AFRICA EUROPE FOUNDATION

Climate Action Platform Africa

REPORT FOR COP28

Realising the full potential of carbon pricing and markets: Opportunities for the Africa-Europe Partnership

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1. Executive Overview

Carbon pricing is critical to the world achieving its global climate and socio-economic goals, and carbon markets can contribute to that being done efficiently, fairly, and equitably. Africa holds fundamental potential for 'climate competitiveness' in supplying carbon credits and low-emission products. Africa has high untapped renewable energy potential, the world's youngest and fastest growing workforce, and relevant natural assets and resources – three factors that define the technical feasibility and commercial viability of most economic activities that are needed to green production and consumption, and to remove carbon. As such, carbon pricing not only offers the potential to achieve global climate goals, but also to achieve economic growth and human development in Africa, and drive the fulfilment of various other Sustainable Development Goals (SDGs). In short, carbon trading holds a win-win opportunity to simultaneously advance climate goals in tandem with social, economic and environmental objectives (the so-called co-benefits).

Currently, Africa punches below its weight in meeting global and European demand for carbon credits, with a low market share in Voluntary Carbon Markets (VCM) and lack of access to the European Union (EU) Emissions Trading Scheme (EU ETS). The EU ETS, which currently trades at USD 100, is the largest compliance market in the world and a prominent example of how solid governance and rigorous Monitoring, Reporting and Verification (MRV) are drivers of a high-priced, efficient carbon pricing mechanism. The EU's Carbon Border Adjustment Mechanism (CBAM) is the first-of-a-kind pricing mechanism for embedded emissions and potentially a driver for the diffusion of carbon pricing around the globe. Increasing convergence between the rules governing voluntary and compliance markets is expected as Article 6 moves into implementation phase.

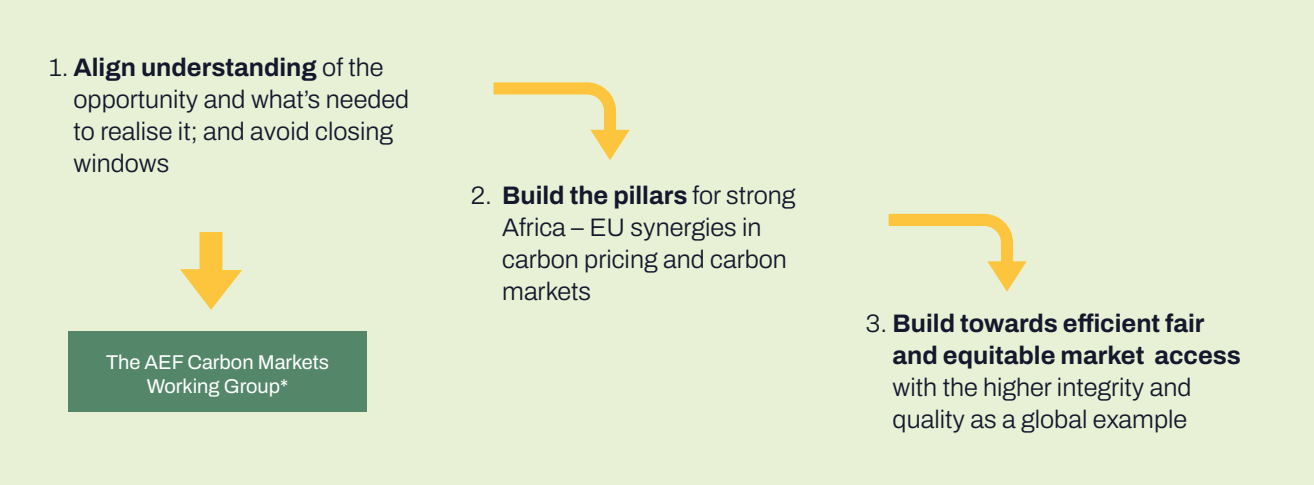
Carbon pricing and markets are complex, often volatile, and can be subject to manipulation and speculation by bad actors. Key conditions must be in place for high integrity carbon markets to proliferate – a particular key matter for the currently unregulated VCM. On the flip side, carbon pricing mechanisms and carbon markets have the greatest potential for global climate and socio-economic impact if they pair high requirements for integrity and quality with fair and equitable market access and revenue distribution. We identify and detail seven key pillars for strong carbon pricing and carbon markets:

1. Good national governance
2. Conducive policy and regulation
3. Fit-for-context methodologies, measured rigorously
4. Affordable project finance for suppliers
5. Information and tools to assess project quality and integrity
6. Market-based mechanisms for connecting supply and demand, and
7. Fair and equitable market access.

The ability for African carbon supply to access European markets will be contingent on the high environmental integrity of the credits certified. Simultaneously, African governments and project developers have a role to play in effectively building connections with the financiers and buyers in Europe who drive demand. Collaboration is needed to ensure convergent – not divergent – paths towards market-building in Europe and Africa. True partnership approaches can drive a symbiotic relationship, in which (1) African carbon credits and low-embedded emission products efficiently serve EU demand, (2) EU investment spurs both further economic growth and stability in African countries, and (3) African deployment of European and joint innovation helps accelerate industrial development, brings innovation down the cost curve to drive scale, and supports both European and African industrial actors in a quest for global competitiveness.

With true partnership and collaboration, Africa and Europe can be pioneers in carbon pricing and markets, and inspire, accelerate, and improve global climate positive growth and action.

We see three horizons to realise the full potential of carbon pricing and markets in the Africa–Europe partnership.



Horizon 1 focuses on developing the shared understanding and strategic alignment needed to drive effective Africa–Europe collaboration in the context of carbon pricing and markets. It should also make progress on time-sensitive alignment to avoid closing windows of opportunity for African contributions.

Horizon 2 is deeply technical and makes tangible progress towards short-term visible results. All efforts in this horizon need to be based on a continuously evolving understanding on what it takes to achieve the end goal of globally fair, equitable, and efficient market access with a high – and where possible, rising – bar on quality, and integrity. This will require not only technical support to African countries, but also adjustment of European policies and regulations – and crucially, the concurrent development of Article 6.2 partnerships to create a demand pull for these efforts.

Horizon 3 leverages strong market foundations to open up European markets to African credits and low-emission products. Importantly, the request here is not for exemptions or a lower bar. African carbon credits and low-emission products can and should meet a high bar on quality, integrity and social equity – the same bar asked of EU carbon credits – and if they meet these 'entry bars' to compete on markets, they should be able to compete on equitable terms, so that local, regional, and global impact can be optimised.

This position paper, launched on the occasion of COP28, represents an operational blueprint for 2024 to reinforce the Africa-Europe partnership on carbon markets.

**AEF Africa-Europe Carbon Markets Working Group, a platform facilitated by the Africa-Europe Foundation (AEF) to strengthen the Africa-Europe partnership by doubling down on efforts to grow African carbon markets, merging the continent's large carbon potential with Europe's long-standing expertise and lessons learned in the field.*

2. Glossary

AEF Working Group on Carbon Markets	Africa-Europe Carbon Markets Working Group, a platform facilitated by the Africa-Europe Foundation (AEF) to strengthen the Africa-Europe partnership by doubling down on efforts to grow African carbon markets, merging the continent's large carbon potential with Europe's long-standing expertise and lessons learned in the field.
African Carbon Markets Initiative (ACMI)	Announced at COP27, ACMI is a joint initiative that aims to grow the voluntary carbon market in Africa and create local jobs through implementation of a broad agenda.
Article 6	Article 6 of the Paris Agreement allows countries to voluntarily cooperate with one another to achieve the emission reduction targets set out in their Nationally Determined Contributions (NDCs). The two key clauses are Art 6.2, covers bilateral trading of Internationally Transferrable Mitigation Outcomes (ITMOs), and Art 6.4, which creates a new multilateral mechanism to replace the old Clean development Mechanism (CDM).
Carbon credit	A carbon credit is the confirmation of one tonne of CO2 equivalent emission avoided, reduced or removed from the atmosphere. These credits are bought by individuals, by businesses and other formal organisations, and by countries.
Corresponding Adjustment (CA)	A carbon accounting mechanism designed to ensure that each carbon credit only counts towards one country's NDC; or in other words, to protect against potential double counting. Many countries are developing CA policies in anticipation of Article 6 coming into force.
Carbon Border Adjustment Mechanism (CBAM)	Carbon related tariffs imposed on carbon intensive goods by the European Union on imported goods to ensure that domestic industries aren't disadvantaged by stricter environmental regulations. The CBAM targets energy intensive sectors, and currently covers aluminium, cement, electricity, fertilizer, hydrogen and steel, with further products to be added.
Carbon Dioxide Removal (CDR)	CDR refers to deliberate technologies, practices and approaches that remove carbon dioxide from the atmosphere. CDR also involves durably storing carbon after it has been extracted from the atmosphere, either in reservoirs such as vegetation, soils, geological formations, or the ocean, or in manufactured products.
Carbon Market Activation Plan (CMAP)	A blueprint for developing conducive policy frameworks for carbon markets, developed and implemented by the Africa Carbon Markets Initiative, in partnership with African national governments who are willing to participate.
Co-benefits	Various socio-economy, biodiversity, ecosystem and health benefits that are generated by many carbon projects, beyond the carbon credits they generate.
Conference of the Parties 27 (COP27)	The 27th annual gathering of the United Nations Framework Convention on Climate Change member states to negotiate global climate policies, action and agreements addressing climate change issues.
Carbon Offsetting and Reduction Scheme for International Aviation. (CORSIA)	An international program established by the International Civil Aviation Organization to offset and reduce carbon emissions from the aviation sector through a market-based approach, promoting sustainable aviation growth.
Direct Air Carbon Capture (DACC)	A technology that captures carbon dioxide directly from the ambient air and stores or utilizes it, aiding in the reduction of atmospheric greenhouse gas concentrations.
Engineered removals	Carbon removal techniques that are technology based (eg, DACC). Other types of removals are nature-based (eg, afforestation), and hybrid removals – which blend organic inputs with technology-enabled processes (eg, Biomass with Carbon Removal and Storage).
European Union Carbon Removal Certification Framework (CRCF)	Proposed first-of-its-kind regulation setting out a voluntary EU-wide framework to certify carbon removals generated in Europe. It sets out criteria to define high-quality carbon removals and the process to monitor, report and verify the authenticity of these removals.

European Union Emissions Trading Scheme (EU ETS)	The world's first and largest carbon market, where companies in the European Union buy and sell emissions allowances to comply with emission reduction targets, fostering emissions reductions in a cost-effective manner.
Greenhouse Gas (GHG)	Gases like carbon dioxide, methane, and water vapor that trap heat in the Earth's atmosphere, contributing to the greenhouse effect and climate change.
High Forest Low Deforestation (HFLD)	Used to describe countries with large areas of intact forests (>50% of original forest cover) and low rates of deforestation (<022% per year). African countries with this designation include Gabon and the DRC.
Integrity Council for Voluntary Carbon Markets (ICVCM)	An oversight body ensuring the credibility and transparency of voluntary carbon markets, verifying the quality and effectiveness of carbon offset projects. Supply-side corollary to the VCMI.
Inflation Reduction Act (IRA)	Passed by United States congress in August 2022, the IRA is a set of policies and incentives representing the single largest investment in climate and energy in American history.
Internationally Transferred Mitigation Outcomes (ITMOs)	Tradable units representing emissions reductions achieved in one country that can be transferred to another to help fulfill its climate commitments under international agreements.
Measurement, Reporting and Verification (MRV)	Processes for monitoring carbon projects, ensuring the volume of credits claimed is aligned to the methodology. For example, in a reforestation project the MRV process would measure the number of trees planted, their survival and growth rate. dMRV refers to digital tools for capturing and reporting data on carbon projects.
Nationally Determined Contributions (NDCs)	Specific climate action plans that each country submits under the Paris Agreement, detailing their emission reduction targets, strategies and policies.
Reducing Emissions from Deforestation and Forest Degradation (REDD+)	Projects that aim to maintain forests. This includes avoided deforestation, avoided forest degradation, conservation and/or enhancement of forest- carbon stocks, and sustainable forestry.
Science Based Target Initiative (SBTi)	Initiative providing guidance to companies in setting emissions reduction targets aligned with climate science, ensuring that corporate actions contribute to limiting global temperature rise; with the aim of preventing greenwashing.
Sustainable Development Goals (SDGs)	A set of 17 global objectives established by the United Nations to address social, economic, and environmental challenges, aiming to achieve a more equitable and sustainable world by 2030.
Voluntary Carbon Market (VCM)	A decentralized market where organizations and individuals can purchase carbon offsets voluntarily to compensate for their own emissions, often contributing to emission reduction projects elsewhere.
Voluntary Carbon Markets Initiative (VCMI)	An international non-profit organization that works to enhance the credibility and effectiveness of voluntary carbon markets to ensure they deliver real, verifiable and additional benefits to global climate targets. Demand-side corollary to the ICVCM.

3.Why carbon pricing and markets matter

Carbon pricing is critical to the world achieving its global climate and development goals, and carbon markets can contribute to that being done efficiently, fairly, and equitably.

Without carbon pricing, the world is unlikely to reach its climate goals, jeopardising humanity's future

Short of banning emissions altogether (which is practically impossible and politically unacceptable), the way to reduce and control emissions, is to put a price on emissions. That will create incentives to prioritise and advance lower- or no-emission alternatives, reducing the so-called 'green premium' of alternatives. Carbon markets are one of the many forms, but not the only one, that carbon pricing can take.

Carbon markets allow for resources to be focused efficiently and effectively

At their core, carbon markets are a mechanism to (1) price the negative externalities of greenhouse gas emissions, and (2) allow for the generation of a tradeable unit, in the form of a tonne of C02 equivalent. Pricing emissions in and of itself could also be done through direct taxation or other pricing mechanisms. Carbon markets add an additional layer: they allow for entities that incur the costs of their emissions, to pay other actors for an activity that helps the buyer meet its obligations or commitments, within limits of the regulations of the markets. This trade creates economic opportunities for actors who can cost-effectively realise the desired climate impact – and it allows the world to achieve climate results more efficiently, thus being able to achieve more with the same budget.

Of course, it can also mean that the buyer "gets off the hook cheaply" if the rules of the market allow the buyer to spend a low amount to fulfil their obligations; often referred to as 'greenwashing'. That defies the purpose of carbon pricing: it is necessary to put a sufficiently high price on emissions so that this emissions cost shapes economic decisions. The world needs "dirty" to be expensive, and low- or no-emissions to be the cost-competitive solution. The risk of greenwashing and the underpinned questionable integrity of certain carbon projects have raised questions on the integrity of carbon markets leading to hurdles impacting their expansion and credibility. For example, many regulated carbon markets have become wary of allowing foreign credits to be eligible for trade; and media exposure of greenwashing practices continues to challenge the credibility and acceptability of carbon markets overall.

We are convinced that we should not allow the challenges associated with carbon markets to lead us to abandon the idea altogether. It may not be easy to get it right but without putting a price on the externality of greenhouse gas emissions, one must either forbid emissions altogether or accept climate objectives will not be met. If implemented well, carbon pricing and carbon trading can be immensely powerful tools to achieve global climate objectives, spur sustainable development and to enable inclusive economic transformation. The tools are not perfect right now, which is unsurprising given how complex and rapidly evolving the field is. To avoid throwing the baby with the bath water, the flaws affecting carbon markets and its public perception need to be fixed. This position paper identifies measures, specifically related to Africa-Europe collaboration, that can help improve carbon pricing and carbon trading, so that they can live up to their full potential for the world.

4. Why carbon pricing and markets matter for Africa, Europe – and their collaboration

Europe – and more industrialised countries at large – will need to rely on supply of high-quality African carbon credits and low-emission products to achieve net-zero by 2050

The European Union has strong climate ambitions which most European countries are currently not on track to meet. Meeting these targets requires a rapid and fundamental transition of all aspects of the economy, including energy systems, industrial processes, transport, and land use. These ambitions, in a challenging economic context with rising cost-of-living, put a strain on Europe's limited stock of resources that can rapidly yield these results. Whereas Africa has a (super)abundance of untapped renewable energy potential, workforce, and relevant land and natural assets and resources paired with low existing emissions (and thus a smaller 'transition task'), the EU faces shortages, and competing demands on each of these. Moreover, permitting timelines tend to be longer in the EU.

Expanding upstream production capacity "green-from-the-start" in Africa is one of the fastest pathways that the EU can take to lower its industrial emissions, with increased supply chain diversification and positive benefits for many Sustainable Development Goals. Equally, Africa has a greater absolute and relative potential than the EU to generate carbon credits to address (as yet) unabatable emissions and undo historic climate damage.

Africa is uniquely placed to meet global demand for high quality carbon credits and low-emission products

Africa fundamentally has 3 sets of assets that make it a natural producer of carbon credits and to be a green manufacturing hub, as they are exactly the factors driving the technical feasibility and commercial viability of climate action interventions. These assets are:

- *Massive untapped renewable energy potential and low baseline emissions* – Africa has the potential to generate 50x the global anticipated electricity demand in 2040, thanks in large part to its massive untapped wind, solar and geothermal reserves. At the same time, given Africa's low baseline emissions, countries can invest in energy-intensive interventions (e.g., Direct Air Carbon Capture, DACC) without detracting from global decarbonisation efforts or jeopardising just transition timelines (unlike more highly industrialised countries).

- *Abundant natural assets and resources* – Africa is home to vast forests, peatlands, grasslands, mangroves, swamps, coral reefs and marine reserves – all of which are critical to climate and biodiversity, and have huge carbon sequestration potential. Moreover, these natural assets and resources hold the potential for coupling carbon objectives with social, economic and environmental benefits of great values for local communities. Equally, Africa has rich mineral deposits, both those that already mined at large scale such as bauxite and iron ore, as well as minerals that are critical to the world's energy transition such as copper and cobalt.

- *Young, entrepreneurial workforce* – Africa has a young workforce that can easily be trained and deployed across the carbon market ecosystem, and in climate action more broadly. It also is the world's fastest-growing labour force – in 2050, over 25% of the global labour force will be African and in 2100, 40%.

Based on these assets, Africa offers a compelling value proposition that combines cost-competitiveness with strong co-benefits:

- *Potential for cost competitiveness* – A key challenge – particularly for engineered removals – is delivering carbon credits at a competitive and sustainable price. African countries have the potential to be highly cost-competitive, driven amongst others by weather conditions (in particular for solar power – with a higher number of sun hours a years, higher hourly intensity, and lower seasonal variation than temperate climates) and lower unit costs for key cost drivers, such as labour. That said, high costs of capital, lack of certain skills, and strong tax incentives and subsidies in more industrialised countries, mean that this inherent potential does not

always translate into immediate competitiveness.

- Strong co-benefits – African projects deliver strong co-benefits over and above their climate impact, which also support the achievement of the SDGS. These include:
  - *Delivering important socio-economic benefits* – they improve livelihoods, create jobs, spur new economic and industrial activity.
  - *Providing solutions to pressing issues* – such as energy poverty, low and declining agricultural yields, air quality and health challenges due to cooking fuels and vehicle emissions.
  - *Helping to preserve natural ecosystems* – protecting and regenerating Africa's rich biodiversity, both on land and water.

Carbon pricing and carbon markets not only present an opportunity to drive the growth of African economies, but also to advance global climate and SDG commitments

The main objective of carbon pricing, as indicated in the first section, is to price the negative externality of emissions in order to make future-proof, climate-smart solutions more viable. Based on a historic pattern of economic growth and increase in emissions going hand-in-hand, economic welfare and climate action are often perceived to be incompatible. Yet with the right safeguards, eligibility criteria, and pricing levels, carbon pricing and carbon trading can generate consistent revenue streams for innovative African projects and business models that would otherwise not be financeable – either as a primary revenue stream or supplementary to projects that would otherwise not be economically viable. As such, carbon pricing and carbon markets can generate revenue and drive economic growth for African countries and communities.

Beyond a general contribution as an economic sector, sending a strong signal that growth can be realised *through* viable climate action, effective carbon pricing and carbon markets can have even stronger local and global socio-economic benefits.

Firstly, it can contribute to local job creation for African economies: carbon projects can channel significant revenue into local communities, whom are often distant from existing economic centres. They also help create new industrial and economic activity.

Secondly, activities focused on generating carbon credits and low-emission products have the potential to advance a wide range of SDGs. We are now at the half-way mark of the SDG agenda and progress is mixed at best. Carbon finance is a key driver for SDG13 (climate action), and an enabler for a range of other SDGs; SDG2 (no hunger) through climate-smart agriculture and yield enhancement, SDG6 (clean water and sanitation), SDG7 (affordable and clean energy), SDG 8 (decent work and economic growth), SDG9 (industry, innovation, and infrastructure), SDG11 (sustainable cities and communities), SDG12 (responsible consumption and production), SDG14 (life below water), and SDG 15 (life on land).

It is key to highlight these intersections and synergistic effects clearly in both communication and underlying methodologies and measurement. Given that different funders and buyers feel differently about the relative importance of different aspects, clarifying where carbon sequestration goes hand in hand with and further strengthens adaptation and resilience (for example in measures that strengthen soil carbon and soil health), will allow these projects to attract funders with an adaptation focus, some of which are sceptical of funding sequestration outcomes alone.

5. Carbon pricing and carbon markets state-of-play

Africa punches below its weight with a low market share in Voluntary Carbon Markets (VCM) and lack of access to the EU ETS. The EU ETS is the largest compliance market in the world and a prominent example of how solid governance and rigorous MRV are drivers of a high-priced, efficient carbon pricing mechanism. Increasing convergence between the rules governing voluntary and compliance markets is expected as Article 6 moves into implementation phase.

CBAM is a first-of-a-kind pricing mechanism for embedded emissions, and potentially a driver for the diffusion of carbon pricing around the globe. Careful consideration of CBAM's impact on African competitiveness is needed.

Carbon markets consist of compliance markets and Voluntary Carbon Markets (VCM). In 2022, compliance markets were valued at $865 billion, and the total traded value in VCM was ~$ 2 billion. Both VCM and compliance markets more than doubled in value between 2020 and 2022. Growth projections vary, with most estimates predicting VCM to reach $10 - $40 billion by 2030. At present, the EU Emissions Trading System (EU ETS) is the biggest compliance market scheme in the world. Similarly, Europe's Carbon Border Adjustment Mechanism (CBAM) is a global first-of-its-kind approach to pricing embedded emissions in products imported into the EU. Many other jurisdictions are shaping their carbon markets and other carbon pricing instruments – and many are looking to the experiences, lessons, and challenges from the EU ETS and CBAM to shape their mechanisms.

Structure of carbon markets: types, sizes, and prices

All credits traded in compliance markets, need to be authorised. The decision to authorise a credit is the prerogative of the host country (where the credit is generated). To be able to authorise a credit (which means it comes with a so-called Corresponding Adjustment, or CA – so the host country cannot count it towards its NDC achievement), the host country needs to have specific regulatory infrastructure – a carbon registry and a National Designating Authority that follows the rules as defined in Article 6 of the Paris Treaty.

Within compliance markets, there are different types of sub-market. One sub-market is government-to- government trading of authorised credits, also called Internationally Transferred Mitigation Outcomes (ITMOs), which are regulated by Article 6.2 (often called Article 6.2 credits). These ITMOs require for the application of CA and allow the buying country to meet (part of) its commitments in its NDC through carbon credits generated in another country, for which this host country is paid; these agreements are structured in or under bilateral agreements. Article 6.4 provides a centralised mechanism for emission reductions to be used to fund NDC targets, results-based climate finance or domestic mitigation pricing schemes for the

purpose of contributing to the reduction of emission levels in the host country. There are also regulatory obligations that are created under, for example, cap-and-trade systems such as the EU ETS and specific allocations, such as the airline industry's Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA).

The size of compliance markets is roughly $ 865 bln (although not all of that is liquidly traded). Prices vary, but by far the biggest current market, the EU ETS, currently trades carbon at well over $ 100 per tonne. Expectations are that compliance market prices will be (much) higher than VCM prices for the foreseeable future, or even always.

Compliance markets are growing rapidly with more and more jurisdictions putting them in place (Japan is about to start operating its compliance market) and more and more activities being brought under the scope of compliance obligations. For example, the EU recently decided to bring maritime emissions under the scope of the EU ETS with a gradual expansion of scope and without granting emission allowances. This creates immediate incentives to green maritime transport and/ or to purchase high- integrity credits to meet the associated regulatory obligation.

Currently, the EU does not allow entities which have an obligation under the EU ETS, to meet these using African credits. Under the previous regulatory regime, governed by the Kyoto protocol, the EU did accept African credits – but mixed experiences (and some bad quality credits), combined with a strong NGO-led narrative around purchasing African credits being equivalent to the Global North "dumping its waste" on the Global South led to closing the markets off to foreign credits. This distinction is the reason why you will hear people say "African credits sell for far less than European credits" – that is because African credits cannot sell into these higher-value markets.

Within VCM, there is trade of both so-called authorised credits and unauthorised credits. VCM trade of authorised credits is a relatively new phenomenon and one that is growing.

Net-zero commitments have driven the growth of VCM – although largely for credits reflecting carbon removal. Credits for emission avoidance, which make up the vast majority of African credits, are not accepted in the leading Net-zero standard of the Science Based Target Initiative (SBTi). Even for removal credits which are permitted, SBTi guidance requires that companies first reduce their residual emissions by 90% before purchasing credits – meaning investment in VCM credits will be significantly delayed.

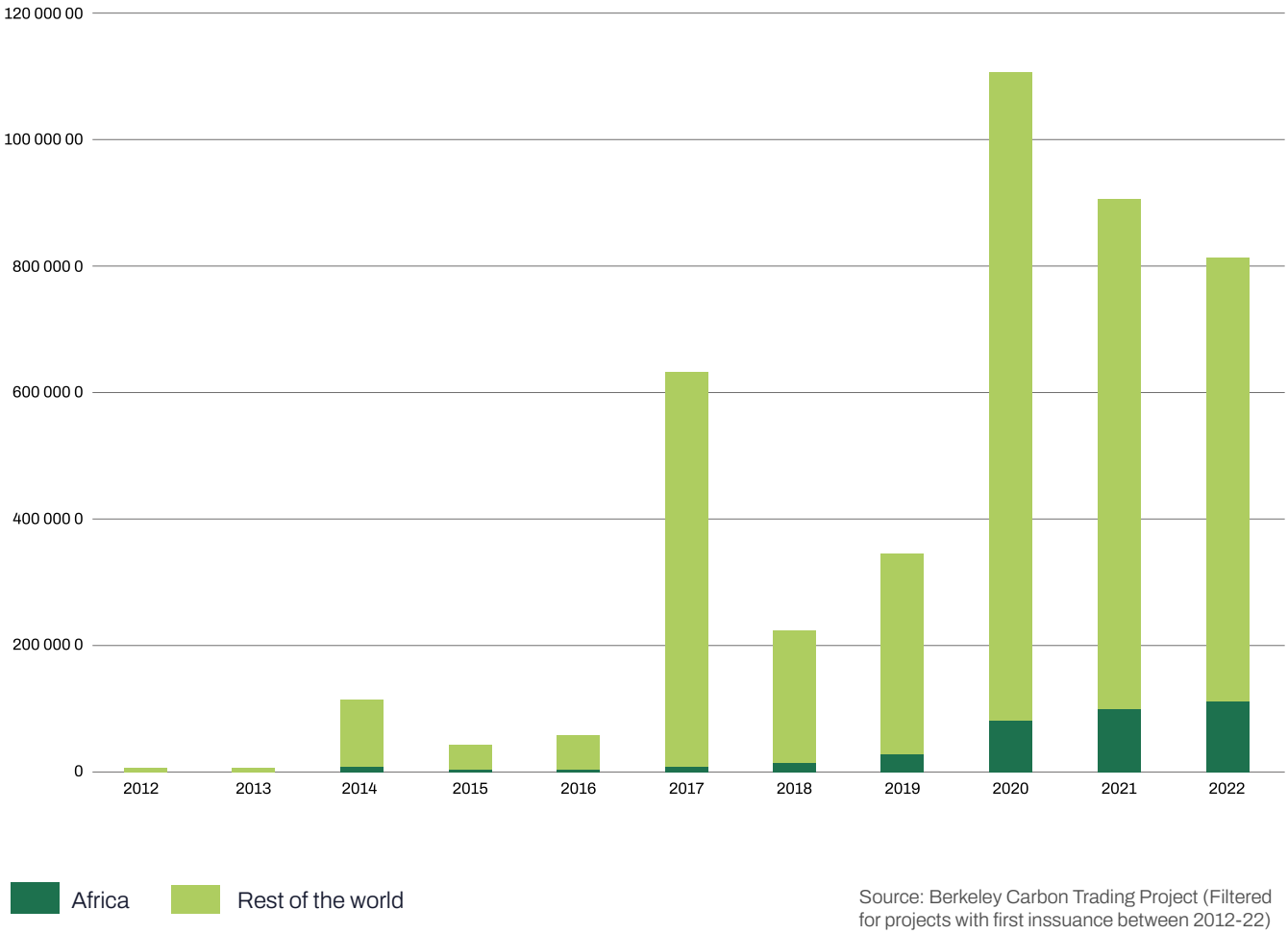
VCM size currently is ~$ 2 bln. Credit prices typically range between ~$ 2-3 and $ 30 with some exceptions for very niche products that are higher priced (such as engineered removals). Most credits sell for well under $ 20. These prices are generally considered to be too low to support high-quality, high-integrity credits. This contributes to a vicious cycle: the low prices don't create an environment in which investments in improving quality, integrity, and meaningful community engagement pay off, which in turn creates real and perceived issues around quality and integrity, which sustains the low prices in the first place. Many buyers – whose participation in the VCM is voluntary, and whose primary concern is reputational risk – are opting not to engage in the market as the costs (including proper due diligence) outweigh the potential benefits. As a result, significant potential investment is sitting on the sidelines.

It is very hard to "innovate your way out of this": since all projects are painted with the same brush and carbon credits are largely treated as a traditional commodity, the prevalence of low-cost, low-quality, low-integrity credits often undermines the ability of high-quality projects to secure funding and sell credits. Various initiatives, both on the buy- and the sell-side, are working to increase quality and integrity with (voluntary) guidelines to improve the overall quality and perception of the market while contributing to driving up price.

Africa is punching below its weight in voluntary carbon markets

Over the course of 2012 to 2022, projects originating in Africa represented around 9% of credits retired on the VCM globally which is widely seen to be far less than its potential. The Africa Carbon Markets Initiative (ACMI) estimates that Africa has the potential to produce 2,400MT of carbon credits annually by 2030; more than 100x its 2021 output of 22MT.

Credits retired by year, VCM only

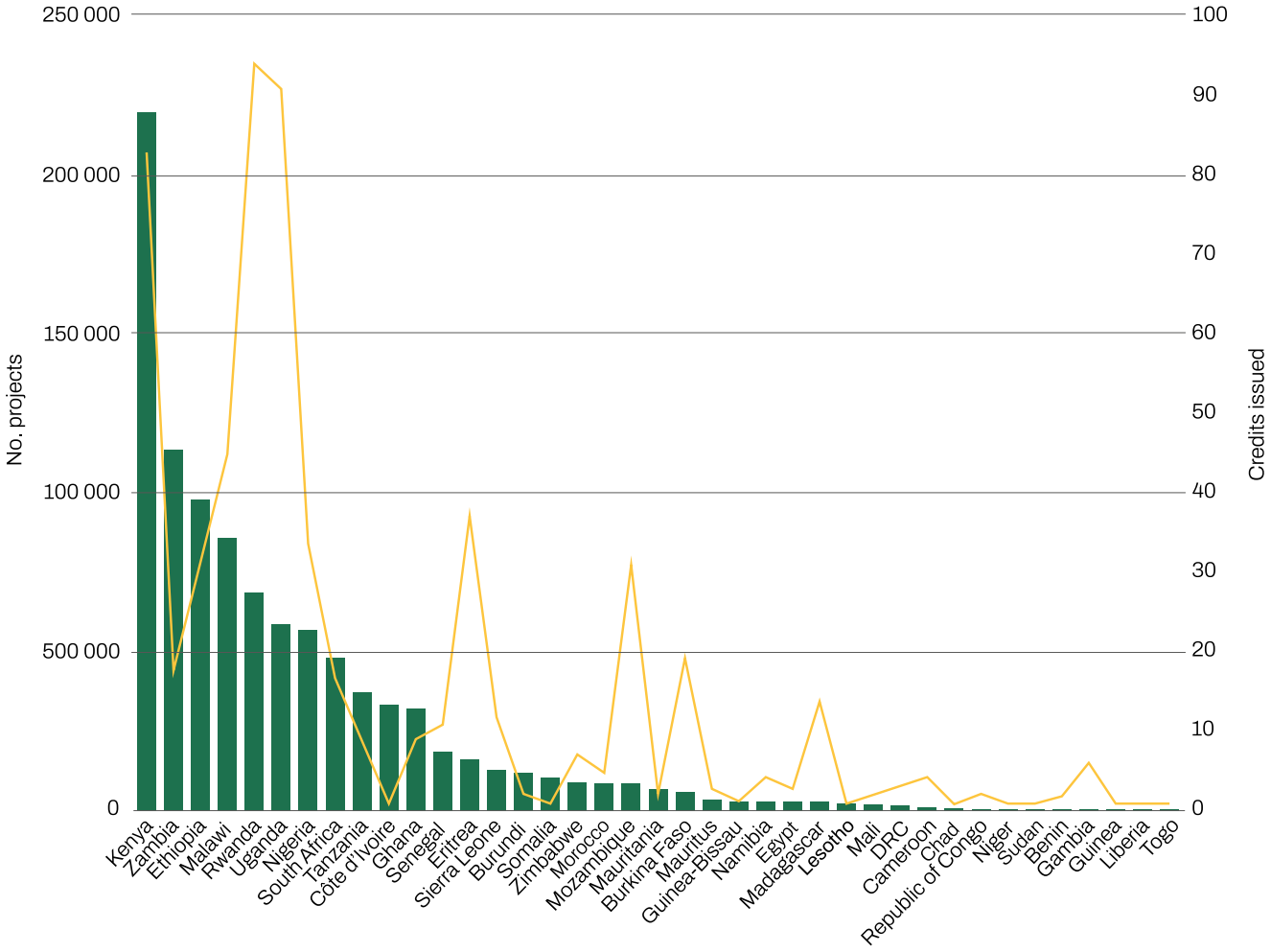


Source: Berkeley Carbon Trading Project (Filtered for projects with first inssuance between 2012-22)

African credits are highly concentrated in handful of countries as is illustrated in the graph below[1]. Project development activity tends to be concentrated in 'easier to reach' markets such as Kenya and Zambia. The private sector lacks the risk appetite, expertise and operational reach to invest in harder to reach markets – despite many of these markets having natural assets that make them attractive destinations for carbon project development.

[1] Note that this project database does not provide similar data for the EU, making it impossible to do a like- for-like comparison

Credits issued & No. projects by market, VCM only



Source: Berkeley Carbon Trading Project (Filtered for projects with first inssuance between 2012-22)

Of all African credits, around 50% relate to forestry and land use (the majority being driven by the REDD+ methodology which seeks to combat deforestation). A further 28% relate to renewable energy. The developer market is also highly concentrated – with less than 15 companies accounting for 80% of all credits. There is significant opportunity to look beyond REDD+, clean cooking solutions, and renewable energy projects to grow Africa's share of the market. High potential opportunity areas include e-mobility, land-based removals (e.g., soil carbon enhancement, biochar, enhanced rock weathering), ocean-based removals (e.g. micro-algae, seabed grass, salt marshes), coastal removals (e.g. mangroves) and engineered removals (e.g. DACC).

Carbon credits issued by African Projects, VCM only

Source: Berkeley Carbon Trading Project (Filtered for projects with first issuance between 2012-22)

Innovation following the Paris Treaty is creating interesting new pathways for collaboration and improvement

Article 6 of the Paris Treaty regulates authorised carbon credit trading. Key elements of Article 6 were only agreed upon at the most recent COP, in November 2022 – which explains the high recent rate of innovations related to Article 6.

Of particular interest, including in the relationship between Africa and the EU, is the role of Article 6.2, or ITMO, trading. Under this article, as mentioned earlier, the buying country can meet (part of) its commitments in its NDC through carbon credits generated in another country, for which this host country is paid. These bilateral deals can be structured as a transaction between two sovereign entities; or as private transactions governed by a bilateral agreement. A key precursor for these transactions is establishment of carbon accounting frameworks to avoid double counting of credits traded (for example. one credit appearing against two country's NDCs).

Although it does not have to be overly complicated, setting the necessary institutional infrastructure to run Article 6 trading does compete with other government priorities for scarce resources in policy formulation, legislation and regulation. The prospect of bilateral deals (which tend to be big contract sizes as opposed to deals with individual project developers) can be the economic opportunity that makes it "worth it" for a government to put the legislative infrastructure in place.

ACMI is pioneering a process for supporting African countries to build effective policy frameworks for carbon, referred to as Carbon Market Activation Plans (CMAPs). This process - currently primarily focussed on VCM access – provides an opportunity to leverage engagement to also design Article 6 ready infrastructure.

Carbon pricing innovation: CBAM as leading innovation complementing the EU ETS

The CBAM is designed to level the playing field for EU businesses by placing a carbon price on imports from non-EU countries with less stringent carbon pricing policies. This will help to prevent carbon leakage, the phenomenon of businesses relocating to countries with less stringent environmental regulations in order to reduce their costs.

With that, CBAM is an environmental measure (and not, as is often suggested, a trade measure). Its purpose is to ensure that all goods imported into the EU are produced with a similar carbon footprint – and it makes provision to deduct carbon pricing at source to avoid a 'double taxation'. This will help the EU to achieve its climate goals of reducing greenhouse gas emissions by 55% by 2030 and becoming carbon neutral by 2050. In that sense, it is complementary to the EU ETS, which has been in place for several years – with the implementation of CBAM, the existing free allowances in the EU ETS will gradually be phased out, strengthening incentives to green industrial activity. It also provides a demand signal for green industrial activity globally.

A number of African stakeholders fear the impact of CBAM on African export. It will indeed become costlier to export products with high embedded emissions to the EU – in line with the intentions of CBAM. From a socio-economic perspective, a just and fair transition is key to avoid sudden loss of livelihoods for people working in current high-emission sectors.

This transition impact is tiny compared to the inherent potential that CBAM offers for African export: thanks to its ability to leapfrog to green production and its abundance of relevant minerals, Africa has the potential to produce green-from-the-start, and cost-effectively meet EU demand for these industrial products. CBAM fundamentally is an environmental measure and goods will continue to flow into the EU. Yet the details of the how will determine whether this truly translates into a strong demand signal and accelerant for African green industrial development, depending on, for example, the metrics, the processes, the evidence required, provision to accept different reporting systems, timing and approach to payment etc.. If, as is often the case, African stakeholders are not consulted in developing these detailed implementation measures, the opportunity to fuel growth of African green industrialisation may be missed.

Lastly, while the primary way to reduce CBAM liability consists of reducing the embedded carbon of goods imported into the EU, importers can benefit from a "discount" on the amount of certificates to be bought at the frontier if they can show to have effectively paid a carbon price in the country of origin. This option may prove to be appealing for many countries exporting goods to the EU that are considering how to keep carbon revenues within their borders – channelling that capital into supporting local green industry - rather than paying the EU for CBAM certificates. Despite the exact definition and terms of the carbon pricing systems eligible for CBAM liability being yet to be defined by the EU, this provision represents an important trigger for diffusing carbon pricing around the world.

6. Pillars for strong carbon pricing and carbon markets

Carbon pricing and markets are complex, often volatile, and can be subject to manipulation by bad actors. Key conditions must be in place for high integrity carbon markets to proliferate – particularly in those markets that rely on the unregulated VCM. On the flip side, carbon pricing mechanisms and carbon markets have the greatest potential for global climate and socio-economic impact if they pair high requirements for integrity and quality with fair and equitable market access.

Good national governance

National and local governments play a key role in ensuring the integrity of carbon credits produced in their region - and their oversight role will grow more important as Article 6 comes into practice. To ensure Article 6 readiness, governments need to establish the data infrastructure for a national carbon registry, and policies around Corresponding Adjustments. This data should be easily accessible and transparent – helping to build confidence in the integrity of the market amongst buyers and investors.

The importance of Article 6 readiness – and what it means to be Article 6 compliant - is poorly understood by many (African) governments. Demonstrating Article 6 readiness will be key to African countries unlocking lucrative global (compliance) markets; while a growing segment of VCM buyers will only purchase credits that are authorised under Article 6 as a means of mitigating sovereign and quality risk. African leaders need to build the governance for Article 6 readiness now, or they will risk being further left behind.

Conducive policy and regulation

Large funders of carbon projects will only invest in markets where they believe they can achieve commercial returns. Governments need to develop policies that effectively balance the needs of government, local community and private sector stakeholders. Many projects have a life cycle of 30+ years, and investors are wary of the risk of a sudden shift in policy as governments change. Policy frameworks need to be robust in order to give investors confidence that the policy environment will remain relatively consistent over the medium-long term.

Recent developments in Zimbabwe and Tanzania have seen national governments enact laws that make those markets largely unprofitable for project developers. These developments have not only stifled investment in these markets – they have also spooked many investors, who are now concerned that similar policies may be on the horizon in other African markets. ACMI is working with several African governments to help develop pragmatic carbon policy frameworks under its CMAP program.

Fit-for-context methodologies, measured rigorously

There are two key types of non-state actors in this area: (1) Registries (also referred to as Crediting Mechanisms), which create the methodologies (formulae) for Measurement, Reporting and Verification (MRV) of carbon credits, and (2) Verification & Validation Bodies (VVBs) which perform a third-party audit function, ensuring projects meet the requirements of the methodologies set by the Registries. There are three sets of issues with this ecosystem. Firstly,

many of the climate benefits African countries provide, are not monetizable as no methodology exists for their measurement and valuation. Secondly, urgent issues (some of which recently received extensive press attention) point to the lack of rigour in ensuring that projects are compliant. Thirdly, lack of African capacity drives longer timelines and higher transaction costs. Fourthly, co-benefits accounting and their possible monetisation is currently not captured by any widespread and sound methodology, leaving these environmental, social and economic impacts triggered by carbon projects unvalued.

Many methodologies are poorly suited to the African context – both in what they measure and how they measure it. For example, most agricultural methodologies are developed for industrial-scale agriculture. As a result, the MRV protocols are expensive and impractical for small-holder farmers (making up 80% of agriculture in Africa). As a second example, there currently is no monetisation mechanism to compensate for the protection of standing carbon stock (if not suffering from historic destruction), biodiversity, and climate service provision. Furthermore, there are no VVBs based in Africa, meaning the auditors assessing African projects – who are typically flown in (often with significant delay) - lack understanding of the local context; while the developer bears the cost of travel, driving up the cost of project development.

Affordable project finance for suppliers

The fixed upfront costs associated with carbon project development are high, typically ranging from

$200,000 to $1M once registry fees, technical consultants and operating costs are factored in. As a result, the whole market has historically been oriented towards scale, with many small-medium sized projects struggling to secure financing. Many projects rely on developers who offer an end-to-end solution with technical support as well as financing – in exchange for a hefty proportion of future carbon revenue (typically in the range of 30-60%). Establishing pathways for affordable project finance is critical to increasing quality supply and ensuring that a greater proportion of carbon revenue finds its way back to the project proponents and local community.

Access to project finance is particularly challenging in Africa, where cost of capital is high, generally less capital is available, and perceived investment risk is high. Significantly more investment is needed in African carbon project development to stimulate the growth of the market. There is a key role for philanthropy to play, coming in alongside the private sector to de-risk investment through models such as repayable grants to cover upfront costs, first loss mechanisms, and concessional debt.

Information and tools to assess project quality and integrity

Carbon markets are slowly shifting orientation – from a focus on scale, to a focus on quality and integrity. Buyers' primary concern, especially in VCM, is reputational risk, with many opting not to participate rather than risk media backlash from a carbon project scandal. The challenge is that many intermediaries sit in between buyers and suppliers, and the supply chain is fragmented, complex, and opaque.

Even if buyers had access to the right information, there is not a shared understanding of what quality and integrity look like in different contexts; on top of the challenge that all benefits (and risks) *other than* carbon impact are not measured, tracked, or compensated. Competing narratives create further uncertainty in the market, with the market often over-correcting in response to negative media reporting. To bring in more carbon buyers from the sidelines, we need to ensure that they have access to the tools and information to understand and assess project quality and integrity.

The emergence of third-party rating agencies such as BeZero and Sylvera is a step in the right direction, however these platforms are limited by their reliance on self-reported project data for many project types. Transparency and growing rigour across both carbon impact and co-benefits will help enable high quality projects to demonstrate their value, and expose low quality projects – driving prices up and clearing out the bottom of the market.

African projects typically represent an above-average value, thanks to their strong co-benefits (socio- economic, ecosystem services, biodiversity benefits) that are currently not measured or priced into the asset. Further, the view that African projects are lower quality or more risky than projects in the Global North is generally expressed in nebulous terms, and is not reflected in findings produced by third party rating agencies. If we can build frameworks for quantifying and valuing these additional benefits – alongside transparent carbon accounting and risk assessment – then we can help drive up price and demand for African credits. The need for North-South collaboration on co-benefit frameworks is highlighted by the African Union in the Nairobi Declaration.

Market-based mechanisms for connecting supply and demand

Like in any market, suppliers of credits need to be able to effectively connect with buyers in order to transact. Other suppliers and buyers should be able to access information (price, volume) relating to these transactions in order to effectively price other assets on the market. The vast majority of VCM transactions are done behind closed doors – meaning that a true market is yet to emerge. Further, most transactions are facilitated by a project developer or broker, meaning that a significant portion of carbon revenue ends up in the hands of intermediaries. Online marketplaces such as Patch, Pachama and Abatable (to name just a few) are starting to proliferate, but to date the transaction volume on these platforms is still relatively small. We are also starting to see announcements of bilateral deals under Article 6, even though the Paris Agreement is yet to be finalised.

African projects are largely reliant on VCM to secure investment and sell credits. Project proponents on the ground have very limited ability to connect with investors or buyers – meaning they are reliant on large developers and brokers to access markets. To stimulate growth of the market, project developers need more clarity on what buyers look for (quality, integrity) and stronger demand signals to secure the funding needed to overcome upfront development costs.

Fair and equitable market access

The companion of requirements on quality and integrity, ideally is market access. Ensuring that providers of eligible products and services have access on equitable terms, is an essential part of a fair and efficient market system, as it makes sure that activities are undertaken in those locations where they can be done most effectively and efficiently. For example, it makes a lot of climate and economic sense to build new renewable energy capacity to locally smelt Africa-mined bauxite to aluminium (instead of exporting it as bauxite) – yet the impetus for this would largely disappear if that green aluminium had no equitable access to European markets for green aluminium under CBAM regulation. The second reason to generate equitable access, in addition to the ability to realise globally efficient and effective results, is the 'pull' effect – the perspective of being able to tap into new markets for 'green' products and services (including carbon credits) can generate the pull that is required to invest in meeting the eligibility criteria – whether it is supporting legislation, or additional investment in quality, integrity, and transparency.

Of course, care needs to be taken to avoid perverse incentives – specifically, to avoid greenwashing in carbon markets. Rules such as a (declining) cap on the proportion of a buyer's legal obligation that can be met with carbon credits (as opposed to decarbonisation), minimum pricing, minimum expenditure requirements (as opposed to a-tonne-for-a-tonne) can mitigate this risk. With the right design of rules, for example, emitters using carbon credits to meet regulatory obligations can be asked to spend a very similar amount yet realise (much) higher immediate climate impact.

Fair and equitable market access is both the capstone of an efficient global market – and a very helpful "shining beacon" to incentivise climate-smart, future-proof innovation. The devil often is in the detail. For CBAM in particular, the principle in and of itself creates appealing incentives for African producers and providers. Yet in the further detailing of eligibility criteria, metrics, measurement systems, and payment timelines, responsibilities, and procedures, African stakeholders are not consulted. It is highly likely that the resulting set-up results in barriers to market entry for African producers, defeating the purpose of accelerating the greening of global industrial capacity and missing out on the solution that Africa can provide in this regard.

7. Key initiatives shaping the African and European carbon pricing and carbon market ecosystem

The carbon market ecosystem is becoming increasingly crowded as more private and public sector players realise the significant the economic opportunity. AEF should look to partner to fill gaps and add value – avoiding duplicating resources and effort.

There are a range of initiatives that are shaping Africa's carbon markets ecosystem:

- Africa-Europe Carbon Markets Working Group – a platform facilitated by the Africa-Europe Foundation (AEF) to strengthen Africa-Europe partnership by doubling down on efforts to grow African carbon markets, merging the continent's large carbon potential with Europe's long- standing expertise and lessons learned in the field.

- Africa Carbon Markets Initiative (ACMI) - announced at COP27, ACMI aims to grow African carbon markets and create local jobs through implementation of a broad agenda.

- Regional carbon market alliances (Eastern Africa Alliance on Carbon Markets, West African Alliance on Carbon Markets) - alliances of predominantly state actors collaborating on carbon market regulation and market access

- Glasgow Financial Alliance for Net Zero (GFANZ) - global coalition of financial institutions with a shared commitment to decarbonisation, operating through regional chapters (including one in Europe and one in Africa).

- Voluntary Carbon Markets Initiative (VCMI) – supports buyers in the VCM to make credible, high- integrity claims; recently published a Claims Code of Practice to ensure carbon credits are used appropriately

- Science Based Targets Initiative (SBTi) - Defines and promotes best practice in science-based target setting for corporates looking to claim Net Zero.

- Integrity Council for Voluntary Carbon Markets (ICVCM) - Developed the Core Carbon Principles as a global quality benchmark for carbon projects and carbon credits, with a focus on supply- side – which can also serve as a guide to help buyers identify high quality carbon credits.

Opportunities to build on existing initiatives

On the European side, the Call to Action for Paris Aligned Carbon Markets provides a good basis for shared understanding of what EU buyers expect to see. In this, it is important to understand the appropriate sequencing and timing of carbon market development in Africa. If the Call to Action is interpreted too narrowly as a push for African countries to build internal markets, pricing carbon internally, paradoxically this can actually reduce the development of green economic opportunities for three reasons:

- Firstly, for almost all African countries (with the notable exception of carbon-intense economies such as South Africa), the current level of emissions is very low, which means that carbon pricing will do little to reduce current emissions and will yield little revenue for climate-smart investment.

- Secondly, it is not only small, but also an unhelpful distraction for resources: developing internal carbon

markets will consume precious resources on policy, regulation, and enforcement, which cannot be dedicated to other interventions with a better climate and social return.

- Thirdly, and most importantly, internally pricing emissions will reinforce the unhelpful yet dominant narrative that living within planetary boundaries is incompatible with economic growth, and that poor African countries have to pay the price.

Instead, smart incentives and market collaboration that makes climate-smart future-proof investments in green-from-the-start growth the most viable option and that raises fiscal resources to invest in adaptation and resilience, will be needed. That will largely come from African countries being able to serve European demand for high-quality, high-integrity carbon credits and products with low embedded emissions.

Leading stakeholders, both in Europe and in Africa, are working on establishing green industrial capacity in Africa, often with government market-shaping and market-enabling support such as in the Germany-Africa green hydrogen initiative. Extensive existing market-shaping efforts and investments point towards the availability of viable opportunities. The recent inclusion of maritime emissions in the EU ETS provides strong traction for the production of green shipping fuel in African countries to serve EU markets.

Lastly, the proposed Regulation for an EU Carbon Removal Certification Framework (CRCF) represents the first milestone for scaling up high-quality Carbon Dioxide Removals. While the voluntary Framework applies – for now - to CDR taking place in the EU, Africa might have an interest in closely following the process and aligning with the minimum quality requirements spelled in the Regulation, anticipating a possible opening of the certification to non-EU CDR.

On the African side, ACMI is working with leaders in Kenya, Gabon, Malawi, Mozambique, Togo, Nigeria, Burundi and Rwanda on CMAPs, providing – as outlined earlier - the regulatory input and insights, which is a necessary piece of the puzzle. The CMAP process has shown that there is willingness amongst African leaders to engage around policy frameworks and market structures, however further work is needed to ensure we get carbon market legislation and regulation right:

- Embedding support within policy-making and political processes – the CMAP process offers relatively light-touch advisory support free-of-charge, over the course of a few months. The experience to date has shown that the support provided by ACMI has not translated into jurisdictional design-making that reflects the guidance given. To support jurisdictions to develop the carbon market policy, legislation and regulation that works for them, stronger and longer embedding in the country's legal and political reality is required. If carbon policy development does not reflect the broader political and policymaking reality, it will not translate into action, nor will it stand the test of time. Longer term planning is needed to build an actionable roadmap for sustained, context-specific support, and allocation of roles and responsibilities; particularly once the initial engagement has been completed

- Funding to broaden and deepen support– The list of countries seeking support to build carbon market plans and policy frameworks continues to grow, and exceeds the current level of funding available. Dramatically more funding is needed to support a range of countries in carbon policymaking and capacity building, and to ensure that the support provided is sufficient – both in the length and depth of the engagement, and the level of technical expertise provided – to achieve real outcomes.

At the Africa-Europe level, strategic opportunities to work across the traditional silos of development cooperation have also been identified through the work of AEF Strategy Groups. This is particularly the case through the work of the Africa-Europe Strategy Group on Ocean Governance and Blue Economy.

Over the past decade, research has solidified the significant role played by blue carbon ecosystems— seagrass meadows, tidal marshes, and mangroves—in mitigating the effects of climate change. When well protected, these ecosystems act as natural «carbon sinks,» absorbing carbon dioxide from the atmosphere. Conserving blue carbon ecosystems contributes to mitigating climate change and helps nations avoid additional emissions of CO2 and other greenhouse gases. Yet, central for these ecosystems to function as carbon sinks is their protection.

Financing conservation of blue carbon ecosystems can be boosted through blue carbon credit strategies, whereby countries and project developers earn carbon credits for demonstrating carbon benefits from ecosystem conservation and restoration. Blue carbon strategies can restore vital ecosystem services and crucially help nations deliver on their commitments under the Paris Agreement. To date, however, only a limited number of countries have incorporated blue carbon strategies into their climate change policies.

There is a need to emphasize the opportunity associated with the ocean and blue economy and potential for blue carbon. Previously, there have been carbon credit projects around mangroves, but now is a timely opportunity to make a significant move in this direction given the Kunming-Montreal Global Biodiversity Framework and the 30x30 initiative and goal, as well as the recently signed High Seas Treaty which will move into ratification process by 2025. The Africa-led initiative for the Great Blue Wall, which is anchored in the Nairobi Declaration of the Africa Climate Summit, focuses on regenerating blue landscapes and holds great promise for blue carbon sequestration and the production of high-integrity credits. This offers tangible scope for cooperation with the EU especially in the context of the foreseen inclusion of maritime emissions in the EU ETS by early 2024, and as the international community gets closer to agreeing on a global maritime shipping tax.

Data is limited on the mutual co-benefits associated with blue carbon. As Africa and Europe seek to intensify their scope of cooperation on carbon pricing and markets, it is of interest to conduct national assessments to evaluate ecosystem carbon sink capacity and to incorporate these into national GHG inventories. However, due in part to gaps in scientific knowledge, countries might be uncertain about their blue carbon potential and its locations. Utilising conservation and rehabilitation efforts concerning blue carbon under Article 6 of the Paris Agreement through market-based approaches can contribute to fulfilling Agriculture, Forestry, and Other Land Use (AFOLU) sectoral targets within the climate change mitigation system. West Africa, encompassing around 14% of the global mangrove area, holds substantial potential yet to be fully realised. Initiatives like the Great Blue Wall in East Africa and the Indian Ocean, targeting the sequestration of 100 million tons of carbon dioxide by 2030, represent a significant untapped resource for climate change adaptation, biodiversity enhancement, and socio-economic co-benefits.

8. Why Africa–Europe collaboration is much needed

The growth of African supply into European markets will be contingent on the high environmental integrity of the credits certified. African governments and project developers are called to play a key role in effectively building connections with the financiers and buyers in Europe who drive demand. Collaboration is needed to ensure convergent – not divergent – paths towards market-building in Europe and Africa.

Most of the demand for carbon credits and low emission products comes from industrialised countries, with the EU being an important marketplace; the EU represents sizeable demand on its own accord and its policies and regulation are looked at by many other jurisdictions for potential replication. Market infrastructure across Africa and the EU is being built in real-time – as are trade rules and market-based policies governing the markets in industrialised countries (eg., the Inflation Reduction Act (IRA) in the United States (US), CBAM and the EU ETS in Europe). If global and European market rules and incentives and African market structures are not built in concert, they will only continue to diverge and opportunities for mutually beneficial collaboration will be harder to realise.

The growth of African markets will be contingent on on the high environmental integrity of the credits certified. African governments and project developers are called to play a key role in effectively building connections with the financiers and buyers in Europe who drive demand. Africa can lead the way in elevating equity, justice, and climate impact through thoughtful innovations and partnerships – yet it needs demand pull for these innovations to be viable and worth investing in. As a global innovator and leading source of demand, Europe can help strengthen this through demand signals and joint development. The EU could explore opening up connections between existing mechanisms – for instance the CBAM – and African carbon credits. Africa–Europe collaboration in VCM can serve as a sandbox to experiment with measures for implementation later in compliance markets.

Focusing on unlocking untapped areas of cooperation can be helped by building coalitions of member states and multi-stakeholders around areas of mutual interest.

True partnership approaches can drive an evolution that links development cooperation with market structures and market mechanisms, driving a symbiotic relationship, in which (1) African carbon credits and low-embedded emission products efficiently serve EU demand, (2) EU investment spurs both further economic growth and stability in African countries, and (3) African deployment of European and joint innovation helps accelerate industrial development, bring innovations down the cost curve to drive scale, and support both European and African industrial actors in a quest for global competitiveness. With such collaboration, Africa and EU can be pioneers in this space and can inspire, accelerate, and improve global action.

9. Three horizons for realising the potential of carbon pricing and markets through Africa– Europe collaboration

1. Align understanding of the opportunity and what's needed to realise it; and avoid closing windows

- Bring together African and European policymakers to understand what's at stake -both economically, politically, and environmentally - and the mutual upside of effective collaboration.
- Align on what's needed to realise the full potential of carbon pricing and African carbon markets; and the key areas for Africa-Europe collaboration
- Make provision for African products under CBAM (where needed to avoid a 'lock in of exclusion') and proactively support the provision of low-emission products by African industry

The AEF Carbon Markets Working Group

2. **Build the pillars for strong Africa** - EU synergies in carbon pricing and carbon markets

- Increase funding to African projects so that more projects make it to market
- Monetise the breadth of Africa's contributions to climate and environment to drive up price for African credits, and make more projects investable.
- Develop the right policy, regulation, governance and skills to establish a high-quality high-integrity, efficient carbon credit ecosystem in Africa that is attractive to investors
- Concurrently develop and expand Article 6.2 collaboration to immediately realise mutual benefit and uphold a demand pull for market building efforts
- Build these fundamentals based on a continuously updated understanding of what is needed to ultimately achieve fair and equitable market access - and adjust initiatives as needed

3. **Build towards efficient, fair and equitable market access** with higher integrity and quality as a global example

- Increase funding to African projects so that more projects make it to market
- Monetise the breadth of Africa's contributions to climate and environment to drive up price for African credits, and make more projects investable.
- Develop the right policy, regulation, governance and skills to establish a high-quality high-integrity, efficient carbon credit ecosystem in Africa that is attractive to investors
- Concurrently develop and expand Article 6.2 collaboration to immediately realise mutual benefit and uphold a demand pull for market building efforts
- Build these fundamentals based on a continuously updated understanding of what is needed to ultimately achieve fair and equitable market access - and adjust initiatives as needed

Horizon 1: Align understanding of the opportunity, and what's needed to realise it; and avoid closing windows of opportunity

The first horizon is about developing the shared understanding and strategic alignment needed to drive effective Africa–Europe collaboration. It should also make progress on time-sensitive alignment to avoid closing windows of opportunity for African contributions.

To drive effective Africa-Europe collaboration, a shared understanding is needed of what is at stake – economically, politically (including in the currently very important migration debate in the EU), and environmentally – and the mutual upside of effective collaboration. An opportunity-framing that focuses on the potential for carbon markets and carbon pricing to achieve impact, rather than their shortcomings, will help bring the right people to the table.

This emphasis on and explicit sizing of the opportunity should help to focus and prioritise efforts on the highest-potential and highest-leverage opportunities. That is particularly important given that there are many competing and oscillating narratives, and a lot of misinformation around the current state of carbon markets and the effect of carbon pricing, what is driving risks and shortcomings, and the pathway to realising their potential.

The AEF Africa-Europe Carbon Markets Working Group exists for this reason – bringing the key stakeholders to the table and driving the development and implementation of a shared agenda for realising the potential of carbon markets (as a first step). This is a key foundation for horizons two and three.

Importantly given current timelines, activities in this first horizon also need to avoid a lock-in of exclusion of African opportunities to serve EU demand for low-emission products under CBAM. In fact, joint Africa – Europe engagement and involvement of African industrial stakeholders in the ongoing detailing of metrics, processes, and systems for CBAM operationalisation offer excellent opportunities to highlight the potential for tangible mutual benefits and to experiment with a range of different kinds of partnership in shaping them.

Horizon 2: Build the pillars for strong Africa–Europe synergies

Horizon 2 is both deeply technical and makes tangible progress towards short-term mutually beneficial results. All efforts in this horizon need to be based on a continuously updated understanding on what it takes to achieve the end goal of globally fair, equitable, and efficient market access with an ever-raising bar on quality, and integrity. This will require not only technical support to African countries, but also adjustment of European policies and regulations – and crucially, the concurrent development of Article 6.2 partnerships to create a continuous demand pull for these efforts.

In horizon 2, specific interventions will be undertaken to tackle specific challenges to realising the full potential of Africa to be a solution to climate change in partnership with the EU. Although this will be further informed by the findings of horizon 1, we have a first hypothesis on four focus areas: scaling carbon infrastructure investment as a public good, monetizing the breadth of Africa's contributions to climate and environment, developing the local carbon value chain, and developing the right policy, regulation, governance and skills. Below is a list of potential high-leverage interventions that the Working Group has identified for Horizon 2. These will be further refined during Horizon 1.

i. Scaling carbon infrastructure investment as a public good

- **Free project development support** – Carbon project development is expensive, costing anywhere from $100k to $500k in Registry fees, technical consultants and audit costs; without factoring the operational costs associated with project implementation. High upfront costs lead to one of two perverse outcomes: (1) projects aren't able to get funded, particularly if they are smaller scale or in a riskier market; or (2) projects secure funding from developers, who provide upfront capital (backed by investors) in exchange for a significant share of all future carbon revenue (typically 30 - 60%), diluting project and community returns and eroding host country support. A very small subset of projects is able to access concessional debt, or grant funding.

  Without adequate funding to stimulate pipeline, interventions such as the CMAP will fail to grow the market. Establishing a fund to bring high-impact African carbon projects to market would grow the African market, expand the types of projects that are fundable, be truly catalytic in crowding in private capital, whilst minimising dilution of carbon project revenue amongst intermediaries.

- **Exploring Artificial Intelligence (AI) and Machine Learning (ML) applications for carbon** – there are a range of potential use cases for AI and ML in the carbon value chain, including data analysis and integration (eg, for project feasibility studies), natural language processing (eg, for development of Project Developemnt Documents), image and video analysis (eg, for MRV), and machine learning algorithms (eg, for predicting project performance and risk factors). These applications have the potential to lower the cost of carbon project development - through reducing consulting hours required - and produce more robust, dynamic analysis to drive better outcomes. These tools could be open sourced, lowering the barriers to entry for new projects on the continent, and reducing reliance on intermediaries. While the technology already exists, further R&D to identify and develop specific applications for the carbon value chain is required.

- Other investment areas for exploration:

  — Investment in science behind / scaling of key digital MRV approaches – such as soil carbon - which could unlock scale for carbon projects that deliver significant co- benefits. There is a lot of work in this space[2] that can be leveraged, and a need to hone in on high-potential opportunities and ensure they secure the funding needed to scale.

  — First-loss capital or purchase guarantee of last resort to support carbon project development with a supporting demand signal

  — Syndicated baselines – only relevant for methodologies where it can really be a cost saving – e.g., not when there is a need for regular updates of baselines

ii. Monetising the breadth of Africa's contributions to climate and environment

- **Quantifying and valuing the full range of climate and socio-economic benefits that African projects deliver** – African carbon projects deliver significant co-benefits (socio-economic, biodiversity, ecosystem services) that are not properly priced in by the market. There is evidence that carbon credits associated with strong co-benefits drive premium prices, yet these additional attributes suffer from a lack of comprehensive frameworks and appropriate monetisation. Notably, the popular narrative around co-benefits remains qualitative in nature, making it disadvantaged when compared to the quantification procedures that carbon accounting enjoys. For example, REDD+ projects protect critical wildlife corridors; clean cooking projects have significant health benefits; and agroforestry projects improve livelihoods.

  Co-benefit standards created by Verra and Gold Standard are a starting point, but they are binary, limited and are not linked to any pricing mechanism. In fact, many African projects fetch lower prices than their counterparts in the Global North, due to perceived operational, legal and political risks.

The need for developing co-benefit frameworks features prominently in the Nairobi Declaration – both as a commitment from African leaders to contribute to the development of global standards, metrics, and market mechanisms; and as a call to action for global leaders to design policies that stimulate investment in the markets with the highest co-benefit potential. By creating a methodology for quantifying co-benefits with a similar rigour as the quantification of carbon, aligned to the SDGs, and linked into pricing mechanisms that place a value on them, we can drive up demand for African carbon projects (amongst donors and development agencies; not just buyers) and increase their value on the market.

Co-benefit frameworks could serve a precursor to or accelerator for compliance market access as with this, African credits can lead innovation to make a step-change shift in holistic quality and integrity. Such actions should shift buyer behaviours to maximise environmental returns and ensure Africa's potential to be part of the solution, does not remain untapped.

- **Keeping African carbon sinks standing** – High Forest Low Deforestation (HFLD) countries such as Gabon are critically important carbon sinks and house vast biodiversity. Yet, due to lack of historical deforestation, they do not meet the additionality threshold that is fundamental to carbon markets. We need to develop economic incentives for governments and local communities to maintain old-growth forests in HFLD countries – be it through creating a new class of carbon projects with a different approach to additionality, or through other forms of results-based climate finance. Whilst inclusion of these in carbon markets is very controversial, since additionality is a corner stone of carbon markets, we must realise that introducing a new monetisation/ payment mechanism (other than carbon market) – if market-based – has the disadvantage of needing to build a market from scratch, without a concerted push backed by growing regulatory pressure or established carbon market mechanisms. And if such a new mechanism is not market-based, it will have to compete strongly for a vastly insufficient pool of public and philanthropic capital.

- **Harnessing carbon finance to efficiently solve for global problems** – the Science Based Target Initiative (SBTi) NetZero Guidelines have played a key role in driving corporate commitments and climate action, by issuing practical, globally recognised guidelines that are anchored in science. To ensure emission reduction is not compromised and to avoid greenwashing, SBTi limits the use of carbon credits to removals (no avoidance) and only for near-term unabatable emissions. This approach deprives avoidance activities globally of much-needed financing and demand. Avoidance credits currently account for over 75% of all African carbon projects; if the market falls away for these projects, then so too will many interventions to support clean transitions to enable low-emission economic growth – including renewable energy, clean cooking, natural ecosystems preservation, including forests and the ocean. These interventions are not only key to the emerging economies they support, but without them, it will be nearly impossible to reach net zero globally by 2050.

- **Portfolio purchases as best-practice amongst carbon buyers** – carbon markets tend to follow boom-or-bust cycles, heavily influenced by media narratives and the latest technological advancements. The current trend has seen a swing towards removal credits, at the expense of avoidance projects, and a heavy bias towards tech-enabled projects implemented in "less risky" markets (typically in highly industrialised countries, with a strong focus on the US and EU). To drive the scale and diversity of climate action needed, and give developers clearer and more consistent demand signals, we need to shift buyers away from following the latest trends, and towards a balanced portfolio approach. To do so we need to develop and ingrain a 'best-practice portfolio composition' that stipulates minimum thresholds for payment for protection, avoidance credits, emission reduction credits, and removal credits; a good split between nature, energy and tech-based approaches; and proper regional diversity.

Iii. Developing the local carbon value chain

Most carbon project developers, auditors and brokers are based in Europe and the US, and leverage talent in cheap labour markets like India. Talent with expertise in additionality assessment and baselining, GHG accounting and monitoring, and sustainable development is in short supply in Africa.

Developing a local carbon value chain will spur job creation, ensure more Africa-specific approaches and expertise, and

[2] There is a lot of ongoing activity and innovation in particular in (remote) indicators for soil carbon sequestration. Given the huge potential in soil carbon and existing sizeable scientific challenges on the accuracy of prediction from remotely monitored above-ground indicators, soil carbon is an important are of innovation in strong need of collaboration at scale.

enable African countries to capture more value from carbon project development. Further, bringing these jobs on-shore can help reduce transaction costs and delay in the value chain through reduced reliance on carbon professionals who need to travel long distances to engage with projects.

To achieve this, Africa needs to develop local expertise and scientific capacity around carbon accounting, project development (spanning a range of nature and tech-based interventions), audit and MRV – or reliance on offshore talent will continue.

iV. Developing the right policy, regulation, governance and skills to establish a high-quality high- integrity, efficient carbon credit ecosystem in Africa that is attractive to investors

As articulated in previous sections, African countries need to achieve Article 6 readiness to be able to participate in a growing market for authorised credits (in VCM, Article 6.2, and other mechanisms), meeting high bars on quality, integrity, and social equity. At the same time, these market structures and any fees, taxation and benefit sharing on carbon credits need to provide both long-term predictability to project developers and investors, and shape an attractive investment opportunity – whilst generating enough benefits for host countries and local communities to avoid 'carbon exploitation'. Similarly, African countries need to develop industrial and energy policy that recognises, enables, and incentivises the opportunity for green industrial development.

A fruitful Africa–Europe partnership and collaboration here is possible in a few specific areas:

- The EU can leverage its own long-lasting expertise in carbon market design and implementation, to support African governments with policy and regulation design, training of professionals (public and private), skills development, and digitisation of processes. One example of this is the Africa-Europe Carbon Market Curricula, under which AEF, Science Po, and SEforALL are co-developing a curriculum for African project developers and policymakers.

- Models for investing at scale in peer-to-peer learning, regional harmonisation and collaboration, and the training of professionals from both the private sector and public sector, building on existing initiatives at the multi-lateral and country level.

- Technical tools for monitoring, review and verification of carbon credits (e.g. simple ways to measure changes in soil and blue carbon, vegetative cover, take-up of clean cooking...).

- Professional development in both the private and public sector, development of a "community of practice" to maintain critical inputs into design and implementation, including from research and civil society actors.

- Build upon and augment ACMI's program of activities and complement the national CMAP activities with appropriate anchoring of mandates, governance, dispute resolution, and CA authorisation in policy and legislation through jurisdictional support.

In all of these, key areas of focus should include:

- **Creating conducive policy frameworks** – working with policy makers to shape the 'terms' under which African countries engage with international carbon markets. These terms – including issues such as taxation of carbon credits and allocation of carbon revenue – should strike the right balance, ensuring both sufficient investor attractiveness and that communities and government derive the appropriate type and amount of benefits from the activity.

- **Ensuring Article 6 readiness** – demystifying what it means to be Article 6 compliant and the significant potential upside of undertaking these activities. Providing technical support to African countries bought into this process.

- **Enhancing and codifying community engagement and benefit sharing** – these are universally acknowledged as key components for high integrity markets, but very little direction is provided on what best practice looks like (for example, the ICVCM Core Carbon Principles barely reference benefit sharing). Clarity is needed around what best practice community engagement and benefit sharing looks like in the African context – where issues such as land rights and Free, Prior, Informed Consent are particularly difficult to navigate – and how investors and buyers can access the data needed to properly vet projects in this regard (and drive towards better developer behaviour).

- **Strengthening local institutions** – the emergence of a market for carbon credits creates risk and moral hazard, particularly for land-based projects where the community now holds a valuable asset that it previously was not able to monetise. Strong institutions are needed at the local level to ensure that projects are managed effectively and in the best interest of the environment

and community. In many markets the strong presence of community-based organisations provides a good foundation for partnership – but they require a deeper and more nuanced understanding of carbon finance to be effective actors.

In the market for low-emission industrial products, there is also a need to develop supportive industrial policy. Like many other regions, the EU is seeking to support green industrial competitiveness in Europe and through European businesses. The Green Deal is the key set of tools and mechanisms for this.

For many of these industries, in particular energy-intense industries, it may make more climate sense to locate them closer to sources of primary inputs and to renewable energy abundance – i.e., in Africa.

Green industrial policy can be designed to both build European competitiveness and optimise climate benefits if industry incentives (such as tax breaks and R&D support) are also awarded to strategic partnerships, whereby European companies partner with African industrial partners and deploy to African locations. That can drive faster and larger-scale deployment of European innovations (in many industrial innovations, rapid deployment at scale is likely to be a key driver of developing industry leadership) whilst achieving greatest climate benefit and supporting sustained green industrial development and job creation in Africa.

This is not how much industrial policy is currently developed globally; lots of regional measures risk driving regional protectionism which drives globally inefficient capital allocation. Explicit effort is needed to design the details of the EU CBAM and the Green Deal in a way that does not unduly exclude African products. Subsequently, African industrial sectors can benefit from support to enable them to meet CBAM requirements (data definition and system support).

Horizon 3: Build towards efficient, fair and equitable market access with higher integrity and quality as a global example

Horizon 3 leverages strong market foundations to realise EU market access for African projects and low-emission products. Importantly, the request here is not for exemptions or a lower bar. African carbon credits and low-emission products can and should meet a high bar on quality, integrity and social equity – and if they meet these 'entry bars' to compete on European markets, they should be able to compete on equitable terms.

In horizon 3, progress under the first two horizons is leveraged to drive towards equitable, efficient global carbon markets and carbon pricing.

i. Ensure fair and equitable market access to EU compliance markets

Compliance markets account for over 99% of global traded carbon credit volume. Opening up access for foreign projects to sell into compliance markets – in particular the EU ETS - would massively expand the market for African carbon credits. It would also enable African project developers to access higher carbon prices (the EU ETS currently trades at USD 100, compared to VCM where projects at the top end fetch USD 20-30), expanding the range of carbon project types that could be commercially viable and incentivising developers to race to the top, not the bottom, in demonstrating quality and integrity.

One avenue worth considering, giving the collective effort towards a net-zero global targets, is the certification of high-quality CDR. The latter is the milestone for ensuring the integrity of a carbon market mechanism trading CDR credits. Establishing a global standard for high quality CDR – linked to large- scale demand for credits that meet this standard – will be transformative for the CDR sector. The EU CRCF has the potential to be a pioneer in this realm, becoming a leading standard-setter on the criteria underpinning high quality CDR. As it is currently drafted, the voluntary CRCF only applies to carbon removals generated in the EU. Africa has the ingredients (vast untapped natural resources, conducive geology, labour force) to represent an important supply of CDR – an option currently not on the table giving the limited jurisdictional scope of the EU Regulation. While African CDR access to the EU is not an option on the short-term, ensuring that African CDR meet the EU CRCF criteria might give an advantage for the long-run possibility of the EU opening to foreign removals.

To build towards EU market access it is critical that we ensure:

(1) Article 6 readiness of African countries,

(2) a consistently high (and rising where possible and needed) bar on quality, integrity, and social equity requirements and achievements of all carbon credits – including African carbon credits

(3) increased rigour and transparency around co-benefits to demonstrate and ensure that African projects in fact represent equal to, if not more value than many credits generated within the EU, and

(4) strong continued incentives for the EU to decarbonise through safeguards that avoid perverse incentives around purchasing offsets instead of reducing emissions.

This is, however, a highly political argument, with many EU policy-makers expressing views that buying carbon credits from Africa is neo-colonial, and akin to forcing African countries to clean up a mess they

did not create. These arguments ignore the vast socio-economic benefits that these projects can generate for local communities, the global nature of the climate challenge, and the fact that it is entirely in Africa's interest to provide well-priced carbon credits, which is the opposite of having to clean up garbage they did not create and did not ask for.

A concerted, strategic effort with focused political exposure is needed to make progress towards this change in mind-set.

ii. Ensure fair and equitable market access for low-emission products

On the continent, some stakeholders currently see CBAM as a barrier and an imposition. In fact, as the continent best placed to develop green industrial capacity from the start, Africa has the opportunity to benefit from the fact that CBAM explicitly puts a price on embedded carbon in imports into the EU (which would be near-zero in the case of green manufacturing in Africa).

CBAM is a key driver of demand for low-embedded emission products – and arguably, Europe's demand for these, is the greatest contribution Europe can make to driving Africa's low-carbon development through creating demand, and providing a pathway to raise the capital needed to meet it.

Although existing emission-intense African exports (notably very small amounts of iron/ steel and aluminium exports) will be negatively impacted by CBAM, this negative effect is considerably smaller than the much bigger potential demand driving new green industrial development. Specifically in aluminium production, over 98% of Africa-mined bauxite is exported as bauxite, with less than 2% locally processed to aluminium (of which again only a part is exported).

However, the details of CBAM need to be designed in a way that enables and speeds up this market access. This includes the definition of the metrics, the procedures, systems and timelines to be used for tracking, the payment approaches (pay first with potential rebate later or pay if and when confirmed high embedded emissions; payment by exporter or by importer, etc.). Currently, these details are designed without leading African industrial and government players at the table.

The EU has the opportunity to act as a standard and value setter with its regulatory power, ensuring that CBAM is seen as an opportunity for growing and structuring carbon markets across Africa with a key impetus for green industrialisation; and revenues collected from CBAM levies can be partially re- invested in Africa to consolidate and establish solid policy and regulatory frameworks as well as for co- innovation/professional development/training of practitioners.

To address negative socio-economic impacts of required transitions related to current high-emission exports, some of the CBAM proceeds could be used to support just transition for existing emission- intense African export products, to "soften the blow" for current high-emission industrial exports. One pathway for achieving this is through a CBAM «discount". Under this mechanism, importers can access a "discount" on the amount of certificates to be bought at the frontier if they can show to have effectively paid a carbon price in the country of origin. This option enables the exporting country to keep carbon revenues within their borders, and channel that capital into supporting green industry, rather than paying the EU for CBAM certificates. While the exact definition and terms of the carbon pricing systems eligible for CBAM liability are yet to be defined by the EU, this provision represents an important trigger for diffusing carbon pricing around the world.

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