

SHORT STUDY

COP27 DIGEST: MOVING TOWARDS THE OPERATIONALISATION OF ARTICLE 6-BACKED CARBON MARKETS IN AFRICA

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COP27, the UN climate summit held in November 2022 in Sharm El Sheikh, has delivered incremental progress on technical elements of the Article 6 Rulebook agreed at COP26. Negotiators faced a comprehensive set of complex technical questions that need to be resolved to operationalise Article 6-backed carbon markets. COP27 also saw a substantial increase in implementation-focused initiatives relying on carbon markets to deliver mitigation action. This may establish a duality of purpose of COP summits, advancing climate negotiations, while at the same time initiating a parallel 'action track' that offers a forum for governments and other stakeholders to showcase and push forward their activities and initiatives.

This short study reflects on COP27 outcomes, both on the technical negotiations on Article 6 and CDM transition, as well as action-oriented initiatives through the lens of African priorities. Finally, the study discusses remaining work for the operationalisation of carbon market mechanisms under the Paris Agreement in light of African priorities, as well as practical developments in carbon markets in Africa.





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LIST OF ACRONYMS

A6.4ER Article 6.4 Emission Reduction
A6.4SB Article 6.4 Supervisory Body

A6IP Article 6 Implementation Partnership

ACMI Africa Carbon Markets Initiative

AEF Agreed Electronic Format
AGN African Group of Negotiators
BTR Biennial Transparency Report

CARP Centralised Accounting Reporting Platform

CDM Clean Development Mechanism

CO₂e Carbon dioxide equivalent
 COP Conference of the Parties
 CERs Certified Emission Reductions
 CDR Carbon Dioxide Removal

CMA Conference of the Parties serving as the Meeting of the Parties to the Paris Agreement
CMP Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol

DNA Designated National Authority

EAA Eastern Africa Alliance
EB CDM Executive Board
GCT Global Carbon Trust

ITMO Internationally Transferred Mitigation Outcome

IPG International Partners Group
JCM Joint Crediting Mechanism

JETP Just Energy Transition Partnership

LDCs Least Developed Countries

NDC Nationally Determined Contribution
NMA Non-market approach under Article 6.8

OECD Organisation for Economic Co-operation and Development

OMGE Overall Mitigation in Global Emissions

RCC Regional Collaboration Centre

SBSTA Subsidiary Body for Scientific and Technological Advice

SIDS Small Island Developing States

SOP Share of Proceeds

TER Technical Expert Review

UN United Nations

UNDP United Nations Development Programme

UNFCCC United Nations Framework Convention on Climate Change

VCM Voluntary Carbon Market
WAA West African Alliance

1. INTRODUCTION

COP27, the UN climate summit held in November 2022 in Sharm El Sheikh, has delivered incremental progress on operationalising technical elements of the Article 6 Rulebook agreed at COP26. While some issues could be resolved, others could only be decided at a principle level or not at all, and require further elaboration at future negotiation sessions. At the same time, COP27 saw an elevation of implementation-focused initiatives building on carbon markets, indicating a strong intent by key Parties and other stakeholders to rely on market instruments to deliver much-needed mitigation action.

From a higher perspective, this COP summit drew perhaps even more criticism than previous ones, and prompted many to question the effectiveness of the yearly event. Besides the historic agreement on a loss and damage fund, few tangible achievements transpired to the public. At the same time, media attention was captured by the large number of fossil fuel lobbyists attending the conference. Negotiations on carbon markets (mainly conducted under the agenda item on international voluntary cooperation or Article 6 of the Paris Agreement) remained in the shadows and were too technical and incremental to be covered by the mainstream press. But even industry focused news outlets opined that Article 6 negotiations were "even drier than the desert surrounding the COP" (Carbon Pulse 2022a). That does not mean, however, that they were inconsequential for the global carbon markets. To the contrary, Parties managed to agree on a suite of technical issues on regulating carbon markets under the Paris Agreement that are worth highlighting.

From the onset, COP27 has been framed by the Egyptian presidency as an 'Implementation COP'. This perfectly fitted the task Parties had with regards to carbon markets, where, after the historic adoption of the Article 6 Rulebook at COP26 in Glasgow, agreement had to be forged in Sharm El Sheikh on the finer details of operationalisation. Whether or not COP27 can be considered a success in this regard lies in the eye of the beholder. Parties did deliver three substantial decisions on the cooperative approaches (Article 6.2), the centralised mechanism (Article 6.4) and the framework for non-market approaches (Article 6.8). At the same time, much remains to be done before Article 6 rules are fully operational.

While negotiations are slowly moving forward, carbon markets outside the UNFCCC are gaining traction. COP27 saw the announcement of several new initiatives that either directly or indirectly rely on carbon markets and results-based climate finance. COP27 also provided a forum for voluntary carbon market (VCM) actors to meet and a space for all stakeholders to showcase activities. This parallel 'action track' is arguably becoming a key component of multilateral climate summits.

Finally, COP27 has been an African COP. While this has influenced the overall focus of the conference on adaptation and loss and damage, it played no visible role in the Article 6 negotiations. Neither the special circumstances of Africa nor the preferential treatment of least developed countries (LDCs) was discussed. This paper however seeks to interpret the COP results on carbon markets through the lens of African priorities.

2. ASSESSING NEGOTIATION RESULTS THROUGH THE LENS OF AFRICAN PRIORITIES

After the political breakthrough on the rules governing Article 6 in Glasgow, Parties faced the task to further elaborate the details of these rules in Sharm El Sheikh. What was supposedly a less political and more technical affair, nevertheless brought back some of the old dividing lines. It also brought new challenges as delegates had to decide on matters that required a deep technical understanding. Ahead of COP27, the UNFCCC secretariat had prepared a series of technical papers on Article 6.2, Article 6.4, and Article 6.8 amounting to over 200 pages. Negotiations then started on the basis of three informal negotiation texts prepared by the chair of the Subsidiary Body of Scientific and Technical Advice (SBSTA). COP27 was a success in so far as it delivered compromise on all three sub-Articles and advanced the operational-isation of Article 6. The process was however arduous, and many decisions were postponed to future sessions.

2.1. ARTICLE 6.2 – EDGING FORWARD TOWARDS IMPLEMENTATION

Negotiations of the further operationalisation of the Article 6.2 guidance focused on four main topics: elaborating the outlines for reporting, defining how authorisation works, designing the Article 6.2 infrastructure and adopting the guidance for the technical expert review (TER). These topics had been identified as the most critical for the operationalisation of cooperative approaches and for providing a framework for Article 6.2 transactions that are already moving forward.

Among the topics discussed, the design of the Article 6.2 infrastructure proved the most challenging. Many delegates seemed overwhelmed by deciding on the functioning of registries and their interconnection, especially those from small delegations. The level of experience with carbon market registries also noticeably differed among delegates, as under the Kyoto Protocol only developed country Parties (Annex I countries) had built up national registries. Inclusivity of the negotiations therefore was a concern for the African Group of Negotiators (AGN), exacerbated by the fast pace of the negotiations that made coordination difficult. The fact that under Article 6.2 no governing or technical body had been established to which technical decision-making could be outsourced also contributed to the pressure on delegates.

Despite these difficulties, Parties managed to reach compromise and adopted a decision on Article 6.2 (UNFCCC 2022a). The decision – half the length of the initial negotiation text proposed by the SBSTA chair – further elaborates the Article 6 Rulebook agreed upon at Glasgow, and contains key outcomes on infrastructure, reporting, the Article 6 technical review process, and technical experts training (see Table 1). However, many contentious or technically complex issues were deferred to future negotiations (see Figure 2 for a timeline of main future work and Table A 1 for the detailed mandates).

Topic	Main outcomes	Point(s) of contention
Reporting outlines	• Outlines for the (updated) initial report and the annex on information on cooperative approaches to the Biennial Transparency Report (BTR) (i.e. regular information)	• Illustrative text/tables ¹
Agreed Electronic Format (AEF)	Draft version of the AEF (i.e. draft tables for reporting annual information)	 Additional guidance to complete the tables² Urgency to adopt the draft version
Registries	 Clarification of the functionality of registries Definition of unique identifiers Basic requirements for interoperability Establishment of a voluntary forum for Article 6 registry system administrators and technical experts 	 Functionality of the registries Interoperability Guidance on authorisation of ITMOs towards use and first transfer
Centralised Accounting and Reporting Platform (CARP)	Agreement on form and functionBasis for management of common nomenclatures	Initial list of common nomenclatures
Article 6 Database	Clarification of form and function Definition of consistency check procedure	-
Technical Expert Review (TER)	 Specification of role, scope, and procedure for TER Outline for technical expert reports Guidance for the training programme for technical experts (i.e. aim, courses format and examinations) 	 Consequences of the review Confidentiality of information Sequencing between conclusion of review and provision of annual information

Table 1: Decision on Article 6.2: Main outcomes and points of contention (Source: Authors)

MAIN ISSUES

Registries

According to the Article 6 Rulebook, Parties shall have or have access to a registry, such as the international registry. COP27 aimed at adopting the minimum requirements for setting up the national registries and operationalising the international registry. These negotiations were particularly technical and overwhelming for many negotiators. They were hampered not only by divergent views, most notably different preferences for a centralised versus a decentralised registry architecture, but also the level of technicality of the discussion. Terms like 'interoperability', 'common nomenclature' and 'serialised units versus unique identifiers' dominated the discussion, which made it difficult to assess the implications of different choices. As mentioned above, disparities in the level of expertise among Parties also became evident. Three topics were central in the negotiations:

¹ The initial negotiation text included illustrative text and tables under each heading and an option to prescribe additional information as an annex to the initial report. The additional guidance became a point of contention and was not adopted. Some Parties (including the AGN) argued that there was no time to carefully review the illustrative text/tables, while other Parties feared that they would lead to additional reporting requirements.

² The initial negotiation text included guidance to fill in the AEF. The guidance explained, for instance, the differences between two of the tables included – not necessarily straightforward in the decision – and specified the cases where information is/is not required under the various columns. Parties did not find an agreement to adopt this additional guidance.

Functionalities of the international registry. There was a split between Parties advocating for a centralised registry infrastructure and those seeking decentralised solutions. The main difference in view was whether the holding and trading of internationally transferred mitigation outcomes (ITMOs) should happen in the international registry (i.e. whether the international registry would hold commodities) or whether trading should take place between national registries and only be reported as accounting amounts to the international registry. Those advocating for decentralised registries pointed to the fact that the Article 6 Rulebook does not require countries to connect to the international registry. Those in favour of a centralised infrastructure opined that it would make the operations of the system easier. African countries did not express a clear preference but were concerned with the soundness of the registry infrastructure as a whole and stressed the importance of the traceability of ITMOs back to the cooperative approach from which they originate. They also questioned how decentralised and centralised approaches could work in parallel and requested to postpone the decision on the infrastructure until further clarity had been established. Still, Parties managed to agree on a bridging proposal: an accounting and recording registry, which 'has accounts for ITMOs', 'records the actions related to ITMOs' and 'tracks, maintains records and accounts for ITMOs, including through unique identifiers' (UNFCCC 2022a, 8). The SBSTA work programme includes the development of recommendations for the accounts of the international registry and the role of administrators (see Table A 1).

Interoperability³ **between registry systems.** This leads to the question how various carbon market registries interact with each other, which took centre stage in Sharm El Sheikh. Relevant interconnections include:

- I. The national registries and the international registry. There was a common understanding that host Parties that do not develop a national registry should be able to connect, through the international registry, with national registries of other Parties when they participate in the same cooperative approach. However, how trading will practically work in these instances was not well-understood. Some Parties had proposed an alternative approach to interoperability, which is to cancel ITMOs in one registry while creating the same ITMOs in another registry with the obvious risk of inconsistencies (UNFCCC 2022b). It was also unclear whether Parties could trade in different registries since there were suggestions that a Party could have accounts in multiple registries when they are not connected (UNFCCC 2022b). Finally, the only agreed provision in this context was that it is voluntary for Parties to connect their national registries to the international registry.
- **II.** The international registry and the Article 6.4 mechanism registry. According to the Article 6 Rulebook, these registries shall be connected (UNFCCC 2021a). For such purpose, it is necessary to establish a protocol of communication between the two registries, which was discussed in parallel during both negotiations Article 6.2 and Article 6.4. However, decisions on the processes and needs to enable interoperability between the two registries were deferred to COP28.

^{&#}x27;Interoperability is understood as the ability of registry systems to exchange information' (UNFCCC 2022b, 8).

III. The international registry and third-party registries. There were also different views about whether registries of independent standards such as Verra or Gold Standard should be allowed to connect to the international registry, but this was not formally addressed in the decision. It is still the question whether third-party registries as well as meta registries, such as the Climate Asset Data Trust (CAD Trust), will have interconnections with the international or national registries or whether they will exist in parallel.

Figure 1 showcases in a simplified format the (potential) connections between the different registries and the current status of the negotiations on interoperability. The figure depicts the various scenarios in terms of infrastructure connection under Article 6.2 cooperation between two Parties: (i) both Parties have national registries; (ii) one Party has a national registry while the other has an account in the international registry; (iii) one Party has a national registry while the other Party uses a third-party registry. The potential connections of the Article 6.4 mechanism registry are also shown.

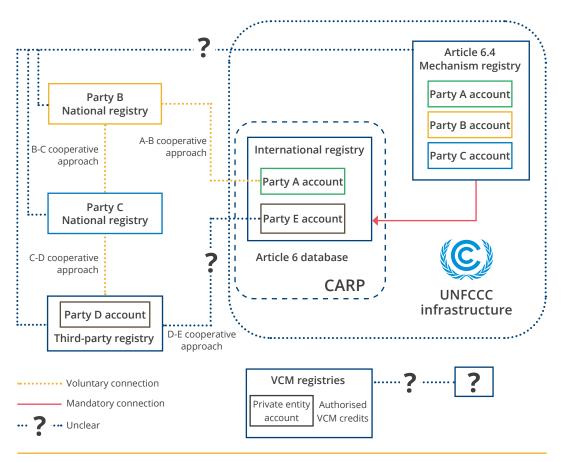


Figure 1: Overview of registry connections (Source: Authors)

In Sharm El Sheikh, Parties agreed on basic requirements for interoperability. The secretariat received a mandate to build the international registry by no later than 2024 and to make an interim solution available in the meantime. Key features of the registry are however still unclear, such as whether connected registries will merely exchange information, or unit trading will be possible across registries as well.

Common nomenclatures. Enabling interoperability of registries requires the use of common nomenclatures. These are 'a list of values for specific information attributes required for the reporting of annual information' (UNFCCC 2022a, 11). Common nomenclatures consist of unique codes and names for the terms that need to be regularly used for reporting in relation to cooperative approaches and on Article 6 infrastructure (UNFCCC 2022b). Common nomenclatures refer to, for instance, ITMO attributes, such as sector and activity type of the cooperative approach. They allow for a shared understanding of terminology across Parties and the comparison of information (UNFCCC 2022b). In the case of registries, interoperability is only feasible if terms are aligned and used uniformly across Parties and cooperative approaches. In addition to providing a definition, the decision contains basic management guidance and describes the roles of the secretariat and Parties. The agreement to control nomenclatures centrally through the central accounting and reporting platform (CARP) is expected to provide clarity in registry records and enable interoperability. However, negotiators did not come to an agreement on the list of common nomenclatures (as proposed in the initial negotiation text) and this issue was assigned for future work (see Table A 1).

Given the technical complexity of the subject, Parties decided on a capacity building programme to be carried out by the secretariat. As a novelty in Article 6.2, they also agreed on the establishment of a voluntary forum of Article 6 registry operators to close the expertise gap. The AGN successfully advocated for the inclusion of other technical experts beyond registry operators alone given the lack of functioning registry systems in African countries. The group also advocated for shifting emphasis to the inclusivity of the decision-making process rather than only capacitating less experienced Parties afterwards. The creation of the new forum therefore was welcomed by the AGN.

Technical Expert Review

The progress made in issues related to the TER might be the most outstanding achievement in the Article 6.2 decision, marking a significant progress compared to the Glasgow decision.⁴ The decision – which dedicates about a third of its length to these matters – adopts the guidelines for the TER, the training programme for experts and the outline for technical reports.

Through the decision, Parties reiterate that the role of the TER is to check consistency – not appropriateness – of the information provided through the different reporting requirements, as well as consistency across Parties. The decision also defines the scope⁵ and procedure for the TER. Additionally, following the decision, Parties can start nominating technical experts for the roster and the secretariat⁶ can proceed with the training programme based on the general guidelines adopted.

⁴ The decision 2/CMA.3 adopted in Glasgow only included four paragraphs in this matter (pa. 25 – 28) with brief overarching guidance.

⁵ The information to be reviewed includes: (i) (updated) initial report; (ii) regular information (BTR annex); and (iii) the results of the secretariat's consistency check following the submission of information to the Article 6 database.

⁶ The secretariat is responsible for the development and implementation of the training program.

There were several points of controversy in relation to the TER, which included:

Consequences of the review. One of the major concerns for some negotiation groups, including the AGN, was how to ensure environmental integrity of cooperative approaches and ITMO trading when inconsistencies are recurring or Parties are providing insufficient information. The non-punitive nature of the Paris Agreement limits the consequences of the review. The only slightly punitive option is the 'naming and shaming', which was strengthened in the decision by making information on individual inconsistencies publicly available in the CARP. SBSTA will further consider the options for dealing with recurring inconsistencies and a decision is expected at COP28.⁷

Confidentiality of information. Prior to COP27, the secretariat proposed allowing the designation of information as confidential 'to protect the private nature of legal arrangements and transactions across cooperative approaches' (UNFCCC 2022b, 25). However, the narrow proposal by the secretariat turned into a general license for Parties to label any information as confidential without providing a justification – as per the adopted decision. Some Parties urged to at least make it mandatory to provide a basis and reason when information is designated as confidential. However, the final text only encourages Parties – by using 'should' instead of 'shall'– to provide a basis – not a reason. The consequences of this decision are to be seen. Some Parties, including many African countries, fear that this might reduce the scrutiny of the Article 6.2 mechanism, possibly impacting its integrity and credibility. During the negotiations, no examples were mentioned of the type of information whose disclosure might be sensitive.

Prescribing what review teams *shall not do*. A paragraph explicitly stating what the Article 6 expert review teams shall not do caused unexpected confrontations between negotiation groups. The paragraph establishes that political judgements are not allowed nor is the assessment of the adequacy or appropriateness of Parties' Nationally Determined Contributions (NDCs) and cooperative approaches they participate in – as well as associated activities and authorisation decisions. Despite the controversy, the paragraph is part of the final decision adopted.

Sequencing and urgency of the Agreed Electronic Format⁸. An additional point of contention was the sequencing and timing of the submission of the initial report, the Article 6 TER and the submission of the Agreed Electronic Format (AEF). The sequence between these elements affects the urgency to adopt the draft version of the AEF. Some Parties opined that adopting the AEF was not a priority, defending that the submission of the AEF should only happen after Parties have submitted the initial report, the report has been reviewed and consequences have been addressed.⁹ Agreeing with this view, the AGN requested time to digest

⁷ In particular, Parties are invited to submit views and SBSTA to provide recommendations for COP28 on: (i) the 'process of identifying, notifying and correcting inconsistencies in the data on the Article 6 database'; and (ii) consequences when inconsistencies are found, how should the Party respond to recommendations and implications of 'non-responsiveness'.

⁸ The AEF refers to the format (i.e. tables) in which the annual information is submitted to the UNFCCC.

⁹ In the AGN's view it is key to submit the initial report and make the results of the review public before summiting the annual report. They suggest the following sequencing: 1. Submission of the initial report; 2. TER; 3. Consequences of the initial review; 4. Publication of the review result; and 5. Submission of the AEF.

the tables of the draft AEF included in the negotiation text in order to assess the implications and how transparency is ensured. Other Parties defended the urgency to adopt the AEF. They argued that Article 6 pilots are already ongoing and delaying decisions on reporting would be detrimental to the mechanism's transparency. Despite the different views in the negotiation room, the draft version of the AEF was adopted. As part of the SBSTA work programme, a draft of the AEF will first be tested and the issue of sequencing will further be addressed (see Figure 2 and Table A 1).

Authorisation

The authorisation of ITMOs was a cross-cutting contentious issue in both the negotiations under Article 6.2 and the Article 6.4 mechanism (see below).

Initially, the Article 6.2 draft negotiation text contained clarifications on: (i) the timing of ITMOs authorisation; (ii) the concept of first transfer; (iii) timing of the application of corresponding adjustments; and (iv) that the first transfer cannot be modified once it occurs. Additionally, the text listed the minimum elements that authorisation letters should contain – for authorising entities and use of ITMOs. It also attempted to clarify if, and under which circumstances, changes to authorisation are possible. It is worth noting that issues related to authorisation were not formally on the COP27 agenda given that the Glasgow decision did not mandate SBSTA to provide recommendations on these matters. Nevertheless, authorisation was identified as a priority topic, which Parties had already discussed informally as part of the OECD's Climate Change Expert Group process. These issues proved highly controversial and Parties could not find a compromise, deferring the decisions to COP28 (see Figure 2 and Table A 1). It also became clear that issues relating to authorisation such as timing and format are intertwined with the design of the infrastructure and the processes for the reporting, and as these matters took precedence, the discussion of authorisation took a backseat.

WORK AHEAD

In most of the cases when Parties could not find compromises and decisions were not adopted in relation to the points of contention previously summarised, Parties are invited to submit their views in 2023. Submissions are thus welcome for several issues related to reporting, infrastructure, TER, and authorisation (see Table A 1 for details). The work programme for SBSTA and the secretariat towards COP28 also aims to solve these crunch issues together with addressing other important matters that were postponed due to prioritisation and time limitation. Some issues, such as further guidance on how to implement corresponding adjustments, have been directly deferred to COP29 (see Figure 2 and Table A 1 for more details). Overall, the negotiations resulted in a two-year work programme for the SBSTA and the secretariat that aims to be more realistic than the mandates resulting from Glasgow.

¹⁰ See Global Forum on the Environment and Climate Change – September 2022.

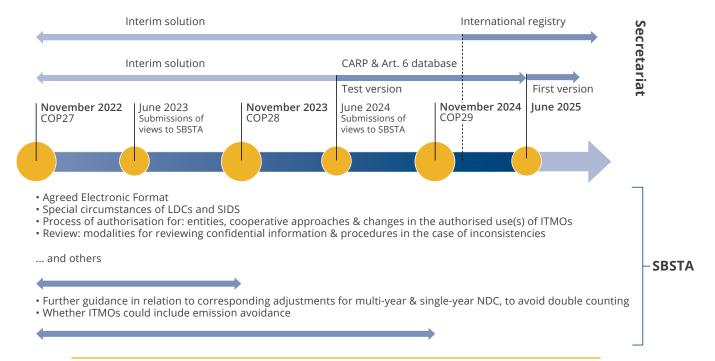


Figure 2: Work ahead for Article 6.2 (Source: Authors)

2.2. ARTICLE 6.4 – IMPORTANT PROGRESS BUT BIG-TICKET ITEMS YET TO BE RESOLVED

Although the decisions adopted in Sharm El Sheikh do not allow for the immediate operationalisation of the Article 6.4 mechanism, relevant progress was made on a number of issues and, as for Article 6.2, COP27 resulted in a more realistic work programme than the one coming out of Glasgow.

A key contributor to the Article 6.4 decision were the decisions taken by the Article 6.4 Supervisory Body (A6.4SB). The A6.4SB became functional with the appointment of all its members in July 2022 and held three in-person meetings between July and November. Starting its work later than expected, the body was able to take key decisions relating to the rules and procedures for its own decision-making and the fee structure for the Share of Proceeds (SOP). However, the A6.4SB was unable to deliver on all the mandates received from Glasgow. It could not conclude its consideration of principles for baseline methodologies under the Article 6.4 mechanism and neither its discussions on activities involving removals.

Following the inputs provided by the A6.4SB, Parties adopted guidance on the SOP, besides elaborating on the rules concerning reporting, the operations of the mechanism registry and the delivery of Overall Mitigation in Global Emissions (OMGE). Issues surrounding authorisation and interoperability, discussed above, were also heavily debated in the context of Article 6.4.

Finally, after the Glasgow decisions, Parties looked at refining the guidance for the transition of Clean Development Mechanism (CDM) activities to the Article 6.4 mechanism, operationalising the procedure for requesting transition, including for Certified Emission Reductions (CERs), and providing timeframes for the conclusion of operations of the CDM. A key result of

the negotiations therefore was the mandate to the A6.4SB to develop a template for requesting transition by June 2023 and operationalise the full transition procedure before COP28.

Table 2 presents an overview of the main decisions taken on Article 6.4.

Topic	Main outcomes	Point(s) of contention
Reporting on Article 6.4 activities and issued Article 6.4 Emission Reductions (A6.4ERs)	Adoption of guidance	Timing of authorisation of A6.4ERs (at registration, issuance or at any time)
Operations of the mechanism registry	 Definition of form and functions (e.g., tracking, account types) Clarification of transaction procedures Non-authorised A6.4ERs (mitigation contribution A6.4ERs) may be used, inter alia, for results-based climate finance, domestic mitigation pricing schemes, or domestic price-based measures 	• Interoperability with international registry ¹¹ and use of non-authorised A6.4ERs
Share of Proceeds for administrative expenses and for adaptation	Adoption of the detailed fee structure proposal of the A6.4SB	 Whether corresponding adjustments apply to the SOP raised for non-authorised A6.4ERs
Overall Mitigation in Global Emissions	 Mandatory cancellation of 2 per cent for the delivery of OMGE shall apply to autho- rised A6.4ERs and mitigation contribution A6.4ERs Activity participants may request addi- tional cancellation 	• Whether mandatory cancellations for the delivery of OMG apply to all A6.4ERs ¹²
Rules of procedure of the Supervisory Body	Adoption of A6.4SB proposal	-
End of current crediting period of transitioned CDM activities	Clarification of length of crediting period applying to transitioned activities	-
Activity design for transitioning CDM activities	 Guidance on demonstration of compliance with A6.4 requirements to be developed by the A6.4SB Guidance on interim solutions in the absence of applicable mechanism methodology Transitioned activities to apply same Global Warming Potential as A6.4 activities 	List of requirements that transitioning CDM activities need to comply with
Transition process for CDM activities	 Clarification that requests must be submitted to Designated National Authority (DNA) and secretariat Mandate to A6.4SB to develop request templates (June 2023) and a transition process (by COP28) Clarification of SOP for transition requests and provisional requests 	Pace at which CDM transition is addressed
Use of CERs for achievement of first and first updated NDCs	Detailed guidance on transfer process for CERs from CDM registry Guidance for use of CERs and reporting	Use of CERs for purposes other than towards achieve- ment of first (updated) NDCs

Table 2: Decision on Article 6.4: Main outcomes and points of centention (Source: Authors)

¹¹The question is whether authorised A6.4ERs would be traded as ITMOs in the international registry or in the mechanism registry and if authorisations could be revoked.

¹²The debate centred on whether it would be coherent with the spirit of delivering OMGE to impose mandatory cancellations on non-authorised A6.4ERs, since there are no corresponding adjustments associated to them and therefore there is no actual impact on national registries.

MAIN ISSUES

Authorisation

In terms of the Article 6.4 mechanism, the issue of timing of authorisation also arose – in this case in the context of reporting requirements. The initial negotiation text reflected the three main views in the negotiation room: (i) the statement of the authorised use of Article 6.4 Emission Reductions (A6.4ERs) should be provided at registration of the mitigation activity; (ii) at issuance of A6.4ERs; (iii) at any time, leaving the decision at the host Party's discretion. The AGN strongly supported the third view, arguing that host countries may only be able to decide at a later stage if there is enough headroom in their NDC for authorising A6.4ERs. In the opinion of the AGN, the other options would not be practical since they imply aligning the political processes with the processes of the project cycle by force, while these follow a different logic and timeline. Furthermore, the text included provisions concerning the potential revision of the authorisation statement. None of these crunch issues could be resolved and they became part of the SBSTA work programme (see Table A 2).

Share of Proceeds and Overall Mitigation in Global Emissions

In the Article 6 Rulebook, Parties decided on the general structure of the SOP and the OMGE. The agreed OMGE is a 2 per cent cancellation of issued A6.4ERs. In terms of SOP, as under the CDM, it is levied for administrative expenses and for adaptation. In a departure from the CDM, however, the adaptation SOP is financed from three sources of funding: an in-kind levy of 5 per cent of issued A6.4ERs, a monetary fee whose level is to be decided by the A6.4SB and thirdly, funding raised under the administrative SOP that has been levied in excess to the funding needs of the administration (see Table 3).

In Sharm El Sheikh, Parties agreed on the further operationalisation of the SOP for administrative expenses and adaptation by adopting the detailed proposal made by the A6.4SB on the fee structure. For the administrative SOP, the A6.4SB recommended maximum monetary fees for processing requests in the activity cycle and differentiated by the size of the activity (see Table 3). The body will determine a specific level for each fee type when developing procedures for processing such requests under the mechanism, setting low fee levels where appropriate. The A6.4SB will periodically review the level of SOP for administrative expenses for the sound operation of the body and for enabling a periodic contribution of funds to the Adaptation Fund. Importantly, the Sharm El Sheikh decision also stipulates that administrative fees are waived for activities in least developed countries (LDCs) and small island developing states (SIDS).

For the operationalisation of the adaptation SOP, Parties decided in Sharm El Sheikh that the Adaptation Fund Board shall develop a strategy on monetising A6.4ERs levied in-kind. They also agreed that the monetary fee for adaptation is set as the collection of 3 per cent of the fee paid for each request for issuance of A6.4ERs, which will be transferred annually to the Adaptation Fund. The A6.4SB may modify this fee level and process in the future based on its review of the implementation of the provision. Through an annual review, Parties will also determine the level and frequency of the periodic contribution of unused funds received from the SOP for administrative expenses to the Adaptation Fund.

Finally, COP27 clarified the processes necessary for delivering the OMGE by elaborating on the possibility for activity participants to request mandatory cancellation of issued A6.4ERs on top of the minimum required 2 per cent, which was decided in Glasgow.

An overview of the SOP structure and OMGE provisions is shown in Table 3.

Share of Proceeds for administrative expenses			
Size (t of CO ₂ e)	Registration fee (max)	Issuance fee	0,20 USD max per A6.4ER ¹³
Up to 15,000	2,000 USD	Inclusion fee ¹⁴	1,000 USD max
Between 15,001 and 50,000	6,000 USD	Renewal fee	Same as registration fee
Over 50,000	12,000 USD	Post-registration change fee	2,000 USD

Fees are waived for activities in LDCs and SIDS

Share of Proceeds for adaptation		
In-kind	5 per cent of A6.4ERs at issuance	
Monetary	3 per cent of A6.4ERs issuance fee paid for each request	
Monetary	Periodic contribution of unused funds generated by SOP for administrative expenses (level and frequency to be decided by the CMA)	

Overall Mitigation in Global Emissions			
Mandatory cancellation	2 per cent of issued A6.4ERs		

Additional mandatory cancellation if requested by activity participants

Table 3: Article 6.4 mechanism fee structure and overall mitigation in global emissions (Source: Authors)

Mitigation contribution A6.4ERs

During the discussions, some Parties debated the specific role of non-authorised A6.4ERs, which in the end were re-baptised as 'mitigation contribution A6.4ERs'. This provision is somewhat confusing. The decision specifies that mitigation contribution A6.ERs 'may be used, inter alia, for results-based climate finance, domestic mitigation pricing schemes, or domestic price-based measures, for the purpose of contributing to the reduction of emission levels in the host Party' (UNFCCC 2022c, 9). The purpose of this specification is not immediately clear, as it does not limit the possible uses only to pricing schemes and results-based climate finance by adding 'inter alia', which would cover the VCM. Moreover, the distinction between 'mitigation pricing schemes' and 'domestic price-based measures' is also unclear. Lastly, clarifying that the use of these credits is 'for the purposes of contributing to the reduction of emission levels in the host Party' does not seem logical, since the use itself of A6.4ERs would not reduce emissions in the host country, but it is rather the Article 6.4 activity that would do so. In practice,

¹³ Proportional to the amount of A6.4ERs requested for issuance.

¹⁴ Component Project Activities in registered Programme of Activities.

this provision does not substantially alter the status of non-authorised A6.4ERs, but will likely have repercussions on the type of claims that can be made through their use.

CDM transition

CDM transition is a cross-cutting issue that is addressed by both Paris Agreement and Kyoto Protocol bodies (CMA and CMP). The negotiations in the CMA and CMP focused on the following main issues:

Implementing the CDM transition process. A key development coming from COP27 was the mandate to A6.4SB to develop a procedure to request transition, including the relevant forms, by June 2023. This was one of the priorities of African countries, which aimed at refocusing the work of the A6.4SB on urgent matters related to CDM transition. The A6.4SB will have to operationalise the transition process and report back to CMA5 at the end of 2023, without formal approval by the Parties. This solution was adopted with the view of speeding up the transition process and giving much-needed certainty to project developers and host countries regarding the transition timeframes. It is now up to the A6.4SB to operationalise the Article 6.4 activity requirements for the transition process, and to develop the procedure for the transitioning activities to demonstrate compliance.

In Sharm El Sheikh Parties specified that requests for transition shall be submitted to the host country's DNA and the UNFCCC secretariat. Requests for transition will be subject to the SOP applicable to requests for registration under the Article 6.4 mechanism. Importantly, the effective date of transition may be deemed to be as early as 1 January 2021, irrespective of the A6.4SB approval date of the request. This would allow the recovery of past vintages.¹⁵

Furthermore, the decision gave more clarity regarding the current crediting period of transitioned CDM activities and the application of methodologies. The Glasgow decision stipulates that an activity may apply the current CDM methodology until the earlier of the end of its current crediting period or 31 December 2025. If the crediting period has ended and there is no applicable Article 6.4 mechanism methodology in place yet, transitioning activities may apply interim solutions to be provided by the A6.4SB.

Requirements. According to the Glasgow guidance, transitioning activities need to comply with all the requirements for the activities under the Article 6.4 mechanism. These requirements were a contentious topic during the negotiations. The early negotiating text contained a list of four requirements (taken from the Glasgow decision) that the transitioning activities needed to comply with, ranging from delivering real, measurable, and long-term benefits, to ensuring additionality. The underlying logic of including such list was unclear, as the transitioning activities need to respect the same criteria that are applicable for activities that directly request registration under the Article 6.4 mechanism. In the end, the list was cut from the final decision, which now simply specifies that transitioning activities will demonstrate compliance with the Article 6.4 rules, modalities and procedures requirements according to guidance to be provided by the A6.4SB.

¹⁵ Currently CERs cannot be issued for emission reductions taking place in 2021 and later, under the CDM temporary measures. Setting a retroactive transition date will therefore permit the issuance of A6.4ERs with 2021 and later vintages for transitioned activities.

Post-2020 CERs. Another hotly debated point concerned the possibility to issue post-2020 CERs. At present, the CDM Executive Board (CDM EB) does not issue CERs under the CDM for emission reductions occurring on or after 1 January 2021. Requests for issuance of post-2020 emission reductions can be submitted to the CDM EB under the temporary measures, but such submissions will be recorded as 'provisional' after the completion of the analysis, and only be finalised after further guidance from the CMP. The CDM EB also points out that it might not be possible in the future for the respective A6.4ERs to be issued under the Article 6.4 mechanism (CDM Executive Board 2021). Representing African priorities, one Party proposed during the negotiations to request the CDM EB to explore the possibility of enabling the use of provisionally recorded CERs for voluntary cancellation, i.e. for purposes other than compliance under the Kyoto Protocol or the Paris Agreement (IISD 2022). This would have provided an intermediate source of revenue to CDM project developers that have yet to complete the transition and levelled the playing field with the independent standards. However, the proposal did not gain sufficient traction as other Parties argued that the issuance of post-2020 CERs had already been ruled out at COP26.

Wrapping up the CDM. Finally, the timeframes regulating the wrap-up of the CDM operations were also discussed. The negotiating text contained options giving a clear indication for the conclusion of specific CDM processes, such as CER issuance, representing the viewpoint of some Parties that wanted to set deadlines. However, developing countries were wary of committing to a precise timeline for the operations of the CDM beyond the second commitment period of the Kyoto Protocol (post-2020), resulting in a final decision that requests the secretariat to produce a technical paper on the matter for discussion at COP28.

WORK AHEAD

In 2023, Parties will be able to make submissions on the issues related to emission avoidance and conservation enhancement activities, mechanism registry interoperability, and authorisation statement, among others. An overview of the work ahead for Article 6.4 is shown in Figure 3 and in Table A 2. The work ahead regarding CDM transition is summarised in Figure 4. Moreover, the Article 6.4 Supervisory Body is expected to undertake a comprehensive technical work programme throughout 2023 that serves to operationalise the mechanism and report back to Parties at COP28.

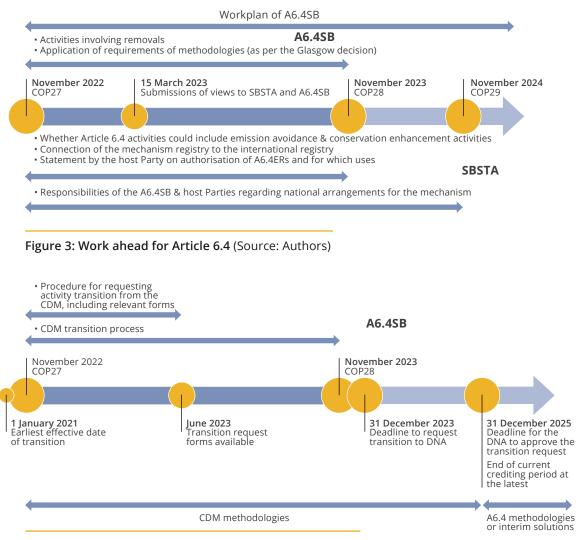


Figure 4: Work ahead on CDM transition (Source: Authors)

2.3. ARTICLE 6.8 – HOW TO MAKE THE WORK PROGRAMME TANGIBLE?

The Glasgow decision on Article 6.8 defined the overall goal of Non-Market Approaches (NMAs), the basic criteria for participation, and the initial focus areas of the mechanism, as well as established the Glasgow Committee on NMAs. The aim of COP27 was to operationalise and mandate work under the NMAs work program (UNFCCC 2021b).

The negotiation room was divided between Parties strongly pushing for the operationalisation of Article 6.8 – including the AGN and other developing Parties – who see Article 6.8 NMAs as a vehicle to mobilise financial resources towards the Global South. Some parties envisage NMAs as important tools to assist in the implementation of NDCs, with important co-benefits for sustainable development and poverty eradication in the context of equity and common differentiated responsibility (UNFCCC 2022d). Other Parties, however, still struggle to understand the purpose and scope of the mechanism, and how it is additional to other provisions related to climate finance under the UNFCCC.

Topic	Main outcomes	Point(s) of contention
Work programme activities	 Adoption of schedule for implementation of the work program (divided into two phases) 	 Priority of the work program Second phase of NMA implementation
Web-based platform for NMAs	 Mandate to develop and operationalise the platform Definition of the potential purposes of the platform 	Purpose of the platform: matchmaking feature
Additional focus areas of the work programme of activities	Request to the Glasgow Committee on NMAs to identify and recommend additional focus areas	Criteria to select NMAs and focus areas
Enhanced networking and collaboration on NMAs	Invitation to Parties to use spin-off groups during meetings of the Glasgow Committee of NMAs	Creation of ad-hoc discussion groups

Table 4: Decision on Article 6.8: Main outcomes and points of contention

(Source: Authors)

MAIN ISSUES

Scope of Non-Market Approaches - Focus areas

The Glasgow decision established three broad initial focus areas for NMAs: (i) adaptation, resilience and sustainability; (ii) mitigation measures to address climate change and contribute to sustainable development; and (iii) development of clean energy sources. However, the decision did not limit the focus areas to those categories and invited Parties to submit examples of potential additional focus areas as well as initiatives which could be considered NMAs – including already existing initiatives and ideas for new initiatives (UNFCCC 2021b). Some examples of existing NMAs provided by Parties include the Adaptation Benefit Mechanism, REDD+ and The Local Climate Adaptive Living Facility (LoCAL) (UNFCCC 2022e).

Negotiators started the discussion on how to select NMAs and define the overall scope of the NMAs based on the mentioned submissions. The final decision requests the Glasgow Committee on NMAs to provide recommendations to future CMAs as appropriate (UNFCCC 2022f).

Web-based platform

The purpose of the UNFCCC web portal became a point of contention during the negotiations, with two diverging views:

- i. Developing countries advocated for having a 'matchmaking' feature which could allow linking initiatives with potential funding sources.
- ii. Developed countries defended that the platform should simply record planned and existing NMAs.

The final decision requests the secretariat to develop and operationalise the platform as part of the first phase (2023-2024) of the work programme implementation. The text leaves the purpose of the use of the web-based platform to the discretion of Parties, including its potential use

to 'undertake Party-driven facilitation and matching to identify, develop and implement NMAs and record the information on the UNFCCC web-based platform' (UNFCCC 2022f, 3).

Spin-off groups

There were also opposing views between Parties when it came to means of enhancing networking and collaboration on NMAs. While some Parties proposed the creation of working groups with the aim of providing opportunities to discuss outside the formal meetings, other Parties did not see the utility of such groups.

Finally, the decision echoes this idea and 'invites Parties to use, as appropriate, spin-off groups during the meetings of the Glasgow Committee on NMAs to enable more detailed discussions among interested Parties on specific topics identified by the Glasgow Committee on NMAs' (UNFCCC 2022f, 4). These spin-off groups however remain tied to the formal COPs and intersessional meetings.

WORK AHFAD

According to the adopted schedule for implementing the activities of the work program, the first phase (2023-2024) will focus on identifying and framing all relevant elements of the work programme activities and operationalising the UNFCCC web-based platform. The second phase (2025–2026) will aim at fully implementing the work programme activities following a learning-by-doing approach and drawing on inputs from the first phase.

Additionally, the Glasgow Committee on NMAs was requested to undertake an expedited and simple assessment of the progress and outcomes of the first phase at its 6th meeting, in November 2024, with a view to improving and recommending the schedule for implementing the work programme activities for the second phase, taking into account any additional relevant mandates received from the CMA5 for consideration and adoption by the CMA6.

3. DEVELOPMENTS ON THE GROUND

While the UNFCCC negotiations achieved a key milestone in finalising the Paris Agreement Rulebook, the pace of reducing global emissions remains dangerously slow in practice. As an initial attempt to address this gap, COP26 in Glasgow elevated the role of implementation-focused initiatives that complement the climate negotiations, compared to previous COPs. These initiatives (see Box 1) have been orchestrated focusing on crucial sectors and technologies as a new attempt to close the increasingly urgent mitigation gap¹⁶ and increase climate action. This parallel 'action track' was further strengthened at COP27 and has thus arguably established itself as an increasingly relevant core characteristic of multilateral climate summits. Many of these initiatives also have a direct relevance for carbon markets in Africa, in particular through voluntary carbon markets (see below).

According to the <u>UNEP Emissions Gap Report 2022</u>, global emissions need to decrease by 45 per cent by 2030 for a Paris Agreement-aligned pathway. Current pledges will bring a 2.4-2.6°C temperature rise by the end of the century.

While the actual impact of these newly established initiatives needs to be evaluated once they deliver concrete action, many of them are being backed by major emitters and economies and therefore have real potential to make a contribution to closing the mitigation gap. Moreover, there is a clear interplay between the UNF-CCC and other key diplomatic fora such as the G20. Indonesia, for example, as the G20 presidency at the time of COP27, was the other emerging economy besides Egypt that agreed with a small group of major development partners on a Just Energy Transition Partnership (JETP) reportedly with an 'initial' 20 billion USD (European Commission 2022). The key objective of these JETP cooperation approaches (see section 3.1. for more details on JETP) is to deliver climate finance at a larger scale than through previous channels to individual countries in order to boost their confidence in achieving and potentially enhancing their NDCs. Therefore, future COPs may increasingly serve a dual purpose

Box 1: Implementation-focused initiatives from Glasgow

Global coal to clean power transition

- Joint statement on ending international public support for the unabated fossil fuel energy sector by the end of 2022 by 25 countries and public finance institutions
- Coal phase-out by 23 nations and new members for the Powering Past Coal Alliance
- First Just Energy Transition Partnership: 8.5 billion USD for South Africa

Declaration on accelerating the transition to 100% zero-emission cars

 22 countries signed a pledge to reach 100% sales of new zero-emission cars and vans by 2035

Leaders' declaration on forest and land use

 'Halt and reverse' deforestation by 2030 pledge by 141 countries and increase finance for sustainable agriculture, forest management, conservation and restoration

Global methane pledge

 Methane emissions reduction of at least 30% from 2020 levels by 2030 by 103 countries, using best available methodologies to quantify emissions

of both advancing multilateral climate negotiations, which remains crucially important, but also exploring and pioneering new ways of delivering climate finance and action through this emerging action track.

The relevance of carbon markets for this action track remains fuzzy, although carbon market instruments, in particular the VCM, play a role. Especially since climate finance mobilisation continues to fall woefully short of actual needs, there is a greater burden on high-integrity carbon markets to mobilise resources. Moreover, different Article 6 piloting efforts advancing both readiness and implementation have also gained further traction and made steps towards more comprehensive international cooperation. There are several Article 6 pilots underway; some of them are predominantly focused on implementing crediting activities (e.g. projects and programmes) that aim at generating ITMOs and adaptation benefits, others will eventually be governed by Article 6 rules or will create favourable framework conditions for implementing Article 6 piloting, including capacity building (Greiner, et al. 2020).

This chapter outlines some of the most relevant initiatives launched at COP27 significant to African countries and how Article 6 pilots are moving ahead in the region, setting a precedent of early action in carbon market readiness.

3.1. ACTION INITIATIVES ANNOUNCED AT COP27

Africa Carbon Markets Initiative

On November 8, at COP27, the Africa Carbon Markets Initiative (ACMI) was launched as a new initiative sponsored by four organisations, the Global Energy Alliance for People and Planet (GEAPP), Sustainable Energy for All (SEforALL), United Nations Economic Commission for Africa (UNECA) and the UN Climate Change High-Level Champions. The initiative is focused on clean energy and sustainable development and aims to increase the generation of African carbon credits while ensuring that carbon credit revenues are transparent and equitable. ACMI's ambition includes the following four main goals (ACMI 2022):

- i. Scale African credit retirements to 300 MtCO $_2$ e per annum by 2030 and up to 1.5-2.5 GtCO $_2$ e by 2050.
- ii. Create or support 30 million jobs by 2030 and more than 100 million jobs by 2050 through carbon project development, execution, certification, and monitoring.
- iii. Mobilise up to 6 billion USD by 2030 and more than 100 billion USD per annum by 2050 to raise the quality and integrity of African credits.
- iv. Insure equitable and transparent distribution of carbon credit revenue (focus on local communities' revenues).

To achieve these objectives, ACMI developed a roadmap of 13 action programmes across the VCM value chain, which includes actions to be developed by the supply side (generation), standards, intermediation and financing, and demand side. Relevant actions that these actors will develop under the initiative, include, for instance, piloting of new project types and methodologies relevant to decarbonisation opportunities in Africa; identification of long-term, innovative financing models or solutions for critical geographic areas; ensuring integrity of carbon markets; and establishment of a biodiversity or nature credit model (ACMI 2022).

Japanese Article 6 Implementation Partnership

On November 16, at COP27, the Government of Japan launched the 'Paris Agreement Article 6 Implementation Partnership' (A6IP). At the time of the launch, 40 countries and 23 institutions had joined the partnership (Ministry of Environment 2022a). The partnership aims to promote international coordination for Article 6 capacity building, develop an information platform for Article 6 implementation, and support piloting and knowledge products (Ministry of Environment 2022b).

The first meeting of the A6IP took place in February 2023, and introduced its planned working groups (Authorisation WG, Reporting WG, and Tracking WG), proposed a workplan for 2023, and shared information on Article 6 capacity building activities. Throughout 2023, the Partnership will provide support mainly to government officials in the form of practical training, mutual learning, and other means of technical assistance, for instance, to develop methodologies (Ministry of Environment 2022b). While preparing for launching the A6IP, Japan held in

2022 a series of consultations and conducted a survey to map out existing capacity building activities of Article 6. Key findings suggest that current capacity building efforts largely focus on supporting participation in Article 6, with less attention on reporting and project development and implementation. Additionally, only a small number of countries have received assistance even though there are more than 100 countries willing to use Article 6 in their NDCs, with survey results highlighting the existence of regional gaps (Ministry of Environment 2022b). An upcoming update of the survey is expected to provide more solid data to avoid duplication of capacity building efforts and identify where the support is most needed (Ministry of Environment 2022b).

Energy Transition Accelerator

The US Special Presidential Envoy for Climate John Kerry, the Rockefeller Foundation and the Bezos Earth Fund announced on November 9, at COP27, the new public-private effort to unlock finance to Accelerate the Energy Transition (ETA). The initiative intends to catalyse private capital to boost the clean energy transition, accelerate the deployment of renewable power and the retirement of fossil fuel assets in developing countries (US Government 2022). The main goal of this partnership is to develop a high-integrity framework for the VCM that allows developing countries to attract funds for their clean energy transition at the national or subnational level, introducing the jurisdictional approach (like some projects in the forestry sector), to avoid leakages and to ensure that the emission reductions are additional and aligned with the sectoral transition strategies. Through ETA, the jurisdictions will receive fixed-price advance purchase commitments for verified emission reductions based on a predictable finance stream that can unlock upfront private finance at more favourable rates (US Government 2022).

Another key feature of ETA is that it commits to dedicate 5 per cent of the value of all credits generated through the ETA to international support for adaptation and resilience (Hodgson 2022). This seems to be a clear alignment of ETA with the Article 6.4 SOP for adaptation of 5 per cent, even though the Article 6.4 SOP is in-kind and ETA refers to the monetary value. While the Article 6.2 guidance remains vague on the level of the SOP, ETA is the first relevant initiative to commit to aligning with Article 6.4, which may set an important precedent for other Article 6.2 initiatives that may generate substantial adaptation finance through carbon markets, which is an important AGN priority.

The ETA initiative aims to receive input from governments, experts, the private sector, and civil society. Chile and Nigeria are among the first countries expressing early interest in exploring the ETA's potential benefits, while finance organisations such as Bank of America and Standard Chartered Bank have also expressed interest in being informed about ETA's development and potentially participate once it is designed. The ETA is expected to operate through 2030, possibly extending to 2035 (US Government 2022).

Nature-based solutions - Blue carbon becoming increasingly relevant

A new set of principles to build investable, high-quality blue carbon projects called the 'High Quality Blue Carbon Principles and Guidance' framework was launched at COP27 by a collaborative effort between Salesforce, Conservation International, The Nature Conservancy,

the Ocean Risk and Resilience Action Alliance (ORRAA), Friends of Ocean Action/Ocean Action Agenda at the World Economic Forum, and the Meridian Institute.

The document elaborates on five principles for high-quality blue carbon which are:

- i. Safeguard nature,
- ii. Empower people,
- iii. Employ the best information and carbon accounting principles,
- iv. Operate contextually and locally, and
- v. Mobilise high-integrity capital.

It also provides more detailed guidance on how to apply these principles in the context of blue carbon ecosystems by proposing a high-level definition of high-quality blue carbon and recommendations for participating in this kind of projects. The principles were derived through a global consultative process, consolidating existing knowledge and best practices to provide a shared vision for achieving high-quality blue carbon projects and credits for all stakeholders (Conservation International 2022).

Just Energy Transition Partnerships - New approaches to deliver mitigation action at scale

The 'Just Energy Transition Partnership' (JETP) was launched at COP26 in Glasgow as an initiative supported by the United Kingdom, the United States, France, Germany, and the European Union (collectively, the International Partners Group [IPG]) to accelerate phasing out of coal and reducing emissions in South Africa and supporting its decarbonisation efforts (IISD 2023). A political declaration was signed between the Government of South Africa and the IPG to mobilise an initial investment of 8.5 billion USD to support the achievement of South Africa's low-carbon future in line with the most ambitious NDC scenario possible (South Africa Presidency 2022). At COP27, South Africa published its 2023-2027 JETP Investment Plan, highlighting the focus areas where investment is required within the next five years (electricity, new energy vehicles, and green hydrogen). In addition, skills development and municipal capacity have been identified as cross-cutting priorities (South Africa Presidency 2022).

The second and third countries announced as beneficiaries of the JETP approach were Egypt and Indonesia. Also, at the Partnership for Global Infrastructure and Investment event at the G20 Summit held in parallel to COP27, Indonesia announced its JETP joint statement. According to the statement, Indonesia intends to mobilise 20 billion USD for the next three to five years from public and private sectors, using a mix of grants, concessional loans, market-rate loans, guarantees, and private investments (White House 2022).

Other relevant initiatives for African countries

The past year saw the launch of other relevant initiatives, such as:

Dakar Call to Action. On 7 July 2022, a joint declaration of Heads of State and Government to mobilise African countries towards supporting an ambitious development agenda across the continent was signed. It represents an action plan to design a common path toward the optimal use of World Bank Group financing to drive the sustainable development and economic transformation of the continent. The declaration encourages efforts to invest in low-carbon energy, including renewables and gas, which is considered a transition fuel for the continent to achieve universal access to electricity, tariff reduction, industrialisation, and job creation (World Bank 2022).

CDR certifier C-Capsule's first projects in Africa. C-Capsule is an initiative co-founded by Carbon Finance Labs and Evident to scale Carbon Dioxide Removal (CDR) in line with net zero. C-Capsule emits a tradeable carbon certificate generated for verified CDR. The initiative's representatives at COP27 announced that an Africa-focused carbon removals certification body aimed to register carbon credit-generating biochar facilities in December 2022. The scale would be small at first (around five projects in the first five years) with room for significant expansion (Carbon Pulse 2022b).

Global Carbon Trust. Michael Bloomberg's charitable organisation and Three Cairns Group announced at COP27 a new initiative to create the Global Carbon Trust (GCT), and the Carbon Storage Governing Council, to provide governance, increase the supply of credible projects, and facilitate the creation of standardised financial contracts to incentivise the participation in the VCM. These organisations will drive innovation and transparency and help scale the VCM. The GCT will be designed to supplement the existing carbon markets by offering an effective way to manage the supply and liquidity of high-quality carbon credits (Bloomberg Philanthropies 2022).

3.2. ARTICLE 6 PILOT ACTIVITIES ARE GAINING MOMENTUM IN AFRICA

Even prior to agreeing on the Article 6 Rulebook at COP26, the implementation of Article 6 initiatives, both capacity building and implementing mitigation activities, had already been moving ahead in frontrunner countries, and gained further momentum through progress on elaborating Article 6 rules. While COP27 outcomes described above may accelerate carbon market implementation in Africa, some countries had been engaged early on in developing Article 6 pilot activities and establishing institutional frameworks for participating in Article 6 mechanisms.

Ghana. Aiming to translate Ghana's carbon market strategy into concrete actions, different functional national arrangements needed to be defined. The Government of Ghana, through the Ministry of Environment, Science, Technology, and Innovation, prepared and launched Ghana's framework on international carbon markets and non-market approaches (known as 'framework document'), to highlight how their participation in the international carbon market complements the country's domestic and international climate finance resource mobilisation efforts to implement the NDC.

As part of Ghana's carbon market strategy, the government has engaged in partnerships to create cooperative approaches, project sourcing and development under the rules of Article 6.2, Article 6.4 and the VCM. So far, the government has already indicated its participation in cooperative approaches with Switzerland, Sweden, and Singapore.

As part of carbon market cooperation with Switzerland, emission reductions achieved with Swiss funding are transferred in accordance with a bilateral agreement and are (partially) used toward meeting Switzerland's NDC (KliK Foundation n.d.). Significant progress has been evident under the bilateral agreement signed in November 2020. The agreement includes nine mitigation activities at different stages (one authorised and under implementation, three under validation, three with letter of intent and under development, and two with an early stage Mitigation Activity Idea Note). The first authorisation statement for the international transfer and use of ITMOs from the mitigation activity 'Promotion of climate-smart agriculture practices for sustainable rice cultivation in Ghana' has been granted on November 2022 (CMO 2022), constituting a fundamental breakthrough for implementing bilateral cooperation under Article 6.2. For the other two bilateral agreements which Ghana has signed, the negotiation process is completed, but cabinet approval, as well as legal review, are still pending (CMO 2022).

Senegal. Senegal is another frontrunner with regards to Article 6 implementation. On 6 July 2021, Senegal and Switzerland signed an agreement for the implementation of climate mitigation activities under Article 6.2. This bilateral agreement establishes the legal framework that will govern the Article 6.2 engagement between the two countries. The three programmes included so far under this agreement focus on solar-powered electric vehicles, biogas digesters and sustainable waste management.

Moreover, in August 2022, the Government of Senegal and the Government of Japan signed a bilateral agreement to implement the Joint Crediting Mechanism (JCM) as an Article 6.2 cooperative approach. Both governments established the Joint Committee consisting of representatives from each government to oversee the implementation of the JCM. Part of the JCM credits issued from emission reductions and removals may be used towards the achievement of Japan's NDC as ITMOs. Both governments may authorise JCM credits for other international mitigation purposes, highlighting simplicity and environmental integrity as key objectives of the JCM (Ministry of Environment 2022c).

Moreover, Senegal has also been working with Global Green Growth Institute, funded by Norway, on developing an Article 6 strategy that will lead to developing key elements of the country's institutional framework for Article 6 participation.

Other African countries. Other countries in the region are making substantial progress in the implementation of Article 6.2 by signing bilateral agreements and/or Memoranda of Understanding with buyer countries, as well as preparing for CDM transition. In 2022, countries that entered into agreements to trade ITMOs included Gabon with South Korea, Morocco with Singapore and Switzerland, Malawi with Switzerland and Tunisia with Japan (JCM) (Carbon Pulse n.d.).

3.3. CAPACITY BUILDING IN AFRICA

The West African Alliance on Carbon Markets and Climate Finance (WAA) and Eastern African Alliance on Carbon Markets and Climate Finance (EAA) play a crucial role in supporting the development of Article 6 readiness and pilot activities through capacity building and stakeholder engagement. The Alliances are subregional coalitions of African countries, which pursue the same goal in two different subregions – foster sub-regional cooperation, enhance national readiness for the implementation of Article 6 carbon market instruments, as well as improving access to climate finance.

The WAA was established in 2017 to enable the participation of West African countries in carbon markets and to enhance access to climate finance under the Paris Agreement. Sixteen West African countries are members of the Alliance. Since its incep-

Box 2: Blueprint for Article 6 Readiness in member countries of the West African Alliance

The Blueprint for Article 6 Readiness in member countries of the West African Alliance was designed to support the development of a national Article 6 strategy for market-based cooperation, primarily in member countries of the WAA. Through the blueprint it is possible to:

- Identify and express the objectives of Article 6 participation in market-based cooperation (Chapters 2.1 and 2.2)
- Develop conditions and an institutional framework for approving activities and granting authorisation of transfers (Chapters 2.2 and 2.3), for supporting the CDM transition process to the Article 6.4 mechanism and the engagement with private sector (cross-cutting issues for CDM transition are highlighted through text boxes)
- Guide public stakeholders when negotiating bilateral agreements under Article 6.2 and when engaging with stakeholders (Chapters 1 and 2.3)
- Map steps to ensure compliance with Article 6 and Paris Agreement Rulebook (Chapters 2.2.2, 2.2.3, 2.3.2 and 2.4)
- Recommend actions to promote NMAs to international cooperation (Chapter 3).

tion, the Alliance has enabled the increased participation of West African countries in the UNFCCC negotiations on Article 6. Since 2020, the focus of the Alliance has been on strengthening the institutional capacity and support network of West African countries to enable their long-term engagement with carbon markets and climate finance under the Paris Agreement.

To achieve this objective, the Alliance published an 'Article 6 Readiness Blueprint' in June 2022 (see box 2), which breaks down the Article 6 Rulebook into manageable pieces of information that can orient Article 6 focal points. The Blueprint document is accompanied by a workshop series, which enables discussion and mutual learning among WAA member countries. An updated version of the Blueprint considering the results of COP27 and the insights from the workshop series will be published in 2023. In addition to capacity building and peer-to-peer exchange at the regional level, the WAA is supporting Article 6 readiness in several member states including Burkina Faso, Côte d'Ivoire, Liberia, Nigeria, Senegal, and Guinea. By combining regional and national activities, the WAA enables peer-to-peer learning in the region and harmonisation of approaches towards Article 6.

Furthermore, the Alliance maintains strategic partnerships with relevant actors in the Article 6 landscape, such as the UNFCCC, World Bank, NDC Partnership, UNDP, as well as bilateral partners such as Germany and the UK.

In Eastern Africa, the EAA, established in 2019, has been developing various activities: (i) to enhance the technical capacity of negotiators in Eastern Africa on international climate change policy and their national positions and the collective AGN strategy; (ii) to facilitate the interaction with the private sector through dialogues; and (iii) to strengthen capacity building on Article 6 mechanisms. The EAA organises workshops aimed to unpack the complexities of corresponding adjustments by providing practical training with draft templates, and to empower young professionals on carbon market topics. Moreover, the EAA has also been cooperating with the WAA in hosting virtual workshops on Article 6 readiness and preparing for climate negotiations, which further enhanced and broadened the peer-learning approach.

At the intergovernmental level, the decisions taken in Glasgow mandate the UNFCCC secretariat to design and implement a capacity building programme, including through its regional collaboration centres (RCCs), to assist Parties (particularly developing country Parties) in participating in the global carbon markets. RCCs have been working to support countries' NDC implementation in the areas of mitigation, adaptation, means of implementation, transparency, and cross-cutting matters since 2015 (Radschinski 2022). RCCs have been providing capacity building for Article 6, by organising different activities such as marketplace events during Regional Climate Weeks and regional Article 6 dialogues (UNFCCC 2023) (Radschinski 2022). The most updated capacity building work program towards implementation of Article 6.2 and 6.4 highlights the need to provide support through RCCs in several areas. For Article 6.2, it aims at supporting the development of institutional arrangements (including for reporting), supporting Parties in identifying how cooperatives approaches can enhance ambition, and assisting LDCs and SIDS in meeting Article 6.2 participation requirements (UNFCCC 2023). For Article 6.4, the priorities include supporting the establishment of institutional arrangements to meet Article 6.4 requirements, developing the technical capacity to design and set baselines in host Parties, besides supporting CDM transition (UNFCCC 2023).

Key issues to focus the capacity building work program on in the coming years (2023-2025) include: (i) access to repositories of resources and publications such as databases, libraries, websites, FAQs; (ii) consultation with Parties through RCCs, facilitating expert advice and arranging for conducting research; (iii) organisation of trainings and workshops at a global, regional, and country level (UNFCCC 2023).

4. CONCLUSIONS: IMPLEMENTATION OUTPACING NEGOTIATIONS?

At COP27, both technical negotiations and practical initiatives have clearly advanced the operationalisation of the Article 6 Rulebook and potential contribution of carbon markets to closing the mitigation gap. Still, this progress remains incremental on some important regulatory aspects of Article 6 operationalisation.

Operationalisation is subject to both national level readiness and progress at UNFCCC level. For Article 6.2, implementation on the ground has already begun to advance through pilot activities, transactions and work on regulatory frameworks (only Ghana has finalised its Article 6 framework in Africa). This pace is not yet matched by the operationalisation of the Article 6.2 guidance at the level of the UNFCCC. Essential elements such as the development of reporting templates and the design of the CARP are yet to be implemented and the technical expert review, among others, need to be finalised to fully operationalise the Article 6.2 guidance.

Even though Parties could not resolve many technical questions in Sharm El Sheikh and have a huge remaining technical work programme, they have given a far-reaching mandate to the secretariat in providing interim solutions for the international registry, the CARP, and the reporting outlines, as well as to enable the recruitment and training of technical experts. With these decisions, it is now in the hands of the secretariat to advance the operationalisation of the Article 6.2 guidance as quickly as technically possible and likely within this year. With the decisions on interim solutions, Parties have at least partially uncoupled the operationalisation of Article 6.2 from the resolution of outstanding issues in the negotiations. This makes sense given that NDC implementation periods have started and multiple Parties have already begun to develop and implement various types of cooperative approaches.

For the Article 6.4 mechanism, no similar mandates have been placed in the hands of the secretariat but operationalisation depends on the formal decision-making by Parties as well as the A6.4SB. It hinges, among others, on the adoption of Article 6.4 methodologies, accreditation of third-party entities, and the development of relevant templates and procedures (including for host Parties) by the A6.4SB, as well as the operationalisation of the mechanism registry by the UNFCCC secretariat. While preparatory work can progress, formal decisions from COP28 are needed on at least a few critical items such as methodological principles, as well as the operation of the mechanism registry for it to take effect.

Operationalisation of the Article 6.4 mechanism may be accelerated through existing interim solutions such as the transition rules applying to registered CDM activities and provisional requests under the temporary measures adopted by the CDM Executive Board for the post-2020 period. Sharm El Sheikh made these rules more operational by clarifying details of their application. A big step forward in this regard is the clear mandate given to the A6.4SB to fully operationalise and implement the transition process ahead of COP28 and to make the templates for requesting transition available by June 2023. This means that project developers and governments now have a clear timeline for which they can prepare by assessing relevant activities against host country NDCs and the Article 6.4 rules, modalities and procedures. After

years of theoretical debate about the magnitude of the CDM portfolio that might transition to the Article 6.4 mechanism, it will be interesting to see the actual pipeline of activities requesting transition by the end of the year, which is when the opportunity for doing so passes.

Article 6.8 already resulted in a clear mandate for operationalisation. At Sharm El Sheikh, Parties decided on two phases of implementation and to set up critical elements like the webbased platform during the first phase (2023-2024). In that sense, by making the web-based platform functional, the framework could start to be operational immediately.

Finally, practical implementation generates additional experience on an ongoing basis, which should be reflected in technical negotiations and rulemaking. Although the 'action track' has gained political momentum, it requires further grounding in political priorities, anchoring in NDCs, as well as stronger alignment with capacity building and technical negotiations on operationalising the Article 6 Rulebook. Moreover, to enable African countries to fully participate in and benefit from Article 6, much larger resource mobilisation from both public and private actors is required. This resource mobilisation should assign a well-defined and synergetic role to carbon market instruments as a key means of implementation for NDC targets, complementing other types of climate finance and capacity building. At least segments of the carbon market should go even further by seeking to contribute to the much-needed increase in global mitigation ambition. Ensuring that carbon markets deliver high integrity mitigation action, grounded in the Paris Agreement Rulebook, is therefore a key priority. Africa plays a crucial role in shaping these processes, making sure that African priorities are reflected. Upcoming work should echo the needs of African NDCs, economies, societies, and ecosystems, as well as prioritise investments grounded in fair benefit-sharing agreements that deliver not only mitigation outcomes, but also sustainable development contributions, in particular for local direct beneficiaries.

ANNEX

Table A 1. Article 6.2: Key issues for the work ahead - mandates from COP27 (Source: Authors)

Item	Body/activity	Year
Agreed Electronic	SBSTA / recommendations	November 2023 (COP28)
Format	Parties / feedback on draft version	30 April 2023
Special circumstances of Least Developed Countries and Small	SBSTA / recommendations	November 2023 (COP28)
Island Developing States	Parties / submission of views	June 2023
Review: modalities for reviewing confidential information & proce-	SBSTA / recommendations	November 2023 (COP28)
dures in the case of inconsistencies	Parties / submission of views	June 2023
Sequencing and timing of initial report	SBSTA / recommendations	November 2023 (COP28)
(submission, review & submission of the AEF)	Parties / submission of views	June 2023
Initial report	Parties / submission of views on potential challenges	-
Process of authorisation for: entities, coop-	SBSTA / recommendations	November 2023 (COP28)
erative approaches & changes in the authorised use(s) of ITMOs	Parties / submission of views	June 2023
Further guidance on	SBSTA / recommendations	November 2023 (COP28)
'first transfer' of ITMOs	Parties / submission of views	June 2023
Annual information: tables & possible implications of non-	SBSTA / recommendations	November 2023 (COP28)
GHG metric conversion methods	Parties / submission of views	June 2023
Article 6 database:	SBSTA / recommendations	November 2023 (COP28)
processes related to inconsistencies	Parties / submission of views	June 2023
International registry: need for additional functionalities to allow for transfer of A6.4ERs,	SBSTA / recommendations	November 2023 (COP28)
accounts, role of administrator & infor- mation submission	Parties / submission of views	June 2023
Common nomenclature: for cooperative	SBSTA / recommendations	November 2023 (COP28)
approaches, first trans- fer & authorised use(s) of ITMOs	Parties / submission of views	June 2023
Manual (with no formal status) for (updated)	SBSTA / recommendations (where appropriate)	June 2023
initial report & regular information	Secretariat / development and regular update	After ad-hoc workshop
International registry	Secretariat / implementation	Not later than 2024 (interim solution to be made available)

Further guidance in relation to corresponding adjustments for	SBSTA / recommendations	November 2024 (COP29)
multi-year & sin- gle-year NDC, to avoid double counting	Parties / submission of views	June 2024
Whether ITMOs could include emission	SBSTA / recommendations	November 2024 (COP29)
avoidance	Parties / submission of views	June 2024
Test version of CARP &	Secretariat / development & implementation	June 2024 (interim solution to be made available by January 2023)
Article o database	Parties / submission of views	Within 8 weeks of the release of the test version
First version of CARP & Article 6 database	Secretariat / development & implementation	June 2025
Various requests related to Article 6 implementation and capacity building (e.g., workshops, technical papers, etc.)	secretariat / miscellaneous	2023

Table A 2 Article 6.4: Key issues for the work ahead – mandates from COP27 (Source: Authors)

Item	Body/Activity	Year
Whether Article 6.4 activities could	SBSTA / recommendations	November 2023 (COP28)
include emission avoidance & conservation enhancement activities	Parties / submission of views	15 March 2023
Connection of the mechanism	SBSTA / recommendations	November 2023 (COP28)
registry to the international registry	Parties / submission of views	15 March 2023
Statement by the host Party on	SBSTA / recommendations	November 2023 (COP28)
authorisation of A6.4ERs and for which uses	Parties / submission of views	15 March 2023
Activities involving removals	A6.4SB / recommendations	November 2023 (COP28)
Activities involving removals	Parties / submission of views	15 March 2023
Application of requirements of methodologies (as per the Glasgow decision)	A6.4SB / recommendations	November 2023 (COP28)
Procedure for requesting activity transition from the CDM, including relevant forms	A6.4SB / development & operationalisation	June 2023
CDM transition process	A6.4SB / development & operationalisation	November 2023 (COP28)
Functioning and operations of the CDM in the future	secretariat / technical paper	November 2023 (COP28)
Responsibilities of the A6.4SB & host Parties regarding national arrangements for the mechanism	SBSTA / recommendations	November 2024 (COP29)
Capacity building programme	secretariat / implementation	-
Trust fund for SOP	secretariat / establishment	-

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