Frequently Asked Questions (FAQ) about Carbon Markets

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1. What is the Paris Agreement?

The **Paris Agreement** is a legally binding international treaty aiming to limit global warming to well below 2°C, preferably to 1.5°C, compared to pre-industrial levels. It was adopted by 196 Parties in 2015 at COP21 in Paris and entered into force in 2016.

The Paris Agreement recognizes the need for some Parties to pursue voluntary cooperation to achieve higher ambition in the implementation of the mitigation actions of their nationally determined contributions and to this aim establishes a new framework on compliance carbon markets and non-market approaches.

2. What are NDCs and why do they matter when talking about carbon markets?

Nationally Determined Contributions (NDCs) are climate pledges and action plans that each country is required to develop in line with the Paris Agreement goal of limiting global warming to 1.5° C. NDCs represent short to medium-term plans that are updated every five years with higher ambition on climate.

NDCs outline mitigation and adaptation priorities a country will pursue to reduce greenhouse gas emissions, build resilience, and adapt to climate change, as well as financing strategies and monitoring and verification approaches.

Current NDCs under the Paris Agreement are estimated to be 13.7% above the 2010 level in 2030. 85% of the countries have indicated in their recent NDCs their intention to use market-based mechanisms to achieve their NDCs.

3. Is it mandatory for a country to designate conditional and unconditional components of its NDC?

No, there are no UNFCCC requirements in either the NDC or Article 6 related decisions to specify which components of a country’s NDC are conditional versus unconditional. This has been used as a tool, however, by many countries, to communicate their climate finance needs and how, if such needs are met, higher ambition may be achieved.

4. What are carbon markets?

Carbon markets are trading mechanisms that create financial incentives for activities that reduce or remove greenhouse gas (GHG) emissions. In these mechanisms, emissions are quantified into carbon credits that can be bought and sold. One tradable carbon credit equals one tonne of carbon dioxide, or the equivalent amount of a different greenhouse gas reduced, sequestered, or avoided.

Carbon credits can be bought by countries as part of their NDC strategy, by corporations with sustainability targets, and by private individuals that want to compensate for their carbon footprint.

There are types of carbon markets, namely the compliance carbon markets established by the Paris Agreement and the voluntary carbon markets.

5. What are compliance carbon markets?

Compliance carbon markets under the Article 6 of the Paris Agreement, consists of:

- the **Article 6.2** framework for cooperative approaches, which involve the use of internationally transferred mitigation outcomes (ITMOs) amongst Parties on a voluntary basis and via bilateral/plurilateral agreements to achieve nationally determined contributions and promote sustainable development.
- the **Article 6.4** , mechanism, which is centrally regulated under the authority and guidance of the Conference of Parties of the UNFCCC and aiming among others to

(i) promote the mitigation of GHG while foresting sustainable development,
(ii) incentivize and facilitate participation of public and private entities authorized by a Party in the mitigation of GHG,
(iii) contribute to the reduction of emission levels in the host Party, which will benefit from mitigation activities resulting in emission reductions that can also be used by another Party to fulfil its nationally determined contribution and
(iv) deliver overall mitigation in global emissions.

6. What is an ITMO?

An Internationally Transferred Mitigation Outcome are real, verified, and additional emission reductions and/or removals generated from 2021 onwards measured in tCO2e or in other non-GHG metric that is consistent with the NDCs of the participating Parties. It includes all units from Article 6.2 and 6.4 and require a corresponding adjustment to the NDC authorized by the host country for use towards achievement of another country's NDC and/or for use of other international mitigation purposes (e.g., Carbon Offsetting and Reduction Scheme for International Aviation, CORSIA).

7. What is corresponding adjustment?

A corresponding adjustment (CA) is an accounting tool agreed in the Article 6 decisions to avoid double-counting between countries' NDCs. Host countries can authorize mitigation outcomes (Art. 6.2) or emission reductions (Art. 6.4 ERs) to be used for NDC compliance, international mitigation and 'other purposes.'. Such authorization comes with the obligation to apply a CA. Not all the emission reductions and/or removals generated by Art. 6 activities have to be authorized. If they are not authorized, they do not need require CA.

Even though authorization of ITMOs and the associated CAs is an important safeguard to protect countries' NDCs and ensure countries' ownership of the process, it is important to acknowledge that many developing countries do not have the institutional setting and capacity to ensure full coordination and allow for a transparent and independent authorization processes. In many countries these authorization processes are likely to be influenced by political decisions, influenced by pressure from private interest/ lobby groups and potential short-term gains for the political leaders involved.

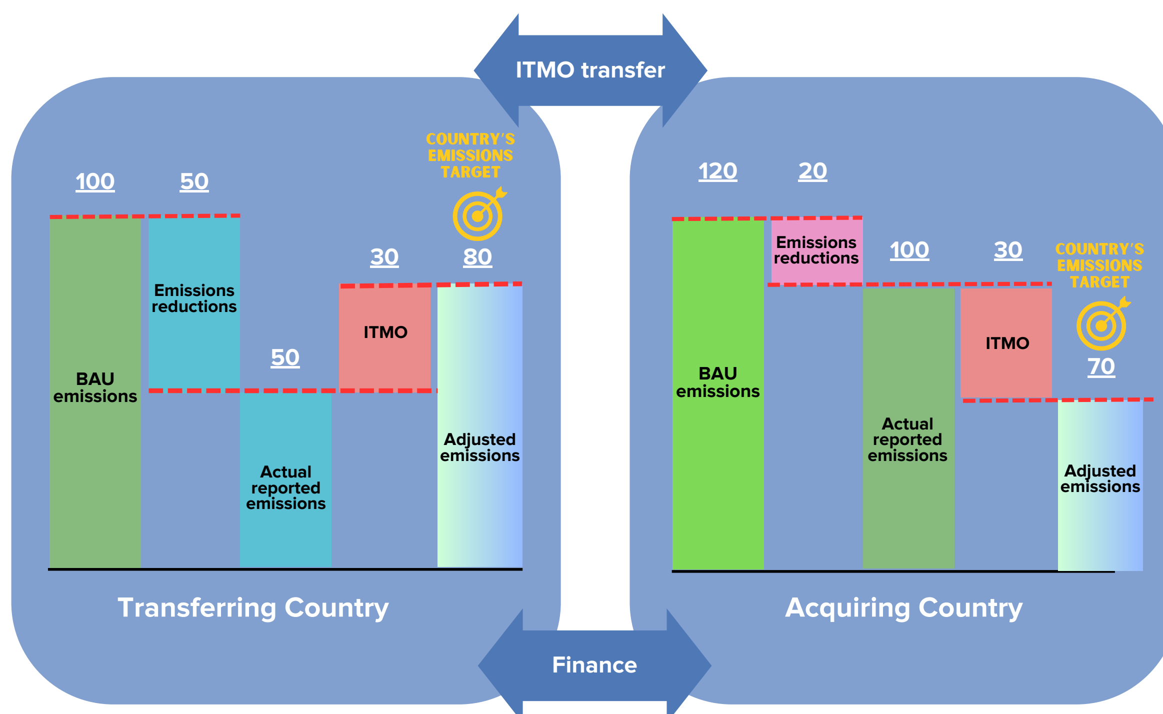

Figure 1: Illustration of corresponding adjustment between two countries

8. Does Article 6 create one centralized carbon market under the Paris Agreement? Or can any carbon market be used as long as the emission reduction credit is registered as an ITMO?

Article 6 does not create a single centralized global market. Art. 6.4 is centrally regulated along the lines of the Clean Development Mechanism (CDM). Voluntary Carbon Market (VCM) projects can fall under Art. 6.4 provided they meet all requirements of the Art. 6.4 mechanism and are authorized by its Supervisory Body, but there will continue to be VCM transactions that are not authorized as ITMOs. Unlike 6.4, Art. 6.2 is more flexibly defined, and host countries have discretion on how to design cooperative approaches via bilateral or plurilateral agreements.

There is no expected linking across these various decentralized cooperative approaches/systems that are already emerging. Host countries can design cooperative approaches that include and approve VCM activities.

9. Does Article 6 include REDD+?

The scope under Article 6 includes both emission reductions and removals. A reasonable and generally agreed interpretation is that REDD+ activities meeting all other applicable Article 6 requirements are or will be eligible. However, varying interpretations have emerged regarding the role of REDD+ in Article 6 – with indications by some that it's clearly eligible under Article 6, while others assert that it's been excluded, and still others recognizing a lack of clarity on this.

10. Are all REDD+ activities eligible for Article 6 type of transactions?

The full scope of REDD+ activities, as defined in the context of the UNFCCC is "reducing emissions from deforestation and forest degradation, plus conservation, enhancement of forest carbon stocks and sustainable management of forests". Given that the definition of ITMOs includes both emission reductions and removals with no explicit inclusion or exclusion of specific sectors, reducing emissions from deforestation and forest degradation as well as removals, or enhancement are REDD+ activities that can become ITMOs. On this basis, we expect that high-quality jurisdictional-scale REDD+ programs that meet all other Article 6.2 requirements can be used by Parties to achieve their NDCs and other international mitigation purposes.

In the case of the 6.4 mechanism, there is critical forthcoming work, particularly the Supervisory Body's review of eligible activities and methodologies, including those from the Clean Development Mechanism (CDM) as well as those related to "other market-based mechanisms," which could include methodologies from private carbon standards used in the voluntary carbon markets (VCM). So, again, just as in Article 6.2, there has been no outright inclusion or exclusion of REDD+, but Article 6.4 differs because the Supervisory Body will decide what is, and is not, eligible.

There is, however, further consideration to be given to "emissions avoidance" for both Article 6.2 and 6.4, as well as to "conservation enhancement" for Article 6.4 specifically. We interpret these terms as potentially applicable only to specific REDD+ activities within the broader scope described above. There is no exact definition of "emissions avoidance" and an interpretation that automatically equates it to avoided deforestation does not have a strong basis. The use of "conservation enhancement" versus enhancement or removals more generally, points to a focus on ongoing removals in conserved forests, for which there have been specific questions raised, in terms of how to ensure additionality, i.e., going beyond what would have happened anyway.

11. What are voluntary carbon markets?

Voluntary carbon markets (VCMs) refer to carbon market transactions, or the issuance, buying and selling of carbon credits certified by carbon standards, on a voluntary basis, rather than as a result of any policy-related regulatory national and/ or international requirement. The VCM aims to mitigate climate change by creating space for private actors to finance activities that remove GHG emissions from the atmosphere or reduce GHG emissions associated with industry, transportation, energy, buildings, agriculture, deforestation, or any other aspect of human life.

The supply of voluntary carbon credits comes mostly from private entities that develop carbon projects or jurisdictions and national governments that develop programs that generate emission reductions and/ or removals that are certified by a third party and registered under private standards. The demand for voluntary carbon credits comes from private individuals that want to compensate for their carbon footprints, corporations with corporate sustainability targets and other actors aiming to trade credits at a higher price and make a margin from this clean energy investment.

12. What is the role of governments in the VCM?

Governments engage with the VCM by instituting policies, regulations, and safeguards that influence VCM activities, creating enabling environments that facilitate VCM projects or programs, and sponsoring VCM projects or programs within their territories.

13. What does it mean when voluntary carbon markets are referred to as "high-integrity"?

High integrity of carbon markets is often associated with the concept of environmental integrity, which is related to transparency and robust accounting to ensure that emission reductions and removals are real, additional and avoid double counting. In addition to environmental integrity, high-integrity VCMs also rely on private entities' that buy these units having real commitments to reduce emissions from their own operational and value chain processes. These broader aspects that affect the quality of units need to be considered for high-integrity VCMs, such as the robustness of social and environmental safeguards, strong program governance, and NDC ambition.

14. What is the role of carbon standards in the voluntary carbon market?

Carbon standards provide and administer the rules and requirements for VCM projects and programs, certify and issue carbon credits, and track the units through a unique id/ serial number, making this information publicly available in their registry.

15. What is a voluntary carbon credit?

Carbon credits in the VCM are generated by the activities of projects and programs that are certified by carbon standards. The credits are purchased by companies, individuals, and other entities to offset GHG emissions or otherwise contribute to emissions abatement. The prices of carbon credits are determined by the types and quality of VCM activities and the demand for credits from those activities.

16. What is carbon offsetting? Are all voluntary carbon market units used as offsets?

A carbon offset broadly refers to a reduction in GHG emissions or an increase in carbon sequestration that is used to compensate for emissions that occur elsewhere. Carbon offsetting can be part of either compliance or voluntary carbon markets. Carbon credits can be used as an offset unit if the applicable system allows for that. However, carbon credits can also be used for other voluntary corporate commitments or claims but not necessarily as offsets (see question/answer below on claims).

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17. What makes a high-quality carbon credit?

A high-quality carbon credit accurately or conservatively represents greenhouse gas (GHG) emission reductions or removals achieved through VCM activities. VCM projects and programs that generate high-quality carbon credits maximize climate, socio-economic and ecological benefits for local communities and ecosystems as appropriate to the project type and sector. Thus, high-quality carbon credits are the result of well-informed decisions made during project design and development following guidance from reputable carbon standards and in alignment with host country regulations.

18. How are carbon credits used?

Carbon credits in the VCM are used by private individuals, corporations, and other actors to voluntarily compensate for greenhouse gas (GHG) emissions as part of their voluntary climate mitigation commitments (i.e., not regulated or mandated by a government). Carbon credits may also be purchased and retired without being used for offsetting, which drives reductions in overall GHG emissions and may enable buyers to claim other social and environmental contributions.

19. What is a corporate claim? What are the potential types of claims?

A corporate claim is a statement that a private company makes about the use of carbon credits as part of its voluntary climate change mitigation targets. A critical foundation to understand corporate claims in the VCM is the corporate GHG inventory. Corporate GHG inventories quantify the amount of GHGs a company emits into the atmosphere. These inventories serve as a critical management tool for companies of all sizes and sectors, enabling companies to identify their emission sources and track changes over time. Information presented in a GHG inventory can help inform corporate strategies and prioritize actions to reduce emissions.[1]

As far as what is included in corporate GHG inventories, companies aggregate GHG data from all owned or controlled facilities and operations at the corporate level, and classify emissions into the following categories:

- **Scope 1** (required; direct GHG emissions) – emissions from sources that the company owns or controls.
- **Scope 2** (required; indirect GHG emission from purchased electricity, steam, or heat) – emissions associated with the generation of electricity, steam, or heat purchased and consumed by facilities or equipment that the company owns or controls.
- **Scope 3** (optional; other indirect GHG emissions) – emissions from other sources the company does not own or control. This may include waste disposal, leased/outsourced activities, or emissions such as those related to business travel and employee commuting.

The credibility of corporate claims will benefit from clearer guidance to ensure greater transparency, no double counting, and contributions to credible mitigation pathways. To address this issue, the Voluntary Carbon Market Integrity (VCMI) initiative worked with technical experts and countries to develop a claims code to be used by private companies that buy voluntary carbon credits, to ensure the high integrity of the demand-side. UNDP is a strategic partner to the VCMI.

1. Source: https://www.wri.org/research/bottom-line-corporate-ghg-inventories

20. What is greenwashing? How does it impact VCM?

Greenwashing refers to companies purchasing carbon credits from projects that are not actually achieving their emission reduction goals, as well as companies being overly dependent on VCMs, i.e., not decarbonizing internally. Use of bad carbon credits (i.e., that are not real, additional, and fully monitored, reported and verified) as part of a market strategy to sell an image of a company that its assuming its responsibility and contributing to the global efforts to mitigate climate change. There are different types of claims that are currently made by companies, including being net-zero, or having climate neutral products or productions, amongst others.

A recent report from the New Climate Institute, the Corporate Climate Responsibility Monitor, has evaluated the climate pledges of 25 of the world's largest companies which correspond to 5% of total global GHG emissions and found that their "net zero" and "carbon neutral" claims were resulting in a 40% reduction in emissions on average, not 100% as suggested by their claims.

Reaching net zero requires ensuring that carbon dioxide emissions from human activity are balanced by human efforts to remove carbon dioxide emissions (for example, by creating carbon sinks to absorb carbon dioxide) - thereby stopping further increases in the concentration of greenhouse gases in the atmosphere. Transitioning to net zero requires a complete transformation of energy, transportation, and production and consumption systems. This is necessary to avert the worst consequences of climate change.

21. What is the relationship between the voluntary carbon markets and Article 6 of the Paris Agreement?

The Paris Agreement and its implementing decisions on Art. 6 do not regulate the VCM. The decisions do not prescribe corresponding adjustments (CA) for the VCM. However, they give host countries the option to link VCM transactions to Art. 6.2 and Art. 6.4 and offer CAs for authorized uses of carbon credits.

Countries ultimately decide whether or not to engage in Art. 6 and whether to link VCM activities to Art. 6. Countries can make use of Art 6.2 and Art. 6.4 provided they fulfill the conditions required for each of them. These conditions cover a range of institutional, strategy and regulatory requirements. Host countries will have more responsibilities (and discretion) under Art. 6 than they had in the past (under the CDM). The VCM can continue to co-exist and supplement Art. 6 activities and transition. There are multiple ways to link VCM to Art. 6.

VCM will continue to be an important means for channeling private climate finance to NDC implementation moving forward. Data shows that total market value for voluntary carbon markets transactions in 2021 was nearly $2B, with a surge in transactions coming late in the year. That is a nearly four-fold increase from 2020 transactions ($520 million).

Already a leading category in terms of volumes transacted, forestry and land use posted a near-record volume in 2020 at 47 MtCO2e (the previous high was 50.7 MtCO2e in 2018) and set a new high price mark at $5.59/ton in 2020 (average prices were $3.40 in 2018 and $4.33 in 2019). While it is too early to tell what the long-term impact will be, there has already been an evident impact on price in the weeks following COP26. VCM transactions will continue to exist outside the UNFCCC, and it is critical to ensure these will be carried out with high integrity.

22. Are voluntary markets included within the scope of "other international mitigation purposes"?

Article 6 decisions do not specify what are "other international mitigation purposes". VCM transactions may be considered as part of "other mitigation purposes" depending on the authorization of the host Party for a corresponding adjustment to their NDC. While Article 6 does create a path for corresponding adjustments to potentially be applied for VCM transactions to the NDC of the country that hosts these initiatives, it does not create an obligation.

The UNFCCC, as a framework of signatory Parties, does not have the legal jurisdiction to regulate voluntary transactions, which are governed by private standards and not by international or national regulatory bodies. Recognizing this limitation, Article 6 decisions of the Paris Agreement Rulebook went as far as possible, i.e., to require corresponding adjustments to "other international mitigation purposes", without explicitly defining what those are.

Opinions and interpretations on the Glasgow Decisions are not unanimous. Countries, stakeholders, and carbon standards take different views on when CAs would be needed, and by when they will be possible., Verra and the Gold Standard have both announced that VCUs can be issued with or without CA. Those pushing for VCM transactions to be considered as other international mitigation purposes and to require corresponding adjustments are advocating that this is the only way to ensure that there is no double counting and to promote high environmental integrity of carbon market transactions. However, a CA is not a singular tool/approach to ensure the integrity of carbon market transactions, i.e., reflecting emission reductions/removals that are real, additional, measurable, and verifiable; it must also include the application of robust, credible baselines; and measures in place to address risks of non-permanence and leakage.

It is important to recall that corresponding adjustments serve a specific purpose – to avoid double-counting between NDCs. There is not a risk, however, of a companies' use of carbon credits being counted toward country NDC targets other than the host country, as long as the appropriate guardrails are in place to ensure that companies report their GHG emissions inventories separately and independently of any carbon credits they use. This is addressed in the context of VCMI claims guidance in development.

23. When does a CA occur for the VCM?

All corresponding adjustments (CA) require express authorization from the host Party national government. Additional technical work will continue through to COP28 (end of 2023) to refine elements of the technical guidance and requirements for Article 6, including corresponding adjustments for single year or multiple years NDCs targets.

If the VCM requires corresponding adjustments from the NDCs of developing countries for all VCM transactions, these countries would have to make additional efforts to mitigate emissions, likely at higher costs than those traded in markets. The long-term impacts of such authorizations would be the inability of these countries to achieve their own NDC targets or potentially ending their NDC commitment periods with large debts depending on how seriously compliance will be taken under the Paris Agreement (article 15).

24. Do we envision a transition from or phasing out of VCM and a shift to only compliance markets?

It will take approximately three years or more to have a fully operational Article 6.4 mechanism. While it is expected that VCM activities will continue to co-exist and supplement Article 6 in the longer-term, they will continue to play a particularly crucial and central role to maintain climate mitigation action and channeling of private sector finance to developing countries in this near-term period. Institutional and reporting responsibilities might represent considerable tasks that will take for some developing countries considerable time to meet. Any voluntary carbon credit that is to be backed by a CA will need to go through Art. 6.2 or Art. 6.4 and fulfill their respective criteria. To achieve Art. 6 "readiness" significant capacity building will be needed.

25. Is there a difference between climate finance and carbon finance? Can voluntary carbon markets be considered as climate finance?

The Paris Agreement recognizes the difference between climate finance and carbon finance by separating these two items into different articles.

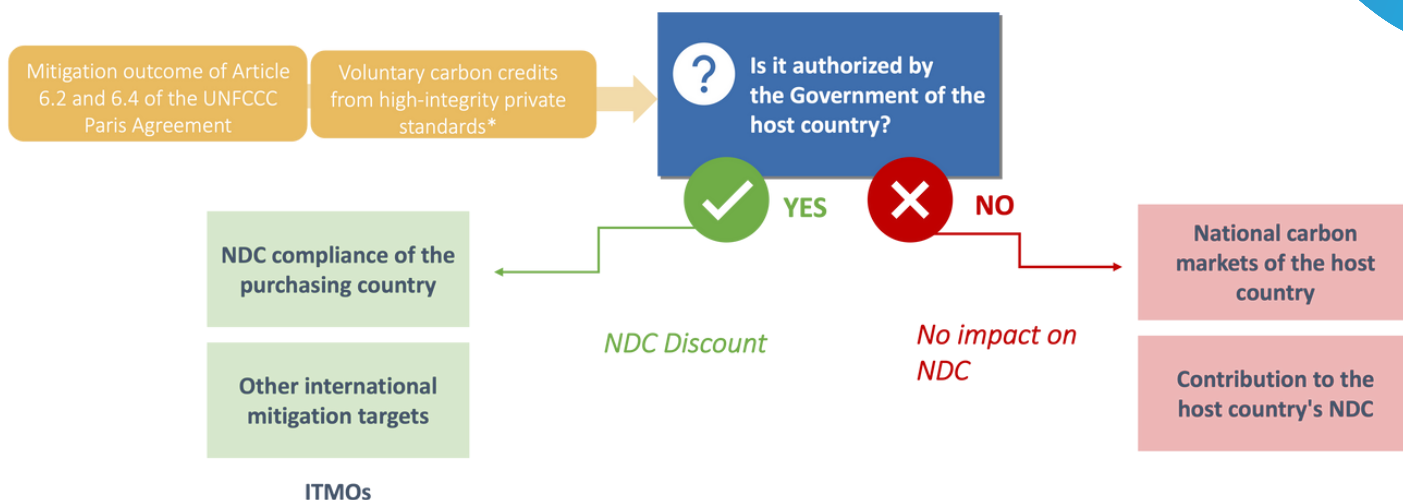
Climate finance (Article 9 of the Paris Agreement) recognizes common but differentiated responsibilities and the need to financially support developing countries for the achievement of their nationally determined contributions (NDC). It refers to financial resources and instruments that are used to support action on climate change. Large-scale climate finance investments are needed to transition to a low-carbon global economy and to help societies build resilience and adapt to the impacts of climate change. Climate finance can come from different sources, public or private, national, or international, bilateral, or multilateral. It can employ different instruments such as grants and donations, green bonds, debt swaps, guarantees, and concessional loans. And it can be used for different activities, including mitigation, adaptation, and resilience-building. Climate finance is not flowing to the global south at the pace needed to support the achievement of the 1.5 C target. 75% of the climate finance in year 2020 came from domestic budgets, mostly in the global north.

Carbon finance (Article 6 of the Paris Agreement) is the revenue realized through sale of carbon credits earned. There is a transfer of the asset, ITMO, from the buyer to the seller. The buyer uses the ITMO for their own targets, the resources accrued do not contribute to achievement of the host country NDC, on the contrary, these units are transferred and used by the buyer country for their NDC. With the corresponding adjustment, the seller country will need to undertake additional climate change mitigation efforts to meet its own NDC target, and it is not guaranteed that the resources received from carbon finance will be reinvested on that.

Voluntary carbon markets, on the other hand, can be an important means through which international private climate finance flows to developing countries.[2] As there is no transfer from the NDC of the host country to the country that buys these credits, the investments received contribute to the achievement of the host country NDC, not of the buyer country.

2. The total volume of VCM transactions as of August 31, 2021, had already exceeded $748 million. 2021 is highly likely to be the highest annual value ever tracked, potentially exceeding $1 billion. The volume of traded VCM credits hit record volumes of 188.2 $MtCO_2e$ in 2020 - an 80% increase over 2019. In 2021, Asia was the region with the largest volume of credits (91.8 $MtCO_2$), followed by Latin America (36.6 $MtCO_2$) and Africa (23.9 $MtCO_2$). But in terms of price, Africa was the region with the largest price paid per credit, an average of $5.52, followed by LAC ($3.74) and Asia ($3.34).

Figure 2: Implications of corresponding adjustment in the utilization of ITMO



Note: *Voluntary carbon credits can only be used as Internationally Transferred Mitigation Results (ITMOs) if they meet all the requirements set by the decisions of Article 6 of the Paris Agreement, including corresponding adjustments (AC).

26. Are VCM only for the forest sector?

No, VCM consists of emission reduction and removal activities across a number of sectors, including land-use, land-use change and forestry, agriculture, energy, and waste. The share of the VCM represented by forestry sector does, however, continue to grow, in particular.

27. How does the voluntary carbon market incorporate REDD+?

Le VCM intègre la réduction des émissions dues à la déforestation et à la dégradation plus (REDD+) à travers la certification et l'échange de crédits de carbone générés par des projets et des programmes qui cherchent à réduire la déforestation et/ou la dégradation des forêts. Les normes de certification carbone ont développé des méthodologies pour certifier certains types d'activités REDD+, y compris des normes spécifiquement axées sur la certification de REDD+ à l'échelle juridictionnelle.

28. What does the non-market approach refer to?

In addition to carbon market approaches (Article 6.2 & Article 6.4), Article 6.8 of the Paris Agreement provides Parties with the possibility to engage into integrated, holistic and balanced non-market approaches to effectively implement their NDC. These non-market-approaches shall aim to: (i) promote mitigation and adaptation ambition; (ii) enhance public and private sector participation in the implementation of NDC; and (iii) enable opportunities for coordination across instruments and relevant institutional arrangements.