

# VCM Access Strategy Toolkit

Considerations for host countries  
when engaging in high-integrity  
voluntary carbon markets

# Foreword

At VCMI (the Voluntary Carbon Market Integrity Initiative), our vision is a world on track to net-zero emissions by mid-century, achieved through a just transition that enhances equality and sustainable development for all. VCMI believes that, if operated with high integrity, voluntary carbon markets (VCMs) can make a significant contribution to achieving this vision.

For VCMI, high-integrity voluntary carbon markets are those that:

- Drive more overall greenhouse gas (GHG) mitigation – reductions and removals – and more finance towards the regions that need it most, than would be the case if they didn't exist;
- Enhance host countries' ability to increase their mitigation ambition and meet their net-zero transition plans;
- Lead to accelerated deployment of low carbon technologies and increase overall mitigation capacity;
- Contribute to wider sustainable development goals in the host country.

Since our inception as a multi-stakeholder platform, we have collaborated with businesses, governments, civil society organizations and Indigenous Peoples to create guidance that will ensure VCMs meet these criteria.

On the demand side of the market, the VCMI Claims Code of Practice guides companies on how to engage credibly with VCMs. On the supply side, we are supporting host countries and regions so that their participation in VCMs maximizes the environmental, social and economic benefits that carbon finance can bring.

Produced in partnership with Climate Focus and the United Nations Development Program (UNDP), this VCM Access Strategy Toolkit is designed to help policymakers establish the policies and processes needed to underpin their country's participation in high-integrity VCMs. From how to integrate VCM engagement into country plans to meet Nationally Determined Contribution (NDC) commitments and broader development priorities, to the monitoring, reporting and verification systems of project developers, this Toolkit guides a clear strategy for countries to harness the power of VCMs as instruments to deliver ambitious climate and economic goals.

Platforms like the UNFCCC-backed Race to Zero campaign show us that commitments to climate targets such as net zero are undoubtedly increasing and, with that, the demand for high-quality carbon credits from credible projects. This Toolkit aims to help governments to create an enabling environment to help meet this growing demand, while unlocking the benefits of thriving, high-integrity VCMs for their country.

We hope you find the VCM Access Strategy Toolkit useful. Sign up to the VCMI newsletter on our website to hear more about our activities to support country access to high-integrity VCMs.

With best regards,



**Mark Kenber**



## About VCMI

VCMI is a multi-stakeholder platform to drive credible, net-zero aligned participation in voluntary carbon markets. VCMI's mission is 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. VCMI focuses on key areas where there is a clear need for additional work.

These areas include:

- Promoting demand-side integrity to ensure meaningful use of carbon credits for voluntary purposes and the associated business case for scaling high integrity voluntary carbon markets
- Promoting supply-side integrity and access as countries develop policy options and strategies to promote high integrity voluntary carbon markets and engaging with supply-side integrity efforts to ensure transparency and assurance.

[vcmintegrity.org](https://vcmintegrity.org)





## 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 close to 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 team comprises experts in international and national climate law, policy development and implementation, project design, and climate finance, and has extensive experience across sectors. Our advisory is rooted in a profound knowledge of climate science, public and private climate policy frameworks, sectoral emissions reductions and project development. Climate Focus has been central to the development of transparent and high-quality carbon markets since their inception. Climate Focus 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](http://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 to build resilience to achieve the Sustainable Development Goals. UNDP's work is concentrated in three focus areas; sustainable development, democratic governance and peace building, and climate and disaster resilience.

[www.undp.org](http://www.undp.org)



## About this toolkit

**VCMI seeks to ensure voluntary carbon markets (VCMs) are high integrity and support the climate and economic prosperity goals of host countries:**

countries in which the activities that generate carbon credits take place. VCMI is an independent, multi-stakeholder initiative whose mission is to enable VCMs which deliver real and additional benefits to the atmosphere, help protect nature, and accelerate the transition to ambitious, economy-wide climate policies and regulation.

**Through the first phase of the VCM Access Strategies program, VCMI offered support to policymakers in host countries to access high integrity VCMs and channel finance into priority sectors.**

Delivered in partnership with Climate Focus and UNDP, the VCM Access Strategies program engaged an initial set of host countries from June 2021 to November 2022. The program took a country-specific perspective, considering prior experiences, national circumstances and existing carbon finance mechanisms and infrastructure.

This included providing information and supporting stakeholder engagement to inform decision-making on how to direct investment from VCMs into mitigation action and align VCMs with other financial instruments to deliver national climate and economic priorities.

**This VCM Access Strategy Toolkit was developed in response to the identified needs of policymakers to understand key considerations for VCM engagement.**

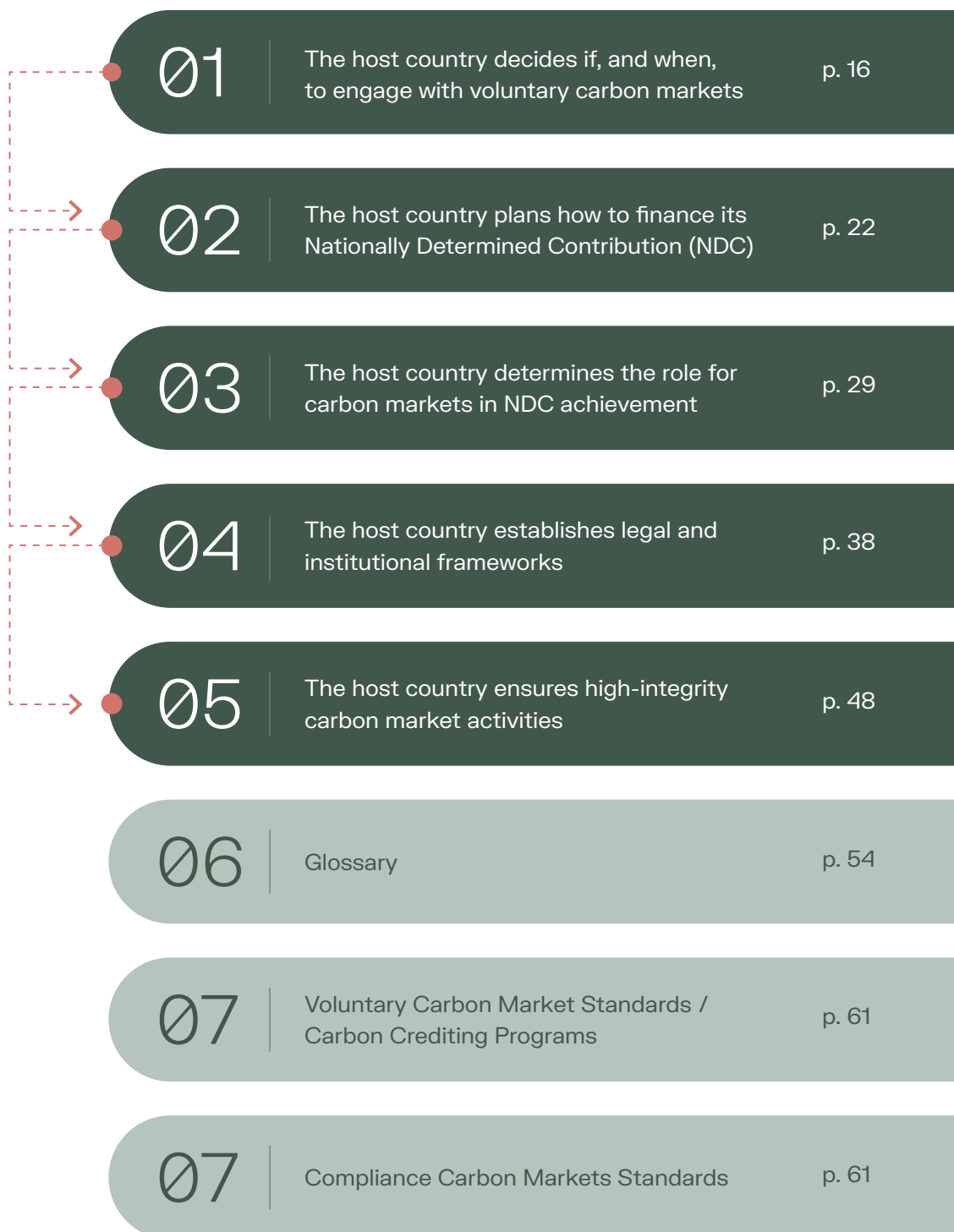
The Toolkit provides high-level guidance to support host countries in deciding whether to, why, how, and when to engage with VCMs. It is designed for use by policymakers and government officials in host countries. It provides a starting point for policymakers to guide their thinking, discussions and preparation for developing carbon market engagement strategies.

Many of the sections of this Toolkit are dependent on the evolving COP Article 6 negotiations landscape where new guidance will continue to be released.

## How to use this toolkit

The VCM Access Strategy Toolkit starts by addressing overarching topics that require political engagement and progresses to more technical issues that policy makers also need to address. 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 VCM Access Strategy Toolkit is organized as follows:







# Overview of voluntary carbon markets

## Introduction to voluntary carbon markets

**Carbon markets are transactional markets for the issuance, sale, purchase, and retirement of carbon credits.** Each carbon credit represents one tonne of greenhouse gas (GHG) emissions – measured in carbon dioxide equivalents (tCO<sub>2</sub>e) – that has been reduced or removed from the atmosphere.

**Voluntary carbon markets (VCMs) involve transactions of carbon credits for voluntary climate change mitigation activities.**

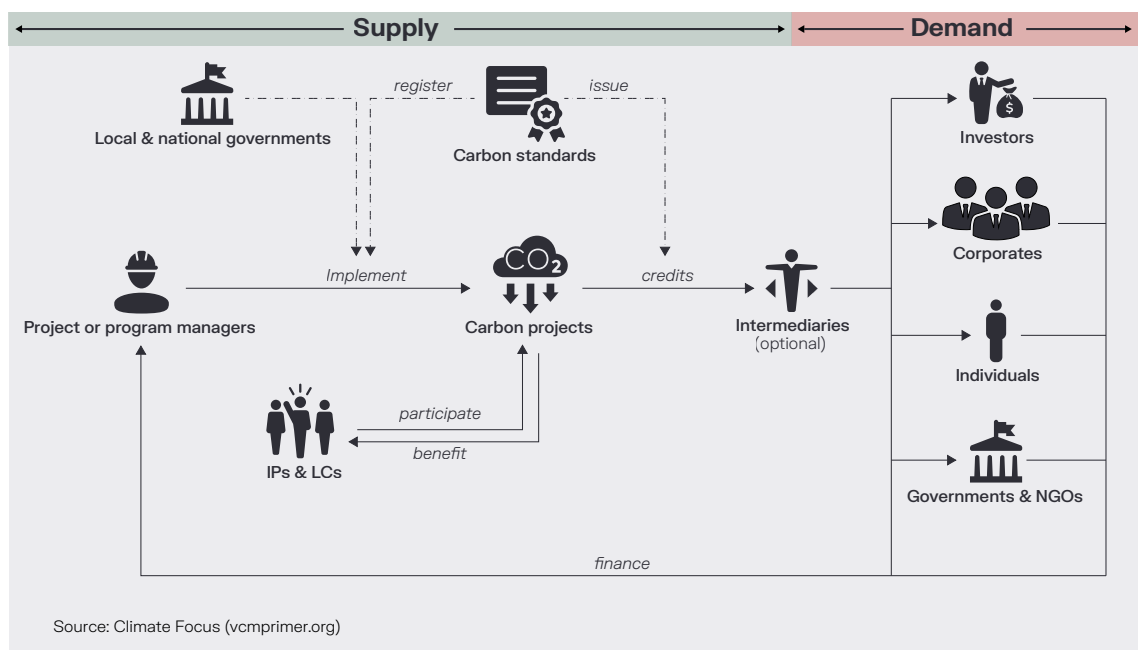
VCMs are outside of regulated or mandated carbon pricing instruments. Corporations, governments, non-governmental organizations (NGOs), local communities, individuals, and other actors participate in VCMs to meet private or public emission reduction commitments or to neutralize GHG emissions of products or services.

**Carbon credits are generated by small projects or large programs that reduce or remove emissions** (see Figure 1).

To generate carbon credits:

- Projects and programs need to attract investment to finance the activities that reduce and / or remove GHG emissions
- Activities need to be designed, developed, and certified by project developers and local partners
- GHG emission reductions and removals need to be monitored and reported by the developer and verified by an independent third party or standard
- Carbon credits need to be issued by the standard and transferred to the buyer
- Project developers, investors, and governments and the UNFCCC sell carbon credits directly to buyers who retire the carbon credits or to intermediaries who market carbon credits to final users.

Figure 1: The market for carbon credits





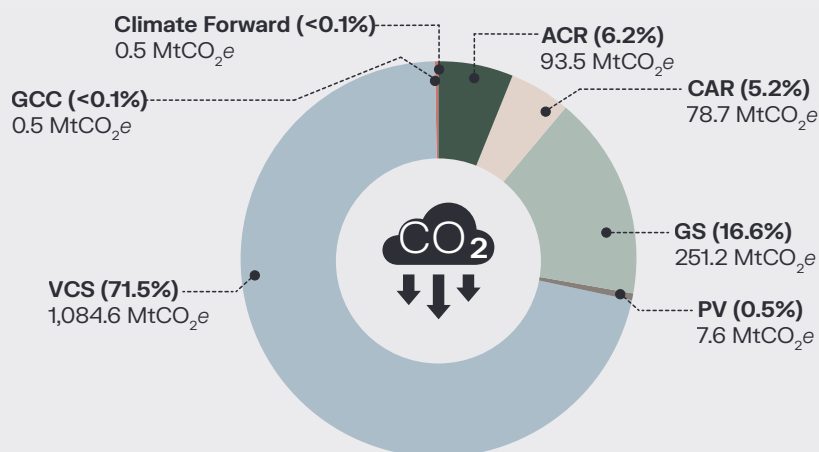
**Carbon credits transacted in VCMs are issued and certified according to requirements set by carbon standards or the UNFCCC.** Carbon standards are carbon crediting programs, typically NGOs, that establish the methodologies and verification, validation, and monitoring procedures that VCM activities must follow for the standard to issue carbon credits.

At the time of writing, the largest carbon standards by volume are the Verified Carbon

Standard (VCS), the Gold Standard (GS), the American Carbon Registry (ACR), and the Climate Action Reserve (CAR) (Figure 2).

The UNFCCC is also developing its own mechanism, Article 6.4. of the Paris Agreement, through which carbon credits that could be transacted in VCMs are issued and certified. This is expected to be similar to the Clean Development Mechanism of the Kyoto Protocol.

**Figure 2: Share of credits issued in the VCM by leading carbon standards**



Source: Climate Focus analysis of data collected for the VCM Dashboard (April 2023)

**VCMs can support countries in achieving climate goals established under the Paris Agreement.** Although the issuance of carbon credits under VCMs is currently broadly governed by private standards and not by international or national regulatory bodies, governments can engage with VCMs. Governments institute policies, regulations and safeguards that influence VCM activities and enable environments that facilitate VCM projects or programs. They can also act as a direct sponsor of VCM projects or programs within their territories.

**VCMs are growing rapidly in both supply and demand.** Growth in supply is evidenced by increases in the issuance of carbon credits and numbers of projects. Growth in demand is evidenced by increases in purchases and retirements (i.e., the use) of carbon credits. Figure 3 shows that the volume of retirements has increased steadily since 2016. VCM issuances and retirements reached an all-time high in 2021, with 352 million credits issued and 159.8 million retired.<sup>1</sup> VCM volumes were lower in 2022, with 279 million credits issued and 156 million retired.<sup>2</sup>





# Demand

**Demand for carbon credits is expected to continue growing.** It is estimated that 1.1-3.6 billion tCO<sub>2</sub>e could be demanded from VCMs by 2050.<sup>3</sup> Companies and investors that purchase carbon credits are most often based in the Global North (though investment also comes from the Global South).

**Carbon credits from nature-based solutions activities are in high demand.**

The popularity of nature-based solutions credits is partially driven by the additional social and environmental benefits of these activities and partially by the potential of nature-based solutions to issue significant volumes of carbon credits. Figure 4 shows that the issuance of nature-based solutions credits reached an all-time high in 2021.

**Demand for carbon credits comes from companies choosing to engage in climate change mitigation.** Public opinion, shareholder requirements and expectations from other stakeholders – including employees and consumers – incentivize corporations to adopt climate targets. Many corporates acquire carbon credits to contribute to these climate targets.

**The VCM Claims Code of Practice provides guidance for how companies can use carbon credits as part of net-zero transitions and make credible claims about that use.** VCM Claims Code of Practice encourages companies and other non-state actors to purchase and retire carbon credits to contribute to the global collective effort to limit temperature change to 1.5 degrees. Increasing demand from companies encourages other market players to enter

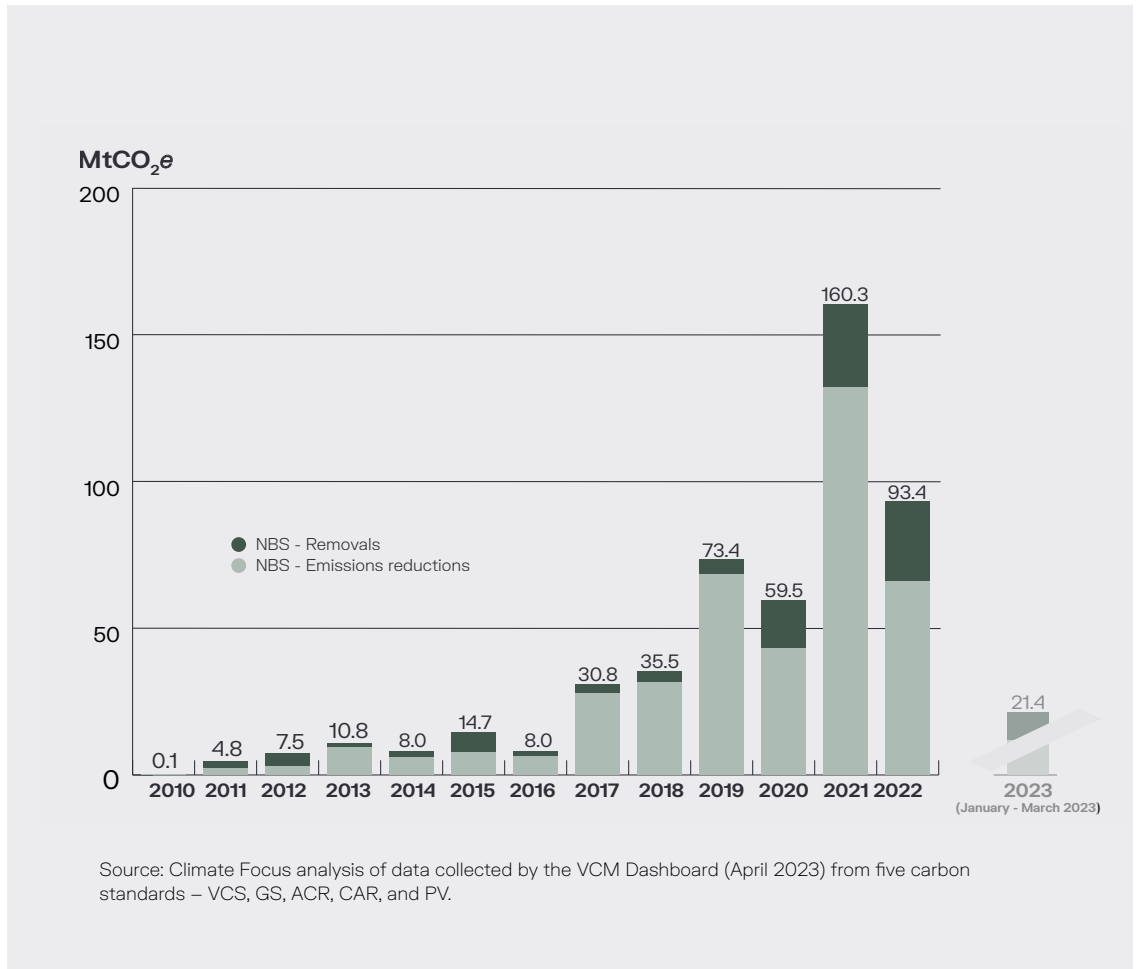
the market. Traders act as intermediaries and investors buy carbon credits in anticipation of increasing prices.

**Some countries allow the use of carbon credits for compliance purposes under domestic climate regulation.** Domestic carbon pricing instruments like carbon taxes and emissions trading systems (ETs) create demand by allowing liable entities to use carbon credits from approved standards and sectors to meet their obligations. 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 VCMs can be used for compliance purposes. As such, the boundaries between voluntary and compliance carbon markets blur.

**In Colombia, Mexico and South Africa, liable entities can use carbon credits issued by certain VCM standards to fulfil obligations under those countries' carbon taxes.** ETs in China, South Korea, and Mexico allow for the limited use of carbon credits acquired through VCMs, although ETs in other jurisdictions (i.e., California, Switzerland, and the European Union) exclude or restrict the use of carbon credits acquired through VCMs.

<sup>3</sup> Trove Research, University College London, & Liebreich Associates. (2021). *Future Demand, Supply and Prices for Voluntary Carbon Credits – Keeping the Balance*. Available at: <https://trove-research.com/wp-content/uploads/2021/06/Trove-Research-Carbon-Credit-Demand-Supply-and-Prices-1-June-2021.pdf>. (Accessed 4<sup>th</sup> April 2023)

Figure 4: NBS carbon credits issued in the VCM





# Supply

**Much of the supply of carbon credits comes from projects in low- and middle-income countries.** As shown in Figure 5, Europe and North America account for 189.6 MtCO<sub>2</sub>e issuances while all other regions combined account for 1,113.7 MtCO<sub>2</sub>e issuances. At the country level, India, China, Brazil, the United States, and Indonesia are the top suppliers of carbon credits.

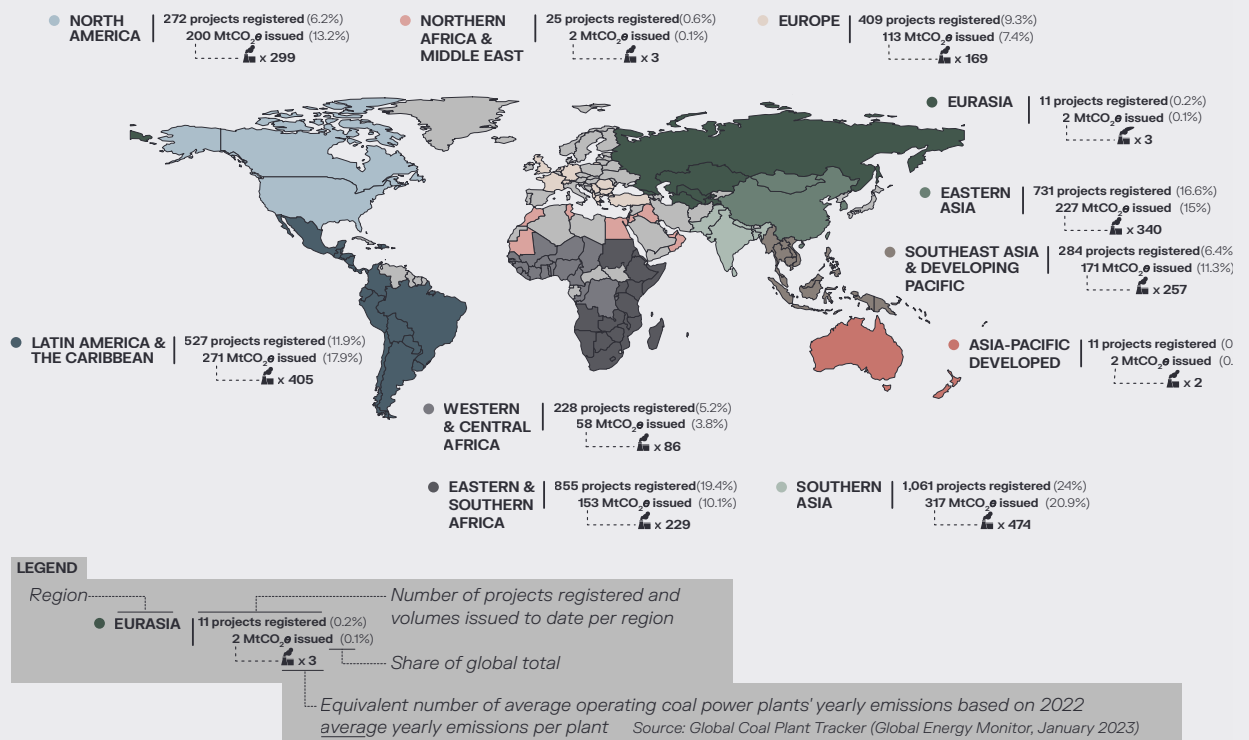
- Africa accounts for the vast majority of energy efficiency carbon credits
- Europe and North America dominate in carbon credit issuances from coal mine methane, industrial gases, and carbon capture and storage projects

At the regional level:

- Southern Asia is the top supplier of carbon credits overall and particularly of renewable energy carbon credits
- Latin America and the Caribbean is the top supplier of nature-based solutions credits, with significant nature-based solutions contributions from Southeast Asia and Southern, Eastern, and Central Africa

The geographical distribution of issuances does not necessarily reflect the geographical distribution of projects. As shown in Figure 6, Southern, Eastern, and Central African countries have the second most projects but are sixth in terms of volume of issuances, while the Latin America and the Caribbean region is fourth in terms of number of projects, but second in terms of volume of issuances. Southern Asia dominates globally with the greatest number of projects and the largest volume of issuances.

**Figure 5: VCM credits issued and projects registered since 2002**

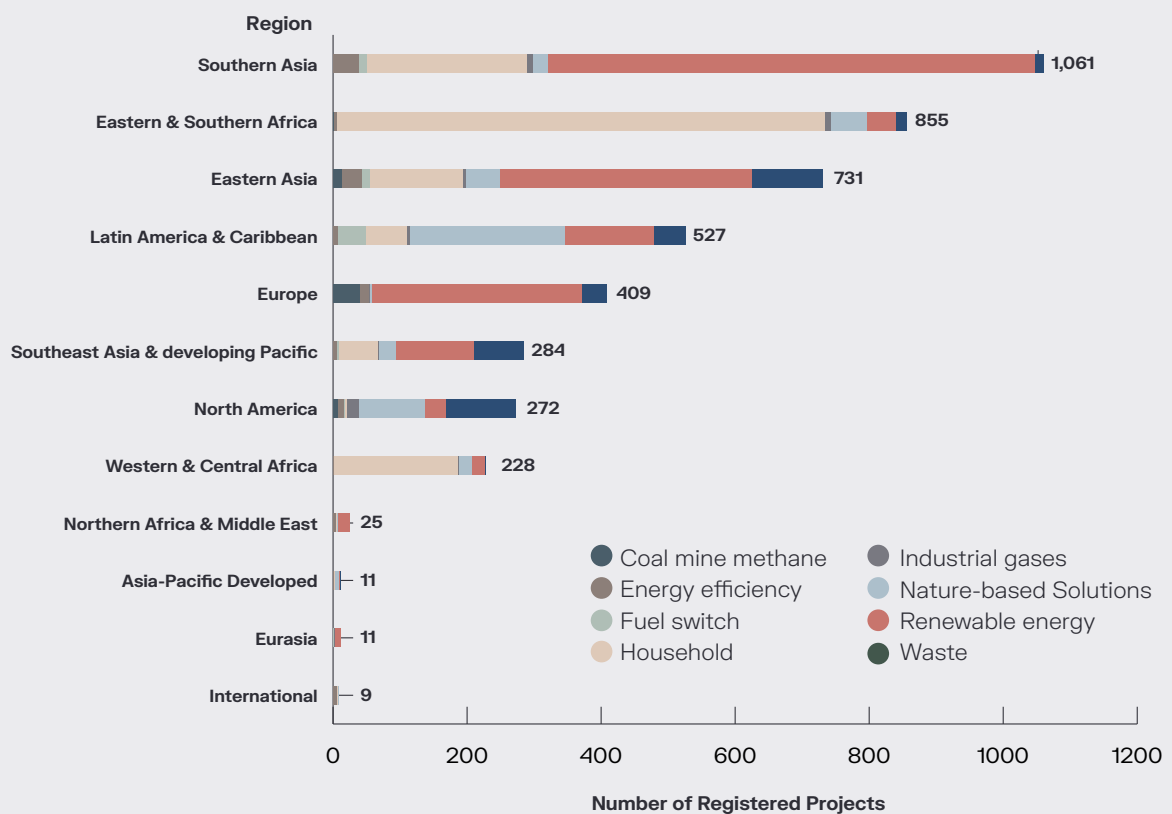


Source: Climate Focus analysis of data collected by the VCM Dashboard (April 2023) from seven carbon standards – VCS, GS, ACR, CAR, PV, GCC, and Climate Forward.

**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. The most extreme case is Southeast Asia, where nature-based solutions represents 5.3% of projects but delivers 73% of issuances.

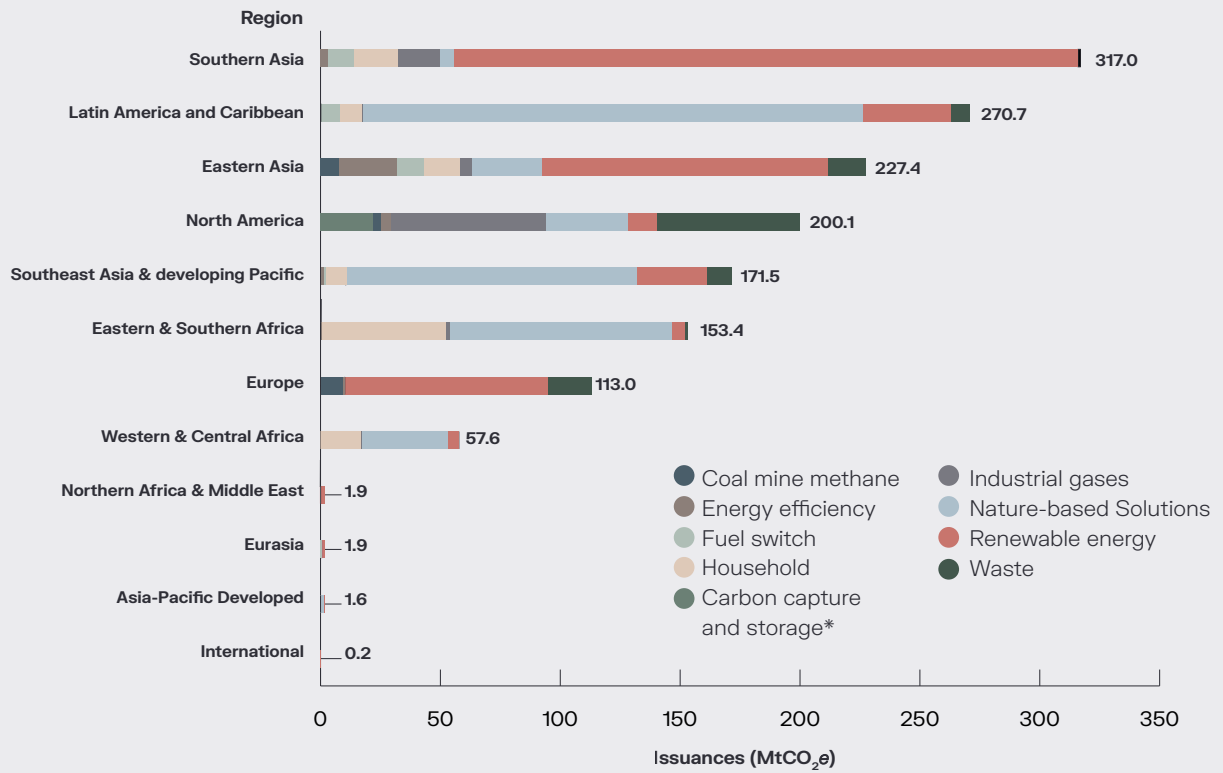
Figure 6: Registered VCM projects per region



Source: Source: Climate Focus analysis of data collected by the VCM Dashboard (April 2023) from seven carbon standards – VCS, GS, ACR, CAR, PV, GCC, and Climate Forward.



Figure 7: VCM credit issuances per region



Source: Climate Focus analysis of data collected by the VCM Dashboard (April 2023) from seven carbon standards –VCS, GS, ACR, CAR, PV, GCC, and Climate Forward

\*Carbon Capture and Storage credits have been issued only from projects in the United States and all of those projects are now completed. This figure includes all issuances from active and completed projects, while Figure 6 includes only registered active projects, which is why Figure 6 does not include any Carbon Capture and Storage projects.



# 01

Deciding if, and when,  
to engage with voluntary  
carbon markets

**Considerations**

- 1.1 Assess the potential of engagement with VCMs
- 1.2 Determine which roles the host country government will play
- 1.3 Identify the existing market: mapping of VCM activities

**Who should be included in these discussions?** Government agency responsible for NDC design and 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 capacity, involvement, and support of host countries.** Host countries are countries in which the activities that generate carbon credits take place. A clear and stable regulatory environment in host countries supports investor confidence in carbon markets.

Host countries can create certainty by clarifying the role of carbon markets – compliance and voluntary – in the context of national climate policies, ensuring that voluntary activities align with national priorities, and follow social and environmental safeguards.

**Voluntary carbon markets (VCMs) provide opportunities to host countries, but their complexity presents a major barrier to engagement.** Many governments have limited experience with carbon projects and programs beyond the approval of clean development mechanism (CDM) projects. Some public agencies have experience sponsoring VCM activities, when VCM activities require a permit to operate, or when a link exists between domestic regulation and VCMs.

**Overall, very few countries have strategies for engaging with VCMs.** 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. 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.

**Host countries need to make decisions about both VCMs and engagement under Article 6 of the Paris Agreement.** VCMs and Article 6 are separate carbon market modalities, but they can be linked. Considerations for Article 6 and links to VCMs are further discussed in decision sheets 2 and 3. This sheet examines why and how host country governments might engage with carbon markets, and outlines the first steps to identify carbon market opportunities.



## 1.1 Assess the potential of engagement with VCMs

### Host countries are increasingly interested in understanding carbon markets and their different modalities due to a mix of internal and external influences:

- Host countries 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
- Host countries 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

- Host countries 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
- Host countries participate in international initiatives that seek to build rules of VCMs, such as the Voluntary Carbon Markets Integrity Initiative (VCMI) and/or the Integrity Council on Voluntary Carbon Markets (ICVCM).

**The range of motivations to engage in carbon markets is summarized in Table 1. Many host country governments are driven by more than one motivation.**

**Table 1: Why host country governments are interested in VCMs**

Governments' reasons for engagement		Governments' interests and concerns
<b>Harnessing an opportunity</b>	Using carbon markets to support national and global climate goals and sustainable development	Governments may be interested in learning more about the potential of VCMs to support their climate change mitigation goals, sustainable development plans, and financing needs.
	Using carbon markets in the context of national carbon pricing policies	Governments may wish to reference VCMs in national policy and legal instruments, such as allowing liable entities to meet carbon tax obligations with VCM credits.
<b>Mitigating non-compliance risks</b>	Ensuring that carbon market activities support the nationally determined contribution (NDC)	Governments may be worried that VCMs export emission reductions and removals needed to meet the country's NDC. By engaging with carbon markets, governments can ensure that they understand any decisions they are making about authorization of VCM projects under Article 6 (see sheet 4) and direct VCM activities toward sectors that are covered or not covered by their NDC.
<b>Safeguarding the integrity of projects and credits</b>	Ensuring that ongoing carbon market activities are aligned with national policies and priorities	Governments may want to ensure that activities are compliant with national law and aligned with strategic policy priorities.
<b>Addressing problems</b>	Exposure to problems that relate to the carbon market	Governments may need to respond to allegations by international actors with respect to problematic projects or issues of non-compliance in their countries. They can alleviate these problems by regulating and directing VCM activity.

**Once a host country government has determined that it wants to engage with VCMs, it can develop its carbon market strategy.** A carbon market strategy helps a host country to maximize investments into VCM 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 VCM engagement:** Benefits include finance for climate mitigation goals, ensuring understanding of Paris Agreement processes, advancing sustainable development goals, and promoting public-private partnerships
- **Assess risks of government VCM engagement:** Risks include low-quality projects creating local conflicts and reputational damage, undermining NDC

achievement if too many authorizations are given for corresponding adjustments, and overwhelming government agencies responsible for oversight and implementation

- **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 host country
- **Attract carbon finance to support national climate policy and finance priorities:** The government needs to define its financing priorities to then attract carbon finance that aligns with local development goals and advances social and environmental benefits.

## 1.2 Determine which role(s) the host country government will play

### **Boundaries between mandatory and voluntary, or publicly and privately regulated, carbon markets are blurry.**

The generation and trade of carbon credits in VCMs are overseen by private carbon standards and carbon crediting requirements. Voluntary market engagement allows corporates to contribute to voluntary climate targets. Where corporates are mandated to meet climate targets, governments may accept carbon credits

issued by private standard setters for compliance purposes often to offset corporate emissions. For example, carbon taxes in Colombia or South Africa allow the use of carbon credits issued by certain VCM carbon crediting programs for compliance.

### **To engage with VCMs, host country governments can act as regulators, as implementers, and as facilitators.**



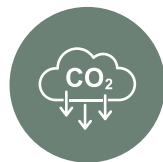
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**As regulators,** governments institute policies, regulations, and safeguards to guide the development of carbon projects in their territories and attract carbon market finance.

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 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 may permit the use of carbon credits certified by VCM carbon crediting programs in mandatory carbon pricing schemes (e.g., carbon tax, ETS).



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**As implementers,** governments support delivery of VCMs activities directly.

Subnational entities (e.g., municipalities or states), public agencies (e.g., natural park authorities or investment agencies), or public utilities (e.g., municipal waste management or energy generating entities) can be sponsors and co-implementers of carbon projects in partnership with project developers.

In the context of REDD+, governments can sponsor jurisdictional and nested programs, and adopt rules for private sector engagement.



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**As facilitators,** governments support climate change actions financed by investment in and purchase of carbon credits.

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 direct 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.

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## 1.3 Identify the existing market: mapping of VCM activities

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

**Even if a government has not previously engaged with VCMs, there may be VCM 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 where Indigenous or other subnational entities have some degree of autonomy, these actors may have developed projects without the involvement of the federal government.

**The government can carry out a mapping of actors to determine who is already engaged in VCMs 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 VCM 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 VCM-adjacent activities such as managing REDD+ and negotiating Article 6.

# 02

NDC financing and  
voluntary carbon markets

- 2.1 Determine finance needs for implementing the NDC
- 2.2 Identify financing instruments available for implementing the NDC
- 2.3 Facilitate finance for mitigation through VCMs

**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 for implementing the NDC

**To engage effectively with VCMs, policymakers in host countries 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.

**Host country governments can then determine the role of voluntary carbon market (VCM) finance.** Once the host country government has evaluated different sources of available financing, and implications of such financing, it can consider how carbon finance – from compliance and/or voluntary carbon markets – can complement finance needs for NDC goals.

**Countries should make their financing needs as clear and specific as possible.**

Some countries have clear estimates of how much funding is required to implement their NDCs. For example, Bangladesh, Cameroon,

Ghana, Lao PDR, and Cambodia clearly specify the annual finance needed for mitigation and adaptation. They also break down funding allocation by Agriculture, Forestry, and Other Land Use (AFOLU), energy, transport, industry, waste, and other sectors. Other examples are Ghana and Papua New Guinea (PNG):

- 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.”<sup>4</sup>
- PNG references market mechanisms and Article 6 in its plan, specifying that “implementing the proposed actions could deliver significant emission reductions that could be monetized through results-based payments under a range of mechanisms including the Green Climate Fund, bilateral, market or non-market mechanisms under Article 6 of the Paris Agreement and PNG is looking forward to enforcement of the Article 6 on the ground.”<sup>5</sup>



**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.

Table 2 summarizes the main steps that lead to an NDC financing strategy.

Table 2: Steps to develop an NDC financing strategy

	Develop policies to achieve NDC goals	Financial considerations
Step 1	Assess the <b>emission reduction and removals potentials</b> of different sectors and activities.	Determine the reference price of reducing one tonne/sequester one tonne of CO <sub>2</sub> e, i.e., the <b>carbon price</b> . <b>Emission reduction potentials</b> are identified in relation to a reference carbon price.
Step 2	Identify <b>sustainable development benefits</b> and assess societal <b>acceptance</b> of possible implementation measures.	Identify <b>co-benefits of mitigation measures and vice-versa</b> . 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 <b>emission reduction and removal potentials</b> while helping to support national <b>policy goals</b> .	Develop <b>measure-specific financing</b> 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.	

<sup>4</sup>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](https://unfccc.int/sites/default/files/NDC/2022-06/Ghana%27s%20Updated%20Nationally%20Determined%20Contribution%20to%20the%20UNFCCC_2021.pdf) (Accessed 4<sup>th</sup> April 2023)

<sup>5</sup>Government of Papua New Guinea (2020). *Papua New Guinea's Enhanced Nationally Determined Contribution 2020*, page 31. Available at: <https://unfccc.int/sites/default/files/NDC/2022-06/PNG%20Second%20NDC.pdf> (Accessed 4<sup>th</sup> April 2023)

## 2.2 Identify financing instruments available for implementing the NDC

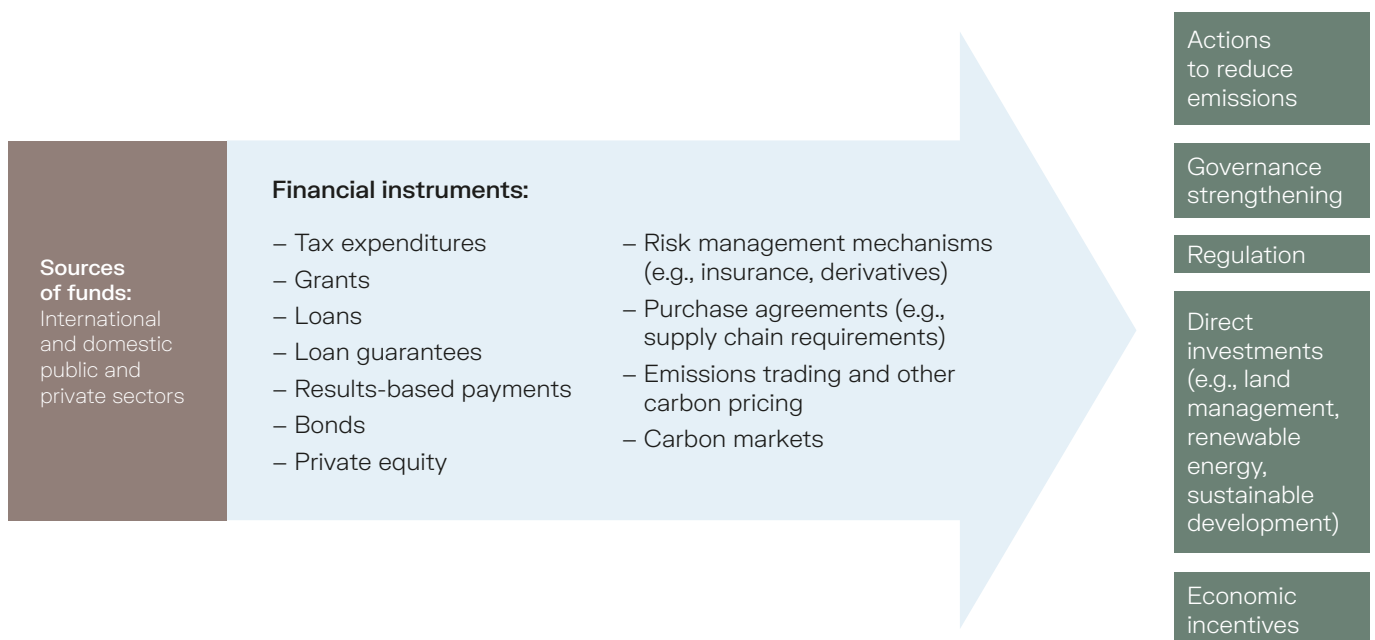
**Financing strategies for the implementation and achievement of NDCs draw on a range of funding sources and instruments.** Sources may be domestic or international funds, and private or public. Instruments include direct investments, taxes, loans, results-based payments, and carbon markets—compliance and voluntary. Different sources and instruments enable specific types of mitigation action, including direct investments, strengthened regulation and governance, and economic incentives (see Figure 8).

**Host 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.

**Donors offer finance using a range of financial instruments to support NDC implementation, but not all are suited to support the longer-term transition to sustainable economies.** Many instruments provide shorter-term support (e.g., through REDD+ results-based finance) but longer-term climate policies will depend on significant budgetary spending.

Figure 8: Flow of funds from source to use<sup>6</sup>



<sup>6</sup> 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](https://climatefocus.com/wp-content/uploads/2022/06/Winrock-FinancingLandUseMitigation_7-22-2015.pdf). (Accessed 4<sup>th</sup> April 2023)



**Article 9 of the Paris Agreement requires developed countries to take the lead on mobilising 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.

**Carbon finance is a sub-category of climate finance that links payments to the generation of emission reductions and removals.** Article 6 of the Paris Agreement enables cooperative approaches that support countries to meet and go beyond their NDC, including through carbon markets. For voluntary projects and programs to meet the requirements of Article 6 of the Paris Agreement they need to be approved by the host government and meet a series of accounting requirements.

## 2.3 Unlocking NDC finance through VCMs

**VCMs provide an opportunity for host countries to channel finance into mitigation and adaptation action.** VCMs are growing, driven by increasing corporate demand for carbon credits. VCMs provide an opportunity to attract national and foreign direct investments into mitigation action without burdening national budgets or affecting debt ceilings. The private sector or foreign investors can complement governments' efforts to reduce or remove emissions by financing climate mitigation projects.

To attract strategic VCM investments, host country governments need to clarify their finance needs and develop capacity to approve, monitor, and track carbon market activities.

**Clearly defined mitigation projects are most likely to attract carbon finance.** Such projects are identified by the host country government to meet mitigation needs and depend on the additional income provided by carbon finance to become viable. Projects must 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
- Risks are mitigated and managed by project developers and investors.

**Historically, investments in renewable energy and industry were preferred investment choices by the carbon market investors.** Investments in communal infrastructure, such as waste management, energy efficiency or district heating, can also offer attractive carbon finance opportunities.

With larger-scale renewable energy VCM activities failing to pass required additionality tests,<sup>7</sup> investors are turning to investments in more complex projects that require the aggregation of a large amount of point sources, such as clean cook-stoves or manure management projects. Over the last several years, investments in nature-based solutions have become increasingly popular.

**Host countries can attract carbon finance into priority sectors by removing risks that characterize such investments.** Host country governments can create an enabling environment for carbon investments, for example by:

- Making market-relevant information publicly available and enhancing transparency around investments. Data can include grid and dispatch data for the energy sector, market forecasts and production data for manufacturing and processing sectors, land-use and land tenure data for the land sector
- Participating in international and sector events promoting the country as welcoming carbon investments
- Adopting rules for the definition and approval of Article 6 activities
- Directly supporting larger investments through co-investments (see Box 1 for examples) and subsidize action (e.g., climate-smart agriculture) to lower investment barriers.



## Box 1: Carbon market projects co-funded through public-private partnerships.

**The GuateCarbon Project** is a public-private partnership between the Association of Forestry Communities of Petén (ACOFOP) – a group of 23 community organizations that manage forest concessions<sup>8</sup> – and the National Council for Protected Areas (CONAP) – a government agency dedicated to sustainability and nature conservation<sup>9</sup> – in Guatemala.<sup>10</sup> The project grants concessions to local communities within the Maya Biosphere Reserve, which is land belonging entirely to the Guatemalan government.<sup>11</sup> By paying local communities to manage natural resources and extract resources under Forest Stewardship Council standard guidelines, GuateCarbon avoids deforestation through low-impact activities that improve living conditions and create jobs for local communities.

**The Chyulu Hills REDD+ Project (CHRP)** – located in south-eastern Kenya’s Tsavo-Amboseli ecosystem – is a public-private partnership between nine organizations, including the Kenyan Government’s Forest and Wildlife Services and several Kenyan trusts, group ranches, and international NGOs.<sup>12</sup> This array of organizations from public, private, and civil society sectors comes together as the Chyulu Hills Conservation Trust, serving as the primary project proponent of the CHRP. Over its 30-year crediting period, the CHRP aims to prevent the emission of over 37 million tCO<sub>2</sub>e through grassland conversion and the reduction of deforestation and forest degradation.<sup>13</sup> These goals will primarily be accomplished through initiatives such as employing forest rangers, facilitating more rigorous environmental law enforcement, improving employee motivation, and developing additional employment opportunities for communities.<sup>14</sup>

**Tukiwasi – Pleasant Homes is an improved cookstoves project** developed as a public-private partnership between the Swiss Government and Microsol, a Peruvian project developer. The project is developed in the context of a bilateral agreement between Switzerland and Peru under Article 6.2 of the Paris Agreement. Within this framework, Microsol, together with the Swiss foundations Climate Cent and KliK, signed an agreement to create the first commercial agreement for the purchase of internationally transferable mitigation outcomes (ITMOs). It is expected that other governments will promote similar public-private transactions under Article 6.

<sup>7</sup> Additionality tests demonstrate that the GHG emission reductions and removals associated with a carbon credit would not have taken place without the incentives and investment provided by VCM activities. Carbon credits must demonstrate additionality to be considered credible and high-quality.

<sup>8</sup> Abieodun Lamptey, E., Atwell, E., Blackman, T., Clay, J., Corcoran, J., Currado, L., et al. (2012). *Association of Forest Communities of Peten, Guatemala*. Available at: [https://www.equatorinitiative.org/wp-content/uploads/2017/05/case\\_1348068795\\_EN.pdf](https://www.equatorinitiative.org/wp-content/uploads/2017/05/case_1348068795_EN.pdf). (Accessed 4<sup>th</sup> April 2023)

<sup>9</sup> Misión y Visión del CONAP. (n.d.). *Gobierno de Guatemala: Consejo Nacional de Areas Protegidas*. Available at: <https://conap.gob.gt/>. (Accessed 11<sup>th</sup> October 2022)

<sup>10</sup> Reduced Emissions from Avoided Deforestation in the Multiple Use Zone of the Maya Biosphere Reserve in Guatemala (GuateCarbon). (n.d.). Verra. Available at: <https://registry.verra.org/app/projectDetail/VCS/1384>. (Accessed 11<sup>th</sup> October 2022)

<sup>11</sup> UNFCCC (n.d.). *GuateCarbon Payment for Environmental Services in the Maya Biosphere Reserve*. Available at: <https://unfccc.int/climate-action/momentum-for-change/activity-database/momentum-for-change-guatecarbon-payment-for-environmental-services-in-the-maya-biosphere-reserve>. (Accessed 11<sup>th</sup> October 2022)

<sup>12</sup> Verra (2017). *Project Story: Collaboration and Restoration in Maasai Territory*. Available at: <https://verra.org/project-story-collaboration-and-restoration-in-maasai-territory/>. (Accessed 11<sup>th</sup> October 2022)

<sup>13</sup> Verra (2015). *Project Description: The Chyulu Hills REDD+ Project*. Available at: [https://registry.verra.org/mymodule/ProjectDoc/Project\\_ViewFile.asp?FileID=45890&IDKEY=n98klasmf8jflkasf8098afnasfkj98f0a9sfsakjflsakjf8df63282310](https://registry.verra.org/mymodule/ProjectDoc/Project_ViewFile.asp?FileID=45890&IDKEY=n98klasmf8jflkasf8098afnasfkj98f0a9sfsakjflsakjf8df63282310). (Accessed 11<sup>th</sup> October 2022)

<sup>14</sup> Ibid.

# 03

Determining the role for  
carbon markets in NDC  
achievement

The host country determines the role for carbon markets in achieving Nationally Determined Contribution (NDC) goals

#### Considerations

- 3.1 Clarify when emission reductions and removals count towards the host country's NDC achievement
- 3.2 Consider double counting and double claiming
- 3.3 Develop a policy on corresponding adjustments
- 3.3 Avoid risks related to carbon market engagement

**Who should be included in these discussions?** Government agency or agencies responsible for NDC design and implementation, UNFCCC negotiators, agencies in charge of GHG inventories and NDC accounting, attorney general's office, sectoral ministries with relevant activities in their portfolios.

**It is essential that host country governments decide whether – and to what extent – voluntary and regulated carbon market transactions should contribute to their Nationally Determined Contribution (NDC).** This decision requires an assessment of the mitigation potential of existing and planned policies, including the identification of potential mitigation gaps.

Voluntary carbon markets (VCMs) – and compliance carbon markets – can help countries to increase their ambition and generate emission reductions and removals that go beyond existing NDCs.

How carbon markets contribute to a country's NDC depends on the decisions a host country makes regarding which types of mitigation activities are approved, and then authorized for international transfer under Article 6 of the Paris Agreement.

## 3.1 Clarify when emission reductions and removals count towards the host country's NDC achievement

**Under the Paris Agreement all Parties must formulate NDCs and report progress towards meeting mitigation objectives.** The Paris Agreement, through Article 4.13, establishes the requirement that countries account for emissions under their NDCs. Countries must define a methodology to assess progress against NDC targets and establish suitable data sources.

In accordance with Article 4.13 of the Paris Agreement:

“Parties shall account for their nationally determined contributions. In accounting for anthropogenic emissions and removals corresponding to their nationally determined contributions, Parties shall promote environmental integrity, transparency, accuracy, completeness, comparability and consistency, and ensure the avoidance of double counting (...)”

**Carbon market activities under Article 6 of the Paris Agreement influence the NDC accounting of participating Parties.** Article 6.2 of the Paris Agreement establishes a mechanism to transfer mitigation outcomes between countries. The transfer of such internationally transferable mitigation outcomes (ITMOs) needs to be reported and accounted for in the context of NDCs to “ensure environmental integrity and transparency, including in governance” and, “inter alia, the avoidance of double counting, consistent with guidance adopted by the Conference of the Parties.”

**Transfers under Article 6 of the Paris Agreement require robust measurement, reporting, and verification (MRV) of GHG emission reductions and removals.**

Emission reductions and removals cannot be accounted for under more than one NDC, in most cases either the generating or the receiving country’s NDC. If countries transfer a mitigation outcome credited under Article 6.2 or 6.4. of the Paris Agreement and it is being accounted under another Party’s NDC or used against another international mitigation goal, the Parties involved need to make a ‘corresponding adjustment’ to ensure that there is no double counting of the mitigation benefit by multiple countries (see Box 2 and Figure 9).

**Host countries have ultimate control over whether GHG emission reductions and removals generated by carbon market projects count towards the achievement of their NDC.** Host countries decide whether a GHG emissions reduction or removal will be authorized for trade with a corresponding adjustment, or remain unauthorized meaning the GHG emissions reduction or removal can count towards the host country’s NDC. Governments can decide to support activities through cooperative approaches between countries (Article 6.2) or via the UNFCCC centralised mechanism (Article 6.4) with OR without authorizing the transfer of GHG emission reductions and removals with corresponding adjustments:

- When countries approve a corresponding adjustment for a carbon credit traded in VCMs, the associated emissions reduction or removal can no longer be used towards the host country NDC
- When carbon credits issued under Article 6.2 or 6.4 of the Paris Agreement are not authorized to be accounted for against another country’s NDC or another international mitigation goal, they can be counted towards the host country’s NDC



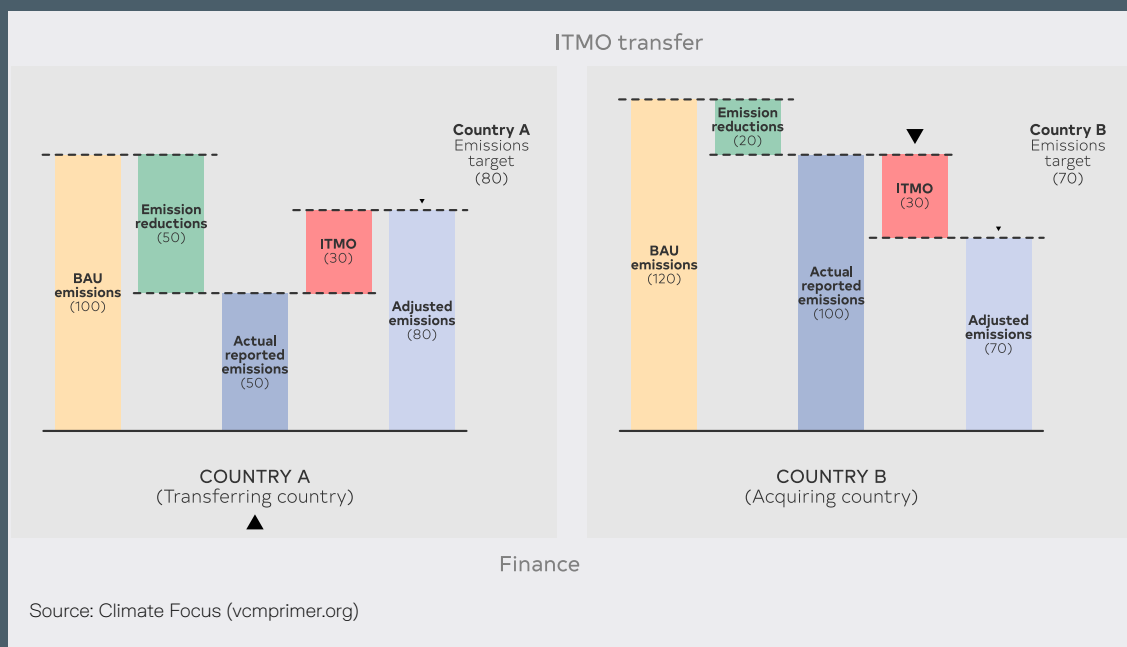
## Box 2: What are corresponding adjustments?

Corresponding adjustments are a national accounting tool agreed by and for countries under Article 6 of the Paris Agreement to avoid double-counting in tracking progress toward implementation of their Nationally Determined Contributions. Corresponding adjustments do not change the quality of the associated emission reductions or removals.

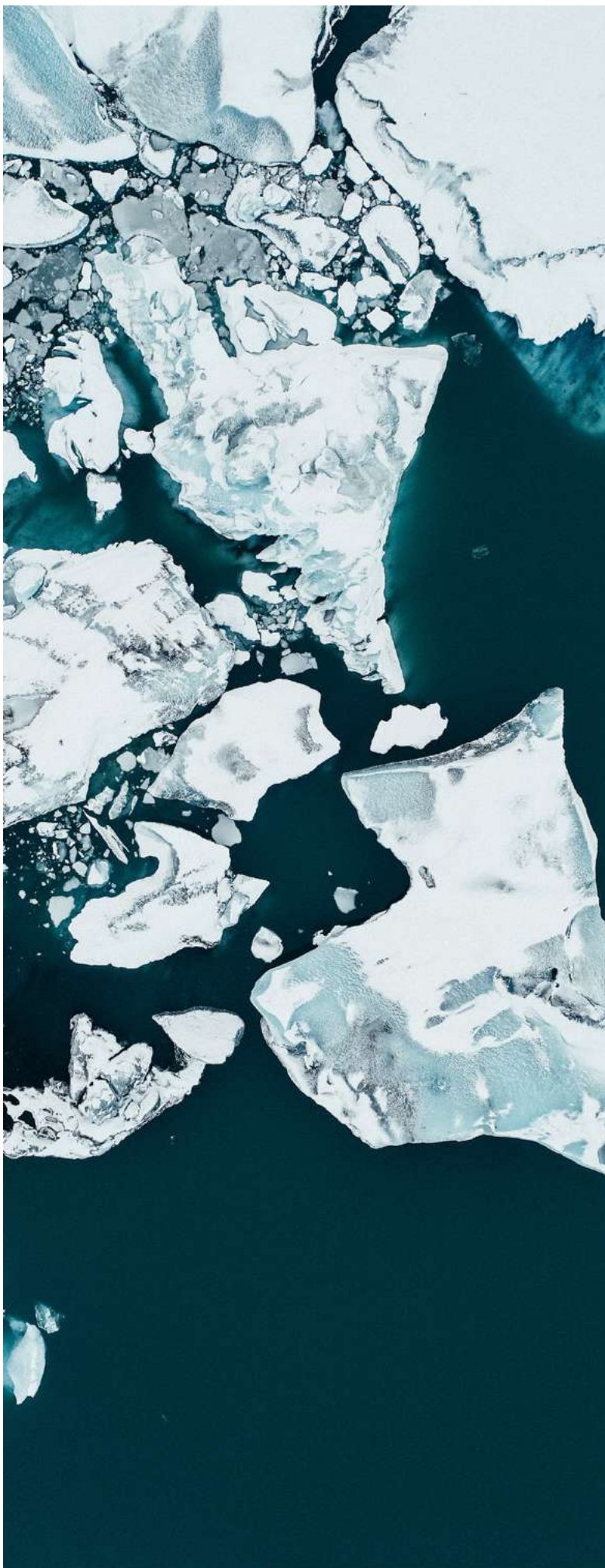
Article 6 rules require corresponding adjustments for internationally transferred carbon credits authorized for use toward a buyer's Nationally Determined Contribution or for other international mitigation purposes (e.g., CORSIA); but host country authorizations may place limits or conditions on such uses or specify authorized users.

Other international mitigation purposes are not defined in Article 6, but many view that these could include transfers in voluntary carbon markets. As such, Article 6 creates a path—but not an obligation—for host countries to authorize and apply corresponding adjustments for the use of carbon credits in voluntary carbon markets (See Figure 9).

The Article 6 guidance does not require carbon credits that are used for voluntary purposes by companies to be authorized by host countries. Despite this, host country governments may choose to authorize carbon credits for voluntary purposes. Having been authorized, these credits would then require corresponding adjustments to be made once transferred. At the time of writing, most countries are not ready to implement corresponding adjustments because they are still developing and refining administrative, transparency, and accounting practices.



**Figure 9:** Under the Article 6 rules, when Internationally Transferable Mitigation Outcomes (ITMOs) are exchanged between countries, they must be backed by corresponding adjustments. The corresponding adjustment means that the emission reductions or removals represented by the ITMO are counted toward the NDC of the country that acquired the ITMO and not towards the NDC of the country that generated the ITMO.



**To complement domestic policy instruments and voluntary action, governments may consider engaging in Paris Agreement Article 6.2 cooperative approaches or Article 6.4<sup>15</sup> activities directly to achieve NDC targets.**

Governments can sponsor Article 6.2 cooperative approaches, develop larger aggregated or jurisdictional programs, and prioritize VCM projects from certain sectors for Article 6.2./6.4 approvals and authorizations. If VCM projects seek corresponding adjustments, they must comply with Article 6.2 of the Paris Agreement.

**GHG emission reductions and removals generated through VCM projects in a host country can be counted towards the country's NDC, unless the associated carbon credits have been authorized for corresponding adjustments.** GHG

emission reductions and removals generated by a VCM project or program are included in the GHG inventory of the host country. If the GHG emission reductions and removals are issued as carbon credits and transferred to another entity without corresponding adjustments, they do not show in the inventory or accounting system of the country where the issued carbon credits are used.

<sup>15</sup> At the time of writing Article 6.4 is not yet operable. The Article 6.4 Supervisory Body is responsible for determining outstanding key aspects of the 6.4 mechanism via UNFCCC negotiations before the first Article 6.4 carbon credits can be traded.

## 3.2 Consider double counting and double claiming

**Avoiding “double counting” is a widely accepted integrity requirement for carbon markets.** Double counting is when the same GHG emission reduction or removal is counted by more than one Party toward achieving its NDC.

**A related concept often conflated with “double counting” is that of “double claiming.”** There are situations in which both a host country and a purchasing company use the same GHG emission reduction or removal represented by a carbon credit. Double claiming does not result in double counting of emission reductions or removals under the Paris Agreement provided only one country counts the GHG emission reductions or removals at any given time, including after any international transfer. Double claiming can occur between different accounting systems (e.g., where corporate accounting overlaps with government accounting) or within a system (e.g., different carbon projects under the same crediting program account for the same GHG emission reductions and removals more than once).

**Instances of “double claiming” are common between government and corporate accounts.** This occurs when a corporate actor claims the achievement of

a mitigation outcome and a government counts the mitigation outcome and associated GHG emission reductions and removals in their NDC accounting.

**Double claiming by a country and by a corporate is not prohibited by the Paris Agreement accounting rules.**

Host countries are not obliged to make corresponding adjustments for carbon credits transacted in VCMs. However, host countries may offer corresponding adjustments for certain projects, under certain conditions.

**Some actors in VCMs consider corresponding adjustments necessary to mitigate the risk of double claiming GHG emission reductions and removals.** Some corporate buyers seek corresponding adjustments to mitigate the market risk of double claiming. Corresponding adjustments would be necessary for a corporate buyer to use GHG emission reductions and removals that are not also used toward achievement of the host country’s NDC. If corresponding adjustments are made in the context of VCMs, GHG emission reductions and removals are communicated to the UNFCCC without being accounted towards an NDC.

## 3.3 Develop a policy on corresponding adjustments

**Host country governments should carefully consider offering corresponding adjustments.** Offering corresponding adjustments could have both positive and negative impacts on the country's ability to achieve its NDC.

**Positively, 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 help host countries attract additional finance and enhance their reputation. An increasing number of VCM buyers are looking for carbon credits that are backed by an authorization of the host country and the promise of future corresponding adjustments. Host countries that offer such authorizations may position themselves as an attractive place for VCM investments.

**However, making a corresponding adjustment for the transfer of a carbon credit also comes with costs to the host country:**

1. There are financial and other resources required to build up the institutional and technical capacities needed to make a corresponding adjustment
2. Making a corresponding adjustment means the host country cannot count the GHG emission reduction or removal toward its NDC achievement
3. A host country needs to make a corresponding adjustment for an ITMO regardless of whether the activity that generated this mitigation outcome was within or outside the NDC. The host country will need to achieve an extra GHG emission reduction or removal from the sectors and activities covered by its NDC for each corresponding adjustment made.

**The choice of whether to offer corresponding adjustments for the transfer of carbon credits belongs uniquely to host countries and is not a decision made by the carbon standard or the buyer.** A host country needs to carefully evaluate when and under which conditions it authorizes corresponding adjustments for carbon credits traded in VCMs. Considerations include:

1. Whether or not the underlying project or program is covered by the country's NDC
2. Whether the mitigation action could be achieved more cost-efficiently without carbon market finance
3. Whether the projects or programs come with significant sustainable development or technology transfer benefits.

**In most countries, the agreement to make corresponding adjustments needs to be backed by a legal act.** Offering corresponding adjustments to a VCM project results in an enhanced market value of resulting GHG emissions reductions or removals. This means that a decision on corresponding adjustments involves the granting of a valuable service that amounts to a subsidy. Consequently, governments must consider this decision in the context of local competition laws.

**Considering the costs associated with corresponding adjustments, host country governments can 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 host countries, which are made of:

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 emission 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 emission reductions or removals to replace the exported mitigation outcomes. If the host country government wishes to incentivize certain mitigation action, the country can also offer corresponding adjustments for prioritized mitigation for a reduced or waived fee.

**Host countries can deploy different strategies to avoid “overselling” GHG emission reductions and removals.**

Overselling refers to a scenario in which a host country authorizes the transfer of GHG emission reductions and removals (including corresponding adjustments) that later makes it harder for the host country to achieve its NDC. Avoiding overselling is important to ensure that offering corresponding adjustments in VCMs does not jeopardize the host country’s NDC achievement.

For example, host countries could consider offering corresponding adjustments on a specific percentage of GHG emission reductions or removals generated by a project. Offering corresponding adjustments to, for example, 10-50 percent of the generated GHG emission reductions or removals can ensure that most of the mitigation benefits can still be counted towards the host country’s NDC. The exact percentage of carbon credits that a host 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.

Other strategies include pricing to fund a ‘reserve’ for additional mitigation, and excluding certain activities that a host country intends to use for its NDC achievement from carbon crediting mechanisms that require corresponding adjustments<sup>16</sup> (e.g. a negative list, such as the ‘red list’ described in Ghana’s framework on international carbon markets and non-market approaches<sup>17</sup>).

<sup>16</sup> 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](https://www.infras.ch/media/filer_public/32/71/3271ad9a-ff27-43b2-bd46-7ce719b8222f/practical-strategies-to-avoid-overselling-final-report.pdf) (Accessed 4<sup>th</sup> April 2023)

<sup>17</sup> 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](https://cmo.epa.gov.gh/wp-content/uploads/2022/12/Ghana-Carbon-Market-Framework-For-Public-Release_15122022.pdf) (Accessed 4<sup>th</sup> April 2023)

## 3.4 Avoid 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 may cause harm to local communities or negatively affect biodiversity
- Projects lack proper benefit-sharing provisions
- Projects may not be aligned with host country policies and priorities
- International export of GHG emission reductions and removals may affect their 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.

**Host country governments may create regulations that guide how VCM project developers and investors operate in their country.** For example, this can include:

- Requirements related to benefit-sharing, land concessions, and reporting to national registries
- Additional safeguards and reporting requirements that enhance the quality and transparency of local carbon markets
- Guidance and data for setting conservative reference levels and baselines, to ensure the integrity of projects and GHG emission reductions and removals generated.

04

Legal and institutional  
matters

**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, organizations that have already developed VCM activities, indigenous peoples (IPs) and local communities (LCs), local government institutions, and civil society organizations. Relevant local communities must be involved in project and investment decisions; all relevant political stakeholders should be consulted in legislative processes.

Once a host country has developed a financing plan to achieve national climate goals and identified the funding instruments it will use, the host country needs to ensure that the relevant legal frameworks are in place to facilitate the deployment of finance. If carbon markets are among the funding instruments identified, there are important legal and institutional issues to address.

## 4.1 Clarify carbon rights

**Carbon rights determine who can participate in and benefit from carbon market activities.** Carbon rights<sup>18</sup> 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, which represent GHG emission reductions or removals verified and issued in accordance with the rules of a particular carbon standard.

**Tradable carbon credits are standardized 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 tonne of CO<sub>2</sub> equivalents (tCO<sub>2</sub>e) 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.

**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

<sup>18</sup> Carbon rights are almost exclusively referred to in the plural form of multiple rights.



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 easy to establish in energy and industry-related emission reduction projects.** In the context of energy and industry projects, there is 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.

**Host countries can clarify 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 emission reductions and removals – the only remedy to avoid conflict relating to land-based activities is to secure rights via local land and service agreements. See Table 3 for an overview of carbon rights systems in examples of land ownership scenarios.

**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 emission reductions and removals 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 VCM activities. Titles to carbon should account for the customary and ancestral land tenure rights of IPs and LCs.<sup>19</sup>

Options for clarifying the legal nature of carbon credits in host countries can be as straightforward as confirming that carbon credits shall be treated as intangible property via an existing legislative instrument. This could be supported by further legislation or policy that sets out the precise tax, accounting and regulatory requirements that must be applied to carbon credits<sup>20</sup> Securing such legal certainty would help attract carbon finance to a jurisdiction.

<sup>19</sup> World Resources Institute & Climate Focus. (2022). *Sink or swim: How Indigenous and community lands can make or break nationally determined contributions* (p. 22). Available at: <https://forestdeclaration.org/resources/sink-or-swim/> (Accessed 23<sup>rd</sup> April 2023).

<sup>20</sup> The City of London Corporation & Clifford Chance LLP (2022). *Enabling the voluntary carbon market in the context of the Paris Agreement* (p60). Available at: <https://www.theglobalcity.uk/PositiveWebsite/media/Research-reports/Enabling-the-voluntary-carbon-market-2022.pdf> (Accessed 23<sup>rd</sup> April 2023)

**Table 3: Overview of carbon rights systems<sup>21</sup>**

Land ownership	Carbon rights	Ability of non-state entities to engage in carbon offset 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 emission 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 voluntary carbon market projects subject to restrictions	Mexico (limiting private GHG emission 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 voluntary carbon market projects within the limits of the law regarding land use and safeguards	Chile, Costa Rica

<sup>21</sup> Streck, C., (2020). *Who Owns REDD+? Carbon Markets, Carbon Rights and Entitlements to REDD+ Finance, Forests* 2020, 11, 959. Available at: <https://www.mdpi.com/1999-4907/11/9/959>. (Accessed on 23<sup>rd</sup> April 2023)

## 4.2 Address institutional and regulatory issues

**Once countries have defined their strategic priorities for engaging with VCMs and Article 6 transactions (as described in decision sheets 2 and 3), they must consider the regulatory and institutional implications.** Governments need to adopt rules for approvals and authorizations, corresponding adjustments, reporting requirements, and safeguards. Implementation of a carbon market strategy requires institutional coordination and assignment of regulatory and oversight responsibilities.

### a. Institutional coordination and capacity

**Host countries need to build strong internal institutional coordination.**

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.

**A key question when deciding on carbon market approaches is whether the outcomes justify the costs of implementation.** Investment in new institutions 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 positive returns.

**Host countries need to identify which public institutions are best equipped to fulfil certain market functions and where private sector entities can effectively engage.** Host countries should conduct assessments to identify the ability of relevant institutions and ministries to implement carbon market policies. This includes assessing the set-up, mandates, and capacities of existing institutions to design, implement and track results of planned interventions. Carbon market needs assessments may be relevant for environment and climate change related ministries and specialized agencies; national planning institutions; sectoral and line ministries; and investment agencies.

These assessments are an essential step towards a full capacity development strategy, which may include internally as well as externally supported activities. Such assessments can inform a country's requests for donor support and funding.

### b. Approvals and authorizations

**For any government or private sector engagement in Article 6 transactions, host countries are required to have certain arrangements in place.** Host countries must put arrangements in place to provide approvals and authorizations for

cooperative approaches and activities under Articles 6.2 and 6.4 of the Paris Agreement. These rules also apply to VCM projects that seek corresponding adjustments for carbon credits, since they must meet the formal requirements of Article 6.2 or Article 6.4. Host countries are also bound by certain requirements if choosing to issue unauthorised credits under 6.4. Tables 4 and 5 set out the list of host country requirements at different stages of the crediting cycle.

**Any activity needs three types of approvals and authorizations:**

1. The project activity must be *approved* under Article 6.4, or *reviewed* under Article 6.2 by the host country. In the case of Article 6.2 the host country must also include more detailed information on the project in its Initial Report to the UNFCCC
2. All public or private entities participating in an activity must be *authorized* by a participating host country to be able to take part in an Article 6.2/Article 6.4 activity
3. The GHG emission reductions or removals (Article 6.4) or Mitigation Outcomes (Article 6.2) must be *authorized* for use against the NDC of another Party or another international mitigation purpose. The host country is responsible for deciding whether to issue authorized or unauthorized credits (Article 6 can also be used a mechanism to finance the achievement of the host country's NDC). Where authorization takes place the host country must make a *corresponding adjustment* to its national accounts to ensure that it no longer counts the GHG emission reduction or removal itself. This avoids "double counting" of GHG emission reductions and removals: the seller adds the transferred emissions back into

its national accounts while the buyer subtracts the transferred emissions from its own accounts. GHG inventories remain unchanged.

**According to the implementation rules of Article 6.2 cooperative approaches need to be reviewed by the host country and communicated to the UNFCCC secretariat.**

Respecting that the participating Parties can define the nature of the "cooperative approaches" that they engage in, the decision on Article 6.2 focuses on ensuring clear, transparent, and robust accounting of GHG emission reductions and removals. The decision establishes that reported information needs to follow certain reporting formats and is reviewed by a "technical expert review team."

**Host countries can define VCM activities as cooperative approaches.**

Host countries must communicate and describe each cooperative approach to the UNFCCC secretariat through a set reporting process, including VCM activities that the host country defines as a cooperative approach. Host countries must explain, among others, how it ensures that a GHG emission reduction or removal is accounted for through conservative methods (e.g. reference levels and baselines, limiting uncertainties in quantification and potential leakage), how it minimizes the risk of non-permanence and environmental, economic and social impacts, and that it puts in place high-quality accounting and tracking systems.

**For VCM activities to be considered Article 6.4 activities, they need to be approved as eligible by the host country**

Host countries may approve an activity without authorizing the use of GHG emission reductions or removals under Article 6.4 (Article 6.4 ERs) to achieve another Party's NDC or another international commitment such as CORSIA. These types of non-authorized Article

6.4ERs are referred to as Mitigation Contribution A6.4ERs. These Mitigation Contribution A6.4ERs can be used for other purposes such as results-based climate finance, domestic mitigation pricing schemes, or domestic price-based measures, for the purpose of contributing to the reduction of emission levels in the host Party, in which corresponding adjustments would not be mandatory.

**Host countries must authorize 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 internationally transferred mitigation outcomes (ITMOs). The authorization of public or private entities to participate in these activities does not replace the authorization of specific use of mitigation outcomes or A6.4ERs.

**Entities participating in either Article 6.2 cooperative approaches or Article 6.4 mitigation activities can seek additional “use authorizations” from the host country.**

ITMOs can be authorized by a Party:

- for use towards an NDC,
- for use for international mitigation purposes other than NDC-achievement, or
- other purposes.

Whenever ITMOs are to be used toward NDC achievement, the host country (or first transferring Party) must provide its authorization before the first international transfer. Conversely, a host country may or may not provide its authorization for ITMOs that are to be used for other “international mitigation purposes”<sup>22</sup> or “other purposes”.

<sup>22</sup> Note that corresponding adjustments for “other international mitigation purposes” are mandatory for authorized A6.4ERs, carbon credits generated by approved Article 6.4 activities and authorized for other mitigation purposes.



**Table 4: Art. 6.2 participation, authorization and reporting requirements.**

Nature of the obligation	Requirements	Art. 6.2 guidance
Participation requirements	<p>Party has (and maintains)</p> <ul style="list-style-type: none"> <li>– ratified the Paris Agreement</li> <li>– an NDC in place</li> <li>– arrangement in place to authorize ITMOs</li> <li>– arrangement in place to track ITMOs</li> <li>– submitted the most recent national inventory report</li> </ul> <p>Its participation in cooperative approaches contributes to the implementation of its NDC.</p>	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	Annex, para. 1
Reporting requirements	<p>Initial report</p> <p>The Party has to submit an initial report that</p> <ul style="list-style-type: none"> <li>– provides evidence that the participation requirements are met</li> <li>– provides a description of its NDC (decision 18/CMA.1 para 64) including relevant mitigation information (in tCO<sub>2</sub>eq or another metric)</li> <li>– communicates the ITMO metrics and method for applying corresponding adjustments</li> </ul>	Annex, para. 18-19
	<p>For each cooperative approach</p> <ul style="list-style-type: none"> <li>– 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.</li> <li>– A description on how each cooperative approach ensures environmental integrity (conservative measurements, permanence, leakage, safeguards, etc)</li> </ul>	Annex, para. 18
	<p>Annual information</p> <ul style="list-style-type: none"> <li>– Authorization of ITMOs for the use towards achievements of NDCs or other international mitigation purposes</li> <li>– 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</li> </ul>	Annex, para. 20
	<p>Regular information in biennial transparency reports</p> <ul style="list-style-type: none"> <li>– Continuous information on participation requirements</li> <li>– Updates on the initial report</li> <li>– Authorizations of the use of ITMOs</li> <li>– Corresponding adjustments undertaken in the last reporting period</li> <li>– Assurances against double use of ITMOs</li> <li>– Information on each cooperative approach (how it contributes to the Party's NDC and a confirmation of its environmental integrity)</li> <li>– A summary of emissions, including ITMOs first transferred, authorized mitigation outcomes, and use of ITMOs</li> </ul>	Annex, para. 21

Institutional requirements	A registry that can track ITMOs (first transfer, transfer, use, etc) The secretariat offers the services of an international registry for Parties that do not have a registry. And the Party has to make corresponding adjustments for authorized ITMOs.	Annex, para. 29 and 30
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**Table 5: 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) <ul style="list-style-type: none"> <li>– ratified the Paris Agreement</li> <li>– an NDC in place</li> <li>– designated a national authority for the Article 6.4 mechanisms</li> <li>– indicated how its participation in the mechanism contributes to its sustainable development</li> <li>– indicated how the activities under Article 6.4 would contribute to its NDC</li> </ul> <p>The Party may indicate methodologies and crediting periods applied to Article 6.4 mechanism activities that it intends to host.</p>	Annex, para 26 & 27
Approvals and authorizations	<ol style="list-style-type: none"> <li>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</li> <li>2. The host Party has to authorize activity participants</li> <li>3. The host Party has to authorize the use of A6.4ERs for NDCs or other international mitigation purposes.</li> </ol>	Annex, para 40-44
Reporting requirements	Where corresponding adjustments are made, the reporting requirements of the Article. 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 Article 6.2 decision.	Annex, para 71

### c. Reporting requirements

**Host countries may adopt rules that require VCM activity developers to periodically report on their mitigation activity and generated GHG emission reductions and removals.** VCMs

suffer from a lack of transparency and governments may know little about the VCM activities in their territories.

Considering the impact that VCMs could have on nationally determined contributions (NDCs), governments may decide to require carbon market project sponsors to provide the government with design information about the project and projected GHG emission reductions and removals yields. Such ex-ante reporting can be complemented by requirements to transmit periodic (e.g., annual) monitoring data to the government. This information can be stored and made available in a national GHG and carbon market registry. The Art. 6.4 Supervisory Body is in the process of developing project reporting requirements.

Governments may take inspiration from these requirements when regulating the VCM. Only where corresponding adjustments are made on credits do the reporting requirements of Art. 6.2 apply (as outlined in Tables 4 and 5).

### d. Safeguards

**Host countries have the prerogative to adopt additional safeguarding requirements where existing environmental and social guidelines for investment projects do not sufficiently address carbon market-related risks.**

Approvals and authorizations can be made contingent on projects and programs proving that they meet safeguard requirements. Safeguard requirements can be checked periodically in environmental and social compliance checks.

In the broader context of national safeguards, governments can also adopt rules for fair benefit sharing with local communities.



05

Ensuring high-integrity  
carbon market activities

- 5.1 Align VCM activities with host country policies
- 5.2 Put in place national carbon accounting rules
- 5.3 Ensure high-quality supply of carbon credits
- 5.4 Ensure high-integrity use of carbon credits

**Ensuring integrity is critical to building trust in VCMs and enabling them to grow in size and value.** Entities operating in VCMs who do not act with integrity undermine the reputation and ultimately the value of VCMs. Building the foundations for thriving VCMs requires integrity to be realized on both the supply-side and demand-side. This will underpin a pricing system that is fair, reflects true value, creates jobs, and protects nature.

## 5.1 Align VCM activities with host country policies

**Carbon market investors often gravitate to projects with the lowest abatement costs and lowest risk.** Carbon investment often flows to projects that generate the highest value from carbon credits with the lowest investment risk. To ensure that these carbon credits correspond to real and measurable greenhouse gas (GHG) emission reductions and removals, strong carbon crediting and certification standards are needed. VCM activities also must adhere to safeguards and comply with the legal frameworks of the host country.

**Host countries can align VCM activities with national climate and development policies by proactively taking measures to regulate the market and direct investments.** Governments can promote investments into voluntary and compliance carbon market activities with the goal of attracting national or international direct investment. Lack of alignment between government policies and VCM stakeholders can result in duplication of efforts, unnecessary costs, and inferior policy outcomes. Host countries can align VCM activities and promote overall policy coherence through, for example:

- Integrating safeguards for carbon investments into national environmental, social and governance (ESG) requirements

- Establishing a common reporting framework for carbon investments that ensures transparency and enhances investor accountability
- Actively promoting carbon investments in priority sectors and areas through data sharing and building an enabling environment for investments.

**Host countries can consider permitting limited use of certain credits generated by VCM activities in national carbon pricing schemes.** National carbon pricing schemes put a price on GHG emissions and seek to create national investment incentives into mitigation action. Governments can mandate the inclusion of only high-quality credits for high-integrity uses under these schemes. These measures can increase the cost-effectiveness and efficiency of climate measures. In designing such schemes, governments can ensure that mitigation obligations are fairly distributed, put in place relief measures for more vulnerable groups, and mandate benefit sharing by VCM activities.



## 5.2 Put in place national carbon accounting rules

### **Integration of carbon market activities – voluntary and regulated – into national climate strategies requires host countries to 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 will require updating national carbon accounting systems.

Robust systems are needed to ensure that GHG inventories, NDCs, and Article 6 accounting for internationally transferred mitigation outcomes (ITMOs) are aligned and interlinked, and measurement, reporting and verification (MRV) is harmonized. Where governments include VCM activities in their climate strategies and/or where they decide to make corresponding adjustments for carbon credits transacted in VCMs, MRV systems need to extend to VCM activities.

### **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 carbon market project GHG emission reductions and removals 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” (e.g., the West African Alliance for Carbon Markets and Climate Finance, Article 6 pilot transactions, or bilateral technical assistance programs).

### **Lack of consistency between national climate change reports and other national 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+<sup>23</sup>.

**Improving consistency is important for clarifying how GHG emission reductions and removals generated through VCM activities can be counted towards NDC achievement.** Aligned MRV systems are necessary for accounting under the Paris Agreement, particularly if a country intends to engage in Article 6 transactions or

<sup>23</sup> REDD+ stands for Reducing emissions from deforestation and forest degradation and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks (see Glossary).

other finance opportunities that require integration with national accounting (e.g., CORSIA transactions).

**Previous experience in aligning national and project-level carbon accounting can inform preparations to extend national MRV systems to VCM activities.**

The nesting of REDD+ projects in jurisdictional REDD+ programs provides an example of aligned national and VCM MRV systems.

Nested REDD+ refers to the integration of different accounting systems – at the levels of both private-sector-led projects and government-led jurisdictional programs

– 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 VCM projects request corresponding adjustments for carbon credits generated through approved activities, which would result in the deduction of GHG emission reductions or removals from national NDC accounting.

## 5.3 Ensure high-quality supply of carbon credits

**Carbon credits are high-quality if they represent real, additional, and measured GHG emission reductions or removals generated by an activity that applies robust social and environmental safeguards.** The credibility of project types and individual projects is based on the methodologies used, demonstration of additionality and permanence of mitigation outcomes, how leakage and GHG emission reductions or removals reversal risks are addressed, and on the political and social contexts in which a project is developed.

Credible standards apply methodologies that conservatively measure and assess baselines, additionality, leakage, and permanence to ensure carbon credit quality. However, standards are not without fail and there are various initiatives that seek to build greater transparency around the quality of carbon credits.

**Independent international initiatives have defined, or are in the process of defining, criteria to distinguish the supply of high-quality carbon credits.** The most prominent effort to define quality criteria for carbon credits are the Core Carbon Principles of the Integrity Council for Voluntary Carbon Markets (ICVCM)<sup>24</sup> (see Box 3). In parallel, the Environmental Defense Fund (EDF), the World Wide Fund (WWF) for Nature, and Oeko-Institut have founded the Carbon Credit Quality Initiative with the goal of formulating a methodology to assess the quality of carbon credits.<sup>25</sup>

Various private companies also offer also the rating of carbon credits (e.g., Sylvera, BeZero, or Calyx Global).

<sup>24</sup> ICVCM (2022). *Core Carbon Principles*. Available at: <https://icvcm.org/wp-content/uploads/2022/07/ICVCM-Public-Consultation-FINAL-Part-2.pdf> (Accessed 4<sup>th</sup> April 2023)

<sup>25</sup> CCQI (2023). *The Carbon Credit Quality Initiative website*. Available at: <https://carboncreditquality.org> (Accessed 4<sup>th</sup> April 2023)

## Box 3: Core Carbon Principles

The ICVCM has developed Core Carbon Principles to assess the quality of carbon crediting standards and types of carbon credits. Under the ICVCM, high-quality credits and programs must go beyond demonstrating additionality, conservative baselines, and permanence, to include:

- Providing public, comprehensive, and transparent information about mitigation activities
- Ensuring there is no double counting
- Demonstrating that the crediting program has effective governance
- Maintaining a registry that tracks each mitigation activity and carbon credit
- Requiring validation and verification by independent third parties
- Following best practices for environmental and social safeguards
- Delivering positive sustainable development impacts
- Transitioning to net-zero emissions by avoiding practices that lock in emissions or are incompatible with net-zero pathways.

## 5.4 Ensure high-integrity use of carbon credits

**High-quality carbon credits must be used as part of a science-aligned mitigation strategy, transparently reported, and credibly claimed to be high-integrity.** Corporates are the main users of carbon credits transacted in VCMs and therefore are primarily responsible for ensuring high-integrity use. The Voluntary Carbon Markets Integrity Initiative (VCMI) provisional Claims Code of Practice<sup>26</sup> identifies the following steps that corporates should follow when using carbon credits and making climate claims:

- Corporates must set and make demonstrable progress toward science-aligned emission reduction targets across their value chains before making voluntary use of carbon credits
- Corporates must use high-quality credits that are associated with a credible carbon standard, from activities that promote environmental quality and positive socio-economic impacts, compatible with human rights, and from activities that apply social safeguards and equity
- Corporates must report transparently on their use of carbon credits. This includes reporting on the number of credits claimed and retired, whether or not carbon credits are associated with corresponding adjustments, the standard, and project names.

<sup>26</sup> VCMI (2022). *Provisional Claims Code of Practice*. Available at: <https://vcmintegrity.org/wp-content/uploads/2022/06/VCMI-Provisional-Claims-Code-of-Practice.pdf> (Accessed 4<sup>th</sup> April 2023)

The final VCM Claims Code of Practice for corporate and non-state buyers of carbon credits will be released in 2023.

**Host countries can facilitate high-integrity use by creating supportive legal and policy frameworks.** For example, governments can:

- Clarify government expectations on buyers for the high-integrity use of carbon credits, including actions buyers should take and claims that can credibly be made
- Provide information on what buyers should seek in terms of high-quality carbon credits, including social and environmental safeguards and how benefit sharing agreements should be arranged
- Align regulation on corporate sustainability disclosures, consumer protection, advertising standards and financial regulation with guidance on high-integrity use of carbon credits
- Refuse advocacy proposals by corporates for regulation that would undermine climate action and call out corporates that are engaged in the use of carbon credits while advocating against climate action
- Co-sponsor or co-develop carbon market activities and ensure that credits are only sold to high-integrity buyers
- Clarify and enforce land tenure laws. Selectively provide concessions for VCM activity development only to projects that meet high-quality and high-integrity standards.
- Require that VCM activities report to domestic GHG inventories and GHG emission reductions and removals registries, and make those inventories and registries publicly available
- Clarify if and how approvals and authorizations for VCM activities will be provided, and under what conditions. If governments will authorize for corresponding adjustments, they can specify the conditions and requirements for VCM activities to be approved.



# Glossary



TERM	DEFINITION
<b>Abatement</b>	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.
<b>Article 6</b>	Article 6 of the Paris Agreement consists of nine paragraphs providing principles for how countries can “pursue voluntary cooperation,” including through international carbon markets, to reach their climate targets.
<b>Beyond value chain mitigation (BVCM)</b>	An organization’s mitigation action or investments outside its value chain. This includes activities that reduce emissions and those that remove and store carbon dioxide equivalent (CO <sub>2</sub> e) from the atmosphere. A company’s purchase of high-quality carbon credits beyond its value chain is an example of BVCM.
<b>Carbon credit</b>	A tradeable unit issued by a carbon crediting program/standard that represents one tonne of CO <sub>2</sub> e reduction or removal from the atmosphere. Carbon credits are uniquely serialized, issued, tracked, and cancelled/retired by means of an electronic registry.
<b>Compensation</b>	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.
<b>Compliance market</b>	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)).
<b>Corresponding adjustment</b>	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.
<b>Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA)</b>	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 international civil aviation carbon dioxide emissions at 2019 levels, from 2021.
<b>Decarbonization</b>	The measures through which an entity reduces its emissions.
<b>Double counting</b>	A situation in which a single greenhouse gas emission reduction or removal is counted by more than one party toward achieving its Nationally Determined Contribution.

<b>Emissions trading system (ETS)</b>	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.
<b>Free Prior and Informed Consent (FPIC)</b>	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.
<b>Greenhouse Gas (GHG) Protocol</b>	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.
<b>Host country</b>	The country in which a carbon credit project, program or intervention is geographically located.
<b>Indigenous peoples (IPs)</b>	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).
<b>Integrity Council for Voluntary Carbon Markets (ICVCM)</b>	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.
<b>Internationally transferable mitigation outcome (ITMO)</b>	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.
<b>Leakage</b>	When a carbon crediting project or program displaces emission-generating activities outside the project or program boundary rather than halting them in actual terms. 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.
<b>Local communities (LCs)</b>	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).
<b>Long-term net zero target</b>	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).

<b>Mitigation contribution A6.4ER</b>	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.
<b>Mitigation hierarchy</b>	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.
<b>Measurement, reporting and verification (MRV)</b>	A GHG emissions-related MRV process refers to estimating, reporting and verifying actual emissions over a specified time period.
<b>Nationally Determined Contributions (NDCs)</b>	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.
<b>Nature-based solutions</b>	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.
<b>Negative emissions</b>	The emissions level beyond net zero where removals exceed emissions.
<b>Net negative emissions</b>	Net negative emissions is achieved when, as a result of human activities, more GHGs are removed from the atmosphere than are emitted into it.
<b>Net-zero emissions</b>	At a global level, net zero emissions are achieved when anthropogenic GHG emissions (measured in CO <sub>2</sub> e) are balanced globally by anthropogenic GHG removals over a specified period.
<b>Non-governmental organization (NGO)</b>	A group that functions independently to any government. It is usually a non-profit with overarching goals pertaining to social or environmental enhancement.
<b>Offsetting / offset</b>	The use of a carbon credit as a substitute for within value chain emissions abatement and counted as reductions toward an emissions reductions target.
<b>Paris Agreement</b>	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.
<b>Permanence</b>	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.

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<b>REDD+</b>	<p>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.</p> <p>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.</p> <p>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.</p> <p>Nested REDD+ projects are aligned with jurisdictional baselines and deforestation monitoring. Essentially, this is an intermediate step between Project-based REDD+ and Jurisdictional REDD+.</p>
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<b>Registry</b>	<p>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.</p>
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<b>Removals</b>	<p>In reference to GHGs - Withdrawal of GHGs from the atmosphere as a result of biological processes or deliberate human activities. These include enhancing biological sinks of carbon dioxide equivalent and using chemical engineering to achieve long-term removal and eventual storage or carbon dioxide equivalent.</p>
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<b>Residual emissions</b>	<p>GHG emissions that remain after taking all possible actions to reduce emissions.</p>
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<b>Retirement of carbon credits</b>	<p>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.</p>
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<b>Science-based target</b>	<p>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.</p>
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<b>Science Based Target Initiative (SBTI)</b>	<p>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.</p>
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<b>Scope 1, 2, and 3 emissions</b>	<p>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 includes all other indirect emissions that occur in a company’s value chain.</p>
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<b>Tonnes of carbon dioxide equivalents (tCO<sub>2</sub>e)</b>	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.
<b>Validation and verification bodies (VVBs)</b>	Independent organizations duly approved under a carbon standard that validate mitigation activities and verify emission reductions. They may also verify other social and environmental co-benefits.
<b>Value chain emissions</b>	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
<b>Vintage</b>	Related to carbon credits, the year in which the emission reduction or removal took place. The verification process can take two to three years from project inception, so projects may generate credits for already-reduced emissions.
<b>Voluntary carbon market (VCM)</b>	A marketplace that encompasses all transactions of carbon credits that are not purchased with the intention to surrender into an active regulated carbon market. It includes carbon credits purchased with the intent to resell or retire to meet carbon neutral or other environmental claims..
<b>Voluntary Carbon Markets Integrity Initiative (VCMI)</b>	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.
<b>Voluntary emission reductions (VERs)</b>	Carbon credits that are used in voluntary carbon markets, as opposed to compliance markets.

Some of the definitions in this Glossary have been amalgamated and adapted from sources including the IPCC, the GHG Protocol, ISO Net zero guidelines, SBTi, the Paris Agreement and the wider UNFCCC website.







# Voluntary Carbon Market Standards / Carbon Crediting Programs

NAME	DESCRIPTION
<b>American Carbon Registry (ACR)</b>	An offset registry for global carbon markets and a non-profit subsidiary of Winrock International.
<b>Climate Action Reserve (CAR)</b>	The third largest GHG crediting program in the world after VCS and Gold Standard.
<b>Climate Community and Biodiversity (CCB)</b>	<p>A GHG crediting program developed by the Climate Community and Biodiversity Alliance. It is for land-based emission reduction projects that can simultaneously deliver compelling climate biodiversity and community benefits.</p> <p>It follows methodologies from the Intergovernmental Panel on Climate Change Good Practice Guidance (IPCC GPG) but can also use approved CDM methodologies for calculating emission reductions.</p>
<b>Gold Standard (GS)</b>	The second largest GHG crediting program in the world after VCS.
<b>Verified Carbon Standard (VCS)</b>	The GHG crediting program with the majority of crediting projects, run by Verra.

# Compliance Carbon Markets Standards

NAME	DESCRIPTION
<b>Clean Development Mechanism (CDM)</b>	Operational since 2006, the CDM is a mechanism designed under the Kyoto Protocol through which emission reduction projects in developing countries can generate and trade Certified Emission Reductions (CERs), each equivalent to one tonne of carbon dioxide. The mechanism was designed to stimulate sustainable development and emission reductions, while giving industrialized countries some flexibility in how they meet their emission reduction limitation targets. Under CDM, carbon offset projects are required to adhere to strict additionality for certification. The projects are verified by third Party auditors and reviewed, approved or rejected by a CDM Executive Board. The CDM will be replaced under the Paris Agreement by the Article 6.4 mechanism, agreed at COP26.
<b>European Union Allowances (EUA)</b>	EU Allowances (EUAs) are carbon credits used in the European Union Emissions Trading Scheme (EU ETS), which works on the cap-and-trade principle. By buying these types of offsets, purchasers are encouraging organizations to continue to decarbonize and pushing the market to make it increasingly expensive for polluting companies to buy more credits.
<b>Joint Implementation (JI)</b>	This standard produces emission reductions in developed countries with legally binding targets under the Kyoto Protocol. It generates ERUs (Emission Reduction Units).

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

[vcmintegrity.org](https://vcmintegrity.org)