or their products and services as being climate neutral. The incentives for entities to participate may therefore be considerably weaker.

5.4 Experts' perspectives on managing a transition

The discussion among country experts, as reflected above, highlighted two potential models for accounting in relation to international voluntary markets: (a) claims to mitigation outcomes with corresponding adjustments and (b) financial contribution claims with no corresponding adjustments. Country experts discussed the implications of a move towards these models, in particular with regard to timing and the levels of capacity and institutions needed for the first of these models.

The two models take account of the broader context set by NDCs and the Paris Agreement at country level. The first model would be closer to a continuation of the current offsetting model in voluntary markets but the corresponding adjustments by host countries would add safeguards for the integrity and value of mitigation outcomes by eliminating any risk of double counting or displacement of host countries' own mitigation efforts. The second of the models does not interact with the accounting for Article 6 and NDCs. Although more work may be beneficial in clarifying and harmonizing approaches for how it may be operationalized, it is a model that can in principle already be implemented.

Experts discussed however several factors that could hinder the implementation of the corresponding adjustments model in the short term:

- In many countries, corresponding adjustments remain poorly understood and there is as yet still no formal mandate or clarity as the Article 6 rules are not yet finalized;
- Many countries still lack the capacity, systems, programs and legislation to support processes for authorization, transfers, accounting and reporting;
- Many potential host countries are not yet clear in which sector and activities they are able to consider transferring mitigation outcomes or how

they should prioritize activities. To resolve this would require further development of an Article 6 strategy or NDC implementation plan;

- Many potential host countries do not yet have an overview of voluntary market activities on their territories or the systems in place to record them as they are initiated.

At the same time, the experts were aware of the rapidly growing private sector interest in voluntary markets and did not wish this interest in contributing to global mitigation to be hindered. If possible, approaches should be considered that might preserve the ability for new activities to commence.

The possibility of a transition period was discussed as a means to bridge a period in which host countries and voluntary market entities and services prepare to work with a new transfer model involving corresponding adjustments. It would involve a specific period for which voluntary market transactions may be made without a requirement on host countries to make corresponding adjustments.[23] The period could be used for countries interested in hosting voluntary market activities to build capacity, systems and legislation, taking account of broader development under Article 6. Box 2 sets out several issues that would need resolution.

A transition period would entail accepting some degree of risk that double counting or displacement of mitigation effort may occur between buyer entities and host countries, but would not risk double counting between two countries' NDCs, given that voluntary market transactions are not counted by the countries of buyer entities towards their NDCs. As such, the strict requirement of Article 6 that there must be no double counting between NDCs would be met even during the transition period.

Box 2

Key issues in adopting a transition period

Several issues would be important to resolve in clarifying the nature and implications of any transition period in which no obligations to undertake corresponding adjustments would accrue for host countries for international transfers made through the voluntary market:

- The length of the transition period, until a certain year or until specific conditions are met (for example, the implementation of NDCs or establishment of required capacity, systems and legislation);
- Whether the period should apply to all countries or be the same length for all countries;
- Whether international transfers of all emission reductions, or only of emission reductions from outside the scope of NDCs, do not require corresponding adjustments during the transition period;
- Appropriate form and status of guidance on a transition period, such as a standard, code of practice, national policy or UNFCCC decision (taking account of how corresponding adjustments for the voluntary market are regulated (section 5.2));
- Possibilities for collaboration and capacity building to enable work with corresponding adjustments and manage the interface between national and entity-level accounting.

23 *It was also discussed whether the in-built time lag in reporting corresponding adjustments may be sufficient, given that their reporting through BTRs may commence as late as the end of 2024. This would however not stop the obligation to make corresponding adjustment from accruing from the start.*

6 Support and facilitation by host countries

Countries wishing voluntary markets to undertake activities on their territories may take steps to support and facilitate such action. Engagement may enhance the attractiveness of host countries to voluntary market investors and buyers, if it is undertaken in an effective and facilitative manner. Providing clarity and certainty will be of paramount importance to private sector engagement. Well informed and designed measures can support and facilitate voluntary market transactions, protect national interests and direct investment in support of national priorities.

The study explored with experts three particular areas in which host countries may guide market activities taking place on their territories, with a view to enhancing their offer as a destination of international carbon finance and encouraging alignment with their own development priorities.

Measures to facilitate markets are generally relevant to all types of carbon markets and international cooperation under Article 6 more generally. However, this section seeks to set out measures specific to voluntary markets and place them in this broader context.

6.1 Context

Providing guidance to crediting activities can help host countries ensure strong contributions that support their mitigation policy and own mitigation effort. Any guidance provided by host countries would need to perform dual purposes of:

- Providing clarity and certainty for market participants, in particular in knowing what activities and transfers of emission reductions that host countries will accept;
- Directing crediting activities towards mitigation opportunities that are aligned with the implementation of NDCs and, where available, low-emission development strategies.

This is not a unique need for voluntary markets and host countries may wish to consider guidance to voluntary market activities along with their broader planning for Article 6 engagement – including potentially development of their own policy instruments for crediting, emissions trading or integration of crediting within carbon taxes – and guidance to crediting that is driven by compliance demand sources, including ultimately from NDCs and other international agreements such as CORSIA. Potential vehicles for such guidance may be national laws and regulations. Guidance may be integrated in broader mitigation policies or institutions, systems and processes established to implement them.

Such supplementary guidance would need to be stable and known in advance of commencing the development of activities. Care would also be needed to ensure supplementary guidance is not in conflict with requirements established by the independent standards available for use.

Two key avenues available to host countries to supplement their guidance are approval and authorization processes. While these are in some ways similar, and could potentially be integrated into a single procedure, the two purposes are distinct:

- **Approval or registration processes** are domestic in focus in that they signal the host country's acceptance of the crediting activity and its participants against requirements and guidance that it has set out. Where guidance is made mandatory, approval processes can form an enforcement tool, in that crediting activities would need to be brought into alignment with the guidance in order to be approved.

- **Authorization under Article 6.3** of the Paris Agreement is international in focus in that it concerns countries authorizing the use of mitigation outcomes – that have been internationally transferred – for use towards other countries' NDCs. This gives host countries authority over the accounting consequences of transfers that are made. The concept has been broadened through the negotiation of Article 6 rules to encompass mitigation outcomes used for non-NDC purposes, including other international mitigation agreements such as CORSIA and potentially other purposes such as to meet voluntary commitments.

These purposes arise from different drivers. While voluntary markets have in the past tended not to require it, host country approval processes have become familiar from the CDM, where host countries provide approval of CDM activities and confirmation that they contribute to their sustainable development. The concept of authorizing mitigation outcomes to be used towards NDCs emerged from the negotiations on the Paris Agreement and was included in Article 6 out of a concern that activities may occur without national governments' awareness or control over impacts that these would have on their NDC positions. Approval processes, but in particular authorization processes, are therefore necessary if corresponding adjustments are to be performed for voluntary market transfers.

An example can be seen from the latest draft rules for the Article 6.4 mechanism, which would strengthen the type of approval processes familiar from the CDM by requiring host countries' national authorities to approve each activity and its participants, clarify how the activities relate to the host country's NDC, and provide its authorization for the credits to be used towards other countries' NDCs.[24] The draft rules additionally provide for national authorities to optionally specify methodologies and crediting periods that are to apply to activities that they intend to host.[25]

Authorization can potentially be given with conditions or limitations. For example, use may be limited to a proportion of the mitigation outcomes from an activity or may be subject to a maximum limit, in order to share the mitigation benefits with the host country. Limitations may also be set in relation to specific vintages of emission reductions or specific recipient countries. Such limitations may help host countries manage the impact of activities on their NDCs achievement but depend on the capacity of market participants to assume this additional risk. Any reduction in the volumes of emission reductions available to market participants, or any risks arising from uncertainty or delay, may impact particularly heavily on private sector entities engaged in the crediting activities.

Some host countries may consider measures to make transfers conditional, at least in part, on the achievement of their NDCs. Such approaches would need to be balanced against uncertainty and risk for investors and buyers in markets. Private sector entities need sufficient certainty of transaction volume and timing, backed by clear contractual commitments and definable risks, and may be in less of a position to work with conditionality provisions than governments or public sector entities.

Transparency and robustness in voluntary markets are currently supported through registries that record information on voluntary market projects, issue credits on the basis of verified emission reductions, track credit trades and retire the credits when entities claim or 'use' them as offsets against their emissions. These registries have therefore tended to be implemented in conjunction with specific MRV standard bodies, given that the credibility of the standards is dependent on guaranteeing the single retirement of each credit. These registries operate however as unlinked, isolated systems and no actual transfer of credits from one registry to another takes place.

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24 https://unfccc.int/sites/default/files/resource/CMA2_11b_DT_Art.6.4_.pdf. See paragraphs 39-41.
25 https://unfccc.int/sites/default/files/resource/CMA2_11b_DT_Art.6.4_.pdf. See paragraph 27.

Countries have a need at the national level to maintain oversight over national emissions and specific mitigation and crediting activities, as well as their progress in achieving their NDCs. Host countries may also have a specific interest in tracking their access to finance, technology and other support. In practice, however, it is challenging to identify and track all voluntary market activities and all transfers of mitigation outcomes, and therefore to have comprehensive and accurate information on corresponding adjustments they will need to make.

6.2 Experts' perspectives on host country guidance

A recurring theme during the consultations was the benefit of ensuring market activities are aligned with host countries' development priorities, and in particular the implementation of NDCs and, where available, low-emission development strategies. Questions were discussed by experts, especially on the nature of guidance that host countries might provide and how they may wish to implement it.

Experts generally viewed guidance provided by host countries as an opportunity to ensure that the inflow of finance, technology and capacity through voluntary markets is well aligned with countries' climate action and development needs. They stressed the importance of planning that builds on country assessments of the potential and opportunities for mitigation. This can provide a basis for directing support towards activities that bring the greatest benefit and away from the 'low-hanging fruit' that has often been the focus of much market-based cooperation in the past. Support is likely to be most beneficial in areas which the host country will have greater difficulty in addressing on its own. In particular, host countries may wish to guide market support towards higher cost or more complex abatement opportunities, with a focus also on meeting sustainable development priorities.

Experts stressed that host countries need to identify where they are able to generate emission reductions that they can make available for international transfer. This assessment will need to be rooted in an understanding of the unconditional and conditional pledges made in NDCs, the abatement costs of different mitigation measures and the supporting policies needed to implement them. Where NDC accounting requires corresponding adjustments, it will be necessary to determine what volume of transfers can be made before the host country risks not being able to demonstrate the achievement of its NDC.

Such guidance could comprise mandatory or optional components in order to convey host country priorities. It would be important to strike an appropriate balance between facilitating market actors in discovering and pursuing useful mitigation opportunities for themselves and directing activities into areas that host countries consider to be of highest priority.

Independent standards for crediting, such as the Gold Standard, VCS and Plan Vivo, provide opportunities for a robust and independent operation of voluntary crediting. It is anticipated that the Article 6.4 mechanism will also provide such services in the future. Host countries therefore do not need to provide the full spectrum of guidance for market activities. It is in fact beneficial that issues be regulated by the independent standards where they are not country-specific, as this would promote commonality in crediting approaches. Host countries can then instead focus on specific areas of supplementary guidance that would apply on their territories over-and-above that provided by independent standards. It would be useful for independent standards to include touchpoints in their processes that check to ensure that host country guidance has been taken into account.

Experts discussed a number of areas in which host countries could beneficially provide supplementary guidance towards voluntary market activities:

- **Priority sectors and activities.** This might clarify priority sectors, activities, technologies, locations or cost ranges where investment would be beneficial for national efforts to reduce emissions and promote low-emissions development. It could clarify what mitigation activities are being implemented nationally and where voluntary markets could strengthen ambition beyond national efforts and NDC needs. It could further set out any information or support available, for example to identify local partners, national policies, national priorities for emissions and sustainable development, or synergy with other national or international initiatives.

- **Preferred or eligible independent standards.** This may involve an assessment of which independent standards are considered to meet what the host country considers to be acceptable environmental, social and governance (ESG) criteria. There would be value in the choice of standards being consistent across voluntary and compliance market, or at least for provisions impacting on the quality of mitigation outcomes to be aligned across different standards used.

- **Operation and MRV of crediting activities.** This may include guidance on assessing environmental integrity, methodologies for setting crediting baselines and monitoring emission reductions, crediting periods and possible renewals, and desired sustainable development benefits.

- **Modalities for transfers.** This may include processes for issuing approvals for crediting activities and authorization for use of mitigation outcomes towards NDCs and other emission commitments, taking into account the appropriate legislative basis in the country for approvals and transfers, as well as any preferred conditions for the sharing of mitigation outcomes in order that a portion may be accounted towards achieving the NDC of the host country.

6.3 Experts' perspectives on approval and authorization processes

In this context, country experts also considered how approval and authorization processes can be used by countries. Experts stressed in the discussions the need for host countries to use processes for giving approvals or authorizations to voluntary market activities to reinforce the guidance they provide. It can be made clear that only activities that meet the guidance – for example in relation to priority sectors, activities, technologies, locations or cost ranges – would receive authorization and be backed by corresponding adjustments. These processes therefore can be designed to offer host countries more influence over market activities on their territories while also giving entities clarity on what conditions they need to meet in order to confidently claim the emission reductions.

The implementation of approval and authorization processes would be eased if they are applied to all crediting activities, irrespective of their relationship to conditional or unconditional NDC pledges or whether they are to be supplied to voluntary or compliance markets.

It would help secure the overall robustness of approval and authorization processes if these processes at host country level were taken into account by processes enacted by the independent standards. There could be a requirement in independent standards, for example, that they check to ensure that host countries have provided their approval and authorization to activities as part of their registration. Some independent standards already institute such checks.

It was raised during the consultations, for example, that poverty eradication is a key priority in South Africa but that this is not sufficiently guaranteed by independent standards alone. This suggests it may be beneficial for host countries to develop supple-

mental guidance to embody their crediting priorities and work with independent standards to strengthen the way that this is taken into account.

It will however be important that host countries' approval and authorization processes are consistent in the criteria they apply. It may in fact be beneficial for host countries to explore synergy and streamlining between approval and authorization processes. Voluntary market participants will generally need to know, at the point of receiving approval, the prospects for receiving emission reductions within reasonable bounds of uncertainty. This clarity and predictability can impact the market value of mitigation outcomes and hence the uncertainty and risk associated with activities. The criteria for authorizing mitigation outcomes would usefully be made public and kept stable.

6.4 Experts' perspectives on host country oversight

Experts consider it important for host countries to implement systems that enable them to have an overview and oversight with regard to all market activities on their territories. Voluntary market actions and investment form part of the broader mitigation effort occurring in countries, irrespective of whether they count towards NDC achievement. Countries may wish to include such information as part of their broader overview and reporting processes, including in order to identify gaps in support or mitigation action that may need to be addressed or to monitor the impact of any guidance they have provided to voluntary markets.

Host countries need to provide for two different types of tracking:

- **Activity tracking,** to provide a comprehensive and up-to-date record of crediting activities, including all activity documentation, participants, funding, intended and verified emission impacts, and the status of approvals and authorization;
- **Transaction tracking,** through a transaction-oriented registry to record the 'chain of custody' of credits through issuance, transfer, cancelation and or surrender processes and to ensure the avoidance of double counting.

The current systems implemented by independent standards are likely to continue. The question arises however as to whether and how their information and functions should be integrated with systems operated at a country level. In addition to processes for providing guidance and issuing approvals and authorization, host countries will need to maintain ongoing oversight over voluntary market activities in operation on their territories. This will be especially important with host countries due to any impacts of voluntary market transactions on corresponding adjustments in their Article 6 and NDC accounting. This can support host countries in understanding the full impact of the carbon market activities on their territories and which need to be reflected in their accounting.

Depending on how voluntary markets and Article 6 cooperation develop, there is likely to be greater need in the future to link transaction registries. Registries provided by independent standards could be integrated more with the emerging landscape of national registry services under Article 6 to enable more comprehensive tracking of international transfers and assurance of no double counting. There may also be a need to track claims to finance contributions on voluntary markets.

Establishing a full country-wide overview is challenging, given the number of mechanisms operational in carbon markets. Systems for recording and tracking carbon market activities and transactions are generally implemented for each mechanism: ETSs, carbon taxes with offset provisions, credits generated under the CDM, Article 6.4 mechanism and each independent MRV standard, credits used under CORSIA, and potentially systems for other cooperative approaches under Article 6.2. Host countries will need a means of consolidating information on transactions across all such systems if they are

to understand the impact on their NDC positions, determine appropriate corresponding adjustments to make, and fulfil reporting obligations on Article 6 results under the Paris Agreement.

Some countries are already making strong progress in implementing integrated systems to provide an overview and oversight over market-related activities by consolidating activity and transaction information into a single, authoritative location, and ensuring they are linked to other information on emissions, mitigation actions and reporting (Box 3). The scope of such systems is necessarily broad, encompassing a horizontal dimension across different policy mechanisms and a vertical dimension encompassing entity and country-level information, including:

- Systems for voluntary and/or regulated entity-level emission reporting;
- Tracking mitigation activities and their carbon as well as non-carbon impacts;
- Tracking transactions, such as the issuance, cancellation, transfer, and surrender or retirement;
- Recording issuance of approvals and authorizations;
- Systems for preparing the national inventory reports and BTRs under the enhanced transparency framework of the Paris Agreement.

Ultimately, all transferred mitigation outcomes that are accounted under Article 6, as well as the mechanisms that facilitate them, will need to be reported under the Article 6 rules. These rules are expected to elaborate on reporting and review processes established under the enhanced transparency framework. If voluntary market transactions are to be included in the calculation of corresponding adjustments, they will also need to be included in these reporting processes for host countries.

Box 3

Integrated systems for oversight over market-related activities

In Costa Rica, the Sistema Nacional de Métrica de Cambio Climático (SINAMECC) or National System of Metrics in Climate Change is a vertically integrated system that includes modules for the national emission inventory, the entity-level carbon neutrality program (including information on entity inventories, emission reductions and offsets) and the climate action registry (including information on specific actions, their status and documentation, and their impacts on mitigation, adaption impacts and sustainable development impacts). The system also has a registry module that does not itself process transactions but instead compiles information from other registries (e.g., the mercantile exchange for national units and international registries such as that for the Forest Carbon Partnership Facility). Nevertheless, the registry module is the authoritative record of transactions. All transfers for which corresponding adjustments are relevant need to be recorded on this system.

A similar process has been underway in Mexico. The national emission registry system is being extended to capture verified annual emissions for over 2000 companies as well as mitigation activities and outcomes. The registry for Mexico's pilot ETS is also under development. Current work focuses on being able to record all relevant information sources with an emphasis on ensuring common metrics across all systems to ensure consistent and comparable information. It is intended that the information will be fed back into the national emission inventory to improve its estimates of emissions and will provide a robust basis for the issuance of emission reduction units or credits, as well as for determining corresponding adjustments which are traceable to mitigation activities.

In South Africa, the Carbon Offset Administration System facilitates the listing, transfer and retirement of carbon credits that may be used to offset tax liabilities under the carbon tax. The system tracks activities approved under independent standards, for example, the CDM, VCS and Gold Standard, as well as managing letters of approval, tracking credit listings in an ownership repository, tracking credit transfers and retirement to implement the offsets, and submission to the tax authorities.

7 Conclusions

NDCs and the Paris Agreement mark a significant change in the operation of international voluntary carbon markets as host countries increasingly bear accountability for their emissions and climate action. Nevertheless, interest from the private sector to use these markets is not relenting and is in fact growing considerably.

This study has sought to understand perspectives of potential host countries on the role international voluntary carbon markets might play in the context of their NDCs and the Paris Agreement. In doing so, it has explored emerging issues and challenges these markets may face and clarified key aspects host country governments may need to consider in relation to their market participation. It worked with experts engaged in their countries' consideration of carbon markets from across three regional groups and reflects views gathered and exchanged among them.

The experts are positive about the ability of voluntary markets to contribute to the global effort on climate change but see a need for a common treatment of different carbon markets that does not focus on distinctions between them. Mitigation programs and crediting activities all impact on host country emissions and, increasingly, the achievement of NDCs. For this reason, as well, host country governments can be expected to increasingly engage in guiding and overseeing crediting activities, including in voluntary markets, if they are to make the best use of opportunities to receive support.

Experts therefore saw two potential models through which international voluntary carbon markets may work in the future in the context of the Paris Agreement:

- Claims to mitigation outcomes, that have been generated in other countries, against an entity's emission target, backed by the incorporation of the transaction in corresponding adjustments applied by the host country in its accounting for Article 6 and NDCs;
- Claims to have made a financial contribution to mitigation in a host country; as no claim to the mitigation outcomes is made, this avoids any concerns that need corresponding adjustments.

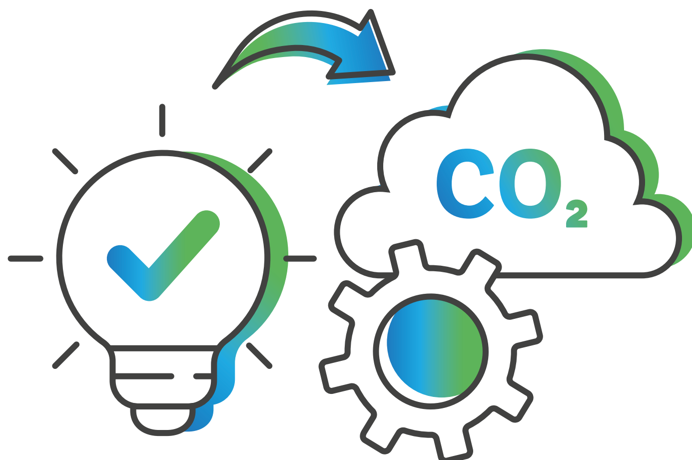
The experts considered that host countries need to make accounting adjustments when claims to mitigation outcomes are made in order to counter the risk of displacing mitigation effort and to remove any disincentive to rely too heavily on voluntary market activities in achieving NDCs. This would strengthen the environmental integrity of mitigation outcomes available through the voluntary market and serve to protect their market value. This was perhaps the key issue discussed by experts, who see a need for host countries to work towards incorporating voluntary market transactions within the framework of their accounting under Article 6 and NDCs under the Paris Agreement.

It will be important to manage this changing environment for international voluntary carbon markets, in particular to not risk disrupting the considerable surge in demand and investment that voluntary markets are currently experiencing, and to reflect the fundamentally cooperative nature of carbon markets. For cooperation to be effective, it needs to serve and facilitate the needs of all participants, including private sector stakeholders engaged in the implementation of voluntary carbon markets.

It appears that several routes forward would be helpful:

- Potential host countries can identify priority areas for voluntary market investments and be aware of how these may align best with their NDCs and broader sustainable development; Host countries can provide supplemental guidance for crediting activities and ensure that approval and authorization processes are objective, streamlined and well communicated;
- Host countries can establish oversight over the mitigation activities taking place within their jurisdictions, including those supported through voluntary markets and other means of funding, and can begin by exploring ways to collate information from various sources and build systems for tracking activities and transactions;
- Host countries can collaborate with independent crediting standards to incorporate effective interactions between their processes, particularly in relation to approval of activities and authorization of mitigation outcomes for use towards NDCs, and to ensure effective information flows on activities and the robust accounting of mitigation outcomes.

Countries, independent standards and stakeholders can develop concepts and arrangements for a possible transition period before a requirement to apply corresponding adjustments takes effect. This would need to resolve several issues, in particular the length of the period, whether it should be the same for all countries, where it should be decided, and the appropriate form, such as a standard, code of practice, national policy or UNFCCC decision.



Annex: Questions addressed during consultations

1. **What role can international voluntary carbon markets play in a post-2020 world? What key objectives for such markets may be useful from a host country perspective?**

   1.1. From a host country perspective, do voluntary markets add advantages beyond what compliance markets offer?

   1.2. Can voluntary markets contribute to host country NDCs?

   1.3. Is there scope for host countries to guide the use of voluntary markets?

   1.4. Are there particular considerations for countries implementing domestic carbon pricing instruments?

   1.5. Should transactions be made conditional on NDC achievement?

2. **How can voluntary markets operate in the context of Article 6 and NDCs under the Paris Agreement? What issues and challenges arise with regard to accounting at the national level and how may they relate to incentives for private sector participation?**

   2.1. Who may claim the emission reduction and are accounting adjustments needed to implement this?

   2.2. Can finance contribution claims replace the need for emission reduction claims while still maintaining private sector interest in voluntary markets?

   2.3. How to give assurance of NDC progression if reductions are outside NDC scope?

3. **Where countries see a role for international voluntary carbon markets, how could they support and facilitate them? What are possible roles for host countries in voluntary markets?**

   3.1. For countries that envision a role for international voluntary carbon markets, can national guidance for voluntary markets encourage private sector engagement?

   3.2. Are approval and authorization processes needed and would they encourage private sector engagement?

   3.3. What tracking and transparency are needed for the voluntary market?

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