

The background of the entire page is a photograph of several white wind turbines in a desert landscape under a clear blue sky. The turbines are in the foreground and middle ground, with their blades blurred from motion. The ground is dry and sandy with some low-lying green shrubs.

# **CARBON MECHANISMS RESEARCH**

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## **From Glasgow to the future: How does the COP26 outcome shape tomorrow's voluntary carbon market**

**Nicolas Kreibich and Victoria Brandemann**



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# Summary

With the continued momentum of companies adopting voluntary climate commitments such as carbon neutrality or net zero targets there is the general expectation that the demand for offset credits from the voluntary carbon market (VCM) is set to grow considerably in the future. This market has largely been operating in parallel to the international carbon market under the United Nations Framework Convention on Climate Change (UNFCCC) in the past but will in the future be much more directly impacted by the structure and functioning of market-based cooperation under the Paris Agreement's Article 6.

This policy paper takes a closer look at the Article 6 Rulebook adopted in Glasgow in November 2021 to analyze how it impacts the future operation of the VCM and its key actors. We explore this question through an analysis of the decision texts from Glasgow and by taking into consideration secondary literature. The analysis is further complemented by interviews with representatives from private certification standard organizations and project developers as well as insights gathered through expert workshops and public events.

The analysis finds that the **ties between the global compliance market and the voluntary carbon market will get much closer in the future**. Without directly regulating the voluntary carbon market, the Glasgow decisions opened the scope of application of Article 6 the voluntary use and non-Party actor engagement: The Article 6.2 Guidance establishes a broad reporting and accounting framework that can be used for this purpose, while the Article 6.4 mechanism is open to non-compliance use and might in the long run be established as a de-facto standard that private certification standards will be compared with.

By taking different perspectives, we examine what the Article 6 Rulebook might mean for the future role of different VCM actors. The findings show that **ignoring the new reality of the Paris Agreement and the place that Article 6 has reserved for the VCM in this new regime is not an option** and that the different actors in the VCM will need to adapt to the new context. Each of the actors is confronted with numerous decisions that need to be taken. They must decide on how to integrate into the evolving landscape of the voluntary carbon market while at the same time their decisions are shaping this very landscape. **The relationships among actors will therefore be characterized by growing interdependence and mutual influence.**

**Private certification standards** must decide whether and how to integrate their activities into the Article 6 regime. Key decisions to be taken relate to the type of units to be certified and the need to adapt implementation rules and the potential governance of corporate claims. The integration of private certification standards into the Paris regime will further trigger changes related to the infrastructure, in particular with regard to the registries which have in the past largely been operating in parallel. In the future, they will have to directly and automatically communicate with each other and further be linked to the national and international registries under Article 6.

**Activity proponents and credit suppliers** will have to decide on the type of units to be generated and offered, the host Party in which to operate and whether to more control the use of units generated. The question of how to secure authorized units backed by corresponding adjustments is particularly salient given the political uncertainty surrounding host Parties willingness to provide such authorization and implement CAs.

**Buyers and credit users** are confronted with the task of having to align the purchase of credits with their broader corporate climate strategy. They are at the same time confronted with the activity proponent's risks in terms of securing authorized units that are CA-backed.

**Host Parties** have in the past not necessarily been in touch with the VCM activities on their territory and will now have to decide whether and how to make use of these and future activities under the Paris Agreement. Parties willing to host and authorize VCM activities will have to develop a VCM strategy that is ideally integrated into a broader Art. 6 or even climate and carbon finance strategy. Key steps to be taken include the development of an authorization process and the installation of institutional and governance arrangements.

The findings further indicated that **VCM participants are confronted with risks and uncertainties that are often interlinked**. In finding solutions to their individual challenges, actors should therefore take into account the challenges that other actors are confronted with. The quest for common solutions hence calls for an increased exchange among VCM actors. Furthermore, approaches in dealing with uncertainties must not be sought among the market participants only. Depending on the specific type of problem that needs to be addressed, solutions might also be developed outside the market itself. For instance, financial solutions such as political risk insurance could help in softening the concerns related to the financial impacts from non-delivery of units backed by corresponding adjustments. Solutions proposed by market actors, as well as technical, political and financial proposals developed outside the market sphere should serve the common goal to solve the actors' key challenges while ensuring that the integrity of the market is maintained.

The analysis shows that VCM host Parties are particularly strongly affected by the changes introduced with the Paris Agreement. The challenges

host Parties are confronted with are great, in particular for those developing countries with limited institutional and technical capacities. **There is hence an increased need for capacity building** to navigate the uncharted territory of the future voluntary carbon market. At the same time, support is needed not only for future host Parties but also for companies aiming to buy credits for voluntary purposes.

Activity proponents and suppliers are often in direct contact with both, credit users and host Parties, and are therefore in principle in a good position to provide such support. Given the fact that these actors have vested interests, it will be of utmost importance to complement these ongoing initiatives with other activities that allow for a broader involvement of actors. With the continued support of governments from the Global North, a stronger involvement of civil society and academia should therefore be strived at, while a strong focus should be put on peer-to-peer learning among national governments, in particular from the Global South.





# 1 Introduction

Over the last few years, there has been a massive proliferation of companies adopting climate change mitigation targets. Initiatives such as the Science-Based Targets Initiative (SBTi) saw a significant growth, with the number of companies setting and committing to science-based targets doubling in 2021 (SBTi, 2022). And there is also continued momentum of companies adopting long-term targets, as research of the Net Zero Tracker indicates: in March 2021, the initiative published an analysis of the 2000 largest publicly traded companies by sales and found that 417 have made some form of commitment to net zero, representing 21% (Black et al., 2021). By the end of the year, the number of companies rose to 632, corresponding to a share of 32% (Hale et al., 2021).

What hasn't changed significantly is the uncertainty surrounding the planned use of carbon credits to offset residual emissions: Almost half of the public company targets (48%) fail to specify if and how offset credits will be used (Hale et al., 2021). This picture resembles findings of an earlier analysis of 482 large companies that have pledged some form of net zero target and from which 230 companies (48%) the utilization of offset credits was found to be unclear (Kreibich & Hermwille, 2021).

The market that is expected to generate these offset credits is usually referred to as the 'voluntary carbon market' (VCM). While often contrasted with the compliance market, the lines between these two markets become increasingly blurred (Green, 2017), requiring a more nuanced differentiation between segments of both markets.

Building on previous work (Hermwille & Kreibich, 2016; Kreibich & Obergassel, 2019), a first differentiation can be made with regard to the

governance of the certification schemes or standards certifying the units used: these can either be governed by public or by private entities. Privately-governed schemes such as the Gold Standard and the Verified Carbon Standard (VCS) are usually considered part of the VCM, while public standards such as the Clean Development Mechanism (CDM) are not. A second differentiation relates to the use of units, which can either be for the achievement of compliance targets or for attaining voluntary commitments. The latter, for instance, includes net zero targets adopted by corporates and other non-state actors on a voluntary basis; this use of units is usually attributed to the VCM, while using offsets to meet obligations derived from public policy, such as carbon taxes, are not considered part of the VCM. The differentiation along the governance of the certification scheme and the use of units allows for four ideal types, see Figure 1 below. Types 1, 2 and 3 could be considered to be part of the VCM.

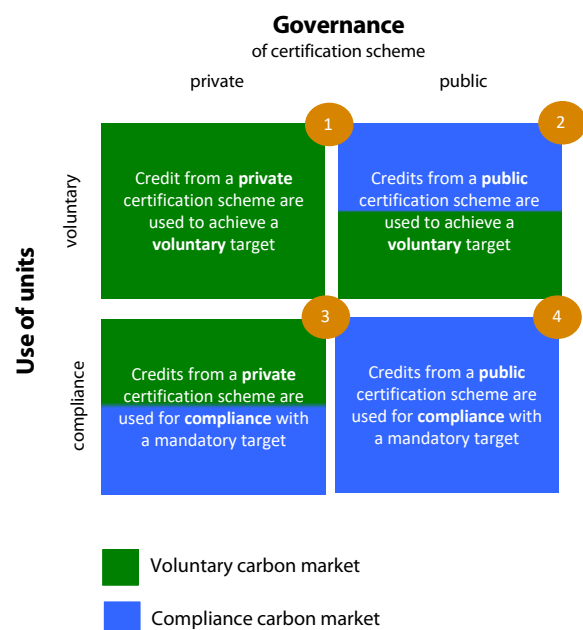


Figure 1: Segments of the compliance and voluntary carbon market. Source: Wuppertal Institute

There is the general expectation that the demand for offset credits is set to grow considerably in the future and some expect that the voluntary carbon market will *need* to grow more than 15-fold by 2030 (TSVCM, 2021). By the middle of the century, Bloomberg even expects that demand will rise from today's 127 million tons to "at least 3.4 billion tons or as much as 6.8 billion tons" (Bullard, 2022). Compared to these high expectations, past trends seem rather modest, despite significant growth rates. The issuance and retirement of voluntary carbon credits from privately governed certification schemes (covering segments 1 and 3 above) reached a historic high in 2021 (Donofrio et al., 2021). Figure 2 illustrates the retirement from four main registries by project type since 2015. It shows that a peak of retirements was achieved in the fourth quarter of 2021, a development partially attributed to the effect of COP 26 in Glasgow (Trove Research, 2022).

Against this background, key questions arise about the influence of international policy on the VCM that will be explored in this paper: What decisions have been adopted in Glasgow with

regards to market-based cooperation among Parties and how do these decisions affect the future operation of the voluntary carbon market? This paper explores this question through an analysis of the decision texts from Glasgow that also takes into account secondary literature on the topic. The analysis was complemented by interviews with representatives from private certification standard organizations as well as project developers also acting as carbon credit suppliers. A total of five semi-structured expert interviews were conducted in April 2022. Interviewees' names and affiliations are kept anonymous to ensure confidentiality. For details on the interviews conducted see the table in the Annex. Additional insights into the functioning of the VCM and the stakeholder's expectations regarding its future role have been gathered through expert workshops and public events.

The paper is structured as follows: Chapter 2 first analyzes the Article 6 Rulebook by highlighting elements that are considered particularly relevant for the VCM. In the subsequent chapter 3 we explore how individual VCM actors have been operating in the past, how these actors will presumably be affected by the changes brought about by the Article 6 Rulebook and what options they have in the future. Chapter 4 concludes by

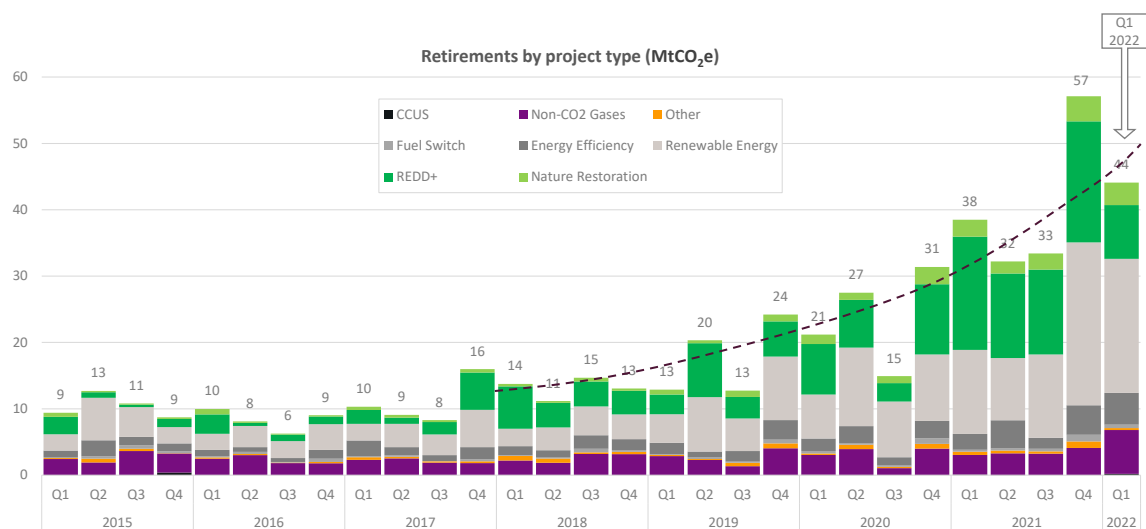


Figure 2: Retirements by project type.

Source: Trove Research (2022) analysis based on four main registries: VERRA, Gold Standard, CAR, ACR.

summarizing the key findings and by highlighting key areas that will need further consideration in the future.

# 2 The Article 6 Rulebook and its impact on the VCM

With the adoption of Article 6 of the Paris Agreement in 2015, three possible avenues for Parties to voluntarily cooperate in the implementation of their Nationally Determined Contributions (NDCs) have been established:

- Article 6.2 allows for the use of so called ‘cooperative approaches’ by Parties,
- Article 6.4 establishes a market-based mechanism governed by the UNFCCC, and
- Article 6.8 allows for non-market approaches to be used.

As market-based approaches, Article 6.2 and Article 6.4 allow mitigation outcomes to be transferred from the host Party to the acquiring Party, which can use these for NDC attainment. Since no such transfers are envisaged under Article 6.8 this type of voluntary cooperation will not be explored further.

The negotiations on the operationalization of Article 6 proved to be extremely contentious and it took Parties six years to find an agreement. In Glasgow in 2021, the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (CMA) finally adopted a set of three Decisions commonly referred to as the Article 6 Rulebook. Two of these Decisions guide the operationalisation of the market-based instruments: The Guidance on Cooperative Approaches (Guidance) included as an Annex to Decision 2/CMA.3 (UNFCCC, 2021b) and the Rules, Modalities and Procedures (RMPs) included as an Annex to

Decision 3/CMA.3 (UNFCCC, 2021c), which lay out the functioning and governance of the Art. 6.4 mechanism.

## 2.1 The Article 6.2 Guidance

The origins of Article 6.2 lie in the discussion about the so called Framework for Various Approaches, which was by many, including the EU and Canada, considered to apply in particular to the linking of domestic emissions trading systems (Obergassel, 2015). With the adoption of the Guidance, however, Article 6.2 resembles more a crediting system (see also: Marcu, 2021).

The Guidance (UNFCCC, 2021b) can be considered a reporting and accounting framework of Article 6 that contains overarching rules for international market-based cooperation. It allows Parties to generate and transfer Internationally Transferred Mitigation Outcomes (ITMOs) which can be used for three different purposes:

- ITMOs can be transferred from the host Party to the acquiring Party and used by the latter against its NDC;
- ITMOs can be used for “international mitigation purposes” what is commonly understood to refer to international compliance schemes outside the UNFCCC, such as the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA);

- ITMOs may further be used by non-Party actors for achievement of voluntary targets, referred to as “other purposes” in the Guidance.

Parties willing to participate in a cooperative approach must meet a number of participation requirements in particular related to the reporting and robust accounting of ITMOs. Regarding the latter, host Parties will have to account for any ITMOs authorized for one of the three purposes outlined above by applying so-called corresponding adjustments (CAs). Notably, the application of CAs is also required for ITMOs generated outside the scope of the host Party's NDC. Further detailed will be outlined below.

## 2.2 The Rules, Modalities and Procedures for the Article 6.4 mechanism

The Rules, Modalities and Procedures (RMPs) adopted with Decision 3/CMA.3 (UNFCCC, 2021c) in Glasgow lay out the functioning and governance of the Art. 6.4 mechanism. This new crediting mechanism will be overseen by the Supervisory Body under the authority and guidance of the CMA, a structure well-known from the Clean Development Mechanism (CDM), which can be considered its predecessor. More generally, the structure of the Art. 6.4 mechanism and its activity cycle resembles that of the CDM: The mitigation activity must be approved by the host Party and be developed according to a methodology approved by the Supervisory Body. Following a successful validation by a Designated Operation Entity (DOE), the activity is then registered by the Supervisory Body and its implementation is monitored by the activity participants. After successful implementation of the activity, a DOE verifies and certifies the mitigation impact achieved by the activity and submits a request

for issuance to the Supervisory Body, which will then issue the A6.4ERs (UNFCCC, 2021c).

One key difference from the Clean Development Mechanism relates to the role of host Parties. These must not only approve activities as under the CDM but will also have to authorize A6.4ERs and account for these units by applying CAs.

## 2.3 Art. 6 provisions particularly relevant for the VCM

### *Authorization and Corresponding Adjustments*

The question of whether host Parties would have to account for the emission reductions exported was one of the most contentious issues of the Article 6 negotiations and had prevented the adoption of the Rulebook at earlier sessions, including the Madrid climate talks in 2019. With the adoption of the Guidance and the RMPs in Glasgow, Parties agreed on common rules that require Parties to account for mitigation outcomes if these are authorized by the host Party. With this, the authorization of mitigation outcomes becomes a key feature of market-based voluntary cooperation under Article 6.

The authorization must be linked to one of the following three purposes or uses outlined above: the use against NDCs, the use for “international mitigation purposes” (CORSIA) as well as “other purposes” (VCM). ITMOs and A6.4ERs authorized by the host Party for one of the three uses must be robustly accounted for by applying corresponding adjustments (CAs).

The concept of CAs has originally been developed to avoid double claiming, a specific form of double counting, when two Parties transfer mitigation outcomes for the purpose of NDC attainment. CAs build on the idea of double

entry bookkeeping (Hood, 2017; Howard, 2017; Schneider et al., 2019): the buyer deducts the mitigation impact of the mitigation outcomes purchased from its reported emissions balance, while the buyer adds the respective emissions to its emissions balance. The adjustments that are made to the emissions balances of both Parties must correspond, hence corresponding adjustments. With the Article 6 Rulebook, the concept of corresponding adjustments is also applied to cases when there is no such correspondence and where only the reported emissions of the host Party are adjusted. Such “unilateral adjustments” (see also: Kreibich & Obergassel, 2019) are relevant if ITMOs or A6.4ERs are authorized for CORSIA or the voluntary carbon market. They will further apply when a cooperative approach or Art. 6.4 activity is to contribute to overall mitigation in global emissions (OMGE).

#### *Timing of corresponding adjustments*

The timing of corresponding adjustments is a relevant parameter for host Parties as it might impact their ability to achieve their NDC (for a discussion of implications in the context of CORSIA see: Schneider & Healy, 2019). For mitigation outcomes that are authorized for the use against NDC attainment, CAs must be implemented when these are “first transferred”. For mitigation outcomes authorized to be used for other international purposes there is no such “first transfer”. Parties can therefore decide what they consider as first transfer which in turn will trigger the timing of CAs: The Guidance provides three options for defining what a “first transfer” is:

- the authorization,
- the issuance, or
- the use or cancellation of the mitigation outcome

It will hence be up to the host Party to define when a CA will be applied. There is an incentive for the host Party to apply CAs at the latest

possible moment, as the information on how these CAs will impact NDC attainment are clearer. For the activity proponent in turn, an earlier application of CAs is beneficial as it limits it being affected by political uncertainty.

#### *Cooperative Approaches*

Despite being a key concept of Article 6.2, the Guidance does not provide a definition of what a cooperative approach is. Since the concept emerged at the *international* level and it contained the idea of *cooperation*, the general understanding was that it would facilitate bi- or multilateral cooperation among Parties, for instance if an investor Party supports a mitigation activity in the host Party and receives mitigation outcomes in return. The structure of the Guidance maintains this spirit. The terminology “cooperative approaches” as well as the wording of the Guidance referring to “each participating Party” could lead to assume that cooperative approaches would per definition require the involvement of two or more Parties. This, however, is not the case. As highlighted by one interviewee, there is no requirement for involving more than one Party, which is important when it comes to using cooperative approaches and ITMOs for the VCM and CORSIA (Interview 3).

#### *Diversity of units and reported amounts: ITMOs and (non-)adjusted A6.4ERs*

ITMOs are a key element of the Article 6 Rulebook. They are the basis for the accounting framework established by the Guidance and will presumably be expressed in tCO<sub>2</sub>e, while other non-GHG metrics are possible in principle if they are consistent with the NDCs of participating Parties. First and foremost, ITMOs are the emission reductions and removals generated by a cooperative approach. However, emission reductions authorized and issued under the Article 6.4 mechanism, the A6.4ERs, will also be treated as ITMOs. Notably and despite their name indicating otherwise, ITMOs must not necessarily be internationally

transferred but may also include mitigation outcomes authorized by a participating Party that are not transferred, for instance if used by an airline operator based in the host Party to comply with obligations under CORSIA.

One of the open questions that Parties had to deal with in Glasgow was whether ITMOs should be conceptualized as units or as reported amounts (Schneider et al., 2017). The Article 6.2 Guidance does not provide a definitive answer to this question. On the one hand, some of the attributes of ITMOs included in para 1 of the Guidance, such as ITMOs being real, verified and additional point towards a nature that resembles that of units. On the other hand, the reporting provisions and the tracking system established with the Guidance point in the opposite direction, with Parties having to submit information on ITMOs together with other reporting data. This together with the fact that there is no issuance of ITMOs allow to derive the conclusion that ITMOs can be considered reported amounts. As will be seen, this has important repercussions on the voluntary carbon market that requires units that can be held by non-Party actors.

Furthermore, para 43 of the RMPs included as an Annex to Decision 3/CMA.3 (UNFCCC, 2021c) introduced a new type of unit under the Art. 6.4 mechanism: non-authorized A6.4ERs. By stating that “A6.4ERs may only be used towards NDCs or towards international mitigation purposes if they are authorized” (UNFCCC, 2021c, Annex, para 43), the Decision allows host Parties to keep (a share of) the emission reductions generated by Art. 6.4 activities to be used for their own NDC attainment. Use of these non-authorized units against the acquiring Party's NDC or mitigation obligations derived from international schemes such as CORSIA is not allowed, while their use for voluntary offsetting is not explicitly excluded. The idea to allow Parties to generate units under the Art. 6.4 mechanism that are not authorized

emerged as the “Japanese solution” and solved the stalemate related to the application of CAs to emission reductions not covered by the NDC (Marcu, 2021; Zaman & Quek, 2021).

This new diversity of units introduced with the Glasgow decision and the fact that ITMOs have largely been conceptualized as reported amounts will presumably impact the operation of the VCM and its interaction with the international carbon market.

## 2.4 Linkages between the Rulebook and the VCM

By definition, the Article 6 Rulebook applies to all activities implemented under Article 6 of the Paris Agreement and does not directly regulate activities occurring outside Art. 6, the Paris Agreement and the UNFCCC. At the same time, the Article 6 Rulebook establishes different links to the VCM with regard to the two dimensions identified in section 1 above: the use of credits for the achievement of voluntary targets as well as the future role of credits generated under a privately-governed certification scheme.

### *The direct link: allowing for the use of ITMOs against voluntary targets*

When Article 6 was adopted in Paris, it was conceived as a tool to assist Parties in the implementation of their NDCs. This can be seen from Art. 6.1 of the Paris Agreement, which recognizes that Parties “pursue voluntary co-operation in the implementation of their nationally determined contribution (UNFCCC, 2016, Annex, Art. 6.1). With the adoption of the Article 6 Rulebook, the scope of Article 6 was, however, expanded. Both, the Guidance and the RMPs take into account “other international mitigation purposes”, which include “international mitigation purposes” as well as “other purposes”.



With this, a direct link between Article 6 and the VCM is established, allowing host Parties to authorize ITMOs being used for non-compliance purposes. Any unit authorized by the host Party must comply with the provisions of the Art. 6.2 Guidance. This also applies to A6.4ERs generated by the Article 6.4 mechanism.

The direct interaction between Article 6 and the VCM has significant technical implications: Those credits that are to be backed by corresponding adjustments will have to be equipped with a label or qualifier that denotes the fact that they have been subject to corresponding adjustments. The certification standards will therefore have to adapt their registries to this new situation. Possibly, a meta-registry could be developed, as proposed at an early stage of the debate by ICROA (ICROA, 2017). Furthermore, the VCM registries (or the meta-registry) will have to communicate with the Parties' registries and with the international registry that is part of the centralized accounting and reporting platform (CARP) of Article 6, requiring new forms of interaction between the public and the private sphere.

#### *The zero-link: non-regulation*

An understanding of how the Glasgow outcome will impact the VCM can further be derived by looking at elements that are not contained in the text and therefore not regulated internationally.

This aspect becomes particularly clear when it comes to the differentiation between authorized and non-authorized units, despite the fact that the latter are not explicitly mentioned in neither the Guidance nor the RMPs. As outlined above, however, para 43 of the RMPs implicitly introduces non-authorized units generated under Article 6.4 while also restricting their possible use: A6.4ERs may only be used towards NDCs or towards international mitigation purposes (such as CORSIA) if they are authorized by the host Party. However, it does not require host Parties to authorize the use

towards "other mitigation purposes" (UNFCCC, 2021c, Annex, para 43), namely the VCM.

Given the fact that non-authorized Article 6.4 units will be eligible for use against voluntary targets, it can be derived that this will generally be possible for any unit and that authorization and the implementation of corresponding adjustments deriving from the authorization process will not be required. This aspect is emphasized by Verra, the organization managing the VCS, in its reflection of the COP26 outcome. It welcomes the decision taken in Glasgow not to regulate the voluntary carbon market and sees its view confirmed that voluntary claims are not to be regulated internationally (VERRA, 2021).

#### *The indirect link: setting a precedence*

The broader impact of the Article 6 Rulebook must however also be seen as a continuation of the dialectic relationship that the VCM and international market-based mechanisms under the UNFCCC already had in the past.

In the past, the VCM has mainly developed in areas left vacant by the compliance market (Bellassen & Leguet, 2007). The Gold Standard, for instance, has been established with the intention to develop a label that increases scrutiny of compliance market activities and to develop approaches outside the UN that can be taken up by the compliance market, if proven successful (Langrock & Sterk, 2003). Examples include the suppressed demand approach that was developed by the Gold Standard and adopted by the CDM (Sabet, 2012).

The Glasgow decision now possibly sets a precedence for the VCM in two regards:

First, the RMPs contain several approaches that could transition into the VCM, including the consideration of policies when assessing the additionality of activities and baselines set at more ambitious levels. With these requirements, the international level is further



establishing a reference point against which private certification standards will be measured.

A second aspect relates to the non-authorized units introduced under the Article 6.4 mechanism. The introduction of such units has already been announced by private certification standards. Notably and in contrast to the

reading of Verra described above, the Gold Standard considers the introduction of these credits at the UN-level a confirmation of the two routes for voluntary climate action it has envisioned: differentiating between adjusted and non-adjusted credits while only allowing the former to be used for offsetting claims (Gold Standard, 2021).

# 3 Looking back into the future

This section explores how key VCM actors will presumably be affected by the Glasgow decision. We describe how each of the actors operated in the past, how these past operations may be affected by the Article 6 Rulebook and what modifications should be considered by these key actors to adapt to the changed circumstances.

## 3.1 Perspective of private certification standards

### *General relevance of international rules*

The relevance of the international carbon market rules has in the past varied considerably among the different private certification standards. The connection between the international policy level and private governance is particularly close in the case of the Gold Standard, which emerged as a label to improve the quality of CDM projects relying on the entire CDM infrastructure and has then been complemented by a genuine stand-alone standard. The VCS, in contrast, is operating largely independently from the international level while allowing project proponents to choose a methodology approved under the CDM and to contract a Designated Operational Entity approved under the CDM to act as a validation/verification body of their projects. Similarly, the American Carbon Registry (ACR) allows project proponents to use methodologies and tools for GHG measurement from the CDM to the extent that they comply with ACR requirements. The general impact of the Glasgow decision on individual standards will therefore largely depend on its existing ties with the public governance level.

### *Three avenues for the VCM*

With the adoption of the Article 6 Rulebook in Glasgow, private certification standards have now different options at their disposal on how to operate in the future.

Under **option 1**, the market's current operations are continued. Private certification standards operate outside of Article 6 and activities generate credits that are neither authorized by the host Party nor backed by corresponding adjustments. For the time being, the units emerging from these activities could be used by companies for offsetting and the achievement of voluntary mitigation targets. This might, however, change in the future with claims such as carbon neutrality being subject to public (national and regional) regulation as well as private governance. Whether such units could become eligible for compliance with domestic instruments such as Emissions Trading Systems is still unclear as such use is not regulated at the international level.

Under **option 2**, private certification standards use the Article 6.2 infrastructure. A precondition of this option is that the certification standards and the mitigation activities comply with the Art. 6.2 Guidance and with additional criteria for approval by the host Party. The units must be authorized as ITMOs and backed by CAs by the host Party, which has to comply with the participation requirements of the Guidance. The units generated may be used for any of the three purposes envisaged by the Guidance: NDC attainment, CORSIA (if compliant with ICAO eligibility rules) and voluntary climate neutrality targets.

Under **option 3**, private certification standards make use of the Article 6.4 mechanism overseen

by the UN. At first, this option does not seem very attractive for certification standards, since these standards have already established their own infrastructure and processes, some of which would now become redundant with the integration of operations into the UN mechanism. In the past, however, private standards such as the Gold Standard have already made use of this concept and could therefore build on the experiences made. Furthermore, given the lack of governance certainty, building on the Art. 6.4 mechanism could be considered the best way forward to ensure large eligibility on different markets, including CORSIA and national compliance markets (Ahonen et al., 2022).

When looking at the three options and what these might mean for certification standards, it should be noted that these are not mutually exclusive but that a standard could make use of different options and even combine these within one single mitigation activity. In addition, some in particular large private certification standards have already in the past aimed at gaining recognition in compliance schemes, including international schemes such as CORSIA. For these standards, continuing operating outside of Article 6 as envisaged under option 1 does not seem appropriate.

### *Governance of claims*

As outlined above, the Art. 6.2 Guidance is open to other uses of units, such as the achievement of voluntary climate neutrality targets. It allows Parties to authorize such units and to implement corresponding adjustments without making this a requirement and regulating the respective claims that can be made.

One key question that continues being unanswered is whether non-adjusted units should be eligible for making neutrality claims, such as a “carbon neutrality”. Some actors, such as the VCS managing organization Verra, advocate for such use being legitimate. On the contrary, the Gold Standard wants such claims to be made only on the basis of credits that are backed by

corresponding adjustments (for an overview of the debate see: Kreibich & Hermwille, 2021). The debate about how to deal with the double counting risk under the Paris Agreement gave birth to the concept of the so-called contribution claim (see Box below). Activity proponent's expectations regarding the demand for such claims are, however, mixed: While some only see limited potential for such a new product (Interview 1, 2) other are noticing increased interest from the market, including through a combination with conventional offset credits (Interview 4).

Against this backdrop, certification standards may want to decide on whether to regulate the claims that users of these units can make. The Gold Standard has for instance adopted the claims guide (Gold Standard, 2022a), which will, once revised later in 2022, also assist entities in making voluntary compensatory claims (Gold Standard, 2022b).

#### **The Contribution Claim as an alternative to offsetting**

The adoption of the Paris Agreement in 2015 fundamentally altered the context and the legal architecture under which the voluntary carbon market operates. The agreement drastically reduced the uncapped environment under which the VCM historically operated, raising concerns about emission reductions being counted more than once (double counting). In order to deal with this challenge and as a step towards addressing some more fundamental concerns associated with offsetting alternative concepts emerged under a variety of names including ‘Emission Reduction Statements’ (Gold Standard, 2017, 2018), ‘Financing Emission Reductions Model’ (ICROA, 2017) and ‘Contribution Claim’ (Fearnough et al., 2020).

The common element of these concepts is that the private sector makes a contribution by investing in mitigation activities without claiming the mitigation outcomes resulting from these activities and without using these credits to balance residual emissions. In contrast to conventional carbon market activities where the ownership of the mitigation outcomes is transferred, the mitigation outcomes remain with the host country (see: Fearnough et al., 2020; Gold Standard, 2017; Hermwille & Kreibich, 2016).

### *Adapting activity implementation rules*

The Article 6.2 Guidance establishes very generic provisions for cooperative approaches. The need for voluntary certification standards to change

their current rules for project implementation will therefore be limited (for details see section 3.1.1 below). Standards would, however, have to make sure that governments of eligible countries do meet the requirements for participating in co-operative approaches and projects will have to be designed, implemented and monitored in a way that supports the host Party in meeting its reporting requirements.

By contrast, the RMPs for the Article 6.4 Mechanism can be expected to impact the rules of voluntary certification standards. This impact is particularly strong for the Gold Standard, which strives to become a label under the new international mechanism, replicating its labelling-model under the CDM. In a similar fashion to its role under the Kyoto Protocol, the Gold Standard would aim to go beyond the RMPs and push for high quality of Article 6.4 activities.

The Article 6.4 RMPs could even set the tone for private certification standards that are not willing to directly engage under Art. 6.4: Standards are currently exploring whether to adapt some of their features, such as the length of crediting periods and baseline principles with those established by the RMPs. There will presumably also be differences across standards with some elements being aligned with the RMP provisions and areas without such an adaptation (Interview 5).

Another aspect that certification standards will have to decide on is whether they will follow the encouragement of Article 6.2 and implement a Share of Proceeds (SOP) and a contribution to overall mitigation in global emissions (OMGE). As indicated by interviewees, standards are still in the process of deciding on whether and how to implement these aspects. While some highlight the difficulties in particular related to the introduction of a SOP, others expect that such a requirement could be introduced (Interviews 3 and 5).

## *Registry*

Private certification standards are currently operating decentralized registries that allow to access key information, such as the issuance and retirement of the credits, the vintage and the project activity to which they are linked. With the adoption of the Art. 6 Rulebook, standards are now confronted with the task of adapting their registries to the new circumstances and to allow for new functionalities. Registries must be able to distinguish credits that have been authorized by the host Party from those where no such authorization has been provided. Furthermore, the registry must provide information on the use of adjusted credits in order to enable host Parties to report to the UNFCCC. The Gold Standard is currently planning to adapt its registry to provide these functions (Gold Standard, 2022c). As highlighted by the NGO Carbon Market Watch in its submission to the UNFCCC, most registries and databases are not yet ready for the Paris world as they do not clearly show whether mitigation outcomes underlying a given carbon credit are already being claimed towards a specific climate target (CMW, 2022).

As pointed out by one interviewee (Interview 3), registries will need to directly and automatically communicate with each other in the future. Currently, transfers from one registry to another are possible but cumbersome because they must be performed manually: A credit is cancelled in one registry with a respective notification and then an issuance is performed in the recipient registry. Registries will further have to communicate with national registries and the Art. 6 registry to allow credits to be linked to ITMOs backed by corresponding adjustments. Initiatives like the World Bank's climate warehouse explore possibilities to foster interconnectivity of registries and improve tracking of units (Gold Standard, 2022c). Table 1 below summarizes the key considerations and tasks private certification standards are confronted with in order to align their operations with Article 6 and the Paris Agreement.

Decision on future operation in relation to Article 6	<ul style="list-style-type: none"> <li>• Operation outside of Article 6</li> <li>• Use of Article 6.2 infrastructure</li> <li>• Integration with the Article 6.4 mechanism</li> </ul>
Governance of claims	<ul style="list-style-type: none"> <li>• Decision on whether to define the claims that users can make depending on carbon credit's characteristics</li> <li>• Decision on whether and how to monitor and police claims</li> </ul>
Implementation rules	<ul style="list-style-type: none"> <li>• Align implementation rules with Art. 6.2 guidance and/or provisions of the Art. 6.4 mechanism</li> <li>• Need to decide on whether to require SOP and OMGE</li> </ul>
Registry	<ul style="list-style-type: none"> <li>• Enable existing registries to provide new functionalities (e.g. differentiation between adjusted/non-adjusted units)</li> <li>• Enable automatic communication among registries and linking with Art. 6 registries</li> </ul>

Table 1: Private certification standards: Key considerations and tasks for the alignment of operations with Article 6

### 3.1.1 Excursus: private certification standards' alignment with Article 6.2

As described above, private certification standards will be indirectly affected by the Glasgow decision. Here we aim to highlight some of the areas where standards may need to adapt if they are intending to offer credits that are authorized by host Parties. Are they already in line with some of the requirements that host Parties have to fulfil according to the Article 6.2 Guidance? We analyzed recent standard documents from Gold Standard (Gold Standard, 2019c), VCS (VERRA, 2022), Plan Vivo (PLAN VIVO, 2021), Social Carbon (SOCIALCARBON, 2022), Climate Action Reserve (Climate Action Reserve, 2021) and American Carbon Registry (American Carbon Registry®, 2021) in order to understand if they already cooperate with host governments and to assess to what extent some provisions regarding cooperative approaches are already met.

#### *Involvement of host party governments through stakeholder consultations*

Host party governments will play a key role under Art. 6.2, in particular through the authorization of ITMOs and the application of corresponding

adjustments. As mentioned above, the VCM projects or programmes will have to be designed in such a way that host governments are willing to issue a letter of authorization for mitigation outcomes, which was not required under the current VCM practice.

The analysis of the VCM standard documents confirms that the requirements for interaction between the respective projects and the host government is rather limited. While all analyzed standard documents state that projects have to be compliant with national regulations, not a single standard required host Party government approval for a project up until now. Nevertheless, some standards explicitly provide for the involvement of governments in stakeholder consultation. Two of the standards analyzed (Gold Standard and Plan Vivo) require the project developer to involve governments in the stakeholder consultation (Gold Standard, 2022d; PLAN VIVO, 2021). Other standards provide for a less extensive stakeholder consultation without government involvement. The VCS and Social Carbon only state that the project proponent shall conduct a local stakeholder consultation (SOCIALCARBON, 2022; VERRA, 2022). Similarly, the American Carbon Registry demands that affected communities and other stakeholders are consulted (American Carbon Registry®, 2021). The

Climate Action Reserve does not necessarily foresee a local stakeholder consultation, but requires at least one public comment period with a public webinar (Climate Action Reserve, 2021).

*No consistency with sustainable development objectives of the host Party required*

According to the Article 6.2 Guidance cooperative approaches are to be consistent with the sustainable development objectives of the Party (UNFCCC, 2021a, Annex, para 18h). Our analysis of the standard documents shows that all analyzed private certification standards contain language on sustainable development benefits. However, not a single standard requires projects to be aligned with specific sustainable development objectives of the host Party. The respective requirements of the standards regarding sustainable development vary. Gold Standard projects shall contribute to SDG goal 13 (climate change) and two other SDG goals (Gold Standard, 2019a). Likewise, VCS projects must contribute to at least three SDGs (VERRA, 2022). The other analyzed standard documents contain less concrete language and mainly require projects to report which SDGs are delivered by the project.

*Addressing negative sustainable development impacts and human rights*

The Article 6.2 Guidance also requires Parties to describe how negative environmental, economic and social impacts are minimized and, where possible, avoided (UNFCCC, 2021a, Annex, para 18h). Our analysis finds that all analyzed standards have provisions to address negative sustainable development impacts. Most standards include a more general disclaimer that VCM activities shall not negatively impact the natural environment and local communities, and that project proponents shall identify and address any negative environmental and socio-economic impacts of project activities. Two standards, however, have more detailed provisions: the Gold Standard provides a list of potential risks (such as release of pollutants, hazardous and non-hazardous waste

or access to food) and how to deal with them (Gold Standard, 2019b). Likewise, the Plan Vivo standard entails a list of direct, indirect and cumulative social risk factors and direct, indirect and cumulative environmental risk factors to be considered. The Plan Vivo standard further specifies that if negative impacts cannot be fully mitigated, adequate compensation measures must be developed (PLAN VIVO, 2021).

Finally, the Article 6.2 Guidance inter alia requires human rights to be promoted. Our analysis finds that the respect of human rights is only mentioned in three of the six analyzed standard documents (Gold Standard, 2019b; PLAN VIVO, 2021; SOCIALCARBON, 2022).

## 3.2 Activity proponent perspective

Due to the VCM being largely unregulated, obtaining an overview on its structure is difficult, in particular when it comes to the companies that develop mitigation activities and sell carbon credits to final users. There are multiple companies acting as project developers, brokers or resellers with one single company often combining multiple roles. In this section we will explore how the Glasgow decision will impact these supply side actors without explicitly differentiating the individual roles.

*Definition of credit portfolio and use specifications*

Project developers and suppliers are usually offering a large variety of credits for different kinds of uses. With the Glasgow outcome, the spectrum of credits and their attributes is broadened further. Units may or may not be authorized and backed by corresponding adjustment or not, or they can be generated from activities registered under Art. 6.4 or under private certification schemes. There will presumably also be a combination of standards, such as A6.4ERs with a Gold Standard label. Furthermore, new standards are



emerging some of which might yield significant potential, as highlighted by one interviewee (Interview 1).

Since not all types of units can be used for all types of voluntary purposes, this new diversity requires project proponents and suppliers to carefully analyse the (expected) market demand in order to decide which standard to use for the registration of their mitigation activity and what type of credit to include in their portfolio. The demand and the requirements of buyers and final users, are, however, not static. Their preferences will be influenced by the claims they want to make which in turn might be impacted by other factors, such as national regulation (e.g. in France) or private sector guidance on climate related claims, for instance from the Voluntary Carbon Market Integrity Initiative (VCMI), which has recently published its Provisional Claims Code of Practice (VCMI, 2022). Preferences will further be influenced by their understanding of how carbon credits should be used under the Paris Agreement. The lack of regulation of the VCM and voluntary claims puts project developers and suppliers that are in contact with end users in a peculiar situation: They can become navigators that explain how the Paris Agreement affects the voluntary carbon market, what options the Article 6 Rulebook provides to the VCM and outline how corporate strategies could be adapted to this new situation. Exerting this role in a responsible way is obviously challenged by the fact that project developers and suppliers have vested interests and aim to sell the units they offer. Here, the spectrum can be expected to be considerable: While some suppliers might not want to restrict the use of the credits supplied, others might aim to maintain some control of how the credits offered are used. This could be done, for instance, by not selling credits to the fossil fuel industry or asking buyers to have a mitigation strategy in place, as pointed out by one interviewee (Interview 4).

### *Choice of host Parties*

In the past, activity proponent's choices of the host Party was largely delinked from the government's role in international climate policy. Key criteria that guided project development included the existence of large mitigation potentials and favourable investment conditions. This changes now with the Article 6 Rulebook, with new factors such as the host Party's NDC and its ambition level also being considered (Interview 2).

For projects that are to generate units backed by corresponding adjustments, project proponents will further have to ensure that the host Party they are planning to engage with meets the participation requirements set out in paras 3 to 5 of the Guidance (UNFCCC, 2021a, Annex, paras 3 to 5): Key aspects that need to be checked include whether the Party has submitted an NDC, whether it has arrangements in place for tracking ITMOs and whether the most recent inventory report was submitted. The current status of these aspects can be easily checked by accessing publicly available sources of information on the UNFCCC website. However, it will be more challenging for activity proponents to assess whether a Party that meets these requirements at the start of a project development will also meet these in the future when credits are to be transferred. The activity proponent will therefore need to understand the politics in the host country in order to assess the policy risks of project implementation in the country.

### *Securing authorization and CAs through strengthened engagement with governments*

Activity proponents that aim to generate CA-backed carbon credits are confronted with uncertainty as to whether the credits to be generated will be authorized and respective adjustments will be made. Activity proponents will therefore want to secure authorization and CAs of the credits their activity generate at the earliest point in time of their engagement with the host Party.

Against this backdrop, project proponents will likely have to engage much more directly with the government of the host Party. In the past, the relationship between project proponents and the governments of host Parties varied significantly. Since involving government representatives was not required by most private certification standards (see section 3.1.1 above), many project developers could operate ‘under the radar’ of the host Party government, the simplicity of which was welcome by some project developers: “that was the beauty of it”, as one interviewee put it (Interview 2). Some project proponents, however, relied on the CDM infrastructure and combined this with labelling from the Gold Standard. Hence, they have already in the past had to secure host Party approval for their activities (Interview 4). Activity proponents that have in the past engaged more directly with the host Party government will presumably be able to build on this experience, while those that have mainly operated under the radar must now establish new working relationships with governments.

When engaging with governments, some activity proponents are already actively supporting the development of the host Party’s capacities: They explain the reporting obligations deriving from the Paris Agreement, outline the overselling risks and how it can be addressed and more generally provide capacity building support to governments (Interview 4). This active engagement with the host Party government can strengthen mutual trust and confidence, allowing activity proponents to more likely obtain a Letter of Authorization for mitigation outcomes their activity will generate in the future.

Host Parties are still in the process of developing the processes and infrastructure to issue such Letters of Authorization. When starting with the development of new activities, activity proponents are therefore aiming to obtain some written assurance from the host Party that they will authorize the credits in the future and apply

corresponding adjustments. At the same time, there are doubts whether this will suffice to fully mitigate the associated risks given the fact that there is no legal framework that would allow private entities to enforce this commitment by the host government. While some activity proponents doubt the value of such written statements, others are more optimistic (Interviews 2 and 4).

### *Hedging against future risks*

With host Parties having established the infrastructure and institutions for issuing a Letter of Authorization in the future, the risks to which activity proponents are exposed will likely become smaller and legal certainty will increase. However, some risk will remain: Even after having issued an official Letter of Authorization which requires the application of CAs via their biennial transparency reports (BTRs), host Parties could change course and fail to meet these requirements, for instance after a change of government.

Therefore, activity proponents may be willing to take other non-contractual remedies, such as political risk insurance (PRI) solutions that also hedge against political risks. Such PRI could be taken against the risk that host Parties fail to meet their commitment to apply corresponding adjustments as well as more broader risks related to the failure to meet its NDC (Fattouh & Maino, 2022; Srinivasan & Sharma, 2021). As highlighted by Pollination (2021) a differentiation between the two prevalent risks must be made: while financial risks are straight forward to administer, addressing environmental risks such as NDC failure and overselling is more challenging. A possible solution is the installation of a reserve pool with units that are backed by CAs and which could be used to replace units that lack CAs (Pollination, 2021). Table 2 summarizes tasks and considerations that are key for activity proponents and unit suppliers to align with Article 6.



Definition of credit portfolio and use specifications	<ul style="list-style-type: none"> <li>• Decision on certification standards and type of units</li> <li>• Consideration (and influencing) of market demand</li> <li>• Decision on whether to restrict use of credits and impose requirements on credit users</li> </ul>
Choice of host Parties	<ul style="list-style-type: none"> <li>• Consideration of host Party's NDC and its ambition level</li> <li>• Consideration of host Party's ability to meet participation requirements under Art. 6.2 and 6.4 respectively</li> <li>• Develop deeper understanding of the host Party politics and associated policy risks</li> </ul>
Securing authorization and CAs through government	<ul style="list-style-type: none"> <li>• Securing authorization and CAs as a key task in the future</li> <li>• Need to develop new or intensified working relationships with governments</li> </ul>
Hedging against future risks	<ul style="list-style-type: none"> <li>• Consideration of non-contractual remedies, such as political risk insurance</li> <li>• Use of units from a reserve pool as a fallback option</li> </ul>

Table 2: Activity proponents: Key considerations and tasks for the alignment of operations with Article 6

### 3.3 Credit user perspective

In the past, private companies had significant leeway when choosing the credits to compensate their residual emissions and achieving their mitigation targets. The choice of the credits was mainly driven by considerations such as the project category, the region and additional attributes such as sustainable development benefits. The collective demand emerging from these individual choices has significantly influenced prices on the market, with prices for credits from the forestry and land use sector being almost five times as high as those from renewable energy projects. The market is also seeing rising prices for credits from projects with significant contributions to sustainable development, according to a survey conducted by Ecosystem Marketplace (Donofrio et al., 2021).

#### *Aligning purchase decision with corporate climate strategy*

With the adoption of the Glasgow Rulebook and the lack of regulation of the VCM, the purchase decision of companies becomes much more complex and they are confronted with multiple

interrelated questions: Should we purchase units that are backed by corresponding adjustments or should we buy credits from activities that contribute to the host country's NDC? And if the latter is considered, must we adapt our claims and corporate strategy? And what repercussions do these aspects have on the choice of the certification standard and the supplier? In particular smaller companies aiming to engage on the VCM can be expected to require external assistance when dealing with these questions. While the uncertainty might be reduced once private governance initiatives such as the VCMI and the Integrity Council for Voluntary Carbon Markets (IC-VCM, 2022) have published their final guidance documents, credit users may still need external support for making these decisions.

#### *Dealing with risks*

Credit users seeking to purchase units that are correspondingly adjusted will be indirectly confronted with the seller's risks related to the (non-) authorization of credits, the (non-) application of CAs, and more generally political risks such as the failure of the host Party in meeting its NDC and complying with the reporting and other obligations under the Paris Agreement.

Aligning credit purchase decision with corporate climate strategy	<ul style="list-style-type: none"> <li>• Decision on type of units (with / without CAs)</li> <li>• Decision on possible adaptation of claims</li> <li>• Decision on certification standard, supplier and project type</li> <li>• Seek external assistance to deal with these and other aspects</li> </ul>
Risk mitigation	<ul style="list-style-type: none"> <li>• Definition of a strategy to deal with political risks (e.g. non-application of CAs)</li> <li>• Due diligence</li> <li>• Contractual remedies (e.g. payment on delivery, rejection of units not backed by CAs, requirement to replace units not backed by CAs, contract termination)</li> <li>• Active engagement with own governments (framework agreements)</li> </ul>

Table 3: Credit users: Key considerations and tasks for the alignment of operations with Article 6

These risks can partially be mitigated as part of the buyer's due diligence, such as requiring the seller to provide a positive assessment of the host Party's Article 6 readiness as well as the letter of authorization. In addition, payment on delivery could be agreed and contractual remedies could be taken to control for these risks, including the following (Pollination, 2021):

- Ability to reject delivery of units if these are not authorized and backed by CAs
- Require the activity proponent / seller to replace units with units that are backed by CAs
- Default remedies, including termination of the contract in case the units are not delivered during the term of agreement
- Require seller to compensate for the difference in value between adjusted and non-adjusted units

As can be seen, many of these options are closely linked to the risk mitigation strategies that

activity proponents and suppliers of units have. Depending on how these are designed, the burden and risk are shared between the activity proponent and the final credit user as well as any intermediaries involved in the transfer process. As highlighted in the Pollination report, the risks for private buyers are higher when compared to those of sovereign buyers since the former lack the diplomatic relations on which the latter can build to correct host Party deficiencies (Pollination, 2021). To mitigate this, credit users could actively engage with their governments and foster bilateral or multilateral framework agreements to be closed in order to reduce the political risks. Parties could do this by building on Article 6.2 of Paris Agreement and establish cooperative approaches. Table 3 below summarizes the key considerations and task for credit users to align their operations with the changed circumstances.

country government knowledge (Carbon Pulse, 2022a; Howard, 2021).

### 3.4 Host party perspective

As outlined above, voluntary carbon market activities have in the past been largely delinked from the national (and even subnational) governance level. Generally speaking, there was no need for national governments to have an overview on the VCM activities implemented on their territory and projects were even taking place without host

An exemption, however, are REDD+ projects which may interact with jurisdictional results-based payments (RBP) programs. When starting to implement jurisdictional REDD+ programs, for instance under the Forest Carbon Partnership Facility's (FCPF) Carbon Fund, many policy makers discovered existing REDD+ projects in the same areas. This gave rise to the question of how to integrate these projects into the broader REDD+

programs. In order to avoid emission reductions being rewarded twice (and donors paying twice for one emission reduction) 'nesting' projects with jurisdictional programs has emerged as a solution that is being promoted by both, voluntary certification standards such as the VCS and RBP programs, such as the FCPF (Hamrick et al., 2021).

With the adoption of the Glasgow decision, Parties will also need to have an overview on VCM activities in other sectors, at least on those that are to generate credits that are authorized and backed by corresponding adjustments.

### *Deciding on how to make use of the VCM*

More generally, policy makers will have to take a political decision whether and how to make use of the VCM. On the one end of the spectrum, countries could categorically exclude the implementation of any future voluntary market activities on their territory. Alternatively, they could decide to continue the current *laissez faire* approach and neither regulate activities nor authorize any credits from voluntary carbon market activities. Governments could however also adopt a more active role by tying the implementation of VCM activities to certain conditions.

An example where the government's positioning has in the past been characterized by high volatility and uncertainty for activity proponents is Papua New Guinea (PNG). The government had for a long time been against REDD+ activities being implemented for voluntary purposes but then lifted its opposition in recent years, allowing for the implementation of VCM projects in the forestry sector. In March 2022, the government announced a moratorium for REDD+ activities "so as to ensure that PNG's national approach under the UNFCCC compliance system is strictly adhered to" (Carbon Pulse, 2022b). In advance of the national elections that have taken place in June 2022, there were speculations about the moratorium being lifted under the future government

(Carbon Pulse, 2022c). Such volatility creates uncertainty among market participants and prevents long-term planning of activities. Other countries, by contrast, are eager to engage on the VCM but consider to prohibit the generation of units not backed by corresponding adjustments: in April 2022, the Bahamas has proposed legislation that prohibits double counting including if the users are private entities (Carbon Pulse, 2022a). Other countries<sup>1</sup> had already agreed to apply CAs to support voluntary corporate claims under the San José Principles Coalition after it had become clear that the Article 6 Rulebook would not regulate the voluntary carbon market (DCC, 2021). As can be seen, there is a broad spectrum of how governments can position themselves towards the VCM.

### *VCM strategy development*

The development of a VCM strategy should be part of a broader strategy on how to make use of carbon markets and even climate finance (see: Kreibich & Brandemann, 2021). When developing such a strategy, governments should take a long-term perspective and integrate the role of (voluntary) carbon markets into their NDC strategy. Developing this long-term perspective will not only be key for the country itself but also allow market players to plan their activities with more certainty.

If host parties intend to authorize credits as ITMOs under Article 6.2, they will have to meet the participation requirements for Article 6 as outlined in para 3 to 5 of the Guidance, in particular the following:

- Participating in the Paris Agreement and NDC submission
- Arrangements for ITMO authorization
- Arrangements for tracking ITMOs
- Submission of National Inventory Reports

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<sup>1</sup> The countries currently listed are *Colombia, Costa Rica, Fiji, Finland, Marshall Islands, Peru and Switzerland*.

Developing an authorization process that takes into account the impact the authorization (and the implementation of respective CAs) would have on the NDC achievement and addresses the risk of overselling can be expected to be particularly challenging. Recent research has identified different aspects to consider and derived different strategies that could be integrated into an authorization process, including the following (Spalding-Fecher et al., 2020, 2021):

- Sharing of mitigation outcomes by only authorizing a portion of the mitigation outcomes while the remainder would contribute to the host Party's NDC.
- Negative list of interventions that are considered part of the NDC package and can therefore not be used for VCM activities.
- Shortened crediting periods to allow the host country to benefit from the mitigation activity.
- Ambitious baselines that would drive VCM activities to those areas not included in the NDC.

Host Parties may further introduce additional criteria to maximise the benefits of the activities they approve and credits they authorize. These could be included in (or go beyond) the Party's sustainable development objectives, which cooperative approaches must be consistent with and contribute to according to para 22 h) of the Art. 6.2 Guidance. Other strategic decisions that countries must make when engaging under Art. 6

include the timing of the authorization (ex-ante, linked to specific conditions, ex-post), whether the payment of a fee for administrative costs or adaptation benefits will be required and whether to set aside a percentage of the mitigation outcomes to make a contribution to OMGE (Spalding-Fecher et al., 2021).

Host Parties will further have to decide when to implement the corresponding adjustments. The Article 6.2 Guidance provides Parties three possibilities of what they consider is a "first transfer", which is what will trigger the application of CAs:

- Authorization
- Issuance
- Use or cancellation

To maintain a maximum of flexibility and limit the risk of overselling, host Parties might be inclined to implement CAs at the latest possible moment: the use or cancellation of units. However, this would result in large uncertainty for project proponents, certification standards and buyers, potentially limiting their interest for project implementation in the country.

These strategic policy decisions will have to be taken by designated governance bodies that are part of broader institutional and governance arrangements and vested with the respective authority. Table 4 below summarizes the key considerations and tasks of host Parties in aligning their VCM operations with the new circumstances under the Paris Agreement.

Political decision on how to make use of the VCM	<ul style="list-style-type: none"> <li>• Exclusion of any VCM activities,</li> <li>• No authorization of units,</li> <li>• conditional authorization of VCM activities</li> </ul>
VCM strategy development	<ul style="list-style-type: none"> <li>• Obtain an overview on existing VCM activities</li> <li>• Consideration (and meeting) of Art. 6 participation requirements</li> <li>• Development of an authorization process that takes into account aspects such as sharing of mitigation outcomes, negative list, shortened crediting periods and ambitious baselines</li> <li>• Establishing institutional and governance arrangements that are able to take strategic decisions such as timing of authorization /CAs, fees, etc.</li> </ul>

Table 4: Host Parties: Key considerations and tasks for the alignment of operations with Article 6

## 4 Discussion and conclusions

This policy paper has explored the impact the Article 6 decisions adopted in Glasgow might have on the voluntary carbon market. The analysis shows that with the Article 6 Rulebook the **ties between the compliance market and the voluntary carbon market will get even closer** making a clear delineation of the markets more difficult in the future. Despite Article 6 being based on the idea of allowing bi- and multilateral cooperation among Parties for NDC attainment, the **Rulebook has widened the scope** of application and opened it to the voluntary use and non-Party actor engagement. The impact of the Article 6 Rulebook can be expected to be multifaced: without regulating the voluntary use of carbon credits, the Article 6.2 Guidance establishes a broad reporting and accounting framework that can be used for this purpose. The Article 6.4 mechanism is open to non-compliance use and might in the long run be established as a de-facto standard that private standards will be compared with.

Section 3 of this paper has looked at the different stakeholders of the voluntary carbon market, how they have been operating in the past and what the Article 6 Rulebook means for their role in the future. What becomes clear from the analysis is that despite the fact that the UNFCCC does not regulate the VCM **all of its actors will be impacted by the Glasgow outcome**. Ignoring the new reality of the Paris Agreement and the place that Article 6 has reserved for the VCM in this new regime is not an option.

The relationships among actors will be characterized by **growing interdependence and mutual influence**. They must decide on how to integrate into the evolving landscape of the voluntary

carbon market while at the same time their decisions are shaping this very landscape.

### *The need for strategic decisions and alignment*

Each of the voluntary carbon market actors is confronted with numerous decisions that need to be taken. Some of these decisions are more fundamental by nature while others relate to the alignment of institutions and processes to the circumstances of the Article 6 Rulebook.

**Private certification standards** must decide whether and how to integrate their activities into the Article 6 regime. Key decisions to be taken relate to the type of units to be certified and the need to adapt implementation rules and the potential governance of corporate claims. The integration of private certification standards into the Paris regime will further trigger changes related to the infrastructure, in particular with regard to the registries and their interaction. While registries have in the past largely been operating in parallel, they will in the future have to directly and automatically communicate with each other and further be interconnected with the national and international registries under Article 6.

**Activity proponents and suppliers** will have to decide on the type of units to be generated and offered, the host Party in which to operate and how to secure units backed by corresponding adjustments.

**Buyers and credit users** are confronted with the task of having to align the purchase of credits with their broader corporate climate strategy while at the same time being affected by the activity proponent's risks in terms of securing authorized units that are CA-backed.



**Host Parties** have in the past not necessarily been in touch with the VCM activities on their territory and will now have to decide whether and how to make use of these and future activities under the Paris Agreement. Parties willing to host and authorize VCM activities will have to develop a VCM strategy that is ideally integrated into a broader Art. 6 strategy. Key steps to be taken include the development of an authorization process and the installation of institutional and governance arrangements.

#### *Interlinked uncertainties and common solutions*

VCM participants are confronted with risks and uncertainties that are often interlinked, as the example of CA application shows: From a host Party perspective, an early application of corresponding adjustments could increase the risk of overselling, since little information about the achievement of the NDC is available. From an activity proponents' viewpoint, in turn, an early CA application is preferable since it reduces the risks of non-delivery of units to the buyer. In finding a solution to their individual challenges, actors should take into account the challenges that other actors are confronted with. Activity proponents might be incentivized to show that their activity is clearly beyond the scope of what the host Party can unilaterally do and is therefore less prone to lead to overselling, reducing the risk of the underlying credits not being backed by CAs. Parties, in turn, will be more successful in attracting carbon finance from the private sector if they apply CAs at an earlier point in time limiting the uncertainty for activity proponents.

While the behavior of individual actors might contribute to overcoming problems, approaches in dealing with uncertainties must not be sought among the market participants only. Technical solutions such as improved MRV systems supported by distributed ledger technologies could increase transparency, removing some of the stakeholder's prevailing concerns. Political approaches such as bi- and multilateral agreements

among host Parties governments and countries where buyers are based could address concerns related to legal certainty and compliance with requirements from the Paris Agreement. Financial solutions such as political risk insurance could further help in softening the concerns related to the financial impacts. Any solution should not only consider the interests of all actors involved but be also built on the common objective to uphold environmental integrity.

#### *Capacity building*

Host Parties and their decisions on whether and how to make use of the VCM in the future are the focus of attention. The challenges host Parties are confronted with are high, in particular for those developing countries with limited institutional and technical capacities. There is hence an increased need for capacity building to navigate the uncharted territory of the voluntary carbon market post-Glasgow. However, support is needed not only for future host Parties but also for companies aiming to buy credits for voluntary purposes.

This raises the question of who should engage in capacity building. In this regard, activity proponents and suppliers are in a peculiar situation: They are often in direct contact with both, credit users and host Parties. As seen above, some of them are already exerting this role, supporting host Parties in assessing how mitigation activities might impact their ability to achieve the NDC and explaining buyers what type of credits should be used for which purpose (or claim) to ensure that reputational as well environmental integrity is maintained. While these efforts are laudable and should not be discontinued there is also an inherent conflict of interest if capacity building initiatives are solely driven by actors with vested interests. With the continued support of governments from the Global North, a stronger involvement of civil society and academia should therefore be strived at while also supporting peer-to-peer learning among national governments, in particular from the Global South.

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# Annex

Interview	Date	Description
<b>Interview 1</b>	5 April 2022	Activity proponent and carbon carbon credit supplier - organisation involved in the development and implementation of VCM activities and the sale of carbon credits.
<b>Interview 2</b>	7 April 2022	Activity proponent and carbon carbon credit supplier - organisation involved in the development and implementation of VCM activities and the sale of carbon credits.
<b>Interview 3</b>	19 April 2022	Private Certification Standard — Organisation providing a private standard used for voluntary mitigation activities.
<b>Interview 4</b>	21 April 2022	Activity proponent and carbon carbon credit supplier - organisation involved in the development and implementation of VCM activities and the sale of carbon credits.
<b>Interview 5</b>	25 April 2022	Private Certification Standard — Organisation providing a private standard used for voluntary mitigation activities.

Table 5: List of interviews

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