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Recent developments in African carbon markets

November 2023



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Today (9 November), the Johannesburg Stock Exchange (**JSE**), which operates Africa's largest stock and bond exchange, launched its recently announced carbon market in collaboration with Xpansiv, an infrastructure provider for global environmental markets. The new market will operate under a separate entity called JSE Ventures and is intended to allow local participants to buy or sell carbon credits and energy certificates, that are held in either local or global registries. Such trade of carbon credits forms part of broader global efforts to reduce green-house gas (**GHG**) emissions, which are gathering momentum and urgency. The September northern hemisphere heat waves demonstrate the crisis in very tangible terms, having been described by climate scientist Zeke Hausfather as 'absolutely gobsmackingly bananas'.

The basic premise of these markets is that companies can reduce their global carbon footprints by purchasing carbon credits, which are then offset against other activities that generate GHG. Voluntary carbon markets, such as the one now proposed by JSE Ventures, allow entities to buy carbon credits at their discretion to offset their emissions. Although the lines are becoming blurred, voluntary markets are traditionally distinguished from compliance markets, where companies buy carbon credits to meet obligations under domestic laws or international agreements, often under cap-and-trade structures like those in the European Union and California.

A global view

These developments come at an interesting inflection point for carbon markets globally. After a period of steady growth in voluntary carbon credit inventory between 2011 and 2019, there has since, been an accelerating drop available inventory. Hence, the market is now heavily constrained, at a time when supply is required to grow by five to 10 times by 2030, just to meet publicly expressed demands in terms of net zero emission pledges.

This constraint is further challenged by other factors, including that since 2019, carbon registries VCS and Gold Standard, stopped accepting certain renewable energy credits, on account of them not meeting the criteria for 'additionality' (discussed further below).

Equally, there is a justifiable increase in the focus on greenwashing, and related low-priced or junk credits that make limited environmental impact. A recent study by an international team of scientists and economists, led by the University of

Cambridge and VU Amsterdam, examined 26 carbon offset projects in six countries on three continents. This study found that most of the projects had not reduced deforestation significantly, and those that did, had benefits substantially lower than claimed. The study further highlighted that the voluntary market risks not affording buyers any means of distinguishing quality of the carbon project, which can lead to breakdowns in trust and eventually market collapse – ultimately slowing the fight against climate change, rather than assisting it.

There is therefore a pressing need for market integrity and a growing demand for higher-quality credits. As with any exchange market, it will require time for sophistication and evaluation to develop, to ensure higher-quality trading. In the mean-time however, the core requirements for carbon credits, being they are real, additional, measurable, verifiable, permanent and unique, will need to be closer scrutinised to enhance the development of the market.

African carbon projects and related credits

Notwithstanding these challenges, we see great potential for carbon projects and related credits to positively contribute towards combatting climate change. We are actively involved in various emerging carbon exchanges and carbon projects in a number of African jurisdictions, including in Kenya, Rwanda, South Africa, Tanzania, and Zambia.

In addition to contributing towards the mitigation of climate change, these projects, if developed and operated properly, can result in numerous other potential benefits, including community upliftment and employment, and the generation of new and diversified income streams that boost the economy.

Given that Africa's forests provide a significant carbon sink for the absorption of carbon dioxide from the atmosphere, the projects we are involved in are often in pursuance of the issuance of forest carbon credits, either in the form of afforestation/reforestation (i.e. restoration), or avoided deforestation (i.e. protection), projects. Some of the key issues affecting these projects, and restricting the ability to bring good projects to market, include the following:

- **Legislative and policy certainty**

Following the collapse of the Clean Development Mechanism, as developed

under the Kyoto Protocol, there is no independent international framework carrying the force of law that stipulates the quality of credits or the claims that companies can make based on their purchases in the voluntary market, although there are numerous independent global initiatives, including, most recently, the ICVCM Core Carbon Principles. These organisations, like the carbon registries themselves, are self-appointed, and, while striving for improved methodologies and processes, do lack some of the checks and balances associated with instruments that bear the force of law, and can be influenced by incentives that compromise impartiality.

Such initiatives must be considered in conjunction with domestic legislation that exists to regulate carbon credits. In Sub-Saharan Africa, government regulation of carbon projects is still in its early stages and much remains to be seen on how carbon projects will be regulated in practice. Some recent updates are set out below.

KENYA

Kenya recently enacted The Climate Change (Amendment) Act, 2023, which amends the Climate Change Act, 2016, to provide for the regulation of carbon markets. Whilst the new legislation is a significant attempt to enhance the growth of carbon markets in Kenya, there are concerns around the implications of some of its provisions, particularly the introduction of a punitive 'annual social contribution' towards both non-land based and land based projects which does not consider the large upfront costs involved with some projects or the different structuring options that apply to different types of carbon projects (among other concerns).

The Ministry of Environment, Climate Change and Forestry has also published the draft Climate Change (Carbon Markets) Regulations, 2023 which are intended to supplement the provisions of the amended Climate Change Act. The draft regulations have unfortunately also raised concerns in respect of the introduction of a complicated process for the approval of carbon credit projects. Stakeholders continue to engage with the Government in an attempt to ensure collaboratively that correct steps are taken in relation to the regulation of this evolving sector.

SOUTH AFRICA

South Africa has enacted a range of legislative measures to measure and monitor carbon or GHG emissions, including the introduction in 2019 of a Carbon Tax Act as a fiscal measure to reduce GHG emissions in South Africa, through the levying of a carbon tax on GHG emissions. The Act is

being introduced in phases with the objective of creating parity in the third phase with global carbon pricing.

The implementation is currently in the first phase with substantial allowances for GHG emitting taxpayers to minimise the impact on businesses and electricity prices. In the first phase direct emissions are taxed (being the sum of GHG emissions from fuel combustion, industrial processes and fugitive emissions in accordance with an emissions determination methodology approved by the Department of Environment, Forestry and Fisheries).

The scheme of the Carbon Tax Act allows for trade in emission reductions, which JSE Ventures hopes will drive demand and liquidity in its new carbon market. In terms of the Carbon Offset Regulations, carbon reduction projects may be registered and used to offset a person's carbon tax liability, and ownership transfer of these projects can be registered through the government run Carbon Offset Administration System. Because of the low rate of carbon tax, presently there is not a large demand for this market but this is anticipated to increase as the price of carbon increases annually through the carbon tax. These measures together with the consolidated regulatory regime for climate change, the 'Climate Change Bill' (read our newsflash [here](#)), which has recently been passed in the National Assembly of Parliament promise to greatly invigorate carbon emissions reduction projects and trade in carbon in South Africa in future.

TANZANIA

Tanzania has committed to reduce GHG emissions between 30 to 35% relative to the business-as-usual scenario by 2030. It recently adopted The Environmental Management (Control and Management of Carbon Trading Mechanism) Regulations, 2022 (as amended in October 2023) to establish a framework for control and management of carbon trading, including a national carbon registry. The Regulations were recently amended to improve them, though there remain various issues and unresolved questions around the regulatory regime and practical implementation, which the Government may tackle by working together with relevant stakeholders to support and enable carbon markets in Tanzania.

First, the Regulations provide for what stakeholders believe to be a complicated and administratively burdensome registration process for projects. This includes a registration fee of 1% of the average expected annual gross revenue from the sale credits payable for the lifetime of the project determined by the Designated National Authority based on the existing global market price. The registration process may be simplified without

compromising the integrity of the process or government oversight.

Second, there are significant questions around financing and revenue structures for projects, which affect the viability and sustainability of proposed projects. Costs and benefits sharing arrangements must either be negotiated or are prescribed. For REDD+ projects, the prescribed costs and benefits sharing arrangements require 61% of the gross revenue accrued from the sale of credits to be paid to various local stakeholders, 31% to the proponent and 8% to the Designated National Authority (covering an annual administration fee of 5%, and annual project fee of 3%, of the gross revenue from the sale of credits).

Third, there is a need for coordination amongst the various regulators, including the Bank of Tanzania and Tanzania Revenue Authority, to ensure an aligned and enabling regulatory environment for approval, development and operation of carbon projects and carbon trading mechanisms.

Additionally, an open-ended list of grounds for the cancellation of project endorsements, some of which are very broad, introduces uncertainty and political risk for developers and investors. Recent amendments to the Regulations have recognised REDD+ projects, and seek to introduce Article 6 mechanisms under the Paris Agreement, with the guidelines and framework for implementation to be developed in line with Article 6.

ZAMBIA

In Zambia reliance is placed on the Forest (Carbon Stock Management) Regulations SI No. 66 of 2021, which encourage community forest management groups to mobilise and participate in carbon trading. These Forest Carbon Regulations also set out the procedure for conducting forest stock trading.

The key shortcoming of the Forest Carbon Regulations is the restriction to forest related carbon such as deforestation reduction, forest degradation reduction and enhancement of carbon stocks. To mitigate this, the Ministry of Green Economy and Environment issued interim guidelines on carbon trading/markets, which cover a broader range of eligible carbon projects than the Forest Carbon Regulations, including forest related projects, promotion of renewable energy sources, and switching from high carbon fuel to lower carbon intensive fuels.

The guidelines also aim to ensure that Zambia's trade and regulation of carbon meets international best practice. Generally, while the interim guidelines have supplemented the Forest Carbon Regulations by extending the scope to other fields such as renewable energy, infrastructure and landfill, they have been criticised

for not yet achieving the ideal framework required to meet international expectations.

- **Political risk**

One of the key requirements of a carbon credit, is that it must be "permanent" (more about that below). Globally, carbon projects face significant political risk, particularly in developing countries where the nature and duration can be adversely affected by a government or sentiment change. Recent government interventions in certain countries have significantly altered the carbon markets to the detriment of both existing and planned projects.

Where other developed products can mitigate this risk with adequate insurance, there are currently very limited insurance policies available for carbon projects. The World Bank's insurance arm, The Multilateral Investment Guarantee Agency (MIGA), is developing insurance offerings to facilitate investment in countries perceived to be high risk, which we hope will go some way to easing investor concerns.

- **Jurisdictional vs project-based approach**

Jurisdictional programs are those that operate at the scale of national or large subnational level, as opposed to issuing of credits at a project level. Some argue that jurisdictional-scale programs are better able to address some of the issues associated with this area, such as mitigating the risk of leakage (where an activity that causes emissions, such as deforestation, is displaced to another area outside the boundary of the project, thereby causing emissions elsewhere). It is also argued that such larger scale programs may incentivise governments to assist through improved law enforcement, recognition of land tenure and incentives for private landowners (or concession holders on state-owned land). While these arguments hold water, in practice, a purely jurisdictional approach may serve to disincentivise more nimble credible operators, including corporates, focussed on project level initiatives.

- **Additionality**

In order to be credible, projects should create a benefit that is 'additional' to what would exist in the absence of the project and its credit revenues. Multiple recent examples exist, even involving credible international operators, of projects that have claimed credits relating to avoided deforestation projects that have delivered no change to the

circumstances that would have existed absent the project, or where the benefits have been exaggerated or distorted by using as a comparison proximate land use for logging or land that is near roads and hence more prone to deforestation for charcoal purposes.

In Kenya for example, VERRA has suspended credits and is currently undertaking a quality control review in relation to a celebrated soil carbon removal project following questions surrounding the project including the credibility of the credits generated from the claimed practices from an additionality perspective. Credits that are issued in respect of such projects do nothing or little to address climate change but serve only to allow the purchasers thereof to advance their efforts to net zero proclamations.

Many opportunities however exist in Africa to genuinely protect land that will otherwise be deforested and, even better, to rehabilitate land, and will hence allow for additionality.

- **Measurability**

The fundamental question here, is can a carbon project be quantified. Unfortunately, many of the traditional impact measuring methods are inaccurate, based on formulae as opposed to exact science or are prone to abuse. Advances are being made in automated data collection which will improve accuracy and credibility, including satellite imagery, AI, machine learning and drones, amongst others.

- **Permanence**

There is a debate about how long carbon needs to be sequestered in order to qualify for credits, some suggesting this should be as long as 100 years, and what quantum of 'buffer pool' needs to be created for reversal risk. This is difficult to guarantee in respect of trees, which take time to grow in the first place, but which are situated on land, the tenure of which is generally shorter.

African initiatives and COP-28

In a broader African context, The Africa Climate Summit (**ACS**) championed by H.E. President Ruto and the African Union Commission (**AUC**) was held in Nairobi between 4 and 6 September. With Africa continuing to bear the burden and risks of catastrophic climate change related impacts, the ACS brought together African heads of state and governments, global leaders, development partners, civil society organisations and other high-level stakeholders to discuss the decarbonisation

agenda and current challenges, explore opportunities and reassert Africa's position on the climate change agenda.

The ACS culminated in the Nairobi Declaration which is expected to be the basis for Africa's common position in the global climate change process to COP 28 and beyond. In this regard, key agenda items from the Nairobi Declaration and which may be expected to feature in Dubai at COP28 later this month include:

- Reassertion of the commitment to provide USD100 billion in annual climate finance as promised at COP15 in Copenhagen, Denmark;
- Operationalization of the Loss & Damage Fund as agreed at COP27 which was specifically targeted at developing countries that are particularly vulnerable to climate impacts (the majority of which are African nations);
- Collective global action to mobilise the necessary capital for both development and climate action ('No country should ever have to choose between development aspirations and climate action' – Paris Pact for People and the Planet);
- A plea to the international community to contribute towards Africa's vision of economic transformation in harmony with the climate needs including by, amongst others:
 - Increasing Africa's renewable generation capacity from 56 GW in 2022 to at least 300GW by 2030 both to address energy poverty and to bolster the global supply of cost-effective clean energy for industry;
 - Facilitating access to and transfer of environmentally sound technologies, including technologies to support Africa's green industrialisation and transition;
 - Designing industry policies that incentivise global investment to locations that offer the most and substantial climate benefits while ensuring benefits for local communities; and
 - Implementing a mix of measures that elevate Africa's share of carbon markets.

Given previous criticisms on the slow progress despite the numerous commitments from the previous conferences, Africa is heading to COP28 emboldened by the relative success of the ACS, to demand urgent and bold decisions towards the climate change mitigation and adaptation.

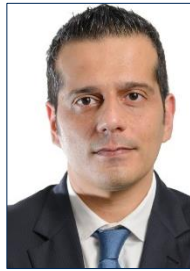
It remains to be seen how far the ACS commitments and pronouncements will influence and impact the overall push by Africa during the COP-28 for the fulfilment and implementation of pledges, funding and resource sharing especially as the adverse effects of climate change continue to be witnessed globally.

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