

The Evolving Voluntary Carbon Market

A Paper by the Members of IETA, March 2023
Subject to ongoing updates

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Preamble

The voluntary carbon market (VCM) is an extraordinary market. Growing up in advance of the Kyoto Protocol's carbon offsetting mechanism – which was designed to support developed countries in achieving their climate targets – the VCM emerged, led by non-state actors who sought a credible way to certify greenhouse gas (GHG) emission reductions and removals outside of United Nations (UN) compliance schemes. Rather than being driven by regulations or global agreements, this bottom-up “movement” was created so that corporations could proactively participate in climate change mitigation and have a credible means to neutralise their GHG inventories alongside direct reductions in their value chain.

Leaning on the UN mechanism, the private sector was fast to innovate and the VCM emerged. The first VCM Standards launched in early 2000 issuing carbon credits for public use. The companies who bought these credits were primarily looking to voluntarily offset a portion of their emissions and demonstrate leadership in corporate social responsibility. The market has grown to include advisors, marketplaces, accreditation bodies, exchanges, rating agencies, and many more participants who believe in the power of carbon finance to deliver emission reductions. And now, carbon credits are being developed from thousands of projects located all over the world.

Over two decades since carbon trading was introduced in the Kyoto Protocol, the UN mechanism has evolved to the Paris Agreement with new rules to govern international trading of emission reductions. With cross-border emission adjustments being introduced under Article 6 of the Paris Agreement, a new UN rulebook is taking shape that may impact the VCM. Pair this with a record-breaking volume of carbon credits issued in recent years, a proliferation of Standards and crediting approaches, and increased scrutiny from the public demanding

a high-integrity VCM, and the market finds itself at a crossroads. The VCM must evolve at a quicker pace than ever before to maintain public confidence in its ability to meaningfully contribute to the global goal of net zero by 2050.

While scrutiny and constructive criticism are always welcome, we at the International Emissions Trading Association (IETA) is eager to see the pace of investment increase at this critical time when the world teeters on 1.1°C above the pre-industrial average¹. With conflicting guidance on what 'good' looks like, coupled with a number of corporate decisions resulting in public criticism, this bottom-up movement is facing extreme challenges. However, we are confident that the ever resilient – and extraordinary - VCM will adapt.

The value proposition of the VCM is that it:

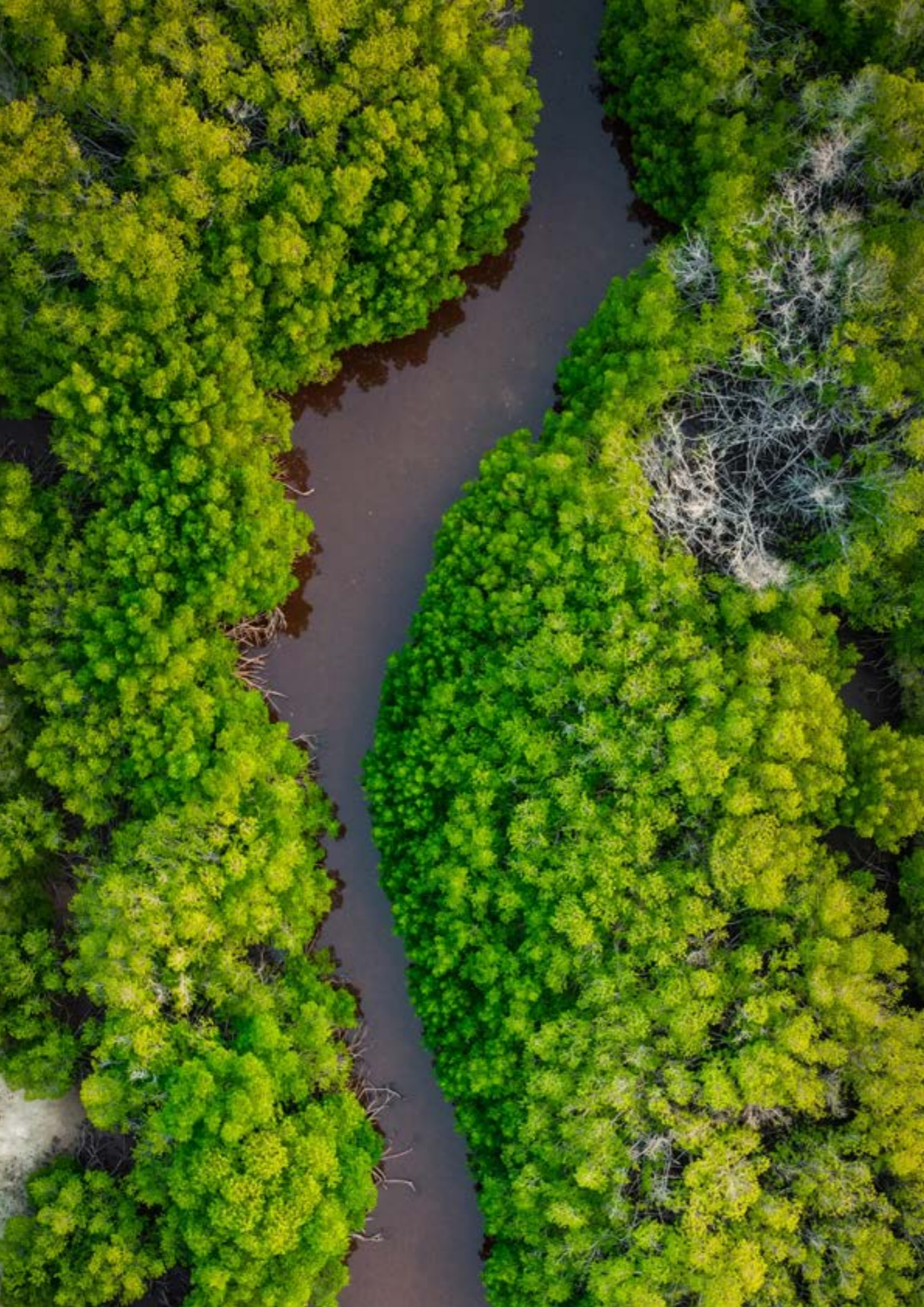
- Provides a robust mechanism for corporates to reduce or remove emissions beyond their value chain in support of their science-aligned net zero pathways;
- Channels finance to where it is desperately needed, including Low and Lower-Middle Income Countries (LLMIC), removals, forest conservation, and the implementation of the UN SDG goals; and
- Paves the way towards compliance markets.

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¹The Final Bell I Climate Crisis Advisory Group



«However, we are confident that the ever resilient – and extraordinary - VCM will adapt.»



Introduction

The purpose of this paper is to shed light on how the VCM is evolving. We identify the issues and uncertainties market players are experiencing due to the debate around the VCM and the ambitious role it can play. Insights in this paper come from IETA members who represent the full VCM value chain and have deep expertise in this space. Their input has highlighted a mosaic of opportunities and an ambitious direction for the market's continued development.

The paper discusses a range of topics significantly impacting the market by dividing them into the following four sections:

- Section A: Corporate Net-zero Guidance and Inclusion of Offsetting
- Section B: The Relationship Between the VCM and Country Actions Under the Paris Agreement
- Section C: Consolidation or Proliferation of Crediting Approaches
- Section D: Governance and Increasing Regulation

Within each of these sections, we provide insight into the current state of play, where the market is trending, and where IETA would like to see it go. The paper is not intended to set out IETA's position or strategy for the VCM, but rather take stock of the evolution and direction of travel.



Corporate Net Zero Guidance and the Inclusion of Offsetting

THE STATE OF PLAY

The playing field of guidance on how companies can achieve net zero is crowded at best and bewildering at worst. In the last few years, dozens of organisations have attempted to define the use cases for offsetting, “net zero,” and “carbon neutral”. Inconsistent definitions across the board have led to confusion on how corporates can engage in the market. Many guidance documents have different rules, a summary of which can be found in Appendix 1.

A mainstay of responsible corporate emission reduction strategies has always been the mitigation hierarchy; it remains the mainstay for most guidance. According to this, companies should **avoid** new sources of emissions, **reduce** internal emissions as much as possible, and only then **compensate/offset** residual emissions with the use of carbon credits. Some guidance, such as the Science Based Targets Initiative’s

(SBTi) Net Zero Standard², goes further, by recommending that compensation of emissions requires the use of removal-type credits once the company has reached its long-term net-zero goal. This guidance is often misinterpreted by companies to mean that investment in carbon credits should only take place at, or a few years before, delivery of their long-term target. With most net zero targets over 20 years away, this interpretation is not sufficiently ambitious; it limits action and delays critical investment into climate solutions available today³.

Many net zero guidance documents have inadvertently devalued reduction-type credits (“reductions”) as opposed to removal-type credits (“removals”) by arguing that extracting CO₂ from the atmosphere has a greater positive impact on the environment. However, if we think of the atmosphere as a bathtub and emissions as the water coming from the tap, removing water from the tub is highly effective, but it also makes sense to turn down the tap! For nature-based and technological decarbonisation solutions in the form of carbon capture and sequestration (CCS), the emphasis on removals does not reflect the critical importance of addressing hard-to-abate industrial emissions and protecting ecosystems as a priority ahead of restoration⁴. A further challenge with the push towards removals is the low supply of this credit type currently available on the market. In 2022, pure removal projects made up only 3% of all projects issuing credits⁵.

Low corporate demand for carbon credits is due in part to guidance **failing to recognise sectoral differences**. (Note: SBTi development of sector-specific methodologies for the oil and gas sector is in development)⁶. Abatement costs differ significantly across sectors, as do the proportions of emissions in different scopes. For the automobile sector, scope 3 emissions can be upwards of 90% of a GHG inventory while for the cement sector it may be less than 20%⁷. Offsetting all residual scope 3 emissions is simply unaffordable for many companies, or

the cost is unpalatable for investors. A good illustration of this can be found in the Voluntary Carbon Markets Integrity initiative’s (VCMI) Provisional Claims Code⁸, which illustrates that the costs of offsetting scope 1, 2, and 3 at \$30 per tonne exceed profit for the oil and gas sector.

With the unwieldy number of guidance documents, uncertainty on how and when to compensate, and a push towards removals that do not exist, it is not surprising that confusion is commonplace. An immediate challenge we face is how to increase corporate confidence and carbon credit demand to support the transition to global net zero. When companies are not confident that they are following a credible pathway, or worried about negative press for publishing their net zero target⁹, the financing of emission reductions and removals is limited, while simultaneously increasing the total investment and time required to reach global net zero in line with the Paris Agreement.

THE PATH WE ARE ON

A lack of standardised definitions of quality and subsequent articles in the press that call into question the integrity of the VCM have spurred significant efforts from market participants to streamline the definition of high-quality credits and claims. Several new groups have been created with the sole purpose of defining these terms. Most prominent are the Integrity Council for the Voluntary Carbon Market (ICVCM), which is looking to define high-quality carbon credits and assess key VCM Standards; and the Voluntary Carbon Markets Integrity Initiative (VCMI), which is seeking to standardise and promote high-quality corporate claims. Both organisations were born out of the Task Force on Scaling Voluntary Carbon Markets when it became apparent that to scale the VCM, unassailable quality standards were necessary.

Immense interest in both the ICVCM and VCMI shows a significant demand for clarity around quality from market participants. The ICVCM received over 5,000 comments on its original draft of its showpiece framework, the Core Carbon Principles (CCPs) and associated assessment framework. At the time of writing, neither of these organisations has published final guidelines or recommendations to the market. However, key market institutions have taken note. In particular, carbon crediting bodies (more commonly known as “Standards” and occasionally referred to as “registries”), continue to act on their commitment to continuous improvement by way of programme updates.

We should also acknowledge here the work of the ICROA Accreditation Programme which has been in operation since 2008 and experiencing a growth phase. This programme contributes towards the integrity debate by accrediting

carbon credit intermediaries in the best practice guidance and use of carbon credits. Accredited organisations undergo a compliance audit each year against the ICROA Code of Best Practise¹⁰.

A second trend we are seeing when it comes to corporate net zero guidance is a shift towards the use of blockchain technology to enhance transparency and reporting – both of which are key considerations in the quality of credits and integrity of claims. Blockchain, or distributed ledger technology (DLT) has several evolving functions in the VCM. First, we are seeing an increased use of DLT to monitor, track, and record data required for carbon credit development. Accurate data is a key component of ensuring carbon credits are quantified appropriately, and enhanced project monitoring, reporting, and verification (MRV) can be readily achieved with the use of this technology. Second, registries are also incorporating blockchain into their design to use DLT to transparently record all carbon credit transactions. This is crucial to ensuring credits are not double counted. Finally, proponents of DLT are working with Standards to evaluate the opportunities to tokenise credits to enhance the VCM's liquidity¹¹.

Another interesting trend is that of a “climate finance” approach as opposed to an “offsetting approach”. Rather than a company offsetting on a tonne-for-tonne basis, it assigns a cost to each tonne of its residual emissions and uses this total dollar value as its reference point¹². The cost of each tonne is determined by the company and might be based on their government's social cost of carbon or an internal carbon price¹³. Funding generated by the internal mechanism should then be spent on climate mitigation which may include investment in carbon credits. This approach has the advantage of increasing corporate visibility of emissions and the ability to manage budgets without exposure to price volatility. The downside includes unclear investment parameters, lack of external guidance, and a potentially

outstanding “carbon balance” against a GHG inventory that was not necessarily neutralised. The claim corporates make when using this climate finance approach would shift away from offsetting towards contribution claims. IETA sees both approaches as working and considers this a buyer's choice.

A final trend to mention is corporate support of Sustainable Development Goals (SDGs). Companies want to record their positive SDG impact due to investment in carbon credit projects and this needs to start with measurement by project developers. Several mechanisms already exist for project developers to record co-benefits. These include minimum SDG requirements set by carbon credit Standards or the option to gain an additional certification such as Vera's Sustainable Development Verified Impact Standard (SD Vista) and Climate, Community, and Biodiversity Standards (CCB)¹⁴. The biodiversity disclosure framework, which is currently in draft form¹⁵, will assist companies to gain rightful recognition for their SDG contribution. And finally, the ICVCM Core Carbon Principles and Assessment Framework¹⁶ has put much thought into sustainable development and safeguards.



THE WAY FORWARD

IETA is ready to pull up more chairs to the table so that all companies can have a seat in the discussions. We want to see corporates eager to engage in the VCM and see it as a tool in their toolbox for achieving meaningful emission reductions. It is important that guidance makes room for all companies to participate, and yes, that must include large emitters. The absence of an incentive does not motivate, and we need the largest emitters to be included in the conversation and have more options to take meaningful action if we want to motivate emitters to help reach the Paris Agreement goals. An important consideration is to re-evaluate what can be expected by these types of companies. A requirement to offset all scope 1, 2, and 3 emissions that costs every dollar of a company's profit is not realistic, nor reasonable to expect. If a company is not able to neutralise their entire scope 3 inventory, perhaps a narrowed focus on their controlled emissions (scope 1 and 2) is a good place to start, or a portion of their scope 3 should suffice.

We want to see an increased use of carbon credits for offsetting purposes, but we understand that even with all companies at the table they need to trust the market in order to participate and not be afraid of scrutiny from civil society or the media. The antidote to a lack of trust is quality. The market needs to evolve with a reinvigorated definition of quality at its core, and this is why IETA is keen to see ICVCM and VCMI get it right. For this to happen, there needs to be an open dialogue between all market participants so that the VCM as a whole can come to a mutual agreement and understanding of what "good" looks like. Changing definitions, standards, and practices can be disruptive, especially when criticism of the status quo feels like an attack on something that for many market participants has worked pretty well. But, as a collective, the VCM needs to be willing to update and evolve to stay rele-

vant. Evolution and ongoing commitment to continuous improvement is the only way for the VCM to thrive as a viable mechanism for corporate climate action.

It is important to IETA that reductions are valued for the imperative role they need to play now. Otherwise, we are increasing our dependency on removals as we get closer to the net zero timeframe. Claims for corporates must recognise their contribution towards both reductions and removals. We fully support the mitigation hierarchy and the need for companies to reduce absolute emissions in line with a science-aligned pathway. We strongly feel, however, that carbon credits could be a central mechanism to enable stronger interim claims or address gaps should corporates miss their interim targets. **Missing an interim target is not acceptable when we have a relatively elastic and affordable mechanism at our disposal globally.** Carbon credits can, and should, facilitate the highest level of climate action. We also note there should be guardrails in place to ensure the use of carbon credits doesn't become a perverse incentive resulting in delayed action on absolute emission reductions. Full and transparent disclosure of carbon reduction achievements, challenges and missed opportunities should be made, including the use of carbon credits. Guardrails could include a restriction on the volume of carbon credits that may be used as a percentage of required reductions.

We support alternative use cases for carbon credits including the offsetting and the "climate finance" approaches as discussed earlier. The offsetting approach should be reinforced with clear guardrails and definitions to support terms such as "carbon neutral". We need clarity on claims. For example, should "carbon neutral" only be used for products or service-level claims as suggested by VCMI? There is a strong marketing appeal in this claim which in turn creates significant demand for credits. Let's fix it with rigorous, standardised, and accurate definitions rather

than throwing out what works.

And finally, IETA recognises the right and necessity for corporates to get fair recognition for their climate change strategies through the claims that they make, including their voluntary carbon credit purchases. Again, the absence of an incentive does not motivate.

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² This sentiment is highlighted in the World Economic Forum's January 2023 report: <https://www.weforum.org/whitepapers/the-voluntary-carbon-market-climate-finance-at-an-inflection-point>

³ The sentiment is highlighted in the World Economic Forum's January 2023 report: <https://www.weforum.org/whitepapers/the-voluntary-carbon-market-climate-finance-at-an-inflection-point>

⁴ Protect, manage, and then restore lands for climate mitigation | Nature Climate Change

⁵ Carbon Direct 2022 Commentary on the Voluntary Registry Offsets Database (VROD)

⁶ Oil and Gas: Next Steps for the SBTi's Guidance Development - Science Based Targets

⁷ CDP-technical-note-scope-3-relevance-by-sector.pdf

⁸ VCMI-Provisional-Claims-Code-of-Practice.pdf (vcmintegrity.org)

⁹ Net Zero and Beyond: A Deep-dive on Climate Leaders and What's Driving Them

¹⁰ Quality Assurance in Carbon Offsetting | Icroa

¹¹ <https://www.goldstandard.org/blog-item/tokenisation-consultation-feedback-and-next-steps-gold-standard>

¹² Another option is for the company to use a simple measure such as a percentage of revenue or yearly profit to achieve the same outcome of generating a finance pot to invest in emission reductions

¹³ https://www.sciencedirect.com/science/article/abs/pii/S1364032121010170?fr=RR-2&ref=pdf_download&rr=7a8227e84e38c36f

¹⁴ CCB Standards ICCBA (climate-standards.org); SD ViSta Program Details - Verra

¹⁵ TNFD releases third iteration of beta framework – TNFD

¹⁶ <https://icvcm.org/wp-content/uploads/2022/07/ICVCM-Public-Consultation-FINAL-Part-4.pdf>

The Relationship Between the VCM and Country Actions Under the Paris Agreement

THE STATE OF PLAY

The Paris Agreement does not regulate the VCM, however, its adoption at COP21 in 2015 changed the context under which the VCM operates.

In the years since, carbon market participants keenly awaited the establishment of the Article 6 guidance (specifically cooperative approaches under Article 6.2¹⁷ and the new UN crediting mechanism under Article 6.4¹⁸), which further specify how Parties can voluntarily cooperate in achieving their emission reduction targets set out in their Nationally Determined Contributions (NDCs)¹⁹. The success of COP 26 in Glasgow provided a strong foundation and now the focus has moved to implementation within countries and the Article 6.4 Supervisory Body.

Article 6.2 provides a framework for countries to transfer carbon credits at the national level and count the emission reductions and removals towards their NDCs as appropriate. Countries are beginning to transact under Article 6.2 cooperative approaches, though some market infrastructure such as the Centralised Accounting and Reporting Platform is still in development. Article 6.2 is fundamentally a bottom-up approach

whereby countries may use existing carbon crediting Standards or design and implement their own policy instruments as long as they meet the high-level criteria set out by the guidance²⁰. Carbon credits transacted between countries are accounted under Article 6.2 as Internationally Transferred Mitigation Outcomes (ITMOs) and must always be authorised by the host Parties to be transferred internationally and be used towards an NDC or other international mitigation purposes (such as the CORSIA programme for international aviation). This potentially creates a new market for project developers traditionally only selling into the VCM. They could use the same credits, but these could be used for compliance purposes once letters of authorisation are in place.

Article 6.4 is also relevant to the VCM since the credits issued by the newly established crediting mechanism can be traded and retired by voluntary market participants such as project developers, intermediaries, and corporations. Some Article 6.4 Emission Reductions credits (A6.4ERs) will be authorised²¹ by the host country²² to be used for compliance purposes in other countries. These require a corresponding adjustment (CA)²³ to the seller country's GHG emission inventory at the first international transfer

and one to the buyer country's GHG emission inventory when the credits are retired for compliance with an NDC. The Article 6.4 credits that are not authorised for international use towards other NDCs were labelled Mitigation Contribution Emission Reductions (MCERs) at COP27 and do not require CAs because the mitigation impact continues to be accrued in the host country. They are intended to contribute to the host country's NDC. There is an ongoing debate, however, as to whether such unauthorised MCERs may only be used for specific purposes as the list of use cases agreed to in the COP27 Article 6.4 text was deliberately left open.

As it stands, the VCM and Article 6 remain independent markets with separate governance structures. However, we anticipate increased convergence over time and are already seeing this. The convergence could be minor, such as the adoption of methodologies from one market to another²⁴, or occur

in more meaningful ways, like buyers from both markets accessing the same crediting pool to make purchases, perhaps for fungible use across both compliance and voluntary markets. We believe convergence over time will contribute to more harmonised global action, less mistrust and confusion and ultimately provide conditions for increased ambition.



THE PATH WE ARE ON

With countries operationalising Article 6, we are increasingly seeing discussions around accounting practices where there is an overlap with the VCM. Specifically, these conversations are related to CAs. The accounting framework of CAs coming out of the Article 6 Rulebook at COP26 ensures there is no double counting of NDC efforts between countries by requiring the selling country to adjust its national GHG inventory upward equivalent to the volume of credits authorised, and the buying country to adjust its inventory downwards when credits are used towards its NDC. The situation where Article 6 interacts with the VCM is different. Credits are used by a buying company (not a country and therefore not a Party to the Paris Agreement) towards a voluntary target, without the purchase benefiting the home country of the company in any way. Emissions still decrease in the host country – and may count towards that country's NDC achievement. But as there is no buyer country involved, there is no double counting between countries under Article 6.

Active discussions are occurring amongst VCM participants to understand and agree on how this should be handled. IETA's position on the topic is explored further in the next sub-section of this paper.

As governments strengthen their climate action under the Paris Agreement and understand the complexities of the mechanism's interactions with the VCM, we are seeing an increase of market activity being drawn into regulatory or compliance markets. Governments are introducing new compliance schemes in the form of emission trading systems (ETS), otherwise called cap-and-trade programmes, and carbon taxes around the world²⁵. We anticipate these compliance schemes to become increasingly international over time as countries make use of Article 6 to either access cheaper international abatement options or attract foreign investment in mitigation projects. These actions will bring more of the carbon market within the scope of Article 6, further expanding the use of CAs. It is likely that credits transferred in this context will be from independent crediting bodies, country compliance schemes, and the Article 6.4 mechanism.

To support a transition to a Paris-aligned world, independent crediting programmes are evaluating how their credits align with the requirements of Article 6. For example, many programmes are introducing tags or labels in their registries to indicate which credits have been authorised for use by the host country.

THE WAY FORWARD

IETA does not consider CAs necessary when voluntary corporate buyers purchase carbon credits from a host country and do not tender them for compliance in another country. It is often argued that a buying company should not claim the use of a credit towards a voluntary target if the host country also claims the benefit from the same emission reduction as this “claims” the emission reduction twice. However, counting emission reductions at a corporate level and again at a national level is routine. A company that reduces emissions in its own factory contributes to lowering its country’s emissions inventory, thereby both the company and country are “claiming” the emission reductions. Therefore, it routinely happens in the context of a science-based target or in the Renewable Energy Certificate market. Double claiming is not in itself problematic because it accurately reflects nested inventories, and importantly, at an NDC level the

emission reductions have only been counted once. When a company purchases international carbon credits, the home country of that company is not claiming the emission reductions in their NDC, so the emission reductions are only counted at the national level by the host country. Again, no NDC-level double counting has taken place.

As we enter a Paris-aligned world, IETA wants to see increased fungibility on the supply side. There is already much convergence as credits generated by VCM Standards are increasingly accepted in compliance markets as well as voluntary markets. This is a trend that is likely to continue. The distinction between voluntary and compliance markets lies in the different drivers of market demand, with the voluntary market driven by voluntary objectives such as achieving carbon neutrality, and compliance markets being driven by a country’s desire to meet its NDC. However, the underlying unit (the carbon credit) can, and should, be fungible to reduce complexity and scale investment.

The VCM can help pave the way for countries into compliance and Article 6 mechanisms. By strengthening opportunities for corporates to invest, we could see increased capacity building, credit fungibility, and an expanded pool of buyers alongside a reduction in market barriers and transaction costs. This approach would allow governments to tap into the well-established capability of carbon credit projects and programmes and take advantage of the international credibility they offer.

As Article 6 evolves, we see increasing opportunity for the VCM and hope that this period of evolution does not allay investors.

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¹⁷ https://unfccc.int/sites/default/files/resource/cma2022_L15E.pdf

¹⁸ https://unfccc.int/sites/default/files/resource/cma2022_L14E.pdf

¹⁹ <https://unfccc.int/process-and-meetings/the-paris-agreement/article-64-mechanism> ²⁰ CMA 3_AUV_TEMPLATE (unfccc.int), page 5

²¹ The function of specifying access rights/privileges to resources.

²² The country in which an emissions reduction project is implemented.

²³ Making a corresponding adjustment means that when Parties transfer a mitigation outcome internationally to be counted toward another Party’s mitigation pledge, this mitigation outcome must be ‘un-counted’ by the Party that agreed to transfer it.

²⁴ Adoption of methodologies from the Clean Development Mechanism into the VCM was a common practice in the Kyoto Protocol era.

²⁵ https://icapcarbonaction.com/system/files/document/220408_icap_report_rz_web.pdf

Consolidation or Proliferation of Crediting Approaches

THE STATE OF PLAY

The VCM has experienced accelerated growth in recent years, and not just in terms of the volume of credits issued. The state of play seems to be a constant stream of new mitigation opportunities, Standards, project developers, advisors, brokers, traders, investors, marketplaces, exchanges, ratings agencies, industry associations, insurance providers, and other more nuanced market participants.

Similarly, there is an ever-expanding suite of methodologies being developed as new Standards come online, leading to new and innovative projects in a variety of project types that span the globe. The VCM is also experiencing new sources of investment from firms keen to support emission reductions (or those willing to bring risk-capital to the market). To scale up VCM investment these financial innovators are interested in new transaction types that reflect traditional financial markets practices. These new types include futures, options and derivatives of

environmental commodities that provide hedging tools for project developers and large-scale investors. **The current state of play is fluid, innovative, and evolving.**

Expanding on the push for quality and transparency discussed earlier, the VCM is seeing a proliferation of transaction types and platforms. Exchanges that are structures like stock or commodity trading platforms, purchases of tokenised carbon credits through crypto wallets, and the use of embedded application programming interfaces (APIs) to purchase carbon credits alongside transactions such as hotel reservations or online purchases are becoming the new normal. This isn't to say that traditional over-the-counter (OTC) transactions are going away anytime soon. A large subset of buyers still prefers the original purchase strategy of transacting with service providers (intermediaries) or directly with project developers²⁶.

The effectiveness and publicity of the VCM have encouraged new credit types and environmental commodities to be minted.

Environmental attribute certificates (EACs) for clean power, renewable natural gas (RNG), sustainable aviation fuel (SAF), plastic credits and biodiversity credits, are just some of the environmental commodities that are being traded in a similar manner as the humble carbon credit.

Some governments are also attempting to market a new type of sovereign carbon unit through the REDD.plus platform. This mechanism issues its own units for activities that are Reducing Emissions from Deforestation and Degradation assessed under the UN REDD+ programme but does not contain all the elements of carbon crediting programmes that are regarded as necessary to ensure fungibility with carbon credits in the VCM. **See the IETA White paper:** "Valuing REDD+ Activities: Key Differences Between Market-Based Credits & Results-Based Payments for REDD+ for more detail²⁷".

THE PATH WE ARE ON

The current trend in the market is expected to keep trending: increased project diversity and growth of Standards, project activities, and novel transaction types. A look across the VCM and broader climate landscape today shows a myriad of initiatives and approaches. There has been a growth in the number of market participants in recent years, and we expect this to continue as demand for carbon credits grows to achieve net zero targets through 2030. This increase in diversity calls into question early carbon market notions of a single global marketplace and raises issues about the degrees of divergence or convergence that can be expected. That said, the diversity of mitigation opportunities is expected to continue to grow as new players enter the market and new methodologies continue to be published. It is inevitable, perhaps, that multiple approaches to establishing projects, conducting MRV activities, and transacting carbon credits will persist, and with them the risk of confusion

for external stakeholders who are looking for a simple and transparent solution.

The VCM is seeing a trend towards bifurcation of transaction types into OTC and commoditized markets. This is driven by the varied needs of buyers. Many corporate buyers are looking for highly charismatic carbon credits that can help tell the story of how their environmental investments in this market align with the company's broader sustainability goals. Many project developers and retailers sell these highly differentiated credits OTC in order to provide more detail and qualitative insights into the projects' co-benefits such as alignment with the UN SDGs, community impacts, or other marketable attributes.

On the other hand, the shift towards a commoditised market is driven largely by investment firms that require price transparency and long-term price signals to make investment decisions where the return on investment may come, in part or in whole, through carbon credit revenue. The market is meeting this demand through the creation of transparent transaction platforms, such as exchanges, where standardised contracts are used to bundle carbon credits with similar attributes that sell at a similar price. Proponents of tokenisation via blockchain technology also promote the use of standardised contracts and advocate for the transparent nature of their technology as an effective way to increase price transparency (and liquidity). Some VCM buyers may prefer tokenised credits that can open the way to easier transactions without intermediaries, new sources of finance among individual investors, deeper liquidity, and faster price discovery.

THE WAY FORWARD

IETA views the rapid increase of Standards and crediting approaches as a sign of a healthy, growing, innovative, and competitive market. The increased number of market participants increases competition, creates

new opportunities for emission reductions, and enables a greater flow of finance into high-quality projects. However, what is not effective is differing views on quality and we would like to see the market converge on an aligned definition of quality. Quality is an amalgam of a project's additionality, baseline, permanence, verification, safeguards, sustainable development contributions, accounting, and governance. The proliferation and diversity of project types and circumstances necessitate approaches and methodologies that are varied and equally legitimate. We see the work of the ICVCM's Core Carbon Principles as critical to resolving this challenge.

IETA believes that, ultimately, the way forward on credit quality is to **establish a level of assurance that is sufficient to accept activities as part of our collective mitigation effort** rather than defining and applying perfection. Projects and their credits must be credible and convince us that their mitigation is real, but we **must also accept that some degree of risk will always exist with long-term investments**, particularly in natural systems, and that our understanding will continue to improve. Data analytics and information systems will play an important role to back up this process of assessing quality. With the tools available now, a project's performance can be quantified to identify and differentiate clearly good quality projects from poorly implemented solutions.

The proliferation of crediting approaches leads to an increased need for transparency and modern digital infrastructure to improve buyer confidence. The market today is partially constrained by its original infrastructure that (a) does not provide comprehensive, easily searchable project data to enable efficient due diligence and buyer trust, and (b) can lead to slow and unpredictable time-to-market for new projects that may inhibit investment. Modern digital infrastructure is one important component of enabling the significant market growth that is needed for the VCM to make a material contribution to

the fight against climate change. In addition, the deployment and incorporation of digital MRV tools will play a key role in both speeding up time-to-market for credit issuance as well as enhancing integrity, building trust, and making carbon credit development more cost-effective.

IETA recognises the value that technology can play in modernizing and accelerating the growth of the VCM. We want to see consensus built between the technology providers and market participants and for these groups to work together collaboratively on effective solutions. As discussed in Section A, distributed ledger technology (DLT) can play a useful role in increasing the transparency and efficiency of MRV and registries and could also play a role in increasing credit transactions through the tokenisation of credits.

Finally, IETA sees the divergence of transactions into OTC and commoditised markets as a positive market development. Both have an important role to play to satisfy buyers and both corporate buyers and investors are essential to the market's success. What is important to IETA is that the original intent of the market is maintained. The VCM should be used as a tool to finance real, additional, permanent, verified emission reductions.

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²⁶ <https://www.ecosystemmarketplace.com/articles/todays-vc-m-explained-in-three-figures/>

²⁷ The country in which an emissions reduction project is implemented.



Governance and Increasing Regulation

THE STATE OF PLAY

The VCM is a largely self-regulated market with participants voluntarily adhering to the standards and guidelines developed by independent organisations. Since the market operates at global scale, it is difficult for any single government or entity to effectively regulate it. The VCM operates as a decentralised market where buyers and sellers of carbon credits interact bilaterally or through various transaction platforms. To ensure the market operates in a transparent and credible manner, several independent organisations have developed standards and guidelines for carbon credit projects. A mainstay of high-integrity Standards is that they carry out frequent public consultations and take stakeholder feedback into consideration in the development of their programmes. In this way, the market has been built from the bottom up with a consensus-based approach to establishing best practices.

THE PATH WE ARE ON

As the VCM grows there has been an increase in discussions around governance. Good governance means having an assurance of integrity, transparency, stability, and accountability and is necessary to maintain confidence, achieve liquidity, and scale the market. This topic can be divided into two distinct categories:

1. Governance over the production of carbon credits; and
2. Governance over market activity.

Governance over the production of carbon credits refers to the way projects quantify, verify, and issue credits. This also refers to the structure within which project types are identified as eligible to generate carbon credits. This may include requirements for safeguards such as no net harm to the environment, no child labour, no bribery or corruption, and other such protections. Additionally, governance structures need to be in place, so buyers have confidence that the stated reduction or removal has been accurately quantified and that, for example, there is no concern over non-permanence or over-crediting.

Governance over market activity refers to how transactions are carried out and credits are traded. Market oversight rules are typically designed to protect market participants from fraud, excessive speculation, money laundering, facilitating bribery or corruption, and tax evasion. Transactions can either take place OTC, where parties contract bilaterally, or via exchanges where parties contract with an exchange and its members. Both have their place. However, in considering governance trading within the confines of an exchange offers participants the security provided by the rules of the exchange based on the regulatory environment in which the exchange operates.

There is increased interest in external governance of market activity driven by the in-

crease in investment firms with financial market backgrounds entering the VCM. How this should be considered depends on whether, in the future, carbon credits will be classified as financial instruments or as commodities. At present, jurisdictions differ in how they classify carbon credits.

If classified as financial instruments by regulators, the VCM might need to follow financial market-style regulations such as reporting of trades or the requirement to obtain licenses from local regulators for certain types and a complex array of regulations that is unique to that jurisdiction. However, unlike financial instruments, a carbon credit is not always a vehicle designed to provide the buyer with an investment. It can simply be a vehicle for facilitating funds to the underlying project. If a carbon credit is classified as a financial instrument, it becomes subject to different financial regulatory treatment across jurisdictions which hinders international flows and trade. It is worth noting that derivatives based on carbon credits and certain pricing benchmarks are already regulated under financial regulation, it is the buying and selling of the unit on spot markets that is not. Finally, financial regulatory frameworks are designed to protect investors and ensure stability in a market where bad actors and poor conduct can have a systemic macroeconomic impact on global finance. This is not the case with the VCM, given its small scale in the global financial arena.

If classified as a commodity, there are valuable lessons on good governance from other more mature commodities market. In a commodities market, for example, in the OTC traded gold market²⁸, integrity of the product and the honesty of the seller is overseen by established independent standard-setting bodies such as the London Bullion Market Association (LBMA). The LBMA sets standards of gold production and criteria for participation in the trading environment. This enables oversight of a market that is, by necessity and nature, global – much like the VCM.

THE WAY FORWARD

Similar oversight as that provided by commodity standard setters is emerging within the VCM. A summary of existing governance mechanisms can be found in Appendix 2. However, guidance is not yet unified or given official recognition and we, therefore, summarise our position as follows:

- The VCM is a nascent market for which stringent financial regulation is not yet justified – and could even impede growth at a time when we need more action to deliver the Paris goals.
- As the market evolves, governance over carbon credit production is best handled by independent organisations collaborating with industry experts to set global standards, or by environmental regulators who have subject matter expertise.
- If market regulation becomes necessary as the market scales, carbon credits should be considered as an environmental commodity and should generally only be considered as financial instruments when traded on a derivative basis, like other general intangible assets.
- Increased governance would provide a higher level of scrutiny, but we should guard against inhibiting the nimbleness and flexibility of the VCM to ensure it can deliver its purpose.

NOTES

²⁸For clarity, we are referring here to the entity rather than the commodity itself. Exchange trading and derivative in commodities is highly regulated and impacted by jurisdictional differences.

Conclusion

In this paper we have shed light on the kaleidoscope of change that the VCM is experiencing and how it is impacting the full VCM value chain. Despite this change, the core role of the VCM remains consistent:

- To provide a robust mechanism for corporates to reduce or remove emissions beyond their value chain in support of science-aligned net zero pathways.
- To channel finance to where it is desperately needed, including to LLMIC, removals, forest conservation and delivery of the UN SDGs.
- To pave the way towards compliance markets.

Innovation has never been more tangible including new sources of investment. To harness these new sources of finance and to attract additional investment to address the urgency of the climate crisis, we make the following points:

Corporate Net-zero Guidance and Inclusion of Offsetting

- The mitigation hierarchy remains the mainstay of responsible corporate action.
- Net zero guidance must be aligned, recognise sectoral differences and provide robust claims. Corporate action must be incentivised, and all companies must have a seat at the table
- Offsetting of carbon emissions must occur along the pathway to net zero and not only in the net zero year. Reductions must play a critical role in the near term with an expansion of removals as we get closer to net zero.
- The market needs to evolve with a reinvigorated definition of quality at its core that incorporates continuous improvement. IETA is keen to see ICVCM and VCMI get it right and supports the work of the ICROA Accreditation Programme.



The Relationship Between the VCM and Country Actions Under the Paris

- The VCM and Article 6 remain independent markets with separate governance structures; however, we anticipate increased convergence over time.
- ‘Double claiming’ by countries and companies is not in itself problematic as it reflects nested inventories. At the NDC level the emissions reductions have only been counted once.
- Corresponding adjustments are not required when credits are bought on a voluntary basis and the emission reductions contribute to the host country’s NDC.
- Increased fungibility of carbon credits across compliance and voluntary markets will reduce complexity and increase investor interest.

Consolidation or Proliferation of Crediting Approaches

- Bifurcation of transaction types into OTC and commoditized markets is driven by buyer preferences and both have a role.
- A modern digital infrastructure is important to enable market growth. On the buy side this includes transaction platforms, standardised contracts, and tokenisation. On the supply side this includes blockchain enabled Distributor Ledger Technology (DLT) and enhanced MRV.

Governance and Increasing Regulation

- The VCM is a nascent market of a non-financial nature and stringent financial regulation may impede growth.
- Increased governance of the VCM will provide higher levels of scrutiny but we should guard against inhibiting nimbleness and flexibility of the VCM to ensure it can deliver its purpose.

With this assurance level established, carbon credits can, and should, facilitate the highest level of climate action. The failure to meet climate targets should become unacceptable when a global, elastic, and affordable mechanism is at our disposal.

IETA will continue to work closely with all market proponents to bring robust governance and quality assurance to this extraordinary, evolving VCM.

1. Best practice guidance on private sector voluntary and carbon credit uses.

Appendix

Name	Purpose	Publication	Link
ICROA Code of Best Practice	Best Practice Accreditation for VCM Service Providers.	2008 (first version), 2022 (latest version)	link
VCM Claims Code of Practice	VCM Claims is developing guidance on how carbon credits can be voluntarily used and claimed by businesses and others as part of credible, net zero decarbonization strategies.	2022 (Provisional) Further guidance expected in 2023	link
WWF / BCG Blueprint for Corporate Action on Climate and Nature	Ensure robust credibility through a hierarchical set of actions (SBTi) that ensure companies do their part to rapidly decarbonize and build scaled solutions within or outside their value chain.	2020	link
WWF Beyond Net-Zero: A business pathway to spur urgent climate action towards 2030	Builds on the 2020 "Blueprint for Corporate Action on Climate and Nature". This project aims to further support companies in their sustainability journey and provide additional guidance that can support ambitious and substantiated corporate claims.	2022	link
ISO, BSI, and Race to Zero's Net Zero Guidance Principles	International Workshop Agreement (IWA) to bring alignment to the definition and use of the term "net-zero".	2022	link
ISO 14068 – Carbon Neutrality	Carbon Neutrality Standard from ISO providing a standardized approach to achieving and demonstrating carbon neutrality. It can be applied to subjects such as organizations and products (including services, buildings, and events). ISO 14068 is designed to build upon existing ISO standards addressing GHG quantification, reporting 183 and verification, such as ISO 14064-1:2018, ISO 14064-3:2019, and ISO 14067:2018.	2023 (Under development)	link
Article 6 of the Paris Agreement	Article 6 of the Paris Agreement provides the framework that allows countries to sell and purchase GHG reductions.	2022 (COP27)	link
ICVCM	Set and enforce definitive global threshold standards, drawing on the best science and expertise available, so high-quality carbon credits efficiently mobilize finance towards urgent mitigation and climate resilient development.	2022 (Provisional) Further guidance expected in 2023	link

2. Current and evolving governance structures in the VCM

Oxford Principles for Net Zero Aligned Carbon Offsetting	Set of principles developed by the university of Oxford, on how offsetting needs to be approached to ensure it helps achieve a net zero society.	2020	link
The Nordic Dialogue on Voluntary Compensation	The Nordic Dialogue on Voluntary Compensation aims to inform Nordic and international stakeholders on the voluntary use of carbon credits as part of broader efforts towards and beyond carbon neutrality.	2022	link
SBTi Net-Zero Standard	The main objective of this standard is to provide a standardized and robust approach for corporates to set net zero targets that are aligned with climate science.	2021	link
Sweep White Paper: From offsetting to contribution. A credible way of using carbon credits.	Guide organizations toward a more meaningful way of purchasing carbon credits (contribution vs offsetting) (Builds on WWF's 2020 Corporate Blueprint)	2022	link
UK Transition Taskforce	The Transition Plan Taskforce (TPT) was launched by HM Treasury to develop the gold standard for private sector climate transition plans. The TPT is informing and building on international disclosure standards.	2022	link
UN High Level Expert Group on net zero commitments of non-state entities	The United Nations Secretary-General established a High-Level Expert Group on the Net-Zero Emissions Commitments of Non-State Entities to develop stronger and clearer standards for net-zero emissions pledges by non-State entities – including businesses, investors, cities, and regions – and speed up their implementation.	2022	link
Finnish Government Guide to good practices for voluntary carbon markets	The Guide aims to synthesize and clarify international good practices for the Finnish context to improve the trustworthiness of Finnish carbon markets and to promote clarity and trust in the quality of climate claims and the production of the credits on which those claims are based. The guide covers good practices for producers of carbon credits, those using carbon credits, and for consumers.	2023	link

Risk	Governance (Rule or Principle)	Existing & developing governance structures
Production of Carbon Credits		
Anti Bribery and Corruption, enforced labour, etc.	Principles based although in many jurisdictions these concepts are enshrined in law	Issuing credit Standard and registries ICVCM and the Core Carbon Principles The Cancun Safeguards
Verification of CO2 impact	Methodologies approved by Accredited Issuing Standards to ensure environmental integrity	Approval of specific methodologies depending on the destined use of the Verified Carbon Unit <ul style="list-style-type: none"> ICVCM Core Carbon Principles for the voluntary market – buyer choice Carbon Credits Ratings agencies (e.g., BeZero, Calyx, Sylvera) CME Futures eligibility CORSIA eligibility ICROA Standards Endorsement Eligibility for Compliance Regimes
Oversight of Market Activity		
Fraud, Market Manipulation, Money laundering, Tax evasion [...]	OTC transactions – Principles based Accreditation of market participants by independent Accrediting Body	ICROA Accreditation Programme represents adherence to ICROA's Code of Best Practice for intermediaries. Buyers' choice to conduct business with only accredited participants, risk mitigated by transacting only with accredited parties.
	Transparency of OTC transactions	Market activity will be transparent on Climate Action Data Trust
	Exchange traded transactions	Transactions conducted within an exchange like the CME that has strict criteria for entry and monitors market activity, risk mitigated by entry criteria
Guidance on Use		
Risk of accusations of greenwashing i.e., misrepresentation. Concerns are that "offsetting" will be used to absolve a company from reduction	Adherence to a recognised code of best practice	<ul style="list-style-type: none"> VCMI supported by UK Government Oxford Principles for Net Zero Aligned Carbon Offsetting
	Modification of claims and transparency	Make a clear statement of the type of credit being used, quantity used, Standard, vintage, SDG impacts etc

Paper available online



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