

Walls and bridges to cooperative approaches

How Article 6 stakeholders can collaborate on enhancing global climate goals



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Prologue

Again, this summer, record-breaking temperatures were accompanied by disastrous effects like wildfires, droughts and flooding. With dramatic effects of climate change hitting the front pages across the globe, the urgency of finding common ground on how everyone can contribute to transitioning away from fossil fuels becomes more visible than ever before. Here, everyone has a role to play, and although no “one-size-fits-all” approach could ever exist for such a complex problem, inclusive debate lays at the heart of the effectiveness of actions to curb climate change. Scaling up technical solutions, development of new regulatory frameworks and change of individual behaviors – although much needed – will not suffice and must be accompanied by appropriate market response. Unfortunately, historically speaking, market approaches have not always ensured honesty, transparency or efficacy of their functioning with serious consequences for their credibility. Nevertheless, more climate finance is needed according to recent studies, which state that by the end of this decade, climate investments must increase by at least seven times to meet global climate goals.¹ That’s where the new chapter of the much-needed debate begins.

The international community has already set up a global roadmap to approach these market challenges. The Paris Agreement, which was adopted at COP21 in Paris in 2015, introduces a complex regulatory framework governing how these market-based strategies should be implemented and operationalized. The general concept is outlined in the so-called “cooperative approaches” defined in Articles 6.2 and 6.4 of the Paris Agreement. The framework combines perspectives of both developing and developed parties. On the one hand, developing countries can provide access to much-needed climate finance for adapting and mitigating climate change, which in the long run eradicates poverty and promotes sustainable development based on renewable energy

sources – crucial from the perspective of avoiding mistakes of the industrialized North. On the other hand, developed countries can contribute to global reduction of greenhouse gas (GHG) emissions, which at this point cannot be easily reduced or avoided, as an additional effort to their decarbonization initiatives.

There definitely is no shortage of various climate policy reports available in the public domain. This one, though, takes a somewhat different approach to the topic by opening the floor to various global stakeholders who otherwise might not have engaged in a joint discourse: developing and developed countries, as well as international organizations and Indigenous Peoples. This report is underpinned by quotes from representatives of different groups and institutions that all have roles to play in framing the international policy response to climate change emergency. This variety of voices and opinions reflects on difficulties and challenges but also hopes and aspirations for the global discourse on how collective action should look when creating long-term solutions that will fit all stakeholders’ interests. We will be very interested to hear your point of view, too.

Yours,



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¹ Naran, B et al. (2022) “Global Landscape of Climate Finance: A Decade of Data.” (Accessed 1 August 2023).

1

Executive summary

In this report, several obstacles (also referred to as “walls”) and opportunities (“bridges”) to cooperative approaches under Article 6 of the Paris Agreement are discussed. These walls and bridges are presented through the lenses of various stakeholders of the international carbon markets: developing countries, developed countries, Indigenous Peoples and local communities, international organizations and the private sector.

For a long time, relegated to a passive role in international actions to curb climate change developing countries now have the opportunity to reverse that trend. Paris Agreement-aligned markets under Article 6 aim to boost climate actions by providing an opportunity for each country to play a role voluntarily and equally in achieving the 1.5°C target. However, as the rules of the new markets are highly technical, and despite the clear benefits, developing countries will need support and innovative solutions to be able to fully grasp the opportunities and position themselves as a partner of choice in the markets.

It is estimated that trading in carbon credits could reduce the cost of implementing countries' Nationally Determined Contributions (NDCs) by more than half – by as much as \$250 billion by 2030. In other words, carbon trading could facilitate the removal of 50% more emissions (about 5 gigatons of carbon dioxide per year by 2030) at no additional cost.

Source: World Bank (2022) [“What You Need to Know About Article 6 of the Paris Agreement.”](#) (Accessed 6 July 2023).

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We see in many countries a lack of understanding of the opportunities, challenges and risks of engaging in Article 6 projects On the other hand, the timelines are tight: all Internationally Transferred Mitigation Outcomes (ITMOs) generated in this Nationally Determined Contributions (NDC) cycle, will have to be used against 2030 NDC targets and no banking of ITMOs will be possible.

Alexandra Soezer

Global Carbon Technical Advisor, United Nations Development Programme

The UN Framework Convention on Climate Change (UNFCCC) and the Paris Agreement both emphasize the developed countries' leadership in combating climate change. Currently, developed countries use the international cooperation under the Article 6 mechanism to achieve their NDCs, meet additional climate targets and create new financial streams in climate finance. Some of those countries also use cooperative approaches to facilitate the distribution of low-carbon technologies under a technology transfer mechanism. The use of ITMOs allows them to meet their NDCs while safeguarding energy security, lower the cost of financing the energy transition or meet compliance obligations with the use of carbon credits.

As Indigenous Peoples and local communities (IPLCs) own, inhabit and use a quarter of the planet's territory and protect 80% of the remaining global biodiversity, they need to be included in the international community's efforts to develop the cooperative approaches under Article 6. IPLCs are not yet effectively represented in existing carbon markets, especially when it comes to governance and decision-making procedures like ownership and land management. On the contrary, they often suffer fraud and human rights violations, as well as land grabbing. Inclusion of IPLCs in the international legal protection system – the legal protection provided by, for

example, the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) and the International Labour Organization Convention No. 169 – is essential for preserving their rights and redressing historical injustices, as demonstrated by the Paris Agreement. Adding to that, other carbon market stakeholders, such as Voluntary Carbon Market (VCM) standard-setting entities, can significantly contribute by developing clear safeguarding principles and standards that act as guides for preventing human rights violations and encouraging greater IPLC participation. There are already many practical examples, e.g., Costa Rica, that provide strong landownership for IPLCs (i.e., secure and recognized ownership of traditional lands of IPLCs), or Canada, where IPLCs are included in the national legal protection system.

The operational and technical assistance provided by international organizations (IO) is essential for the efficient execution of Article 6. They encourage international cooperation by providing extensive, technical assistance and supporting programs aimed at nation-building. By aligning national frameworks with global norms established by the Conference of the Parties (COPs) and the UNFCCC, IOs also strengthen the institutional framework of Article 6. As a result, IOs can make it easier for organizations to comply with international



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Under a new UNDP Article 6 Transfer Readiness Project funded by Switzerland, we have started to engage with countries that have bilateral agreements with Switzerland in place, namely Georgia, Ghana, Peru, Senegal, Uruguay and Ukraine. ... We are also working on a digital infrastructure together with the United Nations Framework Convention on Climate Change (UNFCCC), the World Bank (WB) and European Bank for Reconstruction and Development (EBRD) ... to develop an end-to-end digital system to simplify the workflow for project developers and streamline approval processes for governments.

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standards and create distinctive national frameworks. IOs aim to establish open carbon markets to protect the environment and to encourage the creation and transfer of environmentally friendly technologies. However, IOs' ability to operate is restricted by their inadequate financial resources. The duty to implement COP decisions also has several legal loopholes which limits the ability of IOs to compel parties to act. The amalgamation of the various carbon markets would support the IOs' efforts to create high-quality markets.

Lessons learned from the VCM and the experience gained by its participants (VCM service providers, project developers and corporates) should help with the implementation of and improvements to the Article 6 mechanism. The amount of mitigation outcomes (ITMOs, carbon credits) is a key factor needed to achieve the economies of scale required by the Paris Agreement's long-term temperature target. Article 6 of the Paris Agreement is an opportunity for all participants in the carbon market to increase demand for carbon credits by linking the VCM market and the Paris Agreement market. The task is to combine the two markets to realize the potential of both and increase the number of offset projects to meet climate goals, rather than create competition. There are many barriers to market development, and a way to overcome them is to increase market transparency and improve the quality of credits in the first place.

In conclusion, even if there are still several walls preventing the effective implementation of Article 6, there are also a multitude of bridges that the various parties involved can use to make cooperative approaches for international climate mitigation work. For example, cooperation between the public and the private sector is key and can help to close ambition gaps in climate change mitigation. Nevertheless, to create leading practices for actual implementation, Article 6 needs pioneers to show the way. Dialogue and capacity building regarding the benefits of Article 6 for particular stakeholder groups is needed to encourage parties to get involved.



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The most effective way to ensure that programs are designed in a way that does not harm Indigenous rights or interests is to empower Indigenous Peoples in the decision-making processes at both the project and policy level through the effective implementation of the Declaration on the Rights of Indigenous Peoples.

Jesse McCormick

Senior VP, Research,
Innovation & Legal Affairs
First Nations Major Projects Coalition



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Ratings are a key tool required to build trust in this new market mechanism and enable it to scale. The BeZero Carbon Rating (BCR) provides an independent assessment of the likelihood that a carbon credit achieves a ton of CO_{2e} avoided or removed.

Tommy Ricketts

Co-Founder and CEO, BeZero Carbon

2

Article 6 explained

To achieve the Paris Agreement climate change mitigation and adaptation goals, each state is required to formulate its own specific Nationally Determined Contribution (NDC) – in brief, its plan to cut emissions and adapt to climate impact. Each country’s NDC contains targets the country implements on its own (i.e., unconditional pledges) and targets that would require international support to be achieved (i.e., conditional pledges). Additionally, a so called “ratcheting-up” mechanism implies that every subsequent NDC, revised on a 5-year cycle basis, needs to contain more ambitious mitigation goals compared to the previous NDC.

The Paris Agreement recognizes the role of offsetting in achieving the net-zero ambition by 2050, but also its potential in supporting countries in achieving their NDCs and increasing global mitigation ambitions. This concept is enshrined in Article 6, which provides the opportunity for countries to voluntarily engage in market-based cooperative approaches or Paris Agreement-aligned markets.

Article 6 introduces two market-based mechanisms. The first mechanism is established under Article 6.2 which provides the opportunity for countries to freely cooperate among themselves (bilateral or country-to-country) or engage with the private sector (unilateral or country-to-private entity). Article 6.4 provides the second mechanism which replaces the current Clean Development Mechanism established under the Kyoto Protocol. It basically creates a global carbon market supervisory body (called the Article 6.4 Supervisory Body 6.4SB) which allows project developers to register their “emission reduction” projects for generating carbon credits for sale. Projects need to be approved by the host country in which they are located and the 6.4SB before any “UN-recognized” credits can be issued. Such credits, once issued, may be purchased by companies, countries and individuals and may be used to count towards countries’ NDC.²

Article 6 allows parties to engage in trading of “carbon credit” units called Internationally Transferred Mitigation Outcomes (ITMOs). This means that parties can enter into an agreement where one of them (i.e., the host country) reduces carbon emissions and transfers the resulting ITMOs to a purchasing party (i.e., a country or a private entity). In return, the purchasing party provides some financial, capacity-building, technological or other support to the seller.³

² Carbon Market Watch (2022) “COP27 FAQ: Article 6 of the Paris Agreement explained.” (Accessed 21 November 2023).

³ UNDP, “Frequently asked questions on Article 6 of the Paris Agreement and Internationally Transferred Mitigation Options (ITMOs).” (Accessed 20 November 2023).

The main difference between voluntary carbon credits (VCCs) and ITMOs is that VCCs are issued by private entities called carbon market standards (organizations that define the criteria needed to calculate the life cycle emission reductions or removals achieved by a VCM project), while ITMOs are issued by host country governments. There is no unified regulatory framework over VCCs, while ITMOs are governed by COP decisions, the UNFCCC and governments of countries that decide to implement Article 6. To ensure the integrity of ITMOs, each unit needs to be authorized by the host country, subject to a corresponding adjustment and tracked as follows:

- ▶ The authorization provides the opportunity for the host country to decide on the type of projects and methodologies to be used to achieve the mitigation outcomes, which can then be traded as ITMOs on the Paris Agreement-aligned market.
- ▶ The corresponding adjustment requirement aims to ensure the avoidance of double counting of ITMOs and is based on a double bookkeeping system. This means that the party selling ITMOs needs to subtract these mitigation outcomes from its own progress towards its NDC targets, while the party purchasing the ITMOs can count them towards its NDC targets or climate claims.
- ▶ Recording, tracking and reporting of ITMOs in a registry is a necessary requirement that complements the robust accounting element and ensures the integrity of the new market.

Protecting the environment is key in terms of avoiding a transfer of carbon credits which have been generated from a project that is ineffective at reducing emissions. The transfer of such credits would ultimately harm the climate instead of mitigating the effects of climate change. In order to protect against this risk for Article 6 carbon credits, a number of systems and controls or factors need to be considered, developed and implemented. These include robust accounting for international transfers of ITMOs, ensuring the quality of the traded units, the sufficiency of the ambition of the NDC target of the host country or the availability of incentives to encourage investment in “emission reduction” projects.⁴

⁴ German Emissions Trading Authority (DEHSt) at the German Environment Agency (2017). [Environmental Integrity under Article 6 of the Paris Agreement - Discussion Paper](#). (Accessed 21 November 2023).



3

Setting the scene: report objectives

Carbon markets are not easy to grasp. Despite more than 30 years of negotiations, multiple ambiguities serve much more as a wall than as a bridge toward common understanding of how trade with carbon offsets works. This however does not discourage investment. Although the world still hasn't found a universal way of putting a price on carbon dioxide (CO₂) emissions, the last year the global carbon market reached a record high of EUR 850 billion (US\$909b).⁵ The global climate negotiations, notably the United Nations Climate Change Conference (COP26) held in Glasgow in 2021, brought some progress in terms of operationalizing one common set of carbon market rules, but nevertheless experts are clear: we still have a long way to go. So, what is it all about?

Let's start with a bigger picture. In 1992, when the UNFCCC was negotiated, the world was not ready to commit to an exact temperature target. Framework convention, as the name implies, has a general objective of avoiding "dangerous anthropogenic interference with the climate system."⁶ It was only in 2015 in Paris when during the UNFCCC 21st Climate Change Conference, Conference of the Parties, (COP21) it was agreed that a temperature threshold should be set at a level "well below" 2°C above pre-industrial levels and "pursuing efforts to limit it to 1.5°C."⁷ To make it happen, in the Paris Agreement parties committed themselves to produce NDCs.⁸ They articulate individual targets of each party for emission reductions over a certain period accompanied by the ways of achieving them. The flipside of this much-needed flexibility: the first tranche of NDCs, even if realized, will not result in the 1.5°C goal being achieved.⁹ And with climate policy being all about global efforts, the dynamics of indispensable cooperation between developed and developing countries becomes even more visible.

So how can the world make any joint effort? How could developed and developing countries cooperate to reach the ambitious 1.5°C temperature goal? That is where Article 6 of the Paris Agreement comes into play by serving as a bridge between all the parties. It establishes a possibility for countries to work together on reducing their emissions. The general idea of the cooperative approaches under Article 6 is as follows: If country A was able to reduce its GHG emissions by more than promised in its NDC (e.g., because it overshoots its NDC thanks

⁵ Zelljadt, E. (2023) <https://www.refinitiv.com/perspectives/market-insights/global-carbon-market-value-hits-new-record/> (Accessed 6 July 2023).

⁶ UNFCCC (no date) "What is the United Nations Framework Convention on Climate Change?" (Accessed 6 July 2023).

⁷ UNFCCC (2015) Paris Agreement. (Accessed 6 July 2023).

⁸ Ibid.

⁹ United Nations Development Programme (UNDP) (2022a) "The closing window. Emissions Gap Report 2022." (Accessed 6 July 2023).

to highly effective technologies, emission removals or – worst case – it adopted unambitious targets), it could sell ITMOs, i.e., carbon credits under Article 6, to country Z. These credits bought by country Z would count toward country Z's NDC and reflect the amount of CO₂ that wasn't emitted from country A as a result of exercising the NDC. As easy as it may seem, the system established under the Paris Agreement is however much more complicated.

The Paris Agreement offers several mechanisms for participating in the global carbon cooperation. Article 6 foresees two parallel options for a market solution (Article 6.2 and Article 6.4) and an additional mechanism, which is not based on market approaches. Our focus here will be on the market cooperation approaches.

Cooperation under Article 6.2 foresees that country A and Z, which participate in ITMO transactions, must apply “corresponding adjustments”: i.e., country Z (buyer) makes a subtraction of its emissions, which reflects positive environmental impact of transaction, while country A (seller) makes an addition to its emissions. This helps to ensure that only one country will make use of reductions embodied in carbon credits, thus no “double counting” occurs.

On the other hand, Article 6.4 establishes a mechanism of generating ITMOs through projects realized under the supervision of a UN body. This was further developed during COP26 in Glasgow, where two types of carbon credits available under Article 6.4 mechanism have been created. The first type must be authorized by a country that hosts the project and is accompanied by a “corresponding adjustments” and the second doesn't require adjusting and thus can't be counted toward a country's NDC, opening additional room for maneuvering for market participants.

It is also to be noted here that while Article 6.2 is already fully operationalized, Article 6.4 still requires further work to be put into operation. It is expected that the second framework will take the lead in shaping the global carbon market practice.

Although these cooperation approaches under Article 6 follow a differing approach toward carbon credits trading, they have one thing in common: they could not be implemented and operationalized without the engagement of a broad variety of stakeholders. These include international organizations or governmental officials from developed and developing countries, but also business representatives who develop emission reduction projects, such as renewable energy and energy efficiency projects, and IPLCs whose everyday life is directly impacted by the progress of carbon offsetting projects.

This new framework, although very promising, is still not set in stone. With international discussion already happening – and many more unrecognized uncertainties yet to show – it is important to conduct a well-informed discussion. With transparency, integrity and accountability of the system appearing as the most important subjects of heated international debate, this report aims at bringing together views of all interested parties and thus building common understanding of the issues at stake. Ahead of the COP28 conference starting on November 30, 2023, in Dubai, United Arab Emirates, we want to reflect on where the global carbon market currently is and where it can be within the next few years.

A proverb says: In times of crisis, the wise man builds bridges, the fool builds walls. At EY, we aim to support decision makers and market players in strengthening the former and taking down the latter. Our hands-on experience allows us to understand very well how difficult it might be to understand the complexities and reasoning behind the intertwined carbon frameworks. This report will guide you through, presenting the views of key stakeholders on the current state-of-play, as well as leading regulatory and market trends in the development of the universal carbon market.

We hope you find this report insightful.



4

Developing countries

4.1 Context

The Parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities. Accordingly, the developed country Parties should take the lead in combating climate change and the adverse effects thereof.

Source: UNFCCC, Article 3, paragraph 1

To address climate change, we need knowledge of the science and ability to translate it into efficient policies. Furthermore, global warming is not uniform and developing countries are among the most vulnerable ones.¹⁰ This situation creates a tension in the international climate debate between the developed and developing countries, which translated into the principles of Common but Differentiated Responsibilities and Respective Capabilities (UNFCCC, Article 3, paragraph 1). While the principle lays down the common obligation to protect the global environment it also differentiates between the capabilities of developed and developing countries in addressing the issue and creates a preferential treatment for developing countries concerning the provision of assistance for climate actions.

The above-mentioned principle is part of the conceptual apparatus of the UN Framework Convention on Climate Change and hence influences the interpretation of any existing obligations under it or contained in any instrument adopted under the convention. It is important to note that while the principle creates a differentiation between countries regarding their obligations it does not mean that developing countries should not play an active role in addressing drivers of climate change. However, until the adoption of the Paris Agreement, developing countries were compelled to a very limited role and obligations.

Under the Kyoto Protocol, only industrialized countries and economies in transition had quantified emission reduction commitments in accordance with a commonly agreed target. On the other hand, developing nations (Non-Annex I countries) were mostly exempted from the Kyoto Protocol or could comply voluntarily. Moreover, mitigation commitments of developing countries were set in the broader context of sustainable development supported by capacity building and finance coming from developed countries. Still, considering the scale of emissions reductions required, an effective international response to climate change will need to consider a global approach.¹¹ Additionally, in recent years some new major players in the global economy have emerged, such as China, India and Brazil (not classed as Annex I countries), to cite a few, and what comes with it an important increase in their GHG emissions.

¹⁰ Eckstein, D. et al. (2021) "Global Climate Risk Index 2021," Germanwatch. (Accessed 6 July 2023).

¹¹ UNFCCC (2010) "Fact sheet: The need for strong global action on climate change." (Accessed 6 July 2023).

Each Party shall prepare, communicate, and maintain successive nationally determined contributions that it intends to achieve. Parties shall pursue domestic mitigation measures, with the aim of achieving the objectives of such contributions.

Source: Paris Agreement, 2015, Article 4, paragraph 2

Each Party's successive nationally determined contribution will represent a progression beyond the Party's then current nationally determined contribution and reflect its highest possible ambition, reflecting its common but differentiated responsibilities and respective capabilities, in the light of different national circumstances.

Source: Paris Agreement, 2015, Article 4, paragraph 3

As such, the Paris Agreement provides more symmetry and parallelism regarding mitigation efforts. It possesses a legal force in respect to all signatories' parties regardless of their status and aims to ensure the highest possible mitigation efforts by all parties. This translates in the obligations for all parties to communicate and maintain successive so-called NDCs containing mitigation goals that the respective country intends to achieve

Nevertheless, NDCs of developed and developing countries may differ in terms of the content and scope of sector covered, due to their different capacities, while the agreement still recognizes the need for developed countries to provide adequate support to developing countries.

Parties recognize that some Parties choose to pursue voluntary cooperation in the implementation of their nationally determined contributions to allow for higher ambition in their mitigation and adaptation actions and to promote sustainable development and environmental integrity.

Source: Paris Agreement, 2015, Article 6, paragraph 1

More importantly, this means that developing countries have their own mitigation targets that they need to fulfill. To do so, they can – among other things – leverage the carbon trading mechanism under Article 6 and act, for example, as buyers of credits, which was not the case under the Kyoto Protocol mechanisms. Furthermore, Article 6 requires a higher level of engagement of host countries in the carbon credits generation process and provides them with more control over offset activities they accept under their jurisdiction. In other words, the Paris Agreement has strengthened the position of developing countries in the international carbon trading markets and acknowledges their role in addressing GHG emissions.



4.2 Developing countries' objectives

Most developing nations, and especially the least developed countries,¹² do not contribute in a significant manner to GHG emissions. However, governments with fewer resources struggle to support community recovery following an extreme weather event or build their long-term adaptive capacity to changing climatic conditions. Similarly, individuals with little or no savings are not able to recover adequately from repeated rapid onset events (i.e., extreme weather events),¹³ which further undermine their capacity to adapt to slow onset events and address the resulting loss and damages to their livelihoods. Increasing their resilience to climate change impacts is vital to developing countries. Although resilience is gaining recognition as an important requirement in developed countries, the need for resilience in developing countries is still widely considered as a more critical issue.¹⁴ Consequently, the carbon trading objective of developing countries is directly linked with the need for resilience building. Indeed, carbon markets present the opportunity to increase climate resilience of communities and at the same time advance their socioeconomic development,¹⁵ which will be essential for a long-term climate adaptation capacity.

Although most developing countries are not major contributors to GHG emissions, they are more active during international climate negotiations and voice more strongly their needs related to climate finance. Climate finance aims to support their resilience needs and contribute to the realization of their development ambitions by providing them means to take a pathway of development coupled with low-emissions levels, and address the loss and damages due to climate impacts.¹⁶ Thus, engaging in the Paris Agreement-aligned market as active participants is in line with their current goal of becoming a more visible actor of change and accessing new finance and technology opportunities for a low-carbon development. Furthermore, Article 6.2 opens the possibility for ITMOs to be used by private entities and for non-authorized units as "mitigation contributions" on already existing VCM. This significantly broadens opportunities for climate finance sources developing countries can explore alongside the more conventional climate finance schemes.

¹² United Nations Conference on Trade and Development (UNCTAD) (2021) "Smallest footprints, largest impacts: Least developed countries need a just sustainable transition." (Accessed 6 July 2023).

¹³ Schäfer, L. et al. (2011) "Slow-onset Processes and Resulting Loss and Damage -- An introduction," Germanwatch. (Accessed 6 July 2023).

¹⁴ Bakarr, M. (2021) "Climate finance and the urgency for adaptation in the developing world," Global Environment Facility. (Accessed 6 July 2023).

¹⁵ Trafigura Foundation (no date) "Making carbon markets work – for everyone." (Accessed 6 July 2023).

¹⁶ United Nations Environment Programme (UNEP) (2022) "What you need to know about the COP27 Loss and Damage Fund." (Accessed 6 July 2023).

4.3 Walls and bridges to cooperative approaches

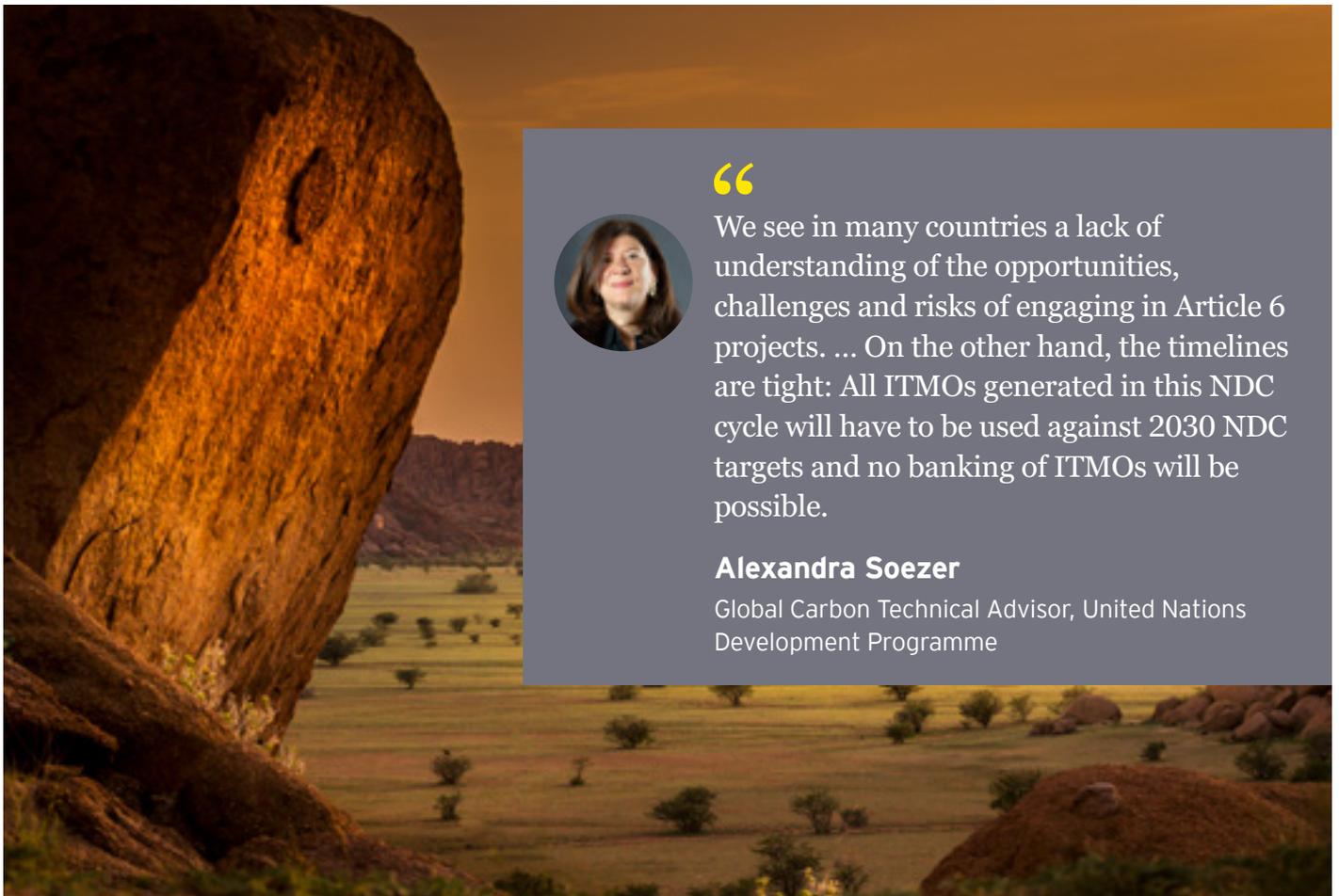
Before countries can fully engage in ITMO trading they first need to implement Article 6 nationally, which requires concrete capacities and political incentives that help ensure there is buy-in from the countries and the private sector.

1. Walls

Wall: Lack of understanding of Article 6 benefits

For any type of mechanism, the engagement of parties in its implementation will depend on their perceived benefits of the mechanism to address their needs. Concerning Article 6, while it is viewed as a mechanism that can help address the shortcomings of the mechanisms implemented under the Kyoto Protocol, there is no consensus from developing countries regarding its

implementation. While most developing nations are willing to explore the opportunities the Paris Agreement-aligned market creates, there are signals showing their reservation. For example, during COP27, a committee of African political leaders launched the Africa Carbon Markets Initiative with the aim to expand the participation of African countries in the VCMs, increase access to clean energy and finance to support sustainable development. Such high-level initiative shows an understanding of African countries in their potential to generate carbon credits and the importance of a carbon market as a tool for decarbonization and finance drivers. Still, it remains to be seen how such initiative will support or compete with the implementation of Article 6 carbon markets.



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We see in many countries a lack of understanding of the opportunities, challenges and risks of engaging in Article 6 projects. ... On the other hand, the timelines are tight: All ITMOs generated in this NDC cycle will have to be used against 2030 NDC targets and no banking of ITMOs will be possible.

Alexandra Soezer

Global Carbon Technical Advisor, United Nations Development Programme

Wall: Lack of transparency regarding carbon pricing

The confidence of host countries being treated equally with buyer countries when it comes to the prices of ITMOs is an important factor for developing countries' Article 6 engagement. In simple words, developing countries would need assurance as to the equitable treatment of their transaction.¹⁷ A lack of understanding of market dynamics and how to set carbon credits prices can lead developing countries to perceive Article 6 markets as a source of risk and impede their participation in it. Hence, without a clear benchmark for ITMO pricing and better confidence of developing countries in their capacity to manage risks related to Article 6 markets, there may be a sense of inequity and disinterest in engaging in ITMO trading.



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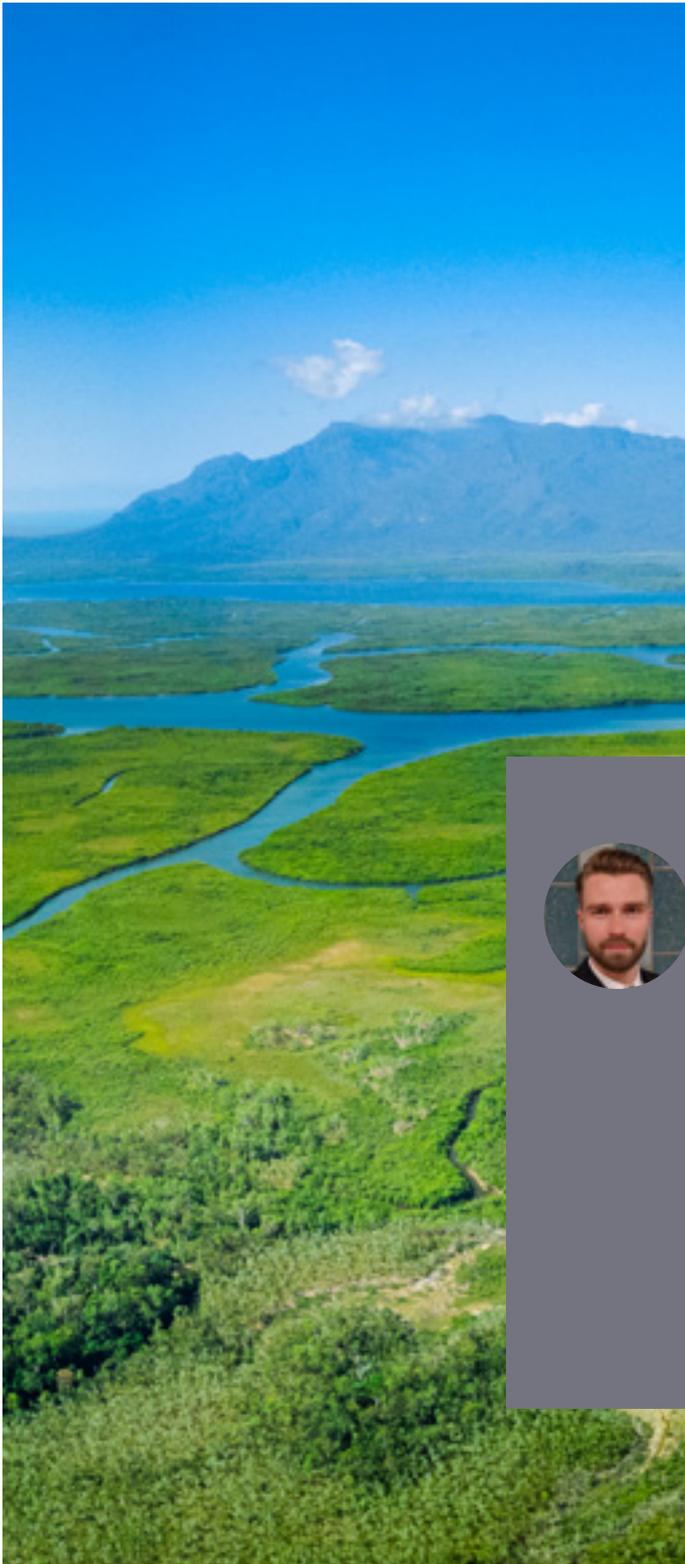


So far, the international community has played a significant role in providing research support on carbon pricing to develop several regulations that are closely related to the establishment of a carbon pricing scheme in the country. Indonesia would also benefit from the international community support on lessons learned on carbon standards and carbon pricing structure.

Dewa Ekayana

Policy Analyst, Fiscal Policy Agency, Indonesia

¹⁷ Global Green Growth Institute (GGGI) (2022) “Developing Carbon Markets based on Article 6 of the Paris Agreement: Challenges and Opportunities,” GGGI Technical Report No. 25. (Accessed 6 July 2023).



Wall: Risk of ITMO overselling and missing NDC targets

The capacity of a host country to mitigate the risk of overselling is particularly important. Such risk means that the host country proceeds with a corresponding adjustment and transfers of mitigation outcomes that are needed for its own NDC targets. Mitigating such risk requires a clear understanding of the different options available to address it (e.g., not transferring all mitigation outcomes, limiting the scope of activities under Article 6.2 approach) and international negotiation skills when entering into an agreement with buyers. It also entails a broader ability of the host country to monitor its progress towards its own NDC target. Hence, engaging in Article 6 requires the capacity to implement the new market and also additional capacity in implementing other requirements of the Paris Agreement itself.



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It is definitely a shared responsibility to mitigate such risks. This means that it is fundamental for countries to conduct bilateral dialogue on this topic. Similarly, effective dialogue is needed between countries on, for example, corresponding adjustment, baseline determination as well as their climate policy environment that can influence future NDCs.

Arvid Rönnberg

Program Manager, International Climate Cooperation, Swedish Energy Agency

Wall: Inability of carbon credits to support adaptation measure funding

For developing countries, adaptation actions are an important expenditure. So far, developing countries do not receive a direct “share of proceeds” from carbon credit sales generated under their jurisdiction or from the use of various taxation instruments. A clear mechanism to collect a specific “share of proceeds” from carbon credit sales that could be re-invested into adaptation measures would constitute a new revenue stream for developing

countries and allow them to be less dependent on the disbursement of international climate finance. Still, due to the varying price of carbon credits, the lack of a clear pricing range and market demand dependence, such revenue could result in a less predictable cash flow and thus would not be a viable way to finance adaptation actions. Therefore, developing countries might be more inclined to identify other financial sources, outside of carbon markets, that could help them address their adaptation needs.



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According to Article 6.4 there is a levy of carbon credits that can be dedicated for climate adaptation (5%). While we agree that more financing is necessary for the adaptation measures, we also need to bring forward that the potential incomes from the carbon credits for mitigation results are not even or hardly sufficient to pay for the mitigation measures. Additionally, there is already a specific climate adaptation fund. We think more financing could be made available for adaptation specifically, but the price for the CO₂ credits generated through mitigation actions should be significantly increased, so that a part can be made available for adaptation measures.

Rene Somopawiro

Director, and Sarah Crabbe, Deputy Director, R&D Department, National Forest Monitoring System, Foundation for Forest Management and Forest Supervision, Suriname

Wall: Limited availability of capacity-building aid for Article 6 implementation

All Parties should cooperate to enhance the capacity of developing country Parties to implement this Agreement. Developed country Parties should enhance support for capacity-building actions in developing country Parties.

Source: Paris Agreement, 2015, Article 11, paragraph 3

Whether we speak about the VCM or Paris Agreement-aligned market, an important factor to consider is the capacity to implement it. Article 6 creates new requirements with which developing countries will have to comply to be able to participate and to reap the benefits of the new market. It is well understood that developing countries will require capacity-building support and the level of such aid will vary from country to country.¹⁸ Capacity building to developing countries has always been a part of all UNFCCC processes but there is a limited amount of public funds to provide such aid. Similarly, capacity-building aid (e.g., aid provided by international organization or official development assistance) for Article 6 implementation is also limited and might not be sufficient to address the needs of all developing countries interested in ITMO trading.

So far, most of the capacity-building aid has been sourced from a few donor countries (e.g., Switzerland, Sweden) and directed towards countries with which they have already engaged in a process of bilateral cooperation under Article 6.2.¹⁹ Furthermore, this creates a risk that Article 6 capacity-building funds will mostly be directed towards developing countries presenting a higher degree of interest from ITMO buyers, leaving some regions or smaller nations behind. Additionally, interest-driven, capacity-building aid could also deplete opportunities considered low-hanging fruit for developing countries.



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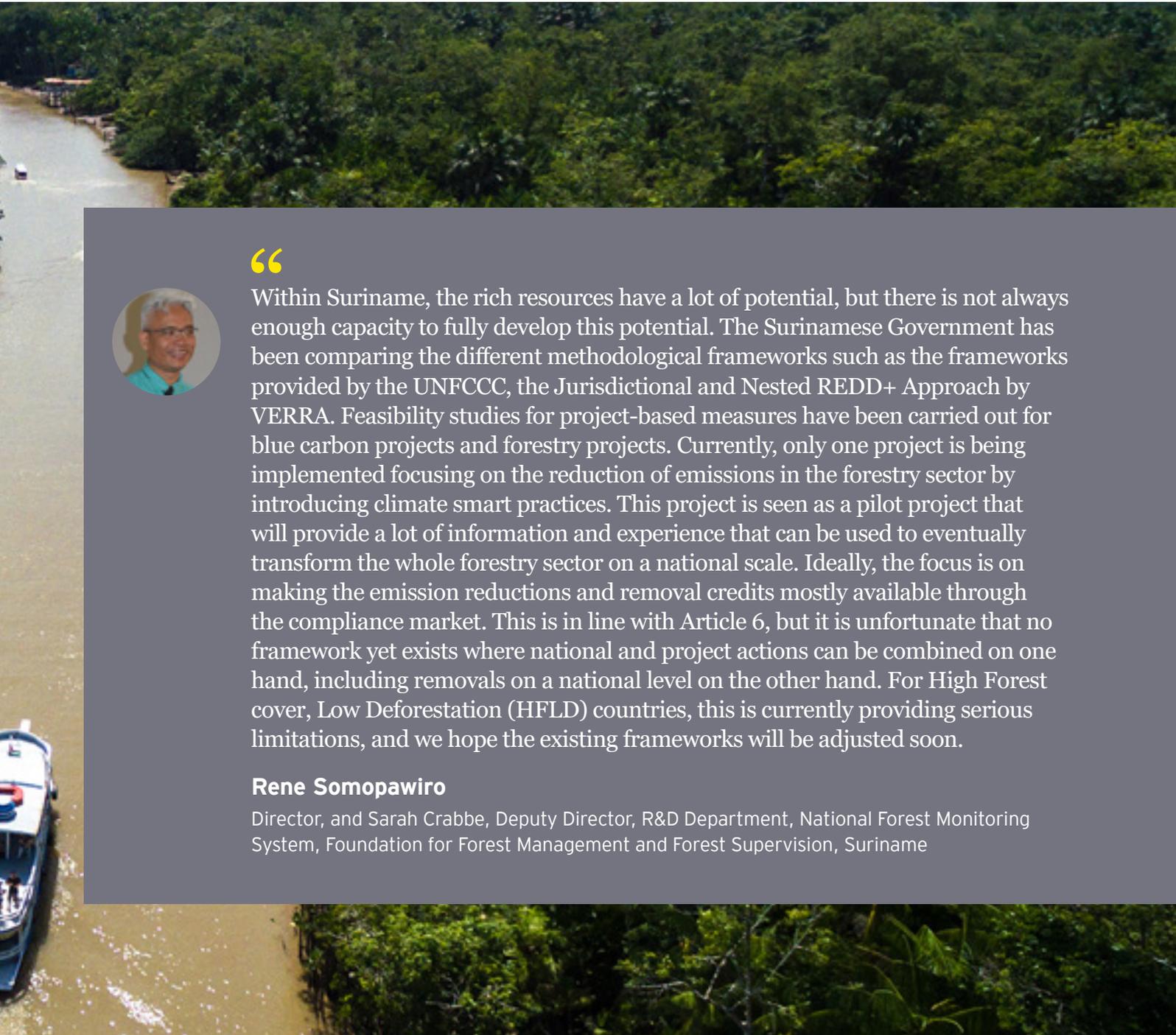
The institution which determines emissions in every sector becomes critical. Indonesia also needs an institution to regulate mechanism of carbon trading. Without these two institutions, developing a carbon market in Indonesia remains a challenge.

Dewa Ekayana

Policy Analyst, Fiscal Policy Agency, Indonesia

¹⁸ Intergovernmental Panel on Climate Change (IPCC) (2023) “FAQ 6: What is Climate Resilient Development and how do we pursue it?” (Accessed 6 July 2023).

¹⁹ International Emissions Trading Association (IETA) (2023) “IWG – VISUALISING ARTICLE 6.” (Accessed 6 July 2023).



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Within Suriname, the rich resources have a lot of potential, but there is not always enough capacity to fully develop this potential. The Surinamese Government has been comparing the different methodological frameworks such as the frameworks provided by the UNFCCC, the Jurisdictional and Nested REDD+ Approach by VERRA. Feasibility studies for project-based measures have been carried out for blue carbon projects and forestry projects. Currently, only one project is being implemented focusing on the reduction of emissions in the forestry sector by introducing climate smart practices. This project is seen as a pilot project that will provide a lot of information and experience that can be used to eventually transform the whole forestry sector on a national scale. Ideally, the focus is on making the emission reductions and removal credits mostly available through the compliance market. This is in line with Article 6, but it is unfortunate that no framework yet exists where national and project actions can be combined on one hand, including removals on a national level on the other hand. For High Forest cover, Low Deforestation (HFLD) countries, this is currently providing serious limitations, and we hope the existing frameworks will be adjusted soon.

Rene Somopawiro

Director, and Sarah Crabbe, Deputy Director, R&D Department, National Forest Monitoring System, Foundation for Forest Management and Forest Supervision, Suriname

Wall: Risk of inadequate capacity-building aid

Capacity building should be country-driven, based on and responsive to national needs, and foster country ownership of Parties, in particular, for developing country Parties, including at the national, subnational and local levels.

Source: Paris Agreement, 2015, Article 11, paragraph 2

An important barrier in Article 6 implementation lays in the adequacy of the capacity-building support to help developing countries meet the requirements of the new market. In Sub-Saharan Africa, the low capacity to approve Clean Development Mechanism (CDM) projects, provide project development and generate awareness of how the mechanism was to function led to a low implementation rate of CDM projects despite an important amount of capacity-building activities.²⁰ One of the reasons for such a situation is the lack of proper donor coordination efforts but it could also stem from a lack of proper institutional design in the receiving country to channel the aid where it is needed. Mitigation measures to address this type of risk will have to be considered when aiming to provide capacity-building aid for Article 6 implementation.

²⁰ Ahonen, H. M. et al. (2022) "Capacity building for Article 6 cooperation: The way forward," Discussion Paper, Perspectives Climate Research gGmbH. (Accessed 6 July 2023).

Wall: Risks of ineffective capacity-building aid

The effectiveness of capacity building aid will depend upon the correct understanding of the required building blocks for Article 6 implementation. This entails a precise comprehension of what is needed for each of these building blocks, such as defining the authorization procedure, corresponding adjustment (CA) techniques, monitoring, and reporting processes, among other factors. While the Article 6.4 market is mostly driven by the UNFCCC and many questions will be solved at the international level, on the contrary, Article 6.2 is country-driven and thus requires the country's implications in formulating the exact way in which the COP26 and COP27 requirements will be operationalized.

As such, Article 6.2 readiness consists of different building blocks, with each allowing for the development of a clear strategy in engaging in carbon trading in the new market. To effectively navigate Article 6 rules and procedures, a comprehensive grasp of key concepts is vital. This includes understanding Article 6.2 requirements, developing a carbon trading strategy aligned with a country's NDC goals and defining an institutional arrangement for ITMO authorization, transfer and corresponding adjustment. Experience with bilateral cooperation development, knowledge of relevant decarbonization and registry technologies, capacity to develop methodologies for offset projects and the ability to incentivize offset project investment are also crucial.

Each of these building blocks can be further divided into sub-blocks and activities that need to be undertaken. This will require a comprehensive gap analysis to understand what is missing in each developing country and whether this constitutes a monetary or non-monetary barrier. However, considering the newness of the market there is a limited amount of professional expertise to address such a complex and broad need for advisory services and capacity-building activities. Furthermore, CDM experience and lessons learned are not enough to address the more complex carbon market structure envisioned by Article 6 of the Paris Agreement.



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In particular, CAs are a significant barrier to carbon market expansion because impacts on NDC targets are not well understood by many host countries or not acceptable to some governments.

Alexandra Soezer

Global Carbon Technical Advisor, United Nations Development Programme



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Despite our experience with the Kyoto CDM mechanism we need to re-adjust ourselves. We are supported by our CDM experience, but it has been more challenging than we thought. Additionally, host countries have different levels of readiness to implement Article 6 of the Paris Agreement.

Arvid Rönnerberg

Program Manager, International Climate Cooperation, Swedish Energy Agency

2. Bridges

Bridge: Engaging private entities in Article 6 capacity-building activities

While support from international organizations and funding from countries does play a role in the operationalizing and implementation of Article 6, private sector entities can play a more important role as a catalyzer for Paris Agreement-aligned market success. The Decisions 2/CMA.3, Annex, paragraph 1(f), adopted at COP26, allows host countries to directly engage in a unilateral approach with the private sector, without the need for a bilateral cooperation agreement to allow such engagement.

The private sector’s role in the new market does not need to be limited to offset project implementation. Indeed, the private sector can directly support the capacity-building efforts for Article 6.2 market implementation in a developing country interested in engaging in ITMO trading. Such cooperation will benefit the private entities with the possibility to obtain ITMOs at a premium price and gain required knowledge of Article 6.2 market rules. On the other hand, developing countries will benefit from country-driven and tailor-made capacity-building support, which will help to ensure capacity is retained in the host country. Furthermore, such cooperation would show the private sector interest in purchasing ITMOs and provide incentives for the host countries to invest and seek opportunities for Article 6 capacity-building activities.

Table 1: Explanation of the unilateral approach under Article 6.2

	Host country	Unilateral approach	Corporate
Goals	Climate change mitigation	Enable mitigation outcomes potential	Emissions offsetting
Tools	<ul style="list-style-type: none"> ▶ Nationally determined contributions ▶ Article 6 framework 	<ul style="list-style-type: none"> ▶ Good practices for bilateral agreements under Article 6 ▶ Development of standardized certification, registration and verification procedures for ITMOs 	<ul style="list-style-type: none"> ▶ Offsetting strategies ▶ Standards governing the use of offsets
Risks	<ul style="list-style-type: none"> ▶ Oversetting ▶ Foregoing, low-hanging fruit types of projects 	<ul style="list-style-type: none"> ▶ Business and legal risks around structuring public-private cooperation 	<ul style="list-style-type: none"> ▶ Political uncertainty (change of ITMOs use purposes) ▶ Quality of credits (stringency of monitoring, reporting and verification procedures)
Outcome	Influx of investments in climate measures with important co-benefits	Legal certainty for the pursuit of Article 6.2 investments	Contribution to climate-related commitments

Source: EY analysis

Bridge: International knowledge sharing

Capacity-building should be guided by lessons learned, including those from capacity-building activities under the Convention [United Nations Framework Convention on Climate Change], and should be an effective, iterative process that is participatory, cross-cutting and gender-responsive.

Source: Paris Agreement, 2015, Article 11, paragraph 2

While finance for capacity-building is an essential requirement for Article 6 implementation, knowledge sharing among countries on the new market is crucial. The Japan initiative for a global knowledge platform to support the exchange of experiences related to Article 6 aims to fulfill this need. Initiatives such as this will allow peer-to-peer learning among developing countries, empowering developing nations to better implement solutions that are more well-suited to their circumstance.

Bridge: Leading by example: Ghana's Article 6.2 implementation framework

Article 6.2 cooperative approaches are still in the early stages of development. While some countries are still trying to assess the opportunities the new Paris Agreement-aligned market is creating, some are frontrunners in its implementation, such as Ghana. The country is setting the pathway for the operationalization of Article 6.2 for other developing countries and will also be one of the first to leverage the benefits from the new market. More importantly, Ghana's experience shows that developing countries can take the lead in Article 6.2 implementation and be an active player.

More success stories in Article 6.2 implementation, like Ghana's, will encourage and convince developing countries to engage in an Article 6.2 cooperative approach and could contribute to strengthening their position in international climate change negotiations. Ghana is among the first countries to have adopted a framework for international carbon markets covering the Paris Agreement-aligned markets, to sign bilateral cooperative agreements and implement the first-ever bilaterally approved project with Switzerland.²¹ Furthermore, Ghana is the first country to have officially issued an authorization statement for the international transfer of mitigation outcomes as part of its bilateral agreement with Switzerland.²²



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Ghana is convinced that its participation in the international carbon market will not only lead to increase of overall mitigation ambition, but it also has the potential to drive foreign direct green investments to benefit local businesses. However, achieving such multiple benefits require a strong national regulatory and institutional framework. This is why Ghana outlined its strategy in the form of an Article 6 framework.

Alexandra Soezer

Global Carbon Technical Advisor, United Nations Development Programme

²¹ UNDP (2022b) "Ghana, Vanuatu, and Switzerland launch world's first projects under new carbon market mechanism set out in Article 6.2 of the Paris Agreement." (Accessed 6 July 2023).

²² United Nations (2022) Ghana's country page, "Ghana authorizes transfer of mitigation outcomes to Switzerland." (Accessed 5 July 2023).

Bridge: Access to higher cost mitigation measures and co-benefits

Developing countries' NDCs contain conditional and unconditional mitigation targets, set in accordance with their own capacities. Conditional mitigation targets are additional activities or measures that a developing country would implement if they received adequate support and climate finance from the international community. It is therefore directly linked to developed countries realizing their climate finance-pledged commitments to support developing countries. Article 6 carbon markets are explicitly designed to promote higher ambition in mitigation and adaptation actions, which are designed to help help address the needs of developing countries to undertake steps towards their conditional NDC goals.

The notion of 'high-hanging fruits' refers to higher cost mitigation measures and technologies, which if not for Article 6 cooperative approaches, developing countries would not have access to. On the other hand, 'low-hanging fruits' refers to low-cost technologies and measures, which developing countries are able to access with their own resources.

Source: UNDP (2023) "[Support Guide for UNDP Article 6.2 Training Course](#)." (Accessed 6 July 2023).

As such, developing countries can, for example, allow private sector entities to implement offset projects to generate ITMOs, under Article 6.2, for their own climate claims or to be traded, without the need for a bilateral agreement among countries. Developing countries can benefit from the technical, human and financial capacities of private entities to implement the "high-hanging fruits" projects. Indeed, Article 6 carbon markets are directly enshrined in the broader context of sustainable development and environmental protection.

Bridge: New financial streams for climate adaptation actions

The Conference of the Parties serving as the meeting of the Parties to this Agreement shall ensure that a share of the proceeds from activities under the mechanism referred to in paragraph 4 of this Article is used to cover administrative expenses as well as to assist developing country Parties that are particularly vulnerable to the adverse effects of climate change to meet the costs of adaptation.

Source: Paris Agreement, 2015, Article 6, paragraph 6

Mitigation and adaptation are actions that need to be implemented together and both require significant investments. While Article 6 of the Paris Agreement does not directly address the question of climate adaptation and is more focused on mitigation, it does create opportunities to raise new revenue that could support adaptation. Hence, mitigation actions can directly financially support adaptive ones.

Under Article 6.4, the Adaption Fund will levy a share of proceeds to meet the adaption costs of developing countries. Decision CMA.4, adopted at COP27, further elaborates on the share of proceeds for adaptation and administrative expenses. A clear volume of proceeds will be dedicated to the Adaption Functions and will provide more predictable financing that developing countries can benefit from.

On the other hand, while Article 6.2 does not mandate a direct share of proceeds for adaptation, it does not forbid host countries from doing so. Cooperative approaches can be used to raise new revenue for host countries by adopting policies on the sale of ITMOs and the associated fees or share of proceeds. A good practice would be to use such additional revenue to meet national priorities including adaptation and other sustainable development goals (SDGs).

4.4 Key takeaways

- 1 Under Article 6, developing countries have a stronger role to play in supporting global efforts to address climate change. As such, the Paris Agreement offers the possibility for developing countries to become a partner of choice for developed countries looking to balance their GHG emissions.
- 2 To help ensure developing countries' interest in participating in Paris Agreement-aligned markets, public advocacy activities surrounding the “what, how and why” of carbon markets shall be encouraged at a larger scale.
- 3 Diversification of potential sources of fundings for Article 6 readiness activities is required to address all capacity needs in developing countries interested in cooperative approaches (e.g., use of the unilateral approach).
- 4 Supporting the development of a clear carbon credit pricing and fee structure around ITMOs will help create a more predictable source of climate finance for developing countries.
- 5 Creating opportunities for peer learning is essential to create a common understanding of the Article 6 mechanism, leading practices and risks mitigation solutions, which will directly translate into higher integrity and transparency of the market.

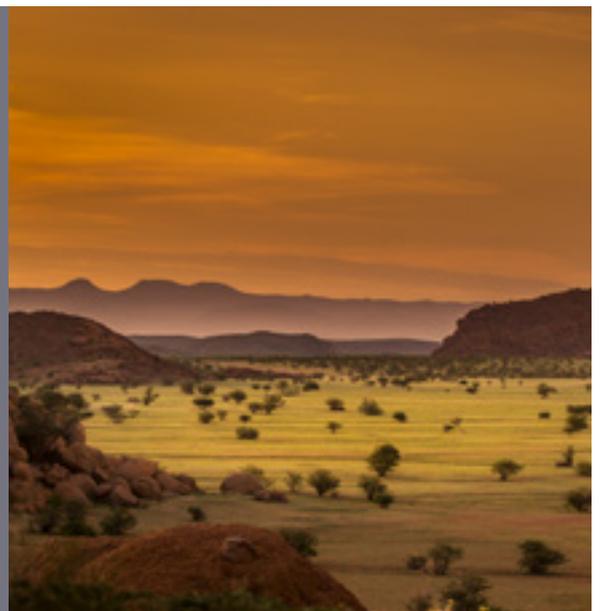


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[I see benefits from using Article 6,] firstly, to raise mitigation ambitions. Secondly, this represents an opportunity for an additional financial stream. There are many co-existing financing possibilities for climate actions and the one created by Article 6 is not intended to replace any of them but rather exist in parallel to them.

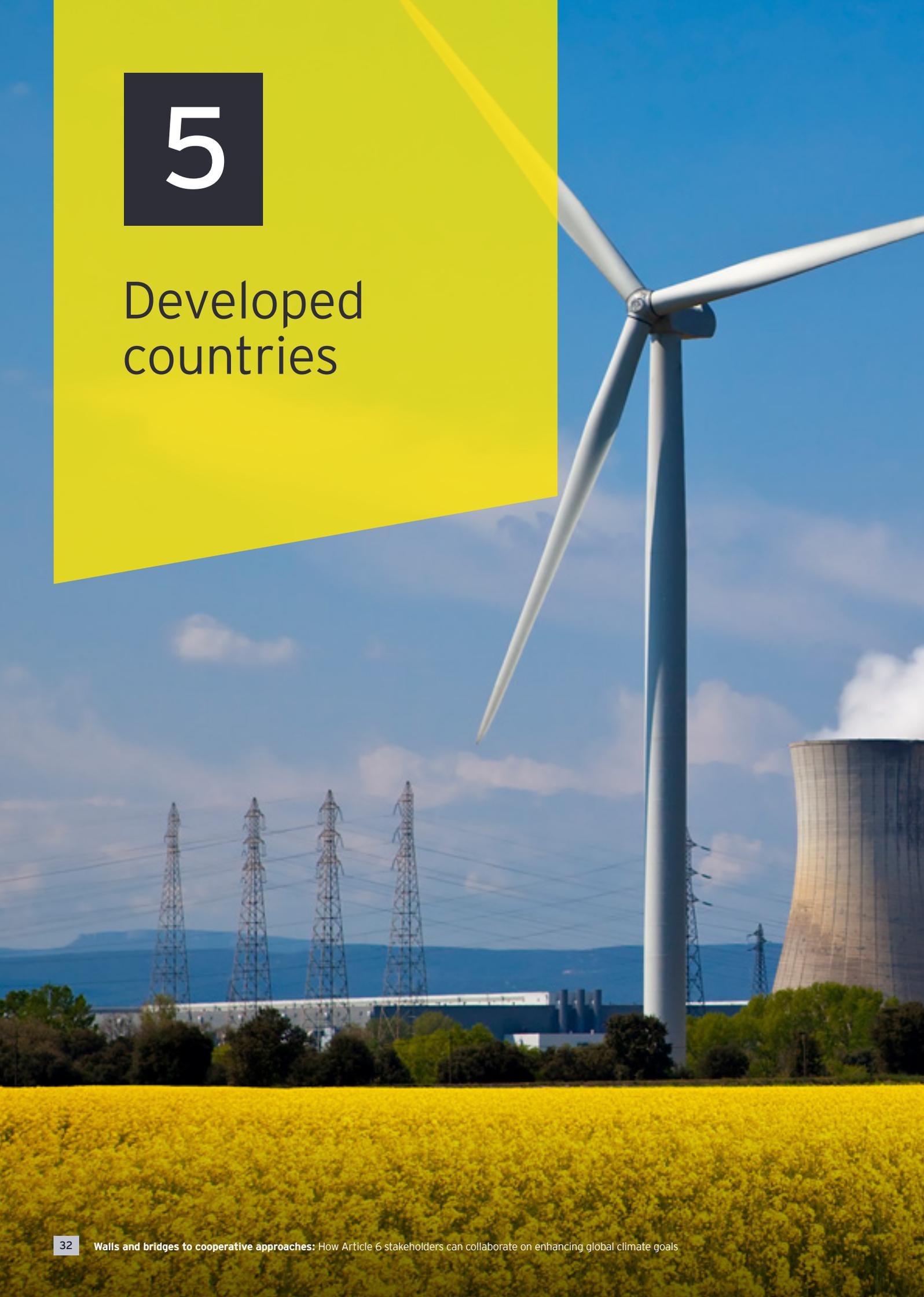
Arvid Rönnerberg

Program Manager, International Climate Cooperation, Swedish Energy Agency



5

Developed countries



5.1 Context

The Paris Agreement does not specify how emission reductions are to be shared between countries and each country's contribution to the collective effort is determined nationally. This is the main difference between the Paris Agreement and its predecessor, the Kyoto Protocol, where only developed countries had to commit to limit and reduce GHG emissions in accordance with agreed targets, while the Paris Agreement is binding among all signatory nations.

Despite that, the role of developed countries in climate change action is different than that of developing countries. Since developed countries historically have emitted most of the world's cumulative emissions, and have benefited as a result, the UNFCCC and the Paris Agreement both refer to their leadership in combating climate change.

Developed country Parties should continue taking the lead by undertaking economy-wide absolute emission reduction targets.

Source: Paris Agreement, 2015, Article 4, paragraph 4



The leadership of developed countries refers to the mobilization of climate finance from a wide variety of public and private sector sources to support developing countries in their long-term mitigation and adaptation plans and strategies.

Developed country Parties shall provide financial resources to assist developing country Parties with respect to both mitigation and adaptation in continuation of their existing obligations under the Convention.

Source: Paris Agreement, 2015, Article 9, paragraph 1

As part of a global effort, developed country Parties should continue to take the lead in mobilizing climate finance from a wide variety of sources, instruments and channels, noting the significant role of public funds, through a variety of actions, including supporting country-driven strategies, and taking into account the needs and priorities of developing country Parties. Such mobilization of climate finance should represent a progression beyond previous efforts.

Source: Paris Agreement, 2015, Article 9, paragraph 3

It also aims to enhance support for capacity-building actions by facilitating access to appropriate technology, knowledge and know-how.

Developed country Parties should enhance support for capacity building actions in developing country Parties.

Source: Paris Agreement, 2015, Article 9, paragraph 3

The developed countries that have high dependence on emitting industries cannot limit their domestic emissions quickly without disruption of the economy. Therefore, they are usually on the demand side of the carbon markets and act as active carbon credit purchasers. Besides, oftentimes they cannot yet produce carbon credits in their locations, as they do not meet the additionality criteria.

The criterion of additionality is also referred to as “no business as usual.” Carbon credits should represent carbon reductions or sequestration that would not be realized in the absence of revenues from the sale of carbon credits (financial additionality). The project’s implementation must also not result from a regulatory obligation (regulatory additionality) and should be overcoming significant technological barriers (technological additionality), or the method of implementation would face institutional resistance due to its innovative nature (organizational additionality).

In this chapter we will showcase how Article 6 allows developed countries to access different financial and capacity-building instruments aimed at climate change mitigation and adaptation, if it can help lower cost to capital or provide additional value for money. We will also identify the obstacles and incentives for implementation of Article 6 by developed countries.

5.2 Developed countries' objectives

Developed countries have different objectives regarding Article 6. Some use the international cooperation under this mechanism to achieve their NDC, others set more ambitious or additional climate targets or create new financial streams in climate finance.

Switzerland has signed the most bilateral agreements out of all developed countries to date. Switzerland's cooperation for emission reductions under Article 6.2 is operational or under development with Ghana, Peru, Senegal, Georgia, Vanuatu, Dominica, Thailand, Ukraine, Morocco, Malawi, Uruguay and Chile (July 2023). These agreements establish a legal basis for commercial contracts between buyers and sellers of emission reductions. Switzerland intends to reduce its GHG emissions to net-zero by 2050 and cut its emissions in half from 1990 levels by 2030 under its NDC. To achieve the realization of its NDC (or increased ambition targets) Switzerland will use, among others, carbon capture and storage technologies (CCS) and negative emissions technologies (NET) implemented abroad to be counted towards Switzerland's climate target.

The objective of this Agreement is to establish the legal framework for the transfers of Mitigation Outcomes for use towards NDC achievement or for mitigation purposes other than achievements of the NDC.

Source: [Cooperation Agreement CH-Ghana Implementation Paris Agreement \(2020\)](#) (Accessed 6 July 2023).

Some other countries, such as New Zealand, cannot achieve their NDC target by only reducing domestic emission. To help reach its target, New Zealand has used afforestation as an important emission reduction activity, but it cannot deliver sufficient removals by itself or quickly enough.

In October 2021, before COP26 in Glasgow, New Zealand updated its NDC after receiving advice from the Climate Change Commission that its previous pledge was not consistent with the 1.5°C target. As a result, the new NDC has a target of a 50% reduction of net emissions below the gross 2005 level by the year 2030, compared with the previous target of 30%. It left the country with 571 megatons of CO₂-equivalent emissions to “spend” or use between 2022 and 2030 in order to stay within the target.

The large gap between New Zealand's net emissions and its international commitments was caused because its main objective is focused on funding emission reductions in another location abroad (namely, arrangements with countries in the Asia-Pacific region). By doing this, it can count them towards its own emissions reduction targets and global emission reduction goal. In fact, two-thirds of the promised emissions reductions would have to come through overseas arrangements, especially with nations in the Asia-Pacific region. The cooperative approach has also allowed New Zealand to increase its climate ambitions beyond its targeted NDC levels.



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The option under the Paris Agreement to use international cooperation toward NDCs has allowed New Zealand to set a more ambitious target, increasing global action cost-effectively.

Jacqueline Ruesga

Senior Policy Analyst, International Carbon Markets, Ministry for the Environment, New Zealand

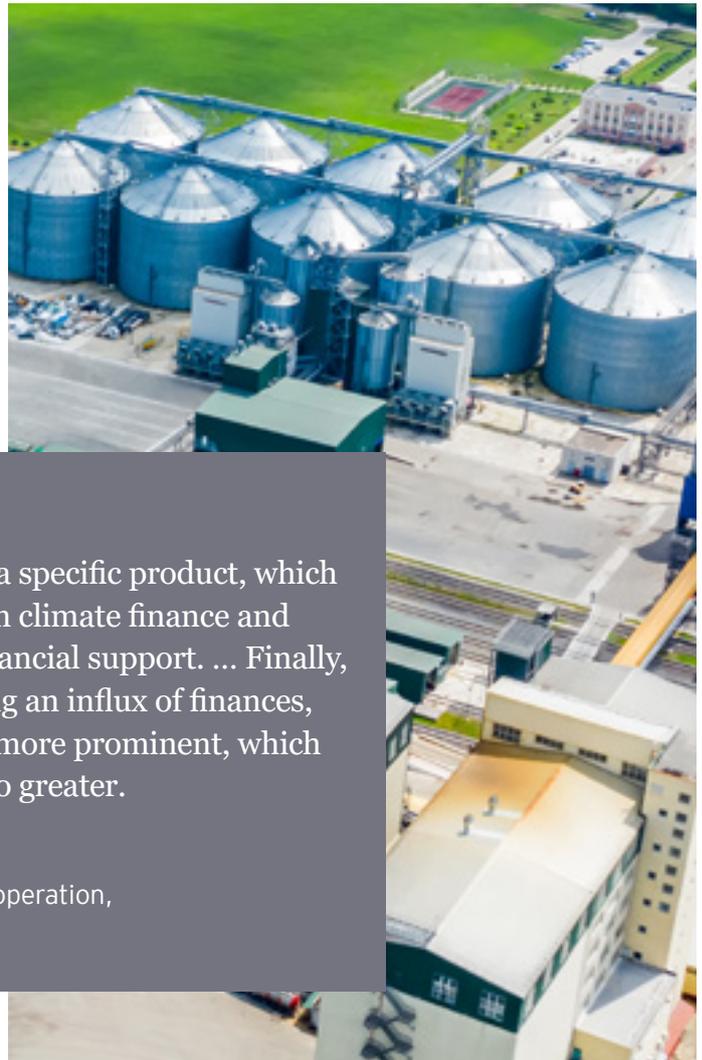
Sweden, which is a Member State of the European Union (EU), is in a position where it cannot use Article 6 towards the achievement of NDC since the EU has not implemented Article 6. Therefore, Sweden can use ITMOs only for its voluntary goals, including co-benefits stemming from emission reduction projects.

There are also countries whose main goal is to disseminate, replicate and scale up their leading decarbonizing technologies, products, systems, services and infrastructure. This approach is known as “technology transfer.”

Japan’s main objective is a technology transfer, under the Joint Crediting Mechanism (JCM), which is a project based on bilateral offset mechanisms initiated by the Government of Japan. The JCM was implemented to facilitate the diffusion of low-carbon technologies and to help meet Japan’s emission reduction target. Japan, under Article 6, contributes to reduction and absorption of GHG emissions globally by establishing systems to transfer technologies and implement measures suited to the situation of developing countries. By doing so, through public-private collaborations, Japan aims to secure accumulated emission reductions and removals at the level of approximately 100 million tons of CO₂ by fiscal year 2030.

Model projects are intended to utilize financial support to implement projects that will reduce GHG emissions by utilizing leading low carbon or decarbonizing technologies in developing countries, and in return, to acquire Joint Crediting Mechanism (JCM) credits for achievement of Japan’s GHG emission reduction target.

Source: Ministry of the Environment Government of Japan (2021) “[Guidebook for formulating JCM projects utilizing the JCM Financing Programme](#)” (Accessed 6 July 2023).



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Carbon finance is meant to purchase a specific product, which makes it fundamentally different from climate finance and flexibility for how you can provide financial support. ... Finally, CDM had the same concept of creating an influx of finances, but with Article 6 the co-benefits are more prominent, which means that the value for money is also greater.

Arvid Rönnerberg

Program Manager, International Climate Cooperation,
Swedish Energy Agency

The JCM is an emerging project-based bilateral offset crediting mechanism initiated by the Government of Japan to facilitate the diffusion of leading low-carbon technologies for mitigating GHG emissions in host countries.

Source: Ministry of the Environment, Government of Japan, 2021.

Some developed countries that have exhausted domestic emission reductions and are left with either non-abatable or very technologically advanced or costly emission reduction options, use offshore mitigation opportunities to achieve higher results for less capital spent.

In the case of Switzerland, offshore mitigation is more economically viable since further domestic reduction would be less cost effective. Also, ITMOs will be partly used to offset the non-abatable GHG emission and will count towards the overall emission reduction target. As illustrated with this example, Switzerland's main objective is to reduce total spend on reaching its NDC by investing in the most efficient projects to mitigate emissions, which are often located abroad. This means that Switzerland can achieve higher "abatement returns" for less capital spent by implementing Article 6.2 cooperative approaches.

For some countries it is more cost effective to cooperate with other countries that have lower marginal abatement costs than to reduce emissions domestically.

Source: Edmonds, J. et al. (2021) "How Much Could Article 6 Enhance Nationally Determined Contribution Ambition Toward Paris Agreement Goals Through Economic Efficiency?" (Accessed 6 July 2023).

Also, there are countries that aim to mobilize the private sector to create public-private funding mechanisms, and others that intend to build carbon trading hubs or use carbon credits generated under Article 6 to fulfill their compliance carbon tax or cap and trade obligations.

As a carbon services and trading hub, Singapore can contribute to the development of baseline methodologies for carbon markets and the promotion of the use of transparency tools and national frameworks for carbon markets.

Source: National Climate Change Secretariat (2022) "Singapore Joins The Article 6 Implementation Partnership at COP27" (Accessed 6 July 2023).



Singapore, which only contributes about 0.1% of global carbon emissions, has also been actively participating in its Paris Agreement commitments. Singapore's main objective is to engage the private sector to increase the scale of climate finance and promote the country as a carbon trading hub. Mobilization of climate finance from a wide variety of public and private sector sources is incentivized by the ability to partially offset the carbon tax liabilities of the private sector.²³

The progress on carbon markets, along with increasing support for investments in low-carbon technologies worldwide, had, among others, given Singapore the confidence to raise our national climate ambition and announce our commitment to achieve net-zero by 2050.

Source: National Climate Change Secretariat, 2022.

The conclusion of negotiations on the Implementation Agreement is a momentous step towards trading of carbon credits between Singapore and Ghana. This will support the development of the carbon markets to meet the climate targets of both countries.

Source: Ministry of Sustainability and the Environment (2022) "[Singapore and Ghana Substantively Conclude Negotiations on Implementation Agreement on Cooperative Approaches aligned with Article 6 of the Paris Agreement](#)" (Accessed 6 July 2023).



²³ International Swaps and Derivatives Association (ISDA) (2022) "[The Legal Nature of Voluntary Carbon Credits: France, Japan and Singapore,](#)" p. 13. (Accessed 6 July 2023).

5.3 Walls and bridges to cooperative approaches

1. Walls

Wall: Lack of political and economic feasibility

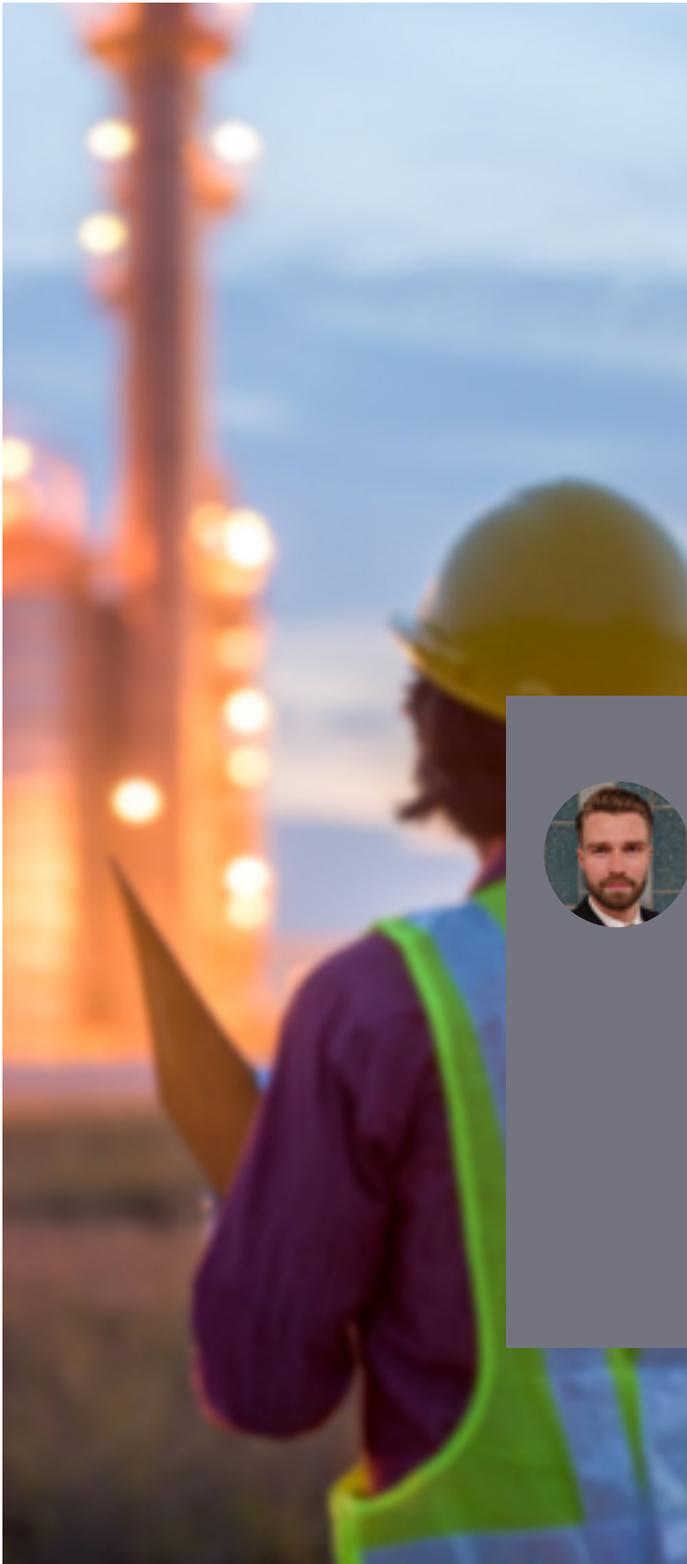
Some countries do not have the political or economic will to implement Article 6 of the Paris Agreement. In the United States, there was a strong political opposition towards the Paris Agreement, which has reached its peak with the withdrawal from the Paris Agreement in 2017. Then-President Trump's administration decided that the agreement would "undermine" the American economy and put the country "at a permanent disadvantage." Trump's administration believed that the American taxpayers would provide the lion's share of green climate funding, around US\$100b per year to be transferred to the rest of the world. In addition, the Trump administration felt that the Paris Agreement was a threat to US jobs and would impose a draconian cut in oil, gas and coal sectors. That, in turn, would affect companies, workers and taxpayers at large. The Trump administration argued that the Paris Agreement could also be a source of increased electricity prices, which would have negative impact on consumers across the country.²⁴

The US eventually has rejoined the Paris Agreement, but the lack of a mandate to use taxpayer money to finance environmental regulations is still a point of political discussion. Other countries, such as Saudi Arabia, United Arab Emirates (UAE) and Israel have similar strong views. The direct purchase of carbon credits with public funds is oftentimes financially and politically impossible.

While these states have a history of philanthropy, our interviews showed a resistance to Article 6 amongst senior political actors when it was construed as, for example, Saudi Arabia or the UAE simply 'paying' for other countries' development. In Israel, members of the government were clear that the Ministry of Finance spending directly to purchase credits is financially and politically impossible.

Source: Sandler, E. and Schrag, D. (2022) "Financing the Energy Transition through Cross-Border Investment: A New Model for Article 6 of the Paris Agreement," p. 17. (Accessed 6 July 2023).

²⁴ CBS News (2017) <https://www.cbsnews.com/news/trump-paris-climate-agreement-withdrawal-announcement-full-transcript/> (Accessed 6 July 2023).



Wall: High level of climate policy development

The EU is an example of a jurisdiction where other mechanisms are in place to cut GHG emissions on a path to climate neutrality. The European Green Deal is a set of policies and regulations aiming to create foundations for a new growth strategy decoupled from the extensive use of non-renewable natural resources. Having such an extensive and advanced regulatory framework that is also connected with a massive green finance funding estimated at EUR 1 trillion²⁵ that can be used for climate related projects, undermines the motivation to implement Article 6. EU countries, like Sweden, cannot use Article 6 towards their unconditional NDC goals.



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Currently the EU does not allow Article 6 or the Paris Agreement as a tool to comply with its NDC. This means that if Sweden wants to use ITMOs it has to be for something else like the voluntary or additional goals for mitigation. There is still some clarity to develop around whether the ITMOs will be cancelled or count to the voluntary goals of our NDC.

Arvid Rönnerberg

Program Manager, International Climate Cooperation, Swedish Energy Agency

²⁵ European Parliament (2023) “EUROPEAN GREEN DEAL INVESTMENT PLAN (SUSTAINABLE EUROPE INVESTMENT PLAN) – Q1 2020,” Legislative Train (Accessed 6 July 2023).

Wall: Financial barriers

There are two main financial barriers for Article 6 implementation. In the first barrier, developed countries might not want to pursue a direct purchase approach, where financing states directly pay a host state government or firm for ITMOs. The direct purchase is capital intensive as it requires upfront delivered capital. In addition, financing countries often perceive the direct purchase of ITMOs as too expensive and directly allocating a budget in a foreign country is considered challenging. For some entities, like KliK Foundation, providing material upfront payments is not permissible as stated in the Eligibility Guidelines.²⁶

When a financing state government buys ITMOs from a host state government, it is capital intensive since capital must be delivered upfront to buy ITMOs. A lack of different financing options in bilateral transactions under Article 6.2. requires the financing country to realize the purchase of carbon credits with the available economic capital. This framework incentivizes the race to the bottom because the more credits are generated at the lowest possible price, the better the deal is for the financing state. This can lead to the generation of low-quality credits since the incentive is to finance “low-hanging fruits.”²⁷

The second type of financial barrier is the existence of other competing mechanisms to finance climate-related projects. These include the Loss and Damage Fund, the EU Green Deal funds or preferential financing of low and zero carbon technologies like state aid for climate, environmental protection and energy (CEEAG).

Funding will be provided by the KliK Foundation on a result-based fashion governed in a Mitigation Outcome Purchase Agreement. This implies that the material part of the funding will be executed upon delivery of Mitigation Outcomes to the KliK Foundation. Consequently, the payments will be executed with a delay of one the payments relative to the generation time. This typically means that the cash flow is unbalanced with an increased capital need at the inception and proceeds from the sales only at a later stage. This unbalance may require a financing partner that equilibrates the cashflow and caters for initial investment. The KliK Foundation is not prepared to provide material upfront payments.

Source: Foundation for Climate Protection and Carbon Offset KliK, 2022.

²⁶ Foundation for Climate Protection and Carbon Offset (KliK Foundation) (2022) “Eligibility Guidelines.” (Accessed 6 July 2023).

²⁷ Sandler and Schrag, 2022

Wall: Plausibility of the business models and lack of eligible projects

The eligible projects should simultaneously fulfill a condition of additionality, be within a framework of eligible projects as per the climate agreement signed by the host and financing party and have solid prospects of selling the underlying products. The projects shall not be based exclusively on the proceeds from Mitigation Outcome Purchase Agreements. Also, the business cases should have potential for replicability and scalability, be successfully tested and have financial close in its reach or within a reasonable time frame.

An activity with a viable business model shall be situated in a dynamic market environment with solid prospect of selling the underlying products (electricity, appliances, goods produced). Business models that base exclusively on the proceeds from the Mitigation Outcome sales are considered as genuinely risky and must argue why they are viable. Further, they are not likely transitional.

Source: Foundation for Climate Protection and Carbon Offset KLIK, 2022.



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Another important point to mention is the current lack of available projects. We have seen a large interest from project developers but due to the ongoing development of harmonized guidance and demand, supply has not been able to develop. This situation has made it difficult to build a pipeline of projects under Article 6 and it will probably take some more time for the market to mature.

Arvid Rönnberg

Program Manager, International Climate Cooperation, Swedish Energy Agency

Wall: Lack of trust regarding Article 6 due to the past experience with the CDM and uncertainty regarding the development of Article 6 operationalization

The Article 6 deal allows CDM projects to transition to the Article 6.4 mechanism if it is approved by the country where the project is located and if the project meets the new rules.²⁸ If all CDM projects were to transition, up to 2.8 billion credits could become eligible for issuance.²⁹ CDM credits known as Certified Emission Reductions (CERs) from projects registered on or after 1 January 2013 can be used towards each countries' first nationally determined contributions (which ends in 2030 for most countries). This could lead to the transition of 300 million CERs. Overall, the CDM will eventually expire, even if there is no formal end date yet. However, in the meantime, it can inflict significant damage to the credibility of Article 6 and to efforts to achieve real-world emissions reductions.³⁰

Overall, our results suggest that 85% of the projects covered in this analysis and 73% of the potential 2013-2020 Certified Emissions Reduction (CER) supply have a low likelihood that emission reductions are additional and are not over-estimated. Only 2% of the projects and 7% of potential CER supply have a high likelihood of ensuring that emission reductions are additional and are not over-estimated. Our analysis suggests that the CDM still has fundamental flaws in terms of overall environmental integrity. It is likely that the large majority of the projects registered and CERs issued under the CDM are not providing real, measurable and additional emission reductions.

Source: Oeko-Institut (2016) "How additional is the Clean Development Mechanism? Analysis of the application of current tools and proposed alternatives," p. 11. (Accessed 6 July 2023).

The possibility of inclusion of emission removal projects with short-lived storage, such as most nature-based activities, which do not lead to permanent emissions removals, can also undermine the credibility of Article 6.

If countries do not agree on full transparency of the carbon credit trades under Article 6.2 and some information could qualify as confidential, then two countries could effectively double-count the same credit under the guise of "confidentiality," creating an illusion of more emissions savings.

The functioning of the crediting period and how it will be linked to a country NDC can also be an obstacle in regulatory certainty and trust towards Article 6 since every new NDC has the potential to create a market shift towards other sectors or projects.

²⁸ UNFCCC (2022a) "Guidance on the mechanism established by Article 6, paragraph 4, of the Paris Agreement." (Accessed 6 July 2023).

²⁹ Crook, J. (2022) "Was COP27 the beginning of the end for corporate offsetting?" Carbon Market Watch (Accessed 6 July 2023).

³⁰ DufRASNE, G. (2021) "FAQ: Deciphering Article 6 of the Paris Agreement," Carbon Market Watch. (Accessed 6 July 2023).

2. Bridges

Bridge: Article 6 allows developed countries to meet their NDC while safeguarding energy security

Article 6 allows the countries with high dependency on emitting industries for the employment and services of their population to offset a portion of their emissions. Simultaneously, those countries can work on long-term abatement of CO₂ in harder-to-decarbonize sectors such as transport, steel production or agriculture without disruption of the economy and services.

The electric sector is particularly illustrative of deep-decarbonization challenges. As the proportion of low-carbon electricity generated from variable renewables such as wind and solar increases, it can become increasingly difficult for grid operators to ensure reliability and avoid blackouts. Grid management challenges that arise from large amounts of variable renewable generation can be addressed, but it will take time to develop nascent utility-scale storage technologies and build new transmission.

Source: Sandler and Schrag, 2022.

Bridge: ITMO threshold holds countries accountable for absolute economy-side reduction targets

As described earlier, there are four types of additionality. Carbon credits should represent carbon reductions or sequestration that would not be realized in the absence of revenues from the sale of carbon credits (financial additionality). The project's implementation must also not result from a regulatory obligation (regulatory additionality) and should be overcoming significant technological barriers (technological additionality), or the method of implementation would face institutional resistance due to its innovative nature (organizational additionality).

According to the Paris Agreement, the developed countries should act to implement absolute economy-wide reduction targets. The economy-wide NDCs usually are followed by domestic laws, regulations and measures relevant to the implementation of the NDC. Therefore, the developed countries often cannot produce carbon credits in their locations, as they would not meet the criteria of additionality.



Bridge: Article 6 allows developed countries to reduce their “total spend” on reaching NDC

Article 6 allows developed countries to invest in the most efficient projects – at home or abroad – to mitigate emissions. The “abatement costs” (capital spent per tonne of CO₂ reduced) for the same technologies in different jurisdictions is much lower in developing countries. This means developed country governments could generate greater emissions reductions for less capital abroad. If there are no large transaction costs of Article 6 implementation, as the country uses a lean approach, financing the projects abroad can facilitate major costs savings.

It is estimated that trading in carbon credits could reduce the cost of implementing countries’ Nationally Determined Contributions (NDCs) by more than half – by as much as \$250 billion by 2030. In other words, carbon trading could facilitate the removal of 50% more emissions (about 5 gigatons of carbon dioxide per year by 2030) at no additional cost.

Source: World Bank, 2022.

Bridge: New financial mechanisms that lower the cost of financing the energy transition

Developed countries can, besides directly purchasing ITMOs from developing countries, also invest in clean infrastructure in the developing world, receiving credits for projects they finance. By moving from purchasing to investing, Article 6 transactions can become more politically and economically feasible for financing states, lowering the barriers to governments using Article 6 to meet their NDCs. This approach allows for de-risking capital for the private sector by introducing “blended finance” where public sector money will subsidize part of the deal or project, which lowers the cost of capital for the private sector to invest.

Bridge: Meeting carbon pricing compliance obligations with carbon credits

Some developed countries allow for the use of offsets to meet carbon tax or cap and trade compliance obligations, and this would potentially also be the case with ITMO credits. In such a situation, it will be important for the private sector to have the possibility to buy or generate ITMOs for compliance purposes. It is to their advantage to support developing countries as much as they can to implement Article 6.2 to help ensure that there is an actual market to source the aforementioned credits. Developed countries can play an important role in setting compliance obligations to reduce GHG and the possibility of using ITMOs to meet such obligations. This possibility presents advantages for all the three parties involved: developing countries can benefit from the buy-in of the private sector, the private sector can meet its compliance obligations and the developed country can achieve its NDC targets. Finally, the growing number of climate net-zero target claims and the increased interest in ITMOs due to their perceived greater environmental protection are important drivers for investment in their generation.



5.4 Key takeaways

- 1 The role of developed countries in climate change action differs from that of developing nations since developed countries have historically emitted most of the world's cumulative emissions and benefited as a result. Both the UNFCCC and the Paris Agreement emphasize developed countries' leadership in tackling climate change.
- 2 Developed countries have different objectives regarding Article 6. Some use the international cooperation under this mechanism to achieve their NDC, while others set more ambitious or additional climate targets or create new financial streams in climate finance. There are also countries whose main goal is to disseminate, replicate and scale up their leading decarbonizing technologies, products, systems, services and infrastructure.
- 3 Some countries do not have the political or economic will to implement Article 6 as they assume a lack of economic feasibility. The purchase of ITMOs is capital intensive since the capital must be delivered upfront. In addition, there is a lack of trust regarding Article 6 due to some experiences with the CDM and uncertainty regarding the development of Article 6 operationalization.
- 4 Nevertheless, Article 6 entails several mechanisms that allow developed countries to meet their NDC while safeguarding their energy security, as it allows developed countries to reduce their "total spend" on reaching their NDC. Thus, these new financial mechanisms will lower the cost of financing the energy transition for developed countries.
- 5 The possibility of meeting the compliance carbon market obligations with the use of carbon credits presents potential advantages for all three parties involved: developing countries could benefit from the buy-in of the private sector, the private sector could be able to meet its compliance obligations and of the developed countries could achieve their NDC targets.



6

Indigenous Peoples and local communities



6.1 Context

Achieving the goals of the Paris Agreement and building a climate-resilient world would not be possible without the participation of Indigenous Peoples and local communities (IPLCs). According to the latest Forest Declaration report, IPLC land sequester more than twice as much carbon as these other (non-IPLC) lands.³¹ Indigenous Peoples' territories contain at least 36% of Intact Forest Landscapes (IFLs), making them essential for taking the mitigation measures required to avert catastrophic climate change.³² However, IPLCs continue to face social, political and economic marginalization (often accompanied by violence and

relocation from their lands), and they are particularly vulnerable to environmental and climate change.^{33,34} In turn, it's worth noting that more than 370 million people identifying as Indigenous People manage more than a quarter of the Earth's land surface across 87 countries, applying cultural practices and customary institutions based on their indigenous knowledge systems.³⁵ Indigenous Peoples maintain more than 30% of wooded territories in the Amazon basin and manage half of Mesoamerica's forests.³⁶ That is why it is so essential to include them in decision-making processes on issues such as land management.

³¹ World Resources Institute & Climate Focus (2022). *Sink or swim: How Indigenous and community lands can make or break nationally determined contributions*. A Forest Declaration Assessment briefing paper (Accessed 6 July 2023).

³² Fa, J.E. et al. (2020) "Importance of Indigenous Peoples' lands for the conservation of Intact Forest Landscapes. *Frontiers in Ecology and the Environment*", 18(3), pp.135-140.

³³ Orlove, B. et al. (2022) "ICSM CHC White Paper I: Intangible cultural heritage, diverse knowledge systems and climate change. Contribution of Knowledge Systems Group I to the International Co-Sponsored Meeting on Culture, Heritage and Climate Change," Discussion Paper, Charenton-le-Pont, France & Paris, France, ICOMOS & ISCM CHC, 103p. ISBN 978-2-918086-71-0.

³⁴ Lee, H. et al. (2023) "SYNTHESIS REPORT OF THE IPCC SIXTH ASSESSMENT REPORT (AR6). *Longer Report* (Accessed 6 July 2023).

³⁵ Garnett, S. et al. (2018) "A spatial overview of the global importance of Indigenous lands for conservation," *nature sustainability*, 1, pp. 369-374.

³⁶ Sucre, L. and Chimatani, F. (2023) "Carbon credit rule-makers must engage Indigenous People," *Climate Home News* (Accessed 6 July 2023).

To better understand the walls and bridges for IPLCs in relation to Article 6 of the Paris Agreement, it is necessary to clarify who Indigenous People are, what their collective position in international carbon markets is and why they have been granted special legal protection.

Those (peoples) which having a historical continuity with pre-invasion and pre-colonial societies that developed on their territories consider themselves distinct from other sectors of societies now prevailing in those territories, or parts of them.

Source: Martinez Cobo, J. (1986) "Study of the problem of discrimination against indigenous populations. Volume 1 / by José R. Martínez Cobo, Special Rapporteur of the Sub-Commission on Prevention of Discrimination and Protection of Minorities," E/CN.4/Sub.2/1986/7. (Accessed 6 July 2023).

So far, there is no definition of Indigenous People in international law, but it has been defined by the United Nations under UN Special Rapporteur Martinez-Cobo, who identified the following major factors that differentiate Indigenous People from other communities:³⁷

- ▶ The historical continuity of these peoples – linked to pre-invasive and pre-colonial societies that developed in their territory.
- ▶ Distinctiveness from the rest of society.
- ▶ A strong desire to preserve, develop and pass on their heritage to the future generations.

In addition, their ethnic identity is often pointed out as the basis for their continued existence as nations with specific cultural patterns, social institutions or internally functioning legal systems.³⁸

Local communities, on the other hand, is often an ambiguous term as it can refer to a group of people who have a legal personality and associated rights, but can also refer to a group of individuals with common interests, but not collective rights represented by, for example, non-governmental organizations (NGOs).³⁹ Indigenous People are considered as one type of local community that have a distinct connection to ancestral lands and unique cultural, social and political systems deeply rooted in their traditions and historical experiences. It is important to recognize that the rights of these two groups can often be distinct, and also include this distinction for the operationalization of Article 6 of Paris Agreement.



³⁷ United Nations Relief and Works Agency (UNRWA) (1989) "Report of the Commissioner-General of the United Nations Relief and Works Agency for Palestine Refugees in the Near East, 1 July 1988-30 June 1989," A/44/13/Add.1. (Accessed 6 July 2023).

³⁸ Muehlebach, A. (2001) "'Making Place' at the United Nations: Indigenous Cultural Politics at the U. N. Working Group on Indigenous Populations," Cultural Anthropology, 16 (3), pp. 415-480.

³⁹ Convention on Biological Diversity (2011) "GUIDANCE FOR THE DISCUSSIONS CONCERNING LOCAL COMMUNITIES WITHIN THE CONTEXT OF THE CONVENTION ON BIOLOGICAL DIVERSITY," UNEP/CBD/AHEG/LCR/1/2. (Accessed 6 July 2023).

6.2 Indigenous Peoples' and local communities' objectives

Elaborating on Jesse McCormick's below viewpoint, it seems that sharing profits earned by carbon credits is critical from the perspective of IPLCs. They do not simply want to be a part of the general process of project implementation or national and international policy; they want to know what profits are made from a specific project on their land. In general, IPLCs are not interested in having a negligible share in the distribution of profits, but rather in a more equitable redistribution of these resources.

Moreover, the nature of their participation in international carbon markets is beginning to change. They no longer want to participate only subjectively but want to be equal partners based on a model of cooperation with project developers, or to run such offset projects by themselves and gain access to the direct cash flow generated from carbon credits in general.⁴⁰

Effective implementation of Article 6 of the Paris Agreement cannot take place without such vulnerable groups as IPLCs. In practice, this implies that developed and developing countries should not only take IPLCs' participation into account at the project offset design stage, but also include them in the equitable distribution of resources, e.g., by transferring a portion of the proceeds from the sale of ITMOs.

Indigenous Peoples own, occupy or use a quarter of the world's land and protect 80% of the remaining biodiversity.⁴¹ They have considerable ancestral knowledge and experience in climate and disaster risk adaptation, mitigation and reduction, and they can share this valuable knowledge with project developers and countries to help ensure that they adopt more effective policy or legal instruments and protection measures.

Land to Aboriginal people is a major part of their identity and spirituality. They have a connection and sense of belonging to their land. They gain their strength through their land. Many believe this is because old ancestors were buried in their country and the spirits protect and care for the land and those still alive.

Source: Kickett, M. (2011) "Examination of how a culturally-appropriate definition of resilience affects the physical and mental health of Aboriginal people," Doctoral dissertation, University of Western Australia.



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The most effective way to ensure that programs are designed in a way that does not harm Indigenous rights or interests is to empower Indigenous Peoples in the decision-making processes at both the project and policy level through the effective implementation of the Declaration on the Rights of Indigenous Peoples.

Jesse McCormick

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⁴⁰ Lee et al., 2023.

⁴¹ Grounded (2020) "Why protecting Indigenous communities can also help save the Earth," *The Guardian*. (Accessed 6 July 2023).

IPLCs continue to experience social, political and economic marginalization, which is frequently followed by violence and eviction from their homes. In addition, they are especially vulnerable to environmental and climate change.⁴² Based on the latest United Nations Intergovernmental Panel on Climate Change (IPCC) Sixth Assessment Report, “Changes in snow cover, lake and river ice, and permafrost in many Arctic regions are harming the livelihoods and cultural identity of Arctic residents including Indigenous populations.”⁴³ By virtue of their inextricable connection to the land and natural resources, essentially, they are unable to move or change their current residence.⁴⁴ The land on which they currently live is one of the main elements of their identity and culture, and this in turn contributes to their physical and psychological well-being. Therefore, it is important to include them in decision-making processes related to climate change. IPLCs not only feel the need to fight the climate change, but it is a certain necessity for further existence on their lands.

Many governments acknowledge only a portion of the land as officially or legally belonging to Indigenous Peoples, even though a large portion of the land occupied by Indigenous Peoples is under customary ownership. Even though indigenous territories and lands are formally acknowledged, there are still numerous violations due to weak border protection and resource use and exploitation. According to IPLC interests, fragile land ownership and a limited definition of natural resource conservation are causes of conflict, permanent environmental damage and a potential halt in the socioeconomic growth of entire countries. Subsequently, it is critical to recognize and protect IPLCs’ formal rights to lands, territories and natural resources since doing so not only closes existing gaps but also highlights the necessity of recognition at the national and project levels.



⁴² Orlove et al., 2022.

⁴³ Lee et al., 2023.

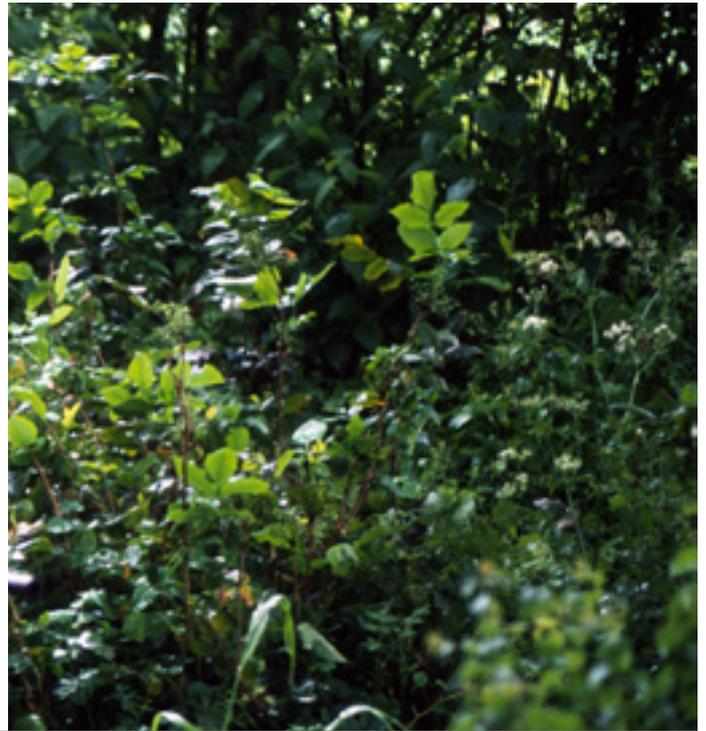
⁴⁴ Kickett, 2011.

6.3 Walls and bridges to cooperative approaches

1. Walls

Wall: No inclusion of IPLCs in carbon markets

Even though IPLCs have successfully managed many ecosystems for generations, such as forests, their rights are commonly disregarded when it comes to inclusion in carbon markets. In reality, IPLCs have frequently encountered fraudulent carbon sales agents who enter communities with lengthy legal paperwork in English that is inaccessible to some IPLCs who may have limited literacy skills and/or little knowledge in English.⁴⁵ A better integration of IPLCs in carbon markets could increase economic opportunities and climate finance flows and enhance, for instance, forest protection and conservation.⁴⁶ That is why IPLCs need to be considered when it comes to the design of carbon market governance, with special regards to the enforcement of their rights and inclusion in legal protection systems.



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I think the greatest risk facing Indigenous Peoples is being left out of the governance, the standard setting and the economic benefits associated with the certification of offset projects. Offset projects may displace other economic development opportunities, some forms of Indigenous land use and/or infrastructure development. These mechanisms represent a form of land-based revenue that should include economic opportunities for Indigenous Peoples. There is also risk that the absence of standards, regulations and rigor in voluntary carbon market credits will create vulnerabilities for Indigenous Peoples seeking to invest or support new initiatives because of the inherent investment risk in unstructured systems. Certification offers benefits but only if it is paired with opportunities for Indigenous Peoples.

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⁴⁵ Greenfield, P. (2023) "The 'carbon pirates' preying on Amazon's Indigenous communities," *The Guardian*. (Accessed 6 July 2023).

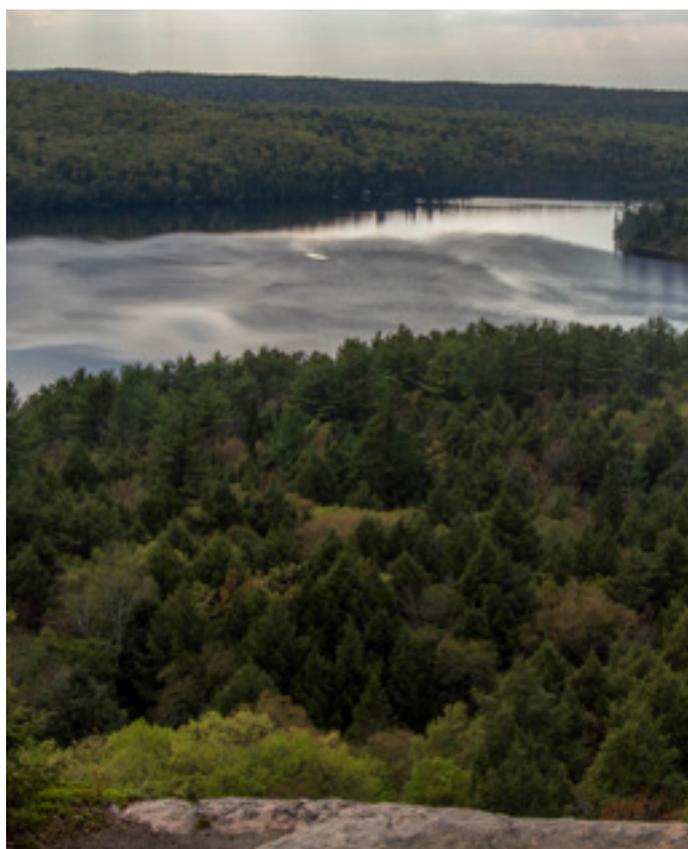
⁴⁶ Gordon, O. (2022) "The interwoven fortunes of carbon markets and indigenous communities," *Energy Monitor*. (Accessed 6 July 2023).

Wall: Weak land ownership rights (Ecuador and Swedish Energy Agency – case study)

When IPLCs have solid rights to their land, such land is less likely to be destroyed or degraded because communities offer stronger protection than even legally designated protected areas. In contrast, failing to uphold communities' legal claims over these lands puts trees and the carbon they contain in danger and endangers the lives of people whose livelihoods, religions and cultures depend on the woods.⁴⁷ However, even legally recognized rights of IPLCs may be taken away without agreement or compensation in many countries, or may be recognized for only a limited time. Many of the carbon sinks – things that absorb more carbon from the atmosphere than they release – sought by offsetting programs are in areas where indigenous or local rights have not been established, which leads to amplifying existing challenges, such as exclusion from land use decisions, threats of land expropriation or human rights violations.⁴⁸ In Ecuador, land ownership rights face limitations when it comes to ecosystem services and carbon transactions.

While Ecuador's constitution grants indigenous communities rights over a significant portion of the country's forest land, it does not encompass their right to engage in carbon transactions.⁴⁹ This lack of ownership relationship between entities or individuals and environmental services has implications for the distribution of benefits from reducing emissions from deforestation and forest degradation (REDD+) initiatives, which often become intertwined with unresolved land rights issues. Indigenous and forest communities, historically marginalized and struggling to assert their land and resource rights, are particularly affected by these limitations.⁵⁰ The negative impact of excluding IPLCs from carbon offset projects is exemplified by the

Swedish Energy Agency's discontinuation of purchasing carbon credits due to the devastating consequences of a project in Kachung, Uganda.⁵¹ The introduction of monoculture pine plantations led to the forced eviction of local communities from their land, causing environmental degradation and the loss of livelihoods. This serves as a stark reminder that potential investors must carefully consider the effects of their funding choices on IPLCs, as inadequate assessment of non-financial risks can lead to negative socioeconomic changes and reputational damage.⁵²



⁴⁷ NYDF Assessment Partners (2018) [Improving Governance to Protect Forests: Empowering People and Communities, Strengthening Laws and Institutions – New York Declaration on Forests Goal 10 Assessment Report](#). Coordinated by Climate Focus with support from the Climate and Land Use Alliance." (Accessed 6 July 2023).

⁴⁸ Rights and Resources Initiative & McGill University (2021) "Report: Status of Legal Recognition of Indigenous Peoples', Local Communities' and Afro-descendant Peoples' Rights to Carbon Stored in Tropical Lands and Forests."

⁴⁹ Government of Ecuador (2008) Constitution of the Republic of Ecuador of 2008.

⁵⁰ Streck, C. (2020) "Who Owns REDD+? Carbon Markets, Carbon Rights and Entitlements to REDD+ Finance." (Accessed 6 July 2023).

⁵¹ Oakland Institute (2020) "Swedish Energy Agency Terminates Carbon Credits Agreement with Green Resources." (Accessed 6 July 2023).

⁵² NYDF Assessment Partners, 2018.

2. Bridges

Bridge: Inclusion of IPLC in the international legal protection system

The inclusion of IPLCs in the international legal protection system is a crucial step towards ensuring their rights and addressing historical injustices. Efforts have been made through various international frameworks and declarations, such as the transformative UN Declaration on the Rights of Indigenous Peoples (UNDRIP) adopted in 2007.⁵³ UNDRIP serves as a powerful document that safeguards the survival, dignity and well-being of Indigenous Peoples worldwide, protecting both collective and individual rights that are often overlooked in international human rights law. Its significance extends beyond human rights to environmental matters, as seen in its alignment with the Paris Agreement, emphasizing the need to respect and promote the rights of Indigenous Peoples in climate decision-making. In particular, Article 26 of the UNDRIP affirms and requests for the legal recognition of Indigenous Peoples' ancestral rights to their lands, territories and resources. Therefore, the rights of IPLC, particularly regarding land rights, must be considered while implementing policies and processes under Article 6 of the Paris Agreement. Activities related to offset projects must comply with UNDRIP to be compliant with international law, bridging the gap between legal protection and IPLC empowerment.

As mentioned above, the Paris Agreement includes local communities' and Indigenous Peoples' rights as human rights as they should be considered in the fight

against climate change. However, as the Chair of the UN Permanent Forum on Indigenous Peoples, Megan Davis, pointed out in a statement on COP21: "Sadly, the Agreement asks states to merely consider their human rights obligations, rather than comply with them."⁵⁴ This means that at the level of the Paris Agreement, including Article 6 for IPLCs, there is no legally binding provision and it is merely the obligation of states to the Agreement to respect, promote and consider human rights in taking action to address climate change. Therefore, considering their rights, their protection against the background of the Paris Agreement depends mainly on the will of the states and any greater measure of protection can be provided by states at other national levels.

Acknowledging that climate change is a common concern of humankind, Parties should, when taking action to address climate change, respect, promote and consider their respective obligations on human rights, the right to health, the rights of Indigenous Peoples, local communities, migrants, children, persons with disabilities and people in vulnerable situations and the right to development, as well as gender equality, empowerment of women and intergenerational equity.

Source: Paris Agreement, 2015, Preamble.



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The broader concept is that you need Indigenous-focused mechanisms within the UN climate change structures to ensure appropriate and meaningful participation of Indigenous Peoples.

Jesse McCormick

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⁵³ United Nations Declaration On The Rights Of Indigenous Peoples (2007). (Accessed 6 July 2023).

⁵⁴ Davis, M. (2015) "Statement on COP21 by Permanent Forum Chair, Professor Megan Davis." (Accessed 6 July 2023).

Bridge: COP27 decisions

COP27 made crucial decisions regarding the inclusion of IPLCs in climate action. According to Annex V and VI of the COP27 Decision⁵⁵, both the initial report and the updated report should contain information on cooperative approaches, specifically addressing the 11th preambular paragraph of the Paris Agreement, which emphasizes the respect, promotion and consideration of the rights of IPLCs. Additionally, the biennial transparency report (BTR) should also include a description of how the cooperative approach aligns with these rights.

The decisions made at COP27 allow states to define their approach to respecting these rights, potentially resulting in varying levels of protection of IPLCs and risks of human rights violations across different countries. The COP27 Decision further highlights the importance of considering human rights, the rights of Indigenous Peoples and local communities when taking action to address climate change, as stated in Article 6.4 of the Paris Agreement.



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Consent standards are the most effective way to ensure that risks are mitigated, Indigenous Peoples see benefits from offset projects and past challenges are not repeated.

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Bridge: Best practices set by globally recognized VCM standard setters and nonprofit organizations

Participants in the VCM can assist IPLCs by informing states on the level to which protections should be put in place to ensure that IPLCs' rights are not violated. By knowing the risks of human rights breaches that can be directly tied to their offset initiative, project developers can better plan their projects. Some VCM participants have already created certain policies to uphold the rights of ILPCs.

The Gold Standard (GS), as an example of a VCM standard, plays a crucial role in ensuring that IPLCs' rights are respected in the offset projects process. By establishing Gold Standard Safeguarding Principles & Requirements,⁵⁶ the GS sets clear guidelines for project developers. These principles include the recognition of human rights as central to sustainable development and the refusal to support projects that contribute to human rights violations. The GS also emphasizes the importance of cultural heritage preservation, equitable benefit sharing and the prohibition of forced evictions without free, prior and informed consent (FPIC) from the IPLC. Furthermore, the GS highlights the need for stakeholder consultation and engagement, with specific provisions for IPLC.

Similarly, the Voluntary Carbon Markets Integrity Initiative (VCMI),⁵⁷ aimed at ensuring high-quality carbon credits, emphasizes the compatibility of projects with human rights, urging the private sector to treat IPLCs as partners rather than mere beneficiaries. This involvement should include active participation in the project's market design and implementation process. These standards reflect the commitment to protecting the rights of ILPCs within the VCM and align with the objectives of the Paris Agreement.

⁵⁵ UNFCCC (2022b) "Matters relating to cooperative approaches referred to in Article 6, paragraph 2, of the Paris Agreement." (Accessed 6 July 2023).

⁵⁶ Gold Standard (2019) "GOLD STANDARD FOR THE GLOBAL GOALS." (Accessed 6 July 2023).

⁵⁷ Voluntary Carbon Markets Integrity Initiative (VCMI) (2023) "Provisional Claims Code of Practice." (Accessed 6 July 2023).

Bridge: Inclusion of IPLCs in the national legal protection system by including them in the decision-making process and ensuring revenue sharing (Canada – case study)

In Canada, the inclusion of Indigenous Peoples in the national legal protection system is exemplified by the Framework Agreement on First Nation Land Management (FNLMA).⁵⁸ This historic intergovernmental agreement, signed in 1996 and in force since 1999, recognizes the inherent right of First Nations to govern their reserve lands. The First Nations have grown over time to include numerous communities across Canada, with each signatory assuming administrative and legislative authority over their lands, environment and natural resources. By recognizing the rights of Indigenous Peoples at the national level and granting them governance autonomy, the FNLMA serves as an effective tool for ensuring their inclusion in the decision-making process.⁵⁹



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Indigenous Peoples are uniquely situated as non-state actors because there is a rights basis for their involvement in domestic natural resource development. For instance, the Supreme Court of Canada has recognized Aboriginal title which is an Indigenous right to the land that includes the power to choose what does or does not happen in relation to the management of the land. ... However, the Minister of Natural Resources has been tasked by the Prime Minister of Canada to develop a benefits sharing framework focused on major projects.

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⁵⁸ Framework Agreement on First Nation Land Management (FA) (1996). (Accessed 6 July 2023).

⁵⁹ Boutilier, S. (2016) "An unsung success: The First Nations Land Management Act" Policy Options. (Accessed 6 July 2023).

An example of how Indigenous Peoples in Canada benefit from such inclusion is the revenue-sharing model between the Government of Canada and First Nations in British Columbia.⁶⁰ As British Columbia's forestry revenues have doubled, a portion of these revenues is allocated to First Nations through a long-term, cooperative and fiscally oriented revenue-sharing model. This model ensures a permanent and transparent system of distribution to First Nations. Notably, British Columbia was the first jurisdiction in Canada to legally recognize the international standards of the UN Declaration on the Rights of Indigenous Peoples. In the 2021-22 fiscal year, First Nations received C\$58.8m through the existing forestry revenue sharing program. Moreover, British Columbia is planning changes to increase the rates of Forest Consultation and Revenue Sharing Agreements (FCRSAs), which is expected to raise the revenue sharing amount to up to C\$130.8m in the 2022-23 fiscal year if all eligible First Nations participate in FCRSAs with the increased rates. This revenue-sharing model highlights the tangible benefits that can arise from the inclusion of Indigenous Peoples in the national legal protection system, creating a more equitable and sustainable approach to resource management and economic development.⁶¹

Bridge: Providing strong land ownership (Costa Rica – case study)

Costa Rica stands out as a country that provides strong land ownership rights through its legal framework. Private land rights are protected and recognized at the constitutional level, guaranteeing the inviolability of property rights. Property ownership can be registered in the National Registry or recognized as possession even without registration. State land rights, such as national parks and forests, are owned by the government and managed by the Ministry of Environment and Energy. Indigenous communities in Costa Rica have their own collective land rights, which are protected by specific laws. These Indigenous Reserves are considered the property of Indigenous Peoples communities and are inalienable and irrevocable, registered under their own name in the National Registry.

Moreover, Costa Rica has taken significant steps towards environmental conservation and sustainable practices. It became the first country in Latin America to receive payments for carbon reductions through the REDD+ program, which aims to combat deforestation and forest degradation. These payments are shared with the local community involved in protecting and restoring forests, promoting equitable distribution of benefits. Additionally, a special fund for ecological entrepreneurship helps to ensure that benefits are distributed to individuals or forest landowners, even if they do not meet other qualification criteria. The inclusion of vulnerable groups, such as women, youth and Indigenous Peoples, is emphasized in these efforts, highlighting Costa Rica's commitment to fairness and inclusivity in land ownership and environmental initiatives.



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Revenue sharing structures vary from project to project and jurisdiction to jurisdiction.”

Jesse McCormick

Senior VP, Research, Innovation & Legal Affairs, First Nations Major Projects Coalition

⁶⁰ British Columbia Government (2022) "B.C. increases forest revenue sharing with First Nations in step toward new fiscal relationship." (Accessed 6 July 2023).

⁶¹ Streck, 2020.

6.4 Key takeaways

1

Without the involvement of IPLCs, it would be impossible to effectively fulfill the objectives of the Paris Agreement and create a world that is climate resilient. Indigenous Peoples, own, inhabit or use a quarter of the planet's territory and safeguard 80% of the remaining biodiversity.

2

However, IPLCs are among the most vulnerable to the consequences of climate change. In addition, IPLCs are vulnerable to market failure because they are not effectively represented in carbon markets, particularly in governance and decision-making processes, such as land management or ownership.

3

A proposed step in protecting IPLCs' rights and redressing historical injustices is their inclusion in the international legal protection system. In the Paris Agreement, IPLCs' rights are already mentioned and there are leading practice examples of how to include them into the national legal protection system as well, e.g., in Canada. At COP27, landmarking decisions for human and IPLCs' rights were made.

4

VCM organizations, such as standards, may also play a significant role in upholding IPLCs' rights, for example by establishing explicit safeguarding principles and requirements that serve as guidelines for project developers on how to prevent human rights breaches and promote greater participation of IPLCs.

5

Providing strong landownership for IPLCs has shown positive effects on environmental conservation and sustainable practices, e.g., in Costa Rica.



7

International organizations

7.1 Context

The effective implementation of Article 6 primarily depends on support and assistance from international organizations (IOs). They facilitate international cooperation by providing high-quality and extensive technical assistance and supporting countries' capacity-building efforts. For instance, they may provide guidance to countries or support in their development, and implementation in their domestic market. In addition, international organizations can help accelerate global action on climate change and support the long-term goals of the Paris Agreement.

United Nations Development Programme (UNDP)

One of the leading international organizations supporting the process of operationalizing Article 6 in the carbon markets in various countries is the UNDP. It is the UN's global development network, advocating for change and connecting countries with knowledge, experience and resources. It mainly helps by developing national and local capacities to help achieve the SDGs, among other things. Within the climate area, the UNDP assists in the design and implementation of projects through Article 6.2 mechanisms. For example, the unique Carbon Payment for Development (CP4D) facility, the main objective of which is to use existing carbon markets to enable stakeholders (countries, partners) to make private climate investments.



United Nations Framework Convention on Climate Change (UNFCCC)

The UNFCCC plays a key role in facilitating global negotiations and agreements that are vital for the development of the carbon market worldwide. Notably, the Paris Agreement, which was adopted under the auspices of the UNFCCC, includes provisions for the establishment of a new carbon market based on mechanisms outlined in Article 6. As part of its work, the UNFCCC has developed an Article 6 capacity-building work program aimed at identifying institutional needs, such as strengthening infrastructure and knowledge resources. This program aims to ensure the availability of well-structured information and enhance the understanding of the mechanisms outlined in Article 6 by all stakeholders involved.

United Nations Environment Programme (UNEP)

UNEP is the global authority that sets the environmental agenda and promotes consistent implementation of the environmental dimension of sustainable development within the UN system. One of UNEP's areas of work is to support developing countries in building their capacity to use Article 6 cooperative approaches to engage the private sector, e.g., through the Supporting Preparedness for Article 6 Cooperation (SPAR6C) project. In addition, UNEP supports countries in climate planning and establishing climate policy frameworks. Another UNEP area of work is to support developing countries in building their capacity to use Article 6 cooperative approaches to engage the private sector, e.g., through the SPAR6C project carried out by the UNEP Copenhagen Climate Centre.⁶²

World Bank-Multilateral Investment Guarantee Agency (WB-MIGA)

WB-MIGA is a global institution that provides investment protection and transaction security.⁶³ The role of MIGA, and the World Bank more broadly, in international carbon markets may be primarily to act as a provider of a secure and transparent system through which entities can transact.⁶⁴

International Energy Agency (IEA)

IEA is an international intergovernmental organization based in Paris, established in 1974. Its stated mandate is to maintain the stability of the international oil supply, although its mission has expanded in recent years to emphasize the promotion of renewable energy sources.⁶⁵ Amid the current global energy crisis, IEA assumes a significant role in Article 6 analysis and specifically carbon pricing. Recognizing the importance of fostering clean energy transitions, carbon pricing can serve as a pivotal component within comprehensive climate and energy policy instruments. As discussions revolve around energy prices and affordability, there continues to be a strong interest in carbon pricing, including the provisions outlined in Article 6. IEA emphasizes the need for collaboration among nations to ensure effective implementation of Article 6 and to collectively address the challenges posed by the energy sector's current circumstances.⁶⁶

The interest of IOs in the implementation of Article 6 in individual countries that are signatories to the Paris Agreement allows for the development of broad partnerships and networks that can serve to exchange knowledge, experience and practices between countries, to further enhance the effectiveness of Article 6 implementation.

⁶² Olsen, K. (2022) "Supporting Preparedness for Article 6 Cooperation (SPAR6C)," UN environment programme. (Accessed 6 July 2023).

⁶³ MIGA (no date) "About us." (Accessed 6 July 2023).

⁶⁴ Civillini, M. (2023) "World Bank set to take on risk of insuring carbon credits amid market upheaval," Climate Home News. (Accessed 6 July 2023).

⁶⁵ IEA (2023) "From oil security to steering the world toward secure and sustainable energy transitions." (Accessed 6 July 2023).

⁶⁶ Lo Re, L. (2019) "Carbon market negotiations under the Paris Agreement." (Accessed 6 July 2023).

7.2 International organizations' objectives

Facilitating international cooperation and coordination on carbon markets

International organizations provide technical and operational support to developing countries, offering financial assistance, advice and expertise to build their national infrastructures and institutions compatible with the international carbon market.

By offering technical assistance and capacity-building, IOs empower countries with the necessary skills to develop and implement accurate provisions for the effective implementation of Article 6. They promote and develop networks and partnerships among participants in the Paris Agreement-aligned market, encouraging the involvement of project developers and potential investors. Through various programs and partnerships, IOs foster cooperation among countries, the private sector and different types of organizations.

Moreover, IOs contribute to strengthening the institutional framework of Article 6 by aligning national frameworks with international standards developed under the UNFCCC and COPs. Their international scope enables them to enhance compliance with these standards and support the development of individual national frameworks.

Promoting and developing networks and partnerships among participants in the Paris Agreement-aligned market

IO's also work to promote carbon markets by encouraging the participation of all stakeholders, both from the project developers' side and from potential investors. These organizations establish various types of programs, or partnerships, to develop and promote cooperation among participants from countries, the private sector and various types of organizations.

In addition, IOs, since their activities are international in scope, can strengthen the institutional framework of Article 6 and help develop individual national frameworks to maximize their compliance with the international standards for Article 6 developed under the UNFCCC and COPs.



Developing the robust and transparent carbon markets

The Paris Agreement lays the foundation for enhancing transparency and equal participation for both developing and developed countries, e.g., by the establishment of the Enhanced Transparency Framework (ETF) under Article 13. Significant to the development of the Paris Agreement-aligned market is the establishment of the monitoring, reporting and verification (MRV) system, which is key to ensuring transparency, accountability and credibility of common approaches to implementing NDCs. In contrast to the ETF, the MRV tailors rules to each group's capacities and circumstances, which makes it a significant aspect of the Paris Agreement-aligned market's development. It is supposed to foster transparency, accountability and credibility in the adoption of common approaches for implementing NDCs. By accurately monitoring, reporting and verifying each country's actions, the international community enhances confidence

and trust in the Paris Agreement-aligned market. The combination of the ETF's trust-building objective and the effective MRV system establishes a transparent and accountable framework for climate action, benefiting developing and developed countries.⁶⁷

IOs aim to ensure the credibility of carbon markets by helping establish rules for avoiding double-counting of GHG emissions reductions. This effort contributes to environmental protection and, thereby, promotes sustainable development. For instance, the World Bank Climate Warehouse program focuses on digital infrastructure development for a globally connected carbon market.⁶⁸ Other IOs explore blockchain technology for secure and transparent data management, while digital monitoring and verification technologies reduce transaction costs and increase efficiency. These initiatives aim to automate processes, ensure transparency and improve the accuracy of emission reduction data.⁶⁹



⁶⁷ Wartmann, S. et al. (2018) "Deciphering MRV, accounting and transparency for the post-Paris era," Deutsche Gesellschaft für Internationale Zusammenarbeit. (Accessed 6 July 2023).

⁶⁸ Climate Warehouse (no date) "Building an End-to-End Digital Ecosystem for Carbon Markets." (Accessed 6 July 2023).

⁶⁹ World Bank, 2022.

Supporting the development and transfers of environmentally friendly technologies

Supporting the development and transfer of environmentally friendly technologies is vital in addressing climate change effectively. They can contribute to reducing GHG emissions, for example, through the use of solar panels for renewable energy production. Adding to that, adaptation technologies, such as drought-tolerant crops and early warning systems, help countries adapt to the impacts of climate change.

The UNFCCC has established a technological framework that guides Parties to the Paris Agreement in the creation of a technological mechanism.⁷⁰ This mechanism consists of the Technology Executive Committee (TEC) and the Climate Technology Centre & Network (CTCN). The TEC, composed of technology experts from developing and

developed countries, provides political support and recommendations to enhance countries' efforts in climate technology. The CTCN serves as the implementation arm, supporting countries in strengthening climate technology projects and programs. It facilitates the establishment of partnership networks among stakeholders, and countries can request technical assistance through their national designated entities (NDEs) for climate technology and transfer. Article 6 of the Paris Agreement also fosters cooperative approaches in relation to technology transfers. Technology mechanisms, in conjunction with Article 6, support the development and dissemination of environmentally friendly technologies which advance the global efforts to combat climate change.



Facilitating the financing, technical and operational support for developing countries

In an increasingly interconnected world, the role of international organizations in providing technical and operational assistance to developing countries is critical. International organizations often provide technical and operational support in the form of funding, guidance and technical experience. Because of this involvement,

developing countries will be able to obtain appropriate resources, or finances, as well as the Article 6 expertise required to construct national infrastructures and institutions that are compatible with the international carbon market.

⁷⁰ UNFCCC (2018) "Technology framework under Article 10, paragraph 4, of the Paris Agreement," FCCC/CP/2018/L.7. (Accessed 6 July 2023).

7.3 Walls and bridges to cooperative approaches

1. Walls

Wall: Limited ability of international organizations to operate due to their funding sources

One of the biggest challenges of IOs is their limited ability to fund global activities in various spheres, including climate change. Their actions are usually confined to necessary activities due to their restricted budget, sometimes even failing to meet certain critical needs. The finances of IOs rely primarily on funding provided by their members, i.e., the organization's member states. They are supposed to provide IOs with funding for their operations, programs or initiatives that are appropriate to achieve their goals.⁷¹ Nevertheless, states that fund the activities of IOs also have certain expectations in terms of the direction and amount of spending of that money. Consequently, countries can often be reluctant or place some financial restrictions on providing funding for given international activities.⁷² That is why IOs often advocate for increased funding from member countries and other donors.

... the largest contributor to the organization's activities were multilaterals and their financial contribution amounted to 38% of total resources by partner group in 2021, followed by donor country governments (36 % of total resources by partner group in 2021) and program country governments (26 % of total resources by partner group in 2021).

Source: UNDP, 2021.

Furthermore, IOs may rely on grants or subsidies from NGOs, foundations, corporations, companies or other contributors. However, the funds raised through these sources may not be sufficient for the organization's effective operations. Simultaneously, as many aid mechanisms are international in scope, an increasingly globalized world raises operating expenses for IOs. In fact, this increases the expense of connecting all parties and building appropriate technology or infrastructure that can be used by all and is universal in nature.

As a result, in terms of actions taken, including climate action for Article 6 implementation, IOs will need to develop much more creative and strategic approaches to financing. Or they may want to involve other actors, with a particular emphasis on the role of the private sector in the process, making it even more possible to operate and scale their actions in the global space. Furthermore, as previously stated, in developing additional funding approaches, they will need to focus on optimizing the impact of existing funds by choosing programs and projects that have the most potential to achieve their strategy and purpose. This can be accomplished by building strong and concrete alliances partnerships or helping to build public-private partnerships, which can play a huge role in operationalizing the Paris Agreement-aligned market.

⁷¹ UNDP (2021) "FUNDING COMPENDIUM 2021." (Accessed 6 July 2023).

⁷² Alesina, A. and Dollar, D. (1998) "Who Gives Foreign Aid to Whom and Why?" *Journal of Economic Growth* 5(1), pp. 33-63. (Accessed 6 July 2023).

Wall: Making COP decisions legally enforceable

Decisions made at COP to the UNFCCC can be legally binding under international law depending on the enabling clause of the treaty.⁷³ If the treaty authorizes the COP to act and the decision falls within its scope of powers and is intended to be legally binding, it will be binding on the parties. Article 7.2 of the UNFCCC, which states that "the COP may adopt, and shall make, within its mandate, the decisions necessary to promote the effective implementation of the Convention," grants the COP the authority to make necessary decisions for effective implementation of the Convention.⁷⁴

However, the legal status of each decision must be analyzed based on its concrete provisions and its alignment with the UNFCCC Convention's objectives. If a decision does not serve the effective implementation of the Convention and fulfills other obligations, it will not be binding on the parties. This creates uncertainty and interpretive leeway for states regarding the legal force of a given decision, which poses challenges for parties and participants in the Paris Agreement-aligned market.



⁷³ Legal Response International (LRI) (2020) "Treaties, COP decisions and unilateral declarations." (Accessed 6 July 2023).

⁷⁴ United Nations (1992) "UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE." (Accessed 6 July 2023).

2. Bridges

Bridge: The numerous initiatives by international organizations in supporting implementation and design processes for Article 6 of the Paris Agreement

UNDP Carbon Payment for Development (CP4D) Facility

Within the climate area, UNDP is, among other things, assisting in the design and implementation of projects under the Article 6.2 mechanism through its unique CP4D Facility, which primarily aims to leverage existing carbon markets to enable stakeholders (countries, partners) to make private climate investments. These investments are expected to contribute towards the implementation of the SDGs.

Through this initiative, the UNDP is providing direct financial incentives for ITMO projects, thereby creating demand for a significant amount of ITMOs. A funding of US\$125m has been allocated to CP4D to facilitate the execution of more than 6 million ITMOs from 2022 to 2030.⁷⁵ The financial incentives are to be based on a special payment procedure, the so-called “performance-based payments.” A cash flow from the investor to the project developer is made if a specific result in terms of CO₂ emission reductions is achieved. Through to the applied mode, it is expected to reduce the investment risk related to offset projects and encourage the private sector to invest in the Article 6 mechanism. In addition to these goals, it is also assumed to achieve several co-benefits in the form of job creation, technology transfer to increase access to energy, support to livelihoods and food security, gender empowerment and more. Currently, CP4D supports seven countries: Peru, Senegal, Georgia, Ghana, Vanuatu, Ukraine and Uruguay.⁷⁶

An example of how CP4D works

A given country that is interested in CP4D usually has specific targets for reducing its GHG emissions. To achieve a country's ambitious climate policy goals, ITMOs can be used where this country indirectly pays for projects that mitigate climate change in developing countries.

UNDP's role is to implement those projects that will generate a corresponding CO₂-equivalent, which can then be used to reduce that country's emissions. Importantly, UNDP will focus on such projects where the investment and implementation costs of the offset project are covered by the private sector. UNDP points out that “for a project under this mechanism, private sector investments will be equivalent to four times the carbon payments generated by ITMOs.”⁷⁷

UNDP Article 6 Transfer Readiness Project

In addition to the above, UNDP is also providing technical assistance to the countries on their readiness for ITMO transfers and aims to increase their participation in international carbon markets.⁷⁸ This assistance is mainly aimed at: firstly, assessing capacity gaps and transfer needs of ITMOs (capacity gaps), secondly, developing a legal framework for operationalizing Article 6.2 transactions (carbon regulations), and thirdly, facilitating workflows among stakeholders (facilitating workflows).

⁷⁵ Soezer, A. (2022) “What is Article 6 of the Paris Agreement, and why is it important?” (Accessed 6 July 2023).

⁷⁶ UNDP (no date a) “CARBON PAYMENTS FOR DEVELOPMENT.” (Accessed 6 July 2023).

⁷⁷ UNDP, no date (a)

⁷⁸ UNDP, no date (a)

Moreover, UNDP improves workflows through a new digital platform: Carbon Cooperation, which aims to help process ITMOs projects more efficiently by helping to ensure transparency of ITMOs trading.⁷⁹ UNDP is also supporting the UNFCCC in educating stakeholders with the launch of an online course on capacity development of Article 6.2. The course is mainly aimed at representatives of governments, the private sector and civil society, and is designed to equip decision-makers with the necessary knowledge on how Article 6.2 of the Paris Agreement works.

World Bank Climate Warehouse program

The World Bank Climate Warehouse program is focused on developing a digital infrastructure for globally connected international carbon markets. This metadata platform

is designed to link and aggregate information from registries (Climate Action Data (CAD) Trust), digital MRV systems, national GHG emissions registries, tokenization instruments and a resource platform to improve knowledge flow and capacity-building. One of the goals of the World Bank's efforts is a digital system that provides transparency, increases efficiency and ensures greater robustness and accuracy of data related to emissions reductions.⁸⁰

Currently, WB is evaluating the potential role of blockchain in maintaining data security and transparency. If information from different countries and global registry systems can be reflected in a common system, then the possibility of the same carbon credit being sold twice is greatly reduced.



“

Under a new UNDP Article 6 Transfer Readiness Assistance project funded by Switzerland, we have started to engage with countries that have bilateral agreements with Switzerland in place, namely Georgia, Ghana, Peru, Senegal, Uruguay and Ukraine. ... We are also working on a digital infrastructure together with UNFCCC, the WB and EBRD ... to develop an end-to-end digital system to simplify the workflow for project developers and streamline approval processes for governments.

Alexandra Soezer

Global Carbon Technical Advisor, United Nations Development Programme

⁷⁹ UNDP (no date b) "Platform for VOLUNTARY BILATERAL COOPERATION." (Accessed 6 July 2023).

⁸⁰ Climate Warehouse, no date



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The IEA puts emphasis on the importance of international co-operation to speed up the achievement of the global net-zero by 2050 goal. Without international cooperation this goal could be delayed by at least a couple of decades. We firmly believe that, considering the increasingly fragmented energy world of today, international cooperation is as important as ever.

Luca Lo Re

International Climate Policy Analyst in the Sustainability, Technology and Outlooks Directorate, International Energy Agency

IEA as a part of the joint OECD-IEA Climate Change Expert Group

IEA is part of the joint OECD-IEA Climate Change Expert Group (CCXG).⁸¹ For more than 25 years, CCXG has been developing and publishing technical documents in consultation with many countries to share information about the ongoing climate negotiations. Through the CCXG, the IEA undertakes various activities to contribute to environmental and climate improvements. One of its most recent activities was the co-publication of a technical paper that analyzed the Article 6.2 accounting system and the implications of changing from the Kyoto Protocol's mechanism to an Article 6.4 mechanism. In addition, each year the CCXG convenes two events that serve as informal meetings to promote dialogue between government delegates and experts from developing and developed economies.

Bridge: Unification of carbon markets

The global reach of the carbon market's operation and the growing interest of participants in carbon credits internationally is driving the need for an increasingly unified international carbon credit market to take shape.

This is primarily to overcome challenges, such as double counting, improve the quality of carbon credits and manage uncertainty surrounding the buyer's ability to use such credit to improve their climate performance. There is a chance that the processes in Articles 6.2 and 6.4 will likely lead to the unification of the carbon market in the future, primarily due to the presence of state authorized ITMOs.

Currently, each carbon market sets its own eligibility criteria for offset projects. From that perspective, the role of IOs could be mainly to build capacity for the unification of these markets. This might involve carrying out projects or programs to establish a unified market for the sale of carbon credits or formulating the standard regulations and guiding principles of the carbon market in working groups of chosen stakeholders.

⁸¹ OECD (no date b) "Climate Change Expert Group (CCXG)." (Accessed 6 July 2023).

7.4 Key takeaways

- 1 Operational and technical support from IOs could be significant for the successful implementation of Article 6. By offering comprehensive and high-quality technical help and aiding in nation-building initiatives, they promote international cooperation.
- 2 In addition, IOs reinforce the institutional framework of Article 6 by harmonizing national frameworks with international standards created by the COPs and the UNFCCC. As a result, IOs may facilitate the creation of unique national frameworks and improve compliance with the international standards.
- 3 To preserve the environment and to promote the development and transfer of environmentally friendly technologies, IOs seek to establish open carbon markets.
- 4 However, due to their limited financial resources, IOs have a constrained ability to operate. Additionally, there are several legal loopholes to the requirement to implement COP decisions, which represent a constraint for IOs to commit parties to act.
- 5 There are numerous IO activities to promote the development and implementation of Article 6 of the Paris Agreement. IO efforts to develop high-quality markets would be aided by the unification of the different carbon markets.



8

VCM service providers, project developers and corporates



8.1 Context

Carbon markets incentivize climate action by enabling parties to trade carbon credits generated by the reduction, removal or avoidance of GHG emissions. VCM service providers include standards, registries, brokers, exchanges and all other market participants who create the infrastructure needed for the market to function, make project developers monetize their mitigation efforts and buyers offset their emissions. Project developers provide credits to the market and large corporations create demand for them in a bid to offset their residual (or other) emissions and meet their own reduction targets. Without any of the above, the carbon market could not function.

Three types of VCM players can be roughly distinguished based on their role in the market:

1. Project-related: project developers and investors of mitigation activities and offset programs
2. Certification-related: private carbon standards, validators and verifiers of mitigation activities
3. Transaction-related: buyers (both corporates and individuals), brokers, exchanges and advisors

VCM service providers, project developers and corporations should use the experience already gained in the market to support governments in implementing Article 6 measures and also become equally involved in it. The basic principles of the Article 6 market are not too different from the voluntary carbon credit market. They add credibility to the credits by requiring authorization from the receiving and buying country. To achieve supply and demand at the required level, we still need the same project developers to implement offset projects and the same corporates to purchase carbon credits. VCM service providers have vast, long-standing experience in carbon credit certification, verification and trading, which they should share with governments implementing Article 6 and authorizing ITMOs. There is no reason to start from scratch when so many good practices have already been developed in this market.

Role of VCM service providers, project developers and corporates in Article 6.2

The mitigation activities that take place under Article 6.2 are, in practice, created by private developers in cooperation with the host government that is responsible for establishing a bilateral or unilateral agreement, making a corresponding adjustment to "un-count" the mitigation outcome and transferring the ITMO.

Although the purpose of Article 6.2 is to lay the groundwork for trading GHG reductions between governments, the VCM service providers can be involved at every stage of the procedure. Project developers must decide whether they prefer to certify their project in the host country's registry or whether they prefer to use private sector standards (Gold Standard, Verra, etc.). They must also decide whether they are able to use their own resources to finance the project or whether they must seek private investors to start the project, and finally, who will verify their project, which will enable the generation of ITMOs.

⁸² Paris Agreement, Article 6, paragraph 4.

Role of VCM service providers, project developers and corporates in Article 6.4

Corporates' investments can make an important contribution to mitigating climate change. This role has been recognized by parties when they signed the Paris Agreement and its Article 6.4, which explicitly aims to incentivize and facilitate the participation in the mitigation of GHG emissions by private entities.

The aim of the Article 6.4 mechanism is "to contribute to the mitigation of GHG emissions and support sustainable development."⁸² Through this mechanism a company in one country can reduce emissions in that country and have those reductions credited so that it can sell them to a company in another country. That second company may use them for complying with its own emission reduction obligations or to engage in meeting the global net-zero target.

At COP26, the countries that signed and ratified the Paris Agreement designated a supervisory body to supervise the mechanism under its authority and guidance. Article 6.4 creates a new multilateral mechanism to replace CDM operating under the Kyoto Protocol, the predecessor of the Paris Agreement.



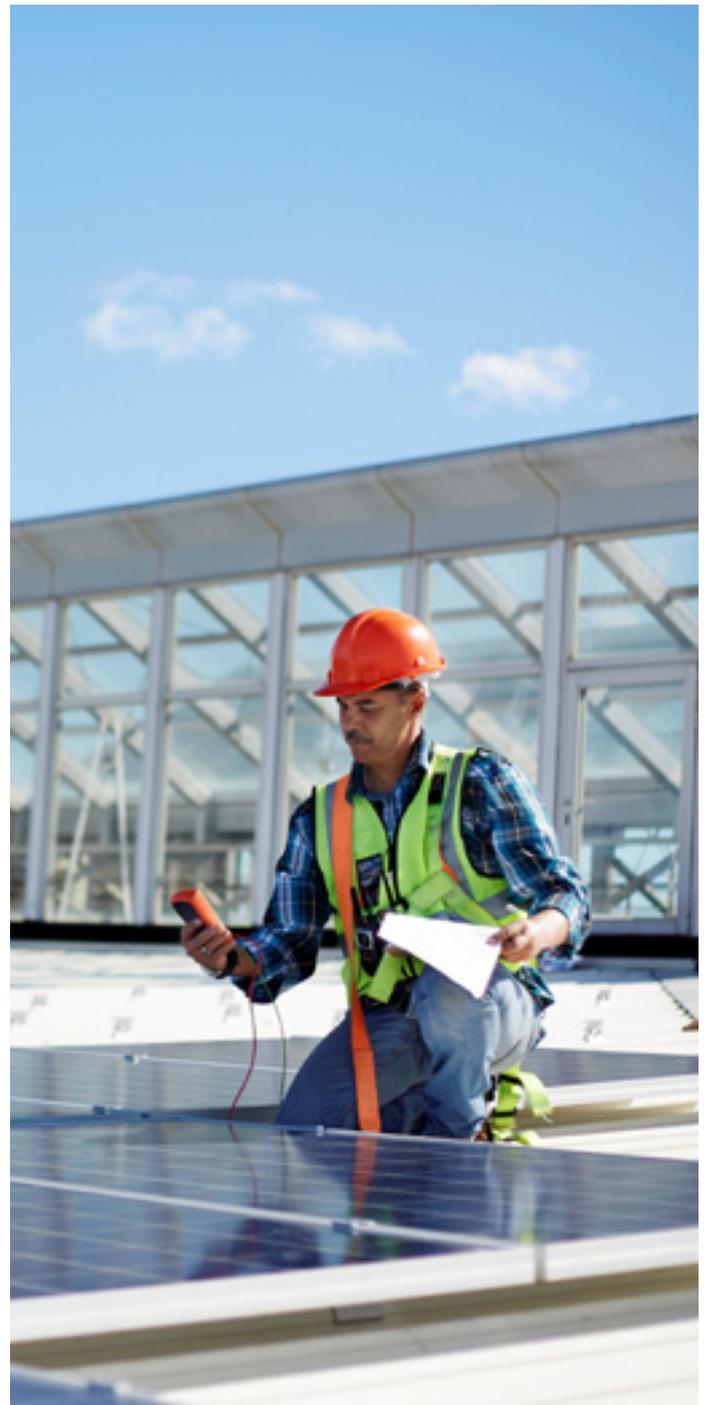
8.2 VCM service providers', project developers' and corporates' objectives

We would like to believe that VCM service providers and project developers are motivated by a desire to reduce GHG emissions and stop climate change, and that they do this by launching projects and credits of the highest quality into the market. In practice these motivations differ, and some of them include financial revenue from offset projects.

Corporates have several objectives for investing in offset projects or buying carbon credits. The aim of corporates who are buyers of mitigation outcomes is to meet their reduction targets in addition to other GHG reduction activities in their GHG 1 scope and thereby achieve the climate pledges they have made – for their products or operation. In most countries, companies cannot meet their regulatory requirements with carbon credits, but they can demonstrate these activities in their environmental, social and governance (ESG) reports and other branding efforts.

The purpose of investing in carbon projects is to support the implementation of sustainable technologies and activities around the world to meet global climate goals and foster sustainable development. As a result, the investor receives a portion of the carbon credits, which they can sell back or retire for their own purposes. Financing offset projects is a keystone of each company's approach to climate mitigation to achieve their goals. Corporates can decide where and how to invest and thus, for example, support the development of the countries where they carry out their business activities. The interest in sustainable and impact investing is a big trend from investors.

Corporates can also generate carbon credits by running projects that result in the reduction or removal of GHG emissions. Very often, a sustainable approach is not the most financially feasible and this financial gap can be filled with profits from selling carbon credits. It motivates companies to work on research and development (R&D) activities, because it allows them to reduce the cost of technology before it is fully operational and profitable.



8.3 Walls and bridges to cooperative approaches

Both the VCM and Article 6 have some significant barriers that keep project developers and corporates from fully engaging, realizing their potential and making the most of them. VCM service providers play a significant role as an enabler of Article 6 mechanisms implementations.

1. Walls

Wall: Lack of awareness of carbon markets

The first step to achieving greater integration of the project developers into the Paris Agreement-aligned market and other carbon markets is raising awareness of its existence and potential. Governments, corporates and small farmers that implement improved forest management need to be aware. There is an urgent need to build the flow of consistent information between UNFCCC negotiations, countries, companies and project developers to reduce uncertainty and risk, so that everyone acquires a sufficient level of knowledge about governance issues, accounting, environmental protection and transaction costs. Having more market participants will increase the competitiveness of the market, which will have a positive impact on its development.

Wall: Low supply of carbon credits

The amount of carbon credits is a key factor needed to achieve the economies of scale required by the Paris Agreement's long-term temperature reduction target. According to International Renewable Energy Agency (IRENA), the 1.5°C target will require investments of US\$5.7t per year until 2030; currently, only about US\$700b per year is invested in the climate mitigation sector.⁸³ More mitigation activities should be developed that are "bankable" for investors and more credits should be generated from them. There are still significant barriers that keep project developers and private investors from believing that the returns from the projects justify the risks.



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In many parts of the world, large corporates are starting to become aware of voluntary carbon markets and the role that they can play. There is still a lot of education to be done to improve understanding of what credits are, how they are created — and how you can be assured of their quality. The more that those of us in the market talk about the full implementation of Article 6, and the creation, ultimately, of global, fungible, transparent carbon markets, the more the corporate world will pay attention.

Riham Elgizy

Chief Executive Officer, VCM, Saudi Arabia



Greater emission reduction causes more credits generated and potentially greater earnings from their sale. To achieve greater emission reductions from a project, the project developer must invest more at the beginning of the project. This is a vicious cycle that discourages the project developers from engaging in carbon markets. As it stands, Article 6 development projects offer the promise of first issuance of carbon credits and profits from their sale after at least 18 months. Entrepreneurs lack the start-up capital to launch a project or cannot afford to freeze it for such a long period of time. Blended finance⁸⁴ is urgently needed, but we have witnessed a decline in aggregate financing levels in the market in recent years – between 2019-2021, US\$14b was invested into climate blended finance transactions, compared to US\$36.5b between 2016-2018.⁸⁵ Although there are some purchase programs where it is possible to receive a part of the revenue from carbon credits upfront, the dominant market model is “payment on delivery,” which requires financing before the start of the project.

The dynamic evolution and some lingering ambiguities in the rules and standards for flexible mechanisms (e.g., regarding the concept of additionality and baseline setting) have led to complicated and time-consuming processes and uncertainty for investors in the VCM. The uncertainty problem is visible also in the Paris Agreement-aligned market, even on the larger scale. Today, it is not clear which countries will apply Article 6 and on which terms. The procedures are in the making.

The lack of methodologies, experience and transparency of the processes are all perceived as risks by market participants. Project developers and private investors note significant drawbacks in the complexity of the certification procedure.⁸⁶ Standards require ongoing MRV checks on additionality, permanence and leakage regularly until the end of the committed permanence period. Even if it is reasonable that the quality of the credits should be top notch, the costs of MRV, in particular for smaller dispersed emission sources such as cookstoves and vehicles, are significant and disproportionate to the price at which the carbon credit will sell. Transaction costs for MRV can reach EUR 1.20 per tonne of CO₂ and above.⁸⁷ All carbon market participants need to work on a solution to reduce MRV costs without sacrificing quality and integrity.



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There is the issue of investment security for project developers. The idea is to pay for the ITMOs on delivery, but it could prove a lengthy process to get there, and we want this arrangement to properly support all involved parties.

Arvid Rönnberg

Program Manager, International Climate Cooperation,
Swedish Energy Agency

⁸³ IRENA (no date) “Energy transition outlook.” (Accessed 6 July 2023).

⁸⁴ Blended finance is the “strategic use of development finance for the mobilization of additional finance towards sustainable development in developing countries. It attracts commercial capital towards projects that contribute to sustainable development, while providing financial returns to investors. This innovative approach helps enlarge the total amount of resources available to developing countries, complementing their own investments and ODA inflows to fill their SDG financing gap, and support the implementation of the Paris Agreement.” Source: OECD (no date a) “Blended Finance.” (Accessed 6 July 2023).

⁸⁵ Convergence Blended Finance (2022). “State of Blended Finance 2022: Climate Edition.” Convergence Report. (Accessed 6 July 2023).

⁸⁶ Maina, A. (2023) “Carbon removal: Why developers often face difficulties in financing low-carbon projects.” (Accessed 6 July 2023).

⁸⁷ Shishlov, I. and Bellassen, V., 2016 “Compliance of the Parties to the Kyoto Protocol in the first commitment period,” Climate Policy, DOI.

Wall: Low demand for carbon credits

Investing in sustainable projects is a new and visible trend in the market, but its size is still insufficient to meet the Paris Agreement climate goals. It is crucial to increase the quality of credits to a level where buyers have the confidence to enter the market at scale. The existing voluntary carbon credit market is not working effectively due to difficulties related to the quality and integrity of credits, and the same future may await the Paris Agreement-aligned market.

The VCM has issued a lot of low-quality carbon credits that buyers and potential buyers are afraid to purchase because of the environmental and reputation risks. Corporations cannot afford to buy credits from those whose actual contribution to emissions reductions is in question, or whose reductions have already been attributed to the country where the project was implemented (problem of so-called “double counting”). Some corporate participants have large teams dedicated to independent verification and purchasing of carbon credits. While highly commendable in the current market context, this is inefficient and must become unnecessary as the market scales. High-quality, transparency and traceability of carbon credits are a key to mobilizing corporates financing.

VCM service providers who validate projects (verifiers), issue carbon credits (standards) and then sell them to clients (brokers, exchanges) should carefully select the projects they want to support and connect their clients with. They are the ones who should take care of the quality of the projects they work with in the first place, so that the end customer is not afraid of such an investment.

Currently, Article 6.2 transactions are very complex and the market is visibly fragmented, as all countries work out their own terms of cooperation. The same problem exists in the VCM, with uncoordinated requirements under individual private standards blocking the way of creating a truly fungible product, and thus trading it. At the same time, the ambiguous and uncertain legal landscape resulting from differences between geographic regions, different definitions of carbon credit across jurisdictions and unclear liabilities places a significant burden on market participants and limits interest in and access to carbon credit trading.





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Quality is derived from the credit standard first, then its third-party independent, fully qualified monitoring and verification. Then, the quality of the registry (technology) comes into play, and then finally the owners/operators, including operational and financial capacity and their history. Carbon Trade Exchange (CTX) carefully selects and retains third-party Registries relationships based on the above. Even if they use (license) GEM’s Registry technology, CTX has no direct interest or control over Registries, who control their credit standard(s), accounts, data and fees, which they receive in full.

Wayne Sharpe

Chief Executive Officer, Carbon Trade eXchange (CTX)



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The role of the BCR standard is crucial to ensure that global emission reductions are not overestimated, and all emissions reductions and removals from projects are verified ex-post, which means credible, additional, measured and permanent. BCR is convinced that GHG standards should uphold respect, recognize and uphold the operational rules of other VCM players. Only like that, we are capable to manage robust accounting following our GHG program procedures to meet Paris Agreement principles and overall goals for the climate agenda.

Stefanny Diaz

Program Director, BioCarbon Registry (BCR)

Wall: Lack of integrity in the market

The multitude of players in the carbon market creates numerous complications for market participants. Market integrity, which would increase the transparency of the market's institutional and financial infrastructure, would help facilitate the analysis of carbon market transactions. It would provide an opportunity to verify potential claims by corporations regarding their "net-zero value" or "carbon neutrality," and help reduce greenwashing⁸⁸ practices associated with the market.

The lack of market integrity makes it difficult for market participants to correctly interpret project developers' SDG declarations and compare projects among themselves so that they can choose the project that is most attractive from their business perspective. Improving integrity could help reduce buyer interest in low-quality carbon credits and, as a result, limit their supply.



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Claims of impact towards UN Sustainable Development Goals (SDGs) are made by approximately half of projects in the Voluntary Carbon Market (VCM) to represent non-carbon project benefits. However, scaling the SDG framework, which was designed for national level reporting, to the project level is challenging.

Caution is required in interpreting SDG claims attached to VCM projects, particularly in the context of meeting corporate ESG targets.

Torrey Sanseverino

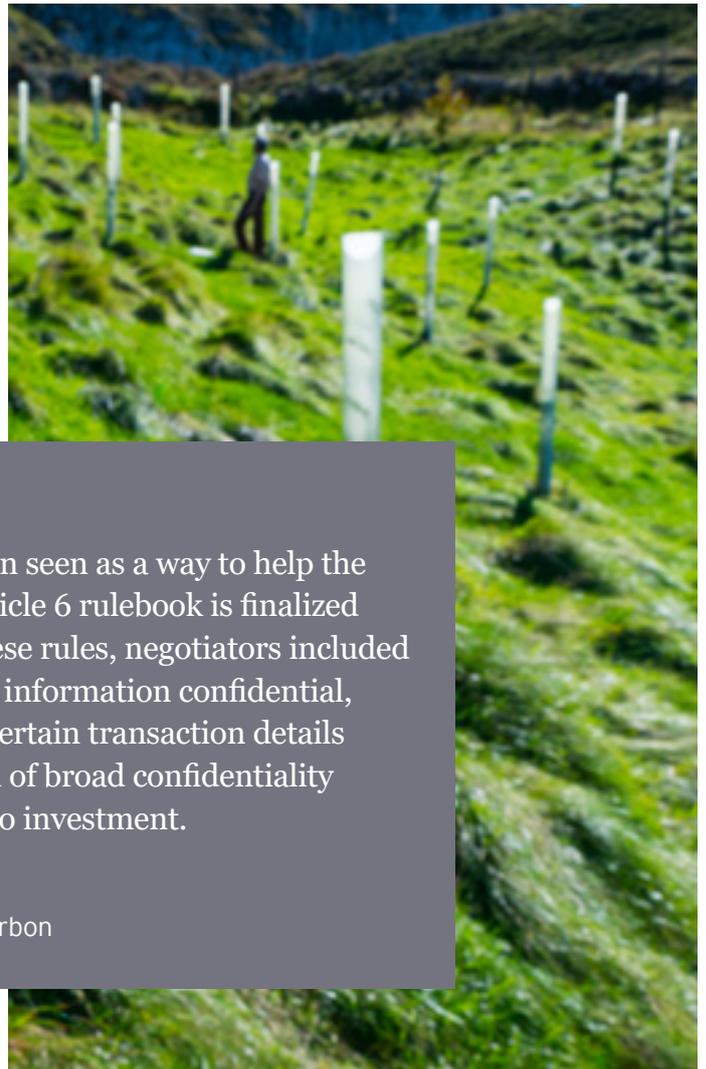
Research Manager, Sustainable Development Goals, BeZero Carbon

⁸⁸ Cambridge Dictionary (no date). (Accessed 6 July 2023).

Wall: Confidentiality

The pact developed during COP26 in Glasgow identifies the need to develop “ways to review information that is confidential.”⁸⁹ After the negotiations in 2021, an approach was approved that places no restrictions on confidentiality, allowing all project-related information to be sent confidentially, leading to a significant lack of transparency. Review experts will still have full access to confidential information, but only the data that the developer chooses to make public will be made available to project stakeholders, potential buyers and independent monitoring bodies, resulting in a significant reduction in their potential involvement and criticism.

The project’s developers do not want to reveal all their cards to protect their know-how and not provoke competition. On the other hand, other market participants want to have a complete picture of the process to make informed consumer choices. This is an apparent conflict of interest between the company and developing the carbon market as a whole. It will be challenging to find a balance in transparency and confidentiality.



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Robust transparency rules have been seen as a way to help the market scale, particularly as the Article 6 rulebook is finalized and tested. Instead of bolstering these rules, negotiators included a provision allowing parties to keep information confidential, raising the worrying prospect that certain transaction details won’t be reported. The introduction of broad confidentiality provisions could act as a deterrent to investment.

Finn O’Muircheartaigh

Director of Policy and Markets, BeZero Carbon

⁸⁹ UNFCCC (2022c) “Report of the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement on its third session, held in Glasgow from 31 October to 13 November 2021.” (Accessed 6 July 2023).

2. Bridges

Bridge: Linking Article 6 to VCM to increase the demand

Ghana has pre-approved the methodologies under the following existing internationally crediting standards: CDM, Gold Standard, Verra, ISO-14064, TREES.

Source: Ghana Carbon Registry (2022) "[Ghana framework on international carbon markets and non-market approaches.](#)" (Accessed 6 July 2023).

Article 6 of the Paris Agreement is an opportunity for all participants of VCM to increase demand for carbon units by combining the two markets. The task at hand is to combine the VCM and the Paris Agreement-aligned market to realize the potential of both and increase the number of offset projects to achieve climate goals, rather than create competition. The Paris Agreement-aligned market can take advantage of the extensive experience of the VCM, which over the years has built the necessary infrastructure to handle carbon credits (registries, exchanges, etc.) and has developed several rules and procedures that streamline the market. Article 6 of the Paris Agreement provides an opportunity to better control the carbon market, as it has – unlike the VCM – a centralized governance.

In turn, the VCM can obtain an additional layer of credibility for its credits by authorizing under Article 6.2 and applying the corresponding adjustment. The buyer of such a credit can be more confident that a project authorized by a country's government responds to the real problems the country is facing, and that the reduction to which it wants to acquire the right has not already been charged to that country's GHG inventory.



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As a standard, we see our role as an enabler of Article 6 activities. By putting in place the right rules, procedures and infrastructure to support Article 6, we can enable project developers to implement ambitious activities that deliver benefits for the climate and sustainable development. We can also enable governments – both those hosting activities and those using ITMOs towards their NDCs – to realize the benefits of international cooperation.

Hugh Salway

Senior Director, Market Development and Partnerships, The Gold Standard Foundation

Bridge: Reducing the risk of private sector investments by blended finances

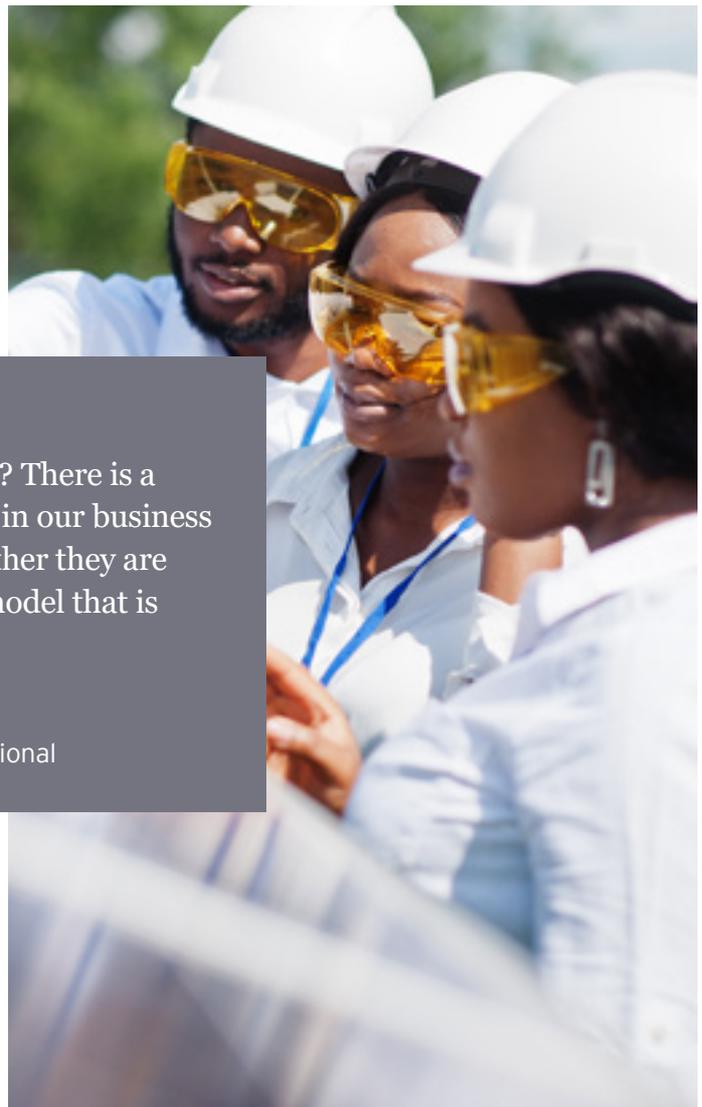
Blended finance is the strategic use of development finance for the mobilization of additional finance towards sustainable development in developing countries.

Source: OECD, no date (a).

Blended finance can help mitigate investment risk to attract more funds for sustainable projects. Private investors are skeptical of investing in certain types of projects or in certain markets due to identified risks that they cannot manage well. Blended finance uses small amounts of concessional donor funds to mitigate identified investment risks. This restores the risk-reward balance for innovative investments that could not be made on strictly commercial terms.

Bridge: Pre-sale of credits

Project developers face the problem of raising financing to launch the project. One way to finance it is to sell pre-sale credits that represent a future emission reduction. This enables a project to move forward with more certainty about future carbon credit revenue. Pre-sale credits are not common and not very desirable in the carbon credit market. Market participants consider the risk of failing to meet target emissions reductions in the future to be high and prefer to buy "normal" carbon credits, taking away from developers one of the easiest forms of financing.



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Risk of non-delivery carbon project? There is a risk of losing the money, so it's also in our business to deliver emission reductions whether they are certified or not, within a business model that is workable and continuous.

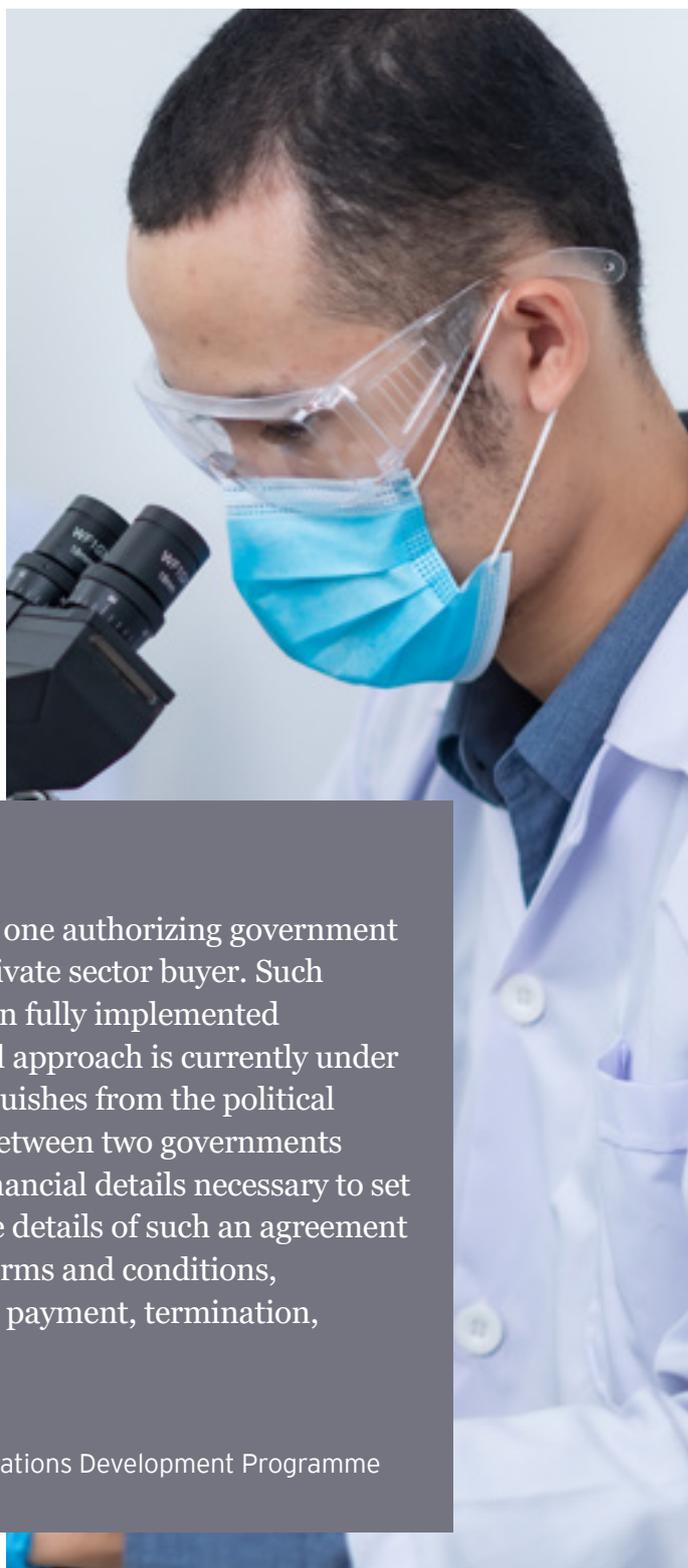
Denis Quayle

Chief Operations Officer, Bio One International

Bridge: Unilateral approach

Article 6.2 does not prohibit the involvement of corporates as ITMO buyers. It is permissible to conclude unilateral agreements between host countries and corporate clients to achieve their climate goals. Public-private partnerships are essential to mobilize capital and align targets to create sustainable and scalable models for long-term improved removal and reduction of carbon emissions.

The private sector representative can enter into a unilateral agreement with the host country under the terms of an agreement worked out by both parties. This approach has benefits for both parties. The private company can decide where it directs its financing, and have an impact on the type of projects and their specifics, and in return receive ITMOs – high-quality carbon credits that they can use for reduction purposes or resell. Through this cooperation, the host country has access to a funding stream that is critical to the ability to implement offset projects.



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A unilateral approach involves only one authorizing government and the transfer of ITMOs to the private sector buyer. Such an approach is new and has not been fully implemented anywhere yet. However, a unilateral approach is currently under establishment in Ghana and distinguishes from the political intention of a bilateral agreement between two governments through additional technical and financial details necessary to set up a public private partnership. The details of such an agreement also define the legal and financial terms and conditions, including costs and taxes, price and payment, termination, confidentiality, governing law, etc.

Alexandra Soezer

Global Carbon Technical Advisor, United Nations Development Programme



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The private sector actor can approach any country that is of interest from a business point of view. While the private sector will have to adhere to the goals of the Paris Agreement and the requirements of Article 6, in particular the commitment to correspondingly adjusted mitigation outcomes, overall mitigation of global emissions, contribution to adaptation and opportunity costs, the company can engage flexibly in any interested country at its pace.

Alexandra Soezer

Global Carbon Technical Advisor, United Nations Development Programme

Bridge: Simplification and digitalization of the process

In the era of blockchain, the internet of things (IoT) and smart sensors there is plenty of possibility to simplify and digitalize the mechanism of Article 6 and VCM. Simplification of the process for certification of projects and the issuance of credits and digitalization of MRV has potential to not only limit the time needed to generate carbon credits but also can significantly reduce costs of the whole process.

The most straightforward role of DTs [Digital Technologies] on this topic is in the area of monitoring, reporting and verification [MRV] of emission reduction efforts. This will provide efficient and cost-effective certainty to the authority and to carbon markets and, therefore, will reduce transaction costs [since less validation will be needed]. Also, DTs can help to track upstream GHG emissions from strategic products and commodities, to properly inform the market and investors.

Source: Asian Development Bank (ADB) (2021) "DIGITAL TECHNOLOGIES FOR CLIMATE ACTION, DISASTER RESILIENCE, AND ENVIRONMENTAL SUSTAINABILITY," (Accessed 6 July 2023).

MRV is a complex process that involves measuring the emission reductions achieved as a result of mitigation activities, reporting the results to an accredited third party and verifying the achieved reductions so that they can be certified and carbon credits can be issued. The use of digital tools and processes for MRV could significantly reduce the cost and many associated challenges and barriers throughout the project cycle. Currently, MRV is most often carried out by staff using basic tools or questionnaires to collect the necessary data. This process is neither convenient nor efficient for either party. Importantly, this method does not provide continuous data, and may give a false picture of the reductions achieved. Introducing technology to automate data collection, recording, processing and verification fully or partially will provide more reliable data and catch anomalies.

The use of blockchain technology to create immutable and auditable data and transfer records, including the creation of mitigation outcomes in digital form underpinned by smart contracts, is another important component of end-to-end digitalization of carbon markets that the industry is designing and implementing.

Source: Asian Development Bank, 2021.

Interoperability of registries should be implemented in such a way that neither Party to an inter-registry transfer could later repudiate the existence, type, time or content of the transfer.

Source: Paris Agreement, 2015, Article 6, paragraph 2

For the final issuance of carbon credits, technologies such as registries built on blockchain, or other distributed ledger technologies allow the creation of trusted registry systems that are accepted by all stakeholders. The use of blockchain technology makes all changes immutable and allows for full transparency in tracking ITMO transactions. In addition to information about carbon assets, such registries can also include attributes of the sustainability impact of mitigation efforts. Such digital systems can also enable linking to other registry systems, and thus allow carbon markets to be linked beyond specific registry systems. This technology is already used by BioCarbon Registry.⁹⁰

Open application programming interfaces (APIs) accessing blockchain data have the potential to maximize interoperability and transparency of carbon markets and build trust among their participants. The concept of interoperability also addresses double counting issues, requiring some form of communication protocol between registries.



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As the scale and coverage of environmental commodity and carbon markets grow, the costs and risks associated with them are also growing. As such, there is a requirement for proper risk management and risk transfer solutions to support investments which in turn will support the transformation of the Voluntary Carbon Market (VCM) to a market that is transparent, of sufficient scale to drive liquidity and inward investment, and above all build a market that generates an asset class that is verifiable and of sound environmental integrity.

Islay Lord

Green Solutions Underwriter, Munich Re

⁹⁰ Sharpe, W. (2022) "World First Web/Cloud-based Exchange Interfaced with Blockchain Registry: BioCarbon Registry – South America's New Global Credit Standard." (Accessed 6 July 2023).

Bridge: Transfer of risk

Paris-aligned market and VCM are complex and evolving markets, with multiple risk exposures for buyers, sellers and investors. In response, the private sector, in the form of financial institutions and insurance companies, have developed instruments to reduce or completely eliminate these risks.

MIGA provides non-commercial guarantees (insurance) for cross-border investments into developing countries. MIGA's guarantees protect investors against the risks of transfer restriction (including inconvertibility), expropriation, war and civil disturbance, breach of contract, and non-honoring of financial obligations.

Source: MIGA, no date.

The Multilateral Investment Guarantee Agency (MIGA) is a member of the World Bank Group and was established to promote foreign direct investment in developing countries. MIGA provides political risk insurance for projects in a wide range of sectors in developing member countries around the world, offering guarantees to investors and lenders. MIGA only supports projects that meet high social and environmental standards, while offering support to investors to ensure compliance with these standards.

In 2022, Parhelion Underwriting Ltd. announced an insurance solution to de-risk VCM transactions. The product provides coverage for risks that could lead to invalidation of the insured carbon credit. Parhelion is not the only entity working towards providing sustainable underwriting solutions that align with ESG strategies and global sustainable targets. At the invitation of the former Prince of Wales, the Insurance Task Force (ITF) was established as part of the Sustainable Markets Initiative to advance as a group and accelerate the industry's transformation towards a more resilient and sustainable future.

The ITF is committed to supporting global transformation by providing innovative new insurance products and services, as well as critical financial and risk management support across multiple industries and geographies to drive positive change.⁹¹

⁹¹ Sustainable Markets Initiative (no date), "Sustainable Markets Initiative Insurance Task Force (ITF) launches global pledge for sustainable supply chains." (Accessed 6 July 2023).



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Due to the complexity of the transactions and the many interactions between the actors involved in the VCM ecosystem, there is an assortment of risks to consider. These include the impairment of carbon credit integrity which creates 'reputational risk' for buyers and sellers and can cause a financial burden. In addition, there is the failure of a project in achieving planned credit issuance volumes, also referred to as delivery risk; regulatory and political risks that may impact carbon projects and credit transactions; and the risk of a reversal of sequestered CO₂ or non-permanence. The insurance industry is well positioned to mitigate some of the risks.

Islay Lord

Green Solutions Underwriter, Munich Re

Bridge: Trustworthy ratings

Due to the many greenwashing activities that are occurring in the market, people are applying the principle of limited trust to environmentally friendly projects. Due to the lack of understanding of the technical aspects of the project and the lack of time for in-depth analysis of project documents, they are afraid of financial involvement in offset projects and the purchase of carbon credits. The answer to this problem is the rating agencies, which assess the quality of projects with the help of experts and developed methodologies.



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Ratings are a key tool required to build trust in this new market mechanism and enable it to scale. The BeZero Carbon Rating (BCR) provides an independent assessment of the likelihood that a carbon credit achieves a tonne of CO₂e [carbon dioxide equivalent] avoided or removed. By interrogating the carbon accounting underlying credits and calling on a broad range of external sources and evidence, the rating provides a metric of carbon quality.

Tommy Ricketts

Co-Founder and CEO, BeZero Carbon





8.4 Key takeaways

1

The basic principles of the Article 6 market are not significantly different from the VCM. To achieve supply and demand in the Paris Agreement-aligned market at the required level, VCM service providers, project developers and corporations are needed that have gained experience in the VCM.

2

Corporates could play a key role in implementing GHG emission reductions on the scale required by the Paris Agreement's long-term temperature target. In addition to acquiring carbon credits, they may support offset projects by providing innovative solutions and start-up capital. Many corporates' goals are primarily financial benefits and a willingness to meet increasingly ambitious "carbon pledges." Many project developers are looking for additional financing for their projects, and many service providers want to streamline the market so it can bring them more revenue.

3

The mitigation activities that take place under Article 6.2 are in most cases developed by private developers in cooperation with the host government. Article 6.4 aims to incentivize and facilitate participation in the mitigation of GHG emissions by private entities.

4

However, carbon markets have some significant barriers that keep their participants from the private sector from fully engaging: lack of start-up capital, lack of experience, complexity of the process, low quality and an uncertain legal landscape of carbon credits.

5

Blended finances, pre-sale of credits, unilateral agreements, digitalization of the process, transfer of risk, etc. are identified tools to overcome these barriers and help realize the full potential of a carbon market.

9

Bringing down the walls and building bridges

Mitigating climate change requires joint efforts by stakeholders from the public and the private sector. Thus, the collaborative approaches under Article 6 of the Paris Agreement are an opportunity for the global community to support each other in reaching global climate goals. This report provided insights into the “walls” and “bridges” for the successful implementation of such collaborations. To bring down these walls and build bridges, the following conclusions can be drawn:

The implementation of Article 6 is multilayered and concerns many different stakeholders that need to cooperate with each other to make it successful.

This report presents the different walls and bridges that apply to the stakeholder groups presented and the different layers of what a successful Article 6 implementation requires. The importance of cooperation between the different parties was highlighted as a prerequisite for a successful implementation that leads to sustainable outcomes. In reality, this also implies circumstances for inclusive participation, such as ILPCs, which are frequently excluded from taking part in governance decisions. Here, the international legal system can lay the foundation for an inclusive participation of all stakeholders in the process. VCM players such as project developers and standards need to demonstrate their willingness to work harder on improving the market’s integrity. Developed countries, developing countries and the private sector have hesitations, but nevertheless they also have many incentives to participate in cooperative approaches under Article 6.



The cooperation between the public and private sector can help to close ambition gaps in climate change mitigation.

To keep global warming far below 2°C above pre-industrial levels, developed and developing nations must have greater ambition. Because of this, the private sector – and notably corporations – must intervene and offer assistance by pursuing their own objectives. Blended financing can lower the risk associated with purchasing carbon credits, digitalization can speed up the procedures and an overall simplification and connection to the VCM could help corporations get on board. Establishing unilateral approaches with host countries in the Global South, however, is a potential option that enables corporations to take part in Article 6 implementation. Initiatives for public-private partnerships between IOs and well-connected actors from the commercial sector are crucial to facilitate this process.

To create leading practices for actual implementation, Article 6 needs pioneers to show the way.

The concept of trading mitigation outcomes is not new. Different stakeholders have complementary experience in carbon market-related themes that can be partially translated to the practical execution of Article 6 thanks to the CDM under the Kyoto Protocol and the VCM. Governments, for instance, can use their knowledge of the CDM for Article 6 governance, while corporations may already be familiar with the VCM. The right conclusions can be drawn from these experiences, despite the fact that the Article 6 mechanism will differ from earlier carbon market approaches. However, to kickoff ITMO trading, it is currently necessary for pioneers, or nations and organizations, to be willing to open the way. Again, to do this, unilateral cooperation must be established.

Dialogue and capacity building regarding the benefits Article 6 for particular stakeholder groups is needed to encourage parties to get involved.

To bring down walls and build bridges for Article 6 implementation, more dialogue and capacity building is necessary to inform all parties about the potential pitfalls and benefits of their participation. Here, not only the IOs have a responsibility to inform governments, but also the private sector, including VCM service providers and other multipliers that may convince corporates or investors to participate in ITMO trading. As practical experience is still lacking, leading practice sharing is crucial to build on each other's knowledge.

In sum, there is still a long way to go to bring down the walls for Article 6 implementation; however, a joint effort in building bridges and shaping leading practices to drive the practical implementation is the way forward.



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