



THE INTEGRITY COUNCIL
FOR THE VOLUNTARY CARBON MARKET

Continuous Improvement Work Program report: Market Transparency, Scalability and Standardisation

March 2026, Version 1.0

Acknowledgements

The ICVCM would like to acknowledge the contribution of all the individuals and organisations involved in the development of this report as participants of the Continuous Improvement Work Program.

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Published by The Integrity Council for the Voluntary Carbon Market March 2026

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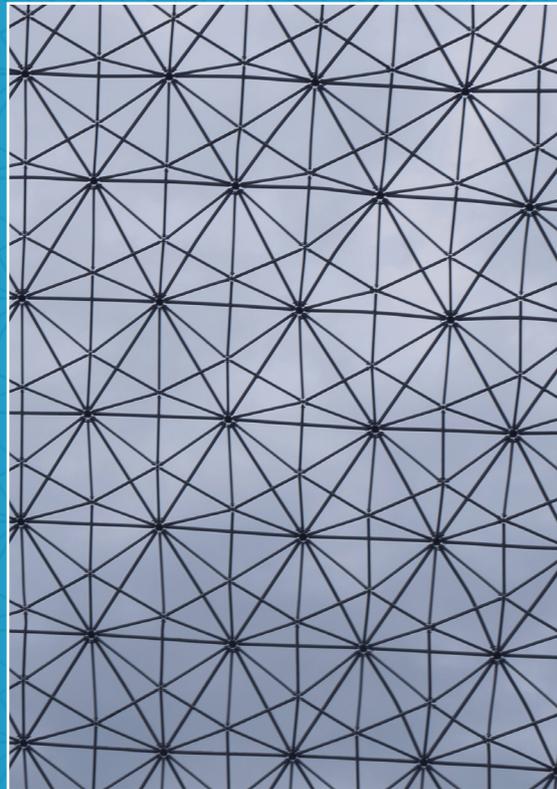
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The ICVCM's Continuous Improvement Work Programs

The Integrity Council for the Voluntary Carbon Market's (ICVCM) Continuous Improvement Work Programs (CIWPs) ensure that carbon markets continue to evolve by bringing together leading experts and key stakeholders in a collaborative effort to address complex challenges, provide thought leadership, and chart the next generation of solutions to accelerate high-integrity carbon markets that benefit both people and planet. The CIWPs harness the latest science, emerging technologies, and innovative approaches from across the market to inform the next generation of carbon market integrity systems and standards.

The recommendations of these multi-stakeholder, expert working groups will inform further refinement and development of the ICVCM rulebook, particularly the CCP Assessment Framework. They may also refer to actions more appropriately implemented by entities other than the ICVCM, but which are nonetheless crucial for future market development and maturation.



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Executive summary

Summary

Carbon markets play a critical role in mobilising private finance toward climate mitigation activities. Their ability to scale with integrity would be progressed by improved infrastructure, higher pricing transparency, and alignment with capital market norms. While the Integrity Council for the Voluntary Carbon Market (ICVCM) has established a global quality threshold for carbon credits through the Core Carbon Principles (CCPs) and the CCP Assessment Framework, these instruments are not meant to comprehensively address the broader market conditions required for carbon credits to function as credible, investable assets at scale. Identifying and addressing gaps in the market is essential to building trust, attracting long-term capital, and ensuring that carbon markets deliver real climate benefits while supporting equity and integrity across the value chain.

Recognising these challenges, the ICVCM convened a Continuous Improvement Work Program on Market Transparency, Scalability, and Standardisation, as set out in the Summary for Decision Makers of the CCP Assessment Framework. The work program was established to explore how the foundational provisions of the CCP Assessment Framework could evolve over time, where the ICVCM is best placed to provide further requirements to address these challenges, and where progress should be made by other market actors and initiatives. By identifying barriers that limit liquidity, comparability, and investment readiness, a multi-stakeholder working group sought to strengthen the enabling conditions for high-integrity carbon markets, taking into account that the ICVCM's core role is not to provide market administration or design infrastructure.

The working group examined three interlinked areas that are critical to market maturation:

- **Market Infrastructure**, focusing on registry practices, legal foundations and ownership clarity, interoperability and market resilience, drawing on relevant international standards and initiatives.
- **Pricing Transparency and Integrity**, addressing fee structures, price disclosure, and revenue-sharing and benefit-sharing arrangements, with particular attention to fairness, comparability, and information asymmetries affecting Indigenous Peoples as well as local communities.
- **Catalysing Structured Finance**, exploring the legal, financial, risk, and assurance conditions required to unlock institutional capital, including auditability, risk disclosure, and alignment with established financial accounting and governance frameworks.

Across these areas, the work program considered evidence from existing initiatives, inputs from market participants, and signposting language within the CCP Assessment Framework to identify whether any refinements or additional guidance could strengthen integrity and scalability.

The working group was convened in early 2025 and operated through three dedicated sub-groups corresponding to these focus areas. Participants represented a broad cross-section of the market, including carbon-crediting programs, financial institutions, infrastructure and data providers, legal and accounting experts, project developers, and representatives of both Indigenous Peoples and local communities. The sub-groups met regularly between February and July 2025, complemented by an in-person cross-group convening during London Climate Action Week. This report synthesises the findings and recommendations from that process, highlighting actions for the ICVCM and for other market stakeholders, and identifying next steps for integrating relevant outcomes into the CCP Assessment Framework and related ICVCM workstreams.



Key takeaways

The working group concluded that global carbon markets have reached a critical inflection point. The Core Carbon Principles and CCP Assessment Framework provide a robust foundation for credit integrity, but the market requires several key developments to support market scale, liquidity, and participation by institutional capital. Progress could be aided by coordinated infrastructure practices, additional transparency around pricing and financial flows, and alignment with established legal, accounting, and financial risk frameworks. Addressing these constraints does not require the ICVCM to expand beyond its mandate; rather, it requires targeted refinements of the CCP Assessment Framework, with clear signposting, and coordinated action across the broader market ecosystem.

The working group developed recommendations across the three thematic areas aimed at ICVCM, market actors and ecosystem players. Together these recommendations aim to enhance comparability, auditability, and trust in carbon credits as assets, while preserving flexibility for innovation and avoiding duplication with existing initiatives. The recommendations are summarised below. This summary does not seek to be exhaustive. The full set of recommendations as forwarded by the working group is set out in the main report and Annex 1.

Summary of outcomes and recommendations

- 1. The ICVCM should provide guidance on the infrastructure characteristics that underpin credit integrity**, such as registry resilience, record-keeping, transfer controls, and ownership clarity, without prescribing specific technical solutions. Clarity on the minimum infrastructure parameters for CCP-labelled credits will support high-integrity markets.
- To strengthen clarity on legal concepts relevant to CCP-labelled credits, the **ICVCM should further clarify how concepts such as title, control, and beneficial ownership relate to CCP-labelled credits**, while acknowledging jurisdictional variation and avoiding the creation of a single global legal construct.
- 3. Market actors should seek interoperability and consistency across registries and market systems.** Greater alignment in data fields, identifiers, and transfer practices would reduce fragmentation, lower transaction costs, and improve transparency, particularly as credits move across registries, exchanges, and financial platforms.
- 4. The ICVCM should encourage further transparency through disclosure of carbon-crediting program fee structures and pricing components** to reduce information asymmetries, support comparability, and mitigate actual or perceived conflicts of interest.

5. **To promote transparency of revenue and benefit-sharing outcomes**, the ICVCM should consider requiring clearer reporting on how revenues associated with CCP-labelled credits flow to project developers, host countries, and Indigenous Peoples as well as local communities, supporting fairness, trust, and informed buyer decision-making.
6. **To support financial participation, the ICVCM should refine its requirements related to reasonable assurance**, documentation, and audit trails, scaled appropriately to transaction type and risk, and aligned with established assurance practices.
7. **Market participants should seek to enable risk-based approaches to financing carbon projects.** The market would benefit from greater clarity on how different risk categories are disclosed and managed. This would enable more structured finance, forward contracts, and blended finance mechanisms.
8. **The ICVCM should continue engaging with accounting standard-setters, regulators, and financial institutions** to ensure that CCP-labelled credits can be understood and treated consistently within existing financial systems.

Next steps

The outputs of the work program will inform the further development and refinement of the CCP Assessment Framework and signal broader evolutions and changes needed in the market, which may be implemented by entities other than the ICVCM. Future refinement and evolution of the CCP Assessment Framework in the area of market transparency, scalability and standardisation is not limited to the areas and recommendations discussed in the work program and referenced in this report. Other inputs to the development of the ICVCM rulebook include lessons learned through the assessment and assurance process, stakeholder inputs, public consultations and academic research.

In addition to informing the refinement of the CCP Assessment Framework and broader market adaptations, several outputs from this work program will directly feed into the design and discussion of future continuous improvement work.

The ICVCM is committed to ensuring that cross-cutting issues identified in various Continuous Improvement Work Programs are addressed in a coherent and integrated manner, enabling the most effective use of recommendations and fostering consistency across the evolving CCP rulebook.

Market Transparency, Scalability and Standardisation

Introduction

Carbon markets seek to leverage the structure of traditional capital markets to incentivise and mobilise private sector finance for cost-effective, standardised, and verified greenhouse gas emission reductions and removals. Carbon markets, in the context of this report, refer to voluntary “project¹-based” or “baseline-and-credit” markets that generate tradeable certificates, called “carbon credits”, representing one tonne of CO₂e emissions avoided, reduced, or removed from the atmosphere. Demand for these credits is driven by either compliance obligations on companies or governments as a result of regulation, or by voluntary actors seeking to deliver on climate action goals or targets (see Box 1).

For this market to deliver its potential impact and help achieve the 2°C target agreed in the Paris Agreement,² it will need to scale substantially. The market for these credits is nascent and has developed bottom-up, with independent carbon-crediting programs issuing credits and running registries, diverse third parties entering at different points of the credit lifecycle, and various independent and government-led standards and initiatives providing guidelines.

Historically, there has not been consistent regulatory oversight of this international market. As a result it has evolved with little standardisation or without some of the quality controls utilised in other, more mature capital markets. By actively addressing complex market challenges and exploring areas for increased ambition, the Continuous Improvement Work Program (CIWP) 7 on Market Transparency, Scalability, and Standardisation, convened by the ICVCM, developed recommendations to drive high-integrity solutions that can further accelerate meaningful emissions reductions, and promote the equitable scaling of this market.

1 In this case, ‘project’ refers to all scales of carbon-crediting activities, including projects in the narrow sense, programs of activities, jurisdictional and other large-scale activities.

2 [Key aspects of the Paris Agreement | UNFCCC](#)

BOX 1

Using the term ‘voluntary carbon market’

The term ‘voluntary carbon market’ is used in this report to generally describe a system of exchange for carbon credits, where either supply, demand or both are unregulated by public authorities. Though this term remains in wide use, it may no longer accurately describe a distinct policy and market reality, as compliance and voluntary transactions of carbon credits have converged in many supply and use-case examples.

Historically, the voluntary carbon market referred to the exchange of carbon credits generated by independent carbon-crediting programs (i.e., private or non-profit organisations). Those credits would be bought and used voluntarily by private sector entities towards voluntary targets or purposes. The rules and conditions for both such generation and use remained uncovered by specific national or international regulation, though there have always been individual elements of these activities covered by some form of oversight or regulation.

However, in recent years both the supply and demand sides of this system of exchange have become subject to increasing regulation, while not necessarily being wholly covered by national or international regulation. It is more accurate to talk of voluntary or compliance *use* of carbon credits and independent or regulated *supply* of carbon credits. What complicates the categorisation of markets is that regulation may not cover the full area of supply or demand but might only touch upon specific parts of it. For example, national regulation might not regulate the purchase and use of credits, but might require specific ways of reporting those purchases or claims that could be publicly made on the basis of such purchases.

The table below summarises the four possible combinations of regulated and unregulated supply and demand cases through hypothetical scenarios. This diversity underpins the difficulty in defining *markets* as voluntary or compliance.

	Independent supply	Regulated supply
Voluntary use	French company buying credits issued under an independent crediting standard from a project in Ghana to make a contribution claim in its sustainability report.	Japanese company buying credits issued in the Premium-TVER domestic mechanism (Thailand) to make a carbon neutrality claim under the ISO 14068 standard.
Compliance use	Singaporean company buying credits issued under an independent crediting standard from a project in Papua New Guinea to cover part of its obligations under the national carbon tax regulation.	Chinese company buying credits issued in the CCER domestic mechanism (China) to cover part of its obligations under the nation ETS regulation.

The work program on Market Transparency, Scalability, and Standardisation was launched to address the structural and operational conditions necessary for carbon markets to mature into credible, investment-grade markets. It examines three interlinked pillars:

1. **Market Infrastructure** – how registries, contracts, and trading platforms can operate in a harmonised, transparent, and interoperable way.
2. **Pricing Transparency and Integrity** – how pricing, fees, and revenue flows can be more visible, equitable, and trusted.
3. **Catalysing Structured Finance** – how to unlock institutional finance at scale for high-integrity credit supply, particularly in the regions that are most vulnerable to climate change.

The CCP Assessment Framework includes provisions relevant to each of these areas, including registry requirements, transparency of contents in project documentation, and governance arrangements. However, it does not aim to provide a comprehensive framework for scaling the market for carbon credits as an asset class in line with capital market norms. This work program explored how these foundational provisions could evolve, where the ICVCM should lead, and where other actors in the ecosystem are better suited to take specific recommendations forward.

A transparent, scaled, and standardised carbon market would have legally recognised and assurable use cases for credits, interoperable infrastructure, accessible and comparable pricing data, clear rights and ownership of credits, and bankable project pipelines capable of attracting long-term finance. It would enable equitable benefit-sharing with Indigenous Peoples as well as local communities, align with emerging policy and regulatory frameworks, and reduce systemic risks that deter market participation.

The ICVCM's mandate is to set high-integrity criteria and requirements for carbon credits. The ICVCM does not currently envision an explicit role in building infrastructure, amending registries, or acting as a market administrator, although the Taskforce for Scaling Voluntary Carbon Market's Roadmap for Strengthening Market Integrity, published in 2021, did suggest taking up such functions.³ The recommendations developed through this work program reflect this delineation of roles among multiple stakeholders. This report makes specific recommendations for the ICVCM to take forward, while others are directed toward other actors in the market.

This report summarises the work of the CIWP on Market Transparency, Scalability and Standardisation, the findings and recommendations from each sub-group, and next steps for integrating relevant outcomes into the CCP Assessment Framework and other ICVCM activities. It also highlights where further coordination with other market initiatives is needed to achieve a shared vision for a high-integrity, scalable carbon market.

3 [Taskforce on Scaling Voluntary Carbon Markets Publishes Roadmap for Strengthening Market Integrity >](#)
[Taskforce on Scaling Voluntary Carbon Markets](#)

Background and scope of work

The goal of this work program was to foster robust, inclusive discussions on recommendations and proposed solutions. As part of the ICVCM's work — a stakeholder-driven governance organisation recognised for its ability to convene diverse voices across the market — the work program was anchored in developing thoughtful, actionable recommendations for updates to the CCP Assessment Framework. However, the group's mandate extended beyond refining the CCP Assessment Framework. Rather than limiting discussions to the ICVCM's immediate remit, the work program participants were encouraged to keep open dialogue on broader market issues, capturing insights and ideas in this report for wider consideration.

The working group was convened in early 2025 in accordance with the provision in the Summary for Decision Makers (SDM)⁴ to conduct a multi-stakeholder CIWP on Market Transparency, Scalability and Standardisation. The SDM states that the ICVCM considers that there are opportunities to improve market standards around transparency and data infrastructure for credits, building on existing initiatives.⁵

While the Core Carbon Principles set a threshold for the quality of credits, the CCP Assessment Framework does not dictate how the broader market should operate to ensure liquidity, transparency, and financial integrity. Annex 2 provides more details on the CCP Assessment Framework's coverage of the relevant subjects to this work program. This work program was designed to identify these systemic issues, and specifically how they impact high-quality supply of carbon credits and capital flows into the market to meet climate goals.

4 [Summary for Decision Makers | ICVCM](#)

5 [Ibid.](#)

The scoping process ensured that the work program would complement rather than duplicate other efforts, while focusing ICVCM's recommendations on priority areas aligned with its role as a standard-setting body. The mapping covered both technical infrastructure initiatives and legal and financial standard-setting processes, highlighting the breadth of activity already underway:

- World Bank Carbon Market Infrastructure (CMI) Working Group – produced detailed guidance notes on governance, interoperability, and transaction integrity.⁶
- ISO/TC 322/AHG 3 – aims to harmonise carbon credit data fields, formats, and models in coordination with financial services standards.⁷
- Carbon Data Open Protocol (CDOP) – developing an open, implementable data protocol covering the entire carbon lifecycle.⁸
- UNIDROIT project on the Legal Nature of Verified Carbon Credits – clarifies the legal status of carbon credits to enhance certainty for market participants.⁹
- ISDA: Standard Definitions for the Voluntary Carbon Market – establishes standardised contractual terms for voluntary carbon credit transactions.¹⁰
- IOSCO: Report on Promoting Financial Integrity and Orderly Functioning of Voluntary Carbon Markets – provides guidance on financial oversight, transparency, and market integrity.¹¹

By comparing the focus areas, deliverables, and target audiences of these initiatives (see overview in Annex 3), the work program was able to pinpoint where the ICVCM, as a standards organisation for carbon credit quality, could play a role. This mapping also informed the decision to structure the work program into three interconnected sub-groups, focusing on Market Infrastructure, Pricing Transparency and Integrity, and Catalysing Structured Finance.

Participants were drawn from science and research organisations, capital markets, carbon-crediting programs, carbon intermediaries, technology providers, and members of Indigenous Peoples as well as local communities to ensure diverse perspectives. Working group meetings ran from February to July 2025, with a cross-group in-person convening during London Climate Action Week in June 2025.

6 [CMI Working Group Executive Summary Technical Guidance for Safe, Efficient, and Interoperable Carbon Markets Infrastructure](#)

7 [ISO/TC 322 - Sustainable finance](#)

8 [Carbon Data Open Protocol](#)

9 [UNIDROIT Draft Principles on the Legal Nature of Verified Carbon Credits](#)

10 [2022 ISDA Verified Carbon Credit Transactions Definitions \(Version 3 – November 2025\) – International Swaps and Derivatives Association](#)

11 [IOSCO Publishes its Final Report on Promoting Financial Integrity and Orderly Functioning of Voluntary Carbon Markets \(VCMs\)](#)

Scope of each sub-group

7.1 Market Infrastructure

The objective of CIWP 7.1 was to strengthen data and infrastructure practices across carbon markets, building on and complementing the work of other initiatives—such as the World Bank’s Carbon Market Infrastructure Working Group (CMI WG) and the Carbon Data Open Protocol (CDOP). Unlike the CMI WG and CDOP, which focus on technical specifications and operational guidance, CIWP 7.1 concentrated on identifying best practices, principles, and improvements to the CCP Assessment Framework, and to the market more broadly, with the aim of enhancing market integrity.

This work surfaced issues around coordination and complementarity, clarity of credit ownership, market fragmentation versus interoperability, infrastructure resilience, and alignment between carbon-crediting programs¹² and related frameworks.

7.2 Pricing Transparency and Integrity

The objective of CIWP 7.2 was to support the ICVCM’s mandate to establish integrity standards by addressing fairness and transparency in revenue sharing, fee structures, and price disclosure within the carbon market. The workstream sought to identify shortcomings, assess risks from power imbalances between negotiating parties and impacted communities, and promote equitable value distribution among all stakeholders—including investors, project developers, intermediaries, Indigenous Peoples, local communities, governments, and landowners.

The group examined areas such as mechanisms for equitable revenue sharing and fair compensation, fee structures across carbon-crediting programs and market intermediaries to ensure transparent cost allocation and comparability, opportunities to enhance price transparency, and approaches to reduce information asymmetry between buyers and sellers, supporting more efficient and fair carbon pricing.

The aim was to improve trust, fairness, and efficiency in pricing while ensuring all actors benefit equitably from market participation.

7.3 Catalysing Structured Finance

The objective of CIWP 7.3 was to identify and address investment barriers that limit institutional capital flows into high-integrity carbon mitigation projects, recognising that large-scale climate impact is only possible with significant private capital mobilisation. Structured finance—through mechanisms such as pooled investment vehicles, securitisation, and risk-sharing instruments—can lower barriers to entry, increase liquidity, and reduce risk for carbon projects.

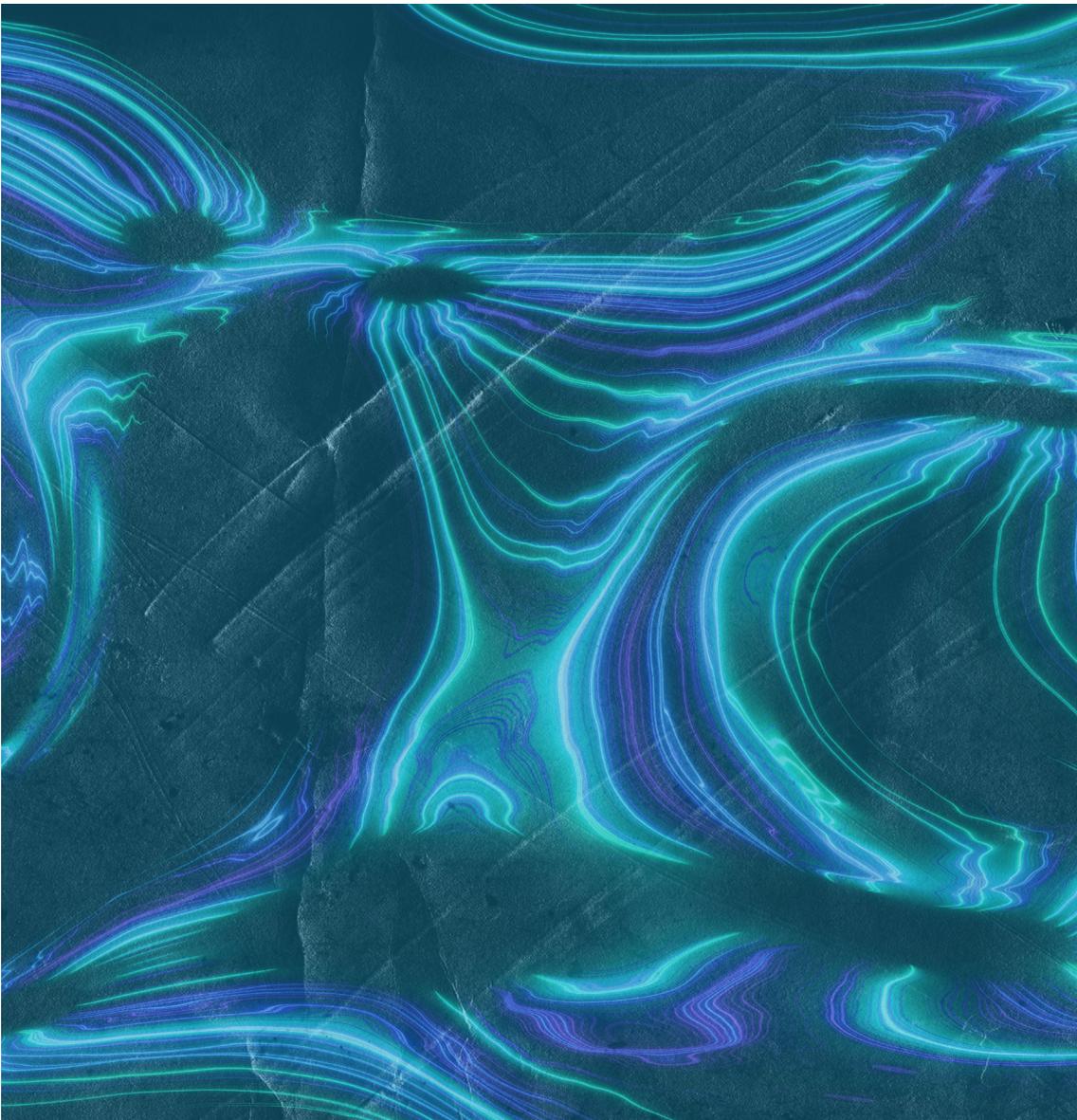
The workstream focused on identifying, assessing and designing scalable finance solutions to attract institutional and mainstream investors, reducing transaction costs and improving valuation methodologies to support more accurate forecasting and lower the cost of capital, encouraging consistent demand signals via policy stability and clearer compliance market frameworks, enhancing auditability and comparability of investments, addressing market uncertainties linked to evolving standards, legal ambiguities, and registry risks, and exploring the role of insurance and other de-risking tools.

The overarching aim was to identify the financial conditions necessary for carbon markets to scale sustainably, delivering capital to projects with verifiable and enduring climate benefits.

¹² Crediting program or carbon-crediting program is a standard-setting program that registers mitigation activities and issues carbon credits.

The remainder of this report presents the work program's recommendations with the relevant context. Annex 1 contains the recommendations in full as they will be considered by the ICVCM and relevant stakeholders.

For each section of recommendations, a Further Discussion section captures additional perspectives and feedback contributed by participants of the broader working group. During the in-person meeting at London Climate Action Week, six cross-cutting issues were identified across discussions in the three sub-groups: Legal Foundations & Title Ownership, Data Accessibility & Compatibility, Market Access, Equity & Fairness, Regulation & Oversight, Convergence, Interoperability & Alignment, and Risk & Assurance Frameworks. Participants from all three sub-groups were given the opportunity to contribute to the recommendations developed by the other groups, and these perspectives are captured in the Further Recommendations sections that follow each set of recommendations.



Outcomes and recommendations

7.1 Market Infrastructure

The working group explored how core market infrastructure underpins trust, efficiency, and investability in the voluntary carbon market. Discussions focused on the systems and functions needed to ensure fair and safe market operations, guard against fraud and market manipulation, and support confidence among buyers, project developers, financial institutions, civil society, and both Indigenous Peoples and local communities. The group drew on the World Bank Carbon Market Infrastructure Working Group's lifecycle framework¹³ to examine where infrastructure gaps or fragmentation impede scale and integrity. Against this backdrop, conversations centered on six interdependent themes shaping a credible and bankable market:

- 1. Regulation**
- 2. Ownership rights and claims**
- 3. Transparency**
- 4. Convergence and interoperability**
- 5. Resilience**
- 6. Incentive alignment**

¹³ World Bank Carbon Market Infrastructure Working Group, [A Roadmap for Safe, Efficient, and Interoperable Carbon Market Infrastructure](#)

1 – Regulation

Beyond the applicable regulatory framework in any given country (laws on financial markets, corporate, commercial and contract law, consumer protection law, environmental protection laws, permitting law, employment law, tax law, etc.), voluntary carbon markets generally, with some emerging exceptions, operate without specific regulatory oversight and bespoke legal frameworks. Thus, powers and authority over mitigation activities, the market itself, and environmental claims are generally, with some emerging exceptions, fragmented across government ministries, financial regulators, consumer protection bodies, competition authorities, commercial contracts and commercial legal enforcement systems (courts), and climate and human rights litigation. This fragmented regulatory landscape creates legal uncertainty that could limit scale and raise risks for all parties, including financial intermediaries, corporates and communities on the ground.

Each carbon-crediting program follows the laws of its countries of incorporation and operation but otherwise follows its own rules, with projects and buyers spread across different jurisdictions – leading to inconsistencies and uncertainty about how regulations apply to carbon-crediting activities.¹⁴ Every project is assessed on its own merits against methodology and program-level rules, making comparison and interoperability difficult and hindering scale. The CCPs have addressed this at the program and methodology levels, providing a global quality threshold for credits. However, there are still top-down regulations that might make international or inter-jurisdictional comparisons challenging. The group compared selected regulated and unregulated market features and examined the relevance of emerging regulatory guidance, such as IOSCO's Good Practices,¹⁵ to inform high-level guidance for the effective regulation of voluntary carbon markets.

Recommendations

- 7.1.1** The ICVCM should encourage governments to adopt internationally recognised standards and principles (e.g., ISO, ISSB, IOSCO, UNIDROIT) to ensure consistency and compatibility across carbon-crediting programs and registries.
- 7.1.2** The ICVCM should promote rights-based safeguards to ensure fairness, equity, and inclusiveness of market functions/infrastructure by aligning future refinements of the CCP Assessment Framework with UNGPs on Business and Human Rights and OECD Guidelines for Multinational Enterprises.
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¹⁴ Examples include: (i) host-country land tenure, carbon rights, and Indigenous Peoples free prior and informed consent (FPIC) requirements; (ii) environmental permitting and land-use regulations affecting project eligibility; (iii) cross-border transfer, tax, and foreign exchange rules applicable to carbon credit transactions; (iv) legal classification of credits (e.g., property, contractual right, or license) affecting transferability and enforceability; (v) corporate accounting, tax, and financial-reporting treatment of credits under applicable standards (e.g., inventory vs. intangible asset); and (vi) disclosure, consumer protection, and greenwashing regulations governing credit use and claims.

¹⁵ [FR/08/2024 Voluntary Carbon Markets](#)

Further discussion

Participants discussed that market infrastructure service providers (e.g., exchanges, data and analytics providers, custodians, and settlement platforms) should consider aligning with relevant market, accounting, and data standards to ensure systems securely track, reconcile, and report all carbon credit transactions in a consistent, auditable, and transparent manner, ensuring that environmental attributes are accurately attributed, transferred, and retired without duplication or loss of integrity. The ICVCM could consider developing shared principles and standards of practice with governments to strengthen investor confidence, reduce fragmentation, and enable smoother integration with compliance regimes - creating the conditions necessary for market growth and interoperability.

The ICVCM could consider convening carbon-crediting programs to support coordination and alignment on methodology standardisation, helping to streamline market operations and ensure consistency across systems.

2 – Ownership rights and claims

The absence of a globally consistent approach to ownership of carbon credits and a recognition system for those rights is, in the view of the participants, a major barrier to scaling carbon markets. Discussion in the working group reflected the view that tracking the ownership of carbon credits (as compared to tracking transactions in a registry) is needed to improve the legal certainty underpinning the market.

BOX 2

It is important to distinguish between carbon-crediting program registries and meta-registries.

Carbon-crediting program registries are defined by the ICVCM in the Summary for Decision Makers as “a secure central database for recording comprehensive information about carbon credits that the (crediting) program issues, including the mitigation activity in which they were generated, their ownership, and their transaction history. A registry uniquely identifies each carbon credit, the associated mitigation activity, and any other associated attributes. Registries also provide comprehensive information about mitigation activity proponents and VCM participants.” Registries are also referenced in the ICVCM’s Definitions section of the Assessment Framework by way of defining a carbon credit, including that “The carbon credit is uniquely serialised, issued, tracked and retired or administratively cancelled by means of an electronic registry operated by an administrative body, such as a carbon-crediting program.”

Meta-registries are decentralised metadata platforms that link, aggregate and harmonise carbon-crediting program registry data, and which may or may not have the functionality to track ownership. Currently, infrastructure systems do not systematically track ownership of carbon credits.

Four key building blocks were identified to strengthen legal certainty over carbon credits: (i) consistent legal treatment across jurisdictions for ownership of credits; (ii) clear title registry(s) with up-to-date records; (iii) mechanisms for title search, monitoring and reporting, encumbrance check, verification of chain of ownership, regulatory compliance; and (iv) title insurance and effective dispute resolution mechanisms.¹⁶

Efforts such as the UNIDROIT/UNCITRAL Joint Study are working on guidance regarding the legal nature of verified carbon credits (VCCs) issued by carbon-crediting programs. UNIDROIT is developing draft principles meant to provide guidelines for states to align their private law with best practice and international standards regarding VCCs. The UNIDROIT Principles on the Legal Nature of Verified Carbon Credits, once adopted, will aim to foster clarity and uniformity in the private law treatment of VCCs.¹⁷

Recommendations

- 7.1.3** The ICVCM should consider requiring carbon-crediting programs to clarify how legal title is established at the point of issuance and explore how information related to title or beneficial ownership can be disclosed, where appropriate, to parties with a legal or regulatory interest.
- 7.1.4** Carbon-crediting program registries should collaborate with relevant stakeholders and each other to align their terms of use, definitions, and approaches to recording legal titles at issuance, encumbrances, securities or pledges, retirement, and cancellation, as well as approaches for appropriate disclosure that balances commercial sensitivity and transparency.
- 7.1.5** The ICVCM should consider requiring carbon-crediting programs and registries to follow international legal guidance—such as the UNIDROIT principles currently under development—that support clarity and uniformity in the private law treatment of verified carbon credits.

Further discussion

It was noted that more research is needed to establish requirements for carbon-crediting programs that would allow for the proper disclosure of legal title and beneficial ownership designed to protect the privacy of parties while still upholding transparency and market integrity. Striking this balance was seen as key to maintaining trust and participation.

Carbon-crediting program registries that currently do not record ownership could explore partnerships with third-party platforms capable of securely recording and tracking ownership. Should this prove successful, the ICVCM could mandate these partnerships in further refinements to the CCP Assessment Framework. More engagement and synergy among carbon-crediting programs could be beneficial to ensure that terms such as ‘title’ and ‘ownership’ are applied consistently across carbon-crediting programs, aligned with the governing legal frameworks in each jurisdiction.

¹⁶ For example, public securities markets rely on centralised securities depositories and clearing systems (e.g., DTCC, Euroclear, Clearstream) that provide mechanisms for title search, real-time monitoring and reporting, checks for liens or other encumbrances, verified chains of beneficial ownership, regulatory compliance, and established dispute resolution and error-correction processes. Similar functions exist in land and real estate markets through government-maintained land registries, which enable title search, encumbrance checks (e.g., mortgages or liens), legally enforceable ownership records, and formal judicial or administrative mechanisms for resolving ownership disputes.

¹⁷ [UNIDROIT Draft Principles on the Legal Nature of Verified Carbon Credits](#)

Participants discussed that a single authoritative title registry could serve as the definitive source of information, reducing duplication, confusion, and reliance on external systems. However, more research and technical work on this would be needed.

The group recognised the need for more analysis to determine if crediting program registries should remain responsible for transferring control of credits between account holders, ensuring a clear chain of custody and minimising operational risk. Enabling visibility across records and holdings in different crediting program registries would help confirm ownership and control across systems. A deeper understanding on how exchanges may play a complementary role in facilitating transparent transfer and tracking of title would be beneficial.

Participants noted the need for a mechanism to ensure that verified mitigation outcomes within carbon-crediting programs correlate with national registry records.

3 – Transparency

In the context of markets, participants determined that transparency denotes the degree to which information regarding market activities is disclosed and made accessible to the public. The group discussed gaps in access, availability and standardisation of methodology-level, project-level, credit-level, and pricing information. Limited transparency creates information asymmetry, undermining trust and market confidence. However, consideration should be given to the commercial sensitivity of proprietary information and the related legal safeguards. Discussions about transparency were grounded and focused on access to information, oversight, market efficiency, and accountability. The group also considered how developing standardised reporting formats and market benchmarks could enhance transparency. Transparency cuts across all other focus areas and the recommendations coming out of this discussion have been integrated into the recommendations from other sections.

4 – Convergence and interoperability

The group discussed convergence (policy alignment across carbon-crediting programs and frameworks) and interoperability (technical compatibility for data exchange between systems) as interdependent areas. Overcoming fragmented policy frameworks and inconsistent standards and data formats would promote market integration and growth. The group discussed the varying levels of convergence across governance, methodologies, registries, and legal frameworks, and emphasised the importance of cooperation across initiatives such as CDOP, Climate Action Data (CAD) Trust, ISO, and the G20 Sustainable Finance Working Group to enable interoperability at both the policy and technical levels.

Recommendations

- 7.1.6** The ICVCM should continue to engage with carbon-crediting programs to promote the adoption of common digital formats and harmonised data taxonomies across crediting program registries as new standards emerge. It should monitor initiatives developing common data models and evaluate its role in advancing an internationally recognised standard for the carbon market.

- 7.1.7** The ICVCM should continue to engage with current efforts to establish common data models, such as the Carbon Data Open Protocol (CDOP), CAD Trust, ISO, and the work of the Climate Data Steering Committee through the G20 Sustainable Finance Working Group.
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Further discussion

The group highlighted the need for further research to determine how flexible technical and legal requirements must be to achieve interoperability across crediting program registries, legal frameworks, and market infrastructure, as no one data model may provide a mechanism that works across all existing systems. The ICVCM could consider signaling direction, promoting convergence around key principles, and convening carbon-crediting programs to coordinate where possible, without mandating technical uniformity. The group identified the need to better understand how current interoperability efforts (such as meta-registries) could enable technical connections between registries, and if common data models could support reconciliation and tracking across systems.

5 – Resilience

Market resilience is defined as the ability of carbon market infrastructure to withstand operational and technological disruptions. The group discussed how building organisational and technical resilience — through auditability, business continuity, cybersecurity, KYC/AML standards, and incident response systems — is critical for maintaining institutional confidence and scaling carbon market participation. Without resilient infrastructure, the operational risks for sophisticated or regulated institutions remain high, limiting their involvement.

Recommendations

- 7.1.8** The ICVCM should recommend carbon-crediting programs and registries to implement, monitor, and disclose audit results of their risk management systems, including business continuity, cybersecurity, and financial solvency protocols. The ICVCM should provide guidance on the granularity of what should be disclosed publicly.
-

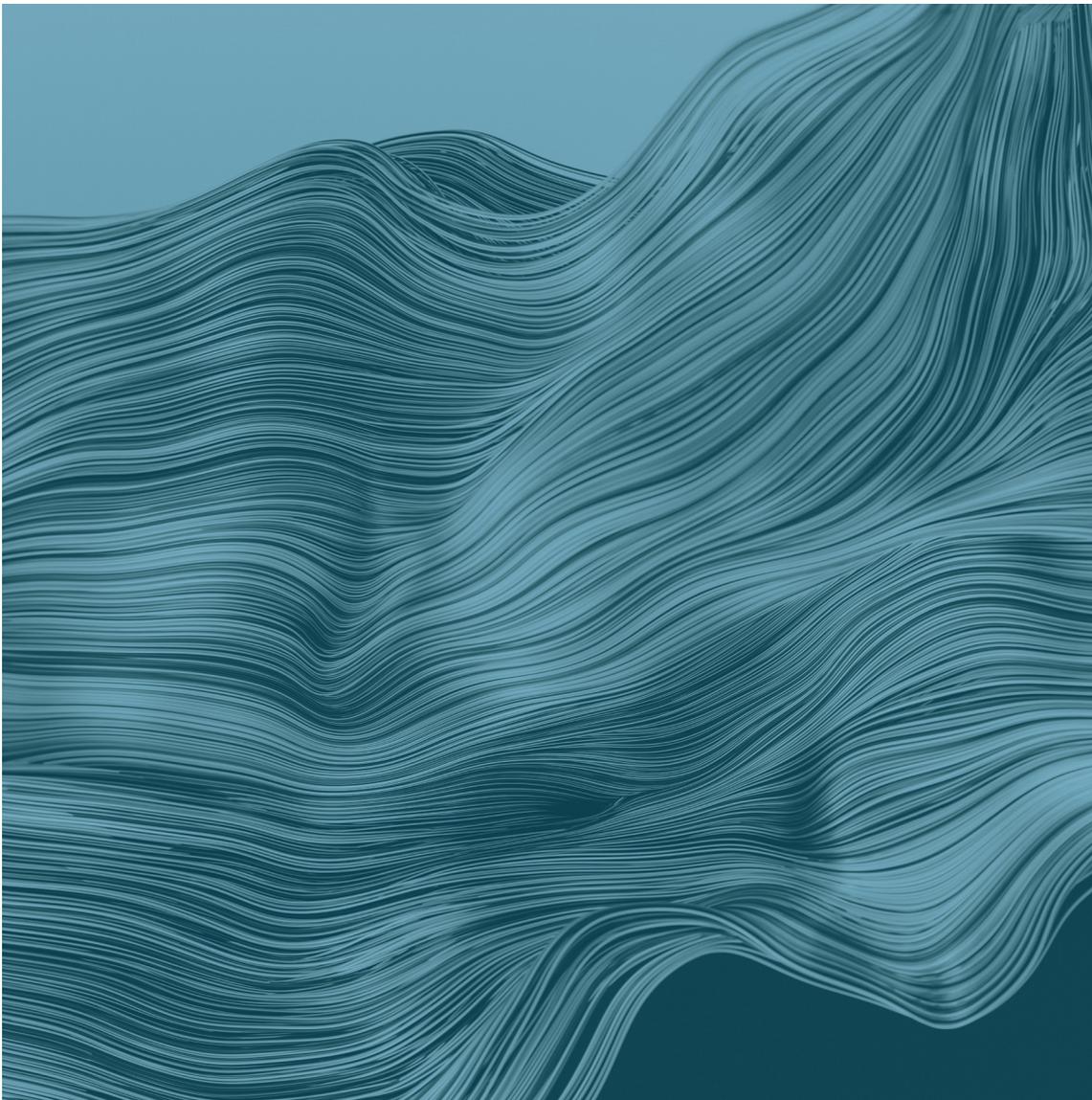
Further discussion

For clarity, the requirement for carbon-crediting programs to implement risk management systems refers to the resilience of their infrastructure rather than the underlying technology. If the disclosure of risk management systems could compromise security, the ICVCM could consider requiring disclosure limited to providing the audit report of such systems to the ICVCM. Participants agreed that the IOSCO Good Practices principles¹⁸ should be taken into consideration when the ICVCM considers any refinements to its rulebook.

¹⁸ [FR/08/2024 Voluntary Carbon Markets](#)

6 – Alignment of incentives

Alignment of incentives is essential to ensure that carbon markets scale effectively while safeguarding integrity, confidence, and fairness. This theme cut across all areas of the work program, with additional work already being advanced through related initiatives such as the World Bank’s Carbon Market Infrastructure Working Group Technical Guidance (see Annex 3 for further details). A key takeaway was the need for consistent and accountable oversight across all market actors - including carbon-crediting programs, registries, project developers, transaction intermediaries, and validation and verification bodies (VVBs). While beyond the scope of the ICVCM, participants agreed that service providers involved in transactions should disclose their governance structures and report any real or perceived conflicts of interest, drawing on best practices from other actors such as IOSCO and the World Bank. Alignment of incentives for carbon market ecosystem players beyond programs is particularly important as ICROA¹⁹ winds down its operations in 2026.



¹⁹ [ICROA](#)

7.2 Pricing Transparency and Integrity

The participants in sub-group 7.2 defined the in-scope and out-of-scope elements for discussions on pricing transparency and integrity insofar as they have a bearing on scaling the market. Participants concluded that transparency in itself is not the goal; rather, transparency must serve to improve market efficiency, integrity, and fairness. Participants noted that, while pricing structures of carbon-crediting programs are transparent and available in the public domain, there is room for improvement on clear disclosure frameworks, with consistent terminology to better aid comparability.

Participants also noted that credit pricing integrity hinges on clear disclosure frameworks for revenue and benefit sharing arrangements, so the price of a credit adequately reflects and encompasses the benefits it is meant to deliver. Gaps in disclosure frameworks make it more challenging for stakeholders to understand costs and could limit confidence in the extent to which credit pricing reflects true project costs and enables fair and equitable distribution of revenues and benefits, in particular for Indigenous Peoples as well as local communities. Further work by the ICVCM and the broader market ecosystem to better understand cost structures could be beneficial.²⁰

The working group narrowed its focus to two critical areas where pricing transparency and integrity intersect, impacting scalability and transparency:

- 1. Fee structures** – examining the design and impact of carbon-crediting program fees, particularly at the first stage of the credit lifecycle (verification and issuance) and VVB fees.
- 2. Revenue- and benefit-sharing** – addressing how revenue generated from credit sales could be allocated and determined, particularly between first buyers/sellers and local communities, and how benefit-sharing is defined.

²⁰ In 2026, the ICVCM will conduct further continuous improvement work, in collaboration with partners, to gain deeper understanding of project costs across crediting activities in the market and the distribution of benefits from carbon credit sales.

1 – Fee structures

The discussion focused on fees set by the carbon-crediting programs, with VVB fee structures briefly considered. In terms of program fees, they are seen as funding essential functions of these entities and enabling a competitive market. There was no suggestion that a standardisation of fees should be required, but rather that comparability should be encouraged. However, there was recognition that different fee structures are applied at different and multiple stages (registration, issuance, transfer, retirement, verification, labelling) and vary across registries and carbon-crediting programs, which makes comparability more difficult. Better transparency in pricing structures to support comparability, including more consistency of terminology, was suggested. Carbon-crediting programs are encouraged to design program fees in a manner that considers accessibility and ability to pay such that access to the market is as broad as possible.²¹

It was noted that VVB fees can be a barrier to entry for smaller developers, due to a lack of local VVBs in the Global South. These topics will be further covered in the ICVCM's work program on oversight of VVBs, which was launched in late 2025.

It was noted that carbon-crediting program fee structures can create actual or perceived conflicts of interest, particularly where fees are linked to the volume of credit issuance. Under issuance-based models, higher credit volumes result in higher fees charged to project developers, which may raise concerns about incentives to overissue. Some carbon-crediting programs use alternative approaches, such as buyer-pays or non-issuance-based fee models; however, these structures may also present real or perceived conflicts if not carefully designed.

The ICVCM's Core Carbon Principles mitigate these risks by requiring carbon-crediting programs to apply conservative, science-based crediting methodologies and to prevent over-crediting. Carbon-crediting programs operate under independent governance arrangements and maintain controls to suspend or halt credit issuance where underlying greenhouse gas (GHG) reductions or removals are uncertain or no longer valid. In addition, program-level requirements provide for management of conflict of interest and transparency in methodology development and decision-making.

At the same time, carbon-crediting programs require sufficient and predictable funding to operate effectively. Fee structures were therefore deemed acceptable by the working group where they are transparent, clearly defined, and applied consistently. Greater alignment of terminology and definitions across carbon-crediting programs would further improve clarity, comparability, and market confidence.

Recommendations

- 7.2.1** The ICVCM should work with the carbon-crediting programs to create a common taxonomy for their fees and require carbon-crediting programs to clearly disclose fee breakdowns (issuance, retirement, methodology fees, etc.), using the common definitions.
 - 7.2.2** The ICVCM should consider hosting a public library of crediting program fee structures using the common definitions for comparability – possibly through linking to crediting program websites.
 - 7.2.3** The Continuous Improvement Work Program on Oversight of VVBs should consider current VVB funding models in the scope of its work.
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²¹ In 2025, carbon-crediting programs have started piloting prioritisation of project reviews for additional fees. The CIWP participants did not have sufficient opportunity to discuss these developments and have not deliberated on any recommendations in this regard.

Further discussion

The recommendation for common definitions should not be conflated with a call for the ICVCM to prescribe standardised fee structures. Carbon-crediting programs should be free to develop their own methodologies for charging fees to support a competitive market and ensure their capacity to run operations, and the disclosure of this process is what needs to improve. Participants considered that the ICVCM should utilise other commodity market best practices to inform the format and principles for the disclosure of fee structures and common definitions in the market. Benchmarking initiatives, as well as voluntary real-time reporting of transaction prices and credit attributes (including credit type, volume, vintage, and safeguards) on registries, exchanges, and trusted third-party data platforms could help improve pricing transparency.

2 – Revenue- and benefit-sharing

The current revenue and benefit-sharing structures under consideration focus on the distribution of financial proceeds from carbon credit sales and the broader financial and non-financial benefits that flow from projects and jurisdictional programs to stakeholders, including both Indigenous Peoples and local communities. The ICVCM 2024 work program on benefit-sharing provided a strong foundation, while the current work program's lens of market transparency, standardisation, and scalability introduces distinct considerations.

Clear definitions of 'revenue-sharing' and 'benefit-sharing' are essential to ensure clarity and avoid confusion. Contractual counterparty disclosure of revenue- and benefit-sharing arrangements is important for maintaining fair negotiation positions between counterparties in structuring a contract. This is separate from public disclosure of benefit-sharing arrangements that enable broader market confidence. Both private counterparty disclosure requirements and some degree of public transparency around benefit-sharing agreements are important for improved market oversight and conditions for equitable scaling.

There should be a balance between greater standardisation of disclosure requirements to enable commercial contracts and negotiations, and avoiding being over-prescriptive and limiting fair negotiation. Disclosures to relevant stakeholders provide grounds for fair negotiation, and transparency for the broader market brings confidence to all stakeholders. However, there is a distinction between the type of information that should be shared in each case. In both cases, requirements should be context-specific, proportional, properly protect commercially sensitive information and respect legal rights to confidentiality.

While revenue sharing at the first transaction point is a priority, participants highlighted concerns related to how revenue flows are tracked and disclosed subsequently and what constitutes equitable distribution. Benefits to the project proponents can come from both a share of the carbon credit revenue and sharing in project-related benefits such as salaries or infrastructure development – the most important aspect being the overall fairness of the outcome. Further, the beneficiaries in an arrangement (the stakeholders 'benefiting' from the activity) should be the party that determines what is considered a benefit, based on alignment with their priorities and values, and participate in the negotiation with proper information and a fair position.

Another key consideration is managing revenue volatility and ensuring that communities are not disproportionately exposed to price troughs. In this context, resilience clauses - contract terms that cushion downside risk (e.g., minimum price floors, make-whole/top-up payments, or smoothing reserves when market prices fall) - and upside-sharing mechanisms - terms that allocate a greater share of revenues to communities when prices exceed agreed triggers (e.g., ratchets, step-ups, or bonus distributions above a threshold) - were suggested as tools that could be considered to share risks and gains more equitably.

Overall, standardised disclosure frameworks in the market, beyond prescriptive revenue-sharing models, were suggested to be the best path forward. The recommendations of the working group aim to clarify definitions, promote transparency of financial flows and benefits, ensure fair negotiation processes, and strengthen market confidence while maintaining project and program feasibility and scalability. Further work is needed to integrate the findings of the preceding work program on benefit-sharing with the market focus of the current work program.

Recommendations

- 7.2.4** The ICVCM should require carbon-crediting programs to ensure project developers disclose up-to-date and material information to relevant parties involved in revenue and benefit-sharing arrangements to facilitate fair negotiation without compromising commercial interests.
- 7.2.5** When refining requirements related to benefit-sharing, the ICVCM should prioritise guidance that ensures communities have fair access and understanding of all relevant aspects of the benefit-sharing agreement (i.e., FPIC) instead of prescribing mandatory formats or minimum terms for benefit-sharing contracts.

Further discussion

The ICVCM should conduct further consultation with the Indigenous Peoples and Local Communities Engagement Forum²² to determine if context-specific guidance can help negotiating parties in a revenue and benefit-sharing arrangement to determine their respective commercial interests and the information required for fair negotiation.

²² A market-wide Engagement Forum to elevate and enforce the rights of both Indigenous Peoples and local communities within the voluntary carbon market, led by their interests, values, principles and vision.

7.3 Catalysing Structured Finance

The working group focused on how the market for verified carbon credits could better enable investment at scale into carbon projects. Improving access to capital requires a set of enabling conditions that allow financial actors to confidently assess, price, and manage carbon credit investments as credible assets. The view of the group was that the fragmented and non-standardised nature of the current market has made this challenging.

Participants noted that uncertainty around the legal, financial, and risk characteristics of carbon credits still limits the ability of mainstream financial institutions to engage in the market. While significant capital is theoretically available, many of the tools common to structured finance - such as collateralisation, securitisation, forward contracting, and consistent balance sheet treatment - remain underdeveloped or inaccessible for carbon projects due to these underlying gaps. It also makes managing risk in the event of a non-performance of a project extremely difficult, reducing appetite for financing and raising costs.

The work program identified four interrelated focus areas for catalysing investment:

- 1. Legal and financial classification**
- 2. Risk and financial valuation frameworks**
- 3. Financial accounting: assurance and auditability**
- 4. Financing opportunities and blended finance**

The four focus areas are not purely technical or standalone but are interconnected. Progress in one area (e.g., legal treatment) directly enables progress in others (e.g., valuation, auditability, and ultimately investment access). The group's recommendations aim to help de-risk investment, increase market confidence, and enable the market to mobilise larger-scale capital while maintaining integrity and fairness.

1 – Legal and financial classification

Participants concluded that the market for verified carbon credits still lacks sufficient consistent legal and financial accounting classifications of carbon credits, resulting in persisting uncertainty that continues to limit investment. Legal definitions vary across jurisdictions and are shaped by national laws, often treating carbon credits separately from land rights or natural resources. While full global harmonisation is unlikely, the absence of transparent, jurisdiction-specific classification in many places hinders the recognition of carbon credits as investible assets. The UNIDROIT Working Group on the Legal Nature of Verified Carbon Credits is seeking to provide certainty on the classification of a VCC under private law as this is critical to support market participation by private entities, including project developers and investors.²³ As this work is ongoing, and has yet to be integrated, this ICVCM work program underpins some of the challenges UNIDROIT is seeking to address. Overall, there was clear consensus that a consistent approach in key financial centers would be a significant step forward. Work under the Coalition to Grow Carbon Markets, led by Singapore, the UK and Kenya, is bringing together ambitious governments committed to advancing climate action through scaling high-integrity use of carbon credits by addressing some of these inconsistencies across jurisdictions.²⁴

On the financial side, carbon credits are not currently treated as on-balance sheet assets, preventing their use in structured finance or as collateral. This lack of a widely acceptable and recognised use case and financial accounting treatment undermines investor confidence and limits the involvement of mainstream capital markets.

Recommendations

- 7.3.1** The ICVCM should promote alignment of definitions and recommendations with relevant initiatives from UNIDROIT, IOSCO, IFRS, and World Bank Carbon Market Infrastructure technical guidance (referenced in Annex 3), which offer best practice principles and standards for protecting rights, financial accounting and technical guidance. These should inform the evolution of the ICVCM rulebook, particularly in areas related to auditability and assurance.
- 7.3.2** The ICVCM should recommend that carbon-crediting programs monitor and publicly report on any updates and/or changes expected to any regulations in jurisdictions where projects producing credits on their registry are located.
- 7.3.3** The ICVCM should review and incorporate relevant insights from external initiatives – including those led by audit firms, financial standard-setters, and public institutions – into the CCP Assessment Framework requirements on governance, where appropriate. Rather than prescribing a uniform framework for market oversight, the ICVCM could support and integrate, where appropriate, governance models, such as the Coalition to Grow Carbon Markets²⁵ or the African Union Integrity & Equity Principles for Carbon Markets,²⁶ that have been endorsed by relevant jurisdictions, grounded in shared principles of market integrity.
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²³ [UNIDROIT Draft Principles on the Legal Nature of Verified Carbon Credits](#)

²⁴ [The Coalition To Grow Carbon Markets](#)

²⁵ [Ibid.](#)

²⁶ [Africa Unveils Landmark Integrity & Equity Principles and Coordination Platform to Strengthen Carbon Markets - African Media Agency](#)

Further discussion

When considering how carbon-crediting programs should monitor and report on relevant regulations, the financial viability of this requires attention. It should be expected that legal compliance provisions under their registration process should be transparent so that VVBs are considering incoming regulation when validating and verifying projects at the minimum. It was recognised that monitoring regulatory information is essential, though further discussion is needed on the capacity and liability challenges. There is a need to determine whether these monitoring provisions are best addressed within the CCP Assessment Framework or through other collaborative mechanisms.

2 – Risk and financial valuation frameworks

The market could benefit from more standardised metrics to assess, disclose, and value project-level risks and credit performance in a consistent manner across all actors. Risk is multi-dimensional, comprising operational, financial, methodological, market, political, reputational, environmental and social dimensions, but is currently defined inconsistently among carbon-crediting programs and market intermediaries (such as rating agencies, insurance providers, project due-diligence entities, etc.).

Like in other markets, there is not one singular methodology for providing risk ratings of credits in carbon markets; however, other markets have consistent metrics and standardised data to provide a consistent basis for assessment. For example, in corporate bond markets there is no single model used to assess credit risk; however, standardised financial disclosures and accounting metrics (such as audited financial statements prepared under IFRS or U.S. GAAP) provide a consistent data foundation that enables comparable risk assessment by multiple rating agencies and market participants.

Currently, financing models for carbon projects generally project future revenue expected to be generated by the project over its lifetime. Performance risk is often managed using guarantees, insurance or other support mechanisms. This approach is used rather than the approach of dealing with carbon credits as tangible, performance-based assets. Without consistently recognised valuation metrics, such as removal rates, validated carbon stock, liquidated damages, or delivery likelihood, projects do not have optimal means to demonstrate intrinsic value, which impacts their ability to attract consistent, long-term funding. This impairs financial modelling, risk pricing, and comparability across projects, methodologies, or geographies.

A consistent approach with clearly defined risk and valuation metrics, grounded in standardised data and assurance processes, could enable greater investor confidence, unlock financing, and facilitate the use of carbon credits as collateral. This could also help market participants understand the proportion of risk held throughout the carbon credit value chain by project developers, registries, buyers, VVBs, etc., with clearer definitions. The work being undertaken by the UNIDROIT Working Group on the Legal Nature of Verified Carbon Credits is simultaneously gaining consensus on potential legal and regulatory solutions to many of these concerns regarding risk metrics.²⁷

At the same time, participants noted that such consistency would not necessarily lead to standardised methodologies to assess or weigh risks, as these are business-specific choices made to differentiate offerings, maintain a unique value proposition, and uphold a competitive market.

²⁷ [UNIDROIT Draft Principles on the Legal Nature of Verified Carbon Credits](#)

Recommendations

- 7.3.4** The ICVCM should convene carbon-crediting programs to define common project-level risk metrics to be used in the methodologies, such as baseline determination risk; additionality risk; boundary risk; monitoring, reporting and verification (MRV) risk; and legal risk, without creating undue reporting burdens.
- 7.3.5** Based on common definitions determined with the carbon-crediting programs, the ICVCM should add reporting and disclosure requirements on project risks pre- and post-issuance beyond what is currently required by the CCP Assessment Framework.
- 7.3.6** Carbon credit risk-assessing bodies, like rating agencies and insurance companies, should seek alignment on a standard framework for market-level risk categories, such as in the IFRS or U.S. GAAP, allowing for clearer communication of risk exposures and helping project developers understand buyer expectations without consolidating risk assessing methodologies (as this could hinder free competition).

Further discussion

The recommendation on common risk categories aims to establish consistent categories of risks (project- or market-level) to enable comparable assessments and support development of risk pricing and risk management tools. Therefore, the ICVCM should convene carbon-crediting programs to define common risk (additionality risk, baseline determination risk) disclosed in project due diligences (PDDs).

3 – Financial accounting: Assurance and auditability

The working group noted that the carbon market does not yet have consistent, finance-grade assurance systems that allow carbon credits to be treated like other assets in corporate financial statements. Today, verification generally focuses on environmental performance, but credits are not routinely audited to standards recognised in financial accounting frameworks such as IFRS,²⁸ U.S. GAAP,²⁹ or CSRD³⁰ (see Box 3 for more information). As a result, companies cannot yet reliably treat carbon credits as assets on balance sheets, and investors continue to lack a trusted basis for pricing and financing them at scale.

In established financial markets, assets that hold monetary value are subject to rigorous, standardised audit processes to provide reasonable assurance—a high but not absolute level of confidence that reported information is free from material misstatement. In the context of the carbon credit market, reasonable assurance would be expected to require consistent, auditable systems across credit generation, issuance, transfer, and retirement, including controls over data, methodologies, and registry records. This is distinct from existing carbon project verification rules, which provide assurance against ISO standards: ISO/TC 207/SC 7 (for Greenhouse gas management and related activities)³¹ but are not designed to meet financial reporting thresholds.

²⁸ [IFRS - IFRS Sustainability Standards Navigator](#)

²⁹ [FASB US GAAP Standards](#)

³⁰ [Directive - 2022/2464 - EN - CSRD Directive - EUR-Lex](#)

³¹ [ISO/TC 207/SC 7 - Greenhouse gas and climate change management and related activities](#)

BOX 3**Financial Accounting and Sustainability Reporting Frameworks Referenced****International Financial Reporting Standards (IFRS)**

IFRS Standards are developed by the IFRS Foundation through its International Accounting Standards Board (IASB) and International Sustainability Standards Board (ISSB). They provide a globally recognised framework for preparing and presenting financial and sustainability-related information that is useful to investors and creditors. The IFRS Sustainability Disclosure Standards (e.g., IFRS S1 and IFRS S2) specify requirements for disclosing material sustainability-related risks, opportunities, and climate-related information that could affect a company's financial prospects.

U.S. Generally Accepted Accounting Principles (US GAAP)

U.S. GAAP is the set of accounting standards established and maintained by the Financial Accounting Standards Board (FASB) in the United States. It provides authoritative guidance on recognition, measurement, presentation, and disclosure of financial information in audited financial statements for companies reporting in the U.S.

Corporate Sustainability Reporting Directive (CSRD)

The CSRD is a European Union legislative directive (Directive (EU) 2022/2464) that requires large and listed companies within its jurisdiction to disclose detailed information on sustainability-related risks, impacts, and opportunities. Companies subject to CSRD must report in accordance with European Sustainability Reporting Standards (ESRS), which are adopted as delegated acts of the European Commission and establish mandatory reporting requirements on environmental, social, and governance matters.

Clear accounting treatment (e.g., as intangible assets or derivatives) and finance-grade assurance frameworks would enable carbon credits to be recognised on balance sheets, transparently valued, and used to unlock structured finance, insurance, and broader institutional capital. Alignment with emerging guidance on clear legal definitions with accompanying accounting and auditing standards, from bodies such as IFRS, IOSCO, UNIDROIT, will be critical to establishing consistent market rules, auditability, and investor confidence.

Recommendations

7.3.7 The ICVCM should define and require a minimum threshold for reasonable assurance, beyond what is currently required under Criterion 4.1 on robust independent third-party validation and verification (which directs VVBs to be accredited by a recognised international accreditation standard and to have a process for managing performance). This minimum threshold should be embedded within the CCP criteria and aligned with international best practices such as ISAE, IOSCO, or ISDA standards, and would require carbon-crediting programs to demonstrate that

verification outputs meet clearly defined assurance objectives, including standardised audit scope and depth, documented materiality thresholds, evidence-based testing procedures, transparent treatment of uncertainty and estimation risk, and traceable audit documentation sufficient to support reliance by financial market participants.

Further discussion

Participants noted that there should be a clear distinction made between certification against an agreed ISO standard for VVB oversight and the auditing of an entity's annual report that adheres to reasonable assurance requirements for a financial statement.

An initial step could be to launch a process to explore feasibility and best practices for requiring reasonable assurance from carbon-crediting programs so they can be aware of the implications of a systems and records audit. It was suggested that any new requirements from the ICVCM for additional assurance should be applied prospectively, not retrospectively.

4 – Financing opportunities and blended finance

Project developers may face systemic financing barriers, especially in early-stage project development. Financial market credit and investment committees can be hesitant to invest in carbon-crediting projects without clear valuation, risk metrics, or financial classification. Before the arrival of CCP-Approved methodologies in the market, every project and credit had to be examined on its own merits, which reduced capacity and appetite to fund projects at scale. While blended finance instruments (e.g., grants, concessional capital) exist, there has been a lack of utilisation among project developers (especially among small projects) because access and support for structuring blended finance agreements effectively have been limited, making it difficult to scale.

Philanthropic and sovereign capital is potentially underutilised, and many developers have expressed that they lack the tools to navigate the financial ecosystem. Mapping funding sources, clarifying the role of different capital types,³² and providing guidance on deal structuring could unlock more investment. As projects are getting off the ground in many different jurisdictions with various norms and options for blended finance, the work program determined that country-specific finance landscape mapping resources would help project developers who are in the early stages of assessing where to initiate a project. For example, in Rwanda the government-backed Rwanda Green Fund (FONERWA) serves as the country's principal climate finance vehicle, mobilising public budget allocations, state-sourced grants, and international climate finance to support mitigation and adaptation projects, and offering technical and preparatory financing that can help bridge early-stage project development gaps.³³

A shared understanding and proportional allocation of risk ownership across the value chain would also reduce burden on project developers and promote more equitable financing structures. The working group recommended that the ICVCM consult with governments who are aiming to build supply of high-integrity carbon credits to support the production of country-specific finance landscape mapping to help project developers access existing sources of finance they may not be aware of.

³² E.g., for a discussion of the potential role of carbon credits in debt-for-climate swaps, see:

[Debt-for-Carbon: Using Carbon Credits for Debt Relief](#)

³³ [GCA-Financial-Innovation-for-Climate-Adaptation-in-Africa-2022.pdf](#)

Participants

The Continuous Improvement Work Program on Market Transparency, Scalability and Standardisation was comprised of experts from:

- American Carbon Registry & Architecture for REDD+ Transactions
- Carbonplace
- Climate Action Data Trust
- Climate Action Reserve
- Climate Asset Management
- Climate Data Steering Committee Secretariat
- Climate Impact Partners
- Climate Impact X
- Dragonfly Advisory
- EKI Energy Services Limited
- Environmental Defense Fund
- Equitable Earth (formerly Ecosystem Restoration System, ERS)
- Ernst & Young
- Euroclear
- First Rand Bank
- GenZero
- Global Carbon Council
- Global Carbon Market Utility
- Gold Standard
- Howden Group Holdings
- IDX Indonesia Stock Exchange
- Impact Investing Kenya
- Indian Energy Exchange
- International Emissions Trading Association (IETA) legal working group
- International Finance Corporation
- Isometric
- Kita Earth
- Linklaters
- MSCI Carbon Markets
- Nasdaq
- Nomura Research Institute
- Plan Vivo
- Pollination
- Puro.Earth
- Rand Merchant Bank
- Rubicon Carbon
- S&P Global
- Securities and Futures Commission
- Standard Chartered Bank
- Sylvera
- Terraspect
- Trafigura
- International Institute for the Unification of Private Law (UNIDROIT)
- Verra
- Xpansiv
- Xpansiv - APX

Annexes

Annex 1: Table of recommendations

Recommendation type	Relevant CCP Assessment Framework criteria	No	Recommendation
Further recommendations		7.1.1	The ICVCM should encourage governments to adopt internationally recognised standards and principles (e.g., ISO, ISSB, IOSCO, UNIDROIT) to ensure consistency and compatibility across carbon-crediting programs and registries.
Further recommendations	7. Sustainable Development Benefits and Safeguards	7.1.2	The ICVCM should promote rights-based safeguards to ensure fairness, equity, and inclusiveness of market functions/ infrastructure by aligning future refinements of the CCP Assessment Framework with UNGPs on Business and Human Rights and OECD Guidelines for Multinational Enterprises.
Further recommendations		7.1.3	The ICVCM should consider requiring carbon-crediting programs to clarify how legal title is established at the point of issuance and explore how information related to title or beneficial ownership can be disclosed, where appropriate, to parties with a legal or regulatory interest.
Further recommendations	2.1 Effective registries	7.1.4	Carbon-crediting program registries should collaborate with relevant stakeholders and each other to align their terms of use, definitions, and approaches to recording legal titles at issuance, encumbrances, securities or pledges, retirement, and cancellation, as well as approaches for appropriate disclosure that balances commercial sensitivity and transparency.
Further recommendations	2.1 Effective registries	7.1.5	The ICVCM should consider requiring carbon-crediting programs and registries to follow international legal guidance—such as the UNIDROIT principles currently under development—that support clarity and uniformity in the private law treatment of verified carbon credits.
Further recommendations	2.1 Effective registries	7.1.6	The ICVCM should continue to engage with carbon-crediting programs to promote the adoption of common digital formats and harmonised data taxonomies across crediting program registries as new standards emerge. It should monitor initiatives developing common data models and evaluate its role in advancing an internationally recognised standard for the carbon market.
Further recommendations		7.1.7	The ICVCM should consider requiring carbon-crediting programs and registries to follow international legal guidance—such as the UNIDROIT principles currently under development—that support clarity and uniformity in the private law treatment of verified carbon credits.
Recommendations for CCP Assessment Framework refinement	2.1 Effective registries	7.1.8	The ICVCM should recommend carbon-crediting programs and registries to implement, monitor, and disclose audit results of their risk management systems, including business continuity, cybersecurity, and financial solvency protocols. The ICVCM should provide guidance on the granularity of what should be disclosed publicly.

Annex 1 Table of recommendations (Cont.)

Recommendation type	Relevant CCP Assessment Framework criteria	No	Recommendation
	1.1 Effective governance	7.2.1	The ICVCM should work with the carbon-crediting programs to create a common taxonomy for their fees and require carbon-crediting programs to clearly disclose fee breakdowns (issuance, retirement, methodology fees, etc.), using the common definitions.
Further recommendations	1.1 Effective governance	7.2.2	The ICVCM should consider hosting a public library of crediting program fee structures using the common definitions for comparability – possibly through linking to crediting program websites.
Further recommendations	4.1 Robust independent third-party validation and verification	7.2.3	The Continuous Improvement Work Program on Oversight of VVBs should consider current VVB funding models in the scope of its work.
Further recommendations	3.1 Information 7.6 Indigenous Peoples, Local Communities, and cultural heritage	7.2.4	The ICVCM should require carbon-crediting programs to ensure project developers disclose up-to-date and material information to relevant parties involved in revenue and benefit-sharing arrangements to facilitate fair negotiation without compromising commercial interests.
Recommendations for CCP Assessment Framework refinement	7.6 Indigenous Peoples, Local Communities, and cultural heritage	7.2.5	When refining requirements related to benefit-sharing, the ICVCM should prioritise guidance that ensures communities have fair access and understanding of all relevant aspects of the benefit-sharing agreement (i.e., FPIC) instead of prescribing mandatory formats or minimum terms for benefit-sharing contracts.
Recommendations for CCP Assessment Framework refinement		7.3.1	The ICVCM should promote alignment of definitions and recommendations with relevant initiatives from UNIDROIT, IOSCO, IFRS, and World Bank Carbon Market Infrastructure technical guidance, which offer best practice principles and standards for protecting rights, financial accounting and technical guidance. These should inform the evolution of the ICVCM rulebook, particularly in areas related to auditability and assurance.
Further recommendations		7.3.2	The ICVCM should recommend that carbon-crediting programs monitor and publicly report on any updates and/or changes expected to any regulations in jurisdictions where projects producing credits on their registry are located.
Recommendations for CCP Assessment Framework refinement	1.1 Effective governance	7.3.3	The ICVCM should review and incorporate relevant insights from external initiatives – including those led by audit firms, financial standard-setters, and public institutions – into the CCP Assessment Framework requirements on governance, where appropriate. Rather than prescribing a uniform framework for market oversight, the ICVCM could support and integrate, where appropriate, governance models, such as the Coalition to Grow Carbon Markets or the African Union Integrity & Equity Principles for Carbon Markets, that have been endorsed by relevant jurisdictions, grounded in shared principles of market integrity.
Further recommendations		7.3.4	The ICVCM should convene carbon-crediting programs to define common project-level risk metrics to be used in the methodologies, such as baseline determination risk; additionality risk; boundary risk; monitoring, reporting and verification (MRV) risk; and legal risk, without creating undue reporting burdens.
Recommendations for CCP Assessment Framework refinement	3.1 Information	7.3.5	Based on common definitions determined with the carbon-crediting programs, the ICVCM should add reporting and disclosure requirements on project risks pre- and post-issuance beyond what is currently required by the CCP Assessment Framework.
Further recommendations		7.3.6	Carbon credit-risk assessing bodies, like rating agencies and insurance companies, should seek alignment on a standard framework for market-level risk categories, such as in the IFRS or U.S. GAAP, allowing for clearer communication of risk exposures and helping project developers understand buyer expectations without consolidating risk assessing methodologies (as this could hinder free competition).

Annex 2: Relevant CCP Assessment Framework requirements

The tables below present how the CCP Assessment Framework addressed the areas up for discussion in the CIWP in the first iteration.

Sub-Group 7.1: Market Infrastructure

Topic	Section in CCP Assessment Framework	How it is addressed in the CCP Assessment Framework
Tracking, Effective Registries	Section 2, Criterion 2.1	In addition to CORSIA the registry shall: <ol style="list-style-type: none"> 1) provide ID of the entity on whose behalf the credit was retired; 2) purpose of retirement; 3) have procedures to address erroneous issuance credits, remedial measures and clear responsibility for implementing these.
Transparency, Information	Section 3, Criterion 3.1	a) additional to CORSIA all relevant documentation relating to the activity is made publicly available, including: <ol style="list-style-type: none"> 1) Information requirements relating to environmental and social impacts, emission reduction calculation and assessment of additionality. 2) Activity Design Document 3) Re permanence – information relating to the monitoring and compensation period. b) The program shall have processes to allow for RFIs and provide any missing information (subject to confidentiality and proprietary, privacy and data protection restrictions) and made public.
No Double-Counting, No Double Issuance (Double Registration)	Section 6, Criterion 6.1	a) The program shall have provisions to: <ol style="list-style-type: none"> 1) prevent the registration of any activity that has been registered and is active under another program and 2) Wensure that it does not issue carbon credits for GHG emission reductions or removals to the same mitigation activity and/or for the same GHG emission reductions or removals, to ensure avoiding double issuance.
No Double-Counting, No Double Use	Section 6, Criterion 6.2	a) The program shall have registry provisions that prevent further transfer, retirement or cancellation of already cancelled or retired credits.
No Double-Counting, No Double Issuance (overlapping claims)	Section 11, Criterion 11.1 No Double Issuance (Overlapping Claims)	a) Programs shall have provisions to identify potential overlaps between different activities, including by 1) disallowing registration of activities whose GHG accounting boundaries overlap; 2) disallowing carbon credits that occur within the GHG accounting boundaries of another mitigation activity, under the same program; and between programs.
No Double-Counting, No double claiming with mandatory domestic mitigation schemes	Section 11, Criterion 11.2	a) Where there is a material risk of double claiming, the program shall have provisions to ensure either that: <ol style="list-style-type: none"> 1) activities that overlap with mandatory domestic schemes are not registered and/or carbon credits are not issued: or 2) when credits have been issued, the mandatory domestic mitigation scheme has measures in place to ensure that any mitigation activities are not counted towards the achievement of targets or obligations under the mandatory mitigation scheme.

Annex 2 Sub-Group 7.1: Market Infrastructure (Cont.)

Topic	Section in CCP Assessment Framework	How it is addressed in the CCP Assessment Framework
No Double-Counting, No double claiming of GHG mitigation arising from other environmental credits	Section 11, Criterion 11.3	For categories where there is a material risk of double claiming, the program shall have provisions to ensure that carbon credits are not issued where units related to the same mitigation activity are traded in other markets or accounting frameworks (e.g., RECs).
Requirements Relating to CCP Attributes	Part II, Attribute 1, Attribute 2, Attribute 3	<ol style="list-style-type: none"> 1) The program shall ensure Article 6 authorisation associated with the carbon credits has been provided by the host country before granting/tagging the carbon credits accordingly in the program's registry; and withdrawal of such a tag if Corresponding Adjustments are not applied within two years. 2) Attribute of a Share of Proceeds for Adaptation – tagging credits accordingly in the program registry. 3) Attribute of quantified positive SDG impacts is quantification of the positive SDG impacts according to the method, tool or standard, and has been verified by a VVB.

Sub-Group 7.2: Pricing Transparency and Integrity

Topic	Section in CCP Assessment Framework	How it is addressed in the CCP Assessment Framework
Revenue Sharing	Section 4, Criterion 1.2	<ul style="list-style-type: none"> - In addition to CORSIA requirements, requires process for transparent local and global stakeholder consultation, including issue resolution mechanisms. - Grievance processes must be accessible to civil society, Indigenous Peoples, and Local Communities without financial or procedural barriers.
Opportunities for sharing revenue between project developers, Indigenous people and local communities, governments, and landowners to ensure fair compensation	Section 4, Criterion 1.2	- The framework emphasises stakeholder consultation and engagement, ensuring inclusivity for Indigenous Peoples and local communities. This could indirectly support equitable revenue-sharing discussions should it be raised.
Reducing the risk of power imbalances so that marginalised groups benefit adequately from carbon projects	Section 4, Criterion 1.2	- Requires process for impartial grievance mechanisms and robust consultation processes that could address power imbalances and ensure marginalised groups' concerns are considered.
Consideration of standardised legal agreements and conflict resolution processes to manage disputes over revenue sharing	Section 4, Criterion 1.2	- In addition to CORSIA requirements, states the importance of clear and transparent grievance processes to resolve disputes, aligning with standardised conflict resolution needs.
Fee Structures	Section 4, Criterion 1.1 and Criterion 3	<ul style="list-style-type: none"> - Criterion 1.1 requires in addition to CORSIA requirements, transparency in governance, including publishing annual reports with revenues and expenses, contributing to clarity on fee structures. - Criterion 3 requires the public availability of all project documentation, enabling scrutiny of fee transparency.
Consideration of current deviation and options for standardisation of fee structures across different carbon-crediting programs	Section 4, Criterion 1.1	- The requirement for effective governance and transparency with a purpose of clear reporting of revenues and expenses.
Fee Transparency – aligning fee structures with the value and cost for each involved party	Section 4, Criterion 3	- In addition to CORSIA requirements, mandates public disclosure of all relevant information, potentially enabling stakeholders to align fees with actual value and costs.

Annex 2 Sub-Group 7.2: Pricing Transparency and Integrity (Cont.)

Topic	Section in CCP Assessment Framework	How it is addressed in the CCP Assessment Framework
Price Transparency	Section 4, Criterion 3 and Criterion 1.1	<ul style="list-style-type: none"> - Criterion 3 mandates comprehensive public reporting on mitigation activity documentation, promoting transparency in project information for price transparency. - Criterion 1.1 ensures organisational financial transparency.
Publicly accessible, up-to-date pre- and post-trade reporting on carbon credit prices	Section 4, Criterion 3	<ul style="list-style-type: none"> - Public availability requirements ensure stakeholders have access to accurate, up-to-date issuance and retirement information on carbon credits.
The need for transparency on transaction costs and mark-ups across the supply chain	Section 4, Criterion 3	<ul style="list-style-type: none"> - All information from PDDs must be made publicly available, subject to confidentiality limitations, ensuring transparency throughout the supply chain.
The need for enhanced price discovery in secondary markets	Section 4, Criterion 3	<ul style="list-style-type: none"> - The requirement for publicly accessible documentation supports enhanced price discovery by providing stakeholders with the data necessary to evaluate market norms and projects comparisons.
Reducing information asymmetry between buyers and sellers	Section 4, Criterion 3	<ul style="list-style-type: none"> - Public documentation and transparency requirements address information asymmetry by making comprehensive data available to all parties involved.

Sub-Group 7.3: Catalysing Structured Finance

Topic	Section in CCP Assessment Framework	How it is addressed in the CCP Assessment Framework
Providing information on risk for investors	Section 3, Criterion 3.1: Information	<ul style="list-style-type: none"> - In addition to CORSIA requirements, requires public availability of documentation related to mitigation activities, including methodologies, social and environmental impacts, and GHG calculations. - Ensures access to relevant program documents for transparency.
Including data on previous project/supplier performance that gets updated regularly	Section 3, Criterion 3.1: Information	<ul style="list-style-type: none"> - Mandates disclosure of all relevant documentation, allowing third parties to assess project performance.
For purchase and use of carbon credits with key enablers	Section 3, Criterion 3.1: Information	<ul style="list-style-type: none"> - Requires transparency in documentation, including methodologies and reporting.
Consideration of including the insurance industry at different stages of the lifecycle of a credit, and determining what the industry requires to participate	Criterion 3.1: Information	<ul style="list-style-type: none"> - Ensures availability of mitigation activity data, which could inform risk assessment and participation of the insurance industry, but no direct mention.
Structuring institutional project finance	Section 1, Criterion 1.1: Effective Governance	<ul style="list-style-type: none"> - In addition to CORSIA requirements, requires governance transparency, including annual reporting of revenues and expenses, which supports institutional financing decisions. - Ensures corporate responsibility and compliance with anti-money laundering and anti-corruption practices.
Define how project finance could provide lending facilities to project developers, collateralised by the right to generate carbon credits, particularly to successful validation and verification	Section 1, Criterion 1.1: Effective Governance	<ul style="list-style-type: none"> - Governance requirements contribute to financial credibility, potentially enabling lending facilities backed by carbon credit rights.

Annex 2 Sub-Group 7.3: Catalysing Structured Finance (Cont.)

Topic	Section in CCP Assessment Framework	How it is addressed in the CCP Assessment Framework
Unlock finance for projects in developing countries	N/A	N/A
Develop interest on the part of banks and other financial institutions	Section 1, Criterion 1.1: Effective Governance	- Ensures financial transparency, which can enhance investor confidence and bank participation.
Engage existing development banks and green investment banks to commit to increasing lending facilities for suppliers, particularly the smaller ones.	N/A	N/A
Infrastructure for financing at scale	Section 2, Criterion 2.1: Effective Registries	- Requires identification of the entity on whose behalf carbon credits are retired, which supports credit tracking in financial mechanisms. - Mandates procedures for addressing erroneous issuance, which strengthens credit reliability for financial structuring.
Consider creating matching platforms for suppliers and financiers	N/A	N/A
Financing alternatives as a suite of solutions for developers in advance of when liquid spot and futures markets develop in the intermediate term	N/A	N/A
Lessons learned from other capital markets	N/A	N/A

Annex 3: Carbon market infrastructure and integrity initiatives

To contextualise where this work program fits within the broader ecosystem of initiatives aimed at improving market infrastructure, the following table identifies and describes key ongoing multi-stakeholder workstreams. These initiatives collectively aim to enhance transparency, standardisation, scalability, and financial integrity across carbon markets.

The initiatives included in this analysis are:

- World Bank Carbon Market Infrastructure (CMI) Working Group
- ISO/TC 322/AHG 3 on Sustainable Finance (Net Zero Standard)
- Carbon Data Open Protocol (CDOP)
- UNIDROIT – Legal Nature of Verified Carbon Credits
- ISDA – Voluntary Carbon Market Standard Definitions
- IOSCO – Promoting Financial Integrity and Orderly Functioning of VCMs

Overview of Market Infrastructure and Integrity Initiatives

Category	World Bank CMI Working Group	ISO/TC 322 / AHG 3	Carbon Data Open Protocol (CDOP)	UNIDROIT – Legal Nature of Verified Carbon Credits	ISDA – VCM Standard Definitions	IOSCO – Financial Integrity Report
Description	Multi-stakeholder group convened by the World Bank Climate Warehouse (2024) to pave the way for an efficient and interoperable carbon market. Produced detailed guidance on governance, interoperability, and transaction integrity.	ISO workstream under the Sustainable Finance TC, aiming to harmonise carbon credit data fields, formats, and models in coordination with financial services standards (e.g., ISO TC 68, FIX Protocol).	Open initiative developing a data protocol to standardise carbon market data across the full credit lifecycle, with practical implementation pathways for market actors.	Multilateral effort to clarify the proprietary and contractual nature of verified carbon credits, including transferability, ownership, and enforceability across jurisdictions.	Multi-stakeholder group convened by the World Bank Climate Warehouse (2024) to pave the way for an efficient and interoperable carbon market. Produced detailed guidance on governance, interoperability, and transaction integrity.	Workstream of the International Organization of Securities Commissions (IOSCO) identifying risks to financial integrity and proposing recommendations for the orderly functioning and oversight of voluntary carbon markets.
Focus Areas	<ul style="list-style-type: none"> i) Ecosystem governance ii) Information security & transaction integrity iii) Interoperability of data & systems iv) Interoperability of processes (digital MRV) 	Alignment of data structures, taxonomies, and metadata under a potential ISO Net Zero Standard.	Development of a common open protocol for pre-issuance data, digital MRV, and private data integration.	Legal classification, proprietary rights, transferability, and enforceability.	Contractual definitions, delivery and settlement processes, credit lifecycle events, and dispute resolution.	Market conduct, investor protection, disclosure, and governance structures.

Annex 3 Overview of Market Infrastructure and Integrity Initiatives (Cont.)

Category	World Bank CMI Working Group	ISO/TC 322 / AHG 3	Carbon Data Open Protocol (CDOP)	UNIDROIT – Legal Nature of Verified Carbon Credits	ISDA – VCM Standard Definitions	IOSCO – Financial Integrity Report
Deliverables / Outputs	Four detailed guidance notes (June 2025).	Draft ISO standard for carbon credit data, Committee Draft (CD) consultation expected around 1 March 2026.	Version 1 of the Carbon Data Open Protocol (launch: Climate Week NYC, September 2025).	Legal framework and model law guidance (2025–2026).	ISDA VCM Standard Definitions (published 2024) and forthcoming model contracts.	Final report (2023) with continuing regulatory coordination.
Users / Target Audience	Standards bodies, registries, infrastructure and data providers.	Infrastructure providers and data standards organisations.	Standards bodies, registries, ratings agencies, developers, investors.	Governments, legal experts, registries, carbon-crediting programs.	Financial institutions, intermediaries, traders, legal counsel.	Regulators, supervisors, investors, and market operators.
Participants	Carbon-crediting programs, registry providers, exchanges, data platforms.	Country-appointed experts and non-profits.	45+ market participants (standards, data, and project entities).	UNIDROIT member states and observer organisations.	ISDA member institutions and market actors.	IOSCO member regulators and policy bodies.
Conveners	World Bank Climate Warehouse Team	ISO	Co-chaired by Sylvera, GCMU, RMI, S&P Global	UNIDROIT Secretariat	ISDA	IOSCO Secretariat
Timeline	Guidance notes published June 2025.	Draft standard under development. Publication targeted for 1 May 2027.	Version 1 at Climate Week NYC, September 2025.	Outputs expected 2025–2026.	Published 2024.	Published 2023, follow-up ongoing.

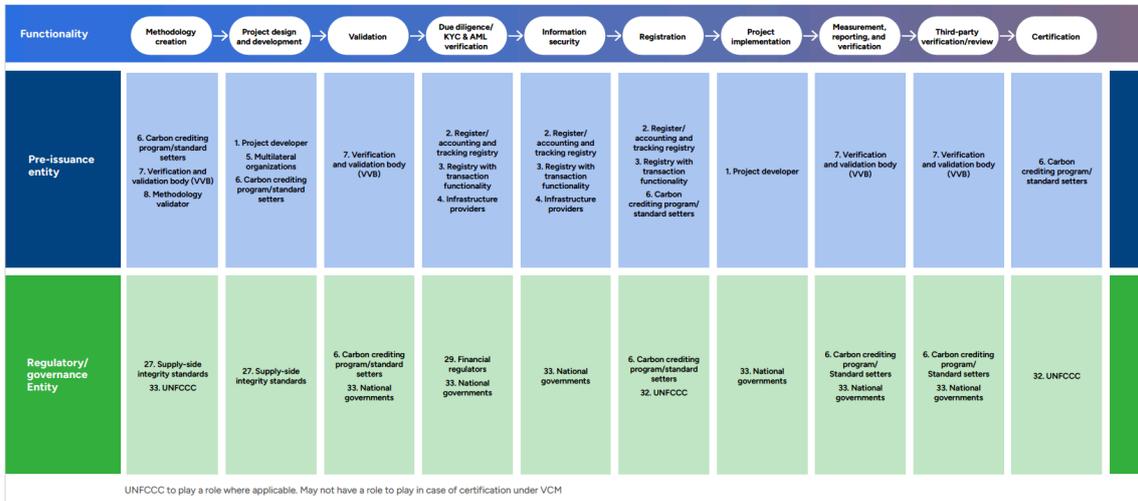
Annex 4: World Bank's Carbon Market Infrastructure (CMI) Working Group Carbon Credit Ecosystem Mapping

The World Bank's Carbon Market Infrastructure (CMI) Working Group produced a report titled [A Roadmap for Safe, Efficient, and Interoperable Carbon Markets Infrastructure](#) for COP 2024. The working group of market participants has been convened by the World Bank Climate Warehouse team starting in 2024 as part of a broader effort to pave the way for a more efficient and interoperable carbon market. The working group includes four sub-groups and will generate knowledge and guidance on issues relating to carbon market infrastructure. The group will output detailed guidance notes that identify issues and recommend solutions for each of the four priority areas:

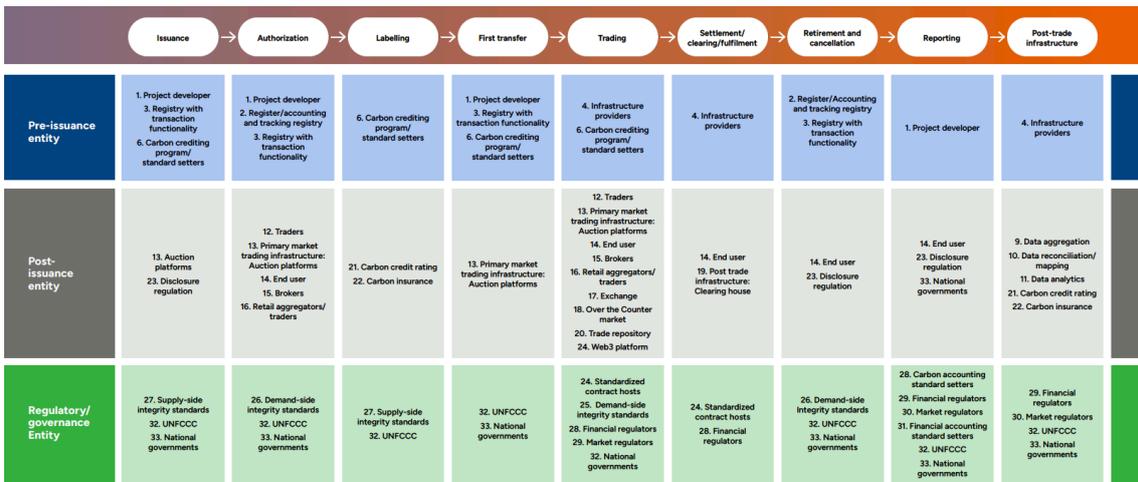
- 1. Priority Area I: Ecosystem Governance**
- 2. Priority Area II: Information Security and Transaction Integrity**
- 3. Priority Area IIIA: Interoperability of Data & Systems**
- 4. Priority Area IIIB: Interoperability of Processes: Digital MRV**

In the first report, the CMI produced an ecosystem mapping to identify the lifecycle of a carbon credit from pre-issuance to post-issuance, including the commercial and governance entities involved in the supply development, transaction, use, and tracking. Below are the schematics produced for the World Bank report to give the CIWP a common benchmark for the ecosystem landscape at this point in time. These schematics provided context for the discussion in the CIWP to identify gaps and potential solutions - with a common understanding of which entities are already involved and at which stage of the credit lifecycle.

Mapping functionalities (pre-issuance) to entities



Mapping functionalities (post-issuance) to entities



Source: World Bank Carbon Market Infrastructure (CMI) Working Group report: [A Roadmap for Safe, Efficient, and Interoperable Carbon Markets Infrastructure](#)

Annex 5: Carbon-crediting program fee structures

The table below outlines the fee structures for the carbon-crediting programs participating in this CIWP. The below carbon-crediting programs have all had the opportunity to review this table and confirm the information is correct.

Program	Revenue model/fee structure
VCS Fee schedule	<p>Charge to project developers (PDs):</p> <ul style="list-style-type: none"> Per credit: issuance, transfer, retirement, cancellation, labeling (e.g., Article 6 or CORSIA). Flat fees for listing projects and registration reviews. Flat fees for verification review and re-quantification. Flat fees for opening and reactivating accounts. Flat annual fee for account maintenance. <p>Charge to methodology developers [note this is paid by those submitting the request]:</p> <ul style="list-style-type: none"> Flat fees for review and revisions of methodologies. <p>Charge to VVBs:</p> <ul style="list-style-type: none"> Annual flat fee and reinstatement fee. <p>Charge to buyers:</p> <ul style="list-style-type: none"> Flat fees for opening and reactivating accounts. Annual flat fee for account maintenance.
Gold Standard Fee schedule	<p>Charge to PDs:</p> <ul style="list-style-type: none"> Per credit: issuance, transfer, retirement, cancellation. Labeling (e.g., Article 6 or CORSIA). Flat fees for listing, registration, review of project, annual fee for account maintenance. Flat fees for review and updates of methodologies. <p>Charge to VVBs:</p> <ul style="list-style-type: none"> Application, re-approval, annual fee for management, optional training. <p>Charge to buyers:</p> <ul style="list-style-type: none"> Annual fee for account maintenance.
ACR ACR Fee Schedule	<p>Charge to PDs:</p> <ul style="list-style-type: none"> Flat fees for opening account and annual fee for account. Flat fees for validation review (if submitted prior to verification). Flat fee for project listing review. Issuance is free, but operations with 'activated' credits are charged per credit: activation, transfer, retirement, cancellation ('Activated' credits don't include deductions for leakage, uncertainty and buffered). Per credit fees for transferring projects to other programs. <p>Charge to VVBs:</p> <ul style="list-style-type: none"> Flat fee for VVB application. <p>Charge to buyers:</p> <ul style="list-style-type: none"> Flat fee for opening account and an annual fee for account maintenance. Per credit retirement fee.

Annex 5 Crediting program fee structures (Cont.)

Program	Revenue model/fee structure
<p>Isometric Standard</p>	<p>Charge to buyers (not PDs):</p> <ul style="list-style-type: none"> • A fixed fee per project, calculated on the basis of number of credits ‘ordered’, but independent of credits issued. • The cost per credit ordered is determined by the complexity of the MRV (open vs closed systems) and not the actual price of the credits sold. That is handled separately from the program, between the supplier and buyer directly. • The payment schedule is decoupled from the credit delivery schedule (generally: annualised, pro-rated fees e.g. 20% a year for a 5-year project). <p>VVBs are paid by program using the proceedings from the fee, and the VVB price is a fixed fee (independent of credits issued).</p>
<p>CAR Standard</p>	<p>Charge to PDs:</p> <ul style="list-style-type: none"> • Flat fee for account set-up, account maintenance, account re-activation. • Flat fee for project submittal and transfer (billed to transferee). • Per credit issuance fee, transfer fee (paid by transferor), cancellation fee. <p>Charge to VVBs:</p> <ul style="list-style-type: none"> • No fee for Verification Body account types. <p>Charge to buyers:</p> <ul style="list-style-type: none"> • Flat fee for account setup, maintenance, and re-activation.
<p>Plan Vivo Standard</p>	<p>Charge to PDs:</p> <ul style="list-style-type: none"> • Flat fee for Project Idea Note (PIN) review, PDD review, additional tech spec review. • Variable fee for PDD / Tech Spec updates. • Flat fees for Validation and Verification Coordination, late annual report. • Per credit issuance fee (price variable on binary volume band). • Flat fee for methodology concept note review. • Variable fee for methodology assessment (not including VVB assessment). <p>Charge to VVBs / Independent Experts:</p> <ul style="list-style-type: none"> • Flat, one-off fee for review and registration. <p>Charge to buyers:</p> <ul style="list-style-type: none"> • Flat fee for registration access and annual fee.
<p>Global Carbon Council Standard</p>	<p>Charge to PDs:</p> <ul style="list-style-type: none"> • Flat fees for: registry account opening, annual account maintenance fee, reactivation fee. • Flat fees for project registration, resubmission, Re-GSC, post-registration change, renewal of crediting period. • Per credit issuance fees (fee/credit varies with project type), transfer fees, cancellation fees (payable by account holder who cancels), labelling fees (ICVCM, CORSIA, Article 6.2, Corresponding Adjustment, etc.). • Flat fees for Methodology Concept note submission, new methodology submission, revision of GCC/CDM meth, request for clarification on approved GCC/CDM meth/tool. <p>Charge to VVBs:</p> <ul style="list-style-type: none"> • Flat fee for: registry account opening, annual account maintenance fee, reactivation fee. • Flat fee for VVB application/approval/re-approval for each 3-year cycle – amount dependent on track (ISO, UNFCCC, etc.), VVB Annual maintenance, VVB certificate expiry. <p>Charge to buyers:</p> <ul style="list-style-type: none"> • Flat fee for: registry account opening, annual account maintenance fee, reactivation fee. • Per credit retirement fees, cancellation fees (payable by account holder who cancels).



Annex 5 Crediting program fee structures (Cont.)

Program	Revenue model/fee structure
<p>Equitable Earth (formerly ERS) Standard</p>	<p>Charge to PDs:</p> <ul style="list-style-type: none"> • Flat fee for project certification (varies based on hectares of project). • Fee for Validation (“fee for service”) paid by ERS to VVB, rebilled to PD – amount varies dependent on VVB fee. • Per ha/year MRV fee. • Fee for Verification (paid by ERS to VVB, rebilled to PD). • Flat fee paid per project expansion.
<p>Puro.earth Puro.earth business model and fee structure</p>	<p>Charge to PDs:</p> <ul style="list-style-type: none"> • Flat annual fee for account/platform registration. • Optional flat fee for preliminary assessment. • Flat annual pooling admin fee for pooling volume requests. • Audit package materials fee dependent on multiple factors. • Service fee: fixed-fee charged per credit (CORC) at the time of the first transaction (with rate of fee decreasing as volumes increase, and discount applied if supplier pays at issuance) or flat fee if 1-year volume does not meet minimum (based on output report submitted by supplier). • Audit fee: flat fee invoiced when facility audit is complete and is below minimum CORC volume (this would replace service fee in these cases). • A premium fee is applied to methodologies that are more difficult to quantify and verify. <p>Charge to buyers:</p> <ul style="list-style-type: none"> • Per credit retirement fee, possibility of waiving this fee contingent on stipulations for transaction reporting.
<p>ART ART-Fee-Schedule-2022-website.pdf</p>	<p>Charge to PDs:</p> <ul style="list-style-type: none"> • Flat annual registry account fee. • Per credit issuance fee (decreasing price with increased volume). <p>Charge to Buyers:</p> <ul style="list-style-type: none"> • Flat annual registry account fee.





THE INTEGRITY COUNCIL
FOR THE VOLUNTARY CARBON MARKET

The Integrity Council for the Voluntary Carbon Market (ICVCM) is an independent, non-profit governance body for the voluntary carbon market, which aims to ensure the voluntary carbon market accelerates a just transition to 1.5°C. The ICVCM aims to set and maintain a voluntary global threshold standard for quality in the voluntary carbon market. The threshold standard is based on the ICVCM's Core Carbon Principles (CCPs) and is implemented through an Assessment Framework that sets out what high quality means by reference to those principles.



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