

THE AFRICA CARBON MARKETS INITIATIVE

A WOLF IN SHEEP'S CLOTHING

2023

Contents

Executive Summary	3
Carbon Market Failures for Africa	4
Failing the Climate	4
Failing African Development	5
Exploiting Africans to benefit brokers	6
Financing Africa’s Climate Action	7
1. Introduction	9
What is the ACMI and what does it claim?	10
Understanding carbon markets: Some key concepts	11
What is the scope of the Voluntary Carbon Markets?	13
Troubled history of the flawed Carbon Market within the UNF.....	13
A New Form of Colonialism	14
2. Why Carbon Markets and ACMI would fail Africa	17
Failing The Climate	17
Failing African Development	22
Exploiting Africans to benefit brokers	27
3. What alternatives do African Countries have for Climate Finance	33
Africa’s Climate Funding Gap	33
ACMI is not the solution	33
Call for an alternative ‘Polluters Pay’ Fund managed by and for Africa	34
Alternative Financial Flows to scale up African Climate Action	35
Endnotes	36

Executive Summary

The African Carbon Market Initiative (ACMI) is a dangerous distraction for Africa from its real interests and priorities for development, energy, climate, biodiversity and resilience. Africa must reject it.

African countries are rightly demanding climate funding from polluting countries and companies in the global north, who have caused the climate crisis that is devastating African people, economy and nature. But carbon markets benefit the polluters, the fossil fuel companies and the market brokers. It will drive pollution beyond climate limits and puts neo-colonial obstructions to the attainment of genuine African development pathways. It is a wolf in sheep's clothing that will bite back creating numerous new and serious problems while not providing any real benefits.

Carbon markets assume that western companies will continue to emit huge quantities of greenhouse gases (GHG) in the coming decades, purchasing carbon credits to 'offset' these emissions. But there is no room for the illusion of offsets in a world that has vastly exceeded safe levels of climate pollution and where polluting companies ought to be aiming for real zero emissions, not net zero, as fast as possible. Climate science is clear there is no time for pretending there is an offsetting alternative if we are to keep within the 1.5°C target or even below the unimaginable disaster of 2°C of warming¹.

Carbon credits are a financialisation of African nature and the climate crisis, dealing in an imaginary commodity of tonnes of carbon 'saved'. ACMI claims its purpose is to create a market for a 'high-value export commodity'. However, the two biggest winners from carbon markets are the fossil fuel companies, as it allows companies across the world to continue to burn their polluting product with impunity, and the financial brokers who buy and sell the credits with huge mark ups.

Carbon Market Failures for Africa

For more than two decades, polluters and investors have been promising carbon markets would bring development to Africa. They have failed. Faced with spiralling climate and development challenges, carbon markets are now a dangerous distraction. In this report we present the many arguments against carbon markets and demonstrate why the African countries should step away from the ACMI.

Failing the Climate

The ACMI growth target would allow big private companies to emit an additional 1.5-2.5 Gigatonnes CO_{2e} per year by 2050, more than the total emissions from fossil fuels from all of Africa in 2021 and double the entire annual CO₂ emissions from all of sub-Saharan Africa².

Failure 1: Carbon credits are in reality Pollution permits – an imaginary commodity created to benefit the wealthy, not the climate.

The creation of this imaginary commodity within a technocratic system shifts power away from people and local governments and communities, and towards a global elite that are the principal cause of the climate crisis, and the main beneficiaries of the pollution permits ('carbon credits'). The projects in Africa enable the wealthy to continue polluting, while giving an illusion of commensurate carbon neutralisation through questionable accounting methodologies.

Failure 2: 'Carbon markets' (Pollution permit markets) will increase global emission which is devastating for African nations.

Carbon markets/pollution permit markets undermine the achievement of the Paris Agreement objective of keeping global temperature rise below 1.5°C, which requires real-world reduction in greenhouse gas emissions everywhere, particularly in rich countries. The carbon credit producing projects - renewable energy, avoided emissions or nature projects - do not nullify the emissions of the polluting companies that buy them. In practice, the net impact is to increase the climate crisis devastating African nations.

Failure 3: The ACMI builds on double counting of emissions.

The ACMI Roadmap presents carbon credits as helping African countries progress towards achieving their national climate goals; and at the same time helping the offsetting company reach their net zero target and the country where the company emissions happens. This is double counting of each tonne of carbon – a kind of accounting fraud that would be illegal elsewhere.

Failure 4: Carbon credits falsely assume emissions from burning [safely stored] fossil carbon is interchangeable with carbon temporarily stored in biological systems.

There is a wrongful assumption that fossil and biological carbon are equivalent and interchangeable, when the two have very different life cycles. Credits from "nature-based solutions" are used to justify digging up more fossil carbon. Yet projects such as avoided deforestation or afforestation are not permanent, the carbon stored is released when trees burn or land degrades, or if there is a change of land-use under new land management or government in a country. Climate change itself is a threat to tropical forests. Once emitted, fossil carbon compounds to the overall problem.

Failure 5: Creative new methodologies hide the failure to neutralise emission of the ‘offsetting’ company.

New methodologies being adopted under the ACMI – such as ‘diesel to clean’ and ‘coal to clean’ methodologies - do not overcome creative accounting failures. At best they add no new emissions to the atmosphere, but they do not remove any carbon to neutralise the pollution by the purchasing credit company.

Failing African Development

Project objectives are defined by the neo-colonial carbon market to enable polluting entities to continue polluting, while shifting the carbon ‘reduction’ elsewhere as cheaply as possible, and not by the development and resilience needs of African countries or communities, such as food security, thriving economic development or decent work. The fundamental logic of these ‘pollution permit markets’ is to benefit and make it easier for the polluter to continue emitting.

Failure 6: Carbon markets will not benefit Africa’s sustainable development and jobs.

The ACMI uses a simplistic multiplier to calculate the projected number of jobs assumed to be created, based on both assumptions of high carbon credit costs and seemingly inflated relations between number of jobs and the volumes of carbon credits generated. The jobs calculation by ACMI includes not only direct job creation but also assumption of jobs ‘supported’ through additional incomes.

Failure 7: The myopic focus on tonnes of carbon undermines development objectives.

A myopic focus on carbon creates perverse incentives that undermine development objectives, and often incentivise maladaptation, with detrimental social and environmental outcomes. Ultimately, they bias the projects towards maximisation of tonnes of carbon over and above producing food or meeting other development needs of the people. The hype around carbon markets in Africa is creating fertile ground for a new type of entrepreneur whose sole corporate purpose is to manufacture carbon credits, with no experience of running energy or nature projects.

Failure 8: It risks undermining land rights, farming, food security and has multiple undesirable consequences for local communities.

Planting new forests for carbon credits requires land, as does flooding valleys for new hydro-power projects. And those already living and using that land fear that scaled-up “land-grabs” will put the security of their livelihoods and cultures at risk. Concerns about land-grabbing and human rights impacts have plagued carbon markets, and ACMI will be no exception.



Failure 9: It allows use of fossil fuels to produce carbon credits in the guise of cooking stoves projects

ACMI paradoxically proposes the replacement of highly health damaging charcoal stoves with highly climate damaging coal and liquified Petroleum Gas (LPG) stoves. Instead, urgent provision of clean cooking requires locally appropriate and affordable, near zero carbon solutions designed with and for the target communities, including electric cooking, ultra-low emission biomass stoves and locally produced biogas.

Failure 10: It promotes direct air capture, a non-starter for African development.

The Kenyan government, ACMI and related private organisations are pushing for the use of direct air capture (DAC) technologies. In theory, these would remove CO₂ directly from the air. However, there are fundamental issues with DAC that make them unviable, including extremely high costs and energy intensity, toxic pollution, fundamental problems with storage, and diversion of renewable energy resources away from delivering low-emissions universal energy access to African communities.

Exploiting Africans to benefit brokers

The credit producing project may get less than a third of the money paid by the Western offsetting company for the credit, while shifting the burden of tackling climate change to Africa and imposing new burdens on African countries and people.

Failure 11: Carbon Markets exploit African countries while lining the pockets of the middlemen.

African countries will be sorely disappointed that the actual flows of funds are far below the stated market value. The claimed global market valuation of \$2 billion represents the price of transactions in the market, but the price paid to the clean energy or nature-based projects delivering the credits is far lower due to multiple actors taking their 'cut'. A market worth \$100 could be due to a single \$10 credit representing one tonne of carbon dioxide being traded 10 times, and the price paid to projects in Africa may be less than a third of the price paid for the credit by the Western company.

Failure 12: Multiple players with vested and conflicted interest

The project developer, the standard-setter and the verifier, each have incentives to overstate offset claims. The project developers can increase its profits if it has more offsets to sell, and the verifier is hired and paid by project developers, plus the standard setter's fee depends on the amount of offsets certified. The same credit can then be traded between brokers an 'infinite' number of times before it is sold to its final end-user. Conflicts of interests are inherent to carbon markets, due to the imaginary nature of the commodity – "avoided carbon".

Failure 13: Fossil fuel companies are the ultimate winners

Fossil fuel companies are active in diverse roles throughout the carbon market, including as project developers and intermediaries, often through subsidiaries². Fossil fuel companies are also brokering credits, so winning twice as they sell their fossil fuels to companies who then buy their credits to offset the emissions. A win-win for fossil fuel companies only strengthens the main architects of the crisis.

The endorsers of this report therefore call on African countries to withdraw from and take no further interest in the ACMI and all carbon market mechanisms.

Financing Africa's Climate Action

African countries and communities urgently require investment in development solutions including zero carbon energy, which ensures energy access across the continent, resilient agriculture systems for food security, and efforts to conserve its nature and revitalise ecosystems which have been degraded. But African countries need to take agency of their own development and investment future.

We therefore propose that African governments develop a new 'polluter pays' funding mechanism, to incentivise cleaner production and enable polluting businesses to contribute towards African-defined climate mitigation and adaptation actions. The sums paid by companies for polluting should increase over time, so incentivising real emissions reductions by the polluting companies to stay within the limits set by the Paris agreement. The projects benefiting from this fund will drive capacity within African countries for clean, resilient and affordable development which are defined and delivered directly by local communities and aiming to reduce dependence on external funding over time.

Additionally, we encourage the African Leaders to look for other financial flows to implement their own zero-carbon sustainable development pathways, including:

- » Demanding a **fair share for Africa of climate finance**.
- » **Scaling up sources** from existing mechanisms and innovative sources.
- » A **redirection of fossil fuel subsidies** and investments towards environmentally and socially sound renewable energy.
- » **Renewable Energy Partnerships** – that truly benefit countries' transition and are based on grants.
- » The systematic **cancellation of unfair, illegitimate and odious debts**.
- » African countries to **increasingly invest domestic means and currencies** in renewables, agroecology and sound industrialisation, ensuring democratic sovereignty over their own development pathways.





1. Introduction

Across Africa, senior political leaders, philanthropic groups, big private companies and multilateral organisations are lining up to be part of the new Africa Carbon Markets Initiative (ACMI). It has been billed as “harnessing carbon markets for Africa” and sold as a “major opportunity to accelerate economic development and simultaneously curb greenhouse gas emissions”. The proponents claim it will bring US\$6 billion in revenue by 2030 and over US\$120 billion by 2050 to the continent through the voluntary carbon market (VCM); and will create up to 100 million desperately needed jobs⁴. This new market is being set up to target energy, agriculture, ecosystems, and waste management projects across the continent.

ACMI is being framed as a major climate finance opportunity for many African countries and private sector developers who want to ignite climate action across the continent. The African Voluntary Carbon Market Forum in July 2023 attracted African heads of state as well as CEOs from major financial institutions, and the ACMI was a central plank of the Africa Climate Summit⁵ in September 2023.

There were high hopes that the Africa Climate Summit would be an African summit for and by African nations, to prioritise the multiple challenges facing the continent. However, African civil society groups have raised concerns that the Summit has been hijacked by Western interests⁶, including Western governments, consultancy companies and philanthropic organisations who have introduced a pro-West agenda and interests at the expense of Africa. Civil society groups say that high on the Summit agenda are “*false solutions such as carbon markets and geo-engineering which are designed to encourage wealthy countries and people to continue polluting and turning Africa into a dumping ground and field for technological trials*”.

This report demonstrates that the ACMI can never deliver on its claims for Africa. It is a wolf in sheep’s clothing that will bite back, creating numerous new and serious problems while not providing any real benefits.

Africa’s troubled history with carbon markets and a more fundamental understanding of what they involve, gives strong reasons to question the reality behind the carbon markets hype. In this report we expose the many false claims of particularly the Voluntary Carbon Market (VCM) and the ACMI and expose the harms it would bring to the continent’s people, nature and economic progress. We present alternative sources of sustainable and impactful finance that the continent should claim to strengthen sovereignty and implement real solutions to the multiple challenges Africa faces across climate change, poverty, and development.

What is the ACMI and what does it claim?

The ACMI is sponsored by the Global Energy Alliance for People and Planet (GEAPP)⁷, Sustainable Energy for ALL (SEforALL)¹, and the United Nations Economic Commission for Africa (ECA) and is backed by the United Nations High Level Champions as well as a number of philanthropic organisations and donor agencies. The Voluntary Carbon Market is gaining attention in Africa from financial institutions, finance ministries and private partners who broker the carbon market². It is being set up to develop a ‘high-value export commodity’ as a primary purpose. ACMI claims that: *“Voluntary carbon markets (VCMs) represent a major opportunity to accelerate economic development and simultaneously curb greenhouse gas emissions³.”*

So far seven countries have supported the initiative – Kenya, Gabon, Malawi, Mozambique, Togo, Nigeria, Burundi and Rwanda⁴ – and ACMI says it already has \$200 million advanced market commitments and will announce 13 action programs at COP28. The President of Kenya, William Ruto, declared that “Kenya’s next significant export will be carbon credits,” while speaking at the launch of African Carbon Markets Initiative⁵.

In the lead-up to COP28, ACMI’s action programs aimed to accelerate Africa’s participation in the global carbon market and claimed that it would be:

- » “Launching country activation plans for multiple countries.
- » Advancing market commitments with an ambition up to \$ 1 billion for the purchase of high-integrity African credits.
- » Developing projects based on new methodologies and the realities of Africa such as diesel replacement credits and biodiversity credits.
- » Increasing a significant volume of credits on the continent”.

Working with major carbon credit buyers and financiers such as Standard Chartered, Nando’s and Exchange Trading Group, ACMI intends to establish an advance market commitment for “high-integrity” African carbon credits.

The picture painted by ACMI’s proponents of assumed financial flows to Africa seems very rosy, but the details of how the credits will be managed, what projects it has in its sight to take advantage of the credits or which companies or countries will actually take part in the VCM are so far very unclear.

The ACMI is underpinned by analysis from the American consultant group McKinsey⁶, a company that has a vested interest in supporting their client companies to offset emissions⁷ to achieve their so-called ‘net zero’ strategies. McKinsey were tasked at COP26 in 2021 to provide ‘knowledge support’ to the Taskforce on Scaling Voluntary Carbon Markets (TSVCM)⁸ to encourage the massive scale up of the VCM – a scheme that was described by NGOs as “a giant get-out-of-jail-free card for polluting companies” that will “undermine tighter controls in international agreements while doing little to actually tackle the climate emergency”⁹.

McKinsey claim that their interest is to strengthen the ‘integrity’ of the VCM through market structures and tighter verification methodologies. However, they also admit its limitations¹⁰, such as “the heterogeneous nature of credits creates potential for errors and fraud” and that “the market’s lack of price transparency also creates the potential for money laundering”. Also, they say that “credits’ co-benefits (such as community economic development and biodiversity protection) are seldom well defined”.

Understanding carbon markets:

Some key concepts

What are Voluntary Carbon Markets, Net Zero, Carbon Offsetting, and Carbon Credits?

This voluntary carbon market works in four stages:

- » Projects in Africa generate carbon credits from projects in sectors including energy, waste management, agriculture, and nature conservation. One carbon credit is equivalent to one tonne of carbon dioxide equivalent (CO_{2e}) stored, reduced or avoided by the project, which is commodified and used to justify the issuance of a financial asset called a “carbon credit”.
- » A complex accreditation and verification process is used to validate that the tonnes of ‘carbon have actually been avoided (i.e. that they are “additional” and would not have been avoided, without the project’s effort to avoid them), which are sold on as voluntary carbon credits to the voluntary carbon market (VCM).
- » These credits are traded by one or more VCM brokers, to be sold to foreign companies.
- » These companies use the credits to ‘offset’ their own greenhouse gas emissions, to support the claim they are on track to meeting their internally set ‘net zero’ carbon reduction targets.

Types of Carbon Markets: there are two types of carbon markets. In the compliance markets, governments set up for example an emissions trading scheme such as the European Emissions Trading Scheme (EUETS) which has a cap on total emissions within the geographical area of the scheme. Polluting companies can buy unused emissions rights from other companies in the scheme to continue polluting beyond their pollution allocation. Corporations or countries can also buy ‘offset’ credits from entities in countries and jurisdictions that are not in the geographical area of the scheme. In the voluntary carbon markets, companies that do not fall under any legislation but opt to set their own carbon emissions reductions targets, and purchase carbon credits in the voluntary carbon market (VCM) to ‘offset’ when they fail to meet their target.

Net zero: Theoretically, net zero emissions are achieved when emissions of greenhouse gases (GHGs) from human activities to the atmosphere are balanced by carbon removals from the atmosphere, by nature or removal technologies. A number of companies have set ‘net zero’ targets for their emissions by mid-century. These targets are taken on voluntary basis to show customers they are part of the climate solution. Some companies choose to demonstrate their commitment by joining accreditation schemes such as the ‘Race to Zero’¹¹ or verifying their targets as ‘science based targets’¹². Others have chosen internal definitions and strategies which are often less rigorous or transparent. In other cases, companies are under legal obligations to reduce emissions and can if their country is part of an emissions trading scheme ‘offset’ reductions by buying certified carbon credits from entities in other geographical areas. In all these cases, carbon offsets deliver part of their targets. The concept of net-zero has been widely criticised as enabling continued climate pollution, as have the claims made by companies seeking to use carbon credits to claim they are net-zero, while continuing polluting activities.

Carbon offsetting: carbon offsetting is a way to outsource your carbon reduction to someone and somewhere else. It is a means of paying someone else to carry out the emissions reduction on your behalf, to compensate for the emissions you as a company or country have not yet eliminated. A country or business can buy carbon credits on the understanding that these credits represent commensurate carbon reduction actions elsewhere in the world¹³. Each credit represents an ‘offset’ emission of one tonne of CO₂ equivalent. These are purchased through publicly accessible emission registries held by international standards and global exchanges (brokers). Once purchased the credit is supposed to be retired so it cannot be used again.

Credit Verification and Certification:¹⁴The project producing the credit has to be certified by internationally recognised standards . These projects are subject to (and pay for) auditing processes that ensure that the project adheres to the criteria set by the certifying body such as ensuring: additionality, permanence, measurability, no negative impact on local populations, and no double counting. Verification applies different ‘methodologies’ for accounting carbon savings. Verification and certification involve additional costs that reduce payments to project developers and communities.

Types of voluntary carbon credits: There are different types of credits in the voluntary carbon market. Avoidance credits for external projects that avoid or reduce emissions production, such as building a wind or solar farm. Removal credits for projects that somehow removes carbon dioxide from the atmosphere¹⁵. Removal projects deploy either nature-based approaches such as afforestation (introducing trees to a previously unforested area), or involve more speculative new technologies such as Direct Air Capture (DAC) of CO₂. Replacement credits are new emerging products which e.g. claim to shift from fossil energy to renewables such as ‘diesel replacement credits’, or a new proposal for the ACMI of ‘coal to clean’ credits to help re-train coal sector workers to new clean jobs.

VCM Brokers: The VCM has been criticised as opaque and non-transparent¹⁶. The market is managed by brokers who buy and sell credits with little or no transparency. They can add transaction costs and the mark-up cost they take before selling to offsetting companies. Credits can be bought and sold many times by different VCM brokers before selling to the final purchasing companies. Many big companies are becoming brokers, with Commodities giants Vitol, Glencore, and Trafigura all having opened carbon trading desks last year¹⁷. Carbon credits are an example of financialization of nature, where the credits can in turn be used in financial markets for derivatives trading in futures and options, with risks of speculative bubbles and new financial crashes.

What is the scope of the Voluntary Carbon Markets?

The global market size is claimed to have reached US\$1 billion in 2021¹⁸ and US\$2 billion in 2022¹⁹. This figure represents the volume of transaction in the market, but by no means represents the number of projects, or amounts of money that will flow to climate projects. The amount going to the projects which produce the credits can be substantially less, after market brokers and verification companies take their cut.

The total number of individual credits purchased in 2022 were just 155 million tonnes equivalents. This was down 4% from 2021, with the reduction thought to be due to fears of reputational risk from purchasing low-quality credits²⁰. Market imperfections as well as question marks over transparency and credit quality were given as reasons why these markets are unstable²¹. At the same time the creation of credits by projects around the world grew to 255 million – one hundred million more than were purchased. Supply outstripping demand for credits will keep the price paid to the credit producing projects very low. This benefits polluters, and harms those who ACMI claims will benefit from voluntary carbon markets – African people, companies and communities.

While current costs of compliance market credits are as high as \$80 per credit in the EU ETS, the price for a voluntary credit can be lower than \$2²² per credit, though 2023 prices have been between \$5 and \$10 on average²³. The Gold standard voluntary credits recommend minimum value of between \$9 for energy efficiency projects and \$14 for forest management projects to provide ‘fair trade’ projects which promise both climate and development outcomes²⁴. The ACMI targets assume \$10 per credit²⁵ or more. However, historic experience shows that a massive flood of new credits to the market, as planned by the ACMI, can only drive down the price paid.

Troubled history of the flawed Carbon Market within the UNFCCC

During the United Nations Framework Convention on Climate Change (UNFCCC) and Kyoto Protocol negotiations, Africa was promised benefits from carbon markets that never transpired. The weak bottom-up system of the Paris Agreement only increases the likelihood Africa will be fooled twice.

The original concept of carbon markets was within a framework of an enforced capped market, with the cap reducing year on year, and so pushing up the price of carbon and incentivising carbon reductions by the polluting companies. The translation of this idea into a global context with almost 200 countries as Parties to the Paris Agreement, with no global cap on pollution (just bottom up “national contributions”) is fundamentally flawed. The result is that multiple attempts to create carbon trading schemes – both mandatory and voluntary – have failed and will continue to fail. The very idea of such markets is fundamentally flawed.

The reason the main proponents of carbon markets in the United Nations climate negotiations are developed countries and polluting corporations, is that it benefits them at the expense of the Global South and its people. Consistent efforts to frame carbon markets as “clean development mechanism” or as promoting “sustainable development” have not been borne out by the lived experience in low- and medium income countries.

There remains confusion over the accounting of voluntary carbon credits within the UNFCCC²⁶ system, in the challenging negotiation under Article 6 of the Paris Agreement. There is a strong potential for double counting of the emissions reduction in the VCM if they are accepted as officially contributing to delivery of a national commitment (that it a carbon reduction occurring once but being accounted for twice – in both selling and purchasing countries). Any double counting of reductions directly undermine the integrity of achieving the Paris 1.5°C goal.

A New Form of Colonialism

Academics, civil society, think tanks and various public institutions have been calling out the failings of carbon markets for well over two decades, recognising from the start that they divert responsibility as they distract rich countries and companies from reducing their own emissions, and locking in high-emission levels in the Global North.^{27,28,29,30,31,32}

The ACMI represents a financialising and commodification of the climate crisis and of nature, allowing rich countries and companies to dodge their own carbon mitigation responsibilities. It crowds-out more effective solutions that involve regulating industries and rapidly shifting to new technologies and approaches. They create an illusion of emissions reduction, while bypassing their own responsibility on to poorest and most vulnerable countries and people at the lowest cost possible, counting tonnes of carbon 'saved' over sustainable development outcomes for African people. In short, it represents neo-colonialism.

At COP26 representatives of Indigenous Peoples stated that carbon markets are a means by which capitalist economies continue to pollute, while commodifying and colonising nature and people in the Global South. Their statement called carbon markets “an illusion constructed to salvage capitalist economies rooted in resource extraction and colonialism”, and “colonialism is what caused climate change and I am not going to my coloniser for solutions. We reject colonial solutions for climate change.”

The development of pan-African carbon markets risks further commodifying land and other resources in Africa, in order to enable wealthy elites and polluting corporations in the Global North to continue the high levels of climate pollution that is destroying Africa. Africa should be wary of creating initiatives that actively support this process.







2. Why Carbon Markets and ACMI would fail Africa

ACMI's ambition is for the growth of African carbon markets, with claimed ambition to produce 300 million carbon credits annually by 2030, and 1.5 billion credits annually by 2050, and to unlock US\$6 billion in revenue by 2030 and over US\$120 billion by 2050.

However, there are fundamental problems and failures with carbon markets which make ACMI a threat, and not an opportunity, for African countries. These failings are explored below.

Failing the Climate

The ACMI would allow big private companies to emit an additional 1.5-2.5 Gigatonnes CO_{2e} annually by 2050. This is more than the total CO₂ emissions from fossil fuels from all African countries in 2021 (which were 1.45 Gigatonnes) and more than the total emissions from agriculture and land use in Africa (which were 1.67 Gigatonnes in 2021³³).³⁴ It is also double the entire annual CO₂ emissions from all of sub-Saharan Africa which is 0.76 Gigatonnes³⁵.

Failure 1: 'Carbon credits' are in reality Pollution permits – an imaginary commodity created to benefit the wealthy, not the climate or Africa

The invention of an imaginary new commodity (avoided or reduced carbon) involves a technocratic group of economists, scientists, engineers, policy advisors, corporate lobbyists and government officials, and requires complex technologies (computing, data management, global positioning, accounting systems).³⁶

This system is designed to commodify the carbon “stored” in the plants, trees or land of farmers and communities, or carbon “avoided” by renewable energy systems, or other processes by which emissions can be reduced. The creation of a complex technocratic system and methodologies further shifts power away from people and local governments and communities, and towards a global as well as African elite that are the principal cause of the climate crisis, and the main beneficiaries of carbon credits. The history of carbon markets is rife with examples of fraudulent credits, tax fraud, and other financial misdeals.³⁷ The main beneficiaries of the system will inevitably be those who are already wealthy and not willing to change their polluting practices, at the expense of those who are not.

The carbon markets, particularly voluntary carbon markets, are the centrepiece of a massive effort by polluting corporations to greenwash their activities, falsely claim their activities are consistent with a “net zero” future, while continuing or expanding activities that cause climate change³⁸. They create an illusion of emissions reduction, while passing their responsibility on to the poorest and most vulnerable

countries and people at the lowest cost possible, counting tonnes of carbon ‘saved’ over sustainable development outcomes for African people. In short, it represents neo-colonialism.

Of course, Africa requires zero carbon projects to be funded, but they should not be used to justify the continuation of very real emissions by wealthy companies, which have driven the climate impacts that are already devastating Africa. Emissions reductions in Africa need to be acknowledged and counted towards African efforts to tackle climate change and must deliver on African sustainable development priorities.

Failure 2: Carbon markets will increase global emission, which is devastating for African nations

Carbon markets undermine the achievement of the Paris Agreement objective of keeping global temperature rise below 1.5°C, which even with conservative assumptions requires real-world reduction in greenhouse gas emissions of at least 45% reduction by 2030 (from 2010 levels) and net zero emissions by 2050. Scenarios without unrealistic and unfounded assumptions of geoengineering-scale carbon removal technologies, nuclear power and CCS show the need for much faster reductions to essentially zero emissions. The creative accounting and ‘methodologies’ of carbon markets unfortunately do not deliver real-world reductions in emissions in line with these requirements, and instead would likely even increase emissions over this period. Ultimately there is no room for offsets in a world where everyone needs to reach zero emissions.

Professor Kevin Anderson³⁹ says: “The timeframe for cutting CO₂ associated with “pursuing ... 1.5°C” and “well below 2°C” [the requirements of the Paris agreement] is now so tight that there is no emissions space for companies to use offsetting as a means of further locking in high-carbon activities, technologies, norms and practices, even under the heroic assumption that offsetting actually works. Put simply, we need to pull every mitigation level to its max level; there is no longer any give or flexibility in the system.”

The emissions by the offsetting company stem mainly from burning fossil fuels or from industrial scale agriculture emissions, particularly methane. These are permanent emissions, in that they release carbon that has hitherto been safely stored in the ground into the biosphere

The carbon credit producing projects - renewable energy, avoided emissions or ‘nature based projects’ - do not nullify these emissions. While they should not add to annual carbon budgets, they do not neutralise the real and permanent emissions that are taking place by the polluting company. The carbon balance of these transactions means we see a net increase of CO₂ in the biosphere, and global temperature rise and increased climate threat, vulnerability and damage across Africa.

Use of carbon markets to prop up dangerously weak net-zero pledges has been confirmed by the UN High-level Expert Group on Net Zero Emissions Commitments of Non-State Entities “*Integrity 42 Matters: Net Zero Commitments by Businesses, Financial Institutions, Cities and Regions*” which confirmed that companies cannot claim to be net-zero if they continue to build or invest in new fossil fuel infrastructure or deforestation^{40,41}. It dismisses the use of cheap carbon credits to offset continued emissions as a viable net-zero strategy, and recommends companies, financial institutions, cities and regions to focus on outright emission reductions⁴². Recognition by a high-level UN panel that carbon markets are not a viable approach should be heeded by African policymakers and Heads of State.

The assumption of a carbon market existing in 2050 means surrendering to an acceptance of climate breakdown: If companies are still seeking to buy carbon credits overseas by mid-century the market will have failed to deliver the desired climate objectives of the carbon market. Under science-based targets for net zero every effort should be made to reduce the company's own, real emissions first, and only residual emissions (technically impossible to eliminate with existing technology) should be offset. As companies cut their own internal emissions and bring on board new zero carbon innovations to further reduce emission, the demand for offsetting will reduce. Over time the number of credits available ought to rapidly diminish (not expand). Additionally, there should be a diminishing of projects available to produce credits as renewable energy and nature conservation are quickly becoming the 'norm' and are hence no longer classed as innovative or additional.

Failure 3: The ACMI builds in double counting of carbon.

The ACMI assumes the offset market will expand over time, and at the same time says it will help "achieve net-zero emissions" for African countries. This is double counting: actions that reduce emissions and are counted towards African 'net-zero' achievements cannot simultaneously be used in the country where the emissions of the offset purchasing company happens.

The ACMI Roadmap presents country 'deep dives' which show that the carbon credits are expected to use the same tonnes of carbon to deliver national emissions reduction targets in African countries, while also contributing to offsetting emissions from the purchasing companies. For example, the Nigeria case in the ACMI Roadmap clearly demonstrates expectation of double counting.:

"Nigeria recently passed the Climate Change Act (2021) and the Energy Transition plan (2022) which establish a target to reduce GHG by 47 percent in 2030, relative to base case, achieve carbon neutrality by 2060 and generate 30 GW of energy by 2030 with 30% renewable energy. To progress towards these targets, Nigeria could develop a comprehensive voluntary carbon market activation plan."

This built-in double counting explicitly undermines the integrity of the system. In financial accounting, the double counting of an asset would be improper or illegal. It should be no different for carbon.

Failure 4: Carbon credits falsely assume emissions from [safely stored] fossil carbon is interchangeable with carbon temporarily stored in biological systems

The majority of carbon credits created in Africa would be from so-called 'nature-based solutions' (a highly controversial term, tainted by its use in the context of carbon markets and offsets), such as tree plantations or land conservation projects. However, the fossil emissions and land or nature-based credits are not fungible. There is a fundamentally wrong assumption that fossil and biological carbon are equivalent and interchangeable, when the two have very different life cycles.⁴³ Biological cycles are part of the fast, biological carbon cycle that changes over short time periods, whereas fossil fuels are in the slow carbon cycle which take millions of years to enter the earth's interior. In the fact, biological cycle carbon is only stored temporarily in plants, but will eventually end up in the atmosphere again. Once the hitherto safely stored fossil carbon is burned and released into the atmosphere, the biospheric carbon, and hence the overall problem, has been aggravated.

There are several dimensions to why the idea of ‘offsetting’ fossil fuel emissions with nature based storage of carbon is flawed:

- » **Not permanent:** Nature based solutions such as avoided deforestation or afforestation are not permanent. The carbon stored is released when trees burn, die or land degrades, or if there is a change of land-use under new land management or government in a country. Climate change itself is a threat to tropical forests.
- » **Inflated baseline:** A project may e.g. point to a small, heavily deforested area near a city or coast, and use this as a reference area to make a prediction that up to 100% deforestation will also happen in another, isolated project area with low population density over the decades to come⁴⁴. Avoiding this imagined future deforestation would then be turned into carbon credits to ‘offset’ new real emissions from fossil fuels in a wealthy country.
- » **Time lag** between the emissions and the impact of the offset. Each flight is pouring carbon dioxide into the atmosphere, where it immediately contributes to global warming (and will continue to heat the planet for hundreds or thousand years), while the trees planted for offsetting the journey are taking up to a century to grow and only gradually sequester carbon⁴⁵.
- » **Leakage:** If trees in one region are saved, but deforestation moves elsewhere, then emissions have not actually been avoided. Also, if land is transformed from one use (say sustainable agriculture) to mono-cropped forest, there may be a net carbon loss compared to the original land-use.
- » **Lack of additionally** – if the credit is created from protection against deforestation, the question is: was the protected forest in danger in the first place?

There exist a huge number of examples of problems with ‘nature-based’ off-setting. One study of major offsetting certifiers found that 90% of rainforest carbon credits were ‘worthless’ with ‘phantom’ credits that do not represent genuine carbon reductions – which amounts to nothing less than outright corruption.⁴⁶

Furthermore, the recently released Land Gap Report demonstrates that limiting warming to 1.5°C by countries’ projected use of land-based (‘nature-based’) carbon dioxide removals is not possible. They would require a “land area larger than the USA and almost four times the size of India” and shift the mitigation burden “away from reducing fossil fuel emissions and onto land, local communities and ecosystems”.⁴⁷

The conclusion is that we do need to increase the storage of carbon in nature (in ways that are socially and environmentally appropriate), but this must not be connected to carbon markets, which enable continued fossil fuel extraction and pollution elsewhere, and so ultimately undermine and threaten nature and the carbon it stores.

Failure 5: Creative new methodologies hide the failure to neutralise emission of the ‘offsetting’ company.

New methodologies being adopted under the ACMI do not overcome creative accounting failures, and so will enable the continuation of polluting activities that are driving climate change and devastating Africa.

Clean energy projects including ‘diesel to clean’ – It is a paradox, that shifting to renewable energy in Africa should generate credits that enable wealthy countries or corporations to continue polluting the atmosphere. The “additionality “of renewable energy projects is also questionable in many cases. Expansion of renewable energy in growing economies is crucial, but often only adds to, rather than replaces the fossil fuels in the energy mix (note that there is currently an active promotion by multilateral banks, fossil fuel companies and European countries of fossil gas as a so-called transition fuel across the African continent). Because renewable energy is now often cheaper than fossil energy, these investments would likely have happened anyway, and must therefore not be counted as offsets⁴⁸. In sum, the atmosphere still sees the emissions by the ‘offsetting’ company, but no actual reduction in Africa. The idea of commodifying through ‘carbon credits’ a move from fossil to clean energy becomes increasingly dubious as the renewable alternative becomes the ‘norm’ for improving energy access or electricity stability.

The newly emerging ‘Coal to clean’ methodology for coal dominant countries such as South Africa is claimed to provide incentives for coal plant owners to change course and invest in renewable energy, while also generating funding to support the transition of workers and communities away from coal-fired power, so avoiding millions of tons of planned carbon dioxide emissions⁴⁹. This technically could flood the carbon markets with cheap credits, undermining the market, allowing global north companies to emit millions of tonnes of carbon, while benefitting from something that the South African government has already committed to in its long-term goal of net zero by 2050 (so cannot be double counted as an offset for foreign companies). Funding for the shift from coal is already committed through the Just Energy Transition Partnerships with G7 countries. Paying for transition of workers and communities away from coal-fired power is essential as part of the just energy transition, but it is not offsetting any carbon, so urgently needs an alternative source of finance.



Failing African Development

Project objectives are defined by the neo-colonial carbon market (to enable polluting entities to continue polluting, while shifting the carbon ‘reduction’ elsewhere as cheaply as possible) and not by the development and resilience needs of African countries or communities, such as food security, thriving economic development or decent work. The fundamental logic of these ‘pollution permit markets’ is to benefit and make it easier for the polluters to continue emitting.

Failure 6: Carbon markets will not benefit African’s sustainable development and jobs.

ACMI says its development ambition for the growth of African voluntary carbon markets is to support 30 million jobs by 2030 and over 110 million jobs by 2050, and it will aim to distribute revenue equitably and transparently with local communities. It claims Africa could leverage carbon markets to drive development priorities such as expanding energy access, improving health through clean cooking, and creating jobs.

The jobs estimates in the ACMI’s Roadmap Report assumed 75% nature-based projects in 2030 and 60% nature-based projects in 2050. The jobs calculation includes not only jobs created but jobs ‘supported’ via additional income, and it admits that nature jobs can include temporary jobs in any given year (esp. for ecosystem restoration pathways e.g. tree planting). The jobs calculations are based on a simple and inflated ‘jobs multiplier’ system that projects how many jobs will be created based on tonnes of carbon avoided, or millions of dollars in revenue.¹

Nature based.

Job multipliers based on projections by the carbon markets promoting organizations assumes that:

- » For 2030 (under a \$20 per ton carbon scenario) 3 million jobs would be generated due to 489 Mt CO_{2eq} of avoidance, and 52 million jobs for 149 Mt CO_{2eq} of removals.
- » For 2050 (under a \$80 per ton scenario) 4 million jobs would be generated due to 697 Mt CO_{2eq} of NBS avoidance, and 121 million jobs for 468 Mt CO_{2eq} of NBS removal.

Non-Nature

- » Number of jobs (direct and indirect) based on job multipliers of 116 jobs for each additional million dollar of output delivered for utility sector, and 284 manufacturing sector.

With an unprecedented assumption that projects will receive as much as \$20 per tonne of carbon in 2030 and \$80 per tonne in 2050, there seems to be a significant level of exaggeration in the inflated and unsubstantiated projections. The ‘back-of-the-envelope’ and simplistic nature of these calculations does not seem to bear real-world rigour, nor are they reflective of Africa’s historical experience with carbon markets.

¹ From official ACMI PowerPoint presentation seen by the authors

Failure 7: Myopic focus on tonnes of carbon undermines development objectives.

Carbon credits give a mirage of funding climate and development projects that are willing to jump through the accreditation hoops and can pay for verification. However, a myopic focus on carbon creates some perverse incentives that undermine development objectives, and often incentivise maladaptation with detrimental social and environmental outcomes.

The broader context of ACMI is that rich companies are passing the burden of climate action from rich to the poorest countries, in return for which African countries are asked to package up projects that fit the demands of the Northern companies to deliver tonnes of carbon. With the singular objective of delivering tonnes of “avoided carbon”, to justify the creation of a financial instrument referred to as the “climate credit” (in reality a ‘pollution permit’), wider development benefits, the interests of indigenous and local communities, or the planning objectives of developing countries are often lost or undermined⁵⁰. The criteria for the project, focused on delivery of tonnes of carbon (at the lowest cost possible), will not necessarily be the best projects for local people or nature. Multiple studies demonstrate that carbon projects have created additional social and ecological problems.⁵¹ Any social or nature development are ‘added benefits’ that are only paid for when premium credits⁵², such as ‘fair trade’ credits⁵³ are specifically requested by the purchaser, which only constitute a small part of the trading.

These claims of “added benefits” are easiest to claim for large-scale projects with economies of scale where expensive verification is at a lower percentage of total project costs; or for bundled projects (pulling together multiple farmers, producers, or technology users). This takes the decision making away from the communities the projects aim to benefit. Often offsets from agroforestry will take over land that is best used for food production or security, or for other important community uses of the land⁵⁴. Any development benefits and local needs are secondary in this equation. To expect that the poorest countries should put carbon reduction (to compensate for rich company emissions) above local needs is unjust and neo-colonial. Yet, the plan of the ACMI is to massively expand this logic and mindset, favouring maximisation of tonnes of carbon over and above the development needs of the African people.

The hype around carbon markets in Africa is creating a Wild West for a new type of entrepreneur whose sole company purpose is to manufacture carbon credits. The ACMI Roadmap highlights for example the projects by iRise (a company established as recently as 2022) which was ‘proclaimed as one of the top 10 companies to scale in Africa in an effort to combat climate change’ by the UN Climate Champions ‘Lighthouse Project’ at COP27⁵⁵. iRise promises to restore 400,000 hectares of indigenous forest and supply improved cookstoves to 486,000 households⁵⁶. However, the company was only established in 2022⁵⁷, and there is no evidence online that it has produced any results on household cooking or forestry to date⁵⁸, and there is no evidence presented that the cook stoves or agroforestry will be delivered with local communities to meet their needs. Claims such as those made by iRise should be evaluated in light of the historical promises made of how Africa would benefit from carbon markets.

Case Study: Sengwer evictions from Embobut Forest

The Kenyan government forcibly evicted the Sengwer community from Embobut Forest under the guise of a carbon offset project, violating their rights—a move criticized by UN bodies². Amnesty International has revealed that widespread, sometimes deadly force, has been used against the Sengwer people, and highlights significant flaws in the decision-making process that has been used to justify the forced evictions. The local people are being blamed for causing deforestation but a government task force on conserving forests by ejecting forest communities concluded that the Kenya Forest Service (KFS) colluded in extensive illegal logging and destruction of the Embobut Forest, for which the Sengwer are being blamed, and persecuted.

The voluntary carbon market in Africa, dominant yet poorly regulated, raises concerns about transparency and integrity. Furthermore, offset schemes have often disregarded indigenous peoples' dignity, leading to forced displacements and exploitation. The study underscores the urgency for stringent regulations, increased project investment, and the protection of Indigenous rights in African carbon offset endeavours.

Failure 8: Undermining land rights, farming, food security and consequences for local communities

Planting new forests requires land, as does flooding valleys for new hydro-power projects. And those already living and using that land fear that scaled-up “land-grabs” will put the security of their livelihoods and cultures at risk.

Carbon markets, according to the Institute for Agriculture and Trade Policy (IATP)⁵⁹, “have high implementation costs and distract from more sustainable, cheaper, and proven options, such as incentivizing agroecological practices. Also, nearly all projects aim to reduce emissions at the farm-level, even though half of agricultural emissions take place outside of the farm and are largely driven by agri-businesses, e.g. through the manufacturing of synthetic fertilizers and pesticides. This puts the blame on individual farmers instead of focusing on corporate and agribusiness-led emissions.” Moreover, “agricultural offsetting schemes can be damaging to farmers. Some markets endanger food security and limit farmers’ autonomy by incentivising the uptake of specific practices, or transforming agricultural land into tree plantations. Such projects also increase the problem of the financialization of land”.

Offsetting creates a huge demand for sinks, mainly in the forests, wetlands and grasslands of developing countries, where three-quarters of offsets in the voluntary market in 2022 took place. These demands can cause conflicts over land use, as well as among local communities and indigenous peoples. A study by the Rights and Resource Initiative⁶⁰ found that for credits issued by the Architecture for REDD+ Transactions (ART) from tropical and subtropical forest countries most of the lands and territories targeted overlap with areas customarily held by Indigenous Peoples, local communities, and Afro-descendant Peoples. However, just about half of the areas held by communities have yet to be legally recognized by governments, and where land rights are acknowledged, rights to carbon and tradeable emission reductions are seldom explicitly defined.

Forest projects have involved significant human rights abuses and divert land away from agricultural uses required to ensure food security and sovereignty. Moreover, claims by big industries that they

² Kenya: Sengwer evictions from Embobut Forest flawed and illegal - Amnesty International

are supporting conservation efforts that can offset their emissions have been disproven⁶¹. Single-crop monocultures **account for 45%** of all planned reforestation projects. Yet monocultures capture **less carbon**, lead to biodiversity loss and are vulnerable to disease, pests and climate extremes.

As well as risking human rights, carbon markets increase collusion between big energy, agriculture and finance corporations, to the detriment of people and communities. The use of land-based carbon credits to justify continued fossil fuel use has created an unholy alliance between big agribusiness and the fossil fuel industry, in the Global North and South. Big agribusiness firms are exploring how they can benefit from “carbon farming” that skews focus away from producing food towards producing carbon credits. Big fossil fuel companies, in turn, are advocating for land-based offset schemes (often known euphemistically as “nature based solutions”) to justify continued fossil fuel use over the longer term. Both industries are augmented by parts of the finance industry, which seeks to cash-in on producing and trading in this new class of financial assets.

Failure 9: It allows fossil fuels to gain credits in the guise of cook stoves projects.

The ACMI roadmap says that voluntary carbon markets could provide Africans, about 200 million of whom are using charcoal for cooking fuel, with significant health benefits from switching to efficient coal stoves, natural gasifier stoves, liquid petroleum gas (LPG) stoves, as well as renewable energy powered stoves such as solar. In essence, this means proposing a system where replacement of highly health damaging charcoal stoves with highly climate damaging coal and LPG stoves is rewarded and simultaneously helps perpetuate emissions elsewhere.

Charcoal production across the continent involves significant carbon emissions and burning these on traditional stoves causes significant health damaging pollution in kitchens when burned. It is essential that African households have access to affordable clean cooking alternatives. However, the drive for LPG cooking presents perverse outcomes for the household and the climate. This does not consider that LPG (methane) leakage along the supply chain is also a major concern for climate change. Additionally, the price volatility and uncertain markets for LPG has reduced the suitability for gas as an affordable and accessible alternative.

The methodology used by ACMI for credits from cookstoves assumes a flat rate of ‘abatement potential for 1 cookstove per year of 2.2 tCO_{2e}’. The margins of error based on the amount a stove is used, whether it fully replaces the original cooking method and whether it stays in good repair makes this assumption very questionable. How the carbon credit payment is passed to the cook stove user is also unclear.

Clean cooking solutions are urgently needed as a fundamental development right for hundreds of millions of African people. They need locally appropriate and affordable, near zero carbon solutions designed with and for the target communities. Alternatives include electric cooking, ultra-low emission biomass stoves such as the rocket stove and locally produced biogas. The answer is not to provide fossil gas fueled stoves for the generation of carbon credits that enable wealthy companies to continue emitting the pollution. It is to provide more direct funding to enable a rapid shift to clean cooking methods, with grant-based funding (as discussed in the final section below).



Case study: Carbon credits are distorting markets and destroying local businesses.

In Uganda, climate finance brought many new players into the local cookstove industry, which rapidly accelerated stove production and distribution. Some distributed stoves massively reduced prices to meet the carbon credit targets through quantity. This heavily distorted the stove market because it created an artificial demand for cheap stoves. When carbon financing dwindled in 2017/2018, many local enterprises struggled to reconstruct the market for unsubsidised stoves. Despite the damage done to local businesses, it is unclear how many carbon emissions were saved as a result of the projects.

The Ugandan improved cookstoves case underscores the pitfalls of carbon credits, potentially harming local businesses and perpetuating injustices. Climate finance mechanisms, complex and non-transparent, tend to sideline vulnerable groups. While aiming to reduce carbon emissions, the project failed to establish a sustainable market, facing hurdles due to consumers' low incomes and cheaper alternatives. This approach led many local enterprises, notably Ugastove, into poorly understood, detrimental contracts. Unbeknownst to Ugastove's minimally educated proprietor, they ceded exclusive carbon rights to Impact Carbon until 2028, rendering the company helpless in seeking legal action. This near decimated Ugastove's operations, threatening livelihoods of its vast workforce. This case sheds light on the ethical concerns in climate finance delivery, highlighting its potential to intensify poverty, inequality, and heighten climate vulnerabilities in developing regions.

Failure 10: It promotes direct air capture, a non-starter for African development.

Direct Air Capture (DAC) or Direct Air Carbon Capture (DACC) is a technology to capture CO₂ directly from the air by using large fans and various toxic chemicals, and once captured, stores the CO₂ in the ground. This technology is at an early stage of technological and commercial development, and is expensive, energy intensive, risky, and its deployment at scale is unproven, according to both the IPCC and the International Energy Agency^{62,63}. It is irresponsible to base net zero targets on the assumption that uncertain future technologies will compensate for present day emissions⁶⁴.

The Kenyan government, encouraged by foreign private interests, is pushing for carbon removal credits using DAC⁶⁵. These DAC facilities would in theory remove a tonne of CO₂ from the air for every tonne emitted by the offsetting company. However, there are fundamental issues with DAC that makes it unviable as an option:

- » DAC require 100% renewable energy sources to not add negative climate impact. If the DAC facility (which requires lots of energy for its operations) is powered by fossil fuels, more pollution is generated than the system captures, hence worsening the climate impact. Hence, only when Africa and the world has reached 100% renewable energy (removing all fossil fuels from the power system) for its grid power and economic development, including full universal energy access, can DAC even be discussed as an option for implementation.
- » There are still fundamental problems with the technology in terms of both the chemicals requirements, waste, and all the problems associated with carbon capture and storage (CCS) including uncertain permanence of storage.
- » DAC at a level that has tangible impact on the global average temperature requires application at a geoengineering scale. The land requirements would be massive and exacerbate land

and human rights conflicts. The infrastructure requirements and costs, including the massive pipeline and other transportation infrastructure required to pipe the captured CO₂ from the many millions of DAC installations to underground storage sites would likely pale even the most ambitious construction of distributed, people-centered renewable energy systems required to serve all needs.

- » DAC should never be allowed to offset new emissions from industrial sources. The Intergovernmental Panel on Climate Change (IPCC) calls for “rapid and deep” emissions reductions in “all sectors” of the global economy, with direct carbon dioxide removal additional to this and only for “sectors that cannot completely decarbonize”⁶⁶. If DAC at any point becomes a socially and environmentally acceptable option, it can only help reduce the harm already done by capturing some of the CO₂ already released. It must never justify any additional release of fossil carbon through ‘pollution permit’/carbon credit offsetting.
- » The technology, if feasible at scale, will be phenomenally expensive.

Ultimately DAC will not produce a new investment industry for African countries, it will not be a source of sustainable development for African communities, and will not produce a significant number of decent jobs.

There are DAC projects highlighted by the ACMI Pathway. Highly speculative Octavia Carbon is a Kenyan company building machines that filter CO₂ from air using Direct Air Carbon Capture (DACC) technology. This company claims it will use the Kenya’s power grid which is mostly renewable, (largely geothermal and hydropower), and will store CO₂ in Kenya’s Rift Valley. This project could potentially divert massive amounts of renewable energy from Kenya’s domestic energy supply hence threatening the achievement of Kenya’ domestic long term climate targets as well as Kenya’s ability to deliver renewable energy access at sufficient scale to all households and industry, it would furthermore introduce untested storage of carbon dioxide in the fragile and geologically unstable Rift Valley. Also, with an eye to the Kenyan Rift Valley for its geothermal energy is Cella Minera Storage which is an ‘early-stage’ carbon mineralization company that claims it can provide durable storage services to direct air capture (DAC) companies. The financial viability of either technology is far from proven. Projections of new, lucrative markets risk drawing governments like Kenya into wasteful spending of scarce public resources to prop up and pave the ground for markets that are unlikely to materialise, and if linked to offsetting, are unjustifiable from a climate point of view.

Exploiting Africans to benefit brokers

As well as relying on questionable technologies and methodologies, and risking adverse impacts, the promise of financial gain from carbon markets is significantly overstated. In reality, the credit producing project may get a fraction of the money paid by the Western offsetting company for the credit, while imposing new burdens on African countries and people. Moreover, claims about the scale of the market and its potential benefits to Africa are overstated.

Failure 11: Carbon Markets exploit African countries while lining the pockets of the middlemen.

While Corporates, benchmarking agencies and advisory bodies have been calling for higher quality offsets, the voluntary carbon market is fundamentally an unregulated market which is used to the advantage of the many middlemen involved across the market. It is a market inherent with conflict of

interests, trading a commodity that is fictitious (i.e. an avoided tonne of carbon). No actual commodity is transacted, so all are free to exaggerate for profit. There is a common interest in the buyer and the seller in overstating avoided emissions and inflate market hype.

The unregulated nature of the market is why many polluters advocate for them. For example, a quote from a delegate of the annual African Petroleum Refiners and Distributors Association (ARDA) 2023 conference: “VCM is unregulated and presents an opportunity for Africa to implement carbon emissions reductions projects without a lot of national or global policy interventions”.

The ACMI is providing misleading information on the scale of funding flows to the African continent. The voluntary carbon market is said to have had a value of \$2 billion in 2022, with ACMI anticipation of African carbon market flow alone assumed to reaching \$6 billion by 2030. However, this figure does not represent the flow of money from the offsetting company to an African carbon cutting project. This figure simply adds up the amount of financial transactions over the year⁶⁷. That is, a market worth \$100 could be due to a single \$10 credit representing one tonne of carbon dioxide being traded 10 times. Once profits, verification and compliance costs, and other expenses are taken out, the project developer may get only a fraction of the original, small payment. Therefore, African countries will be sorely disappointed that the actual flows of funds are far below the stated market value.

Additionally, when a company pays for an offset through a broker at a price of e.g. \$9, it is possible that a broker may have purchased the credit from the carbon credit producing project at just \$3. A study commissioned by Carbon Market Watch⁶⁸ found the market extremely opaque, and that the lack of transparency made it extremely difficult to track a credit price from the payment made to the credit producing project to the price paid by the offsetting company. For projects where evidence was available, the study identified almost 250 projects where shockingly, brokers resold credits for at least three times the purchase price⁶⁹.

Analysis from DeSMog shows that the chief beneficiary of growing voluntary carbon markets “may not be the climate – but the bankers and brokers betting that carbon trading is on the cusp of exponential growth.”⁷⁰ Registries preside over the market and the legitimacy of the credits that offset projects generate. The four main players are Verra, **Gold Standard, Climate Action Reserve**, and the **American Carbon Registry**. But these registries are unable to effectively track price, volume or transaction data for market participants. As a result, buyers are uncertain about the quality of an offset and often have to work with a third party to assess it.

Case study: ‘Blood Carbon’ in Northern Kenya

The Northern Rangelands Trust’s (NRT) Grassland Carbon Project faces ethical challenges, as highlighted by a Survival International report³. It endangers the food security of the Indigenous Samburu, Borana, and Rendille by transforming traditional grazing to resemble commercial ranching. There’s concern over NRT’s transparency with communities and the validity of its carbon ‘additionality’. Selling credits from Protected Areas might inadvertently fund human rights abuses against Indigenous groups, without effectively addressing climate change. The project is tainted by a colonial bias, wrongfully attributing environmental damage to Indigenous communities, despite their conservation track record. Dubbed “blood carbon,” NRT’s approach profits off those least responsible for climate woes.

³ <https://www.survivalinternational.org/news/13659>

Failure 12: Multiple players with vested and conflicted interest in the VCM

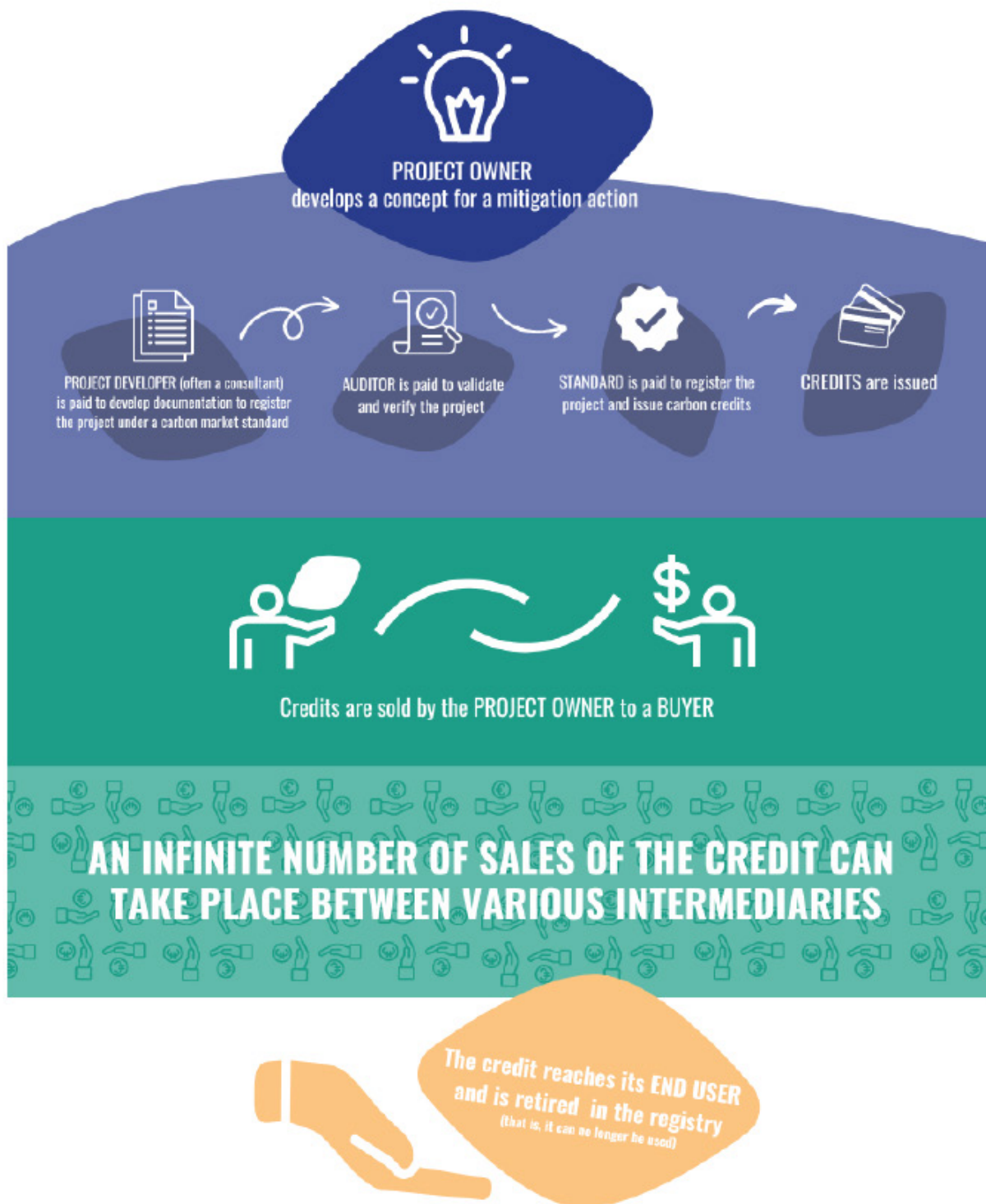
As an unregulated market, transacting a financial asset, based on an imaginary commodity (reduced or avoided carbon), carbon markets also set up multiple conflicts of interests. A **project owner** that sets up an emission reduction projects, such as tree planting or renewable energy schemes to create the carbon credit. The owner may pay a consultant to be a **project developer** to produce the paperwork to apply for accreditation required to sell the carbon credits. A **Verification and Validation body** (VVB) will then audit the project and a **standard setter** will certify the offsets. The VVB would ensure that the trees have been really planted or renewable technology installed, and the standard setter will certify that the project has been carried out in a way that meets its standards. The standard setters and VVB assess the quality of carbon offsets.

Through this system the project developer, the standard setter and the VVB, each have incentives to overstate offset claims. The project developers can increase its profits if it has more offsets to sell, and the VVBs are hired and paid by project developers, plus the standard setter's fee depends on the amount of offsets certified⁷¹.

As **intermediaries** perform different functions, they also earn money in different ways while taking on much less risk than the actual project owners. Some intermediaries charge a fee for merely connecting buyers and sellers. Others charge an annual fee to sellers for seeking buyers and negotiating a credit price. Yet others buy credits directly and earn money from marking up the price of that credit and then deducting processing fees from the sales price when reselling it (or adding the fees on top of the price). Fees come on top of existing fees that project owners have to pay to the standards for registration and issuance, as well as to the VVBs. There is very little transparency about the amount of money that actually reaches the mitigation activity⁷². The same credit can then be traded between **brokers** an 'infinite' number of times before it is sold to its final **end-user**, the offsetting company, and it is retired. Intermediaries take on much less risk than the actual project owners. The end-users, in turn, are seeking cheap and abundant carbon credits, and have little incentive – beyond the reputational damage of purchasing false or faulty credits – to ensure the credits actually reduce emissions and deliver sustainable development benefits.

Unlike markets for maize or machinery, carbon does not actually change-hands in a carbon market, so all have an incentive to overstate its production, creating a market that is structurally inclined towards cheating and conflict of interest. This fictitious nature of the 'credit' also makes it perfectly suitable for slicing and dicing it into baskets of other credits and hence further obscuring the origin of the credit as well as opening up for speculative futures markets.

The carbon credit value chain at a glance (simplification):



Graphic source: <https://carbonmarketwatch.org/wp-content/uploads/2023/02/CMW-briefing-on-intermediaries-1.pdf>

Failure 13: Fossil fuel companies are the ultimate winners.

Among the main beneficiaries of carbon markets, are fossil fuel companies who are substantially responsible for the climate crisis. Carbon credits enable companies to continue using energy from burning fossil fuels. It is also possible the end-user of the credit might inadvertently pay into the profits of a fossil fuel company in the process of attempting to finance climate action. Fossil fuel companies are active in diverse roles throughout the carbon market, including as project developers and intermediaries, often through subsidiaries⁷³. Fossil fuel companies such as Shell are also brokering credits⁷⁴, so winning twice as they sell their fossil fuels to companies who then buy their credits to offset the emissions. A win-win for Shell.

Oil and gas companies such as BP⁷⁵ and Shell⁷⁶ are looking to present themselves as part of the climate solution by reducing the ‘carbon intensity’ of their products, often through the use of carbon offsetting through voluntary carbon credits. Yet they intend to expand fossil fuel production. They view voluntary carbon market as a cheap way to delay or avoid shutting down fossil fuel production and taking the very urgent deep carbon mitigation actions needed to transform their business and its products in line with the Paris Agreement target of doing everything possible to keep within 1.5°C of warming. They use carbon credits to ‘greenwash’ inactions at home.





COAL

=

**CLIMATE
CHAOS**

3. What alternatives do African Countries have for Climate Finance

Africa's Climate Funding Gap

Africa has urgent demand for grant and concessional climate finance from various sources. It is estimated that for the African continent alone, adaptation costs could reach US\$50 billion per year by 2050⁷⁷. And mitigation costs for a clean energy transition in Africa have been estimated at about \$125 billion per year between 2026 and 2030⁷⁸.

Given its negligible contribution to the climate crisis, Africa should receive grant-based funding from the countries and companies that have driven the crisis. Grants are required to avoid increasing indebtedness already arising from a unjust international financial system.

As well as grant-based finance, access to low-cost or “concessional” investment finance must be scaled up. The International Monetary Fund (IMF) this year made the case for concessional funding, well below the market cost of finance, because Africa has contributed little to the accumulation of greenhouse gases but is nonetheless the world’s most vulnerable region to global warming. However, Sub-Saharan Africa received just \$15.7 billion in concessional finance for climate action in 2020 from domestic and international public sources⁷⁹. Local public resources are limited given elevated debt levels, tighter global financial conditions, and rising borrowing costs.

Annual investment in renewable energy across Africa stands at just USD 9.4 billion⁸⁰. Meanwhile the continent’s investment in fossil fuels (USD 29 billion/year between 2016–2021), and government subsidies for fossil fuels (USD 37 billion/year in 2019/2020)⁸¹.

Funding for agriculture, forestry and other land use in particular will be important. Despite the sector’s economic and social importance, and implications for food security, gender, biodiversity, and water security, it drew only 16% of the total climate finance in Africa⁸².

ACMI is not the solution.

We call on African countries to withdraw from and take no further interest in the ACMI and all carbon market mechanisms. As described in this report, ACMI is not the solution. It is a wolf in sheep’s clothing, promising much but ultimately more harmful to the African continent. Africa’s experience of carbon markets demonstrate that they are ineffective at addressing pollution and do not deliver climate finance or sustainable development to the continent. They are inherently susceptible to fraud and corruption. They empower polluting corporations and elites versus other segments of society, and enable them to continue pollution, shifting the burden of action to poorer countries and people. They extend control over resources in developing countries, compromise human rights, and undermine healthy, sustainable,

and resilient communities and food systems⁸³. The history of carbon markets, and the fundamental flaws associated with commodifying carbon, farming, forestry and other activities, and leveraging these into global financial markets, shows that Africa should not go down the path proposed by the African Carbon Markets Initiative, but should instead focus on real climate solutions that support its development.

Polluting companies in turn should stop claiming that they are “compensating”, “neutralising” or “offsetting” their emissions, and stop purchasing voluntary carbon credits. These claims, and the claims of the VCM in general, are fundamentally misleading and are undermining their stated climate aims.

Call for an alternative ‘Polluters Pay’ Fund managed by and for Africa

We call for an alternative model that is based on agreed principles, that incentivises good behaviour, that puts governments and people not big corporations in charge, and that actually achieves climate and development objectives. Companies should rightly communicate (including as part of their marketing and CSR agenda) that they are providing financial contributions to appropriate projects in developing countries because it’s the right thing to do. Instead of propping up the illusion of carbon offsetting, they should provide direct financial contributions towards appropriate climate interventions in developing countries which are designed and owned by local communities.

We therefore recommend that African governments and supporting companies call for an alternative ‘polluters pays’ fund that is run and implemented from Africa, which:

- » **Shortens the connections between polluting companies making the payment and projects in Africa**, removing the market brokers and most of the middlemen, and maximising the resource transfer to the projects.
- » **Incentivises polluting companies to drive down their own emissions**. So the price to the polluter should be high enough to incentivise in-company action to transition to zero carbon.
- » **Ensures the projects in Africa prioritise the local sustainable development needs** (not driven by the tonnes of carbon imperative). Therefore, projects will be designed and developed by the project owner and the local communities to maximise climate resilience and low-carbon development.

Companies would take responsibility for its full emissions reduction target by paying a fee for each residual tonne of carbon they emit and agree to rapidly phase these down over time. This would recognise the pollution level without pretence that it is offsetting pollution. This regulatory approach is consistent with best practices in international and national law, including the polluter pays principle. A higher fee for polluting would incentivise action within the company to reduce its own emission while transferring substantial funding for development in Africa. This fund would then pay for a wider set of criteria for sustainable development, climate mitigation and adaptation outcomes for African communities, with local ownership of the projects.

Design of this fund should be facilitated by the Africa Union, in consultation with African countries and civil society to maximise the sustainable development and poverty reduction. The projects benefiting from this fund should build capacity within African countries for clean, resilient and affordable development aiming to reduce dependence on external funding over time.

Alternative Financial Flows to scale up African Climate Action

We also encourage the African Leaders to look for other financial flows to implement their own zero-carbon sustainable development pathways, while retaining African Sovereignty for delivering development and climate objectives. These include:

- » Demanding a **fair share for Africa of climate finance** in the form of grants and concessional loan. A louder voice within the climate negotiations to demand the promised \$100bn a year for climate finance through the UNFCCC processes, with a fair share directed to African climate mitigation and adaptation in the form of grants and highly concessional loans.
- » **Scaling up sources** and access to funding through existing mechanisms such as **multilateral climate funds** and **innovative financial sources** such as **financial transaction taxes**, and special drawing rights (SDRs).
- » A **redirection of fossil fuel subsidies** and investments towards renewable energy.
- » **Renewable Energy Partnerships** – that truly benefits countries transition and are based on grants supporting the transition to 100% renewable energy systems, while providing energy access to the millions on the continent without electricity.
- » The systematic **cancellation of unfair and odious debts** that prevent African countries from delivering their own domestic climate and sustainable development investment. We must also refocus climate finance discussions around policies that address the underlying economic structures that produce the unsustainable external debt levels and suppress the domestic fiscal policy space that we so desperately need for development and climate action. In other words, the African external debt crisis is the symptom of serious structural deficiencies that must be addressed.
- » **All African countries should increasingly and purposely invest domestic means and currencies** in renewables, agroecology and sound industrialisation, ensuring democratic sovereignty over their own development pathways.

African leaders should also work together with other global south governments to push for polluter pays principles and other innovative financing mechanisms to be embedded in UNFCCC negotiations through mechanisms such as Article 6.8. The recent Amazon Summit meeting between Amazonian leaders highlighted Article 6.8 as a priority opportunity, and Brazil's leadership of both the G20 in 2024, and COP30 in 2025 offers a unique chance for the global south to work together to negotiate financing solutions that work for development, human rights and the climate.

Endnotes

- 1 Africa Carbon Markets Initiative (ACMI). Sustainable Energy For All. <https://www.seforall.org/our-work/initiatives-projects/ACMI>
- 2 Africa Voluntary Carbon Credits Market. <https://africancarbon.com>
- 3 Africa Carbon Markets Initiative: Roadmap Report, Sustainable Energy for All, 8 November 2022. <https://www.seforall.org/publications/africa-carbon-markets-initiative-roadmap-report>
- 4 Africa Carbon Markets Initiative announces 13 action programs, UNFCCC Climate Champions, January 2023. https://climatechampions.unfccc.int/africa-carbon-markets-initiative-announces-13-action-programs/?gclid=EAlaIqobChMlr8-_89Tq_wlVVK3VCh2Yqw9xEAAAYASAAEgK0CvD_BwE
- 5 What to make of the new African carbon markets, Mining Review Africa, 22 November 2022. <https://www.miningreview.com/east-africa/what-to-make-of-the-new-african-carbon-markets-initiative/>
- 6 A blueprint for scaling voluntary carbon markets to meet the climate challenge, McKinsey Sustainability, 29 January 2021 <https://www.mckinsey.com/capabilities/sustainability/our-insights/a-blueprint-for-scaling-voluntary-carbon-markets-to-meet-the-climate-challenge>
- 7 McKinsey Sustainability. <https://www.mckinsey.com/capabilities/sustainability/how-we-help-clients>
- 8 Carney's Bid to Grow Carbon Market Rejiggered Amid Controversy, Bloomberg, 16 March 2022. <https://www.bloomberg.com/news/articles/2022-03-16/carney-s-bid-to-boost-carbon-market-scaled-back-amid-controversy?leadSource=uverify%20wall>
- 9 Green groups raise concerns over Carney carbon credits plan The Guardian, 27 January 2021. <https://www.theguardian.com/environment/2021/jan/27/green-groups-raise-concerns-over-carney-carbon-credits-plan>
- 10 A blueprint for scaling voluntary carbon markets to meet the climate challenge, McKinsey Sustainability, 29 January, 2021. <https://www.mckinsey.com/capabilities/sustainability/our-insights/a-blueprint-for-scaling-voluntary-carbon-markets-to-meet-the-climate-challenge>
- 11 Race to Zero Criteria, Race to Zero. <https://racetozero.unfccc.int/system/criteria/>
- 12 Science Based Targets. <https://sciencebasedtargets.org/>
- 13 What is carbon offsetting?, ecoact. <https://eco-act.com/what-is-carbon-offsetting/>
- 14 The Voluntary Carbon Market Is Thriving, Anders Porsborg-Smith, Jesper Nielsen, Bayo Owolabi, and Carl Clayton, BCG, 19 January, 2023. <https://eco-act.com/what-is-carbon-offsetting/>
- 15 <https://www.bcg.com/publications/2023/why-the-voluntary-carbon-market-is-thriving>
- 16 Secret Intermediaries: Are carbon markets really financing climate action?, Carbon Market Watch, February 2023. <https://carbonmarketwatch.org/publications/secret-intermediaries-are-carbon-markets-really-financing-climate-action/>
- 17 How middlemen carbon brokers take a cut from money meant to help offset emissions, Luke Barratt Joe Sandler Clarke, Unearthed, 2 May 2022. <https://unearthed.greenpeace.org/2022/05/02/carbon-offsetting-market-climate/>
- 18 Ecosystem Marketplace's State of the Voluntary Carbon Markets 2021, 15 September 2021. <https://www.ecosystemmarketplace.com/publications/state-of-the-voluntary-carbon-markets-2021>
- 19 Carbon Offset Market Could Reach \$1 Trillion With Right Rules, BloombergNEF, January 23, 2023. <https://about.bnef.com/blog/carbon-offset-market-could-reach-1-trillion-with-right-rules/>
- 20 Carbon Offset Market Could Reach \$1 Trillion With Right Rules, BloombergNEF, 23 January 2023. <https://about.bnef.com/blog/carbon-offset-market-could-reach-1-trillion-with-right-rules/>
- 21 Carbon Markets: A big problem, Mark Dunne, Portfolio Institutional, 2 May 2023. <https://www.portfolio-institutional.co.uk/esg-hub/carbon-markets-a-big-problem/>
- 22 Live Carbon Prices Today, CarbonCredits.com <https://carboncredits.com/carbon-prices-today/>
- 23 Xpansiv's Annual Carbon Market Review 2022, CarbonCredits.com, 1 March 2023. <https://carboncredits.com/annual-carbon-market-vcm-review-2022/>
- 24 Carbon Pricing: What is a carbon credit worth?, Gold Standard. <https://www.goldstandard.org/blog-item/carbon-pricing-what-carbon-credit-worth>
- 25 Africa Carbon Markets Initiative launched to dramatically expand Africa's participation in voluntary carbon market, Climate Champions, November 8, 2022. <https://climatechampions.unfccc.int/africa-carbon-markets-initiative/>
- 26 The Voluntary Carbon Market Is Thriving, BCG, 19 January 2023. <https://www.bcg.com/publications/2023/why-the-voluntary-carbon-market-is-thriving>
- 27 Lohmann, L. et al. (2006). Carbon trading: a critical conversation on climate change, privatisation and power. Development Dialogue 43 No 48. Dag Hammarskjöld Centre Uppsala, https://whatnext.org/wp-content/uploads/2020/03/carbon_trading_web.pdf
- 28 Climate justice briefs #8 The Danger of Carbon Markets, November 2010, Cancún https://www.twm.my/title2/climate/pdf/climate_justice_briefs/08.Carbon.markets.pdf
- 29 Civil Society Groups Raise Concerns Over Increasing Push for Carbon Markets, Offsets, and False Solutions like Geoengineering and Land Based Removals During Climate Negotiations, Geoengineering Monitor, 10 July 2023. <https://www.geoengineeringmonitor.org/2023/07/civil-society-groups-raise-concerns-over-increasing-push-for-carbon-markets-offsets-and-false-solutions-like-geoengineering-and-land-based-removals-during-climate-negotiations/>
- 30 NOT ZERO: How 'net zero' targets disguise climate inaction. Joint technical briefing by climate justice organisations 2020. <https://>

- demandclimatejustice.org/wp-content/uploads/2020/10/NOT_ZERO_How_net_zero_targets_disguise_climate_inaction_FINAL.pdf
- 31 Chasing carbon unicorn: The deception of carbon markets and 'net zero', 2021. Friends of the Earth International and climate justice groups. <https://www.foei.org/wp-content/uploads/2021/04/Friends-of-the-earth-international-carbon-unicorns-english.pdf>
 - 32 Climate scientists: concept of net zero is a dangerous trap, The Conversation 22 April 2022. <https://theconversation.com/climate-scientists-concept-of-net-zero-is-a-dangerous-trap-157368>
 - 33 <https://ourworldindata.org/emissions-by-sector>
 - 34 Note that Africa's total CO₂e emission in 2021 were 4.73 Giggatonnes which is about 8.7% of world CO₂e emission of 54bn tonnes CO₂e for 2021 . Source Greenhouse gas emissions, Hannah Ritchie and Max Roser, Our World in Data. <https://ourworldindata.org/greenhouse-gas-emissions>
 - 35 CO₂ - sub-Saharan Africa, World Bank. <https://data.worldbank.org/indicator/EN.ATM.CO2E.KT?locations=ZG>
 - 36 The Voluntary Carbon Market Is Thriving, BCG, 19 January 2023. https://www.researchgate.net/publication/272786779_Ten_reasons_why_carbon_markets_will_not_bring_about_radical_emissions_reduction
 - 37 Carbon Credit fraud causes more than 5 billion euros damage for European Taxpayer, Europol, 9 December 2009. <https://www.europol.europa.eu/media-press/newsroom/news/carbon-credit-fraud-causes-more-5-billion-euros-damage-for-european-taxpayer>; and Carbon credit fraud: The white collar crime of the future, Deloitte, 2025. https://tomaswell.files.wordpress.com/2015/02/carbon_credit_fraud.pdf
 - 38 Carbon trading continues: What's wrong with the voluntary market, Global Witness, 24 May 2022. <https://www.globalwitness.org/en/campaigns/greenwashing/carbon-trading-continues-whats-wrong-with-the-voluntary-market>
 - 39 Tyndall centre for climate change research at the University of Manchester. <https://www.theguardian.com/environment/2023/jan/18/greenwashing-or-net-zero-necessity-climate-scientists-on-carbon-offsetting-aoe>
 - 40 United Nations' High-Level Expert Group on the Net Zero Emissions Commitments of Non-State Entities (2022). Integrity 42 Matters: Net Zero Commitments by Businesses, Financial Institutions, Cities and Regions <https://www.un.org/sites/un2.un.org/files/high-level-expert-group-update7.pdf>
 - 41 COP27 - Corporate climate pledges rife with greenwashing - U.N. expert group, Gloria Dickie and Simon Jessop, Reuters, November 8, 2022 <https://www.reuters.com/business/cop/un-experts-cop27-corporate-climate-pledges-rife-with-greenwashing-2022-11-08/>
 - 42 No space for ANY offsets in IPCC's remaining carbon budget. Climate Land Ambition and Rights Alliance. 2022. <https://static1.squarespace.com/static/610ffde0dd5c39015edc6873/t/64134f6d5e62fc778c9f7775/1678987118518/No+space+for+ANY+offsets+-+FINAL.pdf>
 - 43 10 myths about net zero targets and carbon offsetting, busted, Climate Home News, 11 December 2020 <https://www.climatechangenews.com/2020/12/11/10-myths-net-zero-targets-carbon-offsetting-busted/>
 - 44 Community conflict and vague predictions: The five biggest reasons carbon offsetting schemes fail, Elina Kajosaari, EuroNews, 10 January 2023. <https://www.euronews.com/green/2023/01/10/the-five-biggest-reasons-carbon-offsetting-schemes-can-fail>
 - 45 Greenwashing or a net zero necessity? Climate scientists on carbon offsetting, Fiona Harvey, The Guardian, 18 January, 2023. <https://www.theguardian.com/environment/2023/jan/18/greenwashing-or-net-zero-necessity-climate-scientists-on-carbon-offsetting-aoe>
 - 46 Revealed: more than 90% of rainforest carbon offsets by biggest certifier are worthless, analysis shows | Carbon offsetting | The Guardian
 - 47 The Land Gap Report. <https://www.landgap.org/about-the-land-gap-report>
 - 48 10 myths about net zero targets and carbon offsetting, busted, Climate Home News, 11 December 2020 <https://www.climatechangenews.com/2020/12/11/10-myths-net-zero-targets-carbon-offsetting-busted/>
 - 49 The Rockefeller Foundation and GEAPP To Design the World's First 'Coal-To-Clean' Credit Program in Emerging Economies 14 June 2023. <https://www.rockefellerfoundation.org/news/the-rockefeller-foundation-and-geapp-to-explore-the-worlds-first-coal-to-clean-credit-program-in-emerging-economies/>
 - 50 CSSN Position Paper 2022:1, Net Zero, Carbon Removal and the Limitations of Carbon Offsetting. <https://cssn.org/wp-content/uploads/2022/06/Net-Zero-and-Carbon-Offsetting-Position-Paper.pdf>
 - 51 Fern, Carbon markets will not deliver for southern governments, forests and people (2011)
 - 52 What are Fairtrade Carbon Credits and how are they different from Gold Standard credits?, Gold Standard, 24 September, 2021. <https://goldstandardhelp.freshdesk.com/support/solutions/articles/44001989703-what-are-fairtrade-carbon-credits-and-how-are-they-different-from-gold-standard-credits->
 - 53 Fair Trade Carbon Credits. <https://files.fairtrade.net/FairtradeCarbon-Credits.pdf>
 - 54 "A further act of colonisation": why indigenous peoples fear carbon offsetting, India Bourke, The New Statesman, 18 November 2021. <https://www.newstatesman.com/spotlight/sustainability/climate/2021/11/a-further-act-of-colonisation-why-indigenous-peoples-fear-carbon-offsetting>
 - 55 United Nations Climate Champions name iRise Africa as Lighthouse Project, Future Earth, 8th November 2022. <https://www.futureearth.com/news>
 - 56 United Nations Climate Champions name iRise Africa as Lighthouse Project, Future Earth, 8th November 2022. <https://www.futureearth.com/news>

- 57 iRise Africa Limited: About | LinkedIn <https://www.linkedin.com/company/irise-africa-limited/about/>
- 58 iRise Innovation, Future Earth, <https://www.futureearth.com/>
- 59 Status of Legal Recognition of Indigenous Peoples', Local Communities' and Afro-descendant Peoples' Rights to Carbon Stored in Tropical Lands and Forests, Rights and Resources Initiative, August 2021. <https://www.iatp.org/carbon-markets-and-agriculture>
- 60 https://rightsandresources.org/wp-content/uploads/CarbonRightsReport_v10.pdf
- 61 Top airlines' promises to offset flights rely on 'phantom credits', Unearthed, 4 May 2021. <https://unearthed.greenpeace.org/2021/05/04/carbon-offsetting-british-airways-easyjet-verra/> and Carbon offsets used by major airlines based on flawed system, warn experts, Guardian, 4 May 2021. <https://www.theguardian.com/environment/2021/may/04/carbon-offsets-used-by-major-airlines-based-on-flawed-system-warn-experts>
- 62 IPCC Special Report: Global Warming of 1.5°C, Intergovernmental Panel on Climate Change, 2018. <https://www.ipcc.ch/sr15/chapter/spm/>
- 63 Direct Air Capture, International Energy Agency 2023. <https://www.iea.org/energy-system/carbon-capture-utilisation-and-storage/direct-air-capture#Capturing-CO2-from-the-atmosphere-through-direct-air-capture-is-currently-expensive>
- 64 10 myths about net zero targets and carbon offsetting, busted, Climate Home News, 11. December 2020. <https://www.climatechangenews.com/2020/12/11/10-myths-net-zero-targets-carbon-offsetting-busted/>
- 65 Carbon Offset Market Could Reach \$1 Trillion With Right Rules, Bloomberg NEF, 23 January 2023. <https://about.bnef.com/blog/carbon-offset-market-could-reach-1-trillion-with-right-rules>
- 66 IPCC Special Report Global Warming of 1.5 °C, FAQ Chapter 4, 2018. <https://www.ipcc.ch/sr15/faq/faq-chapter-4>
- 67 Secret Intermediaries: Are carbon markets really financing climate action?, Carbon Market Watch, February 2023. <https://carbonmarketwatch.org/wp-content/uploads/2023/02/CMW-briefing-on-intermediaries-1.pdf>
- 68 Secret Intermediaries: Are carbon markets really financing climate action?, Carbon Market Watch, February 2023. <https://carbonmarketwatch.org/wp-content/uploads/2023/02/CMW-briefing-on-intermediaries-1.pdf>
- 69 Analysis of Voluntary Carbon Market Stakeholders and Intermediaries, Allied Offsets 1 February 2023 <https://carbonmarketwatch.org/wp-content/uploads/2023/02/Stakeholder-Analysis-for-the-Voluntary-Carbon-Market.pdf>
- 70 Will Reforms to Carbon Markets Better Protect the Climate?, Ashley Lampard, DeSmog, June 29, 2022. <https://www.desmog.com/2022/06/29/carbon-markets-reforms-climate-change-finance-industry/>
- 71 Can Voluntary Carbon Markets Be Fixed?, Faculty of Law, University of Oxford, 14 March 2023. <https://blogs.law.ox.ac.uk/oblb/blog-post/2023/03/can-voluntary-carbon-markets-be-fixed>
- 72 Analysis of Voluntary Carbon Market Stakeholders and Intermediaries, Allied Offsets 1 February 2023. <https://carbonmarketwatch.org/wp-content/uploads/2023/02/Stakeholder-Analysis-for-the-Voluntary-Carbon-Market.pdf>
- 73 Analysis of Voluntary Carbon Market Stakeholders and Intermediaries, Allied Offsets 1 February 2023. <https://carbonmarketwatch.org/wp-content/uploads/2023/02/Stakeholder-Analysis-for-the-Voluntary-Carbon-Market.pdf>
- 74 Carbon credits: Purchasing carbon credits supports the development of projects around the world that avoid and reduce CO2 emissions, Shell Global. <https://www.shell.com/business-customers/trading-and-supply/trading/shell-energy-europe/clean-energy-solutions/voluntary-carbon-credits.html>
- 75 Transformation to Integrated Energy Company on track, aims to grow earnings through 2030 and accelerate net zero ambition, BP, 8 February 2022. <https://www.bp.com/en/global/corporate/news-and-insights/press-releases/bp-update-on-strategic-progress.html#definitions>
- 76 A net-zero emissions energy business, Shell Global, 16 April 2020. <https://www.shell.com/media/speeches-and-articles/2020/a-net-zero-emissions-energy-business.html>
- 77 State and Trends in Adaptation Report 2021, Global Centre on Adaptation. https://gca.org/wp-content/uploads/2022/08/GCA_STA_2021_Complete_website.pdf
- 78 International Energy Agency (IEA). 2022. "Africa Energy Outlook 2022." World Energy Outlook Report. International Energy Agency, Paris. <https://www.iea.org/reports/africa-energy-outlook-2022>
- 79 Regional Economic Outlook Analytical note, Closing the Gap: Concessional Climate Finance and Sub-Saharan Africa, International Monetary Fund, April 2023.
- 80 Landscape of Climate Finance in Africa, Climate Policy Initiative, Climate Policy initiative, September 2022. <https://www.climatepolicyinitiative.org/wp-content/uploads/2022/09/Landscape-of-Climate-Finance-in-Africa.pdf>
- 81 Locked out of a Just Transition Fossil fuel financing in Africa, BankTrack, March 2022. https://www.banktrack.org/download/locked_out_of_a_just_transition_fossil_fuel_financing_in_africa/07_md_banktrack_fossil_fuels_africa_rpt_hr_1.pdf
- 82 Landscape of Climate Finance in Africa, Climate Policy Initiative, Climate Policy initiative, September 2022. <https://www.climatepolicyinitiative.org/wp-content/uploads/2022/09/Landscape-of-Climate-Finance-in-Africa.pdf>
- 83 Unjust, Ineffective Distractions from Real Solutions: Carbon Markets and Offsets, Friends of the Earth 2023. <https://foe.org/projects/carbon-markets>



For more information contact:
info@powershiftafrica.org