

COUNTRY GUIDANCE FOR NAVIGATING CARBON MARKETS

MODULE 1

Will it be attractive for a country to participate as a host country in international carbon markets?



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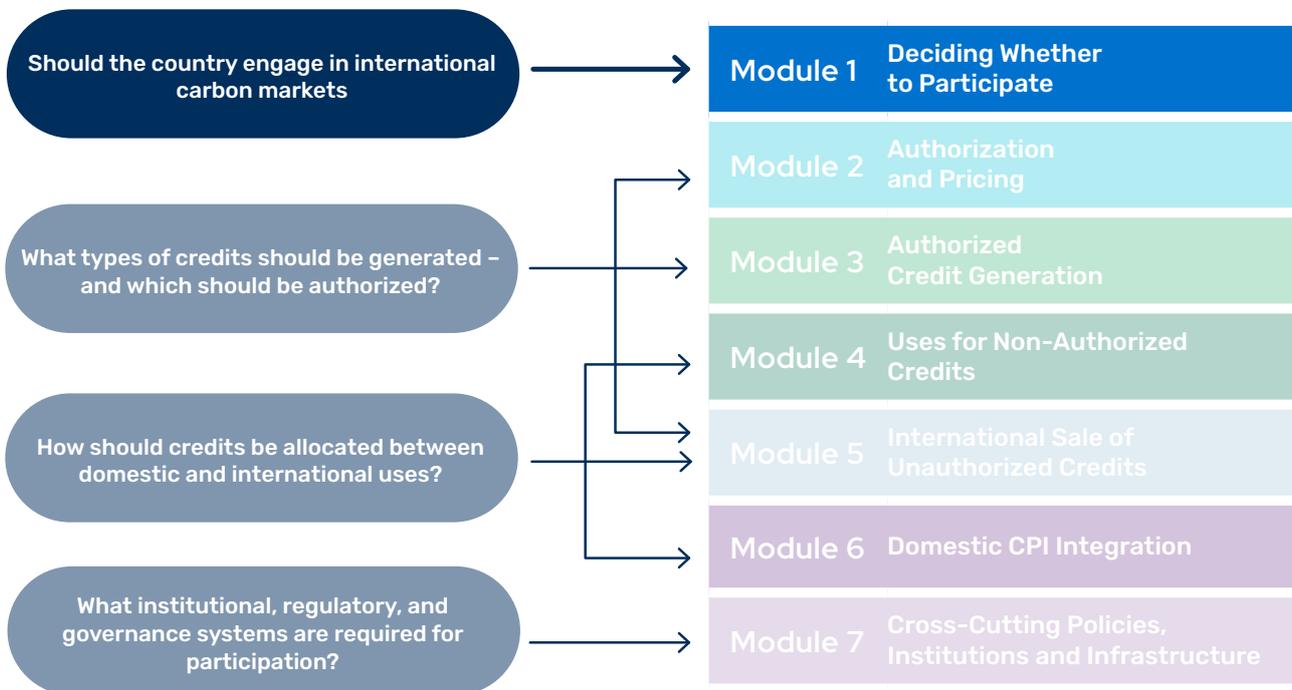
Abbreviations

A6.2	Article 6.2 of the Paris Agreement
A6.4	Article 6.4 of the Paris Agreement
AML	Anti-Money Laundering
ART	Architecture for REDD+ Transactions
CCP	Core Carbon Principles
CDA	Community Development Agreement
CDAC	Community Development Agreement Committee
CDM	Clean Development Mechanism
CMA	Conference of the Parties serving as the meeting of the Parties to the Paris Agreement
CORSIA	Carbon Offsetting and Reduction Scheme for International Aviation
CPI	Carbon pricing instrument
DOE	Designated Operational Entity
D4C	Digital for Climate
EAC	Environmental attribute certificate
ERR	Emission reduction or removal
ETS	Emissions Trading System
FPIC	Free, prior, and informed consent
FRA	Financial Regulatory Authority (Egypt)
GGGI	Global Green Growth Institute
GHG	Greenhouse gas
ICVCM	Integrity Council for the Voluntary Carbon Market
IOSCO	International Organization of Securities Commissions
IPLC	Indigenous Peoples and local communities
IT	Information technology
ITMO	Internationally Transferred Mitigation Outcome
JCM	Joint Crediting Mechanism
KYC	Know Your Customer
LDC	Least Developed Country
LT-LEDS	Long-term Low Greenhouse Gas Emission Development Strategy
MACC	Marginal Abatement Cost Curve
MCU	Mitigation Contribution Unit
MtCO ₂ e	Million tonnes of carbon dioxide equivalent
NDC	Nationally Determined Contribution
OIMP	Other International Mitigation Purposes
OMGE	Overall Mitigation of Global Emissions
PACM	Paris Agreement Crediting Mechanism
PFM	Public financial management
RBCF	Results-based climate finance
REDD+	Reducing Emissions from Deforestation and Forest Degradation
SDG	Sustainable Development Goal
SIDS	Small Island Developing State
SOP	Share of Proceeds
TCAF	Transformative Carbon Asset Facility
TREES	The REDD+ Environmental Excellence Standard
UN	United Nations
UNDP	United Nations Development Programme
UNESCO	United Nations Educational Scientific and Cultural Organisation
UNFCCC	United Nations Framework Convention on Climate Change
VCM	Voluntary Carbon Markets
VCMi	Voluntary Carbon Markets Integrity Initiative



This Module focuses on whether a country wishes to become (or strengthen their role) as a host country for international carbon market activity, and how it can decide this.

The discussion focuses on fundamental considerations that host countries may wish to keep in mind when deciding whether to participate as a host country, rather than on the aspects regarding how to participate—such as credit authorization, the relative role of public versus private sectors, or the different international markets that might be targeted (or not) by policymakers. It requires some preliminary knowledge of the international carbon market architecture.



Question 1.1 What are the advantages and disadvantages of engaging as a host country in international carbon markets? What preparation can countries consider?*

What are the key actions or options host countries may consider?

Acting as a host and becoming a significant net seller of credits brings many benefits¹. It can drive economic activity, support emission reductions and removals (ERRs), and attract financial inflows. However, it also allows external actors to claim contributions to these ERRs and, if poorly structured, could undermine domestic policy objectives. Participation also requires upfront investment in institutions, processes, and infrastructure. Countries must weigh these benefits and risks carefully, considering other financial resource mobilization opportunities.

Countries have two alternatives to being a net seller: autarky or becoming a net buyer. Under autarky, ERRs are used domestically, with little or no international trade in credits. Alternatively, countries like Switzerland, Norway, and Singapore have positioned themselves as net buyers, actively purchasing credits to meet climate goals.

What factors might shape decision-making?

The decision to participate as a host country in international carbon markets is closely tied to how participation is structured.² This reflects the range of motivations that can drive countries to participate as host countries, given their unique circumstances, development goals, and climate priorities. Despite these differences, common potential advantages and disadvantages can help guide prospective host countries. Assessing these factors informs both the participation decision itself and the critical preparatory steps that can be undertaken.

¹ In many cases, considering the actions of both government and private sector actors, a country may be both a buyer and seller of carbon credits. This discussion focuses on the strategic question of whether a country might seek to become a significant net seller of credits.

² Most notably, decisions on whether to authorize credits, as discussed in Module 2.

Advantages



Host country participation in international carbon markets offers three primary benefits.

First, international carbon markets offer significant potential for mobilizing financial resources towards low-carbon development. While market size estimates vary, one projection suggest a potential market value of \$7-35 billion in 2030, rising to \$45-\$250 billion by 2050 (MSCI Carbon Markets 2025).

These revenues can help mobilize investments in emissions reductions and removals (ERRs) that:

- unlike domestic subsidies, do not draw on constrained public budgets;
- unlike domestic carbon pricing instruments, do not impose direct compliance costs on domestic firms; or,
- unlike many traditional forms of international support for climate action that flows upfront in the form of debt / equity, does not impose a repayment obligation.

Additionally, revenues from credit sales often exceed credit generation costs, creating a surplus or “rent” that, depending on revenue sharing arrangements, market structure and fiscal arrangements, might fund development priorities, enhance citizen welfare, or be reinvested to deliver further ERRs.

To date, revenue potential has been concentrated in sectors such as reducing emissions from deforestation and forest degradation (REDD+) and renewable energy (World Bank 2024c). However, buyer interest is growing in credits from CO₂ removal activities, both nature-based removals and technology-based removals (e.g., direct air capture, enhanced weathering, biochar), which currently command price premiums (World Bank 2024c), especially the latter.

Second, crediting activities can often deliver significant co-benefits beyond ERRs. These might include job creation, livelihood enhancement, biodiversity protection, and improved ecosystem services, which can contribute to adaptation and resilience-building. In other words, if designed well, crediting activities can mobilize financial resources to help foster long-term sustainable development.

Third, participation can deliver broader spillover benefits across sectors and over time. These include driving technological innovation through exposure to new engineering solutions and learning-by-doing, strengthening domestic supply chains, upskilling the workforce, and expanding the local financial sector’s capacity to support low-carbon investments. Participation can also help build a robust domestic carbon market ecosystem, including credit trading and the growth of legal accounting, and professional services.

Challenges



While host country participation in international carbon markets offers significant benefits, it also poses challenges that must be carefully managed. Four key challenges stand out.

One critical consideration is the claim that international partners (buyers) may make in relation to the ERRs represented by carbon credits. As discussed in Modules 2 and 4, the nature of these claims varies but they *may* necessitate emissions accounting changes that make it more difficult for the host country to achieve its NDC. Even in cases where there is no immediate impact on national emissions accounting, there may be challenges for countries with domestic carbon pricing instruments (CPIs). Often regulators of these instruments may wish to allow domestic participants to purchase domestically generated credits as a compliance option. Typically, regulators will only want to allow a credit to be counted once towards a mitigation obligation, implying that if it is used in the domestic CPI, it will not be acceptable to also sell the credit internationally.³

³ More generally, a credit might be counted towards more than one mitigation obligation if there is double issuance (if more than one unit is issued for the same ERR), double use (if the same issued unit is used twice), or double claiming (if the same ERR is claimed by both the buyer and the seller of the credit) (International Civil Aviation Organization 2019).

Second, crediting activities may pose risks to local communities or conflict with national priorities – especially in land-use sectors. If crediting activities neglect biodiversity, cultural heritage, or community needs, they could deepen inequalities or trigger conflicts. Careful selection and approval of activities (Modules 3 and 5), combined with robust approaches to safeguards and benefit-sharing mechanisms (Module 7), can mitigate these risks, and turn carbon markets into tools for community development that yield broader socio-economic benefits beyond ERRs.

Third, there are reputational risks. Recent controversies around some carbon crediting activities mean host countries could face heightened scrutiny. This risk varies by activity type and the extent of host country involvement in approving activities but in many cases can be managed through decisions on methodologies (Module 3 and 5), credit buyers (Module 3 and 4), and how revenues are used (Module 7).

Fourth, participation requires significant investment of time, resources, and political capital.

As noted in the introduction, the international carbon market has grown increasingly complex, with host countries needing to address numerous technical challenges. While support programs and guidance (like this document) can help, countries must still commit substantial effort to fully realize the benefits of participation.

Navigating the landscape



Table 1.1 below summarizes the key advantages and disadvantages from host country participation.

Table 1.1 Pros and cons for host countries considering whether to authorize credits

 Benefits from being a host country	 Risks/costs from being a host country
<ul style="list-style-type: none"> ↑ Raise revenues and mobilize investment to support low-carbon development ↑ Generate co-benefits such as job creation, livelihood enhancement, biodiversity protection, and improved ecosystem services ↑ Realize spillover benefits from new technology/ learning-by-doing that can deliver long-term emission reductions. ↑ Potential to generate economic activity in relation to carbon trading 	<ul style="list-style-type: none"> ↓ International partners may be able to make claims in relation to the ERRs represented by carbon credits that could impact NDC achievement (depending on decisions taken on authorization as discussed in Module 2) ↓ Complicates domestic CPI implementation ↓ Carbon crediting activities could pose risks to local communities or conflict with national priorities ↓ Potential reputational risks ↓ Need to invest time, resources, and political capital to gain full benefits

To navigate the opportunities and challenges of international carbon markets, prospective host countries may benefit from addressing the following guiding questions. These aim to clarify strategic considerations and ensure alignment with national priorities and capacities.

- 1. *What is the country's mix of emission reduction and removal opportunities, and what are their costs and co-benefits?*** A clear understanding of the ERR profile is essential – identifying opportunities across sectors, estimating costs, and assessing co-benefits. Countries should evaluate how these opportunities align with areas of international demand and high revenue potential, as well as the cost of achieving ERRs internationally, to identify competitive advantages. Domestic cost analysis also informs key decisions about engagement (see Module 2)
- 2. *How does the emission reduction and removal profile match to the country's NDC?*** Placing the ERR profile in the context of NDC unconditional and conditional (as relevant) targets and progress is critical. Countries off track – particularly on their unconditional targets – and with high domestic abatement costs may benefit more from acting as credit buyers. Countries on track or ahead of their NDCs have greater flexibility to host and sell credits, attracting finance. Countries off track but with low abatement costs could strategically use carbon markets to sell unauthorized credits helping to both raise revenue and advance towards their NDCs.
- 3. *What is the existing profile of international carbon market activity in the country?*** Mapping current activity helps countries understand the types of crediting projects in demand, assess local capacity and expertise, and identify potential international partners.
- 4. *Does the country understand the focus of future – more ambitious – NDCs and how these might be met?*** Countries that have assessed future NDC strategies – through a Long-Term Low-Greenhouse Gas Emissions Development Strategy (LT-LEDS), for example – can better align near-term carbon market participation with long-term climate goals. This helps ensure today's international engagement does not constrain future NDC achievement, while maximizing spillover benefits from hosting crediting activities.
- 5. *What are the core current and expected future policies that could be used to meet these NDCs?*** Countries should assess whether they plan to introduce a domestic carbon pricing instrument (CPI) that relies heavily on domestically generated credits. In such cases, acting as a host in international markets may be less attractive.

These considerations emphasize the importance of making sure that any decision on whether (and then how) to engage in international carbon markets is integrated within the host country's overall climate ambitions as reflected in its NDC and any LT-LEDS. Box 1.1 discusses further.

Box 1.1 The importance of integrating strategies for host country participation within NDC and LT-LEDS

Historically, many countries have often treated the what and the how of climate strategy separately – first developing NDCs and, in some cases, Long-Term Low Emissions Development Strategies (LT-LEDS) as expressions of ambition, and only later addressing how to implement them, including financing. In parallel, strategies for international carbon market participation and domestic carbon pricing have often evolved in isolation, limiting policy coherence.

Integrating international carbon market participation to support implementation of NDCs, and LT-LEDS, allows countries to create a coherent, cost-effective mitigation strategy. Ideally, countries should develop their LT-LEDS first and then align their NDCs with LT-LEDS. This helps countries to identify their core mitigation pathways and identify mitigation actions that can be supported by international carbon markets, among other financial instruments. This approach ensures that carbon credit generation does not compromise national climate goals and creates a framework through which carbon market revenues can be strategically directed to finance the country's own domestic mitigation needs, as well as adaptation and development priorities. At the same time, the opportunity to participate in carbon markets can serve as a powerful incentive for countries to develop or strengthen their LT-LEDS and NDCs, reinforcing the ambition and coherence of national climate strategies.

For example, Brazil's updated NDC outlines its intention to use Article 6 of the Paris Agreement to raise the ambition of its climate action. It estimates the potential to go beyond its base target of 59% emissions reduction below 2005 levels by 2035 (1.05 GtCO₂e) using internationally transferred mitigation outcomes (ITMOs). By attracting large-scale investment in high-cost mitigation technologies and activities, Brazil aims to accelerate its pathway to net-zero emissions, aligning international cooperation with its national development priorities and long-term low-emissions strategy.

By contrast, failing to align international market strategies with NDCs and LT-LEDS can result in policy fragmentation, missed opportunities and potentially compromise national climate goals. For example, issuing authorizations without accounting for corresponding adjustments may jeopardize NDC attainment if mitigation outcomes are transferred without replacement plans. This disconnect may also lead to over-reliance on less effective or more expensive instruments, adding pressure on public resources. It can further prevent countries from targeting carbon finance to strategic sectors identified in their LT-LEDS, reducing both efficiency and credibility with international partners.

Achieving this integration requires strong institutional coordination. Different ministries often prioritize different objectives—climate agencies may focus on NDC delivery, while finance or planning bodies may emphasize revenue generation or investment flows. Establishing coordination mechanisms to bridge these perspectives is essential for a whole-of-government approach that ensures carbon market decisions advance both climate and development priorities, without unintended trade-offs.

Considering these factors – and the guiding questions above – the benefits of being a host country in international carbon markets could be especially compelling for some countries. For instance, a country with abundant, low-cost ERR opportunities that align well with international demand, and that is already on track to meet its NDC, is likely to find participation in international carbon markets attractive. Such a country may also place high value on the technology transfer and spillover benefits these markets can offer. Countries in a similar position but where NDC achievement remains more challenging will also have opportunities to engage as a host country; although, in these cases, the nature of the engagement, and the extent to which the country ‘authorizes’ credits, will be different (see Module 2). The appeal of hosting is further strengthened if domestic carbon pricing instruments (CPIs) remain a longer-term policy objective rather than an immediate priority.

In contrast, for other countries, the case for serving as a host in international carbon markets may be less straightforward. This could include countries with more ambitious NDCs but where ERRs are, in international comparison, relatively high cost. These nations may already be planning or implementing domestic CPIs and may want to allow regulated entities to use carbon credits for compliance purposes. In such cases, the country may choose to participate in international markets primarily as a buyer – leveraging credit purchases to bridge domestic abatement gaps and pursue more cost-effective NDC attainment.

How does responding to question 1.1 relate to the obligations or opportunities countries have under Article 6 Guidance?

Addressing this question applies to any potential involvement as a host country in international carbon markets – whether that be through Article 6 or otherwise. As such, it does not specifically relate to requirements or opportunities under Article 6 of the Paris Agreement. However, having clarity on this helps countries to better prepare for participation in carbon markets and supports fulfilling the Article 6 participation requirements under the Paris Agreement.

Links and dependencies to other questions in the Guidance

This is a fundamental step for countries to consider before considering the other Modules in this Guidance. However, as discussed above, the extent of some of the advantages and risks will depend on decisions taken about authorization, as discussed in Module 2.

Further resources

A range of further resources also look at the question of participating as a host country, although often with a focus on a particular source of demand (e.g. voluntary buyers of credits) or using modalities for selling credits. These include:

- The World Bank’s *‘Defining Results-Based Climate Finance, Voluntary Carbon Markets and Compliance Carbon Markets’* & *‘Developing and Article 6 Strategy for Host Countries’* part of its Article 6 Approach Paper Series.
- Global Green Growth Institute’s (GGGI’s) *Developing an Article 6 Host Party Strategy*, part of its Supporting Preparedness for Article 6 Cooperation series.
- The Voluntary Carbon Market Integrity Initiative’s, *‘VCM Access Toolkit’* – and its associated Access Strategies Program – is designed to help policymakers establish the policies and processes needed to underpin their country’s participation in high-integrity carbon markets.

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