VCMI Voluntary Carbon Markets Integrity Initiative

UNDP

CLIMATE FOCUS

Carbon Markets Access Toolkit

Considerations for host countries engaging in high-integrity carbon markets

ACMI · Iniciativa Brasileira para o Mercado Voluntário de Carbono · CVF V20 Climate Vulnerable Forum Vulnerable Twenty Group · CAF · IC Integrity Council · GCF task force · IICA

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Foreword

VCMI's (Voluntary Carbon Markets Integrity Initiative) vision is a world on track to reach net zero emissions by mid-century, achieved through a just transition that enhances equality and sustainable development for all. VCMI believes that, when operated with high integrity, carbon credit markets (independent and regulated) can make a significant contribution to achieving this vision.

Modelling suggests that the global carbon credit markets could rise in value to at least USD 7 billion, and perhaps as much as USD 35 billion, by 2030, a three to twelve-fold increase on today's level. This in turn could generate up to seven times as much impact in terms of additional investment, technology transfer and community benefit. Countries and companies need support to access the market effectively and ensure this debt-free finance can flow into emissions reduction and removal projects in the countries, regions and sectors where it is needed most.

VCMI was established in 2021 with a clear goal: to create the conditions for companies to confidently and credibly invest in carbon markets to maximize their contribution to global net zero and sustainable development. Crucial to this is our work to mobilize private sector demand for carbon credits by giving companies clarity on what high-integrity use of carbon credits looks like as part of a credible transition plan. Our Claims Code of Practice and Scope 3 Action Code of Practice are practical tools that enable companies to take immediate climate action through the high-integrity use of carbon credits alongside their value chain decarbonization efforts.

Another vital strand of VCMI's work is our Access Strategies Program, through which we collaborate with partners to support and facilitate host countries' effective, high-integrity participation in carbon markets, ensuring that scaled up corporate demand for carbon credits delivers finance that truly benefits these economies.

We have worked across the world, from Peru to Kenya to Pakistan, to support the development of the policies, capacity and infrastructure needed to create thriving carbon markets and unlock finance needed for nature preservation, the clean energy transition, and climate resilient agriculture, among other priorities, in support of low-carbon sustainable development. Whilst we hope to continue to work with many more countries and regions through the Access Strategies Program, we also want to make sure policymakers in all countries have the guidance they need to effectively participate in high-integrity carbon markets.

VCMI's Carbon Markets Access Toolkit is a vital resource to help policymakers establish the policies and processes needed to underpin their country's or region's participation in high-integrity carbon markets. This updated version of the Toolkit, produced in partnership with Climate Focus and the United Nations Development Program (UNDP), draws on VCMI's expertise and experience in supporting countries to consider different types of carbon market mechanisms holistically, including the Paris Agreement's Article 6, and strategically integrate them into plans to meet Nationally Determined Contributions (NDCs) and broader development priorities.

We hope you find VCMI's Carbon Markets Access Toolkit useful. Sign up to the VCMI newsletter on our website to hear more about our activities to support countries and regions access to high-integrity VCMs.

With best regards,

Mark Kenber

About VCMI

The **Voluntary Carbon Markets Integrity Initiative (VCMI)** is an international non-profit committed to realizing the full potential of high-integrity carbon markets. Our 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.

Through our **Access Strategies Program**, VCMI supports host-country governments in creating robust policies and frameworks that ensure the effective integration and governance of high-integrity carbon markets within national climate plans. This program is instrumental in building the necessary infrastructure for countries to participate meaningfully and benefit from the global carbon market.

VCMI's Codes of Practice provide rigorous, science-aligned guidance for organizations to take credible and transparent climate action using high-quality carbon credits, enabling them to align their climate transition plans with accelerating progress to global net zero. At VCMI, we are committed to integrity, transparency, and impact, ensuring that every carbon credit used contributes to real, verifiable climate progress.

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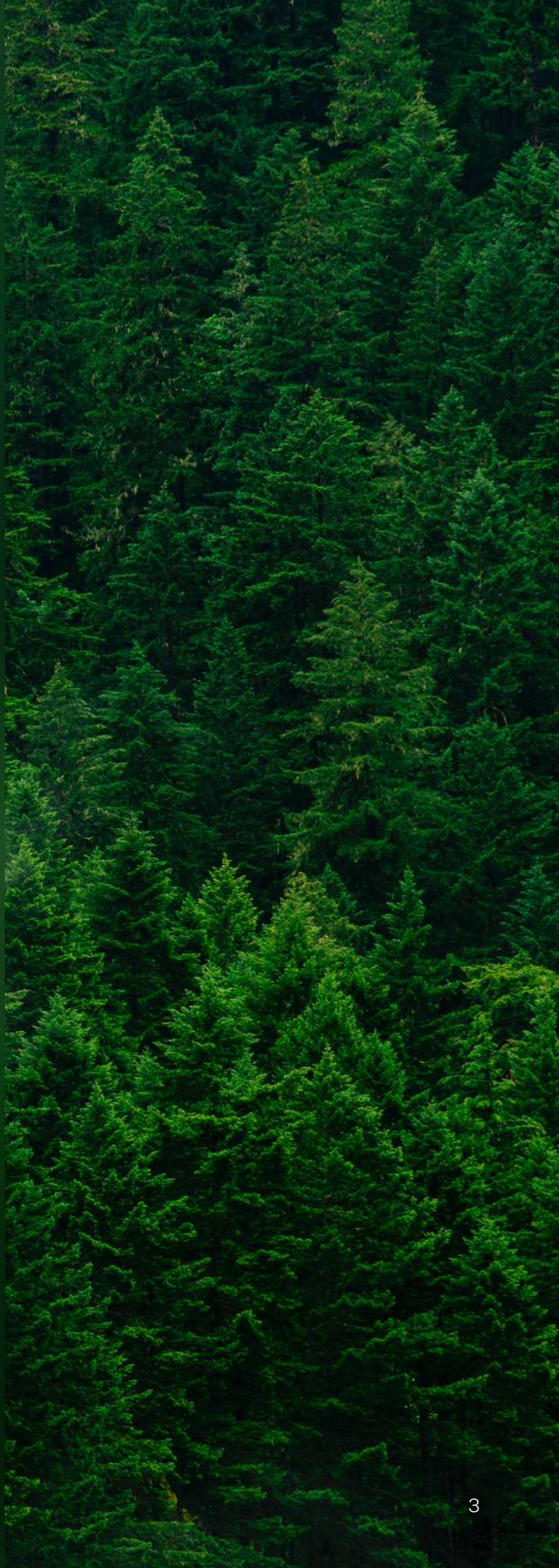


About Climate Focus

Climate Focus is a pioneering international advisory company and think tank that provides advice to companies, governments, multilateral, non-governmental and philanthropic organizations. Founded in 2004, Climate Focus has over two decades of experience supporting clients to shape and navigate international and domestic climate policies, access climate finance, and engage with new climate mechanisms and cooperative approaches. Climate Focus has offices in Amsterdam, Berlin, Bogotá, Rotterdam and Washington, D.C. The team is complemented by a broad and diverse pool of in-country experts and international partners.

Climate Focus is a recognized leader in advising on climate finance, policy, and market mechanisms. The Climate Focus team provides independent advice and contributes to all aspects of the voluntary carbon market. Climate Focus rates and reviews carbon standards and methodologies; assesses carbon projects and advises investors; contributes guidance to carbon market regulatory bodies; and supports governments and communities in understanding and engaging with carbon markets.

www.climatefocus.com

About UNDP

As the United Nations' lead agency on international development, UNDP works in 170 countries and territories to eradicate poverty and reduce inequality. The agency helps countries to develop policies, leadership skills, partnering abilities, institutional capabilities, and resilience to achieve the Sustainable Development Goals (SDGs). UNDP's work is concentrated in three focus areas: sustainable development, democratic governance and peace building, and climate and disaster resilience.

www.undp.org

Unlocking high-integrity carbon markets: the capacity building landscape and key collaborators

Carbon markets can increase and accelerate climate action, but ensuring integrity on both the demand and supply sides is essential to unlocking this potential. Two independent non-profit organizations established by the COP26 Presidency, working in parallel, have been integral to defining international best practices on what high-integrity in carbon markets looks like: the Voluntary Carbon Markets Integrity Initiative (VCMI) and the Integrity Council for the Voluntary Carbon Market (ICVCM).

VCMI focuses on mobilizing high-integrity demand for carbon markets from the private sector and connecting that increasing demand to carbon projects in emerging markets and developing economies ("host countries") to support the achievement of their climate goals (Nationally Determined Contributions, or NDCs) and wider sustainable development goals. VCMI's Claims Code of Practice, Carbon Integrity Claims, and Scope 3 Action Code of Practice, enable immediate, high-integrity corporate demand for carbon credits, as well as a blueprint for government policy development to incentivize private sector investment through best practice voluntary use of carbon credits. VCMI's Access Strategies Program builds capacity in host countries to reap the climate and wider sustainable developments of effective carbon market participation as high-integrity demand grows.

On the supply side, ICVCM acts as an independent governance body for independent carbon credit standards. ICVCM's Core Carbon Principles (CCPs), released in August 2023, ensure integrity by setting out a global benchmark for identifying high-quality carbon credits that create real, verifiable climate impact, and efficiently mobilize finance towards urgent mitigation and climate resilient development.

Covering both the supply-side and demand-side of carbon credits, these two initiatives together have formed a new era of accountability—one where governments, companies, non-government organizations (NGOs), investors, regulators, and consumers can have confidence in the role carbon credit markets play in meeting global climate goals.

Beyond the work on integrity led by VCMI and ICVCM, many other organizations are working to support the evolution of a high impact, high value carbon market, delivering robust capacity building to enhance equitable, catalytic, and complementary participation in international carbon markets. VCMI's Carbon Markets Access Toolkit exists within a rich landscape of coalitions, initiatives, and entities active in coordinating and delivering capacity building on carbon market mechanisms. One example is this country guidance note published at COP29. The Toolkit complements this guidance note and ongoing technical assistance for host countries by outlining the steps and considerations for governments as they develop holistic strategies for leveraging private climate finance through carbon market participation.

VCMI, Climate Focus, and UNDP acknowledge the important efforts of key collaborators working towards the common goal set forth in this Toolkit – to facilitate countries' readiness to maximize environmental, social, and economic benefits from carbon markets implementation, including those listed here. The analysis and recommendations in this Toolkit do not necessarily reflect the views of the listed partners, and inclusion of partner logos does not necessarily mean an endorsement.

The Africa Carbon Markets Initiative
The Africa Carbon Markets Initiative (ACMI) seeks to unlock the potential of carbon markets for financing Africa's energy, climate and development goals.

The Brazilian Initiative for the Voluntary Carbon Market
The Brazilian Initiative for the Voluntary Carbon Market has the goal of structuring key market mechanisms to develop the voluntary carbon market in Brazil and contribute to the global high-integrity carbon market.

The Climate Vulnerable Forum and V20 Finance Ministers
The Climate Vulnerable Forum and V20 Finance Ministers (CVF-V20) represents 74 countries most threatened by climate change. The CVF is represented by its leaders and the V20 is represented by its finance ministers. The CVF-V20 is supported by its independent secretariat, headquartered in Accra, Ghana. VCMI has partnered with the CVF-V20 Secretariat to enable carbon finance opportunities for CVF-V20 member states by providing technical support to enhance participation in high-integrity carbon market mechanisms.

The Development Bank of Latin America and the Caribbean
The Development Bank of Latin America and the Caribbean (CAF) provides financial services and products to its member countries as well as to private companies and financial institutions in the region. It is made up of 20 countries from Latin America and the Caribbean, Spain, Portugal, and 13 private banks.

The Eastern Africa Alliance on Carbon Markets and Climate Finance
The Eastern Africa Alliance on Carbon Markets and Climate Finance was established in June 2019 to enhance regional readiness for Article 6 of the Paris Agreement and ensure cost-efficient solutions for achieving NDC targets. The Alliance focuses on capacity building, transitioning CDM projects to Article 6, fostering coordinated participation in UNFCCC negotiations, and promoting regional knowledge exchange on carbon markets and climate finance. The Eastern Africa region has had 707 registered VCM activities, issuing 140+ million credits across all seven member countries. Activities span Gold Standard, Verra, and Plan Vivo, empowering diverse initiatives.

The Governors' Climate and Forests Task Force

The Governors' Climate and Forests (GCF) Task Force is the world's only subnational governmental network dedicated to protecting forests, reducing emissions, and enhancing livelihoods across the tropics. Today, the GCF Task Force includes 43 states and provinces from 11 countries that include more than one-third of the world's tropical forests—including all of Brazil's Legal Amazon, more than 85% of the Peruvian Amazon, 65% of Mexico's tropical forests, and over 60% of Indonesia's forests. Over the last 15 years, the GCF Task Force has played a key role in supporting these state and provincial governments as they work to build jurisdictional programs to reduce emissions from deforestation and land use and to promote new forest economies.

The Integrity Council for the Voluntary Carbon Market

The Integrity Council for the Voluntary Carbon Market (Integrity Council) is an independent governance body for the voluntary carbon market. The Core Carbon Principles (CCPs) were released in August 2023, which set and enforce a definitive global threshold, drawing on the best science and expertise available, so high-quality carbon credits efficiently mobilize finance towards urgent mitigation and climate resilient development.

The Inter-American Institute for Cooperation on Agriculture

The Inter-American Institute for Cooperation on Agriculture supports the agriculture sector of the Americas to develop capacity and enabling conditions at the national and regional levels for VCM access to accelerate climate action in the sector.

The Multilateral Development Bank (MDB) Group

The Multilateral Development Banks (MDBs), through a Working Group on Article 6 supports countries with leveraging market/ price-based and non-market mechanisms as an important tool to deliver carbon and climate finance for NDC implementation. Current MDB working group members include Asian Development Bank, African Development Bank, the European Bank for Reconstruction and Development, the European Investment Bank, the Inter-American Development Bank, the Islamic Development Bank, and the World Bank Group. MDBs offer a range of technical assistance and capacity building support for Paris-aligned carbon markets through their respective work programs and initiatives including Partnership for Market Implementation, Climate Warehouse, Climate Market Club, and Digital4Climate in working towards Paris-aligned carbon markets which is consistent with the goals set forth in this Toolkit.

The West African Alliance on Carbon Markets and Climate Finance

The West African Alliance aims to strengthen the role of West African countries in international carbon markets, facilitate technology transfers, and secure climate finance for NDC implementation. It was established at COP22 in 2016 and formally launched in 2017 with the goal of enhancing the involvement of West African countries in market mechanisms. There are 306 registered VCM activities in West Africa, and over 40 million credits issued across 15 of the 16 member countries. Activities span Gold Standard, Verra, Cercarbono, and Plan Vivo.

About this toolkit

VCMI seeks to ensure that the voluntary use of carbon credits is high-integrity and supports the climate and economic prosperity goals of the countries in which the activities that generate carbon credits take place. Through its Access Strategies Program, VCMI offers support to policymakers in host countries to access high-integrity carbon markets and channel finance into priority sectors. The program takes a country-specific perspective, delivering needs-based technical assistance that considers prior experiences, national circumstances and existing carbon finance mechanisms and infrastructure. VCMI's Access Strategy projects provide information and support stakeholder engagement to inform decision-making on how to direct private sector investment from carbon markets into climate action and align carbon markets with other financial instruments to deliver national climate and economic priorities. For example, the Access Strategies project at the request of Perú's Ministry of the Environment included analysis of carbon market opportunities in Peru and recommendations for policies to enhance carbon market engagement, along with an in-person training for public and private sector carbon market actors. A separate Access Strategies program with the state government of Yucatán (Mexico) focused specifically on nature-based solutions opportunities and how the government could support project developers, through tools like a manual on benefit sharing.

VCMI's Carbon Markets Access Toolkit was originally published in 2023, in response to the identified need to provide policymakers with an understanding of key considerations for voluntary carbon market engagement, following consultation with an initial set of host countries in 2021-2022 in partnership with UNDP and Climate Focus. The Toolkit is designed specifically for use by policymakers and government officials in host countries but is likely to be informative for a range of policymakers and other carbon market stakeholders. The Toolkit provides high-level guidance to support host countries in deciding whether to, why, how, and when to engage with carbon markets.

This updated version of the Toolkit supports governments to consider different types of credit-based international carbon markets holistically, including Article 6 mechanisms. It provides a starting point for policymakers to guide their thinking, discussions and preparation for developing carbon market engagement strategies.

For more information regarding VCMI's Access Strategies Program, including funding windows and collaboration opportunities, please contact info@vcmintegrity.org.

How to use this toolkit

The Carbon Markets Access Toolkit starts by addressing overarching topics that require political engagement and progresses to more technical issues. The sheets in the Toolkit can be read and used in any order depending on specific country interests, although a suggested flow is illustrated below. Each sheet addresses one broad topic, which is broken down into policy-relevant questions.

The Carbon Markets Access Toolkit is organized as follows:

Overview of carbon markets

Carbon markets are transactional markets for the issuance, sale, purchase, and retirement of carbon credits. Each carbon credit represents one ton of greenhouse gas (GHG) emissions – measured in carbon dioxide equivalents (tCO_2e) – that has been reduced or removed from the atmosphere.

Carbon credits are generated by projects or programs that reduce or remove emissions. To generate carbon credits:

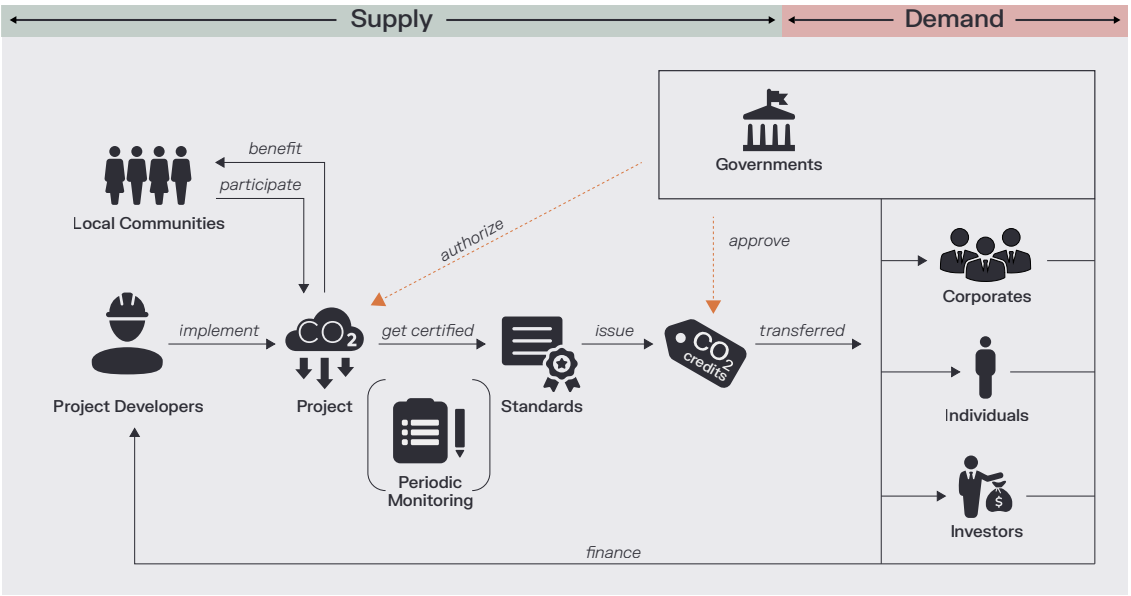
Project developers—which can include private companies, NGOs, communities, governments and individual land owners — design and develop a carbon project, which is an activity that reduces and/or removes GHG emissions. Project developers attract investment to finance the project from private individuals or companies, financial institutions, NGOs, and governments.

Projects are designed and implemented by project developers, in close coordination with local communities and local partners.

- Projects need to be certified by a carbon crediting program or standard, which includes validation and verification procedures and being listed in a registry
- GHG emission reductions and removals are periodically monitored and reported by the developer and verified by independent auditors
- Carbon credits are issued by the standard and transferred to the buyer
- If projects or credits will be used under Article 6 markets (explained below), governments provide their authorization and approvals.

Figure 1 depicts key points and actors in the generation and sale of carbon credits.

Figure 1: Carbon markets outline



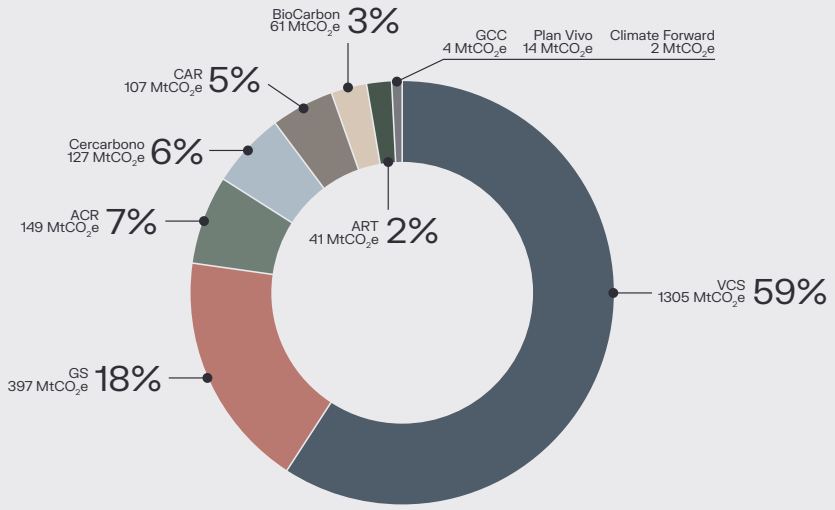
Independent carbon markets

Independent carbon markets involve voluntary transactions of carbon credits outside of government-regulated or government-mandated frameworks. Corporations, governments, NGOs, local communities, individuals, and other actors voluntarily participate in independent carbon markets to maximize their contribution to global climate goals, demonstrate climate action leadership and support strategic organizational priorities. Participation in these markets and use of carbon credits is voluntary, and takes place within markets that are independent of government regulation (known as voluntary carbon markets or VCMs).

Carbon credits transacted in independent carbon markets are issued and certified according to requirements set by carbon standards. Carbon standards are carbon crediting programs, typically NGOs, that establish the methodologies and verification, validation, and monitoring procedures that emission reduction and removal activities must follow for the standard to issue carbon credits.

At the time of writing, the largest carbon standards by volume (measured in millions of tCO2e or MtCO2e) are the Verified Carbon Standard (VCS), the Gold Standard (GS), the ACR, Cercarbono, and the Climate Action Reserve (CAR) (Figure 2).

Figure 2: Share of credits issued by carbon standard



Source: *Voluntary Carbon Market Dashboard.* Available here. (Data last updated 5th March 2025).

Countries can harness independent carbon markets to support achievement of climate goals established under the Paris Agreement. Although the issuance of carbon credits under independent carbon markets is governed by private standards and not by international or national regulatory bodies, governments can engage with independent carbon markets. Governments institute policies, regulations and safeguards that influence independent carbon market activities and enable environments that facilitate independent carbon market projects or programs. They can also act as a direct sponsor of carbon projects or programs within their territories. Increasingly, independent carbon market projects also seek authorizations and approvals under Article 6 of the Paris Agreement.

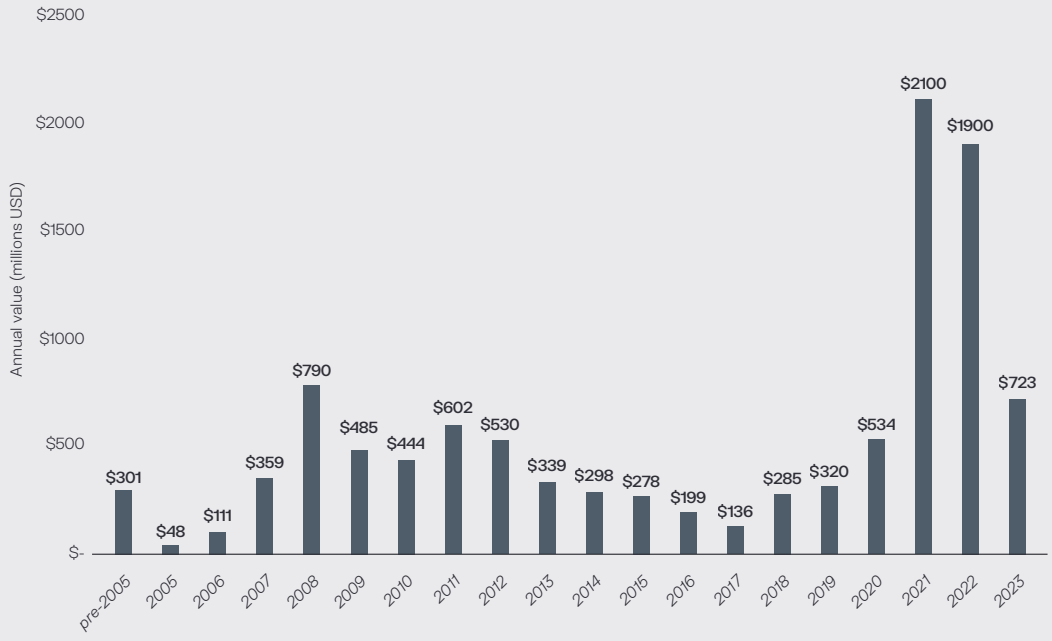
Total value of independent carbon markets rose rapidly from 2018 through 2021, and since then has plateaued or slightly declined (Figure 3). Voluntary use of carbon credits has the potential to leverage billions of dollars for climate change mitigation in the coming decades, but this slowdown in demand weakens the market's ability to deliver this potential. Limited demand is linked to uncertainty and integrity concerns among buyers. Bad press about low-quality projects and greenwashing allegations generated wariness about buying credits and making voluntary claims. VCMI and ICVCM seek to bolster confidence in the market by distinguishing high-quality credits and certifying best practice claims, at the same time providing blueprints for government policy development to incentivize private sector investment in carbon credits.

Government action is critical to unlocking the full potential of the market. Governments can encourage carbon market investment by:

- communicating political support for high-integrity projects and use of credits
- developing policies and regulations that drive companies to transparently invest in high-quality climate change mitigation and that incentivize high-integrity carbon market activities
- collaborating internationally to ensure interoperability between carbon markets

This Toolkit provides guidance to governments to access carbon market benefits and create an enabling environment in which carbon finance flows can flourish.

Figure 3: Total value of traded carbon credits



Source: Forest Trends' Ecosystem Marketplace. 2024. State of the Voluntary Carbon Market 2024. Washington DC: Forest Trends Association.

Regulated carbon markets

Regulated carbon markets are marketplaces through which entities trade and retire emissions permits (often called allowances) or eligible carbon credits to meet predetermined regulatory compliance targets. In these regulated markets, governments set rules about the total amount of allowable emissions, how carbon credits can be used to compensate for emissions, and the sectors that can be included in the market. For example, the European Union (EU) Emissions Trading Scheme is a compliance carbon market that covers about 40% of the EU's total greenhouse gas emissions.[3] The average auction price of carbon allowances in the scheme decreased by 23 percent from EUR 83.60 in 2023 to EUR 64.76 in 2024.[4] It is important to understand that ETS prices are not correlated with carbon credit prices in independent carbon markets because the prices of allowances are determined by government limits on the total number of allowances and how liable entities can use those allowances. Furthermore, because ETSs often limit or forbid the use of carbon credits from independent carbon markets, supply and demand dynamics in these markets have little influence on prices in ETS schemes—and vice versa.

Regulated carbon markets cover 4.5 times the GHG emissions covered by independent carbon markets. In 2023, compliance carbon markets covered 9.9 gigatons of carbon dioxide equivalents ($GtCO_2e$), accounting for 18% of global GHG emissions.[5] As of March 2025, the total size of independent carbon markets was 2.2 $GtCO_2e$,[6] highlighting the continued dominance of regulated markets in overall emissions coverage. That said, modelling suggests that companies aiming to meet climate targets with carbon credits could raise the value of the global independent carbon credit market to at least USD 7 billion, and perhaps as much as USD 35 billion, by 2030.[7] Independent markets are also a crucial source of climate finance for low- and middle-income economies. Compliance carbon markets primarily mobilize finance from domestic sources and restrict use of carbon credits from international sources, which means that carbon credits generated in countries that do not have ETSs must be traded in international markets—including independent markets and under Article 6 mechanisms.

3 European Commission (n.d.). *About the EU ETS*. Available at: https://climate.ec.europa.eu/eu-action/eu-emissions-trading-system-eu-ets/about-eu-ets_en

4 European Energy Exchange (EEX) (2025). *EU ETS Auctions*. Available at: https://www.eex.com/en/market-data/market-data-hub/environmentals/eu-ets-auctions (accessed March 3rd, 2025)

5 ICAP (2024). Emissions Trading Worldwide: Status Report 2024. Berlin: International Carbon Action Partnership. Available at: https://icapcarbonaction.com/en/publications/emissions-trading-worldwide-2024-icap-status-report

6 *Voluntary Carbon Market Dashboard*. Available here. (Data last updated 5th March 2025)

7 MSCI (2025). *Frozen Carbon Credit Market May Thaw as 2030 Gets Closer.* Available at : https://www.msci.com/www/blog-posts/frozen-carbon-credit-market-may/05232727859

Article 6 of the Paris Agreement

Article 6 of the Paris Agreement introduces cooperative approaches and a mechanism to enhance international cooperation in reducing and removing GHG emissions. The Article 6 is expected to facilitate cost-effective emissions reductions and removals by enabling countries and corporations to transfer high-integrity carbon credits. It may also drive further liquidity in carbon markets, attract private sector participation, and support large-scale mitigation projects.

Article 6 defines two modalities for carbon markets: Article 6.2 and Article 6.4. Article 6.2 enables bilateral or multilateral trading of carbon credits between countries. These credits, known as Internationally Transferred Mitigation Outcomes (ITMOs), represent emissions reductions that can be transferred across borders and counted toward a country's Nationally Determined Contributions (NDCs). Article 6.4 establishes the Paris Agreement Crediting Mechanism (PACM), a centralized United Nations (UN)-supervised system for generating and trading carbon credits, which is based on the model of the Kyoto Protocol's Clean Development Mechanism.

Several significant milestones have been achieved under Article 6. In May 2024, Switzerland and Thailand completed the first international transfer of ITMOs. By 2025, over 30 countries had expressed intentions to use ITMOs, with the World Bank estimating that ITMO trading through Article 6 mechanisms could reduce the costs of achieving 2030 NDC targets by USD300 billion annually. There are currently 97 bilateral agreements between 59 different countries, demonstrating the growing global engagement with these mechanisms (see Table 1). Additionally, as of February 2025, over 1,000 carbon project or program proponents have taken steps to indicate interest in participating in the PACM.[8] A significant portion of these are programs of activities, nearly half of which are based in India. The first trades under Article 6.4 are expected to be issued by transitioning CDM projects in the first quarter of 2025.

Table 1: Signed bilateral agreements under Article 6.2 of the Paris Agreement[9]

Buyer country	Host country
Kuwait	Rwanda
Switzerland	Chile, Dominica, Georgia, Ghana, Malawi, Morocco, Peru, Senegal, Thailand, Tunisia, Ukraine, Uruguay, Vanuatu
Singapore	Bhutan, Chile, Ghana, Papua New Guinea, Peru
Norway	Benin, Jordan, Senegal, Zambia
Sweden	Ghana, Nepal, Zambia
Republic of Korea	Mongolia, Viet Nam

[8] UN Environment Programme (2025). *Article 6 Pipeline.* Available at: https://unepccc.org/article-6-pipeline/

[9] UN Environment Programme (2025). *Article 6 Pipeline.* Available at: https://unepccc.org/article-6-pipeline/

Demand

Under current market conditions, demand in independent carbon markets may reach up to one billion carbon credits by 2030, growing to 2.5 billion tCO_2e by 2050.[10]

Voluntary demand for carbon credits comes from companies choosing to engage in climate change mitigation. Public opinion, policies and regulations, shareholder requirements and expectations from other stakeholders – including employees and consumers – incentivize corporations to adopt climate targets. Many corporates acquire carbon credits as part of their strategies to support climate action. Companies and investors that purchase carbon credits are most often based in the Global North (though investment also comes from the Global South).

Two examples of companies investing in carbon credits to support their climate strategies are Bain & Company and Natura Cosmetics:

- Since 2021, Bain & Company has committed to being net-negative, annually addressing more than 100% of its Scope 1, 2, and 3 emissions through carbon removal credits from both nature-based and technology-based projects.[11] To ensure transparency and credibility, Bain follows VCMI's guidance and has achieved the Carbon Integrity Platinum Claim, the highest standard for carbon credit use, which required enhanced due diligence and increased public disclosure of its carbon credit portfolio.[12]
- Natura Cosmetics has retired more than 4.5 million high-integrity carbon credits to complement its decarbonization efforts across scopes 1, 2, and 3 since 2007. The company works with over 10,000 smallholder farmers in the Amazon region, supporting sustainable development and conservation, and is committed to investing $100 million in regenerative solutions by 2030. By that year, 50% of Natura's carbon credit portfolio will originate from the Amazon, preferably from its partner communities.[13] In 2023, Natura became the first Latin America-based company to earn the VCMI Carbon Integrity Platinum Claim, purchasing and retiring high quality carbon credits equal to 100% or more of its remaining emissions.[14]

Governments can incentivize high-integrity voluntary use of carbon credits to drive climate change mitigation. Government actions include creating regulations on the kinds of green claims companies can make, mandating low-carbon transition plans and emission disclosures, legally defining carbon credits and how they can be applied by companies to meet regulatory requirements, and providing clarity and transparency on national climate goals.

10 BloombergNEF. (February 6, 2024). *Carbon Credits Face Biggest Test Yet, Could Reach $238/Ton in 2050, According to BloombergNEF Report.* https://about.bnef.com/blog/carbon-credits-face-biggest-test-yet-could-reach-238-ton-in-2050-according-to-bloombergnef-report/. (Accessed 14th March 2025)

11 Case Study - Bain & Company. (n.d.). *VCMI*. Retrieved May 6, 2025, from https://vcmintegrity.org/case-study/bain-and-co/.

12 Roehr, E. (2024, February 26). Bain & Company makes the inaugural VCMI Carbon Integrity Claim. *VCMI*. Retrieved May 6, 2025, from https://vcmintegrity.org/bain-company-makes-the-inaugural-vcmi-carbon-integrity-claim/.

13 Case Study - Natura Cosmetics. (n.d.). *VCMI*. Retrieved May 6, 2025, from https://vcmintegrity.org/case-study/natura-cosmetics/.

14 VCMI. (2024, June 10). Leading global company Natura Cosmetics becomes first emerging market business to achieve a Carbon Integrity Platinum Claim. *VCMI*. Retrieved May 6, 2025, from https://vcmintegrity.org/natura-cosmetics-carbon-integrity-platinum-claim/.

Demand for carbon credits can also be driven by more countries allowing the use of independent carbon market credits in compliance carbon markets.[15] Domestic carbon pricing instruments like carbon taxes and ETSs create demand by allowing liable entities to use carbon credits from approved standards and sectors to meet their obligations. In Colombia, Mexico, Chile, South Africa, Liechtenstein, Singapore, and Switzerland, liable entities can use carbon credits issued by certain independent carbon credit standards to fulfil obligations under those countries' carbon taxes. ETSs in China, South Korea, and Mexico allow for the limited use of carbon credits acquired through independent carbon markets, although ETSs in other jurisdictions (i.e., New Zealand, Switzerland, and the European Union) currently exclude or restrict the use of carbon credits acquired through independent carbon markets.[16]

Several years ago credits from nature-based solutions were in especially high demand, but the popularity of nature-based solutions credits has stabilized. Retirements of NbS credits peaked at 79.6 $MtCO_2e$ in 2021. In 2024, NbS retirements reached 73 $MtCO_2e$, a 2% increase from the previous year (see Figure 4).[17] Despite this stabilization, issuances from NbS projects that focus on carbon removals (e.g., reforestation projects) have increased, reaching a new annual high of 42 $MtCO_2e$ in 2024. This aligns with the general trend in higher demand for removal credits, which are perceived by investors as more credible.[18] In contrast, issuances from NbS projects that reduce emissions (e.g., avoided deforestation) nearly halved, dropping from 86 $MtCO_2e$ in 2023 to 46 $MtCO_2e$ in 2024. Removal activities generated more credits than reduction activities in nine of the twelve months in 2024, setting a new record.

International compliance schemes such as the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) also create demand. CORSIA enables the use of carbon credits by airlines to help to meet climate goals. In these cases, specific types of carbon credits generated in independent carbon markets can be used for compliance purposes. As such, the boundaries between independent and compliance carbon markets blur.

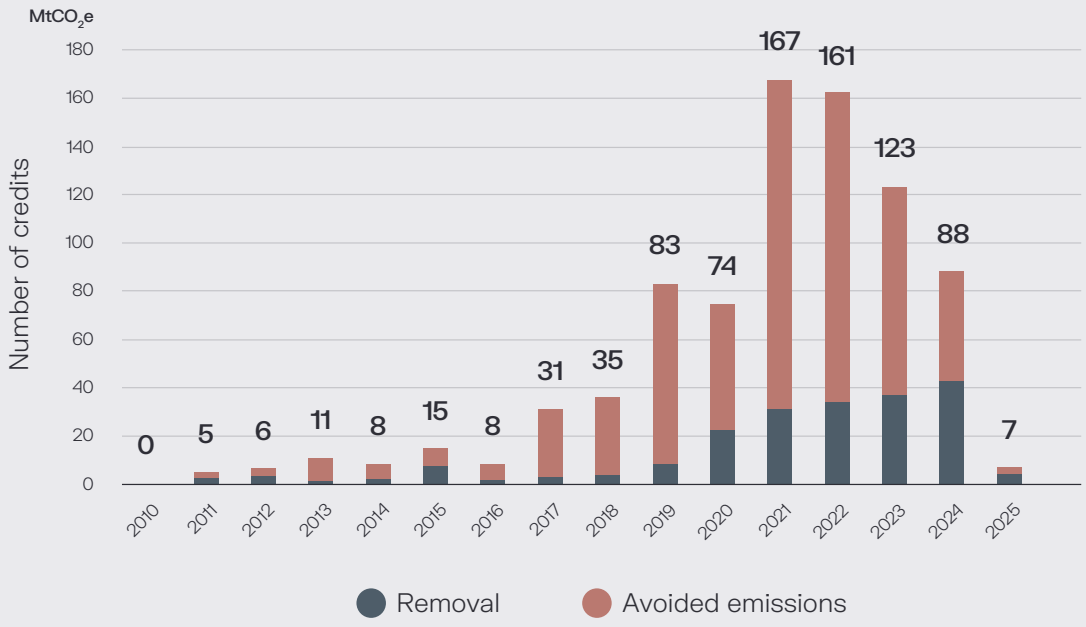
15 World Bank. 2024. State and Trends of Carbon Pricing 2024. © Washington, DC: World Bank. http://hdl.handle.net/10986/41544 License: CC BY 3.0 IGO.

16 World Bank. "Carbon Pricing Dashboard: Compliance Instrument Detail." *Carbon Pricing Dashboard*, World Bank, https://carbonpricingdashboard.worldbank.org/compliance/instrument-detail. (Accessed 14th March 2025)

17 Climate Focus (2025). *Voluntary Carbon Market Dashboard*. Available here. (Data last updated 5th March 2025)

18 CarbonCredits.com (2025). *Carbon Credits in 2024: What to Expect in 2025 and Beyond ($250B by 2050).* Available at: https://carboncredits.com/carbon-credits-in-2024-what-to-expect-in-2025-and-beyond-250b-by-2050/

Figure 4: Credits from nature-based solutions issued in independent carbon markets



Source: Voluntary Carbon Market Dashboard. Available here. (Data last updated 5th March 2025).
Note: Carbon removal projects include the following categories: (1) Afforestation/Reforestation/ Revegetation, (2) Carbon sequestration in agriculture, (3) Improved Forest management, (4) Wetland restoration. Avoided emissions projects include the following categories: (1) Avoided deforestation, (2) Avoided conversion, and (3) Reduced emissions in agriculture.

Supply

In 2023, compliance market emissions trading covered 18 percent of global GHG emissions—more than three times their coverage in 2005 when the EU ETS was launched. Growth is driven by expanding the number of sectors included and changes to emission caps. The EU ETS is the world's largest compliance market, followed by China's national ETS.[19] Brazil, Colombia, India, and Turkey have developed or are developing compliance markets alongside existing VCMs.[20] Since its inception, emissions trading has generated nearly USD 303 billion in revenue, with USD 74 billion raised in 2023 alone. The EU ETS led the market in 2023 with USD 47.1 billion, maintaining its position as the largest system by trading volume and value. Overall, economies representing 58 percent of global GDP use emissions trading.[21]

In independent carbon markets, much of the supply of carbon credits comes from projects in low- and middle-income countries. In 2024, India, the United States, Colombia, Turkey and Brazil generated the highest volume of carbon credits in independent carbon markets.[22] At the regional level over the past 23 years:

- Latin America and the Caribbean is the top supplier of independent carbon market credits overall, and particularly of NbS credits, with significant NbS contributions also from Africa and Southern Asia.
- Southern Asia is the top supplier of carbon credits from renewable energy carbon credits.
- Africa accounts for the vast majority of household carbon credits, followed by Southern Asia.
- North America, Europe and Eastern Asia dominate in carbon credit issuances from coal mine methane, industrial gases, and carbon capture and storage projects.

The geographical distribution of credit issuances does not necessarily reflect the geographical distribution of projects. As shown in Figure 5, African countries have the largest number of independent carbon market projects but are third in terms of volume of issuances, while the Latin America and the Caribbean region is fourth in terms of number of projects, but first in terms of volume of issuances. Southern Asia is the region with the second greatest number of projects and the second largest volume of issuances.[23]

19 CarbonCredits.com. *The ultimate guide to understanding carbon credits*. Retrieved from https://carboncredits.com/the-ultimate-guide-to-understanding-carbon-credits/ (Accessed 15th March 2025)

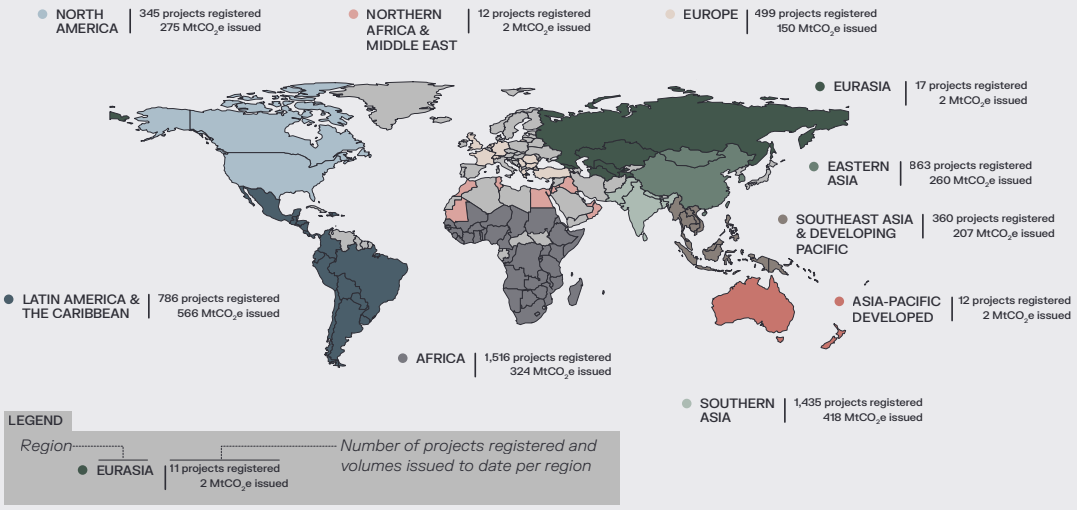
20 ICAP (2024). Emissions Trading Worldwide: Status Report 2024. Berlin: International Carbon Action Partnership. Available here: https://icapcarbonaction.com/en/publications/emissions-trading-worldwide-2024-icap-status-report

21 ICAP (2024). Emissions Trading Worldwide: Status Report 2024. Berlin: International Carbon Action Partnership. Available here: https://icapcarbonaction.com/en/publications/emissions-trading-worldwide-2024-icap-status-report

22 *Voluntary Carbon Market Dashboard*. Available here. (Data last updated 5th March 2025)

23 *Voluntary Carbon Market Dashboard*. Available here. (Data last updated 5th March 2025)

Figure 5: Independent carbon credits issuance and registered projects globally

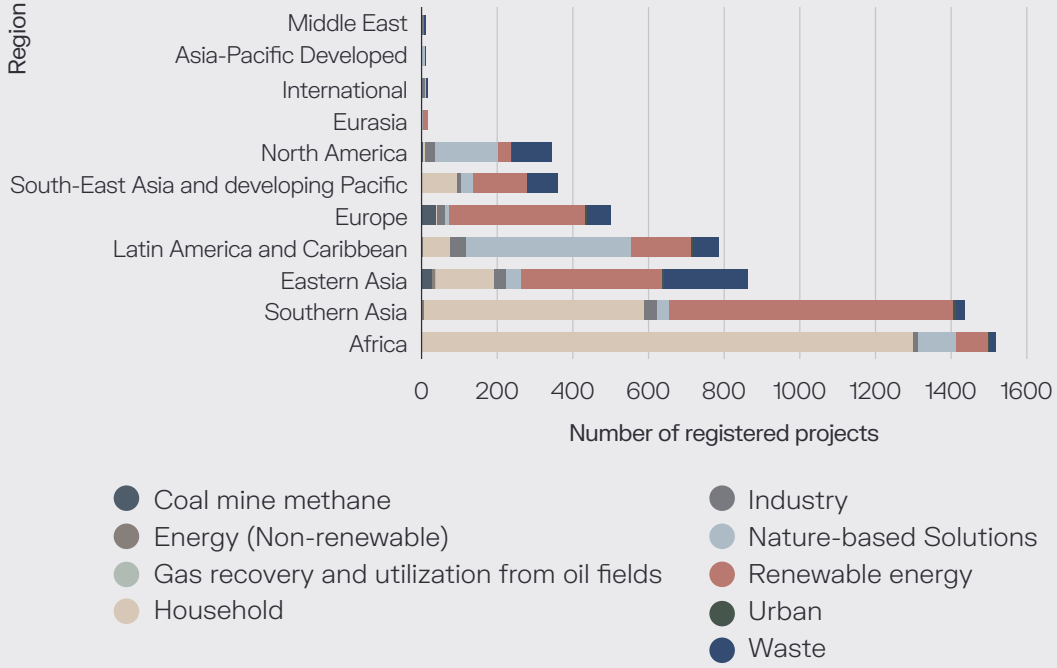


Source: *Voluntary Carbon Market Dashboard*. Available here. (Data last updated 5th March 2025).
Note: All numbers are total counts since 2002.

The greater numbers of projects in certain project types does not necessarily equate to higher volumes of emission reductions and removals. Energy efficiency lends itself to many small projects because these are relatively quick to develop and can be added onto existing projects or groups of projects. In some cases, groups of projects can be treated as single projects, called Programs of Activities, which are treated as single projects in Figures 6 and 7 but could be further divided into individual projects.

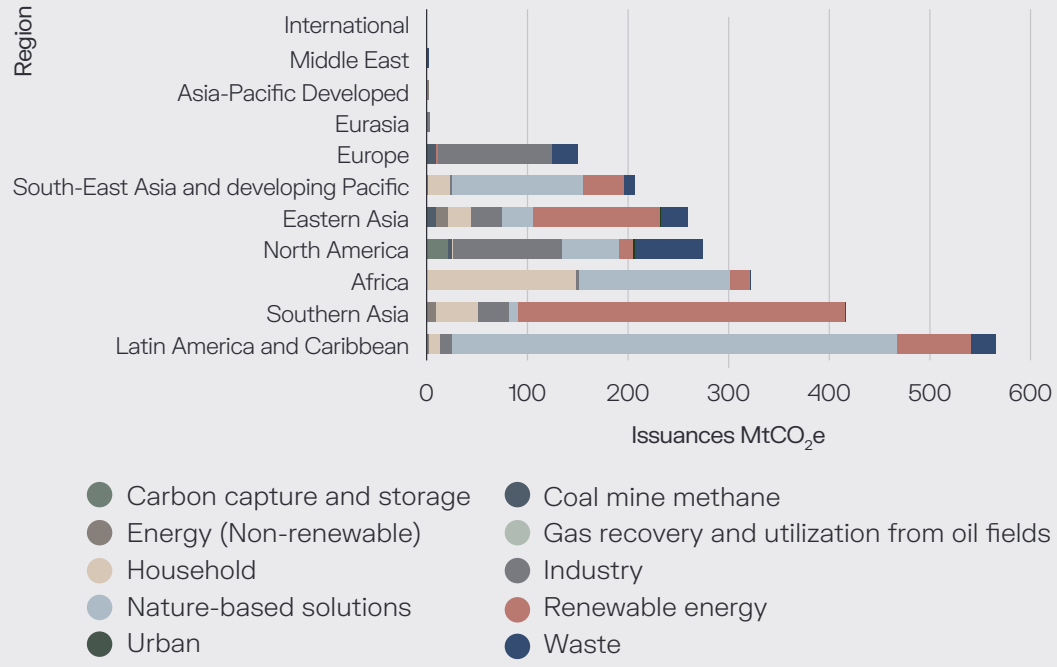
In contrast, Reducing Emissions from Deforestation and Forest Degradation (REDD+) projects are often large, and single projects can be responsible for the issuance of large volumes of carbon credits. An example of an extreme case is Southeast Asia and the developing Pacific, where nature-based solutions projects make up 9% of independent carbon market projects but deliver 63% of carbon credit issuances.

Figure 6: Registered independent carbon crediting projects by region



Source: *Voluntary Carbon Market Dashboard*. Available here. (Data last updated 5th March 2025).

Figure 7: Independent carbon credit issuances per region



Source: *Voluntary Carbon Market Dashboard*. Available here. (Data last updated 5th March 2025).

01

Decide if, and when, to engage with carbon markets

KEY DECISION STEP 01

Decide if, and when, to engage with carbon markets

Considerations

1.1 Assess potential reasons to engage with carbon markets
1.2 Develop a strategy for carbon market engagement
1.3 Determine which roles the government should play
1.4 Map existing carbon market activities

Who should be included in these discussions? Government agencies responsible for NDC design and implementation; government agencies involved in Article 6 implementation; Cabinet-level decision makers, treasury and/or ministry of finance; sectoral ministries, environment ministry or agencies; national development planning authorities.

Realizing the climate change mitigation potential of carbon markets requires engagement, capacity, and support of host country governments. A clear and stable regulatory environment in host countries creates investor confidence in carbon markets. Governments can create investor confidence by clarifying the role of regulated and independent carbon markets in the context of national climate policies, ensuring that voluntary activities align with national priorities, and enforcing social and environmental safeguards.

Host countries need to make decisions about independent carbon markets, regulated carbon markets, and engagement under Article 6 of the Paris Agreement. Independent carbon markets, regulated markets, and Article 6 are complementary carbon market modalities that can be linked. These modalities are further explained in the Introduction and in Box 1 below. This sheet examines why and how host country governments might engage with carbon markets and outlines first steps to identify carbon market opportunities. Considerations for Article 6 and links to independent carbon markets are further discussed in sheet 3.

So far, few countries have holistic strategies for engaging with regulated, independent, and Article 6 markets. The proliferation of project developers, investors, and initiatives can put pressure on host countries to rush into carbon market engagement before fully understanding the implications. Additional mitigation potential could be unlocked if governments better understood market opportunities in their countries and were better equipped with tools for strategic carbon market engagement.

Box 1: Carbon market modalities

Carbon markets can take three main modalities. These are independent carbon markets (also known as voluntary carbon markets), regulated carbon markets, and Article 6 markets.

Independent carbon markets are marketplaces in which the transactions of carbon credits take place outside of government-regulated or government-mandated frameworks. In independent carbon markets, actors voluntarily invest in climate change mitigation and buy and sell carbon credits with the intent to contribute to global climate goals, demonstrate climate leadership, and support organizational priorities. Participation in independent carbon markets is not required by law. Buyers voluntarily use credits to demonstrate environmental responsibility. While this action is voluntary, government action is important to incentivize high-integrity voluntary use of carbon credits and provide a level of oversight to ensure alignment with national and international climate goals. For example, governments can develop independent carbon market-related regulation, guidance, and policies to support voluntary climate action schemes.

Regulated carbon markets are government-regulated systems for investing in climate change mitigation and buying and selling carbon credits. Regulated markets can exist at the international, national, and sub-national level. Regulated markets are often Emissions Trading Schemes (ETSs). Under ETS, certain types of actors or industries may be legally obligated to reduce their emissions or buy carbon units (often called allowances). Actors that abate their emissions faster than others can trade or sell their allowances.

Article 6 markets refer to the transfer of climate change mitigation outcomes to increase the ambition of Nationally Determined Contributions (NDCs) under the Paris Agreement. The Parties to the Paris Agreement finalized the rules for Article 6.2 and Article 6.4 in 2024, and governments are now figuring out how to integrate these rules into the national carbon market strategies. Under Article 6, governments may choose if and how to apply the outcomes of climate change mitigation activities to their own NDCs or to transfer those outcomes to other governments or private actors. See Decision Sheet 3 for more information about Article 6.

1.1 Assess potential reasons to engage with carbon markets

Governments in countries that host carbon projects are increasingly interested in understanding carbon markets and their different modalities due to a mix of internal and external influences:

- Governments are aware that finance is available through carbon markets, but they are uncertain about how to unlock that finance and the implications for meeting their own climate goals

– Governments are approached by project developers, NGOs, or investors with requests to partner and provide guidance on carbon market engagement, putting pressure on governments to be informed and make decisions about carbon markets
– Governments work with development partners to build institutional capacity so that governments can abide by the requirements that enable crediting activities to be recognized under Article 6 of the Paris Agreement
– Governments participate in international initiatives that seek to build rules of independent carbon markets, such as the Voluntary Carbon Markets Integrity Initiative (VCMI) and/or the Integrity Council on Voluntary Carbon Markets (ICVCM).

Motivations to engage in carbon markets are summarized in Table 1. Many governments are driven by more than one motivation.

Table 1: Why host country governments are interested in carbon markets

Governments' reasons for engagement		Governments' interests and concerns
Harnessing an opportunity	Using carbon markets to support national and global climate goals and sustainable development	Governments may be interested in learning more about the potential of carbon markets to mobilize finance in support of their climate change mitigation goals (e.g., NDCs, Climate Prosperity Plans, and Long-Term Low Emission Development Strategies), sustainable development plans, and financing needs for broader policy priorities.
	Using carbon markets in the context of national carbon pricing policies	Governments that are considering implementing a carbon tax may reference carbon markets in national policy and legal instruments, such as by allowing liable entities to meet carbon tax obligations with carbon market credits from an approved list of crediting methodologies from independent standards (e.g., Singapore or Colombia), or from a government's own crediting standard (e.g., China).
Mitigating non-compliance risks	Ensuring that carbon market activities support NDCs	By engaging with carbon markets, governments can make strategic decisions about authorization of independent carbon market projects under Article 6, direct independent carbon market activities toward sectors that are not covered by their NDC, and ensure they are accurately tracking emission reductions and removals generated by carbon market activities for counting towards their NDCs.
Safeguarding the integrity of projects and credits	Ensuring that ongoing carbon market activities are aligned with national policies and priorities, have robust social and environmental safeguards, and equitable benefit sharing	Governments may want to ensure that activities are compliant with national law and aligned with strategic policy priorities. Governments may want to monitor the social and environmental performance of projects and react to stakeholder reports claiming violations of local laws. They can alleviate these problems by providing clear guidance and robust regulatory frameworks that define social and environmental standards and demand fair and transparent benefit sharing with local stakeholders.

1.2 Develop a strategy for carbon market engagement

Once a government has determined that it wants to engage with independent carbon markets, it can develop its carbon market strategy. A carbon market strategy helps a country to maximize investments into carbon market activities that are aligned with national climate plans and contribute to or go beyond NDC goals and targets.

Carbon market strategies help host country governments to:

- **Assess benefits of government engagement with carbon markets:** Benefits include finance for climate mitigation goals, ensuring understanding of Paris Agreement processes, attracting international and local project financing, creating jobs and fostering economic development, advancing sustainable development and nature goals, and promoting public-private partnerships.
- **Assess risks of government engagement with carbon markets:** Risks include low-quality projects creating local conflicts and reputational damage, undermining NDC achievement if too many authorizations are given for corresponding adjustments (see Decision Sheet 3), and overwhelming government agencies responsible for oversight and implementation.
- **Assess government capacity and readiness for government engagement with carbon markets:** Readiness can include identifying key agencies or focal points within the government, allocating sufficient personnel and financial resources to implementing government requirements or programs, establishing transparent reporting frameworks for governments and private actors, and other ensuring that policymakers and civil servants have sufficient knowledge and resources
- **Identify and compare opportunities for accessing direct investment into mitigation action:** Different environmental and political conditions, NDC targets, sustainable development goals, and other factors influence which types of carbon activities are most beneficial for a given country.
- **Attract carbon finance to support national climate policy and finance priorities:** Defining financial priorities can help a government to attract carbon finance that aligns with local and national development goals and advances social and environmental benefits.

1.3 Determine which role(s) the government should play

Carbon markets provide opportunities to governments, but their complexity presents a major barrier to engagement. Many governments have limited experience with carbon projects and programs. Some public agencies have experience approving independent carbon market activities, when independent carbon market activities require a permit to operate, or when a link exists between domestic regulation and independent carbon markets.

Boundaries between regulated, Article 6 and independent carbon markets are blurry. The generation and trade of carbon credits in independent carbon markets are overseen by private carbon standards. The voluntary use (i.e., retirement) of carbon

credits from independent standards provides a mechanism through which corporates can contribute to global net zero, funding climate action outside of their value chain at the same time as reducing their internal emissions. In some cases, carbon credits issued through independent carbon markets may be used in regulated markets where corporations are mandated to meet climate targets and governments accept carbon credits to fulfil some or all of a company's mitigation obligation. For example, carbon taxes in Colombia, South Africa, and Singapore allow the use of carbon credits issued by certain independent carbon market carbon crediting programs for compliance.[24]

In the case of Article 6, governments can leverage the methodologies and registry infrastructure from independent carbon market standards in implementing Article 6.2, and independent standards may apply to be eligible for use under Article 6.4. Governments may also reference the guidance established by integrity initiatives (i.e., ICVCM and VCMI) to establish benchmarks for which credits or projects can be included under Article 6 activities. These concepts are further explained in Sheets 3 and 5.

When engaging with carbon markets, governments act as regulators, as implementers, and as facilitators.

As regulators, governments institute policies, regulations, and safeguards to guide the development of carbon projects in their territories and attract carbon market finance.

Governments establish and maintain comprehensive national inventories and registries for GHG reductions and removals and mitigation activities. They can require projects, project developers, or other participating entities to submit projects to a public registry. Governments are also responsible for determining how carbon credit transactions will be treated under tax law.

Governments formulate and enforce safeguards and benefit-sharing arrangements to drive positive social and environmental outcomes and to ensure that carbon market activities do not cause harm. Governments are also responsible for clarifying carbon rights and land tenure rights. Governments may also permit the use of carbon credits certified by independent carbon crediting programs in regulated markets (e.g., carbon taxes, ETS) and establish rules about the types of credits that can be used.

Governments decide whether and how to implement Article 6. This includes making decisions about approving mitigation outcomes for trade or counting them towards NDC achievement, setting up registries and agency focal points, and priority sectors for investment.

One example of governments acting as regulators is California's cap-and-trade program, a market-based system that sets a declining limit on greenhouse gas emissions for major emitters, requiring companies to obtain allowances for their emissions through auctions or trading, with revenue funding decarbonization projects and supporting disadvantaged communities.[25]

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[24] See the AlliedOffsets Compliance Eligibility Tracker for a list of regulated carbon markets that accept independent carbon market credits: https://compliance-eligibility.alliedoffsets.com

[25] California Air Resources Board. (n.d.). About. Available at: https://ww2.arb.ca.gov/our-work/programs/cap-and-trade-program/about

As implementers, governments support delivery of carbon market activities directly. For example, in the context of REDD+, governments can sponsor jurisdictional and nested programs, and adopt rules for private sector engagement. The governments of Ghana and Costa Rica have signed Emissions Reductions Purchase Agreements (ERPAs) to supply high-integrity jurisdictional REDD+ emissions reductions and removals credits to LEAF Coalition buyers, which involve private sector actors and the governments of Norway, UK and US.[26]

As facilitators, Governments contribute to the development of carbon markets by incentivizing and publicly encouraging investment in activities that generate carbon credits.

Governments create an enabling environment for carbon investments by providing regulatory certainty through offering predictable, efficient, and standardized processes for granting approvals and authorizations, reporting to national registries, receiving guidance on benefit-sharing and rights, and communicating with relevant national and subnational authorities. Governments can also convene public-private working groups or discussions to co-develop carbon market activities.

Governments can publicly encourage carbon investments into priority sectors where additional finance is most needed, such as sectors with conditional or no NDC targets or sectors that are otherwise not covered by existing policy or investment. A government could consider creating a facility to promote domestic projects to investors or to provide seed capital for new projects.

[26] Costa Rica and Ghana agree landmark deals to supply forest carbon credits to LEAF Coalition buyers. (2023). Emergent. Available here.

1.4 Map existing carbon market activities

Strategic engagement starts with assessing carbon market activities (voluntary and regulated) that already exist or are under development in the country. It is important that policymakers understand ongoing or planned activities, targeted sectors, applied methodologies, and certification carbon standards. Mapping projects and programs, project developers, and investors provides important input for a government strategy that builds on countries' prior experiences and particular circumstances, and aligns independent carbon market with policy goals.

Even if a government has not previously engaged with independent carbon markets, there may be independent carbon market activities in its jurisdiction. This is most likely to be the case in countries with generally open market policies and/or in countries with few relevant regulations, where NGOs and private sector project developers can easily operate. In countries with federal political constitutions, or where Indigenous or other subnational entities have some degree of autonomy, these actors may have developed projects without the involvement of the federal government.

Governments with regulated market schemes or developed Article 6 infrastructure likely already have at least a partial list of carbon market activities in their jurisdictions. Governments may be able to draw on their existing registries of projects and project developers. In cases where different departments or agencies are involved, or where independent carbon markets are also operating in the country, a mapping of existing activities will likely still be necessary to ensure the government has a complete picture.

The government should carry out a mapping of actors to determine who is already engaged in independent carbon markets and would like to engage. Actors to consider include:

- Owners of infrastructure or managers of land assets that are involved in GHG emission removal or reduction activities. Owners could include private individuals, companies, NGOs, Indigenous Peoples (IPs), Local Communities (LCs), and the government itself
- Private companies, NGOs, and IP and LC organizations with the ability to implement GHG reduction and removal activities
- Relevant public agencies, including environmental and forest agencies, energy providers or public utilities
- Experts that can help to create carbon assets, (i.e., tradable emission reductions or removals in the form of carbon credits) and share expertise on benefit-sharing and safeguards
- Companies that are under pressure (e.g., due to regulation, social responsibility commitments, demands from consumers, investor concerns) to mitigate their climate impacts, and therefore might invest in independent carbon market activities or buy carbon credits
- IPs and LCs, smallholder farmers, and other marginalized groups that would benefit from carbon projects through strengthened land tenure, alternative livelihoods, and access to social services
- Government agencies that are already engaged in independent carbon market-adjacent activities such as managing REDD+ and negotiating or implementing Article 6

02

Finance Nationally Determined Contributions

KEY DECISION STEP 02

The country decides how to finance the activities needed to meet the commitments formulated in its Nationally Determined Contribution (NDC)

Considerations

2.1 Determine finance needs and instruments for implementing the NDC
2.2 Identify financing instruments available for implementing the NDC
2.3 Facilitate finance for mitigation through independent carbon markets

Who should be included in these discussions? Government agency responsible for NDC design and implementation, Treasury/ Ministry of Finance, Ministries involved in NDC sectors, existing private sector actors that play a big role in key mitigation sectors (e.g. energy, transport)

2.1 Determine finance needs and instruments for implementing the NDC

To harness carbon markets for NDC achievement, policymakers must first determine funding needs and policy instruments for NDC implementation. Implementation of NDCs requires concrete policies and measures that are supported by a financing strategy. Policies for NDC implementation and a financing strategy must be developed concurrently. Policy priorities inform finance needs, and finance availability shapes regulatory design. A government can determine the role of carbon market finance once it has evaluated sources of available financing and the conditions under which that financing will materialize.

Countries should make their financing needs as clear and specific as possible within their NDCs. Some countries have already presented estimates of how much funding is required to implement their NDCs. For example,

- Ghana provides a financing plan, noting that "US$ 5.4 billion for the 31 conditional programs of action would be mobilized from the public, international, and private sector sources and carbon markets."[27]

- Lao PDR lists estimated financing needs for specific conditional measures, mostly in the energy sector, identifying total conditional financing needs of USD 4,762 billion.[28]

27 Ghana (2021). *Ghana Updated Nationally Determined Contribution under the Paris Agreement (2020-2030),* page 10. Available at: https://unfccc.int/sites/default/files/NDC/2022-06/Ghana%27s%20Updated%20Nationally%20Determined%20Contribution%20to%20the%20UNFCCC_2021.pdf

28 Lao People's Democratic Republic (2021). *Nationally Determined Contribution (NDC)*, page 8. Available at: https://unfccc.int/sites/default/files/NDC/2022-06/NDC%202020%20of%20Lao%20PDR%20%28English%29%2C%2009%20April%202021%20%281%29.pdf

– Bangladesh provides estimates of the unconditional and conditional finance required for key mitigation actions in the energy; Agriculture, Forestry, and Other Land Use (AFOLU); and waste sectors—although it does not provide totals.[29]

However, most countries lack specificity in NDC finance needs and strategies. NDCs may mention the overall cost of NDC implementation but may not specify funding allocations by sector. A robust NDC financing strategy includes clear targets and goals, is grounded in a stable regulatory framework, has measures to transparently report on progress, defines key roles and responsibilities for various relevant actors, and is flexible to adapt to changing financial circumstances.[30]

Table 1 summarizes the main steps that lead to an NDC financing strategy.

Table 1: Steps to develop an NDC financing strategy

	Develop policies to achieve NDC goals	Financial considerations
Step 1	Assess the **emission reduction and removals potentials** of different sectors and activities.	Determine the reference price of reducing or sequestering one ton of CO_2e, i.e., the **carbon price. Emission reduction and removal potentials** are identified in relation to a reference carbon price.
Step 2	Identify **sustainable development benefits** and assess societal **acceptance** of possible implementation measures.	Identify **co-benefits of mitigation measures**. Assess the development benefits of investments in green infrastructure, clean transport, or climate-smart agriculture, among others. Assess the trade-offs of measures and challenges regarding their acceptability.
Step 3	Formulate concrete policies that mobilize the identified **emission reduction and removal potentials** while helping to support national **policy goals.**	Develop **measure-specific financing** plans that can be backed with budget lines, public-private partnerships, blended finance, or other means of finance. Effective cost analyses help to prioritize feasible policy designs over those that are too costly to sustain.
Step 4	**Develop a financing strategy that backs the implementation of selected policies.**	

[29] Bangladesh Ministry of Environment, Forest, and Climate Change (2021). *Nationally Determined Contributions (NDCs) 2021 Updated*, page 24-25. Available at: https://unfccc.int/sites/default/files/NDC/2022-06/NDC_submission_20210826revised.pdf

[30] NDC Partnership (2023). NDC *Investment Planning Guide: Best Practices Brief.* Available at: https://ndcpartnership.org/sites/default/files/2023-12/ndc-investment-planning-guide-best-practice-brief2023.pdf; World Economic Forum (2024). *5 ways NDCs can become private climate finance catalysers.* Available at: https://www.weforum.org/stories/2024/07/5-ways-ndcs-become-private-climate-finance-catalyzers/

2.2 Identify financing instruments for implementing the NDC

Financing strategies for the implementation and achievement of NDCs draw on a range of funding sources and instruments. Sources may be domestic or international funds, and private or public. Instruments include direct investments, taxes, loans, results-based payments, and carbon markets—compliance and voluntary. Different sources and instruments enable specific types of mitigation action, including direct investments, strengthened regulation and governance, and economic incentives (see Figure 1).

Some developing countries may be limited in their ability to mobilize domestic revenues or private investment. Public grants, loans, or loan guarantees come with different conditions and financing terms than private sector investments. For example, loans have a direct impact on a country's ability to borrow for other purposes, and high levels of debt increases fiscal pressure and limit the government's ability to finance social programs. Many of the world's least-developed and most climate-vulnerable countries are facing a dual debt and climate crisis, spending far more to service their debts than they receive for climate change mitigation or adaptation.[31] These debt burdens significantly hamper countries' ability to respond to climate-linked emergencies and to deliver on their NDCs.

Article 9 of the Paris Agreement requires developed countries to take the lead on mobilizing finance (Article 9.3). The provision of financial resources should aim to achieve a balance between adaptation and mitigation (Article 9.4). Climate finance provided under Article 9 has to be distinguished from carbon finance that is deployed via carbon market instruments and involves the exchange of funds against certified emission reductions or removals. At UNFCCC COP29, Parties set a New Collective Quantified Goal (NCQG) of at least USD 300 billion annually for developing countries' climate action by 2035 and included a call for USD 1.3 trillion in international climate finance over the same period.

Finance through carbon markets

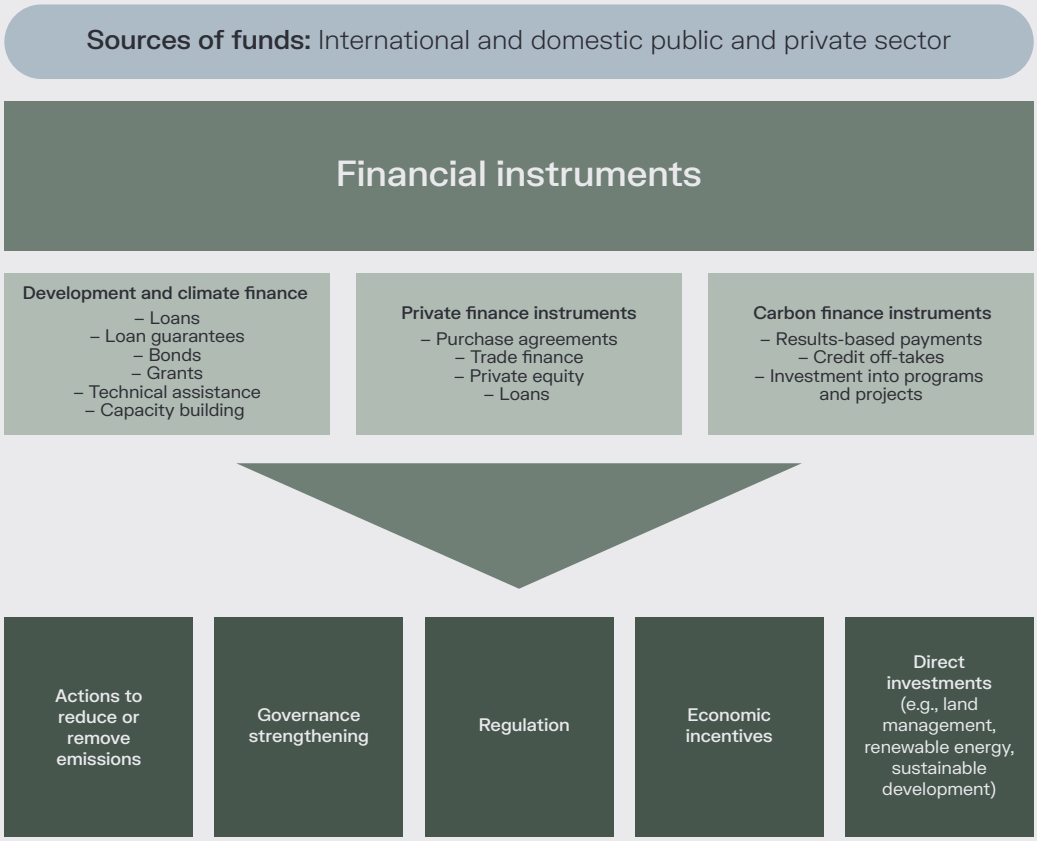
Carbon finance is a sub-category of climate finance that links payments to the generation of emission reductions and removals. Carbon finance includes independent and compliance carbon markets as well as national- and international-level schemes. Carbon finance may come from private or public sector investment in carbon credits and projects.

Article 6 of the Paris Agreement enables cooperative approaches that support countries to meet and go beyond their NDCs, including though carbon markets. For carbon market projects and programs to catalyze finance for countries through Article 6, they need to be approved by the government of the country where they take place and meet specific accounting requirements. This is further elaborated in Decision Sheet 3.

[31] IIED (2024). *World's least developed countries spend twice as much servicing debts as they receive in climate finance.* Available at: https://www.iied.org/worlds-least-developed-countries-spend-twice-much-servicing-debts-they-receive-climate-finance

Carbon markets—whether independent, compliance, or Article 6—can provide a debt-free source of finance. Carbon market activities can attract private sector investment in climate change mitigation as well as tap into non-aid- or debt-based finance from other countries. When deployed strategically, carbon markets can pave the way for other sources of finance for climate change mitigation or foster public-private partnerships. Furthermore, while the NCQG decision did not explicitly mention carbon markets, achieving the NCQG will require mobilizing private sector investment, which carbon markets can help to unlock.[32]

Figure 1: Flow of funds from source to use[33]



Source: Figure based on Streck, C., Murray, B., Aquino, A., Durschinger, L., Estrada, M., Parker, C., et al. (2015). *Financing Land Use Mitigation: A Practical Guide for DecisionMakers.* Available at: https://climatefocus.com/wp-content/uploads/2022/06/Winrock-FinancingLandUseMitigation_7-22-2015.pdf.

32 Sylvera (2024). *What Happened at COP29 and What it Means for the Carbon Markets.* Available at: https://www.sylvera.com/blog/what-happened-at-cop29-and-what-it-means-for-the-carbon-markets; WRI (2025). *How to Reach $300 Billion — and the Full $1.3 Trillion — Under the New Climate Finance Goal*. Available at: https://www.wri.org/insights/ncqg-climate-finance-goals-explained

33 Figure based on Streck, C., Murray, B., Aquino, A., Durschinger, L., Estrada, M., Parker, C., et al. (2015). *Financing Land Use Mitigation: A Practical Guide for DecisionMakers*. Available at: https://climatefocus.com/wp-content/uploads/2022/06/Winrock-FinancingLandUseMitigation_7-22-2015.pdf.

2.3 Unlocking NDC finance through independent carbon markets

Independent carbon markets provide an opportunity for countries to channel private sector finance into mitigation and adaptation action. Independent carbon markets can attract national and foreign direct investments into mitigation action without burdening national budgets or affecting debt ceilings. Through independent carbon markets, the private sector or foreign investors can complement governments' efforts to reduce or remove emissions by financing climate mitigation projects.

Once a government has decided to use independent carbon markets as part of its NDC financing strategy, it needs create an enabling environment that attracts carbon project developers and investors. Strategic actions that governments can take include clearly defining the types of projects they would like to see and enhancing data and transparency on carbon projects and considering public-private partnerships. A fourth consideration is defining Article 6 rules, which is described in Decision Sheet 3.

Defining projects

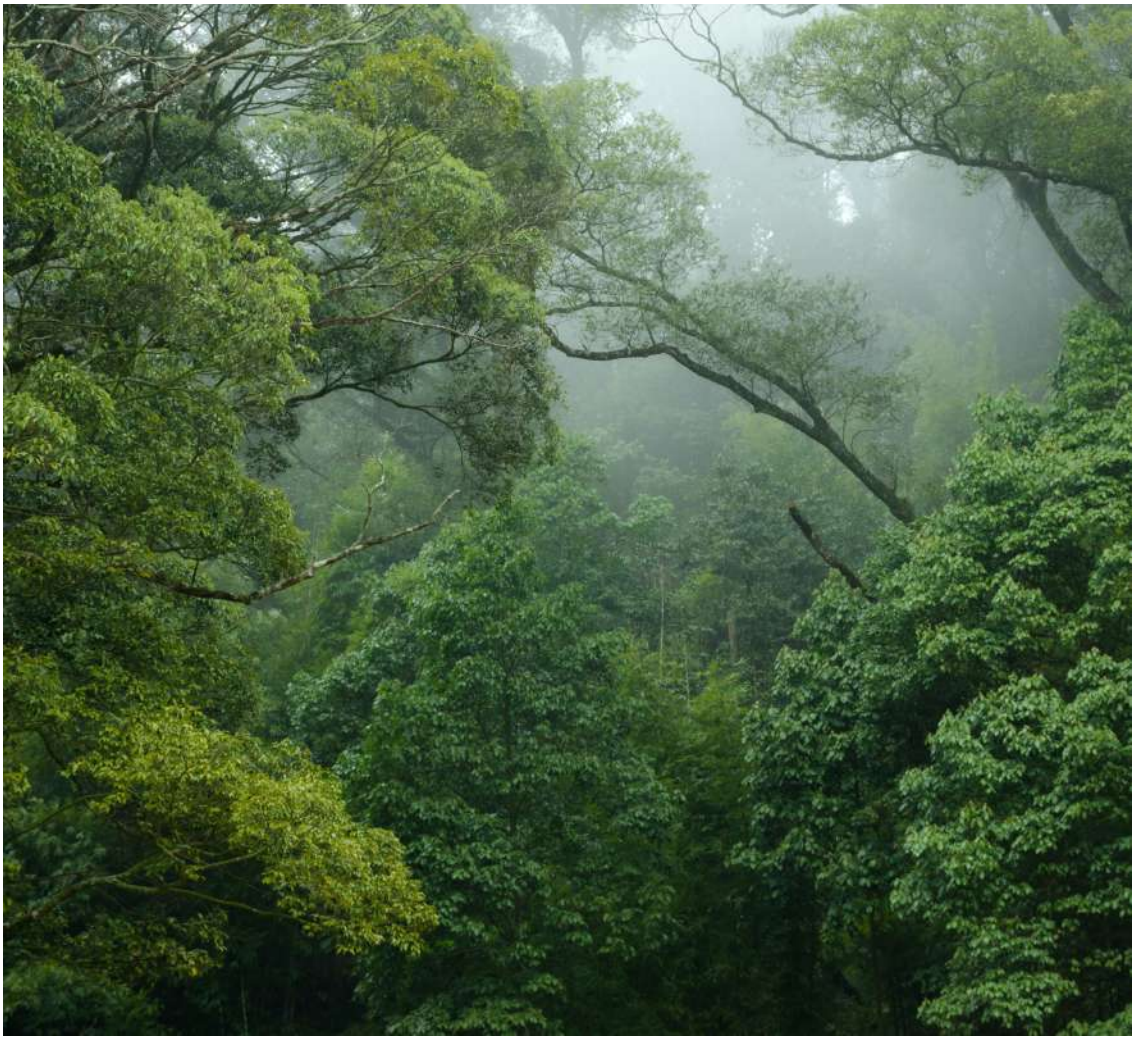
Clearly defined mitigation activities are most likely to attract carbon finance. Governments can encourage project developers to invest in mitigation in sectors or activities that have little public finance or are not covered by public policy. These may include targets or goals in the NDC that are conditional on receiving additional finance. Sectors or activities that are not covered by the NDC or public policy are attractive for independent carbon market actors because carbon standards usually require that a project demonstrates "additionality." Additionality means that the mitigation activity could not have taken place without the income provided by the sale of carbon credits. In general, conditional actions in NDCs are more likely to pass additionality tests because they rely on additional sources of finance to take place. Unconditional NDC actions are generally not considered additional because a country should be able to achieve them without outside sources of finance—from carbon markets or otherwise..

Attractive projects typically also meet all other criteria of sound investments. This means they:

- Rely on tested technologies
- Are operationalized by credible local project developers
- Involve local expertise and have the support of local communities
- Implement environmental and social safeguards
- Mitigate and manage risks

In independent carbon markets, the responsibility for ensuring that projects meet these criteria primarily lie with project developers, standard-setters that certify projects, third-party validators and verifiers, and investors (see Decision Sheet 5). However, governments are responsible for enforcing their own relevant regulations. These could include, for example, laws related to investments or resource use, rules for approval under Article 6 (see Decision Sheet 3), and social and environmental safeguards (see Decision Sheet 5).

Once governments have defined the kinds of carbon projects they would like to see, they can promote their country as welcoming to independent carbon market investments. This can be done by participating in international and sector-specific events or by organizing workshops and providing guidance to increase the capacity of local organizations that can develop projects. VCMI has facilitated this kind of capacity through the Access Strategies Program. For example, through supporting Kenya's 2024 National Carbon Markets Conference to bring together public and private stakeholders active in the market, and supporting Peru's Ministry of the Environment to evaluate policy options for incentivizing high-integrity carbon market projects and for strengthening local knowledge and engagement by local project developers and investors.[34] VCMI also supported the State Government of Yucatán in Mexico to publish a 'best practice' guide for establishing high-integrity VCM projects in the region.[35] Governments may also consider providing financial incentives to project developers that deliver mitigation and sustainable development benefits in high-need areas.



34 VCMI (2025) *Access Strategies Program*. Available at: https://vcmintegrity.org/access-strategies/

35 VCMI, Climate Focus, UNDP, and Gobierno del Estado de Yucatán (2024). *Best Practices Guide for Developing Voluntary Carbon Market Projects in Yucatán.* Available at: https://vcmintegrity.org/wp-content/uploads/2024/11/20241113-Best-Practices-Guide-VCM-Yucatan-FV.pdf

Enhancing data and transparency

Governments can also create an enabling environment for carbon investments by ensuring that project developers and investors can easily access the information they need to develop projects that generate additional and accurately-estimated emission reductions and removals, are complementary to country goals, and can meet a country's Article 6 criteria—if applicable. Governments can do this by creating public registries or records and by developing their own capacity for monitoring and tracking carbon market activities. Data that supports accurate emission reductions and removals can include grid and dispatch data for the energy sector, market forecasts and production data for manufacturing and processing sectors, and land-use and land tenure data for the land sector. Governments can ensure that sector-specific data is accessible and available to ease the development of projects in priority sectors. Governments should also be transparent about public and private investment in climate change mitigation to help projects ensure additionality.

Considering public-private partnerships, governments may be able to facilitate larger carbon market investments through public-private partnerships. Such partnerships use both government and private sector resources to co-fund mitigation activities. Subsidizing carbon projects this way can lower investment barriers and risks, thereby accelerating climate action. For example, the LEAF Coalition is a partnership between corporations, governments, civil society, and Indigenous groups to mobilize finance for large-scale REDD+[36] programs. Through LEAF, corporations and donor countries commit to funding emissions reductions from reduced deforestation in specific countries or regions. The non-profit Emergent then facilitates agreements between corporate buyers, donor countries, and countries that have or are developing REDD+ programs. Funding from donor countries and corporations can be channelled as initial capital to get REDD+ programs started. REDD+ countries reduce deforestation and are issued verified emission reductions in accordance with the ART/TREES standard. Countries then receive results-based payments that may be reinvested in sustainable development and livelihood improvements, as determined in the design of the program and in consultation with stakeholders.[37]

[36] IIED (2024). *World's least developed countries spend twice as much servicing debts as they receive in climate finance.* Available at: https://www.iied.org/worlds-least-developed-countries-spend-twice-much-servicing-debts-they-receive-climate-finance

[37] IIED (2024). *World's least developed countries spend twice as much servicing debts as they receive in climate finance.* Available at: https://www.iied.org/worlds-least-developed-countries-spend-twice-much-servicing-debts-they-receive-climate-finance

03

Dermine an Article 6 strategy

KEY DECISION STEP 03

The country determines the role of Article 6 of the Paris Agreement in achieving and going beyond Nationally Determined Contributions (NDCs).

Considerations
3.1 Understand Article 6
3.2 Consider corresponding adjustments
3.3 Develop policies to guide Article 6 implementation

Who should be included in these discussions?
Government agency or agencies responsible for NDC design and implementation, GHG inventories and accounting, and Article 6 implementation; UNFCCC negotiators, Attorney General's Office, sectoral Ministries with relevant activities in their portfolios

Developing an Article 6 strategy can help countries to achieve and increase their ambition and generate mitigation that goes beyond the unconditional goals formulated in their NDCs. Governments can extend such strategy to also cover independent (e.g., voluntary) carbon markets. Addressing both types of markets can have financial, technical, and strategic benefits. Additionally, governments may be asked by private project developers and investors to authorize credits under Article 6. This Decision Sheet gives an overview of Article 6, explains key concepts, and provides recommendations for governments considering Article 6 implementation and contemplating strategic links to independent carbon market.

3.1 Understand Article 6

Article 6 of the Paris Agreement establishes a framework for countries to cooperatively engage in projects that enable the transfer of emission reductions and removals in the form of "Mitigation Outcomes." In 2024, negotiators of the Paris Agreement finalized the Article 6 implementation guidance (the Paris Rulebook), opening the way for full implementation of Article 6 activities. This is a good time for governments to decide how to strategically engage with Article 6. This shift from negotiating the rules to implementing actions can unlock the potential of international carbon markets.

It is important to stress that participation in Article 6 activities is voluntary. The first strategic decision for countries is whether they want to engage with Article 6. The purpose of Article 6 is to facilitate cooperation between countries in achieving higher ambition in their NDCs. It opens the door to new partnerships and investments. However, establishing the legal and institutional conditions for full participation in Article 6 is also costly. When establishing an Article 6 strategies, governments must define the level and the modalities of their engagement.

Article 6 contains two paragraphs that are particularly relevant for carbon markets: Article 6.2 and Article 6.4. To complement domestic policy instruments and voluntary action, governments may consider engaging in Paris Agreement Article 6.2 cooperative approaches or Article 6.4 activities to achieve and go beyond NDC targets. Governments can sponsor project-based cooperative approaches, develop larger aggregated, sectoral, or jurisdictional programs, and support independent carbon market projects from certain sectors in the context of Article 6.2. They can also decide which projects to prioritize for 6.4 approvals and authorizations.

Article 6.2: Cooperative approaches

Article 6.2 defines cooperative approaches that enable countries to authorize the transfer of emission reductions and removals ("Mitigation Outcomes") in the form of internationally transferred mitigation outcomes (ITMOs). Mitigation Outcomes may be transferred to other countries for use toward their own NDCs, applied to "other international mitigation purposes" such as for use by airlines under the scheme known as Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA), or for other purposes, including for trade in independent carbon markets or voluntary cancellation. If a government authorizes Mitigation Outcomes to be used toward another country's NDC or used in CORSIA, the Mitigation Outcome becomes an ITMO. When ITMOs are transferred, the transferring as well as the receiving country are required to make "corresponding adjustments" to their own NDC accounting (see Section 3.2).

Article 6.2 enables governments to engage in cooperative mitigation action. Article 6.2 engagement is open to various forms of climate action across all countries, activities, emission sources and sinks, which enables partnerships tailored to specific needs and governance structures. To participate in Article 6.2 activities, governments must meet certain participation requirements: they need to have an NDC in place, be able to track ITMOs, and have arrangements for authorizing the use of ITMOs.[38] Governments have to report on their planned Article 6.2 activities through Initial Reports,[39] which are publicly available on the UNFCCC Secretariat's centralized accounting and recording platform, and to provide periodic reports on implementation progress. In their Initial Report, governments must describe how each cooperative approach ensures environmental integrity, including through making the case for the quality of Mitigation Outcomes and for measures to reduce the risks of reversal events as well as any negative environmental, economic, or social impacts.[40] Reporting further includes cooperative approaches, authorizations of Mitigation Outcomes, transfers of ITMOs, and emission balances. However, beyond those participating criteria and reporting requirements, governments are free to define the nature, methodology, implementation modalities, and verification of country-led Article 6.2 activities. Governments can also unilaterally develop Article 6.2 activities and later engage in cooperative agreements for ITMO transfer or consider auctioning credits[41] through regulated platforms.

In addition, governments can enhance the integrity and efficiency of Article 6.2 transactions by leveraging established methodologies and infrastructure from independent carbon markets, avoiding the need to build systems from scratch. For example, the Verra-Gold Standard-Singapore Toolkit[42] offers a standardized protocol that integrates existing voluntary carbon market frameworks into Article 6.2 implementation, streamlining processes and ensuring alignment with national climate goals. Complementing this, the Integrity Council for the Voluntary Carbon Market (ICVCM)'s Core Carbon Principles (CCPs)[43] provide a rigorous benchmark for quality by setting clear criteria on baseline setting, permanence, additionality, and sustainable development that align closely with Article 6 requirements.

38 Decision 2/CMA.3, Annex II, para. 3. FCCC/PA/CMA/2021.10/add1. Available at: https://unfccc.int/sites/default/files/resource/cma2021_10a01E.pdf#page_11

39 Draft Decision -/CMA.6, Annex I, Table of supplementary elements of information in initial report and any updated initial reports, as referred to in decision 2/CMA.3, annex, paragraphs 18-19. UNFCCC/PA/CMA/2024/L.15, Available at: https://unfccc.int/event/cma-6?item=15%20a

40 Decision 2/CMA.3, Annex II, para. 18.

41 Indonesia has recently offered 1.78mn credits from five energy projects on IDX Carbon, a trading platform operated by its national stock exchange.

42 For the initial recommendations, see: https://verra.org/wp-content/uploads/2024/11/Article-6-Crediting-Protocol-v1-11Nov2024-final.pdf

43 See the 10 Carbon Core Principles here: https://icvcm.org/core-carbon-principles/

Governments can authorize ITMOs to be transferred to private and public entities. The first commercial agreement for the purchase of ITMOs was between Microsol, a Peruvian private project developer, and the Swiss foundations Climate Cent and KliK. This agreement was for Mitigation Outcomes generated by the Tuki Wasi improved cookstoves project, which was developed under the Article 6.2 bilateral agreement between Switzerland and Peru.[44]

Independent carbon markets are linked to Article 6 through governments' approvals of projects and authorizations of credits as ITMOs under the rules of Article 6.2. Credits authorized as ITMOs may be traded bilaterally between governments. However, in cases where independent carbon market credits are transferred as ITMOs, it is more likely that those ITMOs will be acquired by private buyers for voluntary use or for CORSIA. In these cases, credits transferred as ITMOs are retired without being accounted against any NDC. However, even if an ITMO is not used to meet NDCs, the transferring country must report the corresponding adjustment, document ITMO retirements, and make the necessary accounting adjustments.

The main benefit of Article 6.2 for countries is that it is flexible and that governments can set and negotiate the terms of their engagement. Transferring governments have full power to decide whether, to what extent, and under what conditions to authorize Mitigation Outcomes. Governments can use the promise of ITMOs to incentivize investment in priority sectors. They can steer carbon projects to align with government programs and conditional targets in NDCs. Investment in mitigation activities with the promise of ITMOs could attract investment at scale, provide access to innovation, technology, and capacities. Some governments have already entered into bilateral or multilateral agreements to trade Mitigation Outcomes. However, most of these agreements only represent future intentions to trade ITMOs and depend on the institutions and infrastructure to enable the transfer of ITMOs[45]

44 Tuki Wasi – Microsol. Available at: https://microsol-int.com/tuki-wasi/

45 UNEP Copenhagen Climate Centre has developed a database for tracking Article 6 activities, providing insights into project contributions to Nationally Determined Contributions (NDCs) and Sustainable Development Goals (SDGs).

Article 6.4: Paris Agreement Crediting Mechanism

Article 6.4 creates the Paris Agreement Crediting Mechanism (PACM). The PACM allows countries and authorized private entities to trade carbon credits through a centralized market that is overseen by the UNFCCC. The Supervisory Body for the Mechanism (SBM) approves methodologies, registers projects, and manages the registry, among other responsibilities.[46]

Article 6.4 has more prescriptive rules than Article 6.2. Under Art. 6.4, mitigation activities are approved by the host country, registered with the PACM registry, and implemented according to methodologies approved by the SBM. Mitigation Outcomes are referred to as Article 6.4 Emissions Reductions units (A6.4ERs) and are issued into the PACM registry. Governments can choose to authorize A6.4ERs, in which case they become ITMOs and the government must apply corresponding adjustments. Non-authorized A6.4 ER units are known as Mitigation Contribution Units (A6.4MCUs) and are counted towards the NDC goals of the country where the activity takes place.

At COP29, Parties adopted a "dual-layer" registry system that links the PACM registry to the Article 6.2 international registry. Connecting the PACM and Article 6.2 registries allows users to view data on unit holdings and facilitate the transfer of authorized A6.4ERs to the international registry. The registry's role is limited to retrieving and displaying data, specifically information on holdings and the transaction history of authorized A6.4ERs. However, countries can voluntarily connect their own registries to the PACM registry, with safeguards in place to prevent double counting. Authorized A6.4ERs can be transferred from the mechanism registry to a Party's registry. There is no such provision for A4.6MCUs; these can only be transacted and used within the PACM registry itself. Governments and authorized entities can receive and manage MCUs directly by opening holding accounts within the mechanism registry.

[46] In 2024, the SBM adopted key standards for methodologies and GHG removals, making the mechanism operational immediately. However, some implementation details still need to be resolved. In 2025, the SBM plans to deliver overarching standards, guidelines, tools, and procedures. In addition, the Methodological Expert Panel (MEP) will focus on methodologies, prioritizing areas such as transportation, energy, waste management, distributed systems (e.g., clean cooking, water purifiers), and rural electrification.

The PACM defines and builds on lessons from the Clean Development Mechanism (CDM) under the Kyoto Protocol. At COP26 (2021) in Glasgow, Parties decided to allow for the transition of CDM projects to the PACM if projects meet certain requirements. This transition has been ongoing since 2023, with an initial deadline of December 2023 for projects to submit their transition requests. Almost 1,500 projects are seeking transition and it is expected that the first PACM projects will be old CDM projects, which are expected to enter the market from the second half of 2025 onwards. To complete the next steps in the process, project proponents need to complete the sustainable development assessment based on the Sustainable Development Tool (SD Tool).[47] At COP 29, in Baku, parties decided that a new category, afforestation and reforestation (A/R) projects, may transition to the PACM by complying with updated PACM rules. The deadline for submitting both a request for transition and for host countries to approve it is December 2025. Countries where these projects are located will need to approve the transition of each project.

The main benefit of Article 6.4 for countries is that it provides a centralized framework that is managed by the UNFCCC. This may simplify the authorization and approval process for governments and may help projects to access carbon finance. Investors may see a system managed by the UNFCCC as more trustworthy, and governments may feel more comfortable accepting A6.4ERs as compliance units in their carbon pricing systems than units generated in independent carbon markets. The prescriptive and highly structured nature of Article 6.4 makes it especially attractive to countries that have less-well-developed climate strategies and lower capacity to establish institutions and new legal frameworks. However, as the Article 6.4 process is new, the timeframe for the UNFCCC to approval projects and units is not yet known, and the development of projects under the PACM may be more costly than under more nimble independent mechanisms.

[47] The Sustainable Development Tool establishes a framework for risk assessment, easy identification of positive and negative impacts of proposed activities, and monitoring and reporting. The Tool ensures robust social and environmental safeguards are integrated into Article 6.4 activities and consists of three main components: environmental and social safeguards, impact assessment on sustainable development, and validation and verification processes. For more information see Toolkit Decision Sheet 4.

3.2 Consider corresponding adjustments

'Corresponding adjustments' serve as an accounting mechanism under the Paris Agreement that prevents countries from counting the same emission reduction or removal toward more than one NDC. Corresponding adjustments track the transfer and use of ITMOs. When a corresponding adjustment is applied, the transferring country subtracts the number of emissions reductions or removals represented by the ITMOs from its NDC accounts and the receiving country adds those emission reductions or removals to its accounts. The transferring country may have to compensate for transferring ITMOs by implementing other mitigation activities. The purpose of corresponding adjustments is to avoid double counting—a situation in which a single ITMO is counted toward multiple countries' NDCs. Corresponding adjustments do not change the country's overall GHG inventory but are essential for maintaining the environmental integrity of NDC accounting.

The Paris Agreement and Article 6 Rulebook define various possible uses for ITMOs. ITMOs may be applied to recipient countries' NDCs, to other international mitigation goals (e.g., CORSIA), or for "other purposes." Other purposes are mentioned but not clearly defined in the Paris Agreement. It is widely understood that other purposes include transactions in independent carbon markets, local carbon markets, and any other voluntary cancellations of Mitigation Outcomes. According to the Paris Rulebook, a transferring country needs to make a corresponding adjustment for an ITMO regardless of whether the activity that generated the Mitigation Outcome was within or outside the NDC. This means that the country may need to achieve extra GHG emission reductions or removals from the sectors and activities covered by its NDC for each corresponding adjustment made.

Countries can decide which and how many Mitigation Outcomes they authorize as ITMOs and under which conditions:

- Some project developers seek authorization of carbon credits generated and verified under independent carbon standards as ITMOs. This requires the transfer from a voluntary, independent project into an Article 6.2 cooperative approach. Governments may decide not to authorize any independently generated emission reductions and removals. This policy is pursued by most developed economies, which are generally reluctant to export ITMOs as they may need the underlying emission reductions and removal to meet their own NDCs.

- If governments want to benefit from the investments and partnerships that come with Article 6, governments can choose to authorize the transfer of ITMOs, removing the corresponding Mitigation Outcomes from their NDC accounting. They can decide how many and which Mitigation Outcomes they want to authorize as ITMOs (see section 3.3. for relevant policy considerations).

Independent carbon market projects can continue to operate without receiving approval from countries and independent carbon credit transactions can occur without authorization. Double counting occurs when a single GHG emission reduction or removal is counted more than once towards achieving mitigation targets or goals. Double claiming occurs when the same GHG emission reduction or removal is claimed by two different entities towards achieving mitigation targets or goals within the same accounting system: for example once by a country, jurisdiction or other entity that reports lower GHG emissions or higher GHG removals for the purpose of demonstrating achievement of a mitigation target or goal, and once by the entity retiring the carbon credit for the purpose of

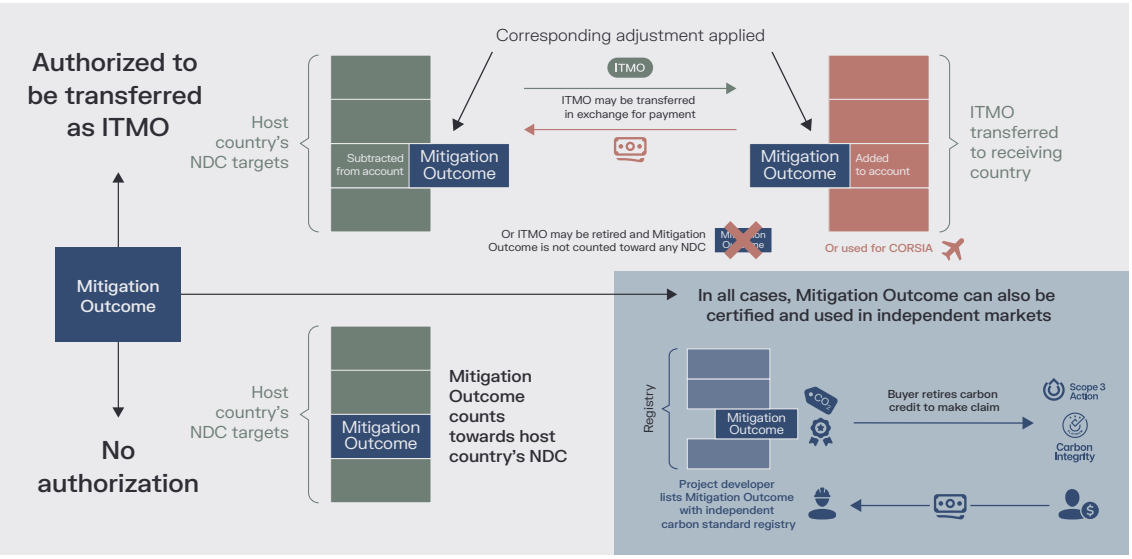
reducing internal emissions to meet a target. When credits are authorised for international transfer under the Paris Agreement, a corresponding adjustment is required to avoid double counting across two or more national accounting systems, not between a national and corporate accounting system. Voluntary corporate reporting is independent of, and does not contribute to, national emissions accounting under the Paris Agreement. The voluntary use of carbon credits allows private sector finance to flow into climate mitigation efforts beyond regulatory requirements, enabling additional emissions reductions that would not otherwise be funded through government policies or compliance markets.

A corporate can purchase non-authorized credits and the country hosting the carbon market project can count those emissions reductions toward their NDCs if they have an economy wide NDC or the credits fall in a sector within the NDC. The corporate must claim the use of these credits separately from reporting greenhouse gas emissions in their inventory. These purchases are used by corporates to take responsibility for their excess emissions and in support of the corporate's voluntary climate goals, accelerating the collective effort to reach global net-zero emissions. The country in which the corporate is does not need to be informed and the credit use is not reported in their NDC accounting, therefore there is no double counting with the project's host country's NDC.

It is important that corporates make transparent claims about the environmental attributes of carbon credits they use and how credits support their climate goals. Under the VCMI's Claims Code of Practice, companies are required to publicly disclose key information related to each carbon credit retired, including whether or not the carbon credit is associated with a corresponding adjustment.[48]

See Figure 1 for a visual summary of how Mitigation Outcomes might be used, including being used both toward NDCs and in independent carbon markets.

Figure 1: Mitigation Outcome uses in Article 6 and independent markets



Source: *Voluntary Carbon Market Dashboard*. Available here. (Data last updated 5th March 2025).
Note: All numbers are total counts since 2002.

[48] Voluntary Carbon Markets Integrity Initiative (2025). *Claims Code of Practice, version 3.0*. Available at: https://vcmintegrity.org/wp-content/uploads/2025/04/VCMI-Claims-Code-of-Practice-April-2025-Version-3.0.pdf

3.3 Develop policies to guide Article 6 implementation

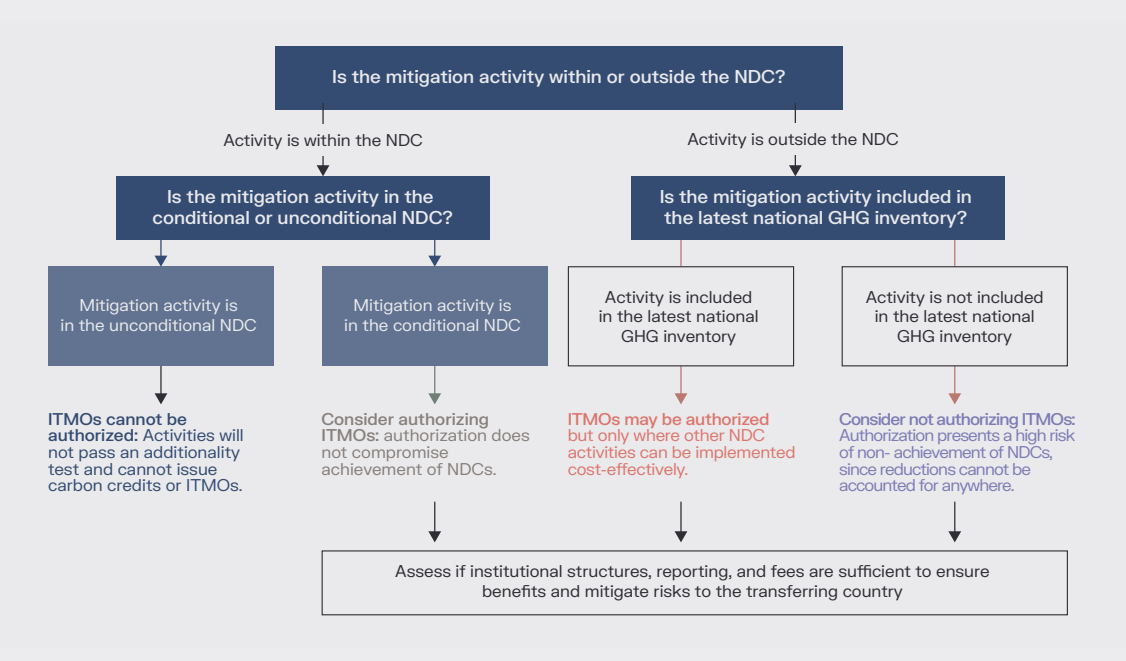
Once a government has decided to implement Article 6.2 and/or Article 6.4, they need to develop a strategy followed by a legal and policy framework that guides national implementation. Specifically, governments need to set up relevant institutions and develop a legal framework for authorizations and approvals, corresponding adjustments and reporting.

Governments should keep in mind the different strategic advantages of each mechanism. Article 6.2 may be best suited for countries with established climate strategies that want to actively engage and steer carbon market investments and mitigation activities as well as countries with jurisdictional-scale or sectoral carbon crediting activities. Article 6.4 can be considered a complementary mechanism for private engagement that can support smaller-scale project activities. Countries may also rely on Article 6.4 as long as they do not have their own strategies and legal frameworks to engage with Article 6.2 in place. A government may choose to participate in both as one mechanism may be better suited to certain sectors or activities.

Decide on a policy for authorizing Article 6 activities

Governments should carefully consider potential benefits and risks before offering authorizations that require corresponding adjustments. Offering corresponding adjustments could have both positive and negative impacts on the country's ability to achieve its NDC. Figure 2 below summarizes some of the key decision points for countries when deciding whether to authorize emission reductions and removals to be transferred as ITMOs.

Figure 2: Deciding whether to authorize



Positively, authorizing projects can strengthen governance and may attract finance. Putting in place the institutions and regulations needed to make corresponding adjustments prepares countries for participating in Article 6 transfers and enhances the transparency of carbon market and NDC accounting. Offering corresponding adjustments may also help countries attract additional finance. An increasing number of carbon market actors are looking for carbon credits that are backed by a country's authorization and the promise of future corresponding adjustments because of the perception that authorized credits will be more credible and therefore able to trade for higher prices. Countries that offer such authorizations may position themselves as attractive place for independent carbon market investments.

However, making a corresponding adjustment for the transfer of a carbon credit also comes with risks to the transferring country. The two main risks are the costs associated with setting up infrastructure for corresponding adjustments and overselling ITMOs to the point that the host country cannot achieve its own NDC.

1) **Financial and temporal costs** associated with building up the institutional and technical capacities needed to make corresponding adjustments, including creating the infrastructure to approve projects, authorize credits, and track and report ITMOs.

2) **Overselling GHG emissions reductions and removals through Article 6 authorizations.** Overselling refers to a scenario where a country authorizes the transfer of so many mitigation outcomes with corresponding adjustments that it later faces difficulties in achieving its own NDC. This risk is unique to authorized credits; selling credits without authorization (i.e., without corresponding adjustments) does not pose the same risk to NDC achievement and can, in fact, be a way for countries to avoid overselling risk.

Making a corresponding adjustment means the transferring country cannot count the Mitigation Outcome toward its NDC achievement. The transferring country incurs an opportunity cost by forfeiting the ability to apply that emission reduction or removal toward its own NDC. Transferring an ITMO represents a deliberate choice to prioritize international cooperation over domestic use of the mitigation effort. This means that if the transferring country exceeds its own carbon budget, it will have to spend extra resources to achieve reductions or removals to compensate for the mitigation achievements transferred out of the country as an ITMO. This may be a financial burden for some countries.

Avoiding overselling is crucial not only to safeguard the country's ability to meet its NDC, but also to protect the integrity of global climate action and the credibility of carbon markets. Overselling poses a risk to the credibility of Article 6 overall, if the result is the achievement of one country's NDC, or an airline's CORSIA compliance, at the expense of another country's NDC.

The choice of whether to offer corresponding adjustments for the transfer of carbon credits belongs uniquely to countries and is not a decision made by carbon standards or buyers. A transferring country needs to carefully evaluate when, under which conditions, and for what price it authorizes corresponding adjustments for carbon credits traded for voluntary purposes. Considerations include:

1) Whether or not the underlying project or program is covered by the country's NDC

2) Whether the mitigation action will be achieved more cost-efficiently without the carbon market finance

3) Whether the projects or programs come with significant sustainable development or technology transfer benefits

Considering the costs associated with corresponding adjustments, governments should attach a fee to the authorization to convert a GHG emissions reduction or removal into an ITMO backed by a corresponding adjustment. Such fee should reflect the costs of corresponding adjustments for transferring countries, which include:

1) Administrative costs to put in place and maintain the infrastructure to engage in Article 6, issue authorizations and approvals, meet reporting and accounting requirements, and eventually make corresponding adjustments;

2) Opportunity costs of replacing the 'exported' GHG emissions reduction or removal with another domestic GHG emissions reduction or removal that can be used to achieve the host country's NDC.

The fees can be set in reference to the cost of other mitigation actions to ensure that the government has funds to generate these other GHG emissions reductions or removals to replace the exported Mitigation Outcomes. If the government wishes to incentivize certain mitigation actions, it could choose to offer corresponding adjustments for prioritized mitigation activities for a reduced or waived fee. Marginal Abatement Cost (MAC) curves can be used as a practical tool to inform how fees are set in relation to the cost of other mitigation actions. By illustrating the relative costs and potential of different mitigation options, MAC curves help identify which actions deliver the most emissions reductions for the least cost, supporting efficient allocation of government funds to replace exported mitigation outcomes. However, it's important to recognize that MAC curves are based on assumptions about technology costs, baselines, and future developments, and may not fully capture interactions between sectors, policy changes, or broader social and environmental impacts.

Countries can consider offering corresponding adjustments on a specific percentage of GHG emissions reductions or removals generated by a project. Offering corresponding adjustments to, for example, a set percent of the generated Mitigation Outcomes can ensure that most of the mitigation benefits can still be accounted towards the host country's NDC. The exact percentage of carbon credits that a country authorizes for corresponding adjustments may depend on how well-aligned the mitigation action is with host country priorities or on the co-benefits that the projects or programs generate. A country can also consider selling credits without providing authorization or corresponding adjustments and using the associated finance to support the achievement of its own NDC. This is possible because corresponding adjustments are not required for the voluntary use of credits by non-state actors who are not Parties

to the Paris Agreement. Other strategies include pricing to fund a 'reserve' for additional mitigation and excluding certain activities that a country intends to use for its NDC achievement from carbon crediting mechanisms that require corresponding adjustments[49] (e.g., a negative list, such as the 'red list' described in Ghana's framework on international carbon markets and non-market approaches[50]).

Formulate processes for reporting, approvals, and authorizations

Countries are required to put in place arrangements to provide approvals and authorizations for activities under Articles 6.2 and 6.4. (see Tables 2 and 3). Article 6 authorizations have a market value. This means that in authorizing corresponding adjustments governments are providing a valuable service that enables the trade of an asset. Consequently, any decision on corresponding adjustments needs to be in line with state-aid rules, and be generally applicable, transparent, and fair. The provision of corresponding adjustments on a case-by-case basis, without a standardized regulatory process, risks malpractice and corruption.

According to the implementation rules of Article 6.2, Parties engaging in cooperative approaches must report their activities to the UNFCCC Secretariat through a structured process. This involves submitting an initial report and regular updates as an annex to Biennial Transparency Reports (BTRs), adhering to specific reporting formats and guidelines established in the rulebook. The reported information is reviewed by a "technical expert review team", composed of qualified experts nominated by Parties, to ensure transparency and consistency. Host countries must approve private and public entities to participate in Article 6.2 cooperative approaches or Article 6.4 mitigation activities. Only authorized entities can implement and participate in these activities and transfer of ITMOs. The approval of public or private entities to participate in these activities does not replace the authorization of specific use of Mitigation Outcomes or A6.4ERs. Tables 2 and 3 set out the list of host country requirements at different stages of the crediting cycle.

[49] Carbon Limits (2020). *Practical Strategies to Avoid Overselling.* Available at: https://www.infras.ch/media/filer_public/32/71/3271ad9a-ff27-43b2-bd46-7ce719b8222f/practical-strategies-to-avoid-overselling-final-report.pdf (Accessed 4th April 2023)

[50] Ghana (2022). Ghana's framework on international carbon markets and non-market approaches. Available at: https://cmo.epa.gov.gh/wp-content/uploads/2022/12/Ghana-Carbon-Market-Framework-For-Public-Release_15122022.pdf (Accessed 4th April 2023)

Table 2: Art. 6.2 participation, authorization and reporting requirements

Nature of the obligation	Requirements	Art. 6.2 guidance
Participation requirements	Party has (and maintains) – ratified the Paris Agreement – an NDC in place – arrangement in place to authorize ITMOs – arrangement in place to track ITMOs – submitted the most recent national inventory report Its participation in cooperative approaches contributes to the implementation of its NDC.	Annex para. 4
Approvals and authorizations	Parties have to authorize ITMOs for use against the NDC of another party, for international mitigation purposes other than achievement of an NDC, or for other purposes. Party shall include in the letter of authorization the elements listen in CMA 6 agenda item 15(a), para 5.	Annex para. 1
Reporting requirements	Initial report The Party has to submit an initial report that – provides evidence that the participation requirements are met – provides a description of its NDC (decision 18/CMA.1 para 64) including relevant mitigation information (in tCO2eq or another metric) – communicates the ITMO metrics and method for applying corresponding adjustments	Annex, para. 18-19
	For each cooperative approach – A copy of authorizations by participating parties, a description of the approach, its duration, the expected mitigation for each year of its duration, the involved parties and authorized entities. – A description on how each cooperative approach ensures environmental integrity (conservative measurements, permanence, leakage, safeguards, etc.)	Annex, para. 18
	Annual information – Authorization of ITMOs for the use towards achievements of NDCs or other international mitigation purposes – Relevant information on the cooperative approaches, other international mitigation purposes, the first transferring Party, the using Party or authorized entity or entities, the year in the which the mitigation occurred, sectors, activity types, and unique identifiers	Annex, para. 20
	Regular information in biennial transparency reports – Continuous information on participation requirements – Updates on the initial report – Authorizations of the use of ITMOs – Corresponding adjustments undertaken in the last reporting period – Assurances against double use of ITMOs – Information on each cooperative approach (how it contributes to the Party's NDC and a confirmation of its environmental integrity) – A summary of emissions, including ITMOs first transferred, authorized Mitigation Outcomes, and use of ITMOs	Annex, para. 21
Institutional requirements	A registry that can track ITMOs (first transfer, transfer, use, etc)[51] The secretariat offers the services of an international registry for Parties that do not have a registry. The secretariat offers optional registry services to countries that request it, including the additional functionality of issuing Mitigation Outcomes. The secretariat will provide capacity-building support for developing countries seeking to establish their own national registries upon request. And the Party has to make corresponding adjustments for authorized ITMOs.	Annex, para. 29 and 30 CMA 6 agenda item 15(a), para. 50 and 54

Table 3: Art. 6.4 participation, approval, authorization and reporting requirements

Nature of the obligation	Requirements	Art. 6.4 rules, modalities and procedures
Participation requirements	Party has (and maintains) – ratified the Paris Agreement – an NDC in place – designated a national authority for the Art. 6.4 mechanisms – indicated how its participation in the mechanism contributes to its sustainable development – indicated how the activities under Art. 6.4 would contribute to its NDC The Party may indicate methodologies and crediting periods applied to Art.6.4 mechanism activities that intends to host.	Annex para. 26 & 27
Approvals and authorizations	1. The host Party has to approve project activities it hosts. The approval includes information on how the activity supports the sustainable development of the host country, approval of potential renewal of the crediting periods, and explanation on how the activity relates to the implementation of its NDC. 2. The host Party has to authorize activity participants. 3. The host Party has to authorize the use of A6.4ERs for NDCs or other international mitigation purposes. 4. A host party may allow Mitigation Contribution Units to be issued, which can be used for domestic or voluntary purposes, while postponing the decision to authorize them towards NDCs or Other international mitigation purposes (OIMP). MCUs already issued can then be retroactively authorized, de facto allowing host countries to authorize units and committing to corresponding adjustments when they are ready to do so. MCUs can only be retroactively authorized if they have not yet been transacted and stay within the pending account of the mechanism registry.	Annex para. 40-44 CMA 6 agenda item 15(b), para. 12
Reporting requirements	Where corresponding adjustments are made, the reporting requirements of the Art. 6.2 decisions [are most likely to] apply.	Annex para. 71
Institutional requirements	And the Party has to make corresponding adjustments for authorized A6.4ERs consistent with the Art. 6.2 decision Party registries can choose to voluntarily link to the Article 6.4 (mechanism) registry. This connection facilitates the transfer of authorized A6.4ERs, while ensuring that double counting is prevented and allowing for the pull and view of data on holdings and the action history of A6.4ERs.[52]	Annex para. 71 CMA 6 agenda item 15(b), para. 17

[51] At the time of drafting this document, the final roll-out date of the International Registry is not yet clear.

[52] In the meantime, the Secretariat has developed an interim mechanism registry capable of holding A6.4ERs and CERs eligible for transition and use in the first NDC period. The aim is for the interim registry to be operational by the end of 2024 and for the full registry to be developed in 2025.

04

Consider legal and institutional matters

KEY DECISION STEP 04

Consider legal and institutional matters necessary for engagement with carbon markets

Considerations

4.1 Clarify carbon rights
4.2 Develop institutional and regulatory capacity
4.3 Consider the impacts of taxes and fees on carbon projects
4.4 Safeguard against risks related to carbon market engagement

Who should be included in these discussions? Responsible ministry legal departments, Ministry of Justice, legal experts, institutions that may be tasked with the implementation of carbon market activities, relevant stakeholders in public consultations. Stakeholders include, but are not limited to, private landowners, organisations that have already developed independent carbon market activities, Indigenous peoples (IPs) and local communities (LCs), local government institutions, and civil society organisations. Relevant local communities must be involved in project and investment decisions; all relevant political stakeholders should be consulted in legislative processes.

Once countries have defined their strategic priorities for engaging with carbon markets they must consider the regulatory and institutional implications. Implementation of a carbon market strategy requires institutional coordination and assignment of regulatory and oversight responsibilities. Governments often need to clarify carbon rights, adopt rules for approvals and authorizations, corresponding adjustments and reporting requirements. Governments should also consider the impacts of taxes and fees and how to safeguard against risks. Risks of carbon market engagement may include harms to local communities or biodiversity from poorly designed or implemented projects, lack of alignment with country policies and priorities, export of emission reductions and removals under Article 6 reducing a country's ability to achieve its NDC, and reputational risks of media highlighting problems with projects.

4.1 Clarify carbon rights

Carbon rights determine who can participate in and benefit from carbon market activities. Carbon rights[53] assign to the holder the right to benefit from greenhouse gas (GHG) emission reductions and removals. Carbon rights define the underlying entitlement to benefit from GHG emission reductions and removals associated with an asset (e.g., land or forest) or activity (e.g., the sustainable management of forests). Carbon rights are distinct from tradable carbon credits.

Tradable carbon credits are standardized and certified GHG emission reductions and removals. GHG emission reductions and removals that are issued as carbon credits under carbon standards or crediting programs are, first and foremost, units representing one ton of CO_2 equivalents (tCO_2e) sequestered or not emitted. GHG emission reductions or removals in the form of carbon credits are also tradable instruments that are transferable among entities participating in carbon markets.

[53] Carbon rights are almost exclusively referred to in the plural form of multiple rights.

Carbon rights refer to the right to participate in and benefit from carbon transactions. In the case of carbon crediting programs and standards, rights to participate in markets and monetize GHG emission reductions and removals are often lumped under the concept of carbon rights. Since most carbon credit programs do not define or systematically describe carbon rights, the right to benefit from carbon transactions often needs to be clarified through contractual arrangements.

Carbon rights are often relatively straightforward to establish in energy and industry-related emission reduction projects. In energy and industry projects, there is often a limited number of actors with clearly defined rights and contractual arrangements. Whether it is the owner of an installation, the installation's operator, or an investor, typically there are clear arrangements as to who can claim the emission reductions under investment agreements.

In land-use and nature-based solutions projects, establishing carbon rights can be significantly more complicated and politically sensitive. This is because there are often several actors associated with a given project, and it may not be immediately clear who holds the rights to receive carbon credits or payments once the mitigation action has been verified under a carbon standard.

Land or resource ownership is often contested. Legal constructs such as land or tree ownership, customary or ancestral rights, or the ability to provide ecosystem services are often used to create a link from a carbon right to a carbon credit. Complexity in establishing carbon rights arises due to unclear and overlapping land titles, land grabbing, encroachment, and legacies of land seizure and forced expulsion by the state or holders of state-sanctioned concessions. Even where legal clarifications exist, the rights to benefit from GHG emission reductions and removals need to be calibrated equitably – not solely based on statutory ownership currently recognized by the government.

Countries can clarify the distribution of carbon rights by defining allocation of land tenure rights and by establishing rules for benefit-sharing arrangements. In the absence of official guidelines – and considering overlapping claims to benefits that flow from GHG emissions reductions and removals – the only remedy to avoid conflict relating to land-based activities is to secure rights via local land and service agreements.

Benefit-sharing arrangements are a means to recognize carbon rights, including of Indigenous peoples (IPs) and local communities (LCs). Benefit-sharing arrangements must consider who manages the forest or land base, who holds land titles, and who invests in GHG emissions removal and reduction activities. In addition, vulnerable communities that live in proximity to land-based mitigation activities need to be included in fair benefit-sharing arrangements. Inclusivity is crucial to ensure the long-term sustainability of carbon market activities. Titles to carbon should account for the customary and ancestral land tenure rights of IPs and LCs.[54]

See Table 1 for an overview of carbon rights systems in examples of land ownership scenarios.

[54] Id Resources Institute & Climate Focus. (2022). *Sink or swim: How Indigenous and community lands can make or break nationally determined contributions* (p. 22). https://forestdeclaration.org/resources/sink-or-swim/.

Table 1: Overview of carbon rights systems[55]

Land ownership	Carbon rights	Ability of non-state entities to engage in emission reduction or removal activities	Examples
All land is owned by the government	Carbon rights follow the right to the land and are owned by the host country	Carbon rights can be transferred to private and public entities via concession or license	The Democratic Republic of Congo, Mozambique, Vietnam
Diverse land ownership, often with weak titles and limited titled land	Carbon rights (or rights to ecosystem services) are centralized and managed at the level of the national government	Private projects or transactions involving GHG emissions reductions and removals are not permitted	Madagascar, Ecuador
Diverse land ownership, often with weak titles and limited titled land	Carbon rights are regulated and special rules apply	Private entities are free to participate in carbon market projects subject to restrictions	Mexico (limiting private GHG emissions reductions and removals to activities resulting in carbon removals), Peru (requiring activity and tenure)
Diverse land ownership with strong private titles	Carbon rights pertain to land holders	Private entities are free to participate in carbon market projects within the limits of the law regarding land use and safeguards	Chile, Costa Rica

[55] Based on: Streck (2020), Who Owns REDD+? Carbon Markets, Carbon Rights and Entitlements to REDD+ Finance, Forests 2020, 11, 959.

4.2 Develop institutional and regulatory capacity

Countries need to build strong internal institutional coordination to effectively implement carbon market strategies. Issues in the implementation of carbon market policies are often related to lack of communication and common understanding across public entities at various levels – such as ministries, agencies, municipalities, and regions. Governments need to develop internal procedures and guidelines to ensure clear, consistent, and effective implementation.

This may include:

1. Ensuring full understanding across all horizontal (different ministries and agencies) and vertical (local, departmental, state, national) entities on how carbon markets work and their potential for the country's sustainable development;

2. Formulating the procedures to apply to a wide range of cases, while being sufficiently detailed and specific to provide clear guidance to implementation agencies and staff;

3. Providing continuity and full integration of the carbon market strategy into the existing legal framework and avoiding the need to change the procedures for each carbon market activity, donor, or carbon crediting program.

Governments also need to identify which public institutions are best equipped to fulfil certain market functions and where private sector entities can effectively engage. Countries should conduct assessments to identify the ability of relevant institutions and ministries to implement carbon market policies. This includes assessing the existing arrangements, mandates, and capacities of institutions to design, implement and track results of planned interventions. Examples of institutions for which a carbon market needs assessment is relevant are: environment- and climate change-related ministries and specialized agencies; national planning institutions; sectoral and line ministries; and investment agencies.

Countries may adopt reporting requirements for carbon market projects. Such rules require that carbon project developers periodically report on their mitigation activities and generated GHG emissions reductions and removals. Independent carbon markets often suffer from a lack of transparency and governments may know little about unregulated carbon market activities in their territories. Considering the impact that independent carbon markets could have on national climate strategies and progress in achieving climate goals, governments may require that project developers provide the government with information about a project's design, location, size, expected GHG emissions reductions and removals as well as consultations and participative processes informing the project. Such ex-ante reporting can be complemented by requirements to transmit periodic (e.g., annual) monitoring data to the government once a project is up and running. This information can be stored and made available in a national GHG and carbon market registry.

Another key question for governments is to weigh carbon market opportunities against the costs of government involvement in or regulation of carbon market activities. Investment in new institutions, registries, and regulatory frameworks is justified if it leads to benefits comparable to the resources expended. Governments need to carefully evaluate which carbon market activities are likely to lead to significant additional investments into mitigation. For example, the implementation of Article 6.4 Paris Agreement Crediting Mechanism (PACM) projects is usually less costly than defining national modalities and standards for investments to be approved under Article 6.2 of the Paris Agreement. However, implementation of Article 6.2 gives

governments greater flexibility to define priority sectors, direct carbon market investments, and cooperate bilaterally with each other rather than being restricted to approaches approved by under the PACM.

Such assessments of benefits and costs are important to inform a country's carbon markets strategy as well as requests for donor support and funding.

4.3 Consider the impacts of fees and levies on carbon projects

Governments may consider passing on costs related to authorizations and approvals to carbon projects via fees or levies. Fees can be used effectively to cover the costs incurred by public authorities when they offer services or provide oversight for carbon projects. They can also be used to encourage co-benefits and to reduce the cost-benefits risks and administrative burdens on governments associated with authorizing carbon credits under Article 6.

Three common types of fees and levies are imposed on carbon market activities are:

- **Administrative fees:** these cover costs incurred by government authorities that oversee carbon market activities. These could include fees for enrollment in a national database, approval under a carbon market regulatory framework, or authorization under Article 6 frameworks. Approval and registration fees are the most common forms of charges that governments impose on carbon projects.

- **Targeted levies:** these are charges used to finance specific activities or contribute to specific funds. For example, countries may collect levies that go into funds for adaptation or to cover losses and damages associated with climate change. Under Article 6, governments may also cancel a share of carbon credits to contribute to global climate change mitigation (i.e., overall mitigation in global emissions) or for administrative expenses and adaptation (i.e., share of proceeds).

- **Measures to address risks of non-achievement of NDCs:** when a country authorizes carbon credits to be traded as Internationally Transferred Mitigation Outcomes (ITMOs) under Article 6.2 or 6.4, it must apply corresponding adjustments, meaning that it must subtract the emissions reductions or removals represented by ITMOs from its own accounts and compensate by implementing other mitigation activities (see more details in Decision Sheet 3). This could create the risk that a country cannot achieve its NDC or has to spend more to achieve its NDC. To reduce this risk, a government could withhold a percentage of authorized carbon credits that can then be used toward its NDC if needed, authorize fewer ITMOs, set a minimum price to ensure credits sold cover the opportunity costs, or collect fees to finance other mitigation activities.

Governments can also support the development of carbon markets by defining how projects and credits will be treated under taxation policy. In many countries, it is not yet clear how carbon credits will be treated under existing tax law. For example, governments can establish whether and how carbon transactions are subject to sales or value-added taxes (VAT) and clearly communicate their decision. They can also decide how to tax foreign and domestic transactions of carbon credits. Governments may consider offering tax breaks or credits to carbon market transactions to incentivize investments. Such breaks may even be balanced by removing harmful subsidies for or imposing higher taxes on polluting activities.

When imposing fees or levies, governments should carefully consider the potential incentives and disincentives that project charges create. Simply, investments in carbon markets help a country to achieve environmental and development goals. As such, carbon market activities should be incentivised and not unnecessarily burdened. Taxes, fees, and levies should be balanced to ensure that carbon market activities in the country remain competitive in international markets. If a government wants to attract carbon market investment, project developers and investors should not face charges that disincentivize investments.

Governments should also ensure that they have sufficient resources and capacity to efficiently collect fees and perform associated operations. Governments may consider combining the collection of different fees to reduce burdens on projects.

4.4 Safeguard against risks related to carbon market engagement

As carbon markets develop, many governments are increasingly concerned about associated risks and liabilities. For example, governments worry that:

- Poorly implemented projects that harm to local communities or negatively affect biodiversity harm national development and environmental objectives. Such projects can also pose a reputational risk to the country
- Projects lack proper benefit-sharing provisions
- Projects may not be aligned with host country policies and priorities
- International export of GHG emissions reductions and removals may affect a country's ability to achieve their NDCs, and / or that corporates or third-party countries may take legal action to compel host countries to deliver corresponding adjustments, thereby creating significant NDC-compliance risks

Governments may create regulations that guide how independent carbon market project developers and investors operate in their country. For example, this can include:

- Requirements or guidance related to benefit-sharing, land concessions, and reporting to national registries. For example, the Government of Ghana created a registry that can receive, process, store, and transparently present information about mitigation activities in the country, to which independent project developers can voluntarily upload information.[56] In another case, the Government of Yucatán published best practice guidance for project developers that includes recommendations for how to structure benefit sharing.[57] Providing accessible resources like these can increase confidence in carbon markets and for carbon market participants.

Continued on next page

[56] Ghana Carbon Registry System (2022). *About Ghana Carbon Registry*. Available at: https://gcr.epa.gov.gh/about-us/

[57] VCMI and Climate Focus (2024). *Best Practices Guide for Developing Voluntary Carbon Market Projects in Yucatán*. Available at: https://vcmintegrity.org/wp-content/uploads/2024/11/20241113-Best-Practices-Guide-VCM-Yucatan-FV.pdf

– Guidance and data for setting conservative reference levels and baselines, to ensure the integrity of projects and GHG emissions reductions and removals generated. For example, Peru's Ministry of the Environment collaborated with independent standard Verra to create baselines for REDD projects in the country under Verra's new methodology and Peru's national carbon registry (RENAMI) allows the use of two forest methodologies from Verra that have been approved under the Integrity Council for the Voluntary Carbon Market (ICVCM)'s Core Carbon Principles (CCPs).[58] Integrating methodologies that are recognized as high-integrity encourages the use of those methodologies by project developers.

– Requirements related to carbon revenue distribution. For example, Kenya mandates that a minimum of 40% of total earnings be directed to local communities for land-based projects on community land. Tanzania and Zimbabwe obligate developers to contribute to a government fund, alongside any benefits directed to communities. Zambia mandates approval of benefit-sharing plans without setting specific thresholds, while Ghana differentiates between authorized and non-authorized mitigation outcomes by imposing fixed fees per credit.[59]

– Creation of safeguards to enhance the quality and transparency of carbon market activities—as detailed in the following section.

Establishing such regulations not only help governments to avoid risks and liabilities but also increase the integrity of carbon credits and projects. Regulations that address risks and drive integrity foster strong international carbon markets and communicate political support for high-integrity markets.

Safeguards

Safeguards are the policies and procedures that are used to identify, avoid, or ameliorate risks or negative results of a carbon project.[60] There are social safeguards that relate to—among other topics—human rights, labor rights, the rights of Indigenous and local communities or other historically vulnerable people, protecting access to territories or resources, ensuring economic and livelihood needs are met, and the provision of services like education and health. Environmental safeguards may relate to accurately measuring emissions, avoiding pollution, the protection of ecosystems and biodiversity, the provision of ecosystem services, and sustainable use of land and natural resources—among other topics. There can also be safeguards related to the function of institutions, avoidance of corruption, and

58 Verra (2025). *Peru Approves Verra's VCS Program and Two Methodologies, Advancing Climate Action and Carbon Market Integrity*. Available at: https://verra.org/peru-approves-verras-vcs-program-and-two-methodologies-advancing-climate-action-and-carbon-market-integrity/

59 Climate Action Platform Africa. (2024). *Unlocking Local Value: Rethinking Benefit Sharing in African Carbon Projects*. Available at: https://fsdafrica.org/wp-content/uploads/2024/08/CAP-A-Benefit-Sharing-Report-23.08.24_FINAL.pdf

60 Calyx Global (2023). *What are safeguards and why they matter for your carbon credits*. Available at : https://calyxglobal.com/research-hub/research/what-are-safeguards-and-why-they-matter-for-your-carbon-credits/

transparency in tracking and communicating information. Safeguards may be legally mandated in a country's regulations. Safeguards may also be voluntary procedures with which carbon projects comply in order to be certified and issue carbon credits in independent carbon markets.

Countries may have safeguards in existing laws that apply to carbon projects. For example, many countries have laws that aim to identify and reduce risks related to investments, concessions of land or resources, and working with local communities. Countries might mandate environmental and social impact assessments (ESIAs) or reporting. Countries that are participating in international mechanisms like REDD+ may have established requirements under those agreements (e.g., the REDD+ Cancun Safeguards). Carbon projects must follow any such applicable laws.

Parties participating in Article 6.4 are required to identify, evaluate, avoid, minimize, and mitigate potential risks associated with projects. In this context, Article 6.4 introduces the Sustainable Development Tool (SD Tool), which establishes a framework for risk assessment, easy identification of positive and negative impacts of proposed activities, and monitoring and reporting. The Tool ensures robust social and environmental safeguards are integrated into Article 6.4 activities and consists of three main components: environmental and social safeguards, impact assessment on sustainable development, and validation and verification processes. Parties involved must conduct ongoing monitoring of identified risks at least annually and comply with the Tool's objectives for project registration. The adoption of the Tool also signals a convergence between independent and regulated carbon markets, elevating best practices across both sectors.

Table 2: Safeguard elements of the Article 6.4 SD Tool

Safeguards	Elements
Environmental	Energy Air, land and water Ecology and natural resources
Social	Human rights Labour Health and safety Gender equality Land acquisition and involuntary resettlement Indigenous peoples Corruption Cultural heritage

Governments may adopt additional safeguarding requirements because existing environmental and social guidelines for investment projects do not sufficiently address carbon market-related risks. Safeguards could include rules related to fair benefit sharing with local communities, ensuring appropriate consultation with Indigenous Peoples, or aligning with national climate and biodiversity commitments. Establishing safeguard regulations may provide governments more oversight over carbon projects, but could also increase a government's time and resource investment

in a project because the government will need to expend resources to ensure compliance with its safeguard regulations.

Actors participating in independent carbon markets may be subject to safeguards beyond those required by countries' laws. Independent carbon market standards have a range of safeguards with which projects must comply to obtain and maintain certification under those standards. Independent initiatives have also formulated safeguard guidance. For a standard to be approved under the ICVCM's CCPs it must "have clear guidance, tools and compliance procedures to ensure mitigation activities conform with or go beyond widely established industry best practices on social and environmental safeguards." The CCPs requirements cover: free, prior and informed consent processes with Indigenous and local communities, fair labor rights and working conditions, resource efficiency and pollution prevention, property rights and avoidance of involuntary resettlement, biodiversity conservation, respect for human rights, gender equality, robust benefit sharing, compliance with the REDD+ Cancun Safeguards, and evidence of consistency with the country's Sustainable Development Goals (SDGs).[61]

It is important that project developers and governments do not conflate responsibilities for enforcing legally mandated safeguards and the safeguards required by independent carbon market carbon standards. Governments are responsible for ensuring that carbon projects comply with safeguards they have established through regulation. Governments are not responsible for ensuring that projects comply with the safeguards necessary to be certified by carbon standards. Governments may leverage the best practices identified by bodies such as ICVCM to strengthen their own regulations for carbon markets.

The responsibility for ensuring compliance with independent carbon market safeguards lies with project developers, carbon standards, validation and verification bodies (VVBs), and investors. These actors are also responsible for complying with government regulation. Project developers must ensure that their projects follow all regulatory and independent requirements. Carbon standards, VVBs, and investors should also ensure that projects are in compliance. Bodies such as the ICVCM that aim to drive integrity in independent carbon markets are responsible for communicating best practise safeguard-related requirements and approving standards and methodologies through which they are upheld. Independent carbon market actors have the right to follow safeguards without government intervention and also cannot hold the government responsible for enforcement of their safeguards. See Figure 1 for a summary of responsibilities.

[61] Core Carbon Principles, Assessment Framework and Assessment Procedure, Version 1.1 (2024). https://icvcm.org/wp-content/uploads/2024/02/CCP-Book-V1.1-FINAL-LowRes-15May24.pdf

05

Ensure high-integrity carbon market activities

Integrity is critical to building trust in carbon markets and enabling them to grow in size and value. Integrity is essential to underpin confidence and participation in carbon markets, with a pricing system that is fair and reflective of the value of climate change mitigation, benefits to communities, job creation and nature protection. High-integrity carbon markets are based on:[62]

1. Trade of carbon credits that accurately represent greenhouse gas (GHG) emission reductions and removals beyond business as usual.

2. Use of carbon credits in addition to urgent and direct efforts to decarbonize as part of net zero transitions.

3. Delivery of benefits beyond climate change mitigation, such as benefits for sustainable development, biodiversity conservation, and human well-being.

Governments, project developers, buyers and sellers, and other market participants together uphold the integrity of carbon markets. Governments can facilitate integrity by adopting and enforcing strong legal, environmental and social safeguards, aligning carbon market policy and regulatory frameworks with international integrity initiatives that facilitate the generation high-quality credits and the high-integrity use of credits, and establishing robust policies and carbon accounting rules.

As explained in Sheet 4, it is important not to conflate the responsibilities of governments and independent carbon market actors in ensuring safeguards and integrity. Governments are only responsible for enforcing regulations. This can include legal issues related to land tenure, social and environmental impacts covered by law, Article 6 implementation, and claims made in their jurisdictions. Project developers, standards, validation and verification bodies, integrity initiatives, and investors are responsible for ensuring compliance with voluntary safeguards.

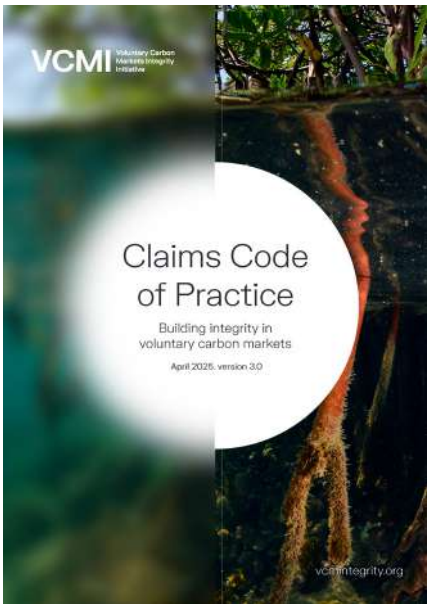
[62] Voluntary Carbon Markets Integrity Initiative (2024). *Claims Code of Practice, version 2.1.* Available at: https://vcmintegrity.org/wp-content/uploads/2023/06/VCMI-Claims-Code-of-Practice.pdf

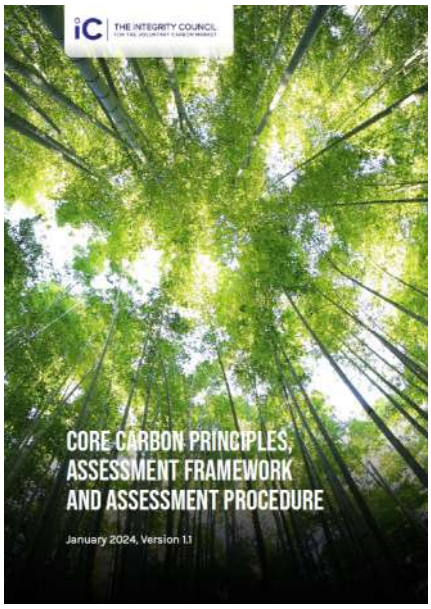
5.1 Align with international integrity initiatives

Independent international initiatives have defined criteria for high-integrity voluntary use of carbon credits and associated claims, and to help identify high-quality carbon credits. Governments can align with the international integrity initiatives to ensure they are driving best practice within the market. In recent years, participants and observers of carbon markets have demanded stronger oversight to ensure that credits are credible and are used to drive real climate change mitigation. Integrity initiatives VCMI and ICVCM, established by the COP26 Presidency, serve as standards bodies for independent carbon markets. Initiatives provide guidance to sellers and buyers of carbon credits and provide a blueprint for public policy and regulatory development. They provide additional governance and oversight, by independently evaluating or providing guidance for best practice carbon credit use on the demand side, and assessing carbon credit quality on the supply side, recommending safeguards and arrangements to mitigate risks and promote benefits of carbon projects.

Two of the leading initiatives are the Integrity Council for the Voluntary Carbon Market (ICVCM) and the Voluntary Carbon Market Integrity Initiative (VCMI). The work of these two non-profit organizations is complementary. ICVCM focuses on ensuring the supply of high-integrity carbon credits. VCMI focuses on driving high-integrity use of those credits by companies on the demand side, and facilitating strategic government engagement with carbon markets. Both organizations aim to ensure that carbon markets support progress towards the Paris Agreement goals.. Both organizations also engage a range of stakeholders including governments, companies, and communities with the goal of increasing ambition and integrity through their involvement and input. Together, VCMI and ICVCM's principles and guidance create an integrity framework for independent carbon markets.

ICVCM drives integrity in independent carbon markets by assessing carbon crediting standards and methodologies for generating them. ICVCM developed the Core Carbon Principles (CCPs)[63] and the Assessment Framework to assess the governance of carbon standards, the emissions impact represented by carbon credits, and the sustainable development outcomes of mitigation activities. The ten CCPs, as presented by ICVCM, are listed in Table 1.





[63] https://icvcm.org/core-carbon-principles/

Table 1: ICVCM's Core Carbon Principles (CCPs)

Governance	Emissions impact	Sustainable Development
1. **Effective governance:** The carbon-crediting program shall have effective program governance to ensure transparency, accountability, continuous improvement and the overall quality of carbon credits. 2. **Tracking:** The carbon-crediting program shall operate or make use of a registry to uniquely identify, record and track mitigation activities and carbon credits issued to ensure credits can be identified securely and unambiguously. 3. **Transparency:** The carbon-crediting program shall provide comprehensive and transparent information on all credited mitigation activities. The information shall be publicly available in electronic format and shall be accessible to non-specialized audiences, to enable scrutiny of mitigation activities. 4. **Robust independent third-party validation and verification:** The carbon-crediting program shall have program-level requirements for robust independent third-party validation and verification of mitigation activities.	5. **Additionality:** The greenhouse gas (GHG) emission reductions or removals from the mitigation activity shall be additional, i.e., they would not have occurred in the absence of the incentive created by carbon credit revenues. 6. **Permanence:** The GHG emission reductions or removals from the mitigation activity shall be permanent or, where there is a risk of reversal, there shall be measures in place to address those risks and compensate reversals. 7. **Robust quantification of emission reductions and removals:** The GHG emission reductions or removals from the mitigation activity shall be robustly quantified, based on conservative approaches, completeness and scientific methods. 8. **No double-counting:** The GHG emission reductions or removals from the mitigation activity shall not be double counted, i.e., they shall only be counted once towards achieving mitigation targets or goals. Double counting covers double issuance, double claiming, and double use.	9. **Sustainable development benefits and safeguards:** The carbon-crediting program shall have clear guidance, tools and compliance procedures to ensure mitigation activities conform with or go beyond widely established industry best practices on social and environmental safeguards while delivering positive sustainable development impacts. 10. **Contribution toward net zero transition:** The mitigation activity shall avoid locking-in levels of GHG emissions, technologies or carbon-intensive practices that are incompatible with the objective of achieving net zero GHG emissions by mid-century.

ICVCM uses the CCPs and the accompanying Assessment Framework to evaluate carbon-crediting programs (i.e., carbon standards) and categories of carbon credits.[64] Based on the assessment, carbon-crediting programs and crediting methodologies may be CCP-Approved. When a carbon credit is issued both by an eligible program and from an eligible methodology, that credit can be CCP-labelled. As of March 2025, six carbon standards[65] have been approved as CCP-Eligible. Only a limited number of specific crediting methodologies have been approved so far. ICVCM's Assessment Status webpage provides the latest updates of approved programs, credit types, and methodologies.

VCMI aims to drive integrity and increase confidence in carbon markets by providing best practice guidance on voluntary use of carbon credits, and how companies can make credible claims about that use. Under the VCMI Claims Code of Practice, companies can make Carbon Integrity Claims to demonstrate that they are using high-quality carbon credits to drive emission reductions in support of the global goal to reach net-zero emissions. Submissions made by companies towards the VCMI Carbon Integrity Claims are verified by an independent third-party verification body, and all companies must meet a set of Foundational Criteria to make a Claim.[66] VCMI's Scope 3 Action Code of Practice provides a high-integrity, practical solution for companies to close the scope 3 emissions gap.[67] The Code establishes a best practice dual approach for companies to work on direct emissions reductions and also use high-quality carbon credits to address unabated scope 3 emissions, while investing in measures to remove scope 3 emission reduction barriers to get back to their science-aligned decarbonization pathway. The Scope 3 Action Code of Practice serves as a stepping stone toward achieving Silver, Gold or Platinum Carbon Integrity Claims, ensuring companies consistently advance towards full decarbonization. See Figure 1 for a visualization of the VCMI Claims process.

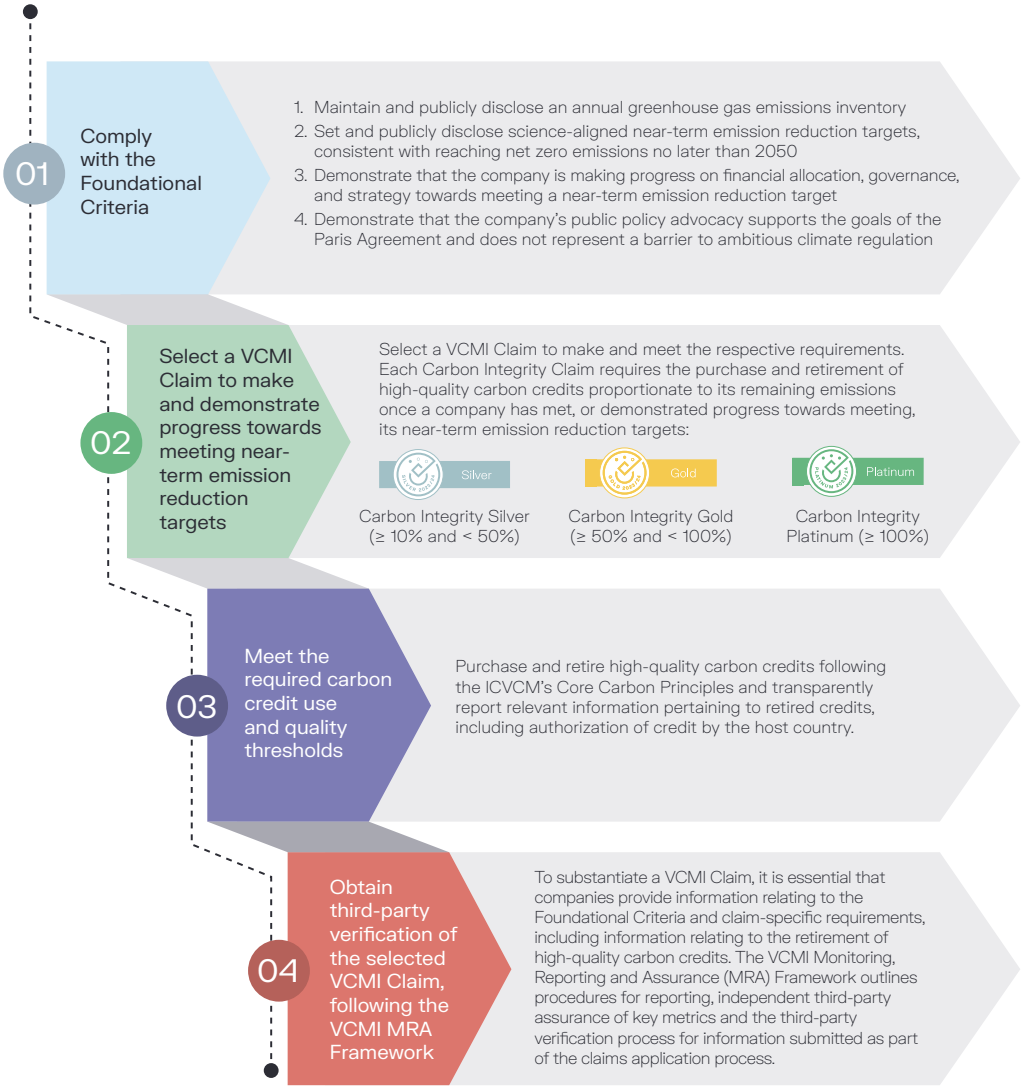
64 The Integrity Council for the Voluntary Carbon Market (2025). *Assessment Status: Program and category of carbon credit assessments*. Available at: https://icvcm.org/assessment-status/

65 Those standards are: ACR, Architecture for REDD+ Transactions (ART) The REDD+ Environmental Excellence Standard (TREES), Climate Action Reserve (CAR), Gold Standard, Isometric, and Verified Carbon Standard (VCS).

66 Voluntary Carbon Markets Integrity Initiative (2025). *Claims Code of Practice, version 3.0*. Available at: https://vcmintegrity.org/wp-content/uploads/2025/04/VCMI-Claims-Code-of-Practrice-April-2025-Version-3.0.pdf

67 Voluntary Carbon Markets Integrity Initiative (2025). *Scope 3 Action Code of Practice*. Available at: https://vcmintegrity.org/scope-3-action/

Figure 1: Four steps to make a VCMI Claim[68]



A notable example of the high-integrity, voluntary use of carbon credits comes from Natura Cosmetics, the leading brand in beauty and personal care in Latin America. The company, which works with over 10,000 smallholder farmers in the Amazon region, has committed to achieving net-zero by 2030, ensuring gender parity at the executive level, and investing $100 million in regenerative solutions. Since 2007, Natura has purchased carbon credits to complement its decarbonization efforts, addressing emissions across scopes 1, 2, and 3. In 2023, it became the first Latin American company — and the first with a heavy manufacturing climate impact — to make a VCMI Carbon Integrity Platinum Claim, demonstrating it purchased and retired high-quality carbon credits covering at least 100% of its remaining emissions.[69]

68 Voluntary Carbon Markets Integrity Initiative (2025). *Claims Code of Practice, version 3.0.* Available at: https://vcmintegrity.org/wp-content/uploads/2025/04/VCMI-Claims-Code-of-Practice-April-2025-Version-3.0.pdf

69 Voluntary Carbon Markets Integrity Initiative. (2025). 'Committed to life': How Natura Cosmetics embraces regeneration as part of its world-leading climate strategy. Available at: https://vcmintegrity.org/case-study/natura-cosmetics/

Government engagement with ICVCM and VCMI

Governments can reference the ICVCM and VCMI's guidance in their regulations and policy frameworks to promote high-integrity carbon markets. For example, governments could require carbon credits from independent standards that can be used in regulated markets to align with the ICVCM CCP-Eligible standards or CCP-Approved methodologies. They could encourage companies that participate in voluntary use, regulated markets or Article 6 activities to align with the requirements set out in VCMI's Codes of Practice. Governments could also replicate or refer to the CCPs or VCMI Claims Code when developing their own regulations for projects and credits that are eligible for regulated markets or for authorizations under Article 6. Governments can directly engage by participating in VCMI's Country Contact Group or ICVCM's Continuous Improvement Work Programs, or by seeking guidance on their own carbon market engagement through VCMI's Access Strategies Program (see Box 1).

Some countries are already aligning with the ICVCM and VCMI's integrity framework. At UNFCCC COP28, a group of European Union countries released a joint statement on VCM claims that aligns with VCMI's Claims Code and builds on the G7 principles of High Integrity Carbon Markets. In November 2024, the government of the United Kingdom released a policy paper outlining six Principles for voluntary carbon and nature market integrity that aligns with the VCMI's Claims Code of Practice, references both VCMI and ICVCM, and integrates considerations like biodiversity protection, mandatory reporting, and Indigenous rights.[70] Building on this, in April 2025, the United Kingdom launched a consultation to strengthen voluntary carbon and nature markets.[71] The consultation proposes adopting VCMI's voluntary standards as best practice for companies active in independent carbon markets and seeks feedback on the implementation of these standards, including how endorsement of VCMI and ICVCM outputs could be reflected in UK guidance, policy, and potentially regulation.[72]

In April 2025, the French government launched a Carbon Credit Charter, committing 17 international companies to principles that ensure high-integrity use of carbon credits.[73] The pledge states that buyers of carbon credits commit to prioritize their own emission reductions, transparently report all emission scopes, and use carbon credits only as a complement-not a substitute-to direct reductions, addressing residual emissions on the path to net zero. They must also report gross emissions separately from any carbon credit use. These commitments align with VCMI's Codes of Practice. The pledge requires companies to use only carbon credits that either meet the strict standards set by the Paris Agreement Crediting Mechanism (PACM) and ICVCM Core Carbon Principles.[74]

70 Voluntary Carbon Markets Integrity Initiative (2024). *VCMI welcomes UK Principles of high-integrity voluntary carbon markets and process for implementation*. Available at : https://vcmintegrity.org/vcmi-welcomes-uk-principles-of-high-integrity-voluntary-carbon-markets-and-process-for-implementation/

71 Voluntary carbon and nature markets: raising integrity. (2025, July 10). *GOV.UK*. Retrieved May 6, 2025, from https://www.gov.uk/government/consultations/voluntary-carbon-and-nature-markets-raising-integrity.

72 VCMI. (2025, April 17). UK looks to strengthen role of high-integrity voluntary carbon markets in meeting global climate targets. *VCMI*. Retrieved May 6, 2025, from *https://vcmintegrity.org/uk-looks-to-strengthen-role-of-high-integrity-voluntary-carbon-markets/*; Voluntary carbon and nature markets: raising integrity. (2025, July 10).

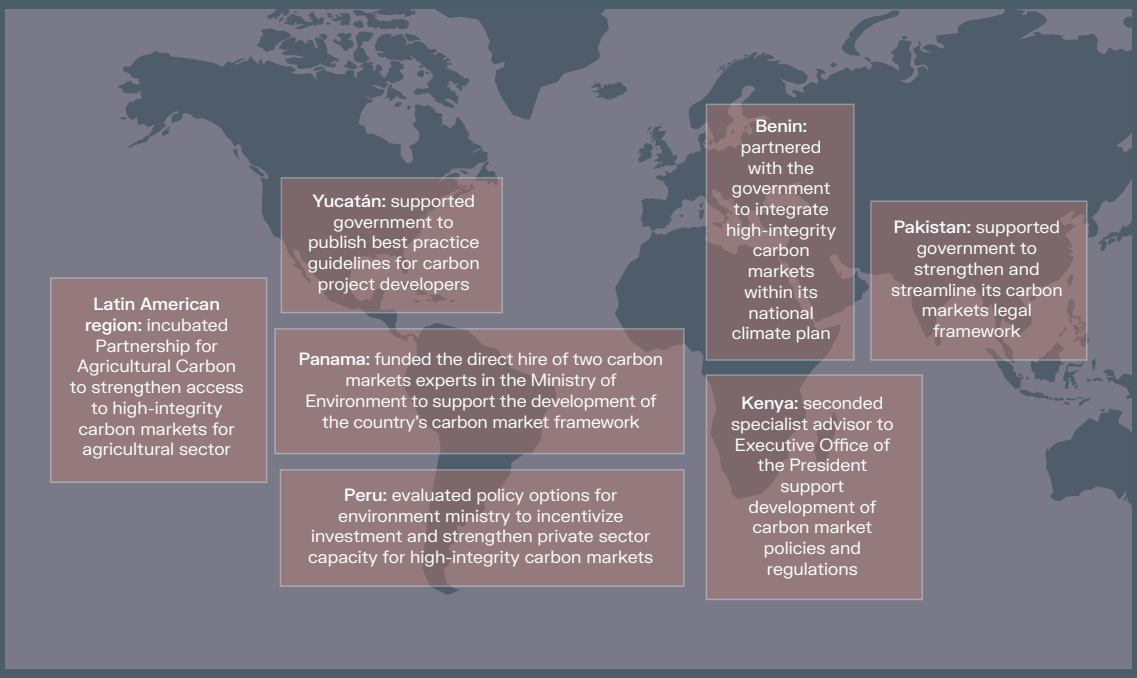
73 ChangeNOW 2025 - Lancement de la charte sur les crédits carbone. (2025, April 24). *Ministères Aménagement du territoire Transition écologique*. Retrieved May 6, 2025, from https://www.ecologie.gouv.fr/presse/changenow-2025-lancement-charte-credits-carbone.

74 VCMI. (2025, April 25). VCMI welcomes French Government Carbon Credit Charter to stimulate high-integrity demand amongst world's leading companies. *VCMI*. Retrieved May 6, 2025, from https://vcmintegrity.org/vcmi-welcomes-french-government-carbon-credit-charter-to-stimulate-high-integrity-demand-amongst-worlds-leading-companies/.

In May 2024, the United States President and Departments of the Treasury, Energy, and Agriculture released Voluntary Carbon Markets Joint Policy Statement and Principles that aligned with and made reference to VCMI's Claims Code of Practice and Beta Scope 3 Guidance.[75] Carbon markets will only deliver private finance at scale if government action drives demand for credits. These are useful examples of how governments can support high-integrity carbon markets and raise the bar for mitigation action globally.

Box 1: VCMI's Access Strategies Program

VCMI's Access Strategies Program informs and supports stakeholder engagement and decision-making on how to direct private sector investment from carbon markets into mitigation action and sustainable development by aligning carbon markets with other financial instruments to deliver national climate and economic priorities. The program has a particular focus on providing guidance, tools, and capacity building for policymakers' engagement with carbon markets. The first output of the Access Strategies Program was the original version of this Toolkit, published in 2023. The program also works with governments at the national and sub-national level across regions, sectors and states, providing needs based support to government ministries and local organizations. VCMI has signed a number of strategic partnerships to support the impactful delivery of Access Strategies projects, including with UNDP, the Climate Vulnerable Forum (CVF-V20), and regional alliances such as the West Africa Alliance on Carbon Markets and Climate Finance. See the map below for brief examples of Access Strategies projects developed in partnership with governments so far.



[75] Voluntary Carbon Markets Integrity Initiative (2024). *VCMI welcomes U.S. backing of high-integrity voluntary carbon markets*. Available at: https://vcmintegrity.org/us-backs-vcms-claims-code/

5.2 Create an enabling policy environment

Countries can create an enabling policy environment for high-integrity carbon markets by developing supportive legal and policy frameworks that clearly communicate requirements and expectations for carbon market participants. Governments can take measures to ensure supply and demand high-integrity credits as well as credible claims. The ICVCM's CCPs and VCMI's Claims Code of Practice provide internationally recognized frameworks governments can reference.

Supply of carbon credits

Governments can drive high-integrity supply of carbon credits by developing regulations on carbon market activities. As regulators, governments can integrate safeguards such as those from ICVCM's CCPs into carbon market guidance and regulations. This could include establishing effective measures for tracking and reporting on carbon market activities, ensuring government transparency when communicating about emissions reductions and removals, and using the emissions and sustainable development impact principles. Governments can further clarify and enforce land tenure, carbon rights, and intellectual property rights laws, which serves both to protect local participants in carbon projects and clarifies conditions for carbon investments. Governments can also require projects comply with high-integrity criteria, including social and environmental safeguards and fair benefit sharing agreements. When developing domestic crediting mechanisms, governments can align their standards and requirements with best practice from independent carbon markets, i.e. leveraging the ICVCM Assessment Framework. Finally, if governments have clarified their climate change mitigation strategies, they can promote investment in priority sectors to encourage carbon market activity that drives additional climate change mitigation.

Governments also have the ability to drive high-integrity supply by specifying the conditions for Article 6 authorizations and approvals. They can specify the sectors or project types for which they will issue authorizations. They can mandate that projects deliver certain social or environmental co-benefits or obtain particular certifications to be approved for ITMO transfer. Governments can also decline to authorize or approve any projects under Article 6, and endorse the voluntary use of carbon credits by private entities while counting those emission reductions or removals towards their own NDCs.

Demand for and use of carbon credits

Governments have a critical role to play in driving high-integrity and credible use of carbon credits. First, governments can clearly communicate their political support for high-integrity use of carbon credits. One lever of action is to endorse credible claims and assessments of those claims—such as VCMI's Claims Code of Practice. Government can go further by legally imposing expectations that buyers use carbon credits in alignment with high-integrity principles, which could be based on VCMI and ICVCM's integrity framework.

Governments can develop policies and regulation that incentivize high-integrity, voluntary use of carbon credits. Regulations can take various forms.

Policies related to protecting consumers from misleading or spurious green claims can compel corporates to be more transparent about the carbon credits they acquire and how they use them. This can be accompanied by GHG reporting and disclosure regulations that require companies to make their emissions impacts and climate transition plans public. Such regulations may limit how carbon credits can be used to compensate for emissions or achieve corporate targets. Governments can require that carbon market activities report to domestic GHG inventories and GHG emissions reductions and removals registries, and make those inventories and registries publicly available.

Governments can also enable high-integrity use by providing a clear and stable regulatory framework. They can legally define carbon rights in legislation and clarify how carbon credits will be treated under tax law. They can also clarify how carbon markets contribute to NDC goals and what activities and credits will be authorized and approved. This gives investors and buyers more confidence that they are contributing to a country's climate change mitigation strategy. Furthermore, governments can collaborate internationally to ensure interoperability between carbon markets in different jurisdictions.

Governments can further foster high-integrity use by restricting independent carbon market credits that can be used in national carbon pricing or regulated markets to those generated by well-rated standards and methodologies—for example, only credits from standards and methodologies approved under ICVCM's CCPs. These measures can increase the cost-effectiveness and efficiency of national carbon pricing schemes or markets as well as reduce the reputational risks from poorly-implemented carbon pricing schemes, which may be perceived as not reducing overall emissions in a country. In designing such schemes, governments can ensure that mitigation obligations are fairly distributed, put in place relief measures for vulnerable groups, and mandate safeguards and benefit sharing by independent carbon market activities.

5.3 Strengthen national carbon accounting rules

Integration of carbon market activities – independent, regulated, and Article 6 – into national climate strategies requires that countries implement robust and transparent carbon accounting and tracking systems. For many countries, participation in Article 6 transactions and the ability to claim Mitigation Outcomes generated through carbon market activities towards their NDC may require updating national carbon accounting systems. Reporting to accurately under the Paris Agreement benefits from aligned and interlinked GHG inventories, NDC, and Article 6 accounting for Internationally Transferred Mitigation Outcomes (ITMOs) with harmonzied measurement, reporting and verification (MRV). However, corporate and independent carbon market GHG accounting systems tend to be more granular than country's systems. It may not be realistic or necessary for a government to seek to capture all corporate accounting within its inventories. Rather, a government may focus on extending its MRV and accounting systems only to mitigation activities for which they decide to make corresponding adjustments.[76]

When planning carbon market engagement, governments need to assess MRV capacities, particularly in the context of Article 6.2 cooperative approaches under the Paris Agreement. Implementation of Article 6 of the Paris Agreement requires designation of institutional responsibilities for NDC accounting and environmental permitting. Governments must also consider how to align GHG reporting of corporates and the measurement of emissions reductions and removals by carbon market projects with the country's NDC accounting. In some cases, new public institutions may need to be built, for example, to establish and maintain carbon registries. There are different initiatives that support countries in achieving Article 6 "readiness". VCMI, along with the World Bank and other core partners, issued a new set of guidance in June 2025 at Innovate4Climate (I4C) for countries seeking to use carbon markets to advance their national climate goals. The guidance supports countries in the development of carbon markets strategies, bringing together the expertise of leading international technical assistance partners. Alongside the document, an infographic was developed to clarify and visualize how each organization's efforts come together to support countries.

[76] More advice on alignment of corporate and national GHG accounting can be found in: Climate Focus (2022). *Double Claiming and Corresponding Adjustments.* Available at: https://climatefocus.com/wp-content/uploads/2023/11/Double-Claiming-and-Corresponding-Adjustments.pdf

A harmonized approach to technical assistance for navigating carbon markets

Coordination of support aims to address the fragmentation of technical assistance and provide a coherent supporting framework to countries that will enable them to maximize their carbon market potential and achieve their climate and development goals. As some of the key providers of capacity building support in international carbon markets, these organizations aim to streamline countries' access to appropriate technical support to enable them to make informed decisions.

A6IP

Paris Agreement Article 6 Implementation Partnership

A6IP promotes inclusive global collaboration, knowledge sharing, and capacity building to implement high-integrity carbon markets through Article 6 of the Paris Agreement.

GGGI

Global Green Growth Institute

GGGI supports its Member States and Partner Countries to access international carbon markets with confidence, enabling them to develop ambitious climate projects, attract finance, and accelerate green growth. GGGI works with both buyer and seller countries to facilitate implementation of cooperative approaches under Article 6.

VCMI

Voluntary Carbon Markets Integrity Initiative

VCMI, through its Access Strategies Program, supports host countries and regions to participate in high-integrity carbon markets and unlock the environmental, social, and economic benefits of carbon finance within national climate plans.

ICVCM

Integrity Council for the Voluntary Carbon Market

The Integrity Council is an independent, non-profit governance body for the carbon markets establishing an independent, global quality threshold for the supply of credits - the Core Carbon Principles (CCPs). It engages with governments and regulators to support seamless, harmonised transactions of high-integrity carbon credits across voluntary and compliance markets; create a market with communities at its heart; and lower barriers to market actors.

Supporting host countries to design, implement, and participate in high-integrity carbon markets.

UNDP

United Nations Development Programme

UNDP supports countries in accessing high-integrity carbon markets by providing strategic, inclusive, and safeguard-driven assistance aligned with the Paris Agreement and the Sustainable Development Goals (SDGs). This includes assistance with Article 6 cooperation under the Paris Agreement, international voluntary carbon markets, and domestic compliance schemes.

UNFCCC

United Nations Framework Convention on Climate Change

UNFCCC is a convener, custodian, and catalyst for ambitious climate action under the Paris Agreement. Mandated by the Parties to the Paris agreement, it supports countries under its Article 6 Capacity Building Program, to effectively engage in cooperative approaches under Article 6, particularly under the Paris Agreement Crediting Mechanism.

GIZ

Deutsche Gesellschaft für Internationale Zusammenarbeit

Delivers on-the-ground technical cooperation and institutional capacity building to help countries develop robust frameworks for Article 6 implementation and voluntary carbon markets.

World Bank Group

The World Bank Group provides technical assistance and capacity building to help countries generate and mobilize finance through high-integrity carbon credits, strengthen regulatory frameworks, and develop interoperable market infrastructure—laying the foundation for carbon markets that deliver tangible benefits to people and communities.

PARTNER TECHNICAL ASSISTANCE IS TARGETED TOWARD:

ARTICLE 6

Cooperative approaches and mechanisms under the Paris Agreement that enable countries and other entities to transfer mitigation outcomes internationally for NDC implementation, and other international mitigation purposes.

COMPLIANCE

Government-regulated carbon pricing instruments encompassing Emissions Trading Systems (ETS) and carbon taxes which impose compliance obligations on covered entities.

VOLUNTARY

This involves entities purchasing carbon credits to meet voluntary mitigation commitments. These commitments include corporate net zero targets and other voluntary climate or environmental claims.

Lack of consistency between different national climate change reports is a longstanding issue. GHG inventories included in developing countries' Biennial Update Reports and National Communications, forest reference levels submitted to the UNFCCC, and NDC targets often do not align, leading to challenges in measuring mitigation progress. There are a variety of reasons for divergence in data sources and projections, for example:

- A lack of institutional coordination
- Uncoordinated support by different capacity building projects
- Different calculation assumptions and/or data compiling and reporting periods.
- Specific sets of rules that have been applied – for example, the requirements to access carbon markets via Article 6 versus in the context of REDD+[77]
- MRV systems used by carbon markets are often more granular than those used by national inventories, making data from these different sources challenging to align[78]

Previous experience in aligning national and project-level carbon accounting can inform preparations to extend national MRV systems to carbon market activities. The nesting of REDD+ projects in jurisdictional REDD+ programs provides an example of aligned national and independent carbon market MRV systems. Nested REDD+ refers the integration of different accounting systems – at the levels of both private-sector-led projects and government-led jurisdictional program – to create a common accounting and carbon crediting system. Nested REDD+ exemplifies how a host country can align systems to optimize the way in which projects, or subnational programs, contribute to the country's targets. This is particularly relevant where independent carbon market projects request corresponding adjustments for carbon credits generated through approved activities, which would result in deduction of GHG emissions reductions or removals from national NDC accounting.

77 REDD+ stands for reducing emissions from deforestation and forest degradation plus the conservation, sustainable management of forests and enhancement of forest carbon stocks (see Glossary).

78 Climate Focus (2023). *Double Claiming and Corresponding Adjustments*. Available at: https://climatefocus.com/wp-content/uploads/2023/11/Double-Claiming-and-Corresponding-Adjustments.pdf

06 Annex

07 Glossary

TERM	DEFINITION
Abatement	Abatement refers to measures taken by an entity (usually a company or government) to prevent, reduce or eliminate sources of emissions within its value chain.
Article 6	A section of the Paris Agreement, under the UN Framework Convention on Climate Change, which consists of nine paragraphs providing principles for how countries can “pursue voluntary cooperation”, including through international carbon markets, to reach their climate targets, as well as additional context to support its implementation.
Article 6.4 Emissions Reductions units (A6.4ERs)	Mitigation Outcomes under Article 6.4 that are issued into the Paris Agreement Crediting Mechanism registry.
Assurance	An engagement in which a practitioner seeks sufficient appropriate evidence to express a conclusion designed to enhance the degree of confidence of the intended users other than the responsible party about the subject matter information provided (ISAE 3000, 2000).
Baseline Scenario	A description of the situation and the outcome that is predicted or assumed to occur in the absence of the incentives created by the carbon credits and their associated mitigation activities, while holding all other factors constant.
Beyond value chain mitigation (BVCM)	An organization’s mitigation action or investments outside its value chain. This includes activities that reduce or avoid emissions and those that remove and store carbon dioxide equivalent (CO2e) from the atmosphere. A company’s purchase of high-quality carbon credits beyond its value chain is an example of BVCM (SBTi, 2023).
Cancellation	The permanent removal of a carbon credit in an electronic registry without claiming the associated emission reductions or removals towards any voluntary or mandatory targets or other purposes. Cancellation may include the following purposes: compensating for reversals; compensation for any previous excess issuance; administrative cancellation for the purpose of re-issuing carbon credits for the same emission reductions or removals under a different carbon-crediting program. Only one single use should be associated with each cancellation and the use should be clearly specified.
Carbon credit	A tradeable intangible instrument that is issued by a carbon-crediting program, representing a GHG emission reduction to, or removal from, the atmosphere equivalent to one metric tonne of carbon dioxide equivalent. This is calculated as the difference in GHG emissions or removals from a baseline scenario to the emissions or removals occurring under the mitigation activity, and any adjustments for leakage. The carbon credit is uniquely serialised, issued, tracked and retired or administratively cancelled by means of an electronic registry operated by an administrative body, such as a carbon-crediting program.
Carbon crediting program	A standard-setting program that registers mitigation activities and issues carbon credits.

Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA)	In 2016, the International Civil Aviation Organization (ICAO) adopted a global market-based mechanism, CORSIA, to address carbon dioxide emissions from international aviation. CORSIA is the first global market-based measure for any sector and represents a cooperative approach that moves away from a "patchwork" of national or regional regulatory initiatives through the implementation of a global scheme that has been developed through consensus among governments, industry, and international organizations. CORSIA aims to stabilize, from 2021, international civil aviation CO2 emissions at 2019 levels, including through the use of carbon credits that are determined by ICAO to meet the CORSIA Emissions Units Eligibility Criteria.
Claim	A message used to describe or promote a product, process, business, or service with respect to its sustainability attributes or credentials (ISEAL, 2015).
Compensation	Measurable climate mitigation outcomes, resulting from actions taken outside of the value chain of an organization, that cover some portion of emissions that remain unabated within the value chain of the organization.
Compensation claim	A claim that a company which is investing in BVCM might make that: – Conveys to audiences that it delivered BVCM proportionate to a stated percentage of unabated value chain emissions; – Seeks to convey that the BVCM outcomes are counterbalancing those unabated value chain emissions; – Is based on the application of the tonne-for-tonne method to determine the nature and scale of the commitment to BVCM.
Compliance market	A market through which regulated entities obtain and surrender emissions permits (allowances) or carbon credits in order to comply with a regulatory policy or measure. Compliance markets include cap-and-trade and domestic carbon tax schemes (e.g., European Union Emissions Trading Scheme, California cap-and-trade, Colombia's carbon tax) and sectoral schemes (e.g., Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA)). Also known as regulated markets.
(Climate) contribution approach	An approach where a company purchases or invests in carbon credits or other form of beyond value chain mitigation (BVCM). In a contribution approach, retired carbon credits are not counted towards, nor represent compensation for, a company's remaining value chain emissions. The retirement of these carbon credits represents a contribution to overall global efforts to mitigate climate change. Both money-for-tonne and tonne-for-tonne approaches can both be contribution approaches if companies are using contribution claims.
Contribution claim	A claim that a company which is investing in BVCM might make that: – Represents support or finance to actions beyond the company's value chain (including collective action) with an expected climate mitigation outcome (where the actions are relevant to the expected performance outcome); – Does not imply that the BVCM outcomes are netting out or counterbalancing the claimants' remaining value chain emissions, but instead are communicated as a contribution to global climate change mitigation efforts or even the efforts of a country; – Is not defined by any particular method for determining the nature and scale of the commitment to BVCM (SBTi, 2023).
Core Carbon Principles (CCPs)	Ten fundamental, science-based principles for identifying high-quality carbon credits developed by ICVCM (see below).
CORSIA-Eligible Program	A carbon-crediting program that has been approved by the ICAO Council to supply CORSIA Eligible Emissions Units as listed on the CORSIA website.

Corresponding adjustment	An accounting rule under the Paris Agreement's Article 6 to ensure that, when a country transfers a mitigation outcome internationally, emissions reductions or removals are not counted by the country that agreed to transfer it.
Crediting period	The period in which verified GHG emission reductions or removals attributable to a mitigation activity can result in the issuance of carbon credits.
Decarbonization	The measures through which an entity reduces its emissions.
Double claiming	A type of double counting in which the same GHG emission reduction or removal is claimed by two different entities towards achieving mitigation targets or goals: once by a country, jurisdiction or other entity that reports lower GHG emissions or higher GHG removals for the purpose of demonstrating achievement of a mitigation target or goal, and once by the entity retiring the carbon credit for the purpose of making a GHG emission offsetting claim.
Double counting	A situation in which a single GHG emission reduction or removal is counted more than once towards achieving mitigation targets or goals. Double counting can occur through double issuance, double use, and double claiming.
Double use	A type of double counting in which a single carbon credit is claimed twice towards achieving mitigation targets or goals.
Emissions trading system (ETS)	An ETS is a compliance carbon market mechanism also known as cap-and-trade that enforces regulated entities which emit GHGs into the atmosphere to trade emissions credits (as permits or allowances) amongst themselves. Reducing the cap over time encourages more cost-efficient emission reductions.
Ex-ante	Expected or predicted project outcomes (e.g., emission reductions or removals) that are estimated prior to a project being implemented
Ex-post	Project outcomes (e.g., emission reductions to removals) that have occurred
Free Prior and Informed Consent (FPIC)	Consent for any project, plan or action given in advance and independently decided upon and informed - based on accurate, timely and sufficient information provided in a culturally appropriate way.
GHG emissions reduction	A net reduction in anthropogenic greenhouse gas emissions by sources.
GHG emissions removal	A net enhancement of anthropogenic removals by sinks.
Greenhouse Gas (GHG)	Greenhouse gases are those gaseous constituents of the atmosphere, both natural and anthropogenic, that absorb and emit radiation at specific wavelengths within the spectrum of thermal infrared radiation emitted by the Earth's surface, the atmosphere itself, and by clouds. This property causes the greenhouse effect.
Greenhouse Gas (GHG) Protocol	Comprehensive global standardized framework to measure and manage GHG emissions from private and public sector operations, value chains and mitigation actions. Building on a twenty-year partnership between the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD), the GHG Protocol works with governments, industry associations, NGOs, businesses and other organizations to ensure GHG accounting is consistent and robust across entities.

Host country	The country in which a carbon credit project, program or intervention is geographically located.
Independent carbon markets	Marketplaces in which the transactions of carbon credits take place outside of government-regulated or government-mandated frameworks. Independent carbon market transactions include purchase of carbon credits with the intent to resell or retire to meet carbon neutral or other environmental claims. Voluntary carbon markets are independent carbon markets.
Indigenous peoples (IPs)	Distinct social and cultural groups that share collective ancestral ties to the lands and natural resources where they live, occupy or from which they have been displaced. In reference to carbon markets, commonly used in abbreviation alongside Local Communities (LCs).
Integrity Council for the Voluntary Carbon Market (ICVCM)	An independent governance body seeking to ensure the voluntary carbon market accelerates a just transition to 1.5 degrees Celsius. It is establishing, hosting and curating a set of Core Carbon Principles (CCPs), which are setting new threshold standards for high-quality carbon credits and define which carbon-crediting programs and methodology types are CCP-eligible. The ICVCM will oversee a process to determine the eligibility of carbon-crediting programs as well as which carbon credit categories will become CCP-Approved.
Internationally transferred mitigation outcome (ITMO)	The term 'Mitigation Outcome' (MO) is used in Article 6 of the Paris Agreement to characterize the emission reductions and removals that are authorized, transferred between, and potentially used by Parties toward NDCs (or under schemes like CORSIA). They represent ex-post emission reductions or removals of greenhouse gases determined by quantifying a baseline for emissions within a given boundary and then measuring how much a given intervention avoids, reduces, or removes and sequesters carbon from the atmosphere, for example through the application of procedures and methods administered by underlying emission trading schemes and carbon crediting mechanisms. An ITMO is a MO that requires a corresponding adjustment and could therefore be transferred internationally and counted towards the NDC of another country or used for other mitigation purposes.
Jurisdiction	The administrative unit such as a nation, state, province, region, department or district, or an ecoregion or other defined area, specified in the jurisdictional program description.
Jurisdictional REDD+ Program	A type of mitigation activity which is implemented by a Jurisdictional REDD+ Program Proponent and for which emission reductions and removals are quantified at the scale of a national or sub-national jurisdiction (the REDD+ Jurisdiction). Such programs may include multiple mitigation actions in the forestry sector, including the sustainable management of forests and the conservation and enhancement of forest carbon stocks. They may include multiple actors, including governmental authorities and/or non-state actors.
Leakage	When a carbon crediting project or program does not halt emission-generating activities, but instead displaces them outside the project or program boundary. An example would be when a forest protection project results in deforestation activities simply moving to other nearby areas. High quality carbon credits come from projects that have taken stringent measures to prevent and address leakage.
Leakage: Activity-shifting	A type of leakage where the mitigation activity causes emissions to shift location. Mitigation activities can shift emissions to locations not targeted, or emissions not monitored, by the activity. An example is the displacement of agricultural activities from land that is afforested.
Leakage: Ecological	A type of leakage where a mitigation activity affects emissions indirectly in areas that are hydrologically connected. An example is carbon dioxide emissions from soils in a wetland if the water level is lowered due to the implementation of the mitigation activity.

Leakage: Market	A type of leakage where mitigation activities have an impact on the supply or demand of an emissions-intensive product or service, thereby increasing or decreasing emissions elsewhere. For example, forest management or conservation activities may reduce timber harvests within an intervention area, leading to increased harvesting in other areas to meet demand for wood products.
Leakage: Upstream/ Downstream emissions	A type of leakage where emissions occur upstream or downstream of a mitigation activity and are impacted by the mitigation activity. An example is the emissions associated with the production of a fuel or feedstock used under the mitigation activity (e.g., methane emissions from natural gas production).
Local communities (LCs)	In the context of carbon markets, local communities most often refers to the communities of people living and working in and around the project area of a carbon credit-producing project. Commonly used in abbreviation alongside Indigenous Peoples (IPs).
Long-term net zero target	A company commitment to aggressively reduce emissions either to zero across its value chain (Scopes 1, 2, 3) or to a residual level aligned with global net zero no later than mid-century. All residual emissions are balanced out by permanent removals (including high-quality removal carbon credits).
Measurement, reporting and verification (MRV)	A GHG emissions-related MRV process refers to estimating, reporting and verifying actual emissions over a specified time period.
Mitigation activity	An activity that reduces anthropogenic emissions of a GHG or enhances removals by sinks relative to GHG emissions or removals in the activity's baseline scenario and seeks registration and issuance of carbon credits under a carbon-crediting program. The term refers to activities that may be implemented at different scales, including projects, programmatic approaches, policies, jurisdictional REDD+ programs, and other interventions. They may also be implemented at one or more sites.
Mitigation contribution A6.4ER	At COP27, this term was given to credits that are not authorized for transfer to be used against the NDC of another country, or for other international mitigation purposes i.e., a credit generated through Article 6.4 to which a host country will not apply a corresponding adjustment.
Mitigation hierarchy	A set of prioritized steps to limit negative impacts, as much as possible, through avoidance, mitigation (or reduction), restoration, and beyond value chain mitigation. These prioritized steps are used in environmental frameworks from waste management to climate and biodiversity impact mitigation.
Mitigation Outcome	An ex-post emission reduction or removal of GHGs determined by quantifying a baseline for emissions within a given boundary and then measuring how much a given intervention avoids, reduces, or removes and sequesters carbon from the atmosphere. A mitigation outcome can then be unitized and, in some cases, serialized for it to be traded as a carbon credit.
Nationally Determined Contributions (NDCs)	The national climate plan put forward by a Party to the Paris Agreement, including climate-related targets, policies, and measures the government aims to implement in response to climate change and as a contribution to global climate action.
Nature-based solutions (NbS)	Actions to protect, sustainably manage and restore natural and modified ecosystems such that they help reduce, avoid and remove GHG emissions and simultaneously benefit human well-being and biodiversity. Also known as natural climate solutions.
Negative emissions	The emissions level beyond net zero where removals exceed emissions.

Net negative emissions	Net negative emissions is achieved when, as a result of human activities, more GHGs are removed from the atmosphere than are emitted into it.
Net-zero emissions	At a global level, net zero emissions are achieved when anthropogenic GHG emissions (measured in CO2e) are balanced globally by anthropogenic GHG removals over a specified period.
Non-governmental organization (NGO)	A group that functions independently to any government. It is usually a non-profit with overarching goals pertaining to social or environmental enhancement.
Offsetting / offset	The use of a carbon credit as a substitute for within value chain emissions abatement and counted as reductions toward an emissions reductions target.
On track	In VCMI's Foundational Criteria, where a company is taking sufficient measures to reduce emissions in comparison to the base year to meet its next near-term target, with appropriate governance structures to decarbonize, and is appropriately apportioning funding to finance the company's decarbonization.
Overall mitigation in global emissions (OMGE)	A concept mentioned in Article 6.4 of the Paris Agreement and still to be fully agreed on by Parties; generally understood as the cancellation of A6.4ERs and/or ITMOs without use towards an NDC.
Paris Agreement	A legally-binding international treaty on climate change under the UN Framework Convention on Climate Change (UNFCCC). It was negotiated and agreed by 196 countries at the UN Conference of the Parties (COP) meeting in Paris in December 2015 and came into force on 1st January 2021. The goal of the Paris Agreement is to limit global warming to well below 2°C, and preferably to 1.5°C, compared to pre-industrial levels.
Paris Agreement Crediting Mechanism (PACM)	Article 6.4 creates the Paris Agreement Crediting Mechanism (PACM). The PACM allows countries and authorized entities to trade units (e.g., carbon credits) through a centralized market that is overseen by the UNFCCC. An inter-governmental Supervisory Body for the Mechanism (SBM) approves methodologies, registers projects, and manages the registry, among other responsibilities.
Permanence	The capacity of reduced, avoided or removed emissions to not re-enter the atmosphere. In practical terms, this means giving the purchaser of the carbon credit confidence that declared emission reductions will not be reversed by a future event. For example, REDD+ projects need to guarantee that the conserved forest producing carbon credits will not be cut down and there is a buffer for credits impacted by fire. Permanence is a requirement of carbon crediting programs in high-integrity voluntary carbon markets.
Program Documents	The documents adopted by carbon crediting program that specify requirements, procedures and administrative and operational aspects of the carbon-crediting program. These documents include, but are not limited to, general carbon-crediting program standards, quantification methodologies, procedures, provisions, manuals, guidance and forms.

REDD+	The framework created by the UNFCCC for Reduced Emissions from Deforestation and forest Degradation, plus the sustainable management of forests and the conservation and enhancement of forest carbon stocks in developing countries. Project-based REDD+ refers to REDD+ activities focused on individual projects in a defined area of forest, which can be small or thousands of hectares large. Jurisdictional REDD+ refers to REDD+ activities in which all the forest in a national (i.e., whole country) or subnational (e.g. state or province) jurisdiction must be considered when setting a baseline and monitoring deforestation. Until recently, jurisdictional approaches to REDD+ have not been used to issue carbon credits. Nested REDD+ projects are aligned with jurisdictional baselines and deforestation monitoring. Essentially, this is an intermediate step between Project-based REDD+ and Jurisdictional REDD+.
Registry	A database of carbon credits and their transactions used to track issuance, and transfer of legal title through a unique identifier. Registries are where credits are retired/cancelled.
Regulated (carbon) market	A market through which regulated entities obtain and surrender emissions permits (allowances) or carbon credits in order to comply with a regulatory policy or measure. Regulated markets include cap-and-trade and domestic carbon tax schemes (e.g., European Union Emissions Trading Scheme, California cap-and-trade, Colombia's carbon tax) and sectoral schemes (e.g., Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA)). Also known as compliance markets.
Removals (of GHG emissions)	Anthropogenic activities that remove CO2 or other GHGs from the atmosphere and durably storing it in geological, terrestrial or oceanic reservoirs, or in products. Removal activities include enhancing biological sinks of carbon dioxide equivalent and using chemical engineering to achieve long-term removal and eventual storage or carbon dioxide equivalent.
Residual emissions	Represent the emissions that cannot be completely eliminated or reduced to zero despite implementing all available mitigation measures contemplated in pathways that limit warming to 1.5 degrees Celsius with no or limited overshoot (SBTi, 2023).
Retirement of carbon credits	The transfer to a retirement account or the cancellation of a carbon credit. Once retired (or cancelled), the credit is considered "used" and cannot be used again toward a climate target claim. The owner of the retired credit can accurately claim to have reduced emissions and use those emissions to meet its climate commitments.
Science-based/ aligned target	Targets that are in line with what the latest climate science says is necessary to meet the goals of the Paris Agreement: to limit global warming to well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit warming to 1.5 degrees Celsius.
Science Based Targets initiative (SBTi)	An initiative that mobilizes companies to set science-based emission reduction targets and boost their competitive advantage in the transition to a low-carbon economy. It is a collaboration between Carbon Disclosure Project (CDP), the United Nations Global Compact (UNGC), World Resources Institute (WRI) and the World Wildlife Fund (WWF) and one of the We Mean Business Coalition commitments. SBTi defines and promotes best practice in science-based target setting, offers resources and guidance to reduce barriers to adoption and independently assesses and approves company targets.
Scope 1, 2, and 3 emissions	The standard way to account for emissions in groups from or in relation to a source such as a company. In summary, Scope 1 covers direct emissions from owned or controlled sources. Scope 2 covers indirect emissions from the generation of purchased electricity, steam, heating and 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.

Share of proceeds	A concept in the Paris Agreement that is understood as setting aside a percentage of mitigation outcome transfers under Article 6 to be used toward financing adaptation
Ton of carbon dioxide equivalents (tCO_2e)	A standard measure of greenhouse gas (GHG) emissions indicating the mass of carbon dioxide gas that would have the equivalent global warming impact as that GHG over a specified period. It enables comparable measures between carbon dioxide and other GHGs such as methane, which has a different global warming potential. It can also account for multiple types of GHG in one unit.
Validation and verification bodies (VVBs)	Independent, third-party organizations approved and/or accredited under a carbon standard to validate mitigation activities and verify emission reductions. VVBs may also verify other social and environmental co-benefits. VVBs are often referred to as auditors.
Value chain emissions	Value chain emissions are the result of activities from assets not owned or controlled by the reporting organization, but that the organization indirectly affects in its value chain, from both upstream and downstream sources. Scope 3 emissions include all sources not within an organization's scope 1 and 2 boundary. The scope 3 emissions for one organization are the scope 1 and 2 emissions of another organization. Also see definition on scope 1, 2, and 3 emissions
Vintage	The calendar year in which the emission reduction or removal associated with a carbon credit took place. Because the verification process is conducted after the emission reductions or removals have occurred, carbon crediting programs may issue carbon credits after the vintage year.
Voluntary carbon markets (VCMs)	Marketplaces in which transactions of carbon credits are done voluntarily, rather than with the intention to use credits in a government-mandated carbon market. VCM transactions include purchase of carbon credits with the intent to resell or retire to meet carbon neutral or other environmental claims. VCMs are referred to as independent carbon markets in this Toolkit.
Voluntary Carbon Markets Integrity Initiative (VCMI)	Producer of this VCM Access Strategy Toolkit in collaboration with Climate Focus and UNDP, VCMI is an independent, international initiative with a mission to enable high integrity voluntary carbon markets that deliver real and additional benefits to the atmosphere, help protect nature and accelerate the transition to ambitious, economy-wide climate policies and regulation.
Voluntary emission reductions (VERs)	Carbon credits that are used in voluntary (i.e., independent) carbon markets, as opposed to compliance (i.e., regulated) markets.

08 Carbon crediting standards

Government-backed standards

This is a list of active compliance standards identified by the World Bank. This list is current as of April 2025. Refer to the Carbon Pricing Dashboard for the most up to date list.

STANDARD NAME	DESCRIPTION
Australia Carbon Credit Unit (ACCU)	ACCUs issued under Australia's carbon crediting scheme can be used for compliance purposes by entities covered under the Safeguard Mechanism, sold to the Government, or sold on the voluntary market.
Canada Federal GHG Offset System	The main purpose of the system is to generate offset credits for use in the federal Output Based Pricing System (OBPS), thereby increasing the supply of compliance units for the system and reducing compliance cost while creating incentives for voluntary GHG mitigation projects. Federal offset credits are also being proposed for compliance use in a federal oil and gas emissions cap that is currently under development and can also be used voluntarily for other purposes.
Chile Green Tax Emissions Offsetting Scheme	Regulated entities can offset all or a portion of their carbon tax-covered emissions. The compensation scheme recognizes VCS, CDM or Gold Standard, as external certification programs or standards, so credits under these standards can then be used to offset emissions under the carbon tax.
China GHG Voluntary Emission Reduction Program	Chinese Certified Emission Reductions (CCERs) can be used by the compliance entities to offset up to 5% under the national ETS to help meet emission obligations.
Colombia Crediting Mechanism	Liable entities under the Colombian carbon tax can offset up to 50% of their emissions that would result in the tax under this mechanism. Verified emission reductions from certain independent crediting standards and certified emission reductions from Colombian CDM projects can be used.
Greenhouse Gas Crediting and Offsetting Mechanism (GCOM)	In Saudi Arabia, the Greenhouse Gas Crediting and Offsetting Mechanism (GCOM) aims to achieve specific national emission reduction and/or removal levels, across all sectors. The proceeds from credit sales fund nature conservation activities.
J-Credit Scheme	This scheme integrates two voluntary crediting mechanisms in the country: Japan's Domestic Credit Scheme and the Japan Verified Emission Reductions (J-VER). J-credits are predominantly used for voluntary offsetting, in Japan including domestic initiatives.
Kazakhstan Crediting Mechanism	The legislation mandating the Kazakhstan ETS also sets out the option for compliance entities to utilize domestic offset credits to help meet compliance obligations. The legislation details modalities for how non-ETS sectors can seek to implement offset credit projects under a domestic crediting mechanism.
Peatland Code	The Peatland Code provides a standard for quantifying and verifying climate benefits from reductions in greenhouse gas emissions brought about by peatland restoration. It is administered by the IUCN UK National Committee and operates alongside the UK's Woodland Carbon Code (WCC) that credits abatement from tree planting projects in the UK.
Portuguese Voluntary Carbon Market	The Portuguese Voluntary Carbon Market, established by the Portuguese Environment Agency following a government approved law, has rules in place to govern additionality, permanence, monitoring, reporting and verification.

Republic of Korea Offset Credit Mechanism	The crediting mechanism allows for CERs from Korean CDM projects to be reissued as Korean Offset Credits (KOCs), provided they are cancelled from the CDM. KOCs must be further converted into Korean Credit Units by the Korean government before it can be used for compliance obligations.
South Africa Crediting Mechanism	To be eligible projects must not be activities covered by the carbon tax, projects must be located in South Africa, and projects must be registered/implemented after the commencement of the carbon tax (1 June 2019). Projects that are under taxable activities may be utilized until the first phase of the carbon tax (Regulation 2(2) of the Carbon Offset Regulations).
Spain FES-CO2 Program	FES CO2 supports domestic emission removal projects in sectors that are not covered by the EU ETS through the purchase of carbon credits by the Spanish Government. Projects with Verified Emission Reductions (REVs for their acronym in Spanish) must sign a contract with the FES-CO2 in order to be registered and units credited.
Sri Lanka Carbon Crediting Mechanism	Sri Lanka Carbon Crediting Scheme (SLCCS) is a national offset scheme established to support local clean projects to benefit from climate finance for emission reductions. Buyers can use credits for internal offsetting or trading, and SLCCS is a partner with Japan under the Joint Crediting Mechanism partner.
Switzerland CO2 Attestations Crediting Mechanism	Only liable entities under the Switzerland CO2 Act, can use these credits to compensate their CO2 emissions. The credits are issued to activities in Switzerland and cannot be traded outside of the country.
Thailand Voluntary Emission Reduction Program	Currently, the credits from Thailand Voluntary Emission Reduction Program (T-VER) are applied domestically. However, Thailand GHG Management Organisation (TGO) continues to consider potential and possible international transactions with the intention to assess and explore potential areas of improvement to ensure comparability with the guidance and rules, modalities and procedures of Article 6, eligibility criteria under CORSIA, and other relevant mechanisms.
UK Woodland Carbon Code	The Woodland Carbon Code (WCC) is the quality assurance standard for woodland creation projects in the UK, and generates high integrity, independently verified carbon units. The Woodland Carbon Code is internationally recognized for high standards of sustainable forest management and carbon management and is endorsed by ICROA.

ICVCM-approved independent standards

This is a list of standards that ICVCM has approved as CCP-Eligible according to its Core Carbon Principles Assessment Framework. This list is current as of April 2025. Refer to Assessment Status - ICVCM for the most up to date assessment decisions.

STANDARD NAME	DESCRIPTION
ACR	A carbon credit standard and registry for global carbon markets and a non-profit subsidiary of Winrock International.
The REDD+ Environmental Excellence Standard (TREES)	TREES is Architecture for REDD+ Transactions (ART)'s standard for the quantification, monitoring, reporting and verification of GHG emission reductions and removals from REDD+ activities at a jurisdictional and national scale. ART is an international initiative, operated as an independent Secretariat.

Climate Action Reserve (CAR)	The third largest GHG crediting program in the world after VCS and Gold Standard, run as the non-profit Climate Action Reserve.
Gold Standard (GS)	The second largest GHG crediting program in the world after VCS and run by the non-for-profit Gold Standard Foundation. Gold Standard for the Global Goals is GS' certification scheme.
Isometric	A relatively new standard that exclusively certifies long-duration, fully delivered removal credits.
Verified Carbon Standard (VCS)	The GHG crediting program with the majority of crediting projects, run by the non-for-profit Verra.

09 Regulatory checklist

Developing a legal framework for carbon markets is a complex and specialized endeavour. Governments may want to consider preliminary aspects and key components when developing high-integrity carbon market legal frameworks. The following are the key aspects and components:

Preliminary aspects

	ASPECT	RATIONALE
1.	Conduct an analysis of the country's legal system	Prior to developing a carbon market legal framework, a policymakers may want to conduct a comprehensive analysis of their country's legal system to understand, at least: (i) whether private actors can develop carbon projects, obtain ownership and transfer carbon credits; (ii) the type of legal instruments that can govern carbon markets and where the carbon market framework can be legally anchored; (iii) existing legal mandates and authorities entitled to govern carbon markets; and (iv) existing laws and regulations that shall apply to carbon projects and credits, whether designed for this purpose or not.
2.	Develop a carbon market strategy	Prior to designing a carbon market legal framework, it is recommended that a country has in place a carbon markets strategy that defines how the country is planning to engage in VCMs and Article 6 to achieve and go beyond the NDC. This Toolkit is designed to help formulate such a strategy. The carbon market legal framework should align and reflect the policy choices included in the carbon market strategy.
3.	Ensure that the benefits of a legal framework outweigh the costs of implementation	The design of new institutions, infrastructure (e.g. national registries) and procedures established in the legal framework must consider country-specific circumstances and generate benefits that outweigh the costs of implementation.

Key components:

	COMPONENT	ISSUES TO CONSIDER
1.	Carbon rights	1.1. Consider the necessity of defining carbon rights and ownership of carbon assets (e.g., Carbon Credits and ITMOs). 1.3. Define the legal nature and tax status of carbon credits and ITMOs.
2.	Environmental and social integrity	2.1. Demand compliance with existing environmental and social impact assessment rules for carbon market projects. 2.2. Establish requirements for obtaining free, prior and informed consent (FPIC), engaging with Indigenous people and local communities, and contributions to Sustainable Development Goals (SDGs). 2.3. Establish criteria for defining what types of carbon standards and methodologies can be used and create a list of standards and methodologies that meet these criteria. The list should be updated frequently. 2.5. Align with principles from international integrity initiatives on supply and demand side (e.g., VCMI and ICVCM). 2.6. Establish benefit sharing guidance that takes into account the social performance and economic viability of projects.
3.	Requirements and procedures for developing mitigation activities	3.1. Establish eligibility criteria for activities and sectors for VCMs and Article 6. 3.2. Establish clear requirements, procedures and timelines for activities developed under VCMs, including project approval, authorization of participants, and issuance of carbon credits. 3.3. Prescribe clear requirements, procedures and timelines for activities developed under Article 6.2 and Article 6.4., including authorizations of cooperative approaches, participating entities and ITMOs, as well as issuance of ITMOs. 3.4. Define interaction of the national legal framework and bilateral or multilateral agreements on carbon markets signed by the country. 3.5. Establish requirements for measurement, reporting and verification, with special consideration for mitigation outcomes subject to authorization and corresponding adjustments. 3.6. Adopt guidelines to facilitate the implementation of legal requirements (e.g. safeguards, MRV systems, procedural aspects, among others).
4.	VCM and Article 6 interactions	4.1. Define whether VCM projects can be authorized and correspondingly adjusted under Article 6 rules. If allowed, prescribe rules for this interaction (requirements, procedures and timelines).
5.	Institutional framework	5.1. Allocate necessary roles, mandates and responsibilities among government entities involved in carbon markets, including assessment of applications, issuance of approvals and authorizations, management of the carbon registry (if applicable). 5.2. Define mandate and general characteristics of the national carbon registry, in case the country opted for it. Some countries may opt to use the UNFCCC international registry or even the carbon standards registries.
6.	Fees and levies	6.1. Consider whether to prescribe fees for administrative services rendered by government entities and make sure they are not excessive. 6.2. Consider if prescribe other fees or levies and make sure they are not restrictive for the economic viability of the carbon projects.

10 Benefit sharing recommendations

Fair, equitable, and transparent benefit sharing is important to the success of many carbon market activities. Carbon projects that involve or affect local communities, landowners, or other stakeholders should ensure that benefits are shared appropriately. Governments may consider the following recommendations to develop regulations or provide guidance to project developers on benefit sharing. This advice is based on the Best Practices Guide for Developing Voluntary Carbon Market Projects in Yucatán.

	RECOMMENDATION	EXPLANATION
1.	Ensure inclusion and transparency from the outset	o The project and the benefit sharing arrangement should ensure that any potential beneficiaries are consulted and participate in design from the outset of the project o Ensure that beneficiaries have sufficient information about the anticipated project costs, income, and risks o Provide a clear a mechanism for submitting grievances
2.	Make the agreement dynamic	o Include specified periods of review and consultation when adjustments can be made with the consent and participation of beneficiaries
3.	Ensure beneficiaries have access to the agreement	o Develop the agreement using accessible language—both the local language and language with minimal jargon—with discussion and presentation of the agreement taking place at times and locations that ensure beneficiaries can participate o Provide copies of the signed agreement in appropriate languages and formats to beneficiaries
4.	Reflect the project-specific context	o Reflect the project's specific needs, costs, and benefits. Each agreement is unique and cannot be copied from one project to another o Consider all the financial and in-kind contributions made by beneficiaries, including contributions of knowledge, time devoted to the project, and opportunity costs
5.	Take into account all relevant costs	o Account for all the activities necessary for project development (e.g., studies and documents for certification, capacity building for beneficiaries), project operations, and any local or community development activities o To ensure that income generated by the project will deliver certain benefits, earmark a portion of income for these benefits. This may be necessary where the receipt of benefits is essential to ensure the participation of certain stakeholders in the project.
6.	Take into account various types of benefits	o Well-designed benefit sharing arrangements align with beneficiaries' own needs and priorities o Consider monetary benefits and non-monetary benefits (e.g., improvements in the ecosystem or local economy)
7.	Proportion benefits appropriately and fairly	o Benefits should reflect beneficiaries' relative contribution to a project or how the project impacts them. For example, an Indigenous community that is participating in the implementation of a project on their territory should receive a relatively higher proportion of benefits than an adjacent landowner who is minimally impacted o Benefits may be determined as a percent of project income or based on the achievement of project milestones – the best arrangement will depend on the project activities and the beneficiaries involved o Consider setting aside a portion of benefits as reserves in case of changes in the income or costs of the project. The benefit sharing arrangement should agree on how to use these reserves.
8.	Ensure that monetary benefits are provided in a way that is accessible and fair to beneficiaries	o Monetary benefits may be distributed to individuals or groups, and through a range of modalities. Project developers should obtain written agreement from each beneficiary about the modality that will be used and ensure that all beneficiaries have equal access to benefit. For example, payments should not only go to community members with bank accounts if all members of a community deserve renumeration
9.	Ensure appropriate oversight	o Ensure that beneficiaries have access to information about when benefits will be shared, systems for registering feedback and concerns, and protocols for managing conflict. Benefit sharing plans may include building capacity for governance systems o Consider contracting independent third-party organizations to oversee and/or audit benefit sharing mechanisms to enhance transparency and equity

The Voluntary Carbon Markets Integrity Initiative is a multistakeholder platform to drive credible, net zero-aligned participation in voluntary carbon markets.

vcmintegrity.org