VCMI Voluntary Carbon Markets Integrity Initiative

Catalyzing Carbon Markets:

The Role and Opportunity for Financial Institutions

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Executive Summary

Executive Summary

The financial sector is facing accelerating threats from the physical impacts of the climate crisis – but will also be fundamental to addressing those risks, by directing finance to the companies and projects we need to reduce greenhouse gas emissions.

At present, only a fraction of the capital needed is flowing to these companies. High-integrity carbon markets will be a critical tool to help direct that capital, and are projected to grow from just $1.4 billion in 2024 to somewhere between $40 billion and $250 billion by 2050 [23].

However, they face a number of interlinked barriers to deliver that growth. These include: perceived credibility issues and reputational sensitivities around carbon credit use; regulatory and policy uncertainty; uncertain corporate demand; and the limited availability of capital for carbon emissions reduction and removal projects.

Some of these issues require action and direction from policymakers. Some relate to market standards and infrastructure that have been addressed by initiatives such as the Integrity Council for the Voluntary Carbon Market (ICVCM) Core Carbon Principles and the Voluntary Carbon Markets Integrity Initiative (VCMI) Codes of Practice. But to address other barriers, particularly around access to capital, the financial sector has a key role to play.

This paper makes the case for greater involvement by private financial institutions in high-integrity carbon markets, setting out how financial institutions can become more involved and so enable the market to reach its potential.

The carbon market opportunity for the financial sector

For financial institutions, high-integrity carbon markets present a strategic opportunity, to both help address their own climate impacts and seize commercial opportunities.

These opportunities include:

- **Leveraging core competencies for market growth**, such as advisory, lending, project finance, asset management, trading, market access, and risk management solutions.
- **Unlocking new commercial pathways and portfolio diversification** beyond existing business models, supporting long-term growth, and facilitating entry into emerging decarbonization-driven markets.
- **Gaining regulatory foresight and preparedness** through early engagement in the market.
- **Demonstrating climate leadership, enhancing reputation and gaining market differentiation** by making a direct contribution to global decarbonization, helping to reduce the scale and cost of future adaptation to climate change, and accelerating broader sustainable development goals by supporting carbon projects that also provide positive social and biodiversity impacts.
- **Securing first-mover advantage,** helping to shape norms, gain market share, and capture opportunities across advisory, structuring, and product innovation.
- **Deepening client engagement** by helping clients navigate carbon markets to add strategic value and strengthen long-term relationships.
- **Enabling innovation and technological scale-up**, by financing emerging decarbonization solutions.
- **Mitigating stranded asset risk** by building resilience into portfolios through a transition towards low-carbon assets.

Despite these potential opportunities, however, financial institutions are still hesitant to engage in high-integrity carbon markets. The two main factors deterring involvement are uncertain demand for carbon credits and the risks associated with engaging with these markets.

Barriers to action

The lack of stable and predictable demand makes it harder for financial institutions to assess market viability, price risk appropriately, and justify capital allocation. In addition, financial institutions face risks inherent to the nature and current state of carbon markets which deter financial institutions from getting involved.

These risks include those related to:

- Project performance
- Regulatory and legal issues
- Market complexity and performance
- Reputation
- Lack of commercially viable financing mechanisms
- Limited understanding and expertise related to carbon markets among financial institutions and their clients.

The roles financial institutions could – and should – play

Financial institutions have the potential to help address many of these risks and barriers, seizing commercial opportunity as they do so, including playing the following roles:

- Capital markets advisory: design and execute structured finance solutions (products) to help clients access carbon-related opportunities and capital markets.
- Advisory services: support clients by providing comprehensive strategic and transactional guidance to corporates and investors engaging with high-integrity carbon markets.
- Market making: play a pivotal role as market makers and intermediaries in high-integrity carbon markets by providing trading and hedging services.
- Knowledge sharing: As critical sources of market intelligence on carbon credit origination, issuance, and trading, financial institutions can help close information gaps, increase market transparency, and build confidence in high-integrity carbon markets.
- Fund management: facilitate capital flows from investors to assets, offering investors exposure to climate-aligned assets and providing long-term financing to support project development and market maturation.
- Procurement: purchase high-quality carbon credits to address their own direct or indirect emissions, as well as acquire them on behalf of their corporate clients, enabling broader climate action across their portfolios and customer base.
- Private market investing: support the growth of high-integrity carbon markets by deploying capital from their own balance sheets into strategically aligned carbon market companies and infrastructure.
- Engaging with policymakers and standard setters: help create the enabling conditions for credible, efficient, and scalable markets, by engaging with regulators, standard setters, and multi-stakeholder initiatives.

Finding the solutions

To play these roles, the barriers to action referred to above – unstable demand and market uncertainty – need to be addressed. There are a number of foundational needs that are in the hands of policymakers: by taking measures such as clarifying and aligning regulations and voluntary frameworks regarding the use of credits, and clarifying the legal status of carbon credits, policymakers and regulators would help deliver regulatory and legal certainty to the market. This would help build investor confidence and lay the groundwork for broader, more strategic participation by financial institutions and corporates.

Addressing these foundational needs – supported by advocacy and policy engagement from the financial sector – would better enable financial institutions to provide solutions to reduce market risk and improve project bankability. Specifically, they could provide insurance and access to diversified sources of funding, helping capital to flow at scale.

Recommendations

It is time for financial institutions to move from the sidelines and take a leadership position in high-integrity carbon markets – helping shape their future, grow to the scale needed, and capture the opportunities they offer.

To do so, financial institutions should:

1. **Provide clear market signals by integrating high-quality carbon credits into institutional climate strategies and aligning advocacy positions with institutional behavior.** Their visible participation would help normalize carbon credit use and demonstrate climate leadership, reflecting this in their public advocacy.
2. **Endorse the voluntary use of high-quality carbon credits as a complementary tool in addition to a decarbonization strategy,** normalizing and championing high-quality carbon credits as a legitimate and necessary additional tool in net-zero strategies.
3. **Actively contribute to scaling up high-integrity carbon markets** by helping to finance carbon reduction and removal projects, establishing platforms that support market access and innovation, investing in carbon credit funds, and supporting the development of risk management tools and infrastructure.

The Singapore Sustainable Finance Association (SSFA) recognizes the growing interest in high-integrity carbon markets. Financial institutions have an important role to play in supporting carbon projects, contributing to both climate outcomes and commercial value. This paper is a valuable contribution to the ongoing conversation on how the financial sector can navigate emerging opportunities and challenges in this space. SSFA looks forward to continued engagement with VCMI to support the development of Singapore's sustainable finance ecosystem.

- Kavitha Menon, Director, Singapore Sustainable Finance Association

Introduction

Introduction

The world is not on a pathway to deliver the goals of the Paris Agreement. Climate finance must increase at least fivefold from current levels, to $7.5 trillion per year from now till 2030, then to $8.8 trillion a year, to avoid the most severe effects of climate change. [12] **Achieving this will require urgent, coordinated action across all sectors – especially from financial institutions and companies that have the power to direct capital flows and scale solutions.**

Corporate voluntary climate action that leverages market-based mechanisms, such as investment in carbon reduction and removal projects and the purchase and retirement of carbon credits, offers a critical tool to accelerate global climate action. While such investment is not a substitute for deep decarbonization within companies' value chains, carbon finance can channel much-needed private finance to high-impact mitigation efforts, especially in emerging markets. Funding to finance climate action where it's most urgently needed has to be unlocked, whether that's for protecting forests and biodiversity or scaling renewable energy and novel carbon removal technologies.

The global carbon market is at a critical inflection point. MSCI estimates that the global carbon credit market is set to grow from $1.4 billion in 2024 to up to $35 billion by 2030 and between $40 billion and $250 billion by 2050.[23] Carbon markets, both compliance and voluntary, hold enormous potential for helping to drive climate action.

They also hold great potential for the financial sector. Developers of carbon reduction and removal projects need capital, both as equity and debt, providing opportunities for investors and arrangers. They need help with marketing, trading, and managing the risks around the carbon credits that their projects generate, creating opportunities for commodity trading firms and investment banks. The financial sector's corporate clients need help sourcing and managing portfolios of carbon credits, creating opportunities for public-private partnerships by crowding in financing from investment banks, commodity trading firms, philanthropic capital, development finance institutions, and governments.

Similarly, the voluntary use of carbon credits provides a means by which financial institutions can manage climate risk in a world of carbon pricing and transition risk. Financial institutions are particularly exposed to policies designed to encourage a shift towards a net-zero global economy, and are expected to play a role regarding the emissions associated with the activities they enable through their loans, investments, and insurance underwriting – known as financed emissions. Voluntary carbon credits could be an important tool for financial institutions to take action regarding those emissions and accelerate the transition to a low-carbon economy.

Barriers to growth

The potential of high-integrity carbon markets is not being met. The reasons for this include:

- Perceived credibility issues in carbon markets and reputational sensitivities around carbon credit use. Concerns around credit quality, transparency, supply-side project risks, and the robustness of carbon credit claims have led to hesitancy among many potential market participants.
- Regulatory uncertainty, geopolitical crisis, an absence of clear policy signals, and lack of alignment between different frameworks and regulations hinders the stability of carbon markets.
- Demand uncertainty caused by companies' lack of clarity on how to use carbon credits, how to communicate about their use, and the overall lack of incentives to purchase them.
- Limited availability of capital for carbon emissions reduction and removal projects. Potential investors are grappling with a lack of market understanding and uncertain risks, including project financing risks and volatile pricing of carbon credits.

These barriers have numerous causes, and a range of stakeholders need to be involved in finding solutions. This paper outlines some of the critical regulatory and legal enablers required to create a more stable, investable market environment, laying the foundation for broader participation and more effective capital deployment. These foundational shifts are essential to unlock the market's full potential and enable financial institutions to act at the scale that climate impact demands. Across many of these barriers, the financial sector has a vital role to play.

Despite structural barriers that limit financial institutions' full-scale engagement, high-integrity carbon markets present them with significant benefits, including new growth opportunities, enhanced client relationships, and a stronger position in climate action and risk management.

How financial institutions can access opportunities and help address barriers

Financial institutions play a central role in modern economies, deploying capital on behalf of asset owners, such as pension funds, insurance companies, and sovereign wealth funds, to entities that need capital to undertake economic activities. They are essential intermediaries that also provide vital advisory, asset, and risk management services. They help disseminate the information needed to make financial and commodity markets work efficiently and are influential advocates in developing economically effective policies and regulations.

Some financial institutions are already active in carbon markets, providing capital, trading carbon credits, disseminating information, and participating in industry advocacy.[10][34] But most financial institutions still have limited direct participation in carbon markets. If high-integrity carbon markets are to grow to meet their potential, many more need to get involved.

About this paper

This paper is intended to encourage greater participation by private financial institutions in high-integrity carbon markets. The first section highlights the opportunities currently presented for them and summarizes the current state of their involvement in these markets. It then explores and defines five key roles financial institutions can play (and, in some cases are already playing) in high-integrity carbon markets, before considering some of the existing barriers that prevent the market from reaching its full potential, and possible solutions to bring these barriers down, focusing particularly on the contribution that financial institutions can make.

The concept for this paper was developed following a closed-door roundtable held during "VCM Day" at New York Climate Week 2024 and hosted by VCMI, the Integrity Council for the Voluntary Carbon Market (ICVCM), and the Global Carbon Market Utility (GCMU). Roundtable participants, including representatives from the financial sector, non-governmental organizations (NGOs), coalitions, and standard-setters, highlighted challenges in engaging with high-integrity carbon markets, particularly regarding purchasing high-quality carbon credits for financed emissions.

This paper is based on an extensive literature review and interviews with 21 market participants, including experts representing financial institutions and some of the leading standard setters and organizations in the finance space (See Appendix 1 for more information).

For the purpose of this paper, financial institutions include entities such as banks, asset managers, asset owners, insurance companies, and other private financial institutions. The paper does not specifically address public finance institutions, such as multilateral development banks. Many of these have been active in helping to develop and grow carbon markets, but their specific nature, governance, and objectives mean that they have different incentives and motivations.

About VCMI

The Voluntary Carbon Markets Integrity Initiative (VCMI) is an international non-profit committed to realizing the full potential of high-integrity carbon credit markets. By providing clear, science-aligned guidance, its mission is to empower companies, governments, and non-state actors to maximize the impact of their climate actions through the use of high-quality carbon credits.

In 2023, VCMI released a Claims Code of Practice to guide companies and other non-state actors in the voluntary use of high-quality carbon credits as part of emissions reduction goals and related claims. Given the relevance of financial institutions in the market and the high impact they might have in driving climate action across other sectors, VCMI aims to:

- Clarify the roles financial institutions can play in high-integrity carbon markets.
- Identify incentives and solutions for increased finance sector participation in high-integrity carbon markets.
- Present the voluntary use of carbon credits as a credible tool for climate-aligned finance.
- Incentivize financial institutions to integrate high-quality carbon credits into their strategies.

The Opportunity

The Opportunity

Financial institutions have an important role in unlocking the benefits of high-quality carbon markets. This paper provides practical guidance for financial institutions to engage with these instruments effectively.

- David Carlin, Founder, D.A. Carlin and Company and former Head of Risk at UNEP FI

Opportunities for financial institutions in high-integrity carbon markets

High-integrity carbon credit markets are increasingly recognized as a critical tool in the global effort to respond to climate change. They provide a means of financing emissions reductions and removals at scale, while also delivering co-benefits for nature, biodiversity, and local communities.

For financial institutions, high-integrity carbon markets present a strategic opportunity. They provide a means for the financial sector to deal with its own climate impacts, as well as a commercial opportunity to generate value across asset classes and deepen client relationships. Financial institutions, with their expertise, relationships, and access to capital, are essential to the development and functioning of high-integrity carbon markets.

Participation in high-integrity carbon markets enables financial institutions to:

1. Leverage Core Competencies for Market Growth

   As the carbon market matures, financial institutions can extract greater value from existing competencies – such as advisory, lending, project finance, asset management, trading, market access, and risk management solutions. Increased demand for these services offers opportunities to deepen client relationships, differentiate offerings and embed climate-aligned solutions within core business functions.

2. Unlock New Commercial Pathways and Portfolio Diversification

   Early and active engagement in high-integrity carbon markets opens up new commercial opportunities beyond existing business models, including origination, finance of carbon reduction and removal projects, securitization, hedging, and creating innovative financial products. Such diversification supports long-term growth and facilitates entry into emerging decarbonization-driven markets.[6]

3. Gain Regulatory Foresight and Preparedness

   Early engagement enables financial institutions to stay ahead of emerging regulatory and disclosure mandates, such as those regarding climate transition plans, carbon credit quality, double materiality, and potential new emissions trading schemes, especially in emerging markets. Advocacy and proactive market participation allows financial institutions to help shape standards and avoid compliance surprises.[6]

4. **Demonstrate Climate Leadership, Enhance Reputation, and Gain Market Differentiation**

Financial institutions' participation can contribute to global decarbonization, show measurable progress towards climate goals, and align with transition planning and net-zero commitments. Visible leadership in climate action strengthens trust among corporate clients, investors, and regulators. It reinforces the institution's credibility regarding sustainability issues and positions it as a responsible market leader. [6][34]

5. **Secure First-Mover Advantage**

Early entrants have the chance to shape norms, gain market share, and capture opportunities across advisory, structuring, and product innovation. Building carbon market capabilities now positions financial institutions to lead a growing and maturing market.[6]

6. **Deepen Client Engagement and Value Creation**

Helping clients navigate carbon markets – through education around quality, pricing, and disclosure – adds strategic value, strengthens long-term relationships, and enables clients to be better positioned to meet their own net-zero targets.[18][6][34]

7. **Enable Innovation and Technological Scale-Up**

By financing emerging carbon solutions – from engineered removals to digital monitoring, reporting and verification (MRV) technologies – financial institutions can catalyze innovation, position themselves in a future-facing market, and participate in shaping its architecture.

8. Strategic Investment in Mitigation to Minimize Future Climate Risks and Costs

By participating in carbon markets and supporting high-integrity climate mitigation, financial institutions can help reduce the scale and cost of future climate-related adaptation. This presents a strategic opportunity to manage long-term climate risk exposure across portfolios, while contributing to greater global resilience. Investing in mitigation now not only aligns with sustainability goals but can also result in cost savings for financial institutions down the line by avoiding the more expensive consequences of unchecked climate impacts.

9. Accelerate Broader Social and Nature Goals

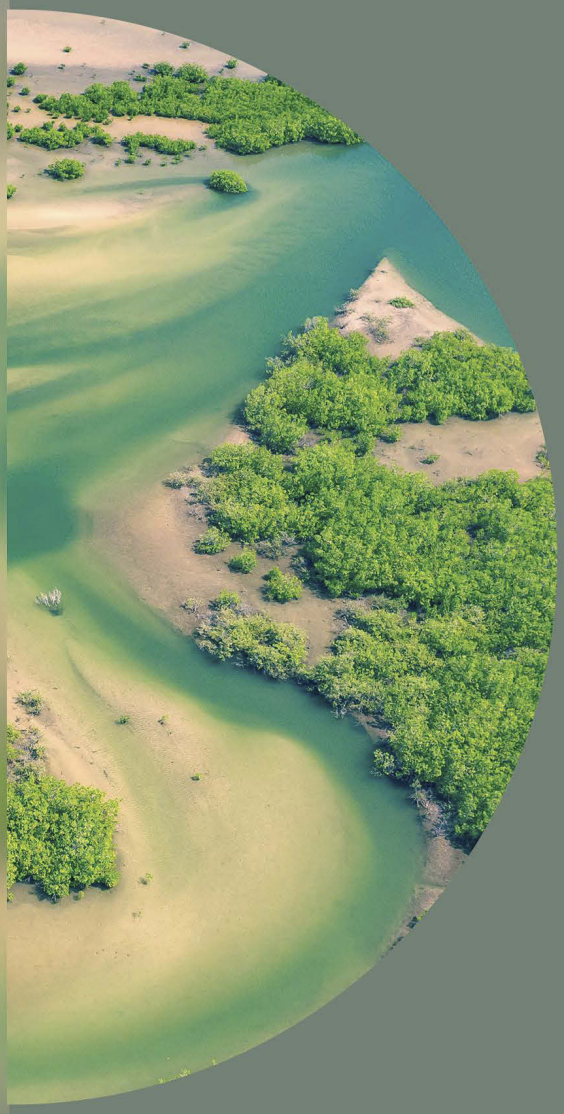
High-quality carbon credits often deliver co-benefits – supporting biodiversity, job creation, and sustainable development. This enhances the positive impact value of portfolios and meets rising expectations around nature and social risk integration.

10. Reduce Risk and Promote Market Integrity

The involvement of financial institutions in shaping best practices, underwriting standards, and disclosure frameworks helps reduce reputational, financial, and regulatory risks. It supports a credible, investable, and scalable carbon market ecosystem.[18][34]

Despite these opportunities, however, relatively few financial institutions are participating in high-integrity carbon markets. Below, we briefly review some of the main barriers that exist, and the solutions needed to address them.

Current State of the Market



Current State of the Market

High-integrity carbon markets have made meaningful strides in recent years. Key structural issues – particularly those related to credit integrity – have begun to be addressed through the establishment of clearer rules and governance. The launch of the ICVCM's Core Carbon Principles and the VCMI Claims Code of Practice have laid the foundations for integrity assurance across supply and demand, bringing the market closer to the standards expected by institutional investors. The result is a stronger, more credible basis for engagement – one in which high-quality carbon credits are becoming more clearly defined and where norms and best practices for their use are established.

However, despite this progress, carbon markets remain underdeveloped from an institutional investment standpoint. Barriers still need to be addressed to enable further engagement of financial institutions and trigger market growth. The two main barriers keeping financial institutions from engaging with the market are:

1. Uncertain demand
2. Risks driven by market uncertainty

The lack of stable and predictable demand makes it harder for financial institutions to assess market viability, price risk appropriately, and justify capital allocation. Without stronger and clearer demand drivers, the market will fail to attract financial institutions and remain too speculative for them to engage meaningfully at scale.

In addition, financial institutions face structural, regulatory, and market-related risks that are inherent to the nature and current state of carbon markets, and which deter financial institutions from getting involved. These risks hinder their ability to fully deploy capital and expertise in ways that could accelerate market development (see Table 1 below). Key enabling conditions – such as sufficient liquidity, regulatory certainty, and robust risk management tools – are still lacking.

For financial institutions, current market conditions create both a challenge and a strategic opportunity. The challenge lies in navigating an immature market. The opportunity lies in shaping it. Institutional capital has a unique role to play – not just in funding high-quality projects, but in helping build the infrastructure that will enable scale: insurance, verification, market-making, and long-term investment vehicles. High-integrity carbon markets are at a tipping point. Many problems around market integrity have been addressed. But without sustained, scaled engagement from financial actors, their full potential to support the global net-zero transition will remain unrealized.

Table 1: Risks associated with the current state of the market

	Market risks	Description	Why it matters
1	Project performance	Concerns about the development and operational risk associated with project failure and non-delivery. These include the quality and integrity of carbon emissions reduction and removal projects related to issues such as non-additionality, permanence (risk of reversal), leakage, double counting, and over-issuance of credits by project developers,[8][19][32][31][29][14] as well as potential negative environmental and social impacts from project operations. Inefficient oversight of projects by developers, often linked to delivery risks and financial mismanagement, can compromise overall project performance.[24]	Participants describe the market as being characterized by high-risk investments. Low institutional legitimacy of project developers and poor project design due to insufficient internal governance structures and lack of standardized procedures deter the engagement of financial institutions. These concerns also present reputational risks associated with low-quality credits and projects (see market risk 4), adversely influencing investment and financing decisions.
2	Regulatory and legal	Regulatory and legal risk arises from the evolving and often fragmented policy landscape governing carbon markets. This includes uncertainty around how carbon credits are classified and how they should be treated under different jurisdictions' legal and accounting frameworks. Inconsistent or unclear regulations create ambiguity over reporting requirements, taxation, and liability, particularly when credits are used in corporate climate claims or financial products.	Financial institutions are particularly sensitive to these risks, as they must comply with strict fiduciary and compliance obligations that demand legal clarity and regulatory consistency. Without regulatory and legal certainty, the risk of regulatory missteps, reputational damage, or future non-compliance can outweigh the potential benefits of participating in carbon markets. Moreover, a lack of standardization can hinder the creation of scalable financial instruments, limit cross-border investments, and slow down the integration of carbon credits into mainstream financial portfolios.
3	Market complexity and performance	Carbon markets are characterized by low liquidity, market fragmentation, and price volatility.[16][35] Complex market structures, high transaction costs, limited historical performance data, and emerging methodologies make it challenging to accurately assess project risk and return.	The current fragmented market structure, liquidity pools, crediting programs, and buyer nuances results in a bespoke market with unpredictable performance, making it difficult to develop scalable financial products or to attract institutional capital at meaningful levels. The high-risk environment undermines trust and confidence and reduces the overall attractiveness of carbon markets.

4	Reputational risk and public scrutiny	Purchasing carbon credits can trigger ethical and reputational concerns. The hypothesis that the use of credits prevents real emissions reductions, and the lack of clear reporting and transparency frameworks regarding carbon credit use, increase the reputational risk of participating in high-integrity carbon markets.	Fear of negative public reaction, greenwashing allegations, and media backlash discourage purchasing of credits. This impacts demand, preventing the growth of carbon markets. It creates barriers for financial institutions to participate not only as buyers, but also as investors, facilitators, or in any way that could present reputational risks.
5	Lack of commercially viable financing mechanisms	Philanthropic and NGO funding plays a critical role in supporting early-stage project development, building market readiness, and demonstrating proof of concept.[37][38] However, limited funding from traditional financing mechanisms and these sources is insufficient to meet the capital requirements needed to deliver global climate targets.[37]	The dependence on equity funding in high-integrity carbon markets underscores the need for more robust, scalable, and commercially viable financing mechanisms to attract a wider range of investors and ensure the long-term growth and credibility of carbon markets.[37][4][2] Traditional financing mechanisms seek out bankable sponsors with a credible track record to minimize counterparty credit risk, expecting projects to have visible cashflows and sufficient scale to justify the high deal acquisition and transaction costs.
6	Limited understanding and expertise related to carbon markets among financial institutions, project developers, and clients	There is limited understanding of carbon markets across the value chain, from potential developers and investors to buyers. Financial institutions are facing challenges internally due to lack of in-house expertise impairing decision making and project execution. Additionally, project developers can struggle to keep pace with market expectations, regulatory changes, and the technical demands of high-quality project delivery.	Lack of knowledge can lead to misinformed decisions, ineffective project implementation, increased costs, compromised integrity and reduced market participation. This poses risks to potential investors, compromising the supply of high-quality carbon credits and undermining the integrity and growth potential of carbon credit markets.[28][33] The lack of knowledge among consumers contributes to misinterpretations and negative public perceptions, affecting demand.

How Financial Institutions Can Help Scale Up High-Integrity Carbon Markets

How Financial Institutions Can Help Scale Up High-integrity Carbon Markets

Financial institutions have the potential to help address many of the barriers that prevent the development and growth of high-integrity carbon markets, seizing commercial opportunity as they do so. This section presents priority areas identified as being where financial institutions can bring the greatest value, aligning with their core strengths in capital deployment, financial innovation, risk management, and market shaping. Different roles financial institutions can play include origination and execution, advisory services, contribution to market infrastructure, and advocacy for climate-related initiatives. The full potential of their impact is yet to be realized.

In particular, mobilizing and allocating capital is the most potentially transformative way financial institutions can participate in the market. By directing finance into high-quality carbon emissions reduction and removal projects and supporting investment across the high-integrity carbon market value chain, financial institutions can catalyze scale, unlock new revenue opportunities, and enhance market confidence. Similarly, by actively contributing to the development of market infrastructure and improving liquidity through intermediation, financial institutions can address key barriers to growth, including lack of transparency, credibility, and access to finance.

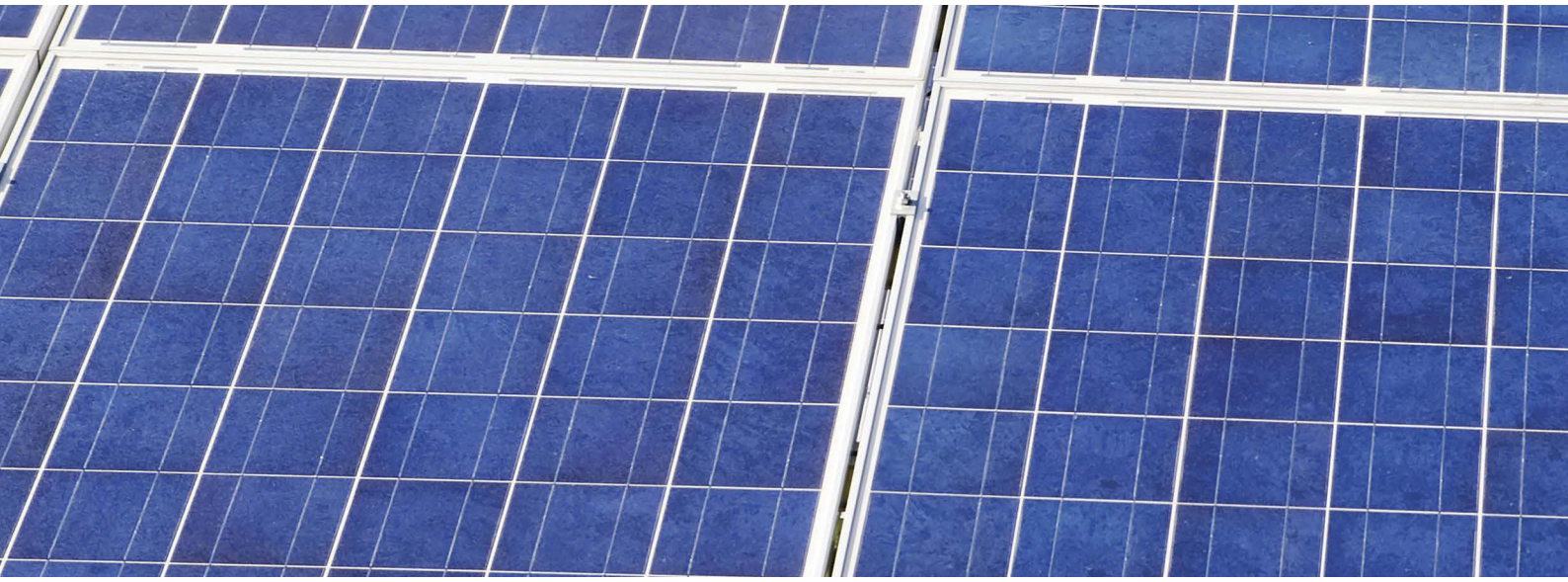
All the roles identified here represent both opportunities for financial institutions and vital building blocks for impactful and efficient high-integrity carbon markets. It is important to note that the roles and activities outlined below are not exhaustive. Financial institutions are engaging with the carbon market in a growing number of innovative and unconventional ways – often stepping beyond their traditional functions. As the market evolves, the nature and scope of financial institutions' engagement are likely to expand, reflecting both the dynamic landscape of carbon markets and the financial sector's capacity to adapt and innovate in response to climate imperatives.

As financial institutions take on a more active role across the high-integrity carbon market value chain, it is important to acknowledge and manage potential conflicts of interest. Legal and ethical concerns may arise when institutions assume overlapping responsibilities that may compromise objectivity or transparency. For example, a bank engaged in both carbon credit trading and brokerage may face challenges in providing impartial advisory services or offering risk management products to clients involved in the same transactions. These overlapping functions can raise questions around fiduciary duties, market manipulation risks, and the credibility of services provided. To maintain integrity, financial institutions must establish clear governance frameworks, ensure functional separation of roles, and implement transparency measures that mitigate perceived or actual conflicts. Regulators and standard setters also have a role to play in defining best practices and compliance requirements to guide institutions toward responsible multi-role participation in the market.

The following table summarizes the opportunities that high-integrity carbon markets present to financial institutions, which are then discussed in more detail over subsequent pages.

Table 2: Overview of Financial Institutions' Roles

The Role	Who	How	Specific Activities
01. Capital markets advisory	Capital markets and sustainable finance teams	Design and execute structured finance solutions (products) to help clients access carbon-related opportunities and capital markets	- Advise on equity and debt transactions linked to carbon projects - Structure carbon-linked financial instruments - Provide project finance, blended finance, or securitization support - Enable access to green bond/carbon finance markets
02. Investment bank advisory	Investment banking, M&A advisers, restructuring, corporate finance teams	Advising companies and investors on strategic decisions, transactions, and carbon-related investment opportunities – including buy/sell activity, corporate strategy, carbon asset integration, and entry into the carbon market ecosystem	- Advise on M&A and investment strategy involving carbon-related companies and assets - Evaluate entry strategies into the carbon market ecosystem - Support design of carbon procurement approaches aligned with business strategy - Provide insights on regulatory and standards frameworks for transactions - Conduct due diligence and risk assessment for carbon-related deals
03. Market-making	Trading desks, sales teams, risk management units	Carbon credit trading, market access, risk management solutions to facilitate liquidity and price discovery	- Provide carbon trading and brokerage services - Offer risk management solutions - Enhance market access by connecting buyers and sellers efficiently - Develop and support standardized carbon derivatives - Invest in digital innovation and transparency
04. Knowledge sharing	Research teams, sustainability offices, market intelligence units	Provide strategic advisory, capacity building, and promote use of carbon credits through market intelligence and education	- Provide strategic advisory and capacity building - Educate clients on carbon market dynamics - Engage companies on climate commitments and disclosure - Share market trends and risk management insights - Support market development through capacity building



05. Fund management	Asset managers	Facilitate capital flows from investors to carbon market assets	- Launch carbon-focused investment funds - Structure blended finance vehicles - Allocate capital via sustainability-themed funds - Partner to create investable pipelines - Develop secondary market strategies
06. Procurement	Sustainability offices	Buy carbon credits for the financial institutions directly	- Provide carbon credits for net-zero and sustainability goals - Prepare for compliance and regulatory anticipation - Offer client-focused carbon solutions - Promote market quality and integrity
07. Private market investing	Corporate M&A teams, sustainability offices, private equity investors, innovation offices, asset managers, and project investment teams	Invest directly in carbon market infrastructure and companies to advance financial returns and climate goals	- Identify and invest in early-stage carbon market infrastructure - Acquire ownership stakes: direct equity positions in carbon market companies - Manage portfolios aligned with climate and financial objectives - Provide liquidity and market-making through trading carbon-linked products - De-risk further private capital by signaling long-term commitment - Support strategic partnerships and collaborations - Monitor financial and climate impact performance
08. Engage with policymakers and standard setters	Public affairs teams, policy specialists, senior executives	Shaping regulatory frameworks and voluntary market standards that underpin high-integrity carbon markets	- Promote high and consistent standards - Advocate for corporate climate incentives - Enable transparency on credit use - Support integration into compliance systems

Capital Markets Advisory

Who	Capital markets and sustainable finance teams across banks and financial institutions
How	Originate and structure financing solutions - including equity, debt, and carbon-linked instruments - that enable clients to raise capital for climate-aligned projects and scale investment in carbon and nature markets.

Capital markets advisory teams help clients access financing by designing and executing tailored financial solutions, from equity and debt issuance to innovative carbon-linked and blended finance instruments. By leveraging deep structuring expertise and market intelligence, these advisors can shape investable propositions that align with decarbonization goals and emerging climate markets. In doing so, they not only facilitate capital flows into climate-positive activities but also help build financial products that enhance the liquidity, credibility, and scale of high-integrity carbon and nature markets.

How financial institutions can engage

- Structure financing vehicles:
  These integrate carbon credits and climate-linked outcomes, including carbon-linked bonds and sustainability-linked loans.
- Advise on capital raising:
  Help climate and nature-aligned projects access equity and debt markets.
- Design blended finance solutions:
  De-risk investment into nascent carbon and nature markets, especially in emerging economies.
- Advise on capital raising and financing structures:
  Assist clients in structuring equity, debt, blended finance, and carbon-linked financial products to mobilize capital for carbon market projects and businesses.
- Develop project finance models:
  Support financing of large-scale carbon removal, renewable energy, and nature-based solutions.
- Bridge market signals and investors' appetite:
  Aligning the commercial design of instruments with the risk-return profile expected by institutional investors.
- Support financial innovation:
  Incorporate carbon price forecasts, credit quality, and performance metrics into the structuring of new instruments.

Investment Banking Advisory

Who	Investment banking, mergers and acquisitions (M&A) advisers, restructuring and corporate finance teams
How	Advise corporates and investors on strategic decisions, transactions, and carbon-related investment opportunities - including buy/sell activity, corporate strategy, carbon asset integration, and entry into the carbon market ecosystem.

Financial institutions – particularly investment banks, corporate finance teams, and M&A advisors – are well positioned to provide clients with high-level strategic and transactional advice as they engage with high-integrity carbon markets. As carbon assets and liabilities increasingly influence investment decisions and corporate strategies, the need for informed, independent advice continues to grow.

These teams typically support clients before capital is raised or deployed, shaping the strategic rationale for transactions and guiding how carbon-related considerations are integrated into investment, divestment, and partnership decisions.

How financial institutions can engage

- **Advise on M&A and investment structuring:** Help clients identify, evaluate, and execute acquisitions, divestments, and partnerships involving carbon market actors or assets.
- **Evaluate carbon-related business opportunities:** Guide companies and investors exploring entry into carbon markets through project development, platform investment, or fund participation.
- **Advise on procurement strategies and market positioning:** Support companies in designing high-integrity carbon credit procurement aligned with their decarbonization strategy and stakeholder expectations.
- **Provide regulatory and standards advisory:** Inform clients about emerging frameworks such as those developed by ICVCM and VCMI, as well as advances in the implementation of Article 6 of the Paris Agreement and national policy and regulatory frameworks, and explain their implications for transactions and compliance.
- **Support early-stage deal design:** Develop transaction structures that account for carbon asset valuation, risk exposure, and compatibility with broader financial and strategic goals.
- **Conduct due diligence:** Assess project-level or corporate carbon exposure and credit quality as part of acquisition or investment processes.

At BBVA, we view high-integrity carbon markets as a strategic tool in supporting our clients' low-carbon transition. Through specialized teams, we offer sustainable finance solutions, carbon market advisory, and climate risk management services – all aligned with our public decarbonization targets and sustainability strategy. These services reflect our commitment to enabling credible, high-impact climate action across the financial system.

- Paola Del Rio Villegas, BBVA, Senior Vice President Carbon Markets LATAM, Global Markets, Corporate & Investment Banking

Market Making

Who	Trading desks, sales teams, risk management units
How	Carbon credit trading, market access, and risk management solutions to facilitate liquidity and price discovery.

Financial institutions play a pivotal role as market makers and intermediaries in high-integrity carbon markets by providing trading and hedging services. By leveraging their relationships with both buyers and sellers, financial institutions help reduce transaction costs, enable transparent price discovery, and source voluntary carbon credits for corporate buyers.

Acting as brokers or market makers, they connect project developers with buyers, supporting revenue generation and financing for carbon projects. Additionally, financial institutions can develop and finance carbon credit marketplaces and offer risk management products that mitigate market volatility and other transaction risks.[30][26][11]

How financial institutions can engage

- Provide carbon trading and brokerage services:
  Facilitate efficient transactions between buyers and sellers of carbon credits, supporting project developers in accessing them both, and specifically buyers in procuring high-quality carbon credits with price transparency.
- Offer risk management solutions:
  Deliver products to mitigate price volatility and manage counterparty credit, foreign exchange, and interest rate risks associated with carbon credit transactions.
- Enhance market access:
  Create or support platforms and partnerships that connect buyers and sellers efficiently, including proprietary platforms such as Carbonplace that enable transparent voluntary carbon credit trading.[9]
- Develop and support standardized carbon derivatives:
  Participate in the creation and promotion of carbon credit futures and options through exchanges like European Energy Exchange, CME Group, and London Stock Exchange Group, facilitating liquidity and broader market participation. Efforts include adapting to final regulatory guidance such as the United States Commodity Futures Trading Commission rules for voluntary carbon credit derivative contracts.[17]
- **Invest in digital innovation and transparency:** Advance blockchain-based platforms to secure carbon credit tracking, carbon-indexed funds, and tokenized credits to improve market efficiency and accessibility.

How financial institutions can enhance market access:
Carbonplace is funded by nine major global banks: BBVA, BNP Paribas, CIBC, Itaú Unibanco, National Australia Bank, NatWest Group, Standard Chartered, SMBC, and UBS.

Knowledge Sharing

Who	Research teams, sustainability offices, market intelligence units
How	Provide strategic advisory, capacity building, and promote the use of carbon credits through market intelligence and education.

Financial institutions serve as a critical source of market intelligence on carbon credit origination, issuance and trading. By educating and informing a wide range of stakeholders, including corporates, investors, and regulators, financial institutions help close information gaps, increase market transparency and build confidence in high-integrity carbon markets.

Developing internal expertise enables financial institutions to better support clients with reliable information and confidently participate in high-integrity carbon markets.[11][6][25][39][40]

How financial institutions can engage

- Provide strategic advisory and capacity building:
  Produce market intelligence, data analysis, and reports that clarify carbon market rules, credit quality, pricing, and project types, enabling informed investment and risk management.[11]
- Educate clients on carbon market dynamics:
  Offer advisory services mapping the carbon landscape, assessing credit quality, and forecasting supply and demand to build internal expertise and commercial opportunities.
- Engage companies on climate commitments and disclosure:
  Support clients in managing climate risks by encouraging disclosure of emissions targets, transition plans, and carbon credit use, enhancing assessment of climate-related financial risks.[7]
- Share market trends and risk management insights: Publish reports and guides, and participate in initiatives to promote learning and use of tools such as insurance, guarantees, and differentiated credit types, supporting carbon market scaling.[18][11][1]
- Support market development through capacity building: Collaborate with governments and multilaterals on policy dialogues, capacity building, and registries to strengthen carbon market frameworks and inform evolving regulatory landscapes.[25][40]

Sharing market trends and risk management insights:
Barclay's report "Creating New Nature Markets that Work for Farmers" provides context on how project-based carbon credits are generated and traded.

Fund Management

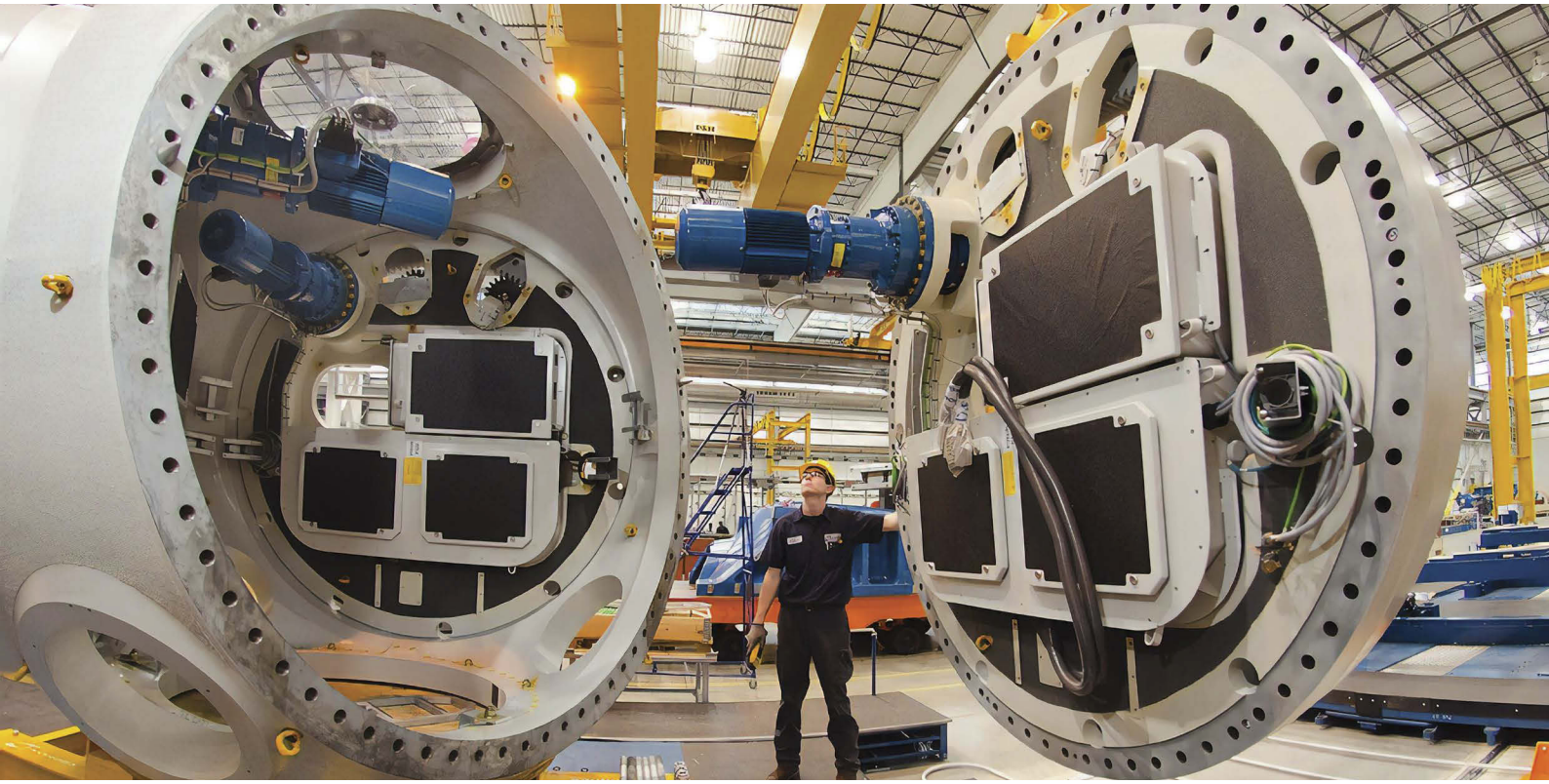
Who	Asset managers
How	Facilitate capital flows from investors to assets.

Asset managers play a critical role in facilitating capital flows from institutional and retail investors into high-integrity carbon market assets. By structuring and managing funds that invest in carbon projects, credits, and market infrastructure, they help pool and channel capital into scalable, risk-managed investment vehicles. These funds not only offer investors exposure to climate-aligned assets but also provide the long-term, stable financing needed to support project development and market maturation.

This role is especially valuable in bridging the gap between investor appetite and the fragmented, high-risk profile of early-stage carbon markets. Asset managers contribute through their financial structuring expertise, building investor trust, and providing due diligence capabilities, which can de-risk investments and accelerate capital deployment. As the market matures, they are well-positioned to develop new financial products – such as blended finance vehicles, nature-based carbon funds, or credit-backed securities – that expand access to this emerging asset class.

How financial institutions can engage

- Launch carbon-focused investment funds:
  Develop funds targeting nature-based solutions, removal credits, and climate impact assets, such as those by Climate Asset Management, Mirova, and GenZero.
- Structure blended finance vehicles:
  Combine concessional, philanthropic, and commercial capital to make higher-risk carbon investments attractive to mainstream investors.
- Allocate capital via ESG or sustainability funds:
  Use existing labelled funds to increase exposure to carbon assets and improve market visibility.
- Partner to create investable pipelines:
  Collaborate with project developers, credit certifiers, and platforms to generate portfolios of high-integrity carbon credits.
- Develop secondary market strategies: Invest in carbon credit portfolios or securitized carbon-backed assets to enhance liquidity and market confidence.



Case Study: Aviva's Carbon Removal Fund

In 2024, leading UK insurer and asset manager Aviva launched its Carbon Removal Fund, which aims to accelerate the development and deployment of high-durability carbon removals. The fund is a strategic tool – used by Aviva's investment, risk, and sustainability teams – to align portfolios with science-based targets while offering long-term value and resilience for clients in a transitioning economy.

High-integrity carbon markets face a critical gap: there is insufficient supply of verifiable, high-durability carbon removals that can deliver real climate impact. Many buyers, including insurers, are exposed to reputational, regulatory, and climate risks by relying on short-lived or low-integrity credits. The fund addresses this by investing in scalable, science-backed removal methods to create a pipeline of trusted supply that institutional investors can stand behind and clients can benefit from.

The fund, which aims to raise £1 billion, channels capital into early-stage, permanent carbon removal technologies, including biochar, enhanced weathering, and direct air capture. These projects undergo stringent due diligence, with the support of carbon market experts, to ensure they meet robust integrity standards.

By investing now, Aviva secures high-quality removals at predictable future prices, reducing risk exposure for both the firm and its clients. The fund also positions Aviva as a first mover, enabling it to influence methodologies, shape market norms, and gain early access to innovation.

For clients, the fund provides a credible pathway to long-term decarbonization. On a market level, it helps build demand signals for durable removals, de-risks early projects, and strengthens the business case for greater capital flow into high-integrity solutions, contributing directly to the scale-up of the carbon removal ecosystem.

Externally, it has catalyzed supplier engagement, encouraged innovation in carbon methodologies, and demonstrated tangible demand for high-integrity removals. Developers report that Aviva's early commitments offer crucial revenue certainty, while stakeholders view the fund as a practical, strategic tool to operationalize net zero.

Procurement

Who	Sustainability office
How	To buy carbon credits for the financial institution's own use.

Financial institutions have been active buyers of carbon credits since the early stage of the market, often through their sustainability or corporate responsibility teams. Between 2021 and 2023, the financial sector accounted for around 5% of annual credit through their trading teams retirements (see Figure 1). While many institutions purchase credits to compensate for their own direct or indirect emissions, some are also starting to acquire credits on behalf of their corporate clients, enabling broader climate action across their portfolios and customer base.

Currently, financial institutions purchase carbon credits for various reasons, including for offsetting their emissions, for beyond value chain mitigation, and as a hedge or risk management solution.

If carbon credits were to be used to compensate for the emissions associated with the economic activities which financial institutions finance (classified as scope 3, Category 15, and often referred to as portfolio or financed emissions) demand for high-quality carbon credits would be expected to be significant, as these emissions often account for more than 95% of a financial institution's total emissions inventory.[3] Financial institutions, as sophisticated buyers, bring rigorous due diligence, risk assessment, and transparency that can help drive market integrity and higher standards. [11][15]

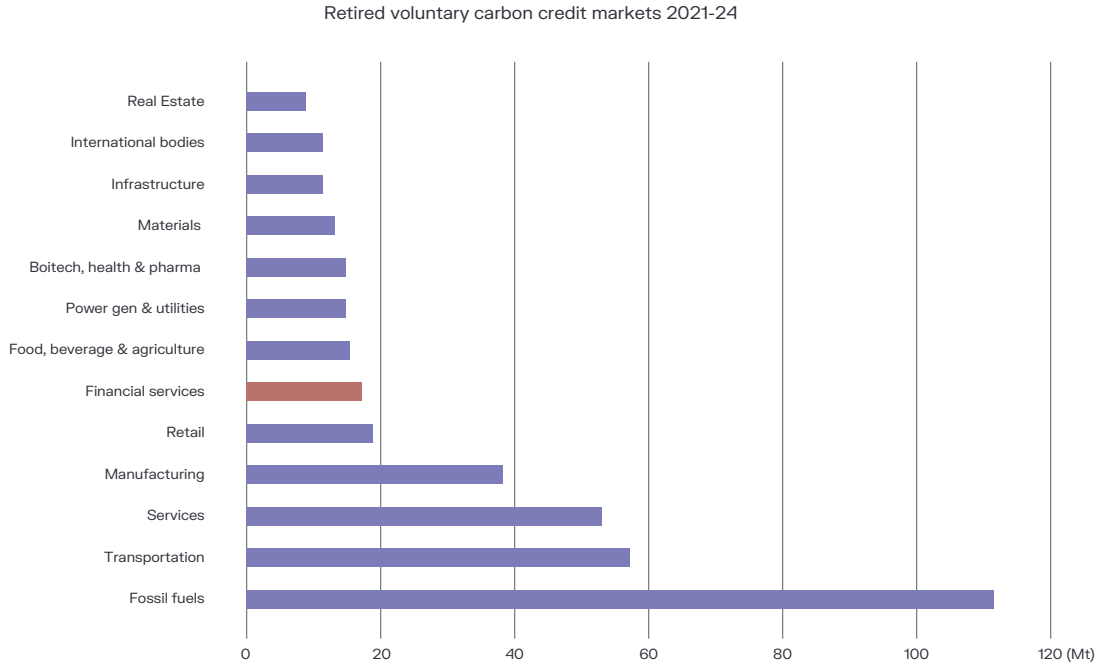


Figure 1. Retired voluntary carbon credit markets 2021-2024 (Mt) (Source: MSCI. As of ©2025)

How financial institutions can engage

- Use carbon credits to contribute to net-zero and sustainability goals:
  Acquire high-quality carbon credits to address scope 1, scope 2, and select scope 3 emissions in alignment with the institution's net-zero and sustainability commitments. According to the Morgan Stanley Sustainable Signals Survey, 40% of asset owners already use carbon credits to mitigate portfolio emissions,[27] and evidence shows that institutions that are engaged in carbon markets make faster progress in reducing emissions than those that are not.[22]

- Prepare for compliance and regulatory anticipation:
  Procure credits aligned with emerging or anticipated compliance regimes, managing regulatory risks and building internal carbon market expertise. This proactive approach supports climate risk management amid tightening disclosure requirements in regions like the European Union, the United States, the United Kingdom, Canada, and Australia.[5][21]

- Offer client-focused carbon solutions:
  Develop and provide carbon credit products embedded in corporate and retail banking or business-to-business services, supporting clients' sustainability objectives and enabling broader decarbonization efforts.

- Promote market quality and integrity:
  Apply rigorous due diligence and transparency standards in carbon credit purchases to enhance credit quality and build confidence in carbon markets.

Private Market Investing

Who	Corporate M&A teams, sustainability offices, private equity investors, hedge funds, and project investment teams focused on direct investment and execution in carbon market projects and companies
How	A financial institution acting as a strategic investor from its own corporate balance sheet – originating and executing direct investments in carbon projects and companies, and trading carbon-linked assets to generate financial returns and environmental impact.

Financial institutions can support the growth of high-integrity carbon markets by acting as private market investors, deploying capital directly from their own balance sheets into strategically aligned carbon market companies and infrastructure. These investments are typically made by corporate M&A teams, sustainability and innovation units, private equity firms, and hedge funds seeking to advance both financial returns and institutional climate goals. This role differs from traditional fund managers or intermediaries as the institution takes direct ownership stakes in companies that enable the carbon ecosystem and may also provide liquidity and trading activity in carbon-linked assets.

By investing in platforms for monitoring, reporting and verification (MRV), carbon credit exchanges, project development firms, or data and analytics providers, financial institutions can help overcome capital gaps in early-stage carbon market infrastructure. These investments signal long-term commitment, de-risk further participation by other investors, and allow financial institutions to shape market development in alignment with their climate transition strategies.

How financial institutions can engage

- Identify and invest in early-stage carbon market infrastructure:
  Support for MRV platforms, carbon credit exchanges, project developers, and technology providers.
- Acquire ownership stakes:
  Take direct equity positions in carbon project developers, verification bodies, and carbon market platforms to influence market development.
- Manage investment portfolios:
  Align investments with institutional climate goals and financial return objectives, focusing on strategic market participation.
- Provide liquidity and market-making:
  Trade carbon-linked products to enhance market liquidity and price discovery.
- De-risk further private sector capital:
  Signal long-term commitment to the carbon ecosystem, encouraging additional investors to enter the market.
- Support strategic partnerships:
  Facilitate joint ventures and collaborations that accelerate carbon market growth and innovation.
- Monitor portfolio performance:
  Track both financial outcomes and climate impact metrics to ensure alignment with investment mandates.

How financial institutions can enhance market access:
Climate Impact X (CIX) is a joint venture between DBS Bank, Standard Chartered, Singapore Exchange (SGX), and Temasek, aiming to create a global marketplace for high-quality carbon credits.

Engagement with Policymakers and Standard Setters

Who	Public affairs teams, policy specialists, senior executives
How	Shaping regulatory frameworks and voluntary market standards that underpin high-integrity carbon markets.

Financial institutions can play a pivotal role in shaping the rules and standards that govern high-integrity carbon markets. By engaging with regulators, standard setters, and multi-stakeholder initiatives, they can help create the enabling conditions for credible, efficient, and scalable markets. These engagements are essential to building confidence among market participants, fostering transparency, and reducing reputational and regulatory risks. As influential actors with cross-border operations, financial institutions can also advocate for the harmonization of standards across jurisdictions, helping to improve market interoperability and long-term investment confidence.

Engagement can occur at both the individual institution and industry coalition levels. Financial institutions are already participating in efforts led by the ICVCM, and the VCMI, as well as Article 6 negotiations under the Paris Agreement, and can continue to deepen their contributions in shaping high-quality market governance.

How financial institutions can engage

- Promote high-integrity and consistent standards:
  Collaborate with standard setters and regulators to define robust criteria for credit generation, retirement, and reporting – enhancing trust and market integrity across jurisdictions.
- Advocate for corporate climate incentives:
  Support policies that encourage voluntary corporate climate action and allow the responsible use of carbon credits in net-zero transition planning.
- Enable transparency on credit use:
  Promote frameworks for disclosure on the use of carbon credits in corporate transition plans, helping build investor confidence and market credibility.
- Support integration into compliance systems:
  Advocate for the inclusion of high-integrity carbon credits in emissions trading systems or carbon tax regimes to expand demand and mobilize finance toward emissions reduction projects.

Financial institutions could significantly contribute to the development and scalability of high integrity carbon credits, especially from the Global South, and support nature-based solutions which are crucial in the global effort to mitigate carbon emissions and achieve climate goals. They have the resources and capacity to channel and scale the necessary funds to transition from potential to tangible action. By doing so, they can also facilitate connections between sellers in the Global South and buyers in the Global North, adding an essential layer of due diligence and trust to the process. Their role in this ecosystem can be pivotal.

- Maria Belen Losada, Itaú

Solutions

Solutions

The previous section outlined the priority roles financial institutions can play to help scale high-integrity carbon markets and realize the commercial and environmental opportunities presented to them. While financial institutions already act as intermediaries, infrastructure supporters, and policy advocates, market barriers are preventing them from making the impact they could deliver in other areas. Notably, a more stable and investable market environment is still required for financial institutions to mobilize and allocate capital at the capacity required which, among the roles discussed, has the greatest potential to drive market growth.

Considerable progress has been made by market participants, regulators, and standard setters in addressing challenges and shortcomings faced by high-integrity carbon markets in recent years. However, despite this progress, the market still remains underdeveloped, with persistent barriers deterring many financial institutions from participating at scale and unlocking the opportunities the market presents.

These barriers can be grouped into two main categories: uncertain demand; and risks driven by market uncertainty. Addressing these barriers is critical not only to scale the market but also to make the commercial and environmental opportunities of high-integrity carbon markets accessible to financial institutions. Solutions are needed both from external actors – especially policymakers and standard-setters – and from financial institutions themselves.

Foundational Needs: Delivering Regulatory and Legal Certainty to the Market

Addressing the uncertainty around regulation and frameworks is an essential first step: a set of foundational solutions must be prioritized. These are primarily in the remit of governments, regulators, and standard-setters, and are essential to laying the groundwork for more robust and confident financial institutions participation:

1. Integrate international carbon credits into emissions reductions schemes

Regulatory intervention that facilitates or formally incorporates the use of high-quality carbon credits into national or sectoral climate strategies will help scale the market to the levels needed for meaningful climate mitigation. For example, Singapore and South Korea offer different models for this incorporation of voluntary credits into national emissions reduction schemes, and the aviation sector has introduced its CORSIA carbon offsetting and reduction initiative. Stronger and more predictable demand signals will, in turn, encourage financial institutions to deploy capital and services at scale.

2. Clarify and align regulations and voluntary frameworks regarding the use of credits

Clarity, alignment and stability of different frameworks is crucial to ensure that rules and guidance are sensible and consistent, bringing stability and certainty to high-integrity carbon markets. When rules are consistent and pragmatic, they reduce reputational, legal, and compliance risks – creating a more investable market environment for financial institutions.

3. Clarify the legal status of carbon credits (to ensure enforceable property rights)

Legal clarity on how carbon credits are classified is essential to enable financial institutions to manage, account for, and invest in credits. This affects how credits are reflected on balance sheets, how risks are managed, and how credit-based products are structured and regulated.

Addressing these foundational needs is a necessary first step to reduce regulatory uncertainty, build investor confidence and lay the groundwork for broader, more strategic participation by financial institutions and companies. Once these regulatory and legal foundations are in place, the remaining market and operational barriers can be more effectively addressed – including those that financial institutions are uniquely positioned to lead on.

What Financial Institutions Can Do to Enable Solutions and Capture Opportunities

Financial institutions are uniquely positioned to accelerate the transition of high-integrity carbon markets from niche to mainstream. Through advocacy and by offering risk-mitigation tools, they can help shape more investable markets while capturing new opportunities.

1. Advocacy and Policy Engagement

While foundational regulatory and legal solutions lie largely within the remit of governments and standard-setters, financial institutions can play a catalytic role in advocating for and shaping these developments. By engaging in targeted policy dialogues, participating in industry coalitions, and lending their voices to multilateral efforts that promote clarity, consistency, and ambition in carbon market governance, financial institutions can help accelerate the delivery of the frameworks needed to operate at scale. Advocacy through coalitions, industry groups, and public-private partnerships can advance policy clarity and build long-term market confidence.

Importantly, financial institutions that align their own practices – such as incorporating high-quality carbon credits into their climate strategies – with the market models they advocate for, send a powerful signal to corporates, regulators, and peers. This alignment not only helps create a stable demand base but also demonstrates credibility, builds trust, and encourages broader participation.

2. De-risking Mechanisms to Overcome Market Barriers

The current structure of high-integrity carbon markets – characterized by market fragmentation, uncertain revenues, and nascent infrastructure – prevents them from attracting mainstream institutional capital. In parallel to advocacy and policy engagement activities, financial institutions can support the market's development by offering tools which will help bring down the highest barriers (see Table 1) – by providing insurance and access to diversified sources of funding.

2.1. Insurance

Risk-transfer instruments are fundamental to capital markets. In high-integrity carbon markets, innovative insurance products are helping to build trust by enabling project developers and buyers to transfer exposures such as under-delivery, political instability, and project non-performance to institutions with greater appetite for those risks. These instruments:

- Enable buyers to commit capital earlier by reducing downside risk (e.g. insurance against under-delivery protects buyers from the risk of receiving fewer carbon credits than anticipated).
- Improve the bankability of projects and support developers in securing financing by mitigating non-core exposures (e.g. political risk insurance can protect against expropriation and revocation risk under Article 6).

Case Study – Carbon Insurance Specialist Kita Earth

Carbon insurer Kita offers insurance products and risk advisory services specialized for the carbon markets.

Kita's insurance is based on insurance common to financial institutions – such as credit and political risk insurance – but specialized for the carbon markets. It enables participants to transfer key risks to the insurance market, providing an enabling tool for institutional investment.

These products include:

- Delivery risk insurance and non-payment insurance, which protects investors/lenders in early-stage carbon projects against the risk of under- or non-delivery of projected future carbon credits, or the non-payment of financing. This insurance is similar in nature to wider credit insurance, providing comprehensive 'all-risks' cover against a wide range of risks that can result in a loss for a buyer, investor or lender, including natural catastrophe, counterparty risk, and supply chain disruption.
- Political risk insurance, to protect investors and project developers against host country risks, such as expropriation, export license cancellation, forced abandonment, contract frustration, and war or civil unrest.
  This insurance would have provided protection in recent examples of political risk in the carbon markets, such as Indonesia's moratorium on issuance of international carbon credits. It can also be applied to CORSIA.
- Products to underpin the infrastructure that voluntary carbon trading relies upon. For example, Kita's 'buffer as a service' (BaaS) product is used by the International Carbon Registry (ICR). The registry's 'buffer' is a central pool of carbon credits to which each project developer is required to contribute to. It can be drawn upon by buyers if a project fails, and if the carbon it has stored is released to the atmosphere. However, the buffer is at risk from an outlier loss that would threaten its solvency. Kita's BaaS product uses active risk control, asset management and project-specific risk assessment processes to identify and mitigate key risks and effectively manage asset weighting within the buffer pool.

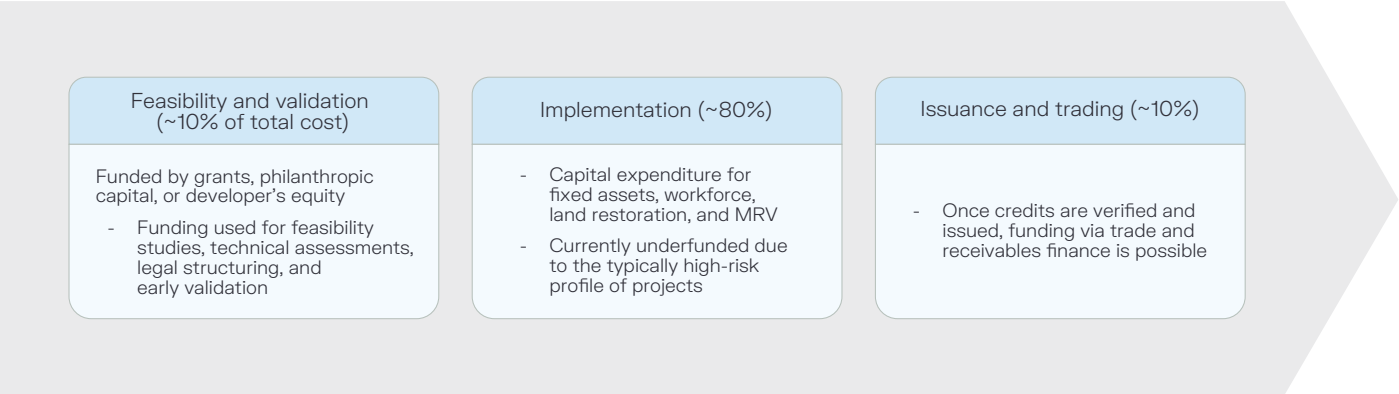
Institutional capital is essential to scaling high-quality carbon markets, and insurance plays a critical role in unlocking it. At Kita, we see insurance as a trusted, familiar risk management tool for financial institutions, helping build confidence in project quality and protecting against loss. Around 80% of our clients – proactive financial institutions – require insurance as a condition precedent to closing deals. By aligning our insurance products with their needs, we help enable capital flow into high-integrity carbon markets.

- Natalia Dorfman, CEO and Co-founder of Kita

Insurance products can provide buyers and sellers with a safety net, enabling them to transact in the carbon markets with confidence, helping to increase liquidity and enable institutional investment.

2.2 Diversified Funding Mechanisms

The current voluntary carbon project landscape remains overly reliant on equity capital. The difficulty in raising debt to fund projects makes it too costly to scale a maturing market. To unlock institutional debt finance, the market must transition towards a blended, infrastructure-style model that layers capital strategically across the project lifecycle and mitigates risk upfront. The market suffers from a 'valley of death' (see image below) at the implementation stage, where equity alone cannot cover the capital needs, and traditional debt remains unavailable due to project-specific risks.



(Image 1) The Financing Challenge: the Valley of Death - Carbon reduction and removal projects typically move through three stages

Some of the key reasons why traditional financial institutions hesitate to lend, posing an additional barrier to institutional capital, include:

- Counterparty risk: Most developers are unrated or sub-investment grade.
- Underwriting capability: Financial institutions often lack the technical capacity to assess project-specific carbon performance risks.
- Lack of scale: Single-project deals (typically below $50 million) are too small for project finance.
- Weak demand signals: Low and volatile carbon credit prices challenge project cashflows and pose high merchant risk.
- Cashflow uncertainty: Long payback periods and performance risk deter lenders.
- Limited tools for risk mitigation: Structured offtake agreements and carbon insurance remain nascent.

Enablers to Unlock Financing

To address these challenges, the market must evolve toward risk mitigation, with aggregated and performance-backed investment models, which can bring together:

- Grants and philanthropic capital, used during early feasibility to prepare projects for scale and unlock private investment.
- Development finance institutions to provide first-loss capital, loan guarantees, or concessional debt to crowd in private lenders. Their higher risk tolerance and mandate to support emerging markets are critical at the implementation phase.
- Dedicated, specialized investment managers that can centralize due diligence, aggregate small-scale projects, and structure portfolios aligned with institutional capital expectations. This can help mitigate counterparty and execution risk.
- Development companies to source, structure, and bundle multiple smaller projects into diversified vehicles. These can reduce risk through portfolio effects and increase transaction efficiency.
- Blended project portfolios that combine greenfield and issuance-ready projects, generating the near-term cashflows that are essential for meeting early debt obligations and enhancing bankability.
- Structured offtakes with insurance, offering fixed-price offtake agreements from an investment-grade counterparty, coupled with carbon delivery insurance, to enhance revenue certainty. This creates a predictable cashflow stream that can support debt financing.

Example of Market Innovation

Funds like those managed by Mirova and Climate Asset Management offer models for institutional participation in nature-based solutions. These vehicles have succeeded in attracting corporate investors by blending long-term carbon asset exposure with active risk management and scalability (see Case Study below). However, such examples remain limited.

In summary, diversified funding mechanisms are essential to scaling the carbon market. They enable a transition from venture-style investing toward infrastructure-grade project finance, unlocking broader pools of institutional capital and accelerating high-quality credit supply.

Case Study: Climate Asset Management and fund models for investment nature-based carbon credits

Climate Asset Management (CAM), a joint venture between HSBC Asset Management and Pollination, is pioneering a financing model to mobilize institutional and corporate capital into nature-based carbon reduction and removal projects.

Through its Natural Capital and Nature-Based Carbon strategies, CAM has structured three funds, designed to de-risk investment in nature-based projects by taking a portfolio approach – balancing greenfield project development with more mature projects. This approach enables earlier cash flows or carbon credit distribution, while maintaining long-term upside from carbon appreciation and nature co-benefits.

CAM's Nature Based Carbon Strategy addresses a key market gap: a lack of institutional-grade investment products in the voluntary carbon market for corporates that want to use high-quality carbon credits from nature-based projects. By aggregating project-level risk and providing specialized underwriting and operational oversight, CAM has made investment in carbon assets more accessible for these buyers. This investment model shows that large investors are willing to commit capital when vehicles are structured to manage risk, generate returns (either monetary or in-kind), and align impact targets with climate and nature goals. However, such examples remain rare, emphasizing the need for more scalable and replicable approaches.

At Climate Asset Management, we see high-integrity carbon markets as a cornerstone of the net-zero transition. By embedding transparency, robust standards, and environmental integrity into every transaction, these markets can unlock the confidence and capital needed from financial institutions to scale nature-based solutions, especially in emerging economies where the impact is most profound.

- Martin Berg, CEO, Climate Asset Management

Conclusion and Recommendations

Conclusion and Recommendations

High-integrity carbon markets present a strategic opportunity for financial Institutions to align climate ambition with commercial opportunity. As global efforts to decarbonize intensify, high integrity carbon markets offer financial institutions a pathway to deliver tangible climate impact, support broader social and nature-positive goals, and unlock new sources of revenue. Engaging in high-integrity carbon markets enables financial institutions to offer high-value financing and advisory services, deepen client relationships, diversify portfolios, and position themselves as leaders in the sustainability transition.

Notably, the integrity of carbon markets has improved in recent years, as initiatives such as the ICVCM and the VCMI have provided clearer guidance on what constitutes high-quality credits and credible buyer claims. Underpinning the integrity of carbon markets is essential to restoring trust and building credibility. However, despite this progress, the market remains underdeveloped, constrained by low liquidity, project financing challenges, and policy uncertainty. To unlock its full potential, financial institutions must step into more impactful roles – not only as intermediaries and advisors, but as catalysts for scaling supply and mobilizing capital, and for helping develop the infrastructure that carbon markets need to grow.

Currently, financial institutions are most active in intermediary functions, such as supporting infrastructure, developing trading services, and contributing to policy advocacy. These roles are valuable but underuse the true strength of financial institutions: capital allocation and mobilization. Through structured investments in carbon project developers, funds, and the broader market ecosystem, financial institutions can unlock much-needed finance and create an investable pathway for nature and carbon solutions. However, for them to fully realize the required impact, several enabling conditions and market solutions must be in place.

First, foundational developments are required, such as regulatory clarity on the legal status of carbon credits, alignment across integrity frameworks, and the development of robust legal and institutional infrastructure to support credit issuance and transfer. These elements are critical to building investor confidence and ensuring market interoperability.

In parallel, financial institutions themselves can help deliver priority solutions that reduce market risk and improve project bankability. For instance, de-risking mechanisms like carbon credit insurance can mitigate performance, political, and delivery risks, addressing one of the core challenges holding back investment. Additionally, diversified funding structures – including blended finance and concessional capital – can lower the cost of capital and support a shift toward infrastructure-style project financing. Fixed-price offtake agreements with investment-grade buyers and the use of project aggregation platforms also help improve cash flow predictability and risk distribution, further enhancing bankability.

Together, these solutions will allow financial institutions to scale their involvement in carbon markets and channel more capital towards high-integrity carbon reduction and removal projects, building liquidity in the market, and accelerating innovation in climate finance. The institutions that lead in addressing these barriers will not only drive climate and nature outcomes but also unlock strategic commercial advantages in an emerging and rapidly evolving asset class. Now is the moment for financial institutions to move from the sidelines and into leadership – helping shape the future of high-integrity carbon markets while capturing the opportunities they offer.

Recommendations

We call upon financial institutions to:

1. **Provide clear market signals by integrating high-quality carbon credits into institutional climate strategies and aligning advocacy positions with institutional behavior**

As an immediate step, financial institutions should consider how their own engagement in high-integrity carbon markets can help signal confidence and foster market stability. Visible participation – such as integrating high-quality carbon credits into institutional climate strategies – can help normalize the voluntary use of carbon credits alongside decarbonization efforts and demonstrate leadership in climate-aligned financial practices.

Equally important is ensuring consistency between advocacy positions and institutional behavior. By aligning public support for carbon credit markets with internal practices, such as purchasing and disclosing the use of credits, financial institutions can contribute to building trust and demand across the market. This alignment can serve as a catalyst for broader corporate participation and support the development of a more liquid, scalable market.

Without such leadership and coordination, essential solutions – improved pricing of carbon credits, robust risk-sharing tools, and investment-grade opportunities – may be slow to materialize, limiting both the environmental impact and financial upside that voluntary carbon markets can offer.

2. **Endorse the voluntary use of high-quality carbon credits as a complementary tool in addition to a decarbonization strategy**

Financial institutions should advocate for a 'reduce and remove' approach to net-zero, which prioritizes significant reductions in direct and value chain emissions. Financial institutions must normalize and champion high-quality carbon credits as a legitimate and necessary tool in net-zero strategies.

Endorsing this approach – not just in financial institutions' own climate strategies, but in client engagements, investment decisions, and in their advocacy work – will support the scale-up of a more robust, trusted carbon market that complements real-world decarbonization.

3. Actively contribute to scaling up high-integrity carbon markets

To further support the growth of high-integrity carbon markets, financial institutions should finance carbon reduction and removal projects and platforms, invest in carbon credit funds, and support the development of risk management tools and infrastructure, according to company policies and to meet client needs. Financial institutions should also continue acting as intermediaries, carrying out advocacy, and boosting knowledge-sharing to expand market access and credibility.

Engaging across this spectrum – especially with a focus on de-risking investments and building diversified funding mechanisms – will unlock investment-grade carbon assets and accelerate market maturity. In doing so, financial institutions can help deliver tangible climate outcomes while establishing themselves as leaders in a rapidly evolving and financially attractive market.

Appendix

Appendix 1. Questionnaire for Expert Interviews

Questions for non-financial institutions	Questions for financial institutions
01. What roles do you see financial institutions already playing? Please share examples and trends you are aware of.	01. In what ways can financial institutions contribute to scaling up voluntary carbon markets?
02. In what other ways can financial institutions contribute to scaling up voluntary carbon markets?	02. How is your organization engaging with voluntary carbon markets, what factors have influenced your decision to do so and what is the value added from it?
03. Share examples of voluntary carbon market-related opportunities for financial institutions.	03. Are there other voluntary carbon market-related opportunities you have identified for your organization, which have not yet been implemented?
04. What are the risks, challenges, and roadblocks for financial institutions to engage with voluntary carbon markets through the different roles identified?	04. Are you noticing interest from relevant stakeholders (regulators/clients/shareholders, etc.) to engage OR pressure NOT TO engage with voluntary carbon markets?
05. What do you see your role to be in scaling up voluntary carbon markets and/or enabling financial institutions to engage with voluntary carbon markets?	05. What voluntary carbon markets-related risks, challenges, and roadblocks have you identified?
06. What types of policy/regulation would incentivize financial institutions to engage more with voluntary carbon markets?	06. What types of policy/regulation would incentivize financial institutions to engage more with voluntary carbon markets?
07. . What other solutions or changes could make voluntary carbon markets more attractive and accessible for financial institutions?	07. What other solutions could make voluntary carbon markets more attractive and accessible for financial institutions?

Appendix 2.
Composition of Interviewees:

Geographical Composition

Region	Number of interviewees
Africa	2
Asia	7
Europe	7
North America	3
Latin America	2
Total	21

Participants by Asset Class

Asset class	Number
Asset Manager	2
Bank	7
Consultancy	4
Climate Initiative	4
Insurer	2
Stock Exchange	1
Multilateral development bank	1
Total	21

Appendix 3.
Research Methodology

To produce this report, VCMI undertook initial exploratory research and consulted with a number of finance sector experts to frame the report's focus and to define interview questions.

This was followed by a literature review of 153 sources, including academic studies, reports, articles, and grey literature, to assess the state of voluntary carbon markets and financial institutions' engagement with them. VCMI then interviewed 21 stakeholders, selected to ensure representation across different types of organizations and geographical balance, to provide insights into barriers to greater finance sector engagement with high-quality carbon markets.

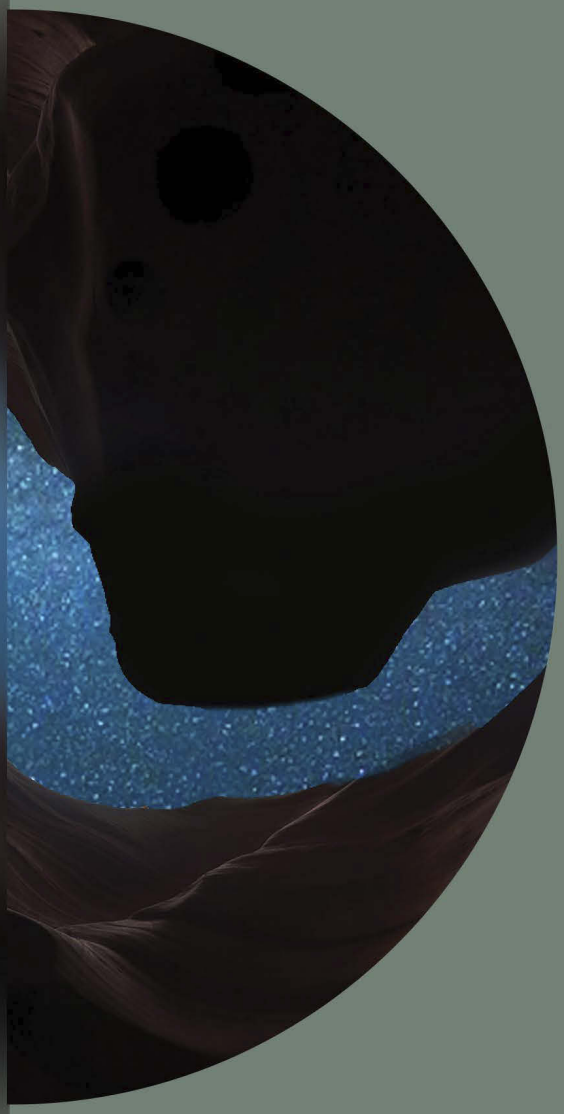
There were some limitations to the research process, including underrepresentation of certain types of financial organizations, and of Africa and Latin America compared with Asia and Europe. In addition, the research is based on qualitative assessment rather than large-scale quantitative data. To overcome these limitations and complement the research, VCMI invited financial experts from underrepresented parts of the sector and geographical areas to review the paper.

Appendix 4.
Solutions

Solutions	Sub-Solution	Description
Requirement for voluntary use of carbon credits	Introduction of regulatory mandates	Regulatory intervention on use of credits will help the market scale to levels needed to make the required contribution to climate mitigation. Stronger demand signals will encourage financial institutions to play a more prominent role.
	Requirements through voluntary frameworks and standards	Voluntary frameworks could provide requirements for the use of credits, strengthening demand and creating more incentives for financial institutions to engage with voluntary carbon markets.
	Clarity and alignment between regulations and voluntary frameworks on the use of credits	Clarity, alignment, and stability of different frameworks and mutual recognition of carbon crediting programs within national jurisdiction with international standards is crucial to ensure that rules and guidance are sensible and consistent, bringing stability and certainty to the market
	Regional alignment	Aligning regulations, frameworks, and standards across countries and regions, with unified and aligned principles, will help bring certainty, clarity, and stability to high-integrity carbon markets.
Transparency and integrity	Disclosure of carbon credits usage data	Disclosing and providing stakeholders with reliable and comparable information on carbon credit use is essential for mitigating concerns related to greenwashing and demonstrating buyers' climate commitments and climate actions.
	Consistent, clear, and transparent criteria for high-quality carbon credits and aligned definition of (high) quality	A standardized global benchmark is needed for high-quality credits. Quality thresholds through due diligence and digital monitoring can enhance transparency and broaden market access, creating a more reliable and scalable carbon market ecosystem.
	Robust due-diligence processes	Simplifying and streamlining due diligence processes and establishing clear quality criteria across the market will help standardize due diligence, reducing costs and efforts for financial institutions looking to engage with the market.

Improved market structure and conditions	Clear legal status of carbon credits	Simplifying and streamlining due diligence processes and establishing clear quality criteria across the market will help standardize due diligence, reducing costs and efforts for financial institutions looking to engage with the market.
	Improved and standardized pricing mechanisms for carbon credits	Carbon credit pricing is shaped by a combination of regulatory frameworks, market dynamics, and project-specific factors. These factors are highly volatile in the market's current state. New, tailored financial models to assess and evaluate long-term carbon prices can help improve transparency, develop liquid derivatives markets, and ensure reliable credit valuations, enabling longer-term planning.
	Transparency platforms and marketplaces	Financial institutions are developing digital platforms and marketplaces that increase transparency in carbon credit transactions. These platforms can provide clear pricing, transaction histories, and risk profiles, allowing buyers and sellers to make informed decisions.[1]
De-risking solutions	Provision of insurance products	Insurance products can transfer political, regulatory, and project-specific risks to entities with the appropriate risk appetite.
	Availability of blended finance	Blended finance combines different types of capital, such as concessional (public or philanthropic) capital with private investment, absorbing some of the risks that deter private sector participation. Tools such as concessional risk insurance can help boost investor confidence and reduce perceived risks related to the volume, quality, and price volatility of carbon credits.[13]
	Diversified funding mechanisms	Diversified funding mechanisms combine grants, philanthropic capital, concessional debt, specialized investment managers, project aggregation, blended portfolios, and insured offtake agreements to reduce risk, attract institutional capital, and scale carbon reduction and removal projects beyond equity reliance.
Develop capabilities	Capacity building among project developers	Increasing skills among project developers will help them better deliver in line with market expectations, regulatory changes, and the technical demands of high-quality project delivery. Improved performance of project developers will give financial institutions more confidence to invest in carbon reduction and removal projects.
	Development of internal skills on how to navigate the market and standards	Internal expertise within both financial institutions and corporates is important to enable participation in voluntary carbon markets with confidence and integrity, ensuring informed decision-making and long-term success, including when buying carbon credits.

Glossary



Glossary

Term	Definition
Beyond value chain mitigation	Mitigation action or investments that fall outside a company's value chain, including activities that avoid or reduce GHG emissions, or remove and store GHGs from the atmosphere. (SBTi, 2024) https://sciencebasedtargets.org/glossary
Carbon credit	A tradeable unit issued by a carbon crediting program that represents a verified additional reduction or removal of GHGs from the atmosphere equivalent to one metric ton of CO_2e. Carbon credits are uniquely serialized, issued, tracked, and cancelled or retired by means of an electronic registry.
Claim	A message used to describe or promote a product, process, business, or service with respect to its sustainability attributes or credentials (ISEAL, 2015) https://www.isealalliance.org/sites/default/files/resource/2017-11/ISEAL_Claims_Good_Practice_Guide.pdf
Decarbonization	The measures through which an entity reduces or avoids its GHG emissions.
Double counting	A situation in which a single GHG emission reduction or removal is counted by more than one Party towards achieving its Nationally Determined Contribution.
Financed emissions	Indirect emissions resulting from activities in the real economy that are financed through lending and investment portfolios. (PCAF, 2022) https://carbonaccountingfinancials.com/files/downloads/PCAF-Global-GHG-Standard.pdf
Greenhouse gas (GHG) emissions	The release of the six gases listed in the Kyoto Protocol into the atmosphere. The gases are: carbon dioxide (CO_2); methane (CH_2); nitrous oxide (N_2O); hydrofluorocarbons (HFCs); perfluorocarbons (PFCs); and sulfur hexafluoride (SF_6) (GHG Protocol, 2004). https://ghgprotocol.org/sites/default/files/standards/ghg-protocol-revised.pdf
Integrity Council for the Voluntary Carbon Market (ICVCM)	An independent governance body that is developing and enforcing a set of Core Carbon Principles (CCPs) that establishes a new threshold standard for high-quality carbon credits in the voluntary carbon market. The ICVCM will oversee a process to determine the eligibility of carbon-crediting programs, as well as which carbon credit categories will become CCP-labelled. (ICVCM, 2023.) https://icvcm.org/about-us/
Leakage	When a carbon crediting project or program does not halt emission-generating activities, but instead displaces them outside the project or program boundary.

Mitigation	A human intervention to reduce emissions or enhance the sinks of GHG (UNFCCC, 2009) https://unfccc.int/files/press/backgrounders/application/pdf/press_factsh_mitigation.pdf
Net zero	The state in which, at the global scale, anthropogenic GHG emissions in the atmosphere are balanced globally by anthropogenic removals over a specified period (as defined by the Intergovernmental Panel on Climate Change (IPCC) AR6 report and adopted by VCMI).
Permanence	The capacity of reduced, avoided, or removed emissions to not re-enter the atmosphere. In practical terms, this means giving the purchaser of a carbon credit the confidence that declared emission reductions will not be reversed by a future event (for example, that the forest planted to absorb a certain amount of emissions will not be cut down or be set on fire) (WRI, 2010). https://files.wri.org/d8/s3fs-public/pdf/bottom_line_offsets.pdf
(Climate) Policy advocacy	Activities undertaken to inform or influence policy, including influence on policymakers to shape legislation, advertising, funding of campaigns and political parties, and participation in policy advisory committees. These can be direct or indirect through third parties (such as industry associations) (UNGC, 2013). (For more details regarding VCMI's public policy advocacy requirements, refer to the Monitoring, Reporting, and Assurance framework). https://vcmintegrity.org/wp-content/uploads/2025/08/VCMI-MRA-Framework_2025_Update.pdf
Removals/carbon dioxide removals	Anthropogenic activities removing CO_2 from the atmosphere and durably storing it in geological, terrestrial or ocean reservoirs, or in products (IPCC, 2018). https://www.ipcc.ch/site/assets/uploads/sites/2/2022/06/SR15_AnnexI.pdf
Retirement of carbon credits	The transfer to a retirement account or the cancellation of a carbon credit. Once retired, the credit is considered 'used' and cannot be counted again toward a climate target. The owner of the retired credit can accurately claim to have reduced emissions and use those emissions to meet its climate commitments.
Scopes 1, 2, and 3 emissions	Scope 1 emissions are emissions from operations that are owned or controlled by the reporting company. Scope 2 emissions are emissions from the generation of purchased or acquired electricity, steam, heating or cooling consumed by the reporting company. Scope 3 emissions are all indirect emissions (not included in scope 2) that occur in the value chain of the reporting company, including both upstream and downstream emissions (GHG Protocol, 2015). https://ghgprotocol.org/sites/default/files/standards/Corporate-Value-Chain-Accounting-Reporing-Standard_041613_2.pdf

Tokenized carbon credits	Tokenized carbon credits. The tokenization of carbon credits refers to the act of creating a digital representation of a carbon credit using blockchain technology. (Gold Standard, 2022)
Voluntary carbon market	A marketplace that encompasses transactions of carbon credits that are not purchased with the intention to surrender into an active regulated compliance carbon market. It includes carbon credits purchased with the intent to resell or for retirement by companies to compensate for unabated emissions and/or contribute to global climate action.

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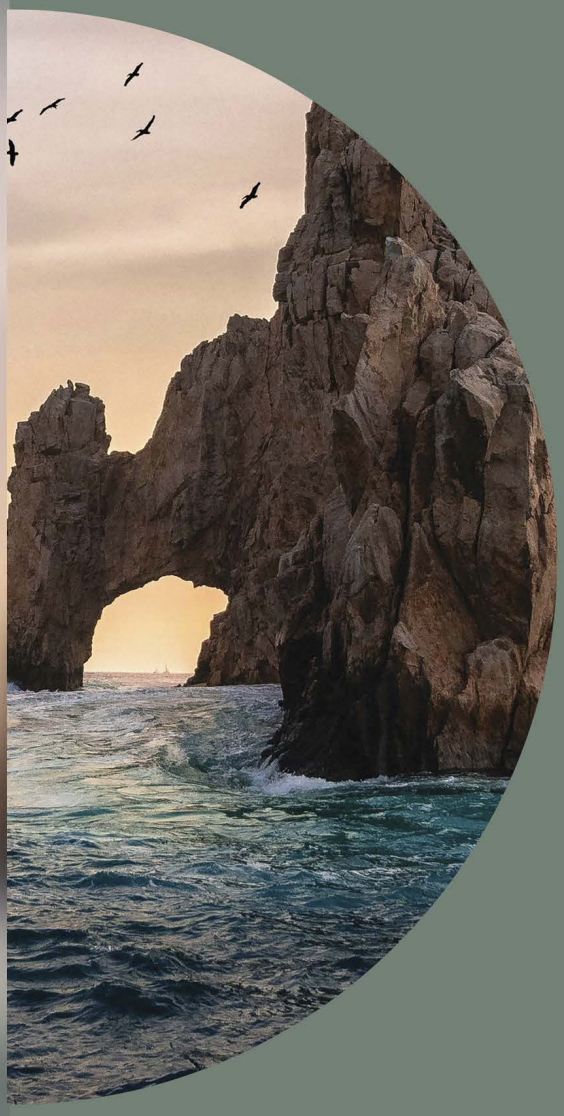

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