



Voluntary Carbon Markets

FINAL REPORT

The Board of the
International Organization of Securities Commissions

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Executive Summary

In March 2022, IOSCO adopted a Sustainable Finance workplan and, within this mandate, directed the IOSCO Sustainable Finance Task Force to explore the current status, potential vulnerabilities, and good practices in both Compliance Carbon Markets (CCMs) and Voluntary Carbon Markets (VCMs), with a view to enhancing the financial integrity in those markets. In November 2022, IOSCO published a CCMs Consultation Report¹ and in July 2023 a Final Report.² The Final Report on CCMs provided a set of recommendations for relevant regulators and authorities across jurisdictions in establishing or enhancing their CCMs.

As to VCMs, IOSCO first undertook a fact-finding exercise to better understand the intricacies of these markets. In November 2022, IOSCO published a Discussion Paper on VCMs which identified key vulnerabilities in the current functioning of VCMs and explored what financial regulators could do in assisting the market towards the mitigation of these vulnerabilities. The Discussion Paper presented a series of Key Considerations for the development of resilient VCMs and asked respondents to consider the role of financial market regulators in the oversight of these markets.³

After considering the feedback received, IOSCO published a Consultation Report⁴ in December 2023, identifying a set of key vulnerabilities in VCMs and proposing an initial set of Good Practices for sound and well-functioning VCMs, focusing on market structures, trading, and transparency. The key vulnerabilities in VCMs IOSCO identified were:

- the quality of carbon credits and availability of information pertaining to their quality,
- data availability, accessibility, and general lack of transparency in the market,

¹ IOSCO Compliance Carbon Markets Consultation Report, November 2022, available at <https://www.iosco.org/library/pubdocs/pdf/IOSCOPD719.pdf>.

² IOSCO Compliance Carbon Markets Final Report, July 2023, available at <https://www.iosco.org/library/pubdocs/pdf/IOSCOPD740.pdf>.

³ IOSCO Voluntary Carbon Markets Discussion Paper, November 2022, available at <https://www.iosco.org/library/pubdocs/pdf/IOSCOPD718.pdf>.

⁴ IOSCO Voluntary Carbon Markets Consultation Report, December 2023, available at <https://www.iosco.org/library/pubdocs/pdf/IOSCOPD749.pdf> (the Consultation Report).

- the operating framework of registries,
- conflicts of interest across the value chain, and
- the lack of standardisation (e.g. verification processes).

In addition, IOSCO concluded that the other areas where clarity is needed include the legal nature and regulatory classification of carbon credits. IOSCO also noted that further work by relevant regulators and other authorities could be helpful to further enhance the transparency and accuracy of information and disclosures related to the primary issuance of carbon credits.

We are now finalizing a set of Good Practices for VCMs to support the financial integrity of carbon credits and carbon markets as VCMs continue to develop, with the aim that carbon markets should be fair and orderly, economically sound as to pricing and information flow, and structurally resilient.

This Final Report on VCMs builds on the VCM Discussion Paper and the Consultation Report. We received forty-five (45) responses to the Consultation Report and the feedback was broadly supportive of IOSCO's work and the proposed Good Practices. The Final Report aims to provide a clearer description of the current carbon credit ecosystem and the market structures that underpin it in primary and secondary markets. The report also now includes enhanced explanatory text below the Good Practices, drawing from relevant practices in existing regulated markets, IOSCO's Principles for Securities Regulation⁵, IOSCO's Principles for the Regulation and Supervision of Commodities Derivatives Markets⁶ (Commodity Derivatives Principles) and IOSCO's Principles for Price Reporting Agencies⁷. In addition, the vulnerabilities identified in the Consultation Report have been brought into the underlying text of the Good Practices alongside explanatory text and feedback from respondents, with a view to clarifying the application of the Good Practices and highlighting their relevance.

These final Good Practices are directed at: (i) relevant regulators and authorities interested in carbon credit markets in their jurisdictions that function with integrity, (ii) trading venues interested in listing and trading high-quality spot carbon credits or carbon credit derivative products, and (iii) relevant market participants. Some IOSCO members already view the

⁵ IOSCO's Principles for Securities Regulation, May 2027, available at <https://www.iosco.org/library/pubdocs/pdf/IOSCOPD561.pdf>

⁶ IOSCO's Principles for Commodities Derivatives, January 2023, available at <https://www.iosco.org/library/pubdocs/pdf/IOSCOPD726.pdf>

⁷ IOSCO's Principles for Price Reporting Agencies, October 2012, available at <https://www.iosco.org/library/pubdocs/pdf/IOSCOPD391.pdf>

regulation of carbon markets within their authority, in some cases with other regulatory authorities, while others are developing or planning to develop frameworks for carbon markets regulation.

While not legally binding, IOSCO's twenty-one (21) Good Practices aim to support sound market structures and enhance financial integrity in VCMs, facilitating orderly and transparent trading of carbon credits. The Good Practices address transparency, liquidity, and price discovery, as well as potential fraud or greenwashing, based on IOSCO's objectives of investor protection, fair, efficient, and transparent markets, and reducing systemic risk. In this regard, the Good Practices may be helpful to carbon credit markets generally.

The Good Practices relate to regulatory frameworks, primary market issuance, secondary market trading, and use and disclosure of use of carbon credits, as set out below:

Good Practices
Regulatory Frameworks
Good Practice 1 – Regulatory treatment
Good Practice 2 – Regulatory approach and scope
Good Practice 3 – Domestic and international consistency and cooperation
Good Practice 4 – Participants' skill and competence
Primary Market Issuance
Good Practice 5 – Standardization
Good Practice 6 – Transparency
Good Practice 7 – Disclosure
Good Practice 8 – Soundness and accuracy of registries

Good Practice 9 – Due diligence

Secondary Market Trading

Good Practice 10 – Access to VCMs

Good Practice 11 – Integrity of trading

Good Practice 12 – Public reports

Good Practice 13 – Pre-and post-trade disclosure

Good Practice 14 – Derivatives standards

Good Practice 15 – Governance framework

Good Practice 16 – Risk management

Good Practice 17 – Conflicts of interest rules

Good Practice 18 – Enforcement actions

Good Practice 19 – Market surveillance and monitoring of trading

Good Practice 20 – Trading venue resources

Use, Disclosure of Use and Retirement of Carbon Credits

Good Practice 21 – Disclosure of Carbon Credits Use

Chapter 1 – Introduction

1.1. IOSCO Work

In March 2022, the IOSCO Board adopted a Sustainable Finance workplan and, within this mandate, directed the IOSCO Sustainable Finance Task Force to explore the status, potential vulnerabilities, and good practices in CCMs and VCMs. IOSCO published its final recommendations for the development of CCMs in July 2023, setting out twelve (12) areas of focus addressing the functioning of both primary and secondary markets.⁸

As to VCMs, IOSCO first undertook a fact-finding exercise with trading platforms, market intermediaries, academics, market participants, and carbon crediting programs from different geographies to better understand the intricacies of these markets. IOSCO members also responded to a fact-finding survey about VCMs in their respective jurisdictions. As explained below, this work showed that approaches to the regulation of carbon markets are still emerging. Some IOSCO members view the regulation of carbon markets within their authority, in some cases with other regulatory authorities, while others are developing frameworks for carbon markets regulation. These efforts also found there were risks associated with a potential lack of financial integrity in these markets as they continue to develop, which could lead to poor transparency, lack of liquidity, poor price discovery, and potential fraud or greenwashing, ultimately affecting IOSCO's objectives of investor protection, market integrity, and mitigating systemic risk.

Subsequently, IOSCO published a Discussion Paper on VCMs before the 2022 Conference of the Parties to the United Nations Framework Convention on Climate Change (COP27), presenting a series of Key Considerations for the development of resilient VCMs and asking respondents to consider the role of financial market regulators in the oversight of these markets.⁹ This Discussion Paper put forward fourteen (14) Key Considerations relating to eleven (11) areas of focus, including access, market integrity, and transparency. It also included toolkits underpinning the Key Considerations, with suggested ways to address each of them. IOSCO received fifty-two (52) responses to the Discussion Paper. Overall, respondents were generally in agreement with the Key Considerations and reflected a strong message that IOSCO should clearly define its role with respect to VCMs and keep any policy steps limited to issues directly related to financial markets.

⁸ See supra note [Error! Bookmark not defined.](#)

⁹ See supra note 3.

After considering this feedback, IOSCO published a Consultation Report in December 2023, during COP28, proposing a set of Good Practices to foster sound and well-functioning VCMs that meet financial market integrity criteria typically expected in capital markets (i.e., sound market structures, sound and orderly trading, transparency, and data availability and accessibility).¹⁰ IOSCO determined that, as with any other traded asset market, VCMs should be fair and orderly, economically sound as to pricing and information flow, and structurally resilient. VCMs should also have appropriate investor protections and afford sufficient and fair access to market participants.

Taking into account the feedback received during that consultation, IOSCO is now publishing its Final Report on VCMs. Note that references in this report to various third-party frameworks are informational, and IOSCO is not endorsing any third-party framework by issuing this report. IOSCO emphasizes that relevant market participants should consider the good practices identified in this report in evaluating the use of third-party frameworks. For such situations, IOSCO also urges regulated market participants to contact their relevant authorities.

1.2. Carbon Markets Ecosystem

The carbon markets ecosystem is complex, given the existence of different types of markets and different mechanisms within those markets. However, carbon markets generally exist in two categories: compliance markets and voluntary markets. Within these categories, there are two types of mechanisms to price carbon: cap-and-trade and baseline-and-credit.

- (i) **“Cap-and-trade” mechanism** where regional, national, and international governmental authorities set an upper limit on the total amount of CO₂ that an industry sector can emit. This cap is reduced over time by a predetermined amount. Each allowance (or emissions permit) typically allows its owner to emit one ton of a greenhouse gas (GHG) such as CO₂.¹¹ Cap-and-trade mechanisms are used in compliance markets.
- (ii) **“Baseline-and-credit” systems** where baseline emission levels¹² are defined and credits are issued to those that have reduced their

¹⁰ See supra note 4.

¹¹ See supra note 2.

¹² Target levels decided by the governmental authorities based on historical data and environmental objectives.

emissions below that level.¹³ This mechanism is used in both compliance and voluntary carbon markets.

In addition, some jurisdictions or localities have developed carbon credit schemes that generate credits that covered entities can use to satisfy a percentage of their overall compliance obligations. This is the case, for example, in Alberta¹⁴, Australia¹⁵, and California¹⁶.

Finally, instruments falling under **Article 6 of the Paris Agreement** would likely be part of the compliance strategy for countries under the Paris Agreement, as Article 6 provides a framework for countries to cooperate voluntarily in achieving their climate goals using market and non-market approaches. Signatories to the Paris Agreement have agreed to prepare, communicate, and maintain successive Nationally Determined Contributions (NDCs), including targets for mitigating GHG emissions. Countries can use market-based and non-market-based approaches to achieve their NDCs. The Paris Agreement sets out guidance for accounting for and reporting on voluntary market-based co-operation under Article 6.2 and establishes a centralized, but non-exhaustive, carbon crediting mechanism under Article 6.4.

VCMs are markets where participation is not typically driven by legal mandates to reduce emissions. VCMs also rely on **baseline-and-credit mechanisms** to issue carbon credits. Respondents to IOSCO's consultation suggested that a VCM is commonly understood as *a type of carbon market where entities voluntarily buy credits generated from projects that] i) a(void CO2 emissions (ii) assist in the reduction of CO2 emissions or (iii) permanently remove CO2 emissions from the atmosphere, thereby allowing these buying entities to offset some or all of their CO2 emissions or to contribute to climate change mitigation.* IOSCO takes note of this definition but suggests a slight amendment as follows: "*a type of carbon market where entities voluntarily buy credits generated from projects **that are structured to or intended to** (i) assist in the reduction of CO2 emissions or (ii) permanently remove CO2 emissions from the atmosphere, thereby allowing these buying entities to offset some or all of their CO2 emissions or to contribute to climate change mitigation.*" noting continuing uncertainties relating to the actual performance of projects and the measurement of carbon flows.

¹³ See supra note 2.

¹⁴ <https://www.alberta.ca/alberta-emission-offset-system>

¹⁵ [https://cer.gov.au/schemes/australian-carbon-credit-unit-scheme#:~:text=The%20Australian%20Carbon%20Credit%20Unit%20\(ACCU\)%20Scheme%20encourages%20people%20and%20improve%20productivity%20or%20energy%20use](https://cer.gov.au/schemes/australian-carbon-credit-unit-scheme#:~:text=The%20Australian%20Carbon%20Credit%20Unit%20(ACCU)%20Scheme%20encourages%20people%20and%20improve%20productivity%20or%20energy%20use)

¹⁶ <https://ww2.arb.ca.gov/our-work/programs/compliance-offset-program/about>

The table below provides an overview of the different market types, mechanisms, and types of products issued, and examples of how these are used domestically and internationally:

Type Mechanisms		Issued Product	Use Examples ¹⁷
Compliance Carbon Markets (CCMs)			
Cap-and-trade mechanism		Carbon emission allowances	Compliance domestic markets: • EU ETS • UK ETS • New Zealand ETS • Western Climate Initiative • Regional Greenhouse Gas Initiative • Washington Cap and Invest Program
Baseline-and-credit mechanism	Carbon intensity	Emission performance credits (or certificates)/ Carbon intensity credits (or certificates)	Compliance domestic markets: • China National ETS • California Low Carbon Fuel Standard (LCFS) • Alberta TIER system • Australia Safeguard Mechanism
	Carbon reduction/removal	Carbon credits	Compliance Offset Programs: • California Compliance Offset Program • Alberta Emission Offset System • Australian Carbon Credit Unit Scheme (ACCU) • China Certified Emission Reduction schemes (CCER) International Markets: • Article 6 of the Paris Agreement • CORSIA¹⁸

¹⁷ Please note that this is a non-exhaustive list of examples.

¹⁸ At the international level, the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA), developed by the International Civil Aviation Organization (ICAO) is the first global carbon credit market that offers a harmonized way to reduce emissions from international aviation. Its primary goal is to achieve carbon-neutral growth from 2020 onwards by requiring airlines to offset their emissions growth beyond 2020 levels. The ICAO market-based measure permits airlines to use carbon credits certified by eligible independent standards toward their compliance obligations.

Voluntary Carbon Markets (VCMs)			
Baseline-and-credit mechanism	Carbon reduction/removal	Carbon credits	Voluntary domestic markets: • China Certified Emission Reductions (CCER) • Australian Carbon Credit Unit Scheme (ACCU) • AfriCarbonEx (African Voluntary Carbon Market) Unregulated independent markets

One of the key distinctions between CCMs and VCMs relates to the obligations of the participants in those markets. This distinction is key as it underpins the “compliance” versus “voluntary” nature of those markets, independently from whether VCM participants or activities are regulated or not. In a compliance market, companies in certain sectors are required to participate to meet legal emissions reduction targets; in a voluntary market, participation is not typically driven by legal mandates, but their underlying functioning may be regulated, as is now the case, for example, in Egypt, China, Australia, and Abu Dhabi.

It is also worth noting that in some localities, there may be some authorities that allow carbon credits to be used to meet compliance obligations. For example, the primary stated purpose of the Compliance Offset Program in California is to provide a cost-effective means for entities covered by the cap-and-trade program to meet up to 8% of their emission reduction obligations through carbon credits verified by carbon crediting programs accredited by the California Air Resources Board (CARB). Singapore also allows the use of carbon credits to reduce carbon tax requirements.¹⁹

However, several respondents to IOSCO’s consultation have pointed out that the traditional distinction between “compliance” and “voluntary” no longer accurately describes the carbon credit ecosystem on the basis that carbon credits are now also being used for compliance purposes. These respondents called on IOSCO to do away with that nomenclature.

¹⁹ In Singapore, carbon tax-liable companies will be able to utilise eligible international carbon credits to offset up to 5% of their taxable emissions from 2024.

1.3. Scope of the report

As discussed above, IOSCO has previously released a report on CCMs²⁰ with a view to assisting jurisdictions seeking to enhance or develop CCMs in their jurisdictions to learn from the lessons of others. While the report covered compliance baseline-and-credit schemes, many of the recommendations concerned the functioning of emissions trading schemes (ETs).

The current report does not opine on the rationale for compliance versus voluntary markets from a participant perspective. Instead, this report addresses integrity in carbon credit markets that could benefit from the attributes generally found in well-functioning capital markets, such as immediacy, liquidity, transparency, price discovery, fairness, integrity of the credit ring (i.e., integrity of the creditworthiness of direct clearing participants) and integrity of the market. As such, this report discusses voluntary and compliance carbon markets in a manner consistent with earlier IOSCO publications and to distinguish this report from IOSCO's July 2023 report on CCMs.²¹

Many jurisdictions, particularly, but not exclusively, in emerging markets, are now looking to establish or enhance carbon credit markets, while others are looking at ways to link carbon credits to their compliance schemes through carbon taxes or compliance trading, for example. This Final Report is also intended to assist these jurisdictions by providing them with a set of Good Practices for VCMs.

For this reason, consistent with feedback received on the Consultation Report, this report sets out Good Practices for the sound functioning of **carbon credit markets** generally, independently from whether these are voluntary in use, or whether carbon credit instruments and participants fall within the scope of existing regulatory requirements, on the basis that the content of this report applies broadly to carbon credit markets development and functioning. Based on the feedback received, the term **carbon credit** is used throughout this report in the meaning generally understood by commenters as “a

²⁰ See supra note 2.

²¹ See supra note 2.

transferrable instrument²² that usually represents an emission reduction or removal of one tonne of CO₂ or CO₂e²³".

²² In the VCM Consultation Report, the definition of a carbon credit included a reference to this instrument as a financial instrument (as provided by the Integrity Council for Voluntary Carbon Markets (ICVCM) definition). This reference has been removed to avoid giving the impression that IOSCO is recommending a specific definition of carbon credits for legal treatment purposes.

²³ Carbon Dioxide Equivalent.

Chapter 2 – Carbon Credits Markets Ecosystem and Structure

In both the Discussion Paper²⁴ published in November 2022 and the Consultation Report²⁵ published in December 2023, IOSCO sought to describe the carbon credit ecosystem and the market structures underpinning it.

In recognition of the evolving nature of these markets, IOSCO sought feedback on whether the description of the market in the Consultation Report remained accurate and received the following feedback from most commenters:

- Clarify some of the processes involved in the issuance of carbon credits as well as the role of key participants (such as validation and verification bodies (VVBs) or carbon credit rating agencies).
- Clarify the role of the different types of market intermediaries, in particular terminology around brokers and financial intermediaries.
- Provide guidance and harmonization of existing jurisdictional frameworks for disclosing the use of carbon credits.

Considering this feedback, IOSCO has sought to further refine its understanding of the carbon credit market, as reflected in our updated description of the carbon credit ecosystem, including market structures and types of market participants. In that context, we now broadly identify six important steps in the lifecycle of carbon credits as follows:

Carbon Credits Lifecycle
Primary markets/supply side
i. Project identification

²⁴ See supra note 3.

²⁵ See supra note 2.

- ii. Project validation and project registration
- iii. Project verification
- iv. Issuance of carbon credits to a registry

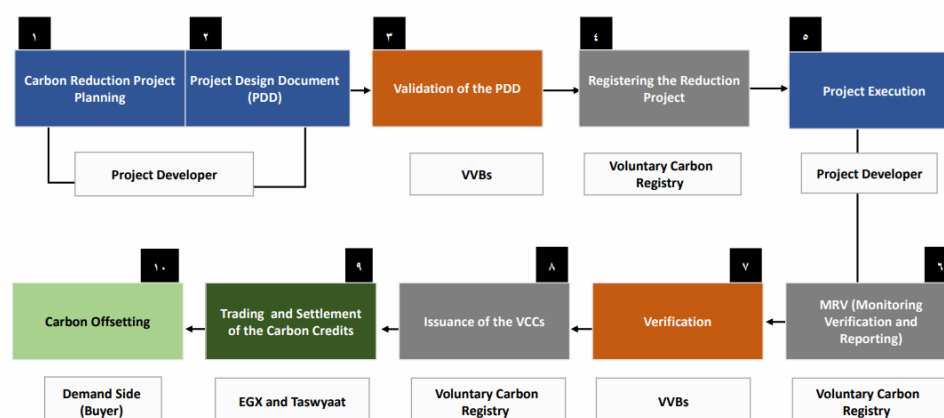
Secondary markets trading

- v. Trading of carbon credits

Use of carbon credits/ demand-side

- vi. Use and retirement of carbon credit

The below diagram is a schematic example as set out in the Egyptian framework:



Author: FRA <https://fra.gov.eg/wp-content/uploads/2024/08/FRA-VCM-PPT-English1.pdf>

IOSCO also has amended, where appropriate, some of the definitions used in the Consultation Report. Key terms are identified in bold text, with their definitions following. Where changes have been made to the definition, this is indicated in a footnote.

The descriptions below of the carbon credits ecosystem and market structure, including the issuance of carbon credits and key market participants, may not fully reflect the market as it currently exists.

2.1. Primary Market Issuance

The primary market for carbon credits is where carbon credits are issued. Based on the work of the Sustainable Finance Task Force and the feedback received to the consultation report, IOSCO understands carbon credit

issuance to occur through the following steps: (i) project identification; (ii) project validation and registration; (iii) project verification; and (iv) issuance of carbon credits to a registry.

Project identification

The process for the issuance of carbon credits involves the identification of a **carbon emission mitigation project**. At this stage, the main components of the project are generally already developed, and a methodology, provided by a carbon crediting program, is selected to be used to outline how to calculate and monitor the expected GHG emissions reductions or removals resulting from the project.

Carbon Crediting Programs are initiatives that design the standards (i.e., rules and methodologies) that a carbon emission mitigation project must follow to be eligible to generate carbon credits. They may be governmental or private, and examples include carbon crediting programs such as Verified Carbon Standard (VCS) by Verra, the Gold Standard, the Climate Action Reserve (CAR), and the American Carbon Registry (ACR). Jurisdictions looking to develop their own carbon credit market may also look to create their own standards. In addition, ICVCM, a private initiative, is undertaking work to improve the integrity of carbon credits issued through primary markets, including by establishing standards of quality for carbon credits. It is worth noting that ICVCM has already rejected certain credits from using its label.²⁶

Carbon emission mitigation projects vary in nature, but generally involve activities that either (i) **reduce** GHG emissions entering the atmosphere, for example by contributing to renewable energy development (displacing fossil-fuel emissions from conventional power plants) or replacing traditional cookstoves with more clean and improved activities, or (ii) **remove** GHG emissions from the atmosphere, via technological solutions or through reforestation and afforestation.²⁷

Project validation and project registration

²⁶ [Renewable Energy Credits Do Not Meet High-Integrity Assessment \(icvcm.org\)](https://www.icvcm.org/renewable-energy-credits-do-not-meet-high-integrity-assessment)

²⁷ Beyond their primary objective, climate change mitigation projects may also contribute to other aspects of the UN's Sustainable Development Goals (SDGs). For example, they may contribute to improving welfare for the local population, improving water quality, reducing economic inequality, or helping channel climate investment towards developing economies. These are generally referred to as **co-benefits**.

Carbon emission mitigation projects must be listed in a carbon crediting program registry to be eligible for carbon credit issuance.

At this stage, the project proponent seeks to obtain validation for the project under the carbon crediting program whose methodology they have selected. For a project to be validated, it must demonstrate that its design complies with the rules and requirements of the carbon crediting program. **Validation** is defined as the ex-ante independent assessment of the project by a **VVB** that typically determines whether the project and its GHG emissions statement conform with the carbon crediting program rules, and evaluates the reasonableness of assumptions, limitations, and methods that support a claim about the outcome of future activities.²⁸ Respondents to the Consultation Report stated that **VVBs** are “*independent entities accredited by carbon credit programs to perform validation of mitigation project baselines and methodologies and verification of the removal or avoidance of GHG emissions*”²⁹ to verify the project meets the requirements of the carbon credit certification standard. The process typically involves a review of the projects’ documentation, including its design, methodologies, baseline emissions, and expected GHG emissions reductions or removals. The VVB verifies that the project follows the rules of the carbon crediting program.³⁰ Example of VVBs include Bureau Veritas³¹, DNV GL Business Assurance³², and Société Générale de Surveillance (SGS).

Generally, carbon crediting programs have specific rules and requirements that VVBs must meet before being accredited.³³ For example, the ICVCM assessment framework takes into account CORSIA approvals and conditional or interim approval decisions by CORSIA, and additionally requires that carbon crediting programs:

²⁸ See, for example, <https://icvcm.org/wp-content/uploads/2024/02/CCP-Section-5-V2-FINAL-6Feb24.pdf>.

²⁹ This definition is in line with the one of the VCM Consultation Report but not the same. In the Consultation Report, VVBs were referred as third-party entities and defined as “*independent entities that are accredited by a carbon crediting program to perform validation and/or verification audits.*” The new definition included in the body of the documents has been suggested by the Clean Energy Policy Institute as part of their response to our consultation report.

³⁰ <https://verra.org/programs/verified-carbon-standard/#how-it-works>.

³¹ <https://group.bureauveritas.com/>

³² <https://www.dnv.com/services/carbon-footprint-13733/>

³³ For example, as described in the Verra process: <https://verra.org/validation-verification/>.

- (i) require VVBs to be accredited by a recognized international accreditation standard (e.g., according to the current edition of ISO 14065 and ISO 14066, or per rules relating to the UNFCCC Kyoto Protocol Clean Development Mechanism or Paris Agreement Article 6, paragraph 4 Supervisory Body), and
- (ii) have a process for managing VVB performance, including systematic review of validation and verification activities, reports and remedial measures to address performance issues including measures to ensure that poor VVB performance is reported to the relevant accreditation body, and provisions to suspend or revoke the participation of a VVB in the carbon-crediting program.³⁴

Once the validation process has concluded, the **project proponent** may submit the project for registration with the respective program.

Project verification

Post registration, the project developer will implement its activities. The project proponent will monitor progress – documented in monitoring reports that detail the project’s performance – and measure the GHG emissions reductions or removals achieved in accordance with the methodology of the carbon crediting program they are using. The VVB will then undertake **verification** (i.e., confirm that all emission reductions or removals are quantified according to the standard’s requirements).³⁵

Verification usually involves a Measurement, Reporting, and Verification (MRV) stage, defined by the World Bank as *“the multi-step process to measure the amount of GHG emissions reduced by a specific mitigation activity [...] over a period of time and report these findings to an accredited third-party. The third-party then verifies the report so that the results can be certified, and carbon credits can be issued.”*³⁶

As stated by some respondents to the Consultation, this process is sometimes also referred to as MMRV (which adds Monitoring, which is an integral part of making credible and auditable claims). The MRV process does not end with the

³⁴ <https://icvcm.org/wp-content/uploads/2024/02/CCP-Section-4-V11-FINAL-15May24.pdf>.

³⁵ <https://verra.org/faq/>.

³⁶ [https://www.worldbank.org/en/news/feature/2022/07/27/what-you-need-to-know-about-the-measurement-reporting-and-verification-mrv-of-carbon-credits#:~:text=MRV%20seeks%20to%20prove%20that,of%20CO2%20equivalent%20\(tC%20eq\).](https://www.worldbank.org/en/news/feature/2022/07/27/what-you-need-to-know-about-the-measurement-reporting-and-verification-mrv-of-carbon-credits#:~:text=MRV%20seeks%20to%20prove%20that,of%20CO2%20equivalent%20(tC%20eq).)

issuance of the carbon credits. For projects to maintain their verified status, they need to undergo periodic monitoring, especially for projects with a high risk of reversal (i.e., when stored GHG is released back into the atmosphere).

Carbon credit rating agencies also play a role in the primary market issuance of carbon credits. At the primary market level, in addition and separate from the VVBs' verification services, one respondent highlighted that carbon credit rating agencies offer project-based ratings prior to the issuance of credits. This additional, independent assessment of project risks can play an important role in assisting funding partners in project development.

Issuance of Carbon Credits to a Registry

At this stage, a project proponent submits the verified project documentation to the carbon crediting program. The carbon crediting program will certify that the project and its activities meet its requirements, certify that the measurements are correct, and then issue carbon credits to the project's registry account.

The **registry** is managed by the carbon crediting program, and acts as repository for all information and documentation relating to projects and credits. Registries are databases that record ownership, issuance, retirement, and transfer of carbon credits. Typically, registries will make publicly available the following information about a carbon credit: a unique identifier number, information about the project, the vintage year of the credit (i.e., the year in which the emissions reductions or removals occurred), the quantity of carbon credits issued, the name of the project proponent, the current owner of the credit and its transfer history. Additional information may be included, depending on the registry.³⁷ In doing so, they are meant to ensure that the issuance of a carbon credit is transparent and documented, and that credits can be tracked, thereby facilitating their trading or retirement.

A registry has its own terms of use specifying the conditions under which users may access and use it, as well as defining the ownership of assets and agreement to transfer assets. One registry provider may also serve multiple carbon crediting programs.

Other considerations

³⁷ <https://www.carbonregistry.com/faq>.

Where a project developer or project proponent does not own the land or assets under consideration that will/that already form part of the climate change mitigation project, the project developer or project proponent would need to first engage with the owner.

There could also be situations where project developers and project proponents are not the same person. While the **project developer** is in charge of implementing the project activities, the **project proponent**³⁸ is the legal entity requesting the registration of a mitigation activity and issuance of carbon credits under a carbon-crediting program. The project proponent may be a public or private entity.

It is also important to acknowledge the role of **financial market participants**, such as investment firms, banks, and carbon credit users, in structuring and financing projects underwriting the issuance of carbon credits. Commenters noted that funding these projects would become significantly more challenging without this role being taken on by investment banks and other financial market participants.

2.2. Secondary Market Trading

Once a carbon credit is issued and added to a registry, it could be purchased, traded, and sold to other buyers, either through private, bilateral contracts, i.e., over the counter (OTC), or on trading platforms. Trading could take place in what is commonly referred to the spot market or in the derivatives market.

As confirmed by respondents to IOSCO's consultation report, most trading of carbon credits is currently executed bilaterally OTC, often through an intermediary, with limited pricing information publicly available. Several factors might explain the high share of OTC trading, including: the relatively small size of the market; the lack of standardization in the credits; the complexity of the transactions stemming from the variety of project types, standards and methodologies; the buyers' desire to establish exclusive relationships with projects and beneficiaries; and the varying levels of buyer sophistication.

Considering this, intermediaries play an important role in facilitating trade between buyers and sellers. Intermediaries can pool different orders to

³⁸ <https://icvcm.org/wp-content/uploads/2024/02/CCP-Section-5-V2-FINAL-6Feb24.pdf>
This is a new term that was not previously included in the Consultation report.

facilitate trading activity, provide clients with market information not readily accessible to many participants, and provide liquidity by bridging the gap between bids and offers. They will typically charge a commission for their services, as they do in other financial markets.

These intermediaries can be financial institutions, and they can play several key roles in carbon credit markets. They provide financing to other investors, facilitate trading, market making and liquidity provision, develop products such as structured products to facilitate market access, and provide hedging services. In addition, there may also be shorter term traders focusing on market-price distortions and arbitrage opportunities.

One respondent to the consultation noted that banks are not highly active participants in the secondary markets. Banks tend to avoid OTC trading until the market matures and resolves its liquidity challenges and desk profitability improves. Additionally, elevated capital requirements make trading in carbon credit markets more of a sideline business for banks. This same respondent also explained that price discovery is limited due to the scarcity of brokers who provide price signals. The respondent noted that it mostly interacts with commodities houses and significant corporate buyers, doing so through intermediaries paid to maintain confidentiality between the parties.

Nevertheless, one of the particularities of carbon credits OTC trading is the existence of platforms (such as Carbonplace, Climate Impact X (CIX), ClimateTrade, AfriCarbonEx and SouthPole), which facilitate customized transactions and contribute to enhance access and transparency in OTC trading. These trading venues act as networks of participants that connect customers, platforms, marketplaces, and registries across the world via partner banks' infrastructure. They generally facilitate traceability of ownership, total price transparency, and historical credit data for real time transaction insights. Through their network, trading venues recognize the instant, secure, and traceable settlement of carbon credit transactions.

Although most trading of carbon credits is currently executed bilaterally in the OTC market, several platforms have become more active in offering multilateral trading in these products, both spot instruments and their derivatives. By way of example, Xpansiv is a multilateral platform for trading spot carbon credits while Climate Impact X launched CIX Exchange and introduced a daily on-platform liquidity window for carbon credits with bids and offers. CIX Exchange also has a standardized benchmark contract (Nature X, based on nature-based

carbon credits underpinned by 11 Redd+ projects³⁹) and individually listed carbon credit projects.⁴⁰ Hong Kong Exchanges and Clearing Limited's Core Climate also provides a one-stop solution for trading, custody, and retirement of carbon credits.⁴¹

Derivatives products linked to carbon credits have also grown in recent years, with several exchanges becoming more active in offering trading in these products. Derivatives exchanges in the United States and elsewhere have announced plans to scale up their activities. For example, the CME and Nodal Exchange, each CFTC-registered derivatives exchange, listed voluntary carbon credit derivatives contracts in 2021 and 2022, respectively. In Europe, EEX offers the opportunity to trade products over the whole curve from daily spot products to multi-annual derivative contracts,⁴² and the LSE launched a VCM designation for eligible issuers admitted to trading on the main market or AIM in October 2022. ICE Futures Europe has also launched futures contracts based on carbon credits.

In the futures market specifically, some exchanges are developing standardized contracts. For example, the CME launched the Global Emissions Offset futures (GEO) contract which is a physically settled contract that allows for delivery of CORSIA-eligible voluntary carbon offset credits from three registries: VCS, ACR, and CAR.

One respondent noted that the difference between **emission reduction credits (ERC)** and credits based on **carbon dioxide removals (CDRs)** will have an impact on how these credits are traded. Emission reduction credits are often regarded as assets with more unique and heterogeneous attributes (including more focus on co-benefits that are attached to the credit).

Central clearing and settlement services in the carbon credit markets are provided by specialized exchanges and clearinghouses such as EEX (via ECC), ICE (via ICE Clear Europe), CME Group (via CME Clearing), SGX, ACX, Xpansiv CBL, Nasdaq Commodities Central clearing and Tassweyyat. and settlement services can play a critical role in reducing counterparty risk, ensuring transparency and efficiency, providing financial security, and facilitating

³⁹ Redd+ is a United Nations Framework Convention on Climate Change solution which stands for 'Reducing emissions from deforestation and forest degradation in developing countries.' Available at <https://redd.unfccc.int/>.

⁴⁰ <https://www.climateimpactx.com/exchange>.

⁴¹ https://www.hkex.com.hk/news/news-release/2022/221028news?sc_lang=en

⁴² <https://www.eex.com/en/markets/environmental-markets/voluntary-carbon-markets>.

regulatory compliance, thereby supporting the integrity and smooth operation of carbon credit markets.

Respondents to IOSCO's consultation also noted that third-party research platforms and carbon credit rating agencies play a role in the secondary markets for carbon credits. **Research platforms** provide insights and analysis on the latest market trends and development, which help facilitate informed decision-making among participants.

Some respondents, namely **carbon credit rating agencies**, noted that they perform a complementary role by helping buyers better assess the quality of carbon credits and the risks associated with them. They issue ratings and/or provide data products according to their own models and methodologies, including baseline and 'additionality' models. These provide additional data points for buyers performing due diligence.

Carbon credit ratings and data product providers were not specifically identified within the scope of the ESG ratings and data product providers covered by IOSCO's *Final Report on Environmental, Social and Governance (ESG) Ratings and Data Products Providers*.⁴³ However, many of the issues and challenges discussed in that report with respect to ESG ratings and data product providers such as those relating to conflicts of interest and separation of roles, may also be relevant to carbon credit ratings and carbon data products providers, as was suggested by a large number of respondents to the IOSCO consultation, including some carbon credit rating agencies. For example, some entities may have limited transparency regarding assignment and integrity of ratings. It is worth noting that some carbon credit rating agencies, such as Sylvera and BeZero, have voluntarily adopted the International Capital Markets Association (ICMA) Code of Conduct for ESG Ratings and Data Products Providers⁴⁴ which ICMA sought to base on IOSCO's recommendations.⁴⁵

Finally, **carbon credit insurers** offer buyers protection against potential underperformance or invalidation of credits.⁴⁶ A couple of respondents to IOSCO's consultation mentioned that insurance and buffer pools can play a

⁴³ November 2021 available at <https://www.iosco.org/library/pubdocs/pdf/IOSCOPD690.pdf>

⁴⁴ <https://www.icmagroup.org/assets/DRWG-Code-of-Conduct-for-ESG-Ratings-and-Data-Products-Providers-v3.pdf>

⁴⁵ See supra note 43.

⁴⁶ <https://www.eco-business.com/news/understanding-the-voluntary-carbon-exchange-landscape/>

role as risk management tools. Some carbon credit programs include particular buffers in order to cover for specific risks like forest fires for forestry carbon offsets. However, one respondent to IOSCO's consultation suggested they could potentially be insufficient and that there should be minimum permanence requirements to encourage the development of an insurance market. Carbon credit insurance can therefore play a role when such buffers are either non-existent or to increase the buyer protection because they would be insufficient, for example in case of a major disaster.

2.3. Disclosure of Use, and Retirement of Carbon Credits

The final stage in the lifecycle of a carbon credit is its retirement. **Retirement**⁴⁷ is a registry mechanism that the owner of the credit initiates before using/claiming the credits. Therefore, it is the act of consuming and claiming the environmental benefit of a credit. A retired credit is unavailable for further trading, which should be reflected in the registry to prevent another entity from buying or retiring the same credit. Issued credits can be retired directly in the primary markets. They can also be traded in secondary markets and then retired.

Most participants buy carbon credits to contribute voluntarily to climate change mitigation. Some domestic compliance crediting programs (e.g., China National ETS, California, Quebec, and Singapore) allow covered entities to purchase and use carbon credits of specific approved projects for their compliance claims. Purchasers of carbon credits may also include those buying credits in the hope of later reselling at a higher price. As such, not all carbon credits are retired immediately, and they may sit on the balance sheet of the buyer for years, noting they may be subject to impairment considerations.

This raises questions about the disclosure of use of carbon credits – both from a transparency perspective and, sometimes, from the perspective of accounting.

VCM participants relying on carbon credits to offset their emissions will usually voluntarily disclose this information. Both IFRS Accounting Standards⁴⁸ and U.S.

⁴⁷ In the Consultation Report retirement was defined as: *"To retire or to offset a carbon credit refers to actions performed in a registry to formally and transparently remove a credit from circulation such that it cannot be further transferred or otherwise transacted."*

⁴⁸ www.ifrs.org/content/dam/ifrs/supporting-implementation/documents/effects-of-climate-related-matters-on-financial-statements.pdf.

GAAP⁴⁹ require entities to consider the effects of climate-related matters in preparing their financial statements when the effect of those matters is material in the context of the financial statements taken as a whole. As such, entities are currently required to consider the need to disclose the use of carbon credits when material. In addition, new sustainability reporting regimes may also require the disclosure of the planned use of carbon credits in relation to an entity's GHG emissions targets (if material), as described in IFRS S2 Climate-related Disclosures.⁵⁰

Under the Delegated Act on the European Sustainability Reporting Standards (ESRS), entities will have to report the use of carbon credits separately from reductions in gross GHG emissions and from GHG removals projects. In addition, GHG emission reductions targets and progress against these targets must be presented in gross terms.⁵¹ Hence, while ESRS do not set out conduct obligations, when disclosing GHG emissions reduction targets in accordance with ESRS, carbon credits cannot be used as means to achieve those targets. At the same time, when reporting on GHG neutrality targets that involve the use of carbon credits, the ESRS explicitly require additional transparency about the credibility and integrity of the carbon credits used, as well as information on whether the reliance on those credits undermines the achievement of other GHG reduction or net zero targets of the entity. This can be done through financial or sustainability reporting requirements they may be subject to and/or through transition plans.

Separately, the Organisation for Economic Co-operation and Development (OECD) has identified that clarity on the use of carbon credits within transition plans is a key element of ensuring the credibility of these plans, noting the current divergence in the treatment of offsets to transition plans.⁵²

⁴⁹ [FASB Staff Educational Paper-Intersection of Environmental](#)

⁵⁰ <https://www.ifrs.org/content/dam/ifrs/publications/pdf-standards-issb/english/2023/issued/part-a/issb-2023-a-ifrs-s2-climate-related-disclosures.pdf?bypass=on>, paragraph 36 (e).

⁵¹ [Delegated regulation – EU – 2023/2772 – EN – EUR-Lex \(europa.eu\)](#).

⁵² OECD (2022), *OECD Guidance on Transition Finance: Ensuring Credibility of Corporate Climate Transition Plans*, Green Finance and Investment, OECD Publishing, Paris, available at <https://doi.org/10.1787/7c68a1ee-en>.

Chapter 3 – Good Practices

Global demand for carbon credits has the potential to continue rising, perhaps significantly, in line with increased efforts to reduce GHG emissions. In some jurisdictions, carbon credits can also serve as an alternative mechanism to achieve compliance with mandatory emissions reductions requirements.

As with any other traditional asset market, VCMs should be fair and orderly, economically sound as to pricing and information flow, and structurally resilient. VCMs should also have appropriate investor protections and afford sufficient and fair access to market participants. Where consistent with their mandates and domestic legal requirements, relevant regulators and other authorities, may also be interested in exploring ways to promote the development of these markets as well as ensuring they are both sound and efficient. These markets, however, have demonstrated vulnerabilities which may be inhibiting both their growth and their integrity. In the Consultation Report, IOSCO explored those vulnerabilities through three lenses, as follows:

- Concerns at the project-level regarding environmental integrity (i.e., carbon credit quality) and the manner in which credits are issued and added to a registry (i.e., primary market issuance).
- Issues relating to the characteristics of the trading environment in which these credits are transferred from one party to another and the behaviour of market participants in doing so.
- Issues regarding the overall communication around the use of carbon credits by buyers, or the use and disclosure of carbon credits (i.e., disclosure).

In light of the consultation feedback, IOSCO has identified the following as key vulnerabilities in VCMs:

- the quality of carbon credits and availability of information pertaining to their quality,
- data availability, accessibility, and general lack of transparency in the market,
- the current functioning of registries,
- conflicts of interest across the value chain, and
- the lack of standardisation (e.g., verification processes).

Other areas where clarity is needed include the legal nature and regulatory classification of carbon credits.

To address these vulnerabilities, respondents to IOSCO's consultation strongly supported the view that existing traded asset markets with deeper histories of operation and activity can offer lessons and insights into features of sound markets.

Well-functioning markets typically:

- have clear, transparent, open, and fair access standards.
- have clear rules and/or documentation governing the operation of the market, trading, and the rights and obligations of market participants.
- monitor and address abusive, fraudulent, manipulative, evasive, or disruptive activity.
- promote baselines of quality and integrity of the traded assets.
- promote sufficient liquidity and sound price discovery.
- identify and address conflicts of interest of relevant stakeholders, for example, through prohibitions or disclosure of such conflicts.
- promote market transparency, with readily available information for relevant regulators, other authorities, and market participants, and include appropriate recordkeeping and reporting; and
- promote accountability and customer or investor protection.

Building on these key practices and safeguards, this Report identifies a set of Good Practices that may be helpful to relevant regulators and other authorities, as well as market participants interested in promoting VCM integrity or in addressing vulnerabilities discussed in this Final Report. Where appropriate, IOSCO has also set out, based on the demand in the feedback received, how these Good Practices align with existing IOSCO Principles.

As a result, the Good Practices listed below stem from feedback received in response to both the November 2022 Discussion Paper and the December 2023 Consultation Report, as well as practices drawn from the principles that guide regulated markets, including IOSCO's Objectives and Principles of Securities Regulation (understood to include reference to derivatives markets); IOSCO's Principles for the Regulation and Supervision of Commodity Derivatives Markets; IOSCO's Principles for Price Reporting Agencies; and the CPMI-IOSCO Principles for Financial Market Infrastructures (PFMIs).

These Good Practices can ultimately help promote fair, efficient, stable, and liquid markets for carbon credits, ones that accurately reflect supply and demand conditions and provide market participants with sufficient transparency and information.

However, IOSCO recognizes that, due to differing legal frameworks, the Good Practices will have varying degrees of relevance and applicability to regulators in different jurisdictions. While not legally binding, they are intended to support

sound market structures and enhance financial integrity in the VCMs such that carbon credits can be traded in an orderly and transparent way. To encourage the development of sound and efficient VCMs globally, the Good Practices below are intended to give jurisdictions a starting point and may be considered, where relevant, in light of variations in jurisdictions' regulatory regimes and evolving market conditions.

3.1. Regulatory Frameworks

Legal and regulatory uncertainty regarding the creation and use of carbon credits is an issue clouding the development of VCMs. In many jurisdictions, there continues to be a lack of a common understanding of the legal treatment of carbon credits for various purposes. As noted in IOSCO's Final Report on CCMs,⁵³ the legal treatment of carbon credits is important as it will shape how the carbon credit is created, bought, sold, and retired. This has consequences for the rights that holders may assert over the credits in terms of the security interests they hold, their treatment for tax or accounting purposes, and their treatment upon insolvency and installation closure. Respondents to IOSCO's consultation stressed this point in their feedback.

In addition, there remains a lack of clarity over the regulatory treatment of carbon credits, as that issue was identified in IOSCO's VCM Consultation Report and supported by respondents' views. How carbon credits are treated in any particular jurisdiction will generally determine the type of regulatory framework that may apply, and therefore whether financial market regulators will have supervisory authority over these markets at spot level.

At present, it is possible that financial market regulators do not have comprehensive oversight over VCMs. In most jurisdictions, only derivative contracts, participants in derivatives markets, and regulated exchanges where derivative contracts are traded are subject to regulatory oversight, as derivatives typically fall under the scope of financial market regulators. Regulatory oversight of the spot market for carbon credits, in some jurisdictions at least, is generally limited to anti-money laundering, anti-fraud and anti-manipulation enforcement by an authority, which is often informed by tips, complaints, or referrals, but not necessarily ongoing regulatory oversight.

⁵³ See *supra* note 2.

With that in mind, the following set of Good Practices may be of assistance to relevant regulators and other authorities and market participants in addressing the structure, operation, risks, challenges, and opportunities of VCMs, notably as they consider the legal and regulatory treatment of carbon credits. Respondents to the Consultation Report supported IOSCO's approach to encouraging relevant authorities to clarify the legal and regulatory treatment in their jurisdictions, rather than recommending a specific approach applicable to all IOSCO members. As such, the Good Practices relating to regulatory frameworks are largely unchanged from the Consultation Report.

Good Practice 1 – Regulatory treatment

Consistent with their respective mandates, relevant regulators and other authorities could consider ways to provide clarity regarding the legal and regulatory treatment of carbon credits.

To the extent relevant financial regulators and other authorities have the authority to address the legal treatment of carbon credits within their jurisdiction, they could consider addressing this in their jurisdictions. Regarding developing international standards, respondents to the Consultation Report also discussed recent developments such as, for example, the guidance being developed by the UNIDROIT/UNCITRAL Joint Study on the Legal Nature of Verified Carbon Credits Issued by Independent Carbon Standard Setters.⁵⁴

Regulatory treatment, on the other hand, refers to how these instruments are characterized and regulated by relevant authorities. While in certain jurisdictions, derivatives on carbon credits fall under the regulatory framework applicable to commodity derivatives, there is less certainty about the credits themselves and they can be characterized in different ways, such as financial instruments, commodity instruments, etc.

Providing clarity on the regulatory treatment of carbon credits within any particular jurisdiction is an important component to consider for any regulatory authority seeking to create consistency and integrity in carbon markets. Published guidance from relevant regulators and other authorities on this point could instil confidence and attract increased participation in these markets. For

⁵⁴ <https://www.unidroit.org/work-in-progress/verified-carbon-credits/>. It is worth noting IOSCO is an observer on the UNIDROIT/UNCITRAL Joint Study on the Legal Nature of Verified Carbon Credits.

example, in Abu Dhabi, the Financial Services Regulatory Authority (FSRA) has expanded the definition of Financial Instruments to include “Environmental Instruments;” thereby defining carbon credits as a financial instrument.⁵⁵ In addition, FSRA can apply its spot commodities framework to environmental instruments, which imposes additional rules that must be complied with.⁵⁶ Egypt has also defined carbon credits as financial instruments and brought them within the scope of regulation.⁵⁷

Good Practice 2 – Regulatory approach and scope

Consistent with their respective mandates, relevant regulators and other authorities could consider ways to apply appropriate and effective regulation, supervision, and oversight to VCMs, covering, among other things, the issuance, trading, and retirement of carbon credits.

To the extent consistent with their authority, relevant regulators and other authorities could consider using existing frameworks, or developing new or amended frameworks, to regulate and oversee VCMs. In doing so, they could consider adopting an approach consistent with IOSCO’s Objectives and Principles of Securities Regulation;⁵⁸ IOSCO’s Principles for the Regulation and Supervision of Commodity Derivatives Markets;⁵⁹ the IOSCO Principles for Price Reporting Agencies;⁶⁰ and the CPMI-IOSCO Principles for Financial Market Infrastructures (PFMIs).⁶¹ They could also consider aligning their approach with the standards and principles being developed by multi-stakeholder initiatives, to the extent appropriate and feasible.

⁵⁵ (FSMR Schedule 1 – Section 99B).

⁵⁶ COBS 22.2.3.

⁵⁷ Decree No.4664 of 2022 Amending Executive Regulations.

⁵⁸ See supra note 5.

⁵⁹ See supra note 6.

⁶⁰ See supra note 7.

⁶¹ <https://www.iosco.org/library/pubdocs/pdf/IOSCOPD377-PFMI.pdf>.

The regulatory approach should seek to achieve regulatory outcomes for investor protection and market integrity that are the same as, or consistent with, those that are required in traditional financial markets.

Such measures could include developing frameworks to ensure that carbon credits issued, traded, or retired within their jurisdictions represent real, measurable, additional, unique, and independently verified emission reductions or removals. Although the quality of carbon credits themselves is distinguishable from the integrity of the markets in which they trade, concerns over the former may impact liquidity and thus the functioning of VCMs. Confidence in the integrity of credited emissions reductions and removals is necessary for VCMs to reach their potential. For example, the recently adopted EU Carbon Removal Certification Framework sets out certification rules and minimum criteria to promote the transparency and public trust of carbon removal projects that apply to this voluntary framework.⁶²

Good Practice 3 – Domestic and international consistency and cooperation

Consistent with their respective mandates, to foster the global development of VCMs, regulators and other relevant authorities where possible could consider seeking both domestic (between various domestic authorities) and international consistency and if appropriate, consider outreach with peer regulators when developing their own regulatory approach to carbon credits.

Regulators could also seek to make use of cross-border enforcement cooperation, such as that provided by IOSCO's MMoU or EMMoU, when suspected fraudulent or manipulative activities have a cross-border nature.

Global consistency, where possible and if consistent with domestic processes and mandates, is an important component of scaling carbon markets as potential fragmentation in the market could create diverse and different liquidity pools, thereby limiting the scope for growth. Where relevant regulators and other authorities consider oversight of VCMs, they could, therefore, consider outreach with peer regulators, to the extent appropriate.

⁶² [Item9-Provisionalagreement-CFCR_2022-0394COD_EN.pdf \(europa.eu\)](#)

With regards to supervision and enforcement, regulators could consider developing and utilizing arrangements for: (i) the exchange of information with domestic and international counterparts with supervisory authority over different aspects of VCMs, including the issuance, marketing, trading, and retirement of carbon credits; and (ii) cooperation regarding the cross-border nature of VCMs, including efforts to consider high-integrity standards and regulatory approaches that may deliver consistent outcomes, where possible and if consistent with domestic processes and mandates, across jurisdictions.

Good Practice 4 – Participants’ skill and competence

Consistent with their respective mandates, relevant regulators and other authorities could consider promoting the need for financial and investment firms and senior management to have adequate skills and competence, including an understanding of the benefits and risks of trading in VCMs, and how existing regulatory frameworks may, or may not, apply. In addition, they could consider developing investor education programs to improve the public’s knowledge of carbon credits.

To ensure the effective functioning and integrity of VCMs, it is crucial that financial and investment firms and senior management within these firms possess the necessary skills and competence. By understanding the benefits and risks associated with trading in VCMs, senior management can make informed decisions that align with regulatory requirements and market best practices. Furthermore, enhancing investor education is vital for broadening the understanding of carbon credits. Effective investor education programs can demystify the complexities of carbon credits, encouraging informed participation. Ultimately, promoting skill and competence among participants strengthens the integrity of the VCM ecosystem.

Some jurisdictions that have implemented carbon credit markets domestically have sought to bring some of those considerations into their frameworks. For example, the Egypt FRA is introducing capacity building sessions for market players. Furthermore, the RCSF in cooperation with the GIZ is conducting GHG auditing training to build the capacity of the potential local VVBs in order for them to acquire ISO certification and be registered in the FRA list for the VVBs.

3.2. Primary Market Issuance

Many aspects of primary market issuance are being led by private initiatives. These private initiatives aim to tackle the issue of environmental integrity in VCMs, given the significant controversies that have tarnished many projects underlying issued carbon credits.

Adequate information about the inherent characteristics of projects underlying carbon credits is essential to help investors make informed decisions about investments related to those carbon credits. In addition, measures around governance and accountability at the level of the carbon crediting program, including ratings of the likelihood of credits achieving their stated carbon removal or avoidance objectives, may be appropriate for the relevant regulator or authority to consider, building on experience from IOSCO's Price Reporting Agencies (PRAs) Principles by way of example. These aspects touch upon IOSCO's objectives of investor protection and market integrity, albeit indirectly, through fostering transparency and accountability throughout the carbon credit value chain. As such, we have set out below where relevant regulators and authorities, which may or may not be financial market regulators, may look to play a role in promoting good practices at the primary market level.

Good Practice 5 – Standardization

Consistent with their respective mandates, relevant regulators and other authorities could consider engaging with carbon crediting programs, spot market trading platforms, derivatives exchanges, carbon credit rating agencies, private sector initiatives, and other market participants and stakeholders, to standardize a taxonomy of carbon credit attributes, strengthen verification methodologies, and streamline verification processes.

Standardization is important for the credibility, transparency, and comparability of climate change mitigation projects, thereby enhancing the ability of market participants to assess and compare the quality of different projects. This standardization should also improve the effectiveness of the carbon market as a whole. Standardization helps provide clarity and confidence to buyers, sellers, and other stakeholders participating in carbon credit transactions. Several key aspects contribute to the standardization of VCMs.

Private initiatives may play a role in standardization to the extent that they will help relevant parties who use these private initiatives to align environmental integrity criteria, promote comparability of the methodologies to measure and quantify emission reductions or removals, calculate projects' baseline

emissions, manage permanence risks, and monitor and report actual emissions after implementing the project. Authorities could consider, in line with domestic legal requirements, adopting, building on, or looking to third-party standards or other initiatives in order to promote transparency and credibility.

Good Practice 6 – Transparency

Consistent with their respective mandates, relevant regulators and other authorities could consider appropriate ways to promote transparency around the creation of carbon credits. This could include comprehensive disclosures on: (1) the project development process; (2) verification of, and accounting for, emissions reductions and removals; (3) auditing methodologies; and (4) the entities responsible for measurement, monitoring, reporting, and verification. Transparency of contracts and pricing in the primary market could also be encouraged.

By way of example, the Egypt FRA requires the issuers of the carbon credits to disclose the full data of the credits and the project on the registry website, along with the validation and verification reports to be available for the public. Furthermore, and for trading purposes, the owner of carbon credits is obligated to promptly notify the exchange of any material information that could significantly affect the trading of such credits. Additionally, the FRA is conducting IT audit and inspection on the local registries to make sure of the accuracy of the provided data and the governance system of these registries.

Good Practice 7 – Disclosure

Consistent with their respective mandates, relevant regulators and other authorities could consider appropriate requirements to promote complete, accurate, and understandable disclosure of information related to the primary issuance of carbon credits, as well as transparent disclosure of any associated risks.

As mentioned above, although the quality of carbon credits themselves is distinguishable from the integrity of the markets in which they trade, concerns

over the former may impact liquidity and thus the functioning of VCMs, as well as frustrate the ability of market participants to achieve their intended carbon objectives. Indeed, several press reports in recent years have asserted that many carbon credits are of low quality in that they do not achieve the carbon removals or emission reductions to which they correspond. If these quality issues cannot be adequately addressed, or at least disclosed such that investors can make informed decisions about the credits they may purchase or sell, it could threaten the development of voluntary carbon credit markets that bear the minimum hallmarks of integrity and trust necessary for such markets to function properly.

Therefore, relevant regulators and other authorities could consider ways to promote transparency around mitigation projects, the creation of carbon credits corresponding to a particular project, and disclosure of information related to primary issuance by encouraging carbon crediting programs to establish, maintain, and appropriately disclose their standards to the public and by encouraging carbon crediting programs or registries to make project-level documentation publicly available and easily accessible. This could include disclosing standards for measuring carbon emissions reductions and removals, examples of how those standards are applied to particular mitigation projects, and methodologies for validating and verifying carbon projects and for recording carbon credit issuance, transfer, and retirement on a registry, including information regarding third-party verification.

Relevant regulators and other authorities could also encourage carbon crediting programs to document, implement, and enforce comprehensive policies for the identification, disclosure, prevention, management, and avoidance of conflicts of interest, as well as the protection of integrity and independence of assessment of projects. As is the case for PRAs, these policies should be expected to be kept up-to-date.

Future regulator engagement with the International Accounting Standards Board (IASB) on its pipeline project to develop specific accounting requirements for pricing mechanisms, such as emissions trading schemes, may also promote disclosure and transparency in VCMs.

Good Practice 8 – Soundness and accuracy of registries

Consistent with their respective mandates, relevant regulators and other authorities could consider appropriate requirements around registries, as custodians of carbon credits, to ensure they are accurate, complete, and current in order to serve as reliable sources of information regarding the attributes, issuance, ownership, transfer, and retirement and/or cancellation of carbon credits.

A carbon credit is only meaningful if counted once and registries play an important role with regards to preventing double counting. From the perspective of market integrity, double counting can occur in two ways: (i) a single carbon credit is sold to multiple buyers, misleading them about the actual carbon offset achieved, and (ii) different entities claim the same carbon credit for their emissions reductions, overstating the total environmental benefit. Both practices undermine market integrity, inflate the perceived impact on emissions reduction, and can lead to significant financial losses and reputational damage for market participants. To reduce this risk, a few respondents to the Consultation Report highlighted that some project developers are required to confirm that their projects are registered only once and credits are not transferable between registries.

Many respondents to the Consultation Report were supportive of this Good Practice, as there are concerns about the current operational framework registries may be using. In fact, many respondents suggested registries should be subject to standard operating principles, including operational, privacy, and cyber security protection, and there should be transparency from the registries as a source of information on ownership of credits.

In this context, IOSCO's Principles with regards to PRAs and central securities depositories may be an appropriate touchstone to inform the approach relevant authorities could adopt for registries. For example, registries could be expected to have governance arrangements that are clear and transparent, as well as sound risk management practices. They should also consider reconciling their records regularly to promote accuracy and completeness, as this helps identify discrepancies and take corrective actions as appropriate.

It would also be appropriate for registries to provide clear and comprehensive disclosures about the terms and conditions of their services, including the associated risks, and any conflicts of interest that may arise. Finally, there may be merit in considering, as is the case for PRAs or for custodians in asset management, the need for registries to have effective oversight mechanisms, which could include regular audits and/or reviews by independent third parties.

By way of example, the Egyptian FRA, has established some requirements for domestic voluntary carbon registries that seek approval by the FRA (FRA Decree No. 30/2024):

- The decree outlines the criteria for approving local carbon registries and specifies the requirements for international voluntary carbon registries endorsed by the International Carbon Reduction and Offset Alliance (ICROA).
- Notably, the decree places strong emphasis on governance requirements, particularly those related to IT and cybersecurity, to

ensure the integrity of both the carbon registries and the resulting carbon credits.

- Additionally, the decree specifies other mandatory requirements for voluntary carbon registries, including general requirements, validation and verification processes, the minimum information that must be provided by the registry, and field inspection protocols.

Furthermore, the FRA is conducting IT audits on local registries to verify the accuracy of their data and the robustness of their governance systems.

Good Practice 9 – Due diligence

Consistent with their respective mandates, relevant regulators and other authorities could consider appropriate requirements to ensure that carbon crediting programs perform adequate levels of know-your-customer (KYC) and due diligence procedures to prevent the use of carbon credits for money laundering.

In considering the need for KYC and due diligence requirements, regulators could look to examples from established traded asset markets, as well as guidance or standards from independent standard-setting bodies, in determining the appropriate level of KYC and due diligence.

3.3. Secondary Market Trading

Market Functioning and Transparency

Many carbon credits are traded OTC, often through an intermediary, with limited pricing information publicly available. While some level of differentiation across projects may be needed to satisfy the diverse objectives of some carbon credit purchasers, the availability of more uniform carbon credits on centralized trading platforms would make carbon credits more accessible to a broader pool of market participants and deepen liquidity in VCMs.

Besides fostering greater liquidity, broader market access tends to enhance price transparency and market efficiency because a larger pool of market participants may have more insight into transactions and prices. Appropriate transparency reduces information asymmetry and provides visibility into trading interest. It also improves price discovery by promoting competition among market participants. Moreover, transparency creates more efficient markets, where market participants may consider the prices at which recent transactions have occurred when determining the price at which to display quotes or orders or whether to accept an offer. In addition, appropriate market transparency can provide incentives for new participants to enter the market, increase competition, and reduce concentration. In an ideal framework, VCM trading platforms would maintain market participant criteria and procedures that are fair, reasonable, transparent, and non-discriminatory.

The following practices aim to enhance the functioning and transparency of the VCM secondary market:

Good Practice 10 – Access to VCMs

Consistent with their respective mandates, regulators and other relevant authorities could consider requirements or policies to foster open and fair access to secondary market trading on VCMs for interested market participants.

Good Practice 11 – Integrity of trading

Consistent with their respective mandates, relevant regulators and other authorities could consider requirements to ensure that VCM participants observe high standards of integrity and fair dealing with respect to business activities relating to carbon credits.

These considerations could include:

- Promoting requirements to ensure that only carbon credits satisfying established and recognized standards for quality and integrity are eligible for trading on regulated trading venues and eligible to be the physically delivered commodity for futures contracts. Regulators and other authorities could look to the standards set by established accreditation and governance bodies, including, but not limited to, the

bodies discussed in this Report, such as Article 6, CARB, ICAO), and ICVCM. However, as noted above, while third-party standards may serve as a useful reference point, this report is not endorsing any particular third-party standard.

- Encouraging carbon credit spot trading venues and derivative exchanges to establish, maintain, and appropriately disclose to the public their standards—including systems, rules, policies, procedures, and methodologies—for listing and de-listing carbon credits and related products. The trading venue could also disclose how a carbon credit is transferred at the registry following a spot transaction or at the point of physical settlement of the derivative.
- Requiring or encouraging carbon credit spot trading venues and derivatives exchanges to implement records management policies and procedures to promote the accuracy and timeliness of information, including trade data and an audit trail for all carbon credit transactions.

Transparency can also be achieved through disclosure of transactions, motivating the inclusion of the following Good Practices:

Good Practice 12 – Public reports

Consistent with their respective mandates and with practices in other financial markets, relevant regulators and other authorities could consider requiring that trading venues and registries make public reports which disclose, on an equal basis to all market participants, relevant data regarding trading, including, but not limited to, pre- and post-trade price transparency, trading volume, bid-ask spreads, and deliveries of carbon credits.

Good Practice 13 – Pre-and post-trade disclosure

Consistent with their respective mandates, relevant regulators and other authorities could consider requiring an entity operating a VCM derivatives exchange or an intermediary, to provide pre- and post-trade disclosures in a form and manner that are the same as, or that achieve similar regulatory outcomes as those disclosures that are required in traditional, regulated financial markets. An entity operating a VCM is understood as an entity that lists carbon credits that underly regulated derivatives.

Good Practice 14 – Derivatives standards

Consistent with their respective mandates, regulators and other relevant authorities could consider ways to ensure that contract specifications for carbon credit derivatives include sufficient details on the standards by which the underlying credits were certified, the applicable delivery requirements, and procedures for market participants.

Enhancing standardization of carbon credits for secondary trading could enhance market participant confidence regarding the execution and settlement of transactions, while promoting greater liquidity and efficiency. In particular, respondents to the Consultation agreed with Good Practice 13 that disclosures should be consistent with current practices in regulated markets.

In line with respondents' feedback, it is worth noting that these Good Practices align with IOSCO's Principles for the Regulation and Supervision of Commodity Derivatives Market⁶³ (Commodity Derivatives Principles), where IOSCO emphasized the need for transparency to enhance market integrity and efficiency, including both pre-trade and post-trade transparency. By way of example, Principle 17 calls for public information to be disseminated on market conditions, including price and volume data, to help market participants understand current market conditions and make informed decisions. The Principles call for the regular publication of aggregated data on market positions, trading volumes, and prices.

However, respondents also suggested clarifying the role of registries in making the public reports referenced in Good Practice 12. Respondents pointed out that registries are typically not involved in the pricing or execution of transactions and therefore would not necessarily have access to trading data. Respondents were of the view that registries should remain separated from trading and pricing. Given that these are nascent and rapidly evolving markets, Good Practice 12 should be read to encourage registries to disclose information relating to their core functions of recordkeeping and validation.

Finally, some respondents also provided the following feedback to the Consultation Report:

⁶³ See supra note 6.

- The **use of global identification standards/legal entity identifiers** could assist in creating further transparency in the market and could also be useful with regards, for example, to trade processing and risk management.
- Another area where the lack of data disclosure and transparency in secondary markets may pose a vulnerability relates to **carbon credit ratings and data providers**. There may be insufficient information available to enable investors to understand, evaluate, and compare ratings and data products for different carbon credits. For example, investors would need to understand what the carbon credit ratings or data products intend to measure, as well as the methodologies underpinning the ratings or data products. For this reason, some respondents suggested that carbon credit rating agencies offering their services to VCMs should adhere to the IOSCO recommendations for ESG ratings and data providers.⁶⁴ The recommendations address a number of factors related to issuing high quality ratings and data products, including publicly disclosed data sources, defined methodologies, management of conflicts of interest, high levels of transparency, and handling confidential information. The recommendations also suggest that users of ESG ratings and data products should consider conducting due diligence on the ESG ratings and data products that they use within their internal processes. The recommendations reflect on improving information gathering processes, disclosures, and communication between providers and entities subject to assessment. Some carbon credit rating agencies responded to the Consultation Report noting that they already apply IOSCO's recommendations.

With regards to derivatives standards, if carbon credit trading shifts from bilateral trading to more centralized trading and trading venues list more standardized carbon credit derivatives, trading venues can coordinate with clearinghouses to develop rules and procedures to promote the financial integrity of exchange-executed transactions with prompt and efficient transaction processing rules and procedures. This coordination could establish and maintain appropriate minimum financial standards for market participants that clear carbon credit derivatives in both intermediated and non-intermediated clearing structures. Clearinghouses could also implement rules, policies, and procedures to segregate customer funds and proprietary funds, custody customer funds, set investment standards for customer funds, implement intermediary default procedures, and implement recordkeeping. Consistent with their respective mandates, relevant regulators and other authorities could also consider requiring rules and procedures to facilitate

⁶⁴ See supra note 43.

timely and final settlement of carbon credit transactions, as well as collecting initial and variation margin.

Some exchanges have been developing more standardized products, notably in the derivatives market. The main derivative products currently being used are carbon credit futures. Carbon credit futures contracts equal 1,000 carbon credits generated from underpinning projects.⁶⁵

As it has done with other markets, ISDA published the ISDA Verified Carbon Credit Transactions Definitions (the VCC Definitions)⁶⁶ in 2022 with respect to physically settled spot, forward, and option transactions (the VCC Definitions do not contemplate cash settlement).⁶⁷ The VCC Definitions provide a set of standardized terms for the trading and retirement of VCCs in the secondary market. They have been designed to support transactions in VCCs across different carbon standards and registries and operate as a global document, meaning that they are not specific to any particular jurisdiction, region, or carbon standard.⁶⁸ The VCC Definitions and template confirmations are, to our knowledge, the first standardized OTC derivatives documentation for secondary market trading in VCCs.⁶⁹

Key terms in the VCC Definitions include a settlement mechanism in which payment follows delivery, and by which the parties can elect how they allocate the risk of cancellation of a VCC post-delivery. The VCC Definitions also address transfers and retirements and the related adjustments to registries and registry accounts that allow for parties to use carbon credits to offset their emissions where they do not have direct access to the registry (in contrast to parties who will continue trading credits in the secondary market).⁷⁰ The VCC Definitions also contemplate the different approaches to deal with settlement disruption and failure events.

⁶⁵ <https://www.green.earth/blog/understanding-carbon-credit-futures-an-overview-of-the-carbon-market>.

⁶⁶ <https://www.isda.org/2022/12/13/isda-launches-standard-definitions-for-the-voluntary-carbon-market/>.

⁶⁷ <https://www.isda.org/a/iBXgE/2022-ISDA-Verified-Carbon-Credit-Transactions-Definitions-FAQs-061323.pdf>.

⁶⁸ Ibid.

⁶⁹ <https://www.nortonrosefulbright.com/en/knowledge/publications/6cf5bc9e/overview-of-the-2022-isda-verified-carbon-credit-transaction-definitions>.

⁷⁰ <https://transactions.freshfields.com/post/102icym/launch-of-the-2022-isda-verified-carbon-credit-transactions-definitions>.

For example, the Egyptian FRA regulatory framework permits derivatives trading, including the listing of "Carbon Credits Forward Contracts". Article 5 of the FRA decree no. 31/2024 states that: *The owner or financier of the carbon emission reduction project may apply to list the forward contracts of the carbon credits that will be issued upon the project's implementation. The contract shall include the following information:*

1. *Project name and designated unique identification code.*
2. *Name of the voluntary carbon credit registry in which carbon credits were registered.*
3. *Geographical location of the project, including the coordinates.*
4. *Description of the project.*
5. *Number of carbon credits expected to be issued annually.*
6. *Contract and delivery conditions.*
7. *Quantities, price, and payment methods, including also the cases of non-delivery or non-payment.*
8. *Confidentiality clauses.*

The committee shall render its final decision on the listing application within five business days, upon successful registration of the project in the FRA's Carbon Emission Reduction Projects Database and the fulfilment of all listing requirements. Moreover, carbon credits forward contracts shall be traded in accordance with trading rules and regulations set forth by the exchange and approved by the FRA. The Project Financer retains the right to formally register its secured interest against the project owner in the Movable Collateral Registry. The entity responsible for transaction settlement is obligated to notify the registry, identifying the creditor and the corresponding collateral as specified in the contract.

Governance and Risk Management

Appropriate governance standards can be an effective means for VCMs – both in primary markets and secondary markets – to improve efficiency in decision-making, increase fair access, facilitate transparency, and balance opposing views – all of which decrease risk and increase market integrity.

Good Practice 15 – Governance framework

Consistent with their respective mandates, relevant regulators and other authorities could consider requiring that VCM participants, including carbon credit project developers, registries, validation and verification bodies, brokers, traders, marketplaces and exchanges, rating agencies, third-party entities, and private sector supply and demand side

standardization initiatives, have in place a comprehensive governance framework with clear lines of responsibility and accountability for the functions and activities they are conducting.

Likewise, robust risk management practices support market functioning, integrity, and stability by ensuring that market participants are prepared to address and respond to associated risks. Among other things, an effective risk management program identifies and minimizes sources of operational risk through the development of appropriate controls and procedures, as well as systems that are reliable, secure, and have adequate scalability. The risk management program may also include emergency procedures, backup facilities, a business continuity plan, and a disaster recovery plan that allows for the timely recovery and resumption of operations, as well as periodic tests of backup resources. For registries, risk management requirements should focus in particular on operational, privacy, and cybersecurity protections.

Compliance with generally accepted standards and good practices with respect to the development, operation, reliability, security, and capacity of automated systems can reduce the frequency and severity of automated system security breaches or functional failures and minimize market disruptions within VCMs. These standards can mitigate risks and promote market continuity by promoting the resilience of the VCM's automated systems and its ability to recover and resume trading promptly in the event of an operational disruption. Most respondents agreed that where standards and practices have become generally accepted in established financial markets, they are also likely to be useful in VCMs.

Good Practice 16 – Risk management

Consistent with their respective mandates, relevant regulators and other authorities could consider requiring that carbon credit intermediaries, marketplaces, and exchanges have effective enterprise risk management frameworks in place to address any potential operational or technological risks associated with the trading of or provision of services relating to carbon credits. Appropriate enterprise management, information technology, and security protocols could be deployed by each of the key market participants, including the registries where carbon credits are transferred, to effectively guard against fraud, hacking, and other criminal activities related to carbon credits. Regulators could consider requiring the employment of an enterprise risk officer with sufficient staffing and support resources. Regulators could also consider requiring the implementation of a business continuity disaster recovery plan and operational resilience programs with system safeguards that are

developed and routinely reviewed for consistency with industry best practices.

As noted earlier, respondents generally agreed that conflicts of interest in the carbon credit ecosystem – both at primary and secondary market level – are a potential vulnerability and an issue of concern in VCMs. Carbon crediting programs, for example, may rely on compensation from the certification of credits, thus incentivizing them to approve projects lacking measurable emission reductions. Third-party auditing and verification firms may be receiving payment from project developers, and all of the various entities involved in having a project certified may themselves be purchasing and selling carbon credits.

Within VCMs, conflicts of interest can also arise in other situations, including those relating to which contracts are traded on the market, the levels of access available to various market participants, and the manner in which orders are executed. Transparent governance structures, disclosure requirements, and compliance frameworks are some of the measures that have been proven to mitigate conflicts of interest effectively in other markets. VCMs would benefit from incorporating such practices as well, especially to the extent that such practices have become common in traditional financial markets.

Good Practice 17 – Conflicts of interest rules

Consistent with their respective mandates, relevant regulators and other authorities could consider whether laws and applicable rules within their remit and jurisdiction appropriately address conflicts of interest raised by the issuance, verification, certification, transfer, and retirement of carbon credits.

Such laws and rules could include: (i) establishing policies and procedures to prevent, address, and mitigate conflicts of interest pertaining to carbon credits, with prohibitions of the most obviously problematic conflicts and adequate disclosures regarding these conflicts where they exist, including, for example, the legal or beneficial relationships between project developers, VVBs, carbon crediting programs, registries, marketplaces and exchanges, and intermediaries; and (ii) requiring or encouraging trading venues to establish clear processes to identify and monitor conflicts of interest and to take appropriate actions if there are risks to orderly trading or market integrity.

Market Abuse

Fair and orderly markets apply measures aimed at protecting market participants and the public from fraudulent, manipulative, or disruptive conduct. Like any traded asset market, VCMs could benefit from rules and practices that aim to deter improper and abusive conduct, including those that have been developed in traditional financial markets. For example, IOSCO's Commodity Derivatives Principles call for effective market surveillance, by having regulators use transaction and position data to monitor for market abuses and bring enforcement action against manipulative or abusive schemes. As described in those Principles, market surveillance should help detect and deter manipulation or abusive trading and disruptions in trading or the physical delivery or cash-settlement of contracts, as well as provide information to support relevant enforcement actions.

As noted earlier, private initiatives are developing and implementing guidelines to enhance the integrity of carbon credits. These initiatives could instil greater trust that carbon credits represent genuine emission reductions and could provide interested market participants with a common taxonomy of attributes that allow them to find suitable carbon credits, but it is worth noting they may also create a false sense of integrity about the market as a whole which risks harming investors, in that they may believe issues with fraud and misleading claims have been resolved. That said, financial market regulators and other authorities with enforcement powers can play a significant role in detecting and investigating fraud, protecting market participants from misleading claims, and instilling greater confidence in the integrity of VCMs.

There was broad support for IOSCO's Good Practices relating to market abuse and the vulnerabilities they are meant to address, with a call to use existing financial market best practices to address instances of market abuse. As such, only minor, non-substantive changes are being made to Good Practices 18 and 19. Some respondents, however, expressed concerns about the specificity of Good Practice 20 as it relates to personnel within organizations. IOSCO wishes to clarify that these positions were used as examples of roles that exist in other financial markets and which could be useful in terms of meeting both regulatory and market expectations. IOSCO has modified the language to clarify that these are to serve as examples.

Good Practice 18 – Enforcement actions

Consistent with their respective mandates, relevant regulators and other authorities should consider bringing enforcement actions if there are fraudulent or abusive practices in VCMs, such as false or misleading statements regarding the attributes of carbon credits.

In anticipation, consistent with their respective mandates, relevant regulators and other authorities, as well as trading venues, could also consider implementing rule enforcement programs with disciplinary mechanisms, including monetary sanctions to deter trade practice violations, as well as recidivism.

This would include putting in place measures to detect and deter fraud with respect to any systems used to issue, track, record, and/or register ownership of a carbon credit.

Good Practice 19 – Market surveillance and monitoring of trading

Consistent with their respective mandates, relevant regulators and other authorities, and trading venues could consider appropriate ways to conduct market surveillance and trade monitoring to identify fraud, manipulation, price distortion, and/or other market disruptions.

Good Practice 20 – Trading venue resources

Consistent with their respective mandates, relevant regulators and other authorities could consider ensuring that trading venues maintain adequate resources to detect and investigate fraudulent or manipulative practices, including, where appropriate, personnel to perform the functions of a Chief Compliance Officer and Chief Regulatory Officer.

3.4. Use, Disclosure of Use and Retirement of Carbon Credits

Use of Carbon Credits

Given lingering doubts over whether some carbon credits represent actual emissions reductions, the use of credits in decarbonization efforts remains an area of concern. Notwithstanding whether carbon markets are discussed as CCMs or VCMs, some jurisdictions have begun making decisions about what could constitute credible use of carbon credits in the context of their own environmental requirements. Indeed, some have begun permitting the use of carbon credits from the voluntary market in their compliance schemes. For example, Singapore allows the use eligible international carbon credits to offset up to 5% of their taxable emissions. In France, Article 147 of the French Climate and Resilience Act requires airlines to offset 100% their greenhouse gas emissions from domestic flights as of 2024. A decree also clarifies the methodology for calculating data, the validation process by the competent authorities, the eligibility criteria for offset projects (geographical location, benefits for biodiversity) and the process for purchasing and cancelling carbon credits.

In China, Covered Entities under the China National ETS have the option of acquiring and surrendering CCERs to satisfy a small portion of their compliance obligations.⁷¹ On the back of the issuance of new CCER measures in October 2023 and the relaunch of the CCER Program in January 2024, it was also announced that CCERs that received registration prior to March 2017 can no longer be used to meet compliance purpose in the National ETS from 1 January 2025.⁷²

In a similar vein, there are doubts as to whether firms will take steps to reduce their own (gross) emissions where carbon credits are readily available to offset those emissions. This has led to calls to enhance their credible use. One respondent to the Consultation Report suggested regulators should move towards clear and aligned positions on claims to allow companies to engage in VCMs with confidence. In that context, the respondent noted that the VCMI has developed a Claims Code of Practice⁷³ on how companies could make voluntary use of carbon credits as part of credible, science-aligned, net-zero, decarbonization pathways. VCMI has called for the use of carbon credits to be

⁷¹ [The State Council of the People's Republic of China \(www.gov.cn\)](http://www.gov.cn)

⁷² https://www.mee.gov.cn/xxqk2018/xxqk/xxqk04/202310/t20231025_1043981.html.

⁷³ <https://vcmintegrity.org/wp-content/uploads/2023/11/VCMI-Claims-Code-of-Practice-November-2023.pdf>.

supplementary to, rather than a substitute for, direct emissions reductions by companies, and noted that the criteria for the use of carbon credits should be stringent.

Disclosure of Use and Retirement of Carbon Credits

Notwithstanding policy concerns regarding the credible use of carbon credits, one challenge associated with any use of carbon credits is the appropriate disclosure of that use, including the retirement of those credits, by entities making use of them.

Improved transparency around the use of carbon credits would allow stakeholders to better assess firms' risks and opportunities and make informed decisions about how firms are managing GHG emissions. Respondents to IOSCO's consultation agreed with the need for improved transparency, noting this was a matter relating to the risk of fraud (including greenwashing).

Good Practice 21 – Disclosure of Carbon Credits Use

Consistent with their respective mandates, relevant regulators and other authorities in relevant jurisdictions could consider, consistent with their jurisdiction's domestic legal requirements, encouraging or requiring disclosures regarding an entity's use of carbon credits to achieve any net GHG emission targets.

Respondents to IOSCO's Consultation Report supported this Good Practice, noting the importance of transparency in allowing investors to accurately assess an entity's GHG emission reductions, commitments, and achievements.

Several recent examples may help relevant regulators and other authorities in considering this suggested good practice. For example, some respondents were supportive of using the International Sustainability Standards Board (ISSB) approach. In June 2023, the ISSB issued its inaugural standards for sustainability and climate-related disclosures. IFRS S1 and IFRS S2 aim to improve trust and confidence in company disclosures about sustainability to inform investment decisions.⁷⁴ The objective of IFRS S2 Climate-related

⁷⁴ IOSCO announced its endorsement of the ISSB Standards on 25 July 2023 and has called on members to consider ways in which they might adopt, apply, or otherwise be informed by the ISSB Standards S1 and S2.

Disclosures is to require an entity to disclose information about its climate-related risks and opportunities that is useful to primary users of general-purpose financial reports in making decisions relating to providing resources to the entity.

As part of IFRS S2, an entity is required to describe its planned use of carbon credits to offset emissions to achieve any net GHG emissions targets the entity has set, or any it is required to meet by law or regulation. In addition, as part of this disclosure, the entity might also include information about carbon credits it has already purchased for future use to meet its net GHG emissions target if the information enables users of general-purpose financial reports to understand the entity's GHG emissions target.

As another example, the delegated acts on climate change in the European Sustainability Reporting Standards require disclosure about carbon credits in certain circumstances.⁷⁵ When reporting GHG neutrality targets involving the use of carbon credits, the ESRS require transparency about the credibility and integrity of the carbon credits used.

In the context of carbon disclosures, relevant regulators and other authorities, to the extent consistent with their mandates, could consider adopting, applying, or otherwise being informed by the ISSB Standards and other interoperable guidelines regarding disclosure of the entity's planned use of carbon credits to offset greenhouse gas emissions to achieve any net greenhouse gas emissions target. These standards and guidelines should be consistent with those discussed above in connection with the primary market issuance of carbon credits, and could include:

- The extent to which, and how, achieving any net greenhouse gas emissions target relies on the use of carbon credits.
- Which third-party scheme(s) will verify or certify the carbon credits, and any other due diligence performed.
- The type of carbon credit, including whether the underlying offset will be nature-based or based on technological carbon removals, and whether the underlying offset is achieved through carbon reduction or removal.
- Information on whether the carbon credits represent mitigation that contributes towards national mitigation targets or whether the carbon credits are authorized as Internationally Transferred Mitigation Outcomes.
- Any other factors necessary for users of general-purpose financial reports to understand the credibility and integrity of the carbon credits the entity plans to use (for example, assumptions regarding the

⁷⁵ https://ec.europa.eu/finance/docs/level-2-measures/csrd-delegated-act-2023-5303-annex-1_en.pdfhttps://ec.europa.eu/finance/docs/level-2-measures/csrd-delegated-act-2023-5303-annex-1_en.pdf.

permanence of the carbon offset, credit ratings of the specific carbon credit, and any other claims made about the carbon credit).

The Egyptian FRA has established official guidelines for the accounting treatment of carbon credits in financial records. Depending on specific criteria, carbon credits are recognized as either financial instruments or intangible assets based on four key scenarios:

1. When carbon credits are issued to the project developer, who is also the owner of the emission reduction project:
 - a. Intangible Asset: If the credits are retained for offsetting.
 - b. Financial Instrument: If the credits are intended for sale.
2. When carbon credits are issued to the project developer, but the developer is a different entity from the owner of the emission reduction project:
 - a. In this case, the carbon credits are recognized as a Financial Instrument.
3. When carbon credits are purchased from the market to achieve carbon neutrality:
 - a. The carbon credits are classified as an Intangible Asset.
4. When carbon credits are purchased from the market for trading purposes:
 - a. The carbon credits are treated as a Financial Instrument.

As another example, firms may also provide transparency on their use or intended use of carbon credits through their transition plans in jurisdictions where they are required to publish these or where they decide to do so voluntarily. In the UK, the Transition Plan Taskforce recommends that an entity should disclose information on at least an annual basis regarding: (i) why it is employing carbon credits and how the use of these credits supports achieving its climate objectives and priorities; (ii) what third-party verification or certification scheme or schemes the credits are subject to; (iii) the type of carbon credits (e.g., whether the credits are generated from carbon removal or emissions avoidance projects.); (iv) any other significant factors necessary for users to understand the credibility and integrity of carbon credits intended to be used by the entity; and (v) the number of credits sold, purchased, and retired.⁷⁶

⁷⁶ https://transitiontaskforce.net/wp-content/uploads/2023/10/TPT_Disclosure-framework-2023.pdf.