

U4 Helpdesk Answer

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Integrity risks in carbon markets in Mozambique

Carbon markets are new mechanisms to regulate and reduce greenhouse gases; however, these are not fully yet fully transparent and some lack robust oversight. As such, these entail different integrity risks, particularly in countries with weak institutions and difficulties in enforcing sanctions. The challenges carbon markets posit should lead to more cooperation between countries and within them, especially as the issues require the coordination of several different sectors. Carbon markets might imply actors at very different levels, ranging from the local communities where some of the projects take place to the final company buying the carbon credit in a different country. Therefore, collaboration between levels of government, sectors and international actors might help identify and address the integrity issues.

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Query

Please provide an overview of the issues related to integrity, transparency and accountability in carbon market regulation. What risks should be considered in the case of Mozambique, particularly regarding the environmental sector?

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MAIN POINTS

- There are integrity, transparency and accountability risks in the carbon market including fraud and corruption (elite capture, bribery data manipulation, and undue influence over policy design and institutions).
- One of the biggest risks is related to land, especially in the context of weak land tenure. In Africa, as in other parts of the Global South, a phenomenon called “green grabs”, where land grabs are justified in relation to the environment, has been linked to the development of carbon credits.
- Because carbon offsetting requires the saving of emissions that would have otherwise occurred, the required counterfactual can be subject to speculation.
- Double counting, by which a carbon offset is counted in favour of two different emitters, is an intrinsic problem of carbon markets that requires stronger international governance if the market is to accomplish the goal of reducing emissions.

Introduction to carbon markets

Key concepts

Carbon markets emerged to help address climate change by targeting its source: the buildup of greenhouse gases (GHG) in the atmosphere. These market based instruments have put a price on GHG emissions, meaning there are economic incentives to transitioning to more sustainable energy sources (BMWK n.d.)¹.

The logic of carbon markets is that, in terms of the atmosphere, it does not matter where the emissions are generated, a total “carbon budget” guiding overall emissions could be agreed upon by the international community and emissions and emission reductions can be exchanged in carbon markets (Carbon Market Watch 2024). This allows for a carbon market in which countries can transfer carbon credits obtained through the reduction of their GHG emissions to others so they can meet their own emissions targets. This ultimately means that countries saving on emissions are awarded credits that they then can sell in the market to GHG emitters, which is referred to as “offsetting”, i.e. a company or country emitting more than it can offset can buy carbon credits (Carbon Market Watch 2024; JLA advogados n.d.; Kill 2013).

In a cap-and-trade scheme, a government sets an emissions limit and then issues “emission allowances” that are consistent with the set limit (Center for Climate and Energy Solutions n.d.).

When a company releases GHGs, it gives back one allowance to the government (Carbon Market Watch 2024). Companies that are able to reduce their emissions can then sell any excess allowances they have to other companies (Center for Climate and Energy Solutions n.d.). The emissions are limited by the government, and trade only happens in terms of these “permits to emit”. This is different from carbon credits.

One tradable carbon credit is equivalent to “one tonne of carbon dioxide, or the equivalent amount of a different GHG reduced, sequestered or avoided” (UNDP 2023b:5). Voluntary carbon markets encourage private sector investment towards carbon sequestration projects that mitigate GHG emissions (JLA advogados n.d.). Global carbon markets are almost exclusively carbon crediting mechanisms (Carbon Market Watch 2024).

Carbon markets are sometimes differentiated between voluntary and compliance markets. A voluntary market entails companies and organisations deciding to purchase carbon credits (Carbon Market Watch 2024). Voluntary carbon markets differ from compliance carbon markets, which emerge from requirements (UNDP 2023b). In a compliance carbon market, countries and companies participate to meet their obligatory emissions targets (Carbon Market Watch 2024). However, as carbon markets have grown, this distinction has become less relevant and, in most cases, any given market can be characterised as both compliance and voluntary according to how and for what purposes the participants are using it (Carbon Market Watch 2024). This Helpdesk

¹ For further information on carbon markets, please see the UNDP’s article: [What are carbon markets and why are they important?](#) (2022).

Answer therefore refers to integrity, transparency and accountability risks that may be present in both types.

Carbon credits can be traded repeatedly, and most do not have an expiration date, until a final buyer uses it to offset some of their emissions or to claim some contribution towards a climate action or carbon neutrality, at which point it is retired (Carbon Market Watch 2024).

Policies and mechanisms

The Clean Development Mechanism (CDM) is a carbon market that emerged from Article 12 of the Kyoto Protocol, an international treaty within the United Nations Framework Convention on Climate Change (UNFCCC) that entered into force in 2005. The mechanism allows countries with emission commitments to implement an emission reduction project in developing countries. These countries could buy carbon credits known as certified emission reductions (CERs) from developing countries (Carbon Market Watch 2024). The CDM was effectively ended in 2021.

The Paris Agreement is a legally binding international treaty within the UNFCCC that was adopted in 2015. The ultimate goal of the agreement is to hold the increase in the global average temperature and limit it to 1.5° C above pre-industrial levels (UNFCCC n.d.). Article 6 of the Paris Agreement recognised that some parties² might voluntarily pursue cooperation to reach their climate targets, meaning they can trade carbon credits. Two market-based instruments were created: governments trading in greenhouse gas

(GHG) emissions between them; and private sector entities trading in GHG emissions with the oversight of the UNFCCC and the authorisation of their governments (UNDP 2023b). The second market is similar to the CDM but will not be limited to projects in developing countries (Carbon Market Watch 2024).

Finally, Reducing Emissions from Deforestation and Forest Degradation in Developing Countries (REDD+) is an approach that seeks to preserve tropical forests while supporting the sustainable development of the communities that depend on them (JLA advogados n.d.). It was set up under the UNFCCC to help developing countries receive finance to protect their forests and it did not allow for the creation of carbon credits (Carbon Market Watch 2024). It was later repurposed by private standards to generate carbon credits through forestry projects and has become the dominant forest policy (Carbon Market Watch 2024; Cabello & Kill 2022).

There are many different actors in the carbon market, further complicating the picture. Going from the final user to the “creator” of the carbon credit, we can identify: companies and states buying carbon credits, investment funds and financial brokers trading them, countries where the carbon offsetting projects take place, entrepreneurs looking for project possibilities, actual project implementers, and the local communities which can be a direct part of the project or are affected by it.

² 195 parties out of the 198 parties that are part of the UNFCCC are parties to the Paris Agreement. It entered into force on 4 November 2016.

Integrity risks in carbon markets

There is a lot of criticism of carbon offsetting as a mitigation strategy (Stabinsky 2021; Power Shift 2023; REDD Monitor 2014; Lang 2022; World Rainforest Movement 2020; Civil Society Open Letter 2023). For example, the CDM was considered by some to have failed at the task of reducing GHGs as many of the projects that sold the credits would have happened without the need for the market, and countries who bought the credits did this instead of reducing their emissions through other efforts (Carbon Market Watch 2024).

Carbon markets can also create perverse incentives as companies can use them instead of reducing their own emissions, therefore not having an impact on the decarbonisation of the economy (Carbon Market Watch 2024). It also remains unclear whether they actually caused fewer reductions (Carbon Market Watch 2024; Power Shift 2023; REDD Monitor 2014).

There are major integrity issues surrounding carbon offsets, including double counting of GHG emission reductions, human rights violations and greenwashing (UNDP 2023b; Lutz 2023). These remain quite complex as they trade artificially created “goods” – emission allowances or credits (Betz et al. 2022). Since carbon markets are opaque and prices secret (Barrat and Sandler Clarke 2022) accountability and transparency problems arise. Many of these projects entail the use of rural land often inhabited by vulnerable communities like Indigenous populations and forest people. REDD+ corruption risks include elite capture, bribery data manipulation, and undue influence over policy design and institutions (Transparency International 2021b). REDD projects can also exacerbate weak law

enforcement, corruption and land tenure disputes (REDD Monitor 2014).

Project design and implementation risks

At the project design phase, some carbon offsetting projects are based not on avoiding deforestation but on reforestation. The carbon offsetting projects using monoculture plantations have sometimes led to conflicts with the communities living in and around the plantations as they do not benefit from them and sometimes affect their livelihoods and agricultural activities (World Rainforest Movement 2020). Industrial tree plantations can also have an impact on water (World Rainforest Movement 2020), which can trigger further problems.

Furthermore, reforestation projects claiming to offset emissions and help mitigate climate change are problematic for other reasons including the fact they select areas where land titles are mostly insecure, vulnerable or unrecognised by the state (World Rainforest Movement 2020). These are risks for Indigenous peoples and forest-dependent communities as their livelihoods might be at stake with these projects (Transparency International 2021b).

The location of these projects, determined at the project design phase, is often far from urban centres with law enforcement agencies and the asymmetric conditions of the project towards the vulnerable communities can create further risks. In Kenya, for example, there were allegations of sextortion in a carbon offsetting project, where senior men in a company took advantage of their positions to demand sex from local community members by threatening to otherwise fire their husbands from the project (Transparency International 2023b).

This means that during project implementation, land concessions, favourable deals and permits for large-scale tree plantations can be driven by financing political campaigns and/or direct bribes (World Rainforest Movement 2020). The right to free prior informed consent (FPIC) is not always respected. Projects might obtain community consent through bribes, misleading information or threats, or can convince (such as through lobbying) the government to intervene on their behalf. In Peru, for example, local communities were consulted only after a project was approved (REDD Monitor 2014). In Malaysia, rights to carbon and other forest natural capital were granted to a company with no experience in the carbon credit market and without proper public participation or consultation with Indigenous landowners (Donald 2021).

Other known corruption risks include collusion, bribes, land grabbing and prior consent, among others. In Ukraine, for example, the approval of carbon projects depended on connections and side payments instead of on their quality (The Guardian 2015). Also, bribes might be used so that inspectors ignore breaches or to create fraudulent land titles or carbon rights (UNDP 2011). Projects are usually required to be validated by an independent auditor, who is usually paid and selected by the project developer (Carbon Market Watch 2024) which can lead to conflicts of interest.

The market and its intermediaries

There is a risk of market manipulation, which refers to market participants influencing the market for personal gain through the artificial inflation or deflation of prices. This risk is compounded by the sector of carbon markets being one of imperfect competition and the fact that the activities of intermediaries working in the carbon

market remain very obscure (Betz et al. 2022; Carbon Market Watch 2023).

Intermediaries can sell cheap carbon credits of low quality at an inflated price, taking advantage of the information asymmetry of an opaque market (Carbon Market Watch 2023). An investigation showed that many carbon offset payments do not go to conservation projects nor climate action but rather end up in the hands of the brokers that sell them at inflated prices (Barrat and Sandler Clarke 2022). This distorts how much money is going to the mitigation projects (Carbon Market Watch 2023). While the bulk of the payment in those situations goes to companies or middlemen that are doing nothing to counter climate change (Barrat and Sandler Clarke 2022). This is difficult for the buyer to know because most intermediaries do not disclose their profit margins nor their fees (Carbon Market Watch 2023).

In addition to financial intermediaries or brokers, there is evidence of so called “carbon cowboys” (de Jong et al. 2014). These are entrepreneurs who approach local communities and Indigenous organisations to trade carbon credits on their behalf so they can reap the benefits of the sales (that the local communities are actually entitled to), as evidenced in Peru or Colombia (de Jong et al. 2014; REDD Monitor 2014). These “cowboys” can exclude and mislead the people and governments and wreak havoc (Donald 2021). In the case of Peru, for example, a “carbon cowboy” managed to secure an agreement with two Indigenous organisations by visiting the region and establishing contacts with community leaders (de Jong et al. 2014). In Brazil, a company approached a traditional community and presented their proposals to convince the representatives to sign contracts in English – a language not spoken by the population – to facilitate the sale of carbon credits, and they excluded basic information like potential risks and which lands would be covered by the

agreement (Schramski and Neto 2023). While this in itself is not an example of corruption, it illustrates the broader challenges of carbon markets and their lack of oversight.

Market oversight and project approval

Several issues can arise in the context of the commercialisation of carbon credits, as it is a relatively new market with still weak financial tracking systems. Due to the international component of climate change, the governance arrangements for carbon markets are complex. They entail the co-existence of private actors (not only the ones trading but also the carbon credit verifiers and standards) with public ones and are subject to transnational governance (Betz et al. 2022). While some of its governance is set by international treaties (for example, the Paris Agreement within the UNFCCC), the authorisation of a project will happen at the national level and the validation and verification is usually done by a private actor (a carbon credit certifier) (Betz et al. 2022). Due to this fragmented picture, regulation might be patchy and insufficient, and thus open to possibilities for abuse (Betz et al. 2022) and corruption.

When the scope of the market is not congruent with the levels it has of governance and oversight (i.e. a market where different parts are covered by governance at the EU level and at the national level), the bigger the risk of fraud (Betz et al. 2022).

Fraud can emerge at this point and include: value-added tax; money laundering; tax evasion; allowance theft (issuing unauthorised transfers by gaining control over a trading registry account through phishing); and selling fake credits or allowances (Betz et al. 2022). In France, for example, an organised criminal group bought carbon credits without VAT and then resold them

in France with VAT but without paying the VAT to the state (Transparency International 2021a).

Another type of fraud is selling carbon credits from projects that do not exist or were known to not have caused additional carbon reductions, as with some projects in Russia and Ukraine that were found to either not have entailed additional reductions or were suspected not to exist in the first place (The Guardian 2015).

Conflicts of interest and embezzlement can also happen at this level. In Slovakia, emission units were traded at half of their market price and allocated to a small firm that turned out to be a shell company, which then sold them at a mark-up. The party of the minister in charge of the transaction had connections with the company (Transparency International 2021c; Betz et al. 2022).

Estimation and monitoring issues

The key element of a carbon offsetting project is that it either prevents carbon from being released into the atmosphere, or it sequesters carbon from the environment. This means that projects in forest carbon offsetting need to estimate a baseline of how much carbon would be released or captured without the project and then estimate how the project would help to mitigate this (Kill 2013). Since projects should not be their own judges, certified carbon credits are verified by accredited organisations that can certify them according to their standards or some internationally developed standard (like the one developed for the CDM).

For example, avoided-deforestation projects rest on an estimate of what would have happened in terms of deforestation without the project and the difference in carbon sequestration, assumed to be thanks to the project, which becomes carbon credits (Greenfield 2023). The measurement of these

carbon credits is intrinsically difficult for many reasons. First, it deals with a counterfactual, and requires some speculation, e.g. one could claim that illegal logging would have deforested a particular area, but it could be that a country developed better enforcement agencies during that same period that would have prevented this without the project.

Second, the only way to accurately measure how much carbon is stored in a tree is to measure its biomass, for which cutting it down and putting it on a scale would be necessary. While current estimation models are effective, they still have an uncertainty level of around 15-20% (Meyer 2023), which is a percentage that can be subject to purposeful overestimations. Ultimately, claims about the additionality of these projects, i.e. that they are preventing additional carbon from reaching the atmosphere, are many times unsupported (Transparency International 2021b). This may provide opportunities for fraud, manipulation and potential corruption by carbon offset project implementers and buyers.

These risks are compounded by monitoring problems. First, the uncertainty level of the models involves methodological problems involved in quantifying the saved emissions (REDD Monitor 2014). Additionally, poor monitoring, reporting and verification contain a risk because projects could hide shortfalls with the hope of not being detected, leading to larger GHG in the atmosphere than the one reported (Betz et al. 2022).

In some cases, the verification of the project is contracted by the project developers (Power Shift 2023), which leads to a conflict of interest.

An investigation into one of the world's main carbon credits certifiers for the offsets market found that more than 90% of their rainforest offset credits were unlikely to represent the claimed carbon reductions (Greenfield 2023). The

investigation found that very few of its rainforest projects had robust evidence of deforestation reductions, that the threat to forests had been overstated by about 400% on average in the projects where comparison was possible (Greenfield 2023).

In addition, project implementers wishing to trade the carbon credits or the intermediaries that commercialise them may engage in petty corruption and pay bribes to avoid sanctions or to hide this underreporting (Betz et al. 2022).

Ultimately, in all of these cases, a private company can buy carbon credits to offset their emissions and claim net reductions when there might in fact be none (Greenfield 2023).

Double counting

An integrity risk in carbon markets is that of double counting (Power Shift 2023; Streck et al. 2023), which is likely to increase as these markets grow in complexity (Betz et al. 2022). Double counting refers to two different entities; for example, the country where the project is based and the company buying the carbon credit created by the project claiming the same emission reduction, therefore leading to more carbon being released into the atmosphere than the one accounted for in the books (and leading to false and potentially fraudulent net-zero claims).

Double counting can take several forms that are closely related (Schneider et al. 2015 in Betz et al. 2022):

- Double issuance is when a credit is issued more than once for the same reduction.
- Double claiming refers to the situation when a reduction is counted twice when, for example, a country puts it on its own

climate pledge and also sells it in the carbon market.

- Double use refers to a credit being used more than once because, for example, it was not cancelled in the original registry.

Lobbying and greenwashing

Lobbying by large private companies in relation to the climate has come to be almost an expected occurrence (Carbon Market Watch 2020; Mullard 2021; The Guardian 2019). The fact that large polluters have lobbied for and promoted carbon trading, which allows them to offset their GHG emissions (Lang 2022), should raise alarms of carbon credits being used for greenwashing purposes without truly reducing dangerous GHG emissions and mitigating climate change. While lobbying in itself is not a form of corruption, it is nonetheless a rent-seeking activity, which raises integrity concerns.

Greenwashing refers to the practice of misleading the public into believing that a company is doing more to protect the environment than it actually is doing (United Nations n.d.). The aviation industry, for example, has been accused of greenwashing instead of reducing their emissions (Stay Grounded 2021). Many airlines use carbon credits to offset their emissions both directly and by offering them to travellers at the time of ticket purchase; however, as we have discussed in this section, many offset projects do not meet quality standards and are susceptible to fraud (Stay Grounded 2023).

The use of carbon offsets by a company can be greenwashing if the company does not prioritise in-house emissions reduction, is part of double counting or the projects do not truly lead to additionality (Raji 2023). Ultimately, as long as carbon credits have integrity risks, any net-zero or

climate pledge made by a company based on carbon offsetting can be greenwashing, as the projects might not actually lead to a reduction in global emissions.

Carbon market integrity risks in sub-Saharan Africa

Sub-Saharan Africa is one of the regions that has contributed the least to global GHG emissions; however, it is predicted to be one of the regions hardest hit by climate change (Devillers and Lyons 2023). It is also a region that has been targeted for the development of carbon credits, such as initiatives like the [African Forestry Impact Platform](#) (AFIP) illustrate. Forestry carbon offset projects are particularly prominent in the region, given it has one-fifth of the world's remaining forests, but is currently losing them faster than anywhere else (The Nature Conservancy 2022). However, non-forestry projects regarding green energy and energy efficiency are also rapidly expanding on the continent (Ngila 2023).

The geographical focus of carbon offset projects on Sub-Saharan Africa adheres to the market logic behind carbon trading which argues “that the best way to tame climate action is to reduce emissions where it is easiest (i.e. least costly) to do so” (Carbon Market Watch 2024:4). It might also be an unintended consequence of the previous market mechanism, CDM, being for projects only in the developing world.

As has been highlighted before, one of the corruption risks emerging from the carbon market is related to the acquisition of land for project implementation. The outsourcing of carbon emissions reduction through carbon markets is an area particularly susceptible to land abuses in the

Global South (Stassart and Collaço 2023). The plantation of new forests requires land, which can put at risk the livelihoods and cultures of the people living there and have resulted in the expropriation of community lands (Power Shift 2023; Devillers and Lyons 2023). The Global North/Global South content of this relation can further entrench inequalities, and some authors talk about green colonialism, where Africa's resources are exploited by developed countries for carbon credits purposes (Devillers and Lyons 2023). Carbon offsetting schemes posit a great problem in terms of land, since the land needed to accommodate net-zero pledges has a massive scale, further driving the already fierce competition for land resources (Stassart and Collaço 2023).

Land administration already entails several corruption risks (Wheatland 2016), and corruption surrounding land use can have detrimental effects for climate change as has been the case in sub-Saharan Africa (Stassart and Collaço 2023). Land corruption takes many forms, including bribery, collusion, conflict of interest, political corruption and state capture (Stassart and Collaço 2023). Furthermore, land grabbing itself has links to corruption, as was shown, for example, in Brazil (Transparency International 2023a).

The financialisation of the forestry sector for carbon sequestration in sub-Saharan Africa has involved the control and ownership of land being transferred from the local communities to corporate entities, in many cases through land grabs³ (Devillers and Lyons 2023). In this context, land grabs for conservation and renewable energy that are justified through claims of public purpose or as part of a climate solution, are referred to as “green grabs”

(Stassart and Collaço 2023; Fairhead et al. 2012). Land grabbing can make use of legal mechanisms, like expropriation in places where it is poorly regulated and public interest can be loosely defined, or invested actors might try to influence land tenure policies (Stassart and Collaço 2023).

Green grabbing is tied with a colonial understanding of the appropriation of nature (Fairhead et al. 2012). Land corruption enables abuses of power by elites who might get to decide what is a legitimate claim to land ownership, in detriment to disadvantaged populations, which is compounded by the Global North/Global South power asymmetry and the financialisation of the forestry sector (Stassart and Collaço 2023; Devillers and Lyons 2023).

Carbon projects that are poorly designed and have no safeguards for communities can result in corruption and eviction, leading to livelihoods being lost and human rights abused (Stassart and Collaço 2023). For example, Green Resources, a Norwegian plantation forestry and carbon credit company, which was acquired by AFIP, had a poor track record that included land grabbing and human rights violations in Uganda, Mozambique and Tanzania (Devillers and Lyons 2023; Lyons and Westoby 2014). In Kenya, a report alleged that a carbon offsetting project violated the FPIC of the communities living on the land encompassed by a project (Transparency International 2023c; Stassart and Collaço 2023). The way carbon credits are sometimes presented in sub-Saharan Africa may be considered as double counting, since it presents the credits as helping countries achieve their climate goals while at the same time offsetting companies' emissions in their countries of

³ Land grabs refer to the unlawful or illegitimate act of seizing land (Oxford Dictionary).

operation (Power Shift 2023). This can be seen in the Nigeria ACMI Roadmap, as it puts together country target reductions along with the idea that, to achieve them, Nigeria could develop a voluntary carbon market activation plan (Power Shift 2023).

Due to the power asymmetry of the carbon market, intermediaries might also get the biggest cut of the benefit. Some investigations consider that the prices paid to the actual projects in Africa might be a third or less than the prices paid by the final “user”, due to the multiple actors participating as intermediaries (Power Shift 2023).

Carbon market integrity risks in Mozambique

General risks

Integrity and corruption risks in Mozambique are prevalent, and are reported to include bribes, patronage systems, corruption in public procurement and the tax and customs administrations (Gain Integrity 2020).

High-level fraud and embezzlement have been recorded at the government level (Global Initiative Against Transnational Organized Crime 2023). The “hidden debts” corruption scandal entailed the collusion of Mozambican officials with European bankers and a Middle Eastern business to provide secret loans to state-owned companies without parliamentary approval and the government acting as a guarantor to the loans (Bak 2020). There were millions paid in bribes, and the ex-president’s son was found guilty of embezzlement, money laundering and abuse of power, and a former Finance Minister has been extradited to the US in association with these loans (Gaventa 2021). As a

result of the scandal, the government is seeking to strengthen legislation to enable asset recovery more efficiently (Basel Institute on Governance 2023).

In 2008, a bribery scandal arose in securing the sales of aircraft to the state-owned Mozambican airline (LAM) and, more recently, accusations were raised of embezzlement in the same airline (Dudley 2016; DW 2024a). Poor oversight of state-owned enterprises has been reported, and public procurement processes are often obscure (IMF 2019).

While the discovery of natural gas contributed to higher economic growth (Bak 2020), the benefits from gas exploration are unclear to the local population who express not knowing who the seller was, who was the buyer nor where the profits were going (Nhampossa 2023). The local population also saw a nexus between the gas investments in their area and the surge in terrorist violence as the discovery of natural gas is considered to having exacerbated existing tensions (Nhampossa 2023; Lemmerich 2023). The gas sector is judged to be susceptible to patronage (Gaventa 2021), and corruption in the gas region of Cabo Delgado is rampant, with local and national officials colluding in the trade of illicit gems, wildlife and drugs (Sheehy 2021).

Environmental risks

The CSO Centro de Integridade Pública de Moçambique (CIP) considered the following environmental integrity and corruption risks in the country (CIP 2024):

- lack of transparency in the management of natural resources projects

- lack of accountability in donations to victims of climate events
- manipulation of environmental licences
- lack of appropriate conditions for resettling communities
- increase of the illegal destruction of habitats
- loss of financial resources and biodiversity due to environmental crimes
- increase of pollution due to weak monitoring
- increase of negligence due to electoral year

Furthermore, environmental crimes are associated with corruption and may involve organised crime (CIP 2024). Foreign criminal actors have been involved in several illicit economic activities, including illegal logging, ivory and fishing (Global Initiative Against Transnational Organized Crime 2023). Mozambique is a major source of ivory and a trafficking hub, with the bribing of customs officials playing an essential role in moving the illegal ivory from Mozambique to Asia (EIA n.d.). Illegal logging has continued to operate due to corruption in the provincial forest services, police and customs, as well as ministerial involvement (Global Initiative Against Transnational Organized Crime 2023; The University of British Columbia n.d.).

Corruption can facilitate these and other environmental crimes through the diversion of funds meant for environmental protection, the manipulation of environmental studies to obtain operational licences, the falsification of certificates, customs corruption, lack of environmental supervision, among others (CIP 2024). Finally, the profits from these crimes endanger state capture as they can finance the elections of the party in power, as suggested during the hidden debt court hearings (CIP 2024).

Carbon market integrity risks

The state of Mozambique has manifested commitment to REDD+ and, already in 2018 it adopted a regulation for the reduction of emissions (World Rainforest Movement 2019; Moçambique para todos 2023). More recently, the government declared the country possesses approximately 45 million carbon credits and has expressed that they wish to capitalise on them (Nhampossa 2024; Moçambique para todos 2023).

They also consider that they have the opportunity to increase carbon reserves through sustainable agriculture practices, forest preservation and reforestation (O. Económico 2023). At the same time, the companies operating in the gas sector are also trying to offset emissions from gas through forestry (Gaventa 2021), further driving up the demand for carbon offsetting projects. In this context, the country drafted a carbon market activation plan which would seek to guarantee the environmental integrity of carbon projects (JLA advogados n.d.).

The carbon credit context in Mozambique presents a number of specific challenges and risks in terms of corruption and integrity that are connected to the more general risks mentioned in the previous section. For example, issues like corruption in land administration or corruption in the police (Gain Integrity 2020) may all have consequences for the integrity of carbon projects.

It should be noted that, despite the fact that in 2022 the bulk of carbon credits issued in the country in 2022 came from fuel switch, water purification and efficient cook stove projects (Club of Mozambique 2023), most of the risks raised in this paper come from the specific characteristics of forestry for carbon offsetting. This is because most of the risks were found in the forestry sector, likely due to its scale and close links with land issues.

Moreover, some of the other projects are connected to forestry, as some of the efficient cook stove projects seek to reduce the use of charcoal coming from virgin unmanaged forest for cooking ([Radius Zero Changalane Project](#)). Integrity risks for projects like efficient cook stove ones are more likely to arise at the market level, e.g. claiming much larger reductions than the ones attributable to the project, and thus not necessarily specific to the country.

While there are other types of carbon market projects, e.g. renewable energy, energy efficiency, carbon capture and storage, the role of forestry is notable in Mozambique's carbon offset projects. For example, a programme launched by the US government, PLANETA, aims to facilitate international investment in "nature-based" carbon capture projects in Mozambique and expresses the opportunity carbon markets offer Mozambique because of the vast amounts of carbon its tropical forests can store (US Embassy Maputo 2023).

Some integrity problems are intrinsic to the forestry projects themselves. For example, a publication on the N'hambita Forest Carbon Offset Pilot Project (initially funded by the European Commission), considered savings were inherently difficult to calculate (Kill 2013). This means that some of these projects might not have had the offsetting effects they claimed. A report found that the company in charge of a REDD+ project (the UK company Envirotrade) had eventually abandoned the region and were no longer involved in the project since it stopped being profitable due to a turn in the market, and several issues had been raised, including owed payments and unfulfilled duties (Monjane et al. 2022). The problems the end of the project brought, led to some community members cutting down some of the trees to pursue other economic activities with the land, which could lead to the project having the opposite effect from the one intended (Monjane et al. 2022). In

any carbon offsetting scheme, every tonne of CO₂ equivalent that is not truly offset is an extra tonne that gets released uncompensated into the atmosphere (Kill 2013).

The nature of some of the projects, particularly those involving local communities, like forestry, protecting biodiversity and of carbon credit trading, creates a great information asymmetry between the local communities and the emergence of opportunistic actors, like the "carbon cowboys". Many communities, like the one in N'hambita, are not always aware of the economic objectives of the projects or know that carbon is a tradable good (Monjane et al. 2022). This is the perfect opportunity for potentially devious actors to exploit them and make huge profits at the expense of the communities.

These projects also risk creating unrealistic expectations (Kill 2023). Part of the local population affected by the project have complained that land normally used for agriculture is being usurped for tree planting and that the development promises that should compensate their losses do not materialise (Nhampossa 2024). At the core of this conflict is the fact that communities living in and near the forests are tasked with protecting them, instead of being able to cultivate the land to generate household income and for their own subsistence. The projects then generate carbon credits that companies (usually in the Global North) can then purchase to continue emitting GHG while making economic profits from their production.

In a country where land rights are already subject to corruption (Bak 2020), the land requirements of carbon offsetting through forestry might lead to land grabs and the violation of the FPIC of the affected communities. For example, evidence from the N'hambita Forest Carbon Project casts doubt on the participants being in a position to fully

understand the project they were joining or the contracts it entailed and that the contracts were signed with farmers individually while the project would affect the whole community (Kill 2023). None of the farmers involved in the project interviewed for the report understood the concept of carbon trading, and some farmers even responded that planting and taking care of the trees “would help the clouds to stay so it would rain” (Kill 2003:14).

In the gas sector, critics of the relocation of families in Cabo Delgado due to the expansion of the LNG plants claim that resettled citizens did not get proper compensation or that they were given land that belonged to another community, leading to conflict (Rawoot 2020). This shows that the context of land tenure and relocating people in Mozambique can be subject to abuses. As similar power asymmetries could arise in the context of land needs for carbon offsetting projects, especially as it becomes a national development strategy, project implementers might abuse their power and not provide fair compensation to local communities that need to be relocated or whose land must be repurposed.

The expansion of rubber tree plantation for commercial purposes in communal territories in Mabú has also been linked to a loss of access to land by the local communities and abusive methods by the company, including the expulsion from areas that had been prepared for cultivation (World Rainforest Movement 2023). Additionally, the information regarding the concession and the consultation process were not transparent, and there was no environmental impact assessment at the time of obtaining the environmental license to establish plantations in Mabú (World Rainforest Movement 2023). This raises the possibility of corrupt practices surrounding the project, since such assessments are required to obtain a licence (World Rainforest Movement 2023).

Interpol (2013) warned that illicit funds may be laundered through carbon credit purchases to help legitimise the proceeds of crime. This could potentially be a risk for Mozambique as the country is considered to be already vulnerable to money laundering due to what is considered an inadequate legal framework and lack of information-sharing with other countries (Global Initiative Against Transnational Organized Crime 2023),

Other issues are related to the broader corruption and illicit trade context. In particular, the illegal logging which is smuggled to China from Mozambique (EIA 2013) creates a particular risk for the context of carbon credits. Projects need to ensure that they are reducing deforestation, and this might be complex in a setting where loggers have been operating in collusion with inspectors and police have let them pass (Nhampossa 2024; Carta de Moçambique 2023). An investigation showed that, between 2020 and 2021, Danish Maersk ships had transported large quantities of valuable wood to China that is illegal to export from Mozambique. According to Maersk, they only transport cargo that has clearance from customs authorities (Zitamar News 2023), which could indicate the customs authorities provided clearance for the export of illegal wood.

A carbon offsetting project would therefore need to take a complex set of actions and work closely with law enforcement to prevent illegal logging. Furthermore, while the illegal logging in the area preserved by the project might be reduced thanks to the project, this will not have any offsetting effects if the illegal logging just moves to another area because of the project. While this is not a corruption risk that comes from the carbon offsetting projects themselves, it does put their objectives at risk.

Indeed, as large companies operating in the country start to offset emissions from gas through

forestry (Gaventa 2021) further corruption risks can appear.

Governance in Mozambican carbon markets

This section refers to integrity measures that could be implemented in the Mozambican carbon market context. There are a number of existing institutions and mechanisms available, as well as improvements to existing practices, that could be adopted by the country in order to mitigate potential integrity, transparency, and accountability risks in carbon offset projects. Some of these are related directly to forestry projects, but others can be applied to a wider range of non-forestry carbon offset projects.

International level

Mozambique faces challenges in the implementation of carbon credit projects, and governance is key to ensure the integrity, both environmental and social, of any such project (JLA advogados n.d.). This entails governance not only at the national and subnational levels but also at the international one.

Currently, several of the international initiatives regarding transparency in the sector are concerned with double counting. For example, in their recommendations for ministerial discussion on Article 6 of the Paris Agreement, Carbon Market Watch pushed for stopping the double counting of emission reductions (2021).

The push for strong systems to measure, report and verify emission reductions in the context of carbon market mechanisms has been a contentious topic,

with countries having diverse positions in terms of the strictness of the rules (Gigounas et al. 2020). Governance arrangements at different levels and in different jurisdictions should be made compatible to avoid double counting, and all units transferred to a different country or system should be deducted from the transferring country's target (Betz et al. 2022).

This might require countries taking part in carbon markets applying corresponding adjustments that provide transparency (Carbon Market Watch 2021). Corresponding adjustments are an accounting mechanism that could help avoid double counting, by adjusting the accounts of the host country that transfers any emission reduction or removal (Streck et al. 2023). To prevent double issuance and double use, robust registries and transaction logs should be put in place while monitoring exchanges across different markets (Betz et al. 2022).

The San Jose Principles, launched at COP25 in 2019, pledged to avoid counting emissions twice and to preserve the integrity of carbon markets while applying transparency, accuracy, consistency, comparability and completeness to reports and accounts of emissions and removals (Gigounas et al. 2020). In addition, the carbon market created under Article 6.2 of the Paris Agreement establishes that a supervisory body be tasked with establishing rules and requirements that projects will need to comply with (Carbon Market Watch 2024).

There are also two voluntary carbon market integrity initiatives for the projects and companies taking part: the [Integrity Council for Voluntary Carbon Markets \(IC-VCM\)](#), which enhances the supply side through setting and enforcing global threshold standards, and the [Voluntary Carbon Markets Integrity Initiative \(VCMI\)](#), that works on the demand side though a rulebook for companies making use of carbon credits (UNDP 2023b). As

part of the IC-VM, the [Core Carbon Principles](#) (CCPs) were developed as “a global benchmark for high-integrity carbon credits that set rigorous thresholds on disclosure and sustainable development”. The principles include good governance to ensure transparency and accountability, appropriately tracking mitigation activities and carbon credits issued, transparent information, and a robust independent third-party validation and verification of mitigation activities (Integrity Council for the Voluntary Carbon Market n.d.). Industry standards should require transparency in a way that allows buyers to compare the price they are paying with what the mitigation project will actually receive (Carbon Market Watch 2023).

The UNDP (2023) advises that regional programmes and networks can help improve transparency outcomes through sharing know-how and assistance. In that sense, the [African Carbon Markets Initiative](#) (ACMI) could serve as a platform to share integrity and accountability practices in the carbon market, as one of its action programmes (number 4) is to build additional capacity and to facilitate the reporting, monitoring, validation and verification activities of carbon generating projects in Africa. They are already committed to working with the Integrity Council for the Voluntary Carbon Market and the Voluntary Carbon Markets Integrity Initiative (ACMI n.d.).

Mozambique joined forces with the ACMI to launch the [Carbon Markets Activation Plan](#), which will allow the country to receive technical assistance from ACMI (Khumalo 2023). The support will seek to improve the capacity of the distinct actors that take part in carbon markets and to develop a policy and regulatory framework (Khumalo 2023).

However, there are critical voices regarding ACMI and what it means for the development of sub-Saharan Africa (Power Shift 2023). Power Shift

(2023) calls carbon markets the “financialisation of African nature and the climate crisis” while it “allows companies across the world to continue to burn their polluting product with impunity” (Power Shift 2023:3). The report argues that, despite the ACMI Roadmap presenting carbon credits as helping African nations achieve their national climate goals, carbon markets will in fact enable the continued pollution of the planet which will ultimately cause a climate crisis which will be devastating for African nations (Power Shift 2023).

National level

Mozambique has made progress in terms of countering corruption and increasing integrity. For example, the Financial Action Task Force (FATF-GAFI) approved the country’s progress in mechanisms to curb money laundering and terrorism financing (DW 2024b), while 48 new judges were appointed to ensure the integrity of public contracts (RFI 2023), all of which should help to strengthen integrity in the implementation of carbon offset projects.

It is recommended that countries have national approaches to carbon credits and that independent verification and standards are required (Lutz 2023). It is important that legislation is compatible across markets, that loopholes are handled, and that regulation is specified in a way that allows it to be enforced (Betz et al 2022). The best way to start is to carry out a corruption risk assessment which evaluates the country’s governance framework and tailor anti-corruption measures accordingly (UNDP 2011).

In the context of being one of the countries participating in REDD+, the government of Mozambique received a grant to prepare the country, including developing a national REDD+

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strategy and three safeguarding tools (MITADER – República de Moçambique 2017). While useful instruments, the REDD+ strategy and the management framework focus on corruption related to illegal logging and not on the new corruption risks that could arise from carbon markets (MITADER – República de Moçambique 2017, 2016).

In terms of the carbon markets, the country's legislation currently only addresses the commercialisation of carbon credits (JLA advogados n.d.). The minister of environment recognised the deficit in the current regulation framework, and the country is establishing a regulatory framework for carbon markets (Nhampossa 2024; O. Económico 2023).

Any such framework should include the following integrity criteria (UNDP 2023b):

- alignment with the Paris Agreement
- contribution to net-zero emissions by 2050
- accountability and continuous improvements
- robust quantification of emission reductions and removals
- no double counting
- additionality⁴
- permanence and avoidance of leakage
- tracking of uniquely identified credits (registry)
- transparency of credited mitigation activities and transactions

- only jurisdictional or nested REDD+ projects
- independent validation and verification
- assessment and management of environmental and social risks

While there is a legal framework in Mozambique to curb corruption, including an anti-corruption law (6/2004), many loopholes exist; for example, embezzlement is not covered by it (Gain Integrity 2020). However, the main obstacle to countering corruption in Mozambique might not be in the laws but in the institutions (Ramos 2022). Some law enforcement is poorly equipped, there is evidence of corruption among its ranks and the insurgency in the north has further weakened some of its control over the whole territory (Global Initiative Against Transnational Organized Crime 2023).

In particular, the judiciary is considered subject to integrity issues (including gifts and facilitation payments) and political influence, making enforcement of the law difficult (Gain Integrity 2020). The existing legislation is there, but the main challenge is for institutions to enforce it (Ramos 2022). Similarly, law enforcement and institutional weaknesses have been recognised by the government as being potential risks in the context of forest conservation and subsistence issues (MITADER – República de Moçambique 2017).

In this sense, a critical step will be to build robust national governance of the carbon market (Lutz 2023). A holistic approach to governance in this sector should put in place safeguards that prevent

⁴ , The UNDP applies the following definition of additionality: “The carbon credit represents GHG emissions reductions or carbon sequestration or removals that exceed any GHG reductions or removals required by law, regulation, or legally binding mandate, and that exceed any

GHG reductions or removals that would otherwise occur in a conservative, business-as-usual scenario” (UNDP 2023b:18).

elite capture and land grabs (Transparency International 2021b).

The Central Office for Combatting Corruption, the main anti-corruption institution in Mozambique, has shown positive results, particularly in the hidden debts scandal, but must rely on the public prosecutor to prosecute corruption cases (Bak 2020; Trindade 2020). For its part, the Central Public Ethics Commission can investigate potential conflicts of interests of high-level officials (Bak 2020). Since private actors have assumed regulatory roles in some carbon markets, creating conflicts of interest (Betz et al. 2022), this commission could expand its investigations to the carbon market. The Mozambique Financial Intelligence Office, which is already tasked with looking into money laundering and terrorist financing (Bak 2020) could be further strengthened and trained on the intricate workings of carbon markets.

Local communities

Mozambique was the first country to receive the World Bank's Forest Carbon Partnership Facility (FCPF) payment for reducing emissions (World Bank 2021). In the context of this payment, a verification body carried out the validation and verification process of one of the projects (JLA advogados n.d.). The FCPF developed a framework for calculating emission results and the FCPF credits came with safeguards that the fund would be equitably shared with groups implementing REDD+ projects on the ground (World Bank 2021).

In order to accomplish further development objectives, communities should be involved in the design of the projects. REDD+ projects should particularly include forest based communities in the decision-making process and share the benefits of these projects (Gizachew et al. 2017; Machava

2023). The implementation of a joint project between community farmers and an environmental organisation in Mabu, in the Zambézia province, has been praised as an alternative to more mainstream and top-down projects (Bruna and Monjane 2023).

An example of a legitimate offsetting project is the Mikoko Pamoja project in Kenya, which protects mangrove forests while also directly benefitting the community. In this project, carbon revenues have financed the purchase of hospital equipment and schoolbooks as well as the construction of freshwater wells among other community benefits (Lutz 2023).

Mozambique can require all carbon credit related projects to fulfil a number of social and environmental safeguards, including: respecting labour rights and working conditions; having resource efficiency; preventing pollution; avoiding involuntary resettlement; considering proper channels for land acquisition; ensuring biodiversity conservation; managing natural resources in a sustainable fashion; creating a grievance mechanism; using the Cancun safeguards for REDD+ (a system to provide information on how the safeguards are being addressed and respected); respecting Indigenous peoples, local communities, and cultural heritage; considering gender equality; having robust benefit-sharing; ensuring positive SDG impacts; and having independent validation and verification (UNDP 2023b). The education of local communities on projects and their impact is also particularly important.

The Cancun safeguards aim to ensure that REDD+ projects (Amazon Fund n.d.):

- are consistent and complementary with other national forest programmes and international conventions and agreements

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- support transparent and effective national governance structures
- respect the knowledge and rights of Indigenous peoples and local communities
- ensure the effective participation of relevant stakeholders, particularly Indigenous peoples and local communities
- are consistent with the conservation of natural forests and diversity
- address the risks of reversals
- reduce displacement of emissions

Collaboration

Climate change transparency requires the collaboration of stakeholders both inside and outside of government (UNDP 2023a). Since integrity risks are abundant and crosscutting, interinstitutional cooperation is important to prevent corruption and to ensure carbon credits are beneficial for the communities. The lack of inter-agency collaboration and communication has been identified as an issue complicating the enforcement of laws in Mozambique (EIA n.d.).

The Mozambican Environmental and Social Management Framework for REDD+ initiatives already recognise the importance of cooperation between the government, the private sector, civil society organisations (CSOs) and communities to reverse negative trends in the forest sector (MITADER – República de Moçambique 2017).

Whole-of-government approaches entail horizontal collaboration between line ministries and vertical collaboration inside the ministries (UNDP 2023a). For carbon credit schemes to work, countries need to manage them carefully, putting in place stringent screening mechanisms and multi-agency systems and multi-stakeholder accountability mechanisms (Donald 2021; UNDP 2011). Some

governments have seen success in establishing formal collaborations and data sharing agreements with other institutions, like universities and CSOs while some countries have implemented collaborations between the government and development agencies, like the Gambia and Côte d'Ivoire with UNDP and other agencies, in order to strengthen transparency and leverage expertise and resources (UNDP 2023a).

Transparency

As with any efforts for good governance, transparency and a suitable structure to ensure it are crucial (Betz et al. 2022). Monitoring and reporting mechanisms that can help verify any carbon offsetting claims need to be put in place and ensure that they cannot be unduly influenced by interested parties. In forestry carbon offsetting, the monitoring would entail following up on the trees years after they have been planted and verify their survival.

Countries are addressing transparency in carbon sequestration in the agriculture, forestry and other land use (AFOLU) sector, through the development of standards for measurement, reporting and verification (MRV) in the different subsectors and preparing baseline and mitigation assessments (UNDP 2023a). A key challenge is how to collect and update the data, and some countries are employing satellite images to map land use over time, as in Cambodia and Brazil (UNDP 2023a).

One key issue relates to data management and collection regarding the country's own GHG inventories. In that sense, it is important they are available in a centralised system and that the data is subject to quality assurance and control (UNDP 2023a).

Ghana has developed and launched the Ghana Carbon Registry, a voluntary database used to

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collect, verify and track transactions from mitigation activities (UNDP 2023a). It is a registry established by the government which collects bottom-up data and uses high-quality standards to quantify and verify the GHG emissions reductions and their carbon credits (Ghana Carbon Registry n.d.). It aims to provide accurate and transparent information on mitigation projects and all issues related to emission reduction credits (Ghana Carbon Registry n.d.). Additionally, countries should develop digital systems for their data repositories concerning carbon trading (UNDP 2023a).

Since it is difficult to prevent fraud when the perpetrators are shell companies in tax havens, one way to avoid this is to restrict the companies who are eligible to trade in the carbon market, which is done, for example, in South Korea, where only entities with special permission can trade (Betz et al. 2022).

Land administration

To prevent “green grabs” and other land corruption risks it is important to (Stassart and Collaço 2023):

- strengthen land rights and tenure, including communal and customary rights
- seek the informed consent of affected communities
- make information on land tenure and land use available and easily accessible
- protect land anti-corruption activities
- establish whistleblowing channels (for example, the [Green Climate Fund](#) has created a system that can serve as a guide)
- have specific anti-corruption frameworks to tackle land corruption
- climate action and land institutions need to mainstream anti-corruption safeguards

- donors and countries involved in climate initiatives need to prevent and mitigate corruption risks, as well as incentivise all stakeholders to do the same (i.e. due diligence)
- regularly assess land corruption risks

Conclusion

Integrity risks surrounding carbon markets will be greater in countries with weak institutions, loopholes in legislation that can be exploited, and challenges in law enforcement. It is therefore important that any country implementing carbon offset projects strengthen their institutions and oversight mechanisms to prevent and mitigate any integrity issues from the outset.

The power asymmetries of the carbon market and its relatively recent emergence make it particularly prone to abuse by intermediaries. This imbalance and information asymmetry between local communities (including Indigenous people) and project implementors may lead to land grabs and the loss of communal land. Fraud, manipulation of the market and conflicts of interest are just some of the other risks that can arise.

In order to curb these integrity risks, countries will need to work both at the international and national levels, developing adequate frameworks and strengthening their institutions. The path forward should involve transparent, inclusive and sustainable practices that prioritise the well-being of local communities and the environment, from project design, implementation, and its oversight, while ensuring that carbon markets serve as a tool for positive change rather than exploitation.

There is evidence that buyers are willing to pay a premium for programmes that are transparent, can

demonstrate robust measuring, reporting and verification mechanisms and have additional development goals with positive outcomes (UNDP 2023b; Ponce de León Baridó et al. 2023). In that sense, making sure that carbon offsetting projects do not face corruption risks and that strong governance and integrity measures are in place is in the best interest of Mozambique.

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The U4 anti-corruption helpdesk is a free research service exclusively for staff from U4 partner agencies. This service is a collaboration between U4 and Transparency International (TI) in Berlin, Germany. Researchers at TI run the helpdesk.

The U4 Anti-Corruption Resource Centre shares research and evidence to help international development actors get sustainable results. The centre is part of Chr. Michelsen Institute (CMI) in Bergen, Norway – a research institute on global development and human rights.

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