LABELS WITHOUT LEVERAGE? A SYSTEMATIC REVIEW OF VERIFICATION, INCENTIVE DESIGN AND MISUSE RISK OF SUSTAINABLE FINANCE IN AFRICA

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Abstract

Research Problem: *Sustainable finance instruments like green, social, sustainability, and sustainability linked bonds are growing fast Africa. However, it is not clear yet if the naming of these instruments allows stakeholders to have any influence on issuer behavior or just show intent while weak verification and misuse risk threaten credibility of these instruments.*
Methods/Theory: *Grounded on agency, legitimacy and signalling theories, this systematic review was conducted according to PRISMA 2020 guidelines. Searches were done in Scopus, Web of Science, and EBSCOhost from 2010 to August 2026, while 31 articles were identified and quality appraised before being analyzed thematically.*
Results: *External review depends on a narrow pool of international second-party opinion providers. Post-issuance reporting is limited, and local assurance capacity is weak. Incentives are shallow: greeniums are small or absent, coupon step-ups are modest, and key performance indicators are often unambitious. Fragmented taxonomies, thin enforcement and sovereign debt pressures amplify greenwashing risk.*
Conclusion: *In Africa, sustainable finance labels currently function more as reputational signals than as accountability mechanisms.*
Key Contribution to Knowledge: *This is among the first systematic reviews to jointly examine verification, incentive design and misuse risk in African sustainable finance. It develops a "labels without leverage" framework explaining why signalling fails without enforceable consequences.*

Recommendations: *Regulators should harmonise regional taxonomies and mandate independent post-issuance verification. Issuers should adopt science-based key performance indicators with material penalties for missed targets. Development partners should build local assurance capacity and support credible pricing incentives.*

JEL classification: G18; G28; O16; O55; Q56

1. Introduction

Africa faces a climate and development financing gap of a scale that few other regions confront. The Climate Policy Initiative's landscape study of the continent estimated that climate finance flows to Africa amounted to roughly US$30 billion in 2020, against an estimated need of about US$277 billion per year between 2020 and 2030 (Climate Policy Initiative, 2022). The gap is not only a matter of volume. African borrowers typically pay higher risk premia than issuers with comparable fundamentals elsewhere, and higher costs of capital make low-carbon and adaptation projects, which are capital-intensive and front-loaded, disproportionately expensive (Ameli et al., 2021). In this context, sustainable finance instruments, which have been introduced as such, can be viewed as means to tap into new sources of capital, reduce the cost of capital due to demand from investors of ESG assets and control fund usage.

The nature of sustainable finance labels is the claim made by the issuer about the use or performance of the instrument. Since investors cannot verify such characteristics, labels become what Akerlof (1970) and Spence (1973) called "credence attributes," and their value depends on trust. There are two ways to give them substance. One way is verification, which makes the claims into credible signals, via second-party opinions, certification, external reviews or regulations. The other way is the incentive design, which makes the credible signals into changed behavior, such as step-up coupons linked to sustainability goals.

Africa's experience with labeled financial instruments is now sufficiently long for evaluation. The highlights include green bonds issued by Morocco's solar agency (2016), Nigeria (2017, 2019), Kenya's Acorn (2019) and Egypt (2020), blue bond from Seychelles (2018), SDG bond from Benin (2021) and debt for nature swap from Gabon (2023). Regulation followed, including rules for green bonds in Morocco, Nigeria, Egypt and Kenya, sustainability listing at JSE, Green Finance Taxonomy in South Africa 2022 and new carbon market regulations. However, conflicts over forest carbon programs in Zimbabwe and northern Kenya, as well as large-scale carbon programs based on land use, prove that even instruments that comply formally can be disputed on the ground.

The existing literature is highly fragmented. International research on green bonds deals with pricing (Baker et al., 2022; Larcker & Watts, 2020; Zerbib, 2019), the impact of issuance on stock prices (Flammer, 2021; Tang & Zhang, 2020), and labeling versus environmental performance (Ehlers & Packer, 2017; Fatica et al., 2021). All of the above are based on data from Europe, North America and China. African-related works are either single-case studies, policy briefings or descriptive reviews (Banga, 2019; Ngwenya & Simatele, 2020). Literature on verification mechanisms, incentive structures and greenwashing have its own academic boundaries too. Auditors and regulators do not

communicate much with financial economists, who in turn do not collaborate with political economy scholars or lawyers. This means that there is no synthesis of knowledge about the effectiveness of the entire chain under discussion on the African continent.

This paper fills the gap via a systematic review. It is guided by four research questions:

RQ1. How is verification of labelled sustainable finance instruments organised in African markets, and what does it cover at each stage of the instrument's life?

RQ2. To what extent do the financial and regulatory incentives attached to these instruments create meaningful pressure on issuers to deliver environmental and social outcomes?

RQ3. Through which channels do labels become vulnerable to misuse, including greenwashing, social-washing and over-crediting, and what conditions in African markets amplify or mitigate those channels?

RQ4. What combination of verification, incentive and governance reforms would convert labels into leverage?

2. Literature Review

2.1 What a label does

Labels for sustainable finance play three roles which the literature tends to conflate; (i) Classification role involves grouping capital in such a way that investors on a sustainability mandate can access the right assets. (ii) Signaling role is used by issuers to signal commitment, since the cost associated with labels should differentiate committed from non-committed issuers (Flammer, 2021; Spence, 1973); and (iii) Conditioning role is about attaching some consequences to failure to use proceeds or hit targets. Classification is possible even in cases where signaling and conditioning have failed. An instrument can become a member of the green index by adhering to the process specified in the voluntary scheme and not showing much information on the issuer's plans and not imposing any penalty in case of bad results. Leverage, as described in the article, is the ability of the label to alter the issuer's behavior and resource allocation in comparison with what might have happened without the label. Leverage is a counterfactual notion related to additionality.

2.2 Verification as a credibility technology

Verification is the process by which a third-party gains confidence in the claims made by the issuer regarding sustainability. Building on the audit literature, verification can be examined from four perspectives (Power, 1997):

• Timing: Verification can happen prior to issue (review of framework), simultaneously with issue (certification), after the issue (allocation and impact verification), or continuously (supervisory monitoring).

• Object: The object of verification can be the framework (is the plan consistent with principles?), allocation (was money allocated to intended sources?) or the impact (did emissions reduce, did households get access?).

• Independence: The verification may either be remunerated by the issuer, chosen by the issuer, overseen by the public authority, or fully public.

• Consequence: A negative result can mean no action, damage to reputation, delisting from the group or index, or financial punishment in the form of a contract breach penalty.

The global market depends predominantly on voluntary standards, such as the ICMA's Green Bond Principles and Sustainability-Linked Bond Principles (ICMA, 2020, 2021) and certification programs like the Climate

Bonds Standard (Climate Bonds Initiative, 2023). These are all centered around the pre-issuance evaluation of bonds. There is regulation, specifically the European Green Bond Standard of 2023 (European Union, 2023), which began monitoring external verifiers and tightening post-issuance responsibilities (Berrada et al., 2022; Kölbel & Lambillon, 2022; Jensen & Meckling, 1976). The problem addressed in the article is that the verification process is rigorous during the issuance stage, but not after.

2.3 Misuse Risk

Misuse is the third pillar. Greenwashing traditionally means poor environmental performance paired with positive communication (Delmas & Burbano, 2011), but in finance it now extends to social-washing, impact-washing and carbon over-crediting. Lyon and Maxwell (2011) show that audit threats shape disclosure, so misuse risk depends on verification design: when verification is predictable, partial or captured, firms learn to exploit its gaps. The article treats misuse as a structural outcome of how verification and incentives interact, not as individual moral failure. Three drivers matter. Information asymmetry means issuers know more than investors, who in turn know more than affected communities. Verifier incentives create a risk of opinion shopping, similar to credit rating shopping, because issuers select and pay their reviewers. Measurement ambiguity allows favourable interpretations, since ESG ratings diverge significantly between providers (Berg et al., 2022).

3. Methodology

3.1 Review design

This review adheres to the logic of a systematic literature review designed specifically for the domain of management and policy studies in accordance with the guidelines laid out by Tranfield et al. (2003) and it discloses its methods according to the requirements of the PRISMA 2020 statement (Page et al., 2021). As the subject matter involves aspects of finance, law, accounting and development studies and the majority of relevant material is found outside the peer-reviewed literature, an integrative approach has been taken to the review. This choice follows the scoping-review tradition of Arksey and O'Malley (2005), which recognises that policy-relevant questions often cannot be answered from journal articles alone. The design is therefore best described as a systematic integrative review: systematic in search, screening and appraisal, integrative in the types of evidence it admits.

3.2 Information sources and search strategy

Four categories of sources were searched: (a) bibliographic databases, namely Scopus, Web of Science Core Collection, EBSCO Business Source Complete, JSTOR and African Journals Online, the last included to reduce bias toward journals indexed in the global North; (b) working paper repositories, principally SSRN, RePEc/IDEAS and the series of the Bank for International Settlements, the International Monetary Fund and the World Bank; (c) regulatory and market infrastructure sources, including African securities regulators, central banks and exchanges, ICMA, the Climate Bonds Initiative, the International Organization of Securities Commissions (IOSCO) and the Integrity Council for the Voluntary Carbon Market; and (d) issuer documentation, such as frameworks, second-party opinions and allocation and impact reports, for landmark African labelled issues.

The search combined three concept blocks with Boolean operators: an instrument block (for example, "green bond" OR "social bond" OR "sustainability bond" OR "sustainability-linked" OR "blue bond" OR "transition bond"

OR "green sukuk" OR "debt-for-nature" OR "carbon credit"), a mechanism block (for example, verification OR assurance OR "second-party opinion" OR certification OR "impact report" OR greenwash* OR incentive OR "coupon step-up" OR greenium OR additionality), and a geography block comprising "Africa" and the names of all 54 African Union member states. The search window ran from January 2014, the year of the first African municipal green bond, to mid-2026. 3.3

Eligibility criteria

Records were included if they (a) concerned a labelled sustainable finance instrument or a closely related market mechanism such as carbon crediting; (b) addressed at least one of the three analytical dimensions of verification, incentive design or misuse risk; and (c) either focused on one or more African jurisdictions or, in the case of global studies, generated findings on mechanisms that were explicitly applicable to African markets. Global pricing and greenwashing studies were retained under criterion (c) only where they supplied theoretical or empirical mechanisms that the African evidence could be tested against. Records were excluded if they were promotional material without verifiable content, opinion pieces without an evidential basis, duplicate versions of the same study, or studies of general ESG investing that did not concern labelled instruments. Only English- and French-language material was screened, a limitation discussed in Section 3.6.

3.3 Screening and selection

Screening proceeded in two stages. Titles and abstracts were screened against the eligibility criteria, followed by full-text assessment of the remaining records. At both stages, disagreements between reviewers were resolved by discussion with reference to the written criteria. The PRISMA 2020 flow of records is summarised below.

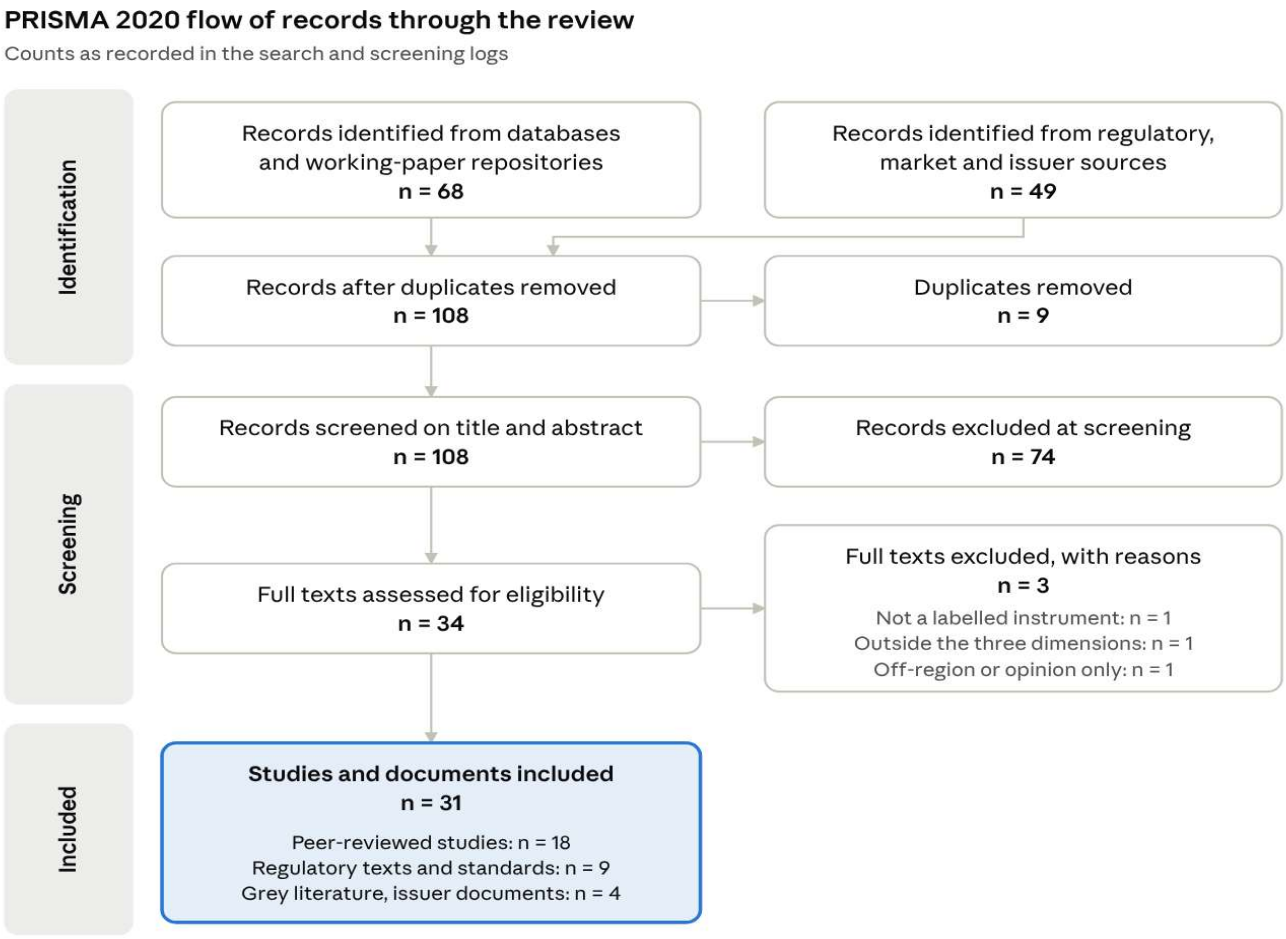


Figure 1. PRISMA 2020 flow diagram · identification, screening, inclusion

Records from both source streams merge after de-duplication, pass through title-and-abstract and full-text screening, and end in the included synthesis set. Of the 117 records identified, 9 duplicates were removed and 108 were screened on title and abstract. Of these, 74 were excluded and 34 full texts were assessed, of which 3 were excluded with reasons. This left 31 sources in the synthesis: 18 peer-reviewed studies, 9 regulatory texts and standards, and 4 grey-literature documents.

Table 1: Data sources, records identified and documents included in the review

Identification stream	Sources searched	Records identified	Document type included	Included (n)	Quality appraisal
Databases and working-paper repositories	Scopus, Web of Science, EBSCOhost (Business Source Complete), ScienceDirect, JSTOR, African Journals Online (AJOL), Sabinet; SSRN and RePEc working papers; Google Scholar (supplementary)	68	Peer-reviewed studies	18	Mixed Methods Appraisal Tool (Hong et al., 2018)
Regulatory, market and issuer sources	Securities regulators (Kenya CMA, Nigeria SEC, Egypt FRA, Morocco AMMC); JSE; South Africa National Treasury; ICMA; Climate Bonds Initiative; European Union; ICVCM	49	Regulatory texts and standards	9	Not appraised; status recorded (binding, comply-or-explain, voluntary)
	Issuer websites (frameworks, second-party opinions, allocation and impact reports); multilateral and development finance institution reports		Grey literature and issuer documents	4	Adapted AACODS criteria (authority, transparency of method, currency, objectivity)
Total		**117**		**31**	

Note: *Of 117 records identified, 9 duplicates were removed. Of 108 unique records screened on title and abstract, 74 were excluded. Of 34 full texts assessed, 3 were excluded: not a labelled instrument (n = 1), outside the three analytical dimensions (n = 1), and off-region or opinion only (n = 1).*

Source: *Authors' compilation from search and screening logs (2026). Search period 2014–2026; English and French publications.*

Table 2: PRISMA 2020 flow of records through the review

PRISMA stage	n
Records identified from databases and working-paper repositories	68
Records identified from regulatory, market and issuer sources	49
Duplicates removed	9
Records screened on title and abstract	108
Records excluded at screening	74
Full texts assessed for eligibility	34
Full texts excluded: not a labelled instrument	1
Full texts excluded: outside the three dimensions	1
Full texts excluded: off-region or opinion only	1
Studies and documents included	**31**
Peer-reviewed studies	18

PRISMA stage	n
Regulatory texts and standards	9
Grey literature, issuer documents	4

Source: *Authors' search and screening logs (2026), following the PRISMA 2020 reporting guideline.*

3.6 Quality appraisal and Limitations of the review method

The empirical sources were evaluated by applying the Mixed Methods Appraisal Tool (MMAT) (Hong et al., 2018) that evaluates different kinds of qualitative, quantitative and mixed methods research in terms of a single criterion. The grey literature was assessed on the basis of four criteria borrowed from the checklist: authority, methodological rigor, timeliness and objectivity, while taking into account any business interests of the producer of the instrument. The regulatory sources and standards were not quality-appraised as these sources are primary ones, but their nature (binding, comply-and-explain or voluntary) was noted. No source was excluded because of its poor quality, while quality assessment impacted the weighting of each source within synthesis.

The review has the following five weaknesses. The search in English and French languages does not cover the North African and Lusophone markets sufficiently. Reporting issuers are more visible compared to non-reporting ones; therefore, reporting decay may have been underestimated. Limited body of African academic literature implies higher use of grey literature prepared by those organizations which have an interest in developing the market. Rapid changes in regulations at the end of the search period could not have been covered adequately. Meta-analysis was impossible due to heterogeneity.

4. Theoretical Framework

Signalling theory starts with information asymmetry, which implies that firms, financial intermediaries and the sponsor of the project have knowledge regarding the sustainable nature of the investment whereas such knowledge is not observable by the investors and other stakeholders. As a result, sustainability certifications, labels, taxonomies and disclosures can become signals for the unobservable sustainability features of investment (Delmas & Burbano, 2011). The theory of signalling claims that sustainable finance labels can reduce the problem of information asymmetry when the institutional framework of the label is making the signal sufficiently costly, observable and credible (Berrada et al., 2022).

Lyon and Maxwell (2011) argued that theoretical rationale behind the phenomenon of “labels without leverage” lies within signaling theory. The “label of sustainable finance” could convey a particular aspect of sustainability without causing behavioral change (Kölbel & Lambillon, 2022). This nuance is crucial since credibility of a signal and leverage created by a label cannot be equated. Verification could increase informational credibility of a label, but the label will create leverage if the labeling has economic, reputation, regulatory or financial ramifications. If there are weak verification processes, misaligned incentives and lack of penalties for misuse, then low quality organizations might get sustainability labels without changing their

practices correspondingly (Lyon & Maxwell, 2011). Such a signal will not reduce information asymmetrical or behavioral incentives; it thus follows that the main theoretical claim is that the leverage created by sustainable finance labels is only meaningful if the institutional context that surrounds them renders their sustainability claims credible and impactful.

5. Results and Presentation of Data

5.1 The African Sustainable Finance Instrument Landscape

5.1.1 A market of pioneers rather than volume

Africa's labelled sustainable finance market is characterised by a large number of "firsts" and a small overall volume (Capital Markets Authority, 2019; National Treasury, 2022). Across the sources reviewed, the continent consistently accounts for a very small share of global labelled issuance, typically well under two per cent in any given year, and issuance is concentrated in a handful of jurisdictions with deeper capital markets, notably South Africa, Egypt, Morocco, Nigeria and Kenya. Much of the remaining activity consists of single landmark transactions, often supported by development finance institutions, rather than repeat programmes. This matters for the label–leverage question. Where an issuer comes to market only once, the reputational discipline that repeated issuance provides is weak, because the issuer has no future transaction in which poor reporting would be penalised. The table below lists landmark transactions that recur throughout the reviewed literature. It is illustrative rather than exhaustive, and figures are as reported in the issuer and market sources cited.

Table 3: Landmark Transactions

Year	Issuer and jurisdiction	Instrument	Distinctive features relevant to this review
2023	Gabonese Republic	Debt-for-nature conversion financed by a blue bond (approx. US$500m)	Credit enhancement through political risk insurance from the US International Development Finance Corporation; conservation commitments tied to marine protection
2021	Republic of Benin	SDG bond (EUR 500m)	First African SDG sovereign bond; framework linked to SDG targets with impact reporting commitments
2020	Arab Republic of Egypt	Sovereign green bond (US$750m)	First sovereign green bond in the Middle East and North Africa; eligible categories include clean transport and water
2019	Federal Republic of Nigeria	Second sovereign green bond (NGN 15bn)	Certified under the Climate Bonds Standard; domestic currency
2019	Acorn Holdings, Kenya	Corporate green bond (approx. KES 4.3bn)	Certified; partial guarantee from GuarantCo; student housing

Year	Issuer and jurisdiction	Instrument	Distinctive features relevant to this review
2018	Republic of Seychelles	Blue bond (US$15m)	Partial guarantee from the World Bank and concessional support from the Global Environment Facility
2017	Federal Republic of Nigeria	First sovereign green bond (NGN 10.69bn)	First African sovereign green bond in domestic currency
2016	Moroccan Agency for Sustainable Energy (MASEN)	Green bond (MAD 1.15bn)	Financing of solar generation; early regulatory guidance from the Moroccan market authority
2014	City of Johannesburg, South Africa	Municipal green bond (ZAR 1.46bn)	First municipal green bond on the continent; projects included landfill gas, solar and hybrid buses

Source: Researchers' Compilation (2026)

Two patterns emerge from this list. First, sovereign and quasi-sovereign issuers dominate the landmark transactions, which means that the credibility of labels is closely bound up with public financial management and budget transparency. Second, credit enhancement from development partners, including guarantees, insurance and concessional co-finance, appears repeatedly. Enhancement lowers the cost of capital, but it also complicates the attribution of any pricing benefit to the label itself, a point developed in Section 6.

5.2 FINDINGS I: The Architecture of Verification (ANSWERS RQ1)

The first research question explored how verification was structured and what it entailed throughout the lifetime of the instrument. The central finding is an asymmetry: verification in African markets is front-loaded. It is most intensive when the label is created and sold, and it thins out during the period when the label's promises are supposed to be delivered.

5.2.1 Pre-issuance verification is near-universal

Almost all African labelled bonds observed went through external review prior to issuance, mainly involving a second party opinion of conformance to ICMA principles or Climate Bonds Certification. There are regulators such as Capital Markets Authority of Kenya and securities regulator of Nigeria that require external review for bond issuance. In this regard, Africa goes above the voluntary global benchmark. However, pre-issuance review nearly always evaluates the framework rather than individual projects. Second-party opinions verify eligible criteria, project selection procedures, proceeds monitoring and reporting commitments. They hardly ever consider additionality, whether projects represent the optimal deployment of funds, or even whether impact calculations are based on credible baselines. Opinions are typically qualitative in nature, which prevents comparisons across issuers. Such observations tie into the broader question of how external reviews tend to validate process over substance (Deschryver & de Mariz, 2020; Tuhkanen & Vulturius, 2022).

5.2.2 Post-issuance verification is uneven and often delayed

Post-issuance practices have a high degree of variability. There have been examples such as Nigeria and Benin that issued post-issuance documents which were considered as best practices because of the linkage between budgeting and spending to the individual SDGs. However, there are some issuers who issued post-issuance documentation once, did not provide any reports at all or provided highly aggregated reports from which it was difficult to see links to the individual projects. However, external verification of the reports is not as frequent as pre-verification. There is verification of allocation reports by an auditor or verifier but impact reports, which have the most significant claims like emissions reduced and number of beneficiaries, are seldom verified. Impact data is usually estimates made at appraisal stage rather than actual measurements. This means that the most significant claims are least likely to be verified.

5.2.3 The missing layer: community-facing verification

Across the literature on blue bonds, debt-for-nature swaps and carbon projects, verification is directed almost exclusively at investors (Berg et al., 2022). Reports are technical, published on investor-relations websites and structured around international templates. Affected people, such as fishing communities in a marine protected area or pastoralists in a carbon-generating conservancy, typically have no role in verification and no accessible channel to contest claims (International Organization of Securities Commissions (IOSCO), 2021). In light of the carbon disputes in Section 7, it is clear that any verification framework that neglects the stakeholder will miss a whole class of problems.

Table 4: Summary of verification findings

Verification stage	Prevalence in reviewed African transactions	Typical object	Typical consequence of negative finding
Framework review before issuance	Very high; often required by local rules	Alignment of framework with principles	Label not granted or framework revised
Certification at issuance	Moderate; concentrated among larger and development-backed issuers	Eligibility against sector criteria	Certification withheld
Allocation reporting after issuance	Variable; strong among some sovereigns, weak among smaller issuers	Spending against eligible categories	Rarely any formal consequence
Impact reporting after issuance	Lower; frequently estimated rather than measured	Outputs and estimated outcomes	Almost never any formal consequence
External assurance of impact	Rare	Measured outcomes against baseline	Not applicable in most cases
Community-facing verification	Very rare	Local effects and grievances	Not applicable in most cases

Source: Researchers' Compilation (2026)

The verification findings answer RQ1 as follows. Verification in African markets is well developed at the point where the label is granted and poorly developed at the points where the label's claims could be falsified. In the terms of the framework, verification timing and object are skewed toward the weak configuration, and consequences are almost entirely reputational.

5.3 FINDINGS II: INCENTIVE DESIGN (ANSWERS RQ2)

The second research question asked whether the incentives attached to labelled instruments create meaningful pressure on issuers to deliver outcomes. The finding is that incentives are weak on both sides of the ledger: the reward for credible labelling is small and uncertain, and the penalty for non-performance is usually absent.

5.3.1 The greenium: An uncertain carrot

The most frequently cited incentive for labelling is a lower cost of capital. The global evidence on this greenium is mixed. Zerbib (2019) estimated a small negative yield premium for green bonds in the secondary market, of the order of a few basis points. According to Baker et al. (2022), the green bond from the USA carries a premium of just a few basis points compared to similar regular bonds, but Larcker and Watts (2020), based on a matching analysis of US municipal bonds, found that there is essentially no premium. In turn, Bachelet et al. (2019) concluded that the premium would depend on both the type of issuer and verification by third parties. The conclusion can be made that the greenium effect is small and depends on circumstances.

The estimation of a greenium is more difficult for African issuers. For most of Africa's labelled bonds, it is a single issue in illiquid markets, or a credit-enhanced transaction, which prevents the possibility of matched-pair comparison required in the assessment of a greenium. Thus, oversubscription in order book and issuer statements instead of econometric analysis are used in African studies. Oversubscription can indicate demand but will not be able to prove whether the label itself, and not the yield, the credit enhancement or the market situation was the reason behind such demand. In both cases – Seychelles and Gabon – multilateral and bilateral credit enhancement renders any label effect impossible. The only benefit which can be reliably attributed to labelling is the diversification of the investor base, as labelled bonds attract dedicated funds that would not invest otherwise into the issuer's debt.

5.3.2 The cost side: verification as a regressive tax

The greenium measurement is complicated by the fact that most of the African labelled bonds are single transactions, local currency transactions, or credit enhanced. Such transactions prevent the application of the matched pair comparison approach, which is crucial in measuring the greenium effect. Thus, African studies have used the order book oversubscription and statements made by issuers to measure greenium instead of econometric estimates. The oversubscription proves the demand, but it

does not prove whether the demand was driven by the label or the yield, credit enhancement, or market conditions. In the case of the Seychelles and Gabon deals, the credit guarantee provided by multilateral and bilateral organizations renders the identification of the label effect impossible. The only clear benefit that the labels have provided to issuers is the investor diversification, as the labels have attracted dedicated ESG funds.

5.3.3 Use-of-proceeds Instruments: Accountability for spending, not results

Since a major part of African-labeled debt is use-of-proceeds debt, the primary incentive's structure is where the issuer is responsible for the allocation of funds, not for results. Three features of this structure limit leverage.

First, fungibility; Money is fungible within an issuer's balance sheet or budget. A sovereign may allocate green bond proceeds to an eligible solar programme while reallocating an equivalent amount of general revenue away from that programme toward other spending. The label then changes the accounting description of spending, but not the total volume of green spending. Detecting this requires analysis of the whole budget, which few reviews attempt.

Second, refinancing; Frameworks typically allow proceeds to refinance eligible expenditure incurred in a look-back period before issuance. Refinancing is legitimate and can free capital for new projects, but it also means that labelled bonds can be backed by projects that were already built or funded. Where refinancing shares are high and poorly disclosed, the label has little effect on what gets built.

Third, absence of remedies; In most African and global use-of-proceeds documentation, misallocation is not an event of default. The investor has no contractual remedy, only the ability to sell and the ability to complain. For development-finance investors who purchase large shares of an issue, selling can also undermine the market they are trying to build, which further weakens the credible threat of exit.

5.3.4 Sustainability-linked instruments: sticks that rarely bite

Performance-linked instruments are designed to fix the weaknesses of use-of-proceeds debt by attaching a financial consequence to outcomes. Their African footprint remains small, concentrated in sustainability-linked loans from banks in South Africa and a few other markets, but they are frequently proposed as the next frontier for African sovereigns. The global evidence on their design is therefore directly relevant.

That evidence is sobering. Studies of the global SLB market find that coupon step-ups are commonly around 25 basis points and apply only for the final part of the bond's life, after a target observation date (Berrada et al., 2022; Kölbel & Lambillon, 2022). The expected penalty is thus small relative to the size of the bond, and very small relative to the capital investment needed to decarbonise. However, Berrada et al. (2022) illustrate in theory that when penalties are minimal, an issuer can rationally select targets that it would achieve anyway, but it gains a

pricing advantage through its labeling. Ambition has also been linked to various characteristics such as KPIs selected by the issuer, close-to-business-as-usual targets, close-to-maturity observation dates, and call options giving the issuers the right to repay the bond prior to the step-up.

Three additional hurdles come into play when it comes to sustainability-based structures. Firstly, the KPIs like emissions intensity or forest coverage can be affected by droughts, commodity prices, and even conflicts, which means that the sovereigns might end up being penalized for something beyond their influence. Secondly, the data systems of the countries are not able to provide enough reliable information for the verification of the KPIs. Lastly, a coupon step-up on a highly-indebted country could take the money away from where it was supposed to be spent initially – namely, on adaptation and development of the country.

5.4 FINDINGS III: A Typology of Misuse Risk (ANSWERS RQ3)

The third research question asked through which channels labels become vulnerable to misuse. Thematic analysis of the reviewed material produced five channels. They are presented as channels of risk rather than as findings of wrongdoing: in most cases, the evidence shows that a pathway to misuse exists and is insufficiently guarded, not that a particular issuer has acted in bad faith. Where specific controversies are discussed, they are described as reported and contested, since several remain disputed by the parties involved.

5.4.1 Channel 1: Eligibility dilution

Eligibility dilution occurs when the categories of spending that qualify for a label are drawn so broadly that the label ceases to distinguish sustainable from ordinary activity. It takes several forms. Frameworks may list broad categories, such as "clean transport" or "sustainable water management", without technical thresholds, so that almost any transport or water investment can qualify. Sustainability and SDG bonds, which combine green and social categories, may admit general social spending on health or education that the issuer would undertake in any case. The labels for transition generate yet another set of issues: Should investments in fuel efficiency or gas infrastructure fall under the banner of sustainability?

In African countries, eligibility dilution is affected by the need to develop. Investment in basic services like roads and electricity definitely helps the country move towards achieving the SDGs, and it does make sense to have African taxonomies encompass certain activities that northern taxonomies deal with differently. The danger is not in the breadth of the category per se but rather in its breadth without thresholds and without benchmarks. The inclusion of all the measures that the government will implement in any case does not add to the categorization anything except the name. The inclusion of technical criteria in national taxonomies like that of South Africa helps overcome this danger, but not entirely.

5.4.2 Channel 2: Refinancing without additionality

The second misuse pathway involves refinancing of existing assets or expenditures using proceeds that are labeled, with no disclosure of how the released funds will be recycled into eligible activities. Refinancing is valid in principle but amounts to misuse if it accounts for a non-transparent amount or has long look-back periods or if the same assets are used repeatedly to issue labelled debt instruments. For governments, the misuse occurs when budget lines are re-labeled as "green" in order to issue a bond without raising the level of green expenditures. It is especially difficult to spot such misuse because each expenditure could be an eligible activity in itself.

5.4.3 Channel 3: Reporting decay

Reporting decay refers to the slow disintegration of disclosure once the instrument has been issued. This has been explained in Section 5, where we saw that the probability of reports in the first year of issuance was higher, but became progressively lower for subsequent reports and assured impact reports were very few. The reasons behind reporting decay can be innocent and stem from lack of staff capability or termination of donor-funded technical assistance; however, it produces the same result as intentional non-disclosure and means that investors and citizen groups are unable to verify the validity of claims on the label. Reporting decay represents an abuse pathway since the label continues to be applied to the investment tool even though its verification has ended.

5.4.4 Channel 4: Opinion shopping and methodological arbitrage

Misuse of verification channel four occurs in the verification market itself. Since different methodologies are used by verification providers and chosen and paid for by issuers, issuers can look for favorable opinions, and verifiers have to please issuers due to the commercial aspect of their work. According to Berg et al. (2022), ESG rating discrepancy is great and systematic as it results from a difference in what is assessed, how and how much. Issuers can also compare standards, and if the standard does not meet the thresholds of the certification scheme, issuers can get framework-level second-party opinions and present their bonds as green. Since verifiers in African jurisdictions are mostly unaccredited and unregulated, there are not many mechanisms against misuse here. This study notes that it did not find any proof of opinion shopping in Africa.

5.4.5 Channel 5: Over-crediting and weak safeguards in carbon and nature finance

The fifth channel is specific to carbon-credit and nature-based instruments, and it is the channel with the strongest documented evidence of materialised harm. Over-crediting arises when a project claims more emission reductions or avoided deforestation than it actually delivers, typically because its baseline, the scenario of what would have happened without the project, is inflated. West et al. (2020) found that voluntary forest-conservation projects in the Brazilian Amazon had overstated their reductions, and West et al. (2023), examining a larger

international sample that included projects in Africa, found that most projects did not significantly reduce deforestation relative to synthetic control areas, and that many credits were not associated with real reductions.

In Africa, two widely reported controversies illustrate the channel. In Zimbabwe, the Kariba REDD+ project, one of the largest forest-carbon projects on the continent, became the subject of investigative reporting in 2023 that questioned its baseline, the volume of credits issued and the distribution of revenues; its long-standing developer subsequently ended its involvement. In northern Kenya, a soil-carbon project in community conservancies was the subject of a 2023 report by an Indigenous rights organisation that raised concerns about consent, land governance and pastoralist livelihoods, and the relevant standard-setter placed the project under review. The parties involved have disputed various allegations in both cases. For the purposes of this review, the relevant point is not to adjudicate the disputes but to note what they reveal: verification designed for credit buyers did not surface concerns that later emerged through journalists, researchers and community advocates.

A related concern involves large framework agreements between governments and private carbon developers announced in 2023, which reportedly contemplated carbon rights over substantial shares of national territory in several African countries. Commentators questioned community consent, benefit-sharing and the risk of locking in rights before domestic rules existed. Recent responses, such as Kenya's carbon-market amendments requiring benefit-sharing and the Core Carbon Principles of the Integrity Council for the Voluntary Carbon Market (2023), have yet to be tested.

5.4.6 Conditions that amplify misuse risk in Africa

The review identified five contextual conditions that amplify the channels above. They are not unique to Africa, but they are more pronounced in many African markets than in the markets on which most of the literature is based.

- Shallow and illiquid secondary markets, which weaken price discovery and make investor exit a weak disciplining device.
- Concentrated ownership by development-finance investors, who may prioritise market-building over public challenge of issuers.
- Limited supervisory capacity for non-financial claims within securities regulators and exchanges.
- Lack of data in environmental and social statistics, making baselines disputable and results unmeasurable.
- Tenure insecurity and limited recognition of customary rights, making it more likely that nature-based financing impacts communities against their will.

Table 5: Summary of the Misuse typology

Channel	Mechanism	Evidence strength in Africa	Main gap in current safeguards
Eligibility dilution	Broad categories without thresholds	Moderate; visible in framework texts	Voluntary or absent technical criteria
Refinancing without additionality	Labelling existing spending	Moderate; inferred from disclosures	No required disclosure of refinancing share or recycling
Reporting decay	Disclosure erodes after issuance	Moderate to strong	No consequence for non-reporting
Opinion shopping and arbitrage	Issuer-paid, unsupervised verifiers	Weak direct evidence; strong structural risk	No accreditation or supervision of verifiers
Over-crediting and weak safeguards	Inflated baselines, weak consent processes	Strong in global and African evidence	Buyer-oriented verification, weak community voice

Source: Researchers' Compilation (2026)

The answer to RQ3 is that misuse risk is concentrated in the post-issuance phase and at the interface between financial claims and conditions on the ground, which is exactly where verification and incentives are weakest.

6. DISCUSSION OF FINDINGS

6.1 Theoretical implications

This review makes two theoretical contributions. The first is to the field of green bonds, which are explained by signalling theory as credible signals of intentions, following positive changes in performance later on. For Africa, however, the credibility of the signal depends on the post-issue verification environment, hence the theory must specify this context instead of using the general conditions in markets with intensive surveillance. The second contribution is related to risk of abuse, which is an inherent quality of the system itself, and not simply of the organization. Delmas and Burbano (2011) consider organizational and individual motivations together with external ones, while for Africa the market design – specifically the verification time and lack of consequences – proves to be another driver of the abuse opportunity. This finding confirms the argument of Lyon and Maxwell (2011) that disclosure occurs in response to the fear of audits: when post-issue audits are unlikely, selective disclosure follows.

6.2 Answering the title question (Synthesis of RQ1–RQ3)

Is African sustainable finance all label and no leverage? The answer indicated by the data seems to be: mostly yes, with significant caveats and an obvious path forward. African-labelled financial products generally do a good job of categorizing capital and offer institutional advantages, but very few impose any sort of behaviour on the issuing entity that might stand up to a hypothetical counterfactual test. Those that do include certificated deals with solid post-issuance disclosure, sovereign bonds that have parliamentary and audit accountability, and repeat offenders with reputational issues at stake. The path forward is to shift the focus from pre-issuance to post-issuance.

For RQ4, the question was about what combination of the reforms could transform the labels into leverage. The proposed reforms stem from the system approach discussed in Section 6 where the interactions between the components mean that partial reforming of any of them will probably be thwarted through the rest. The reforms are sorted according to the actor most suitable for implementing them

7. CONCLUSION AND POLICY IMPLICATIONS

This study sought to establish whether sustainable finance products that have been labeled in Africa live up to their names in terms of influence on actual results. The research reviewed academic literature, regulations, and market data to assess the three components of the problem, which include the design of verification, the design of incentives, and misuse.

According to the review, there has been substantial development of credibility infrastructure around the issuance of labels. Pre-issuance review is common and often mandatory under local laws, major issuances have shown evidence of demand for labeling, regulations have been established, exchange segments and national classification systems have come into existence, but the markets have failed to develop credibility infrastructure surrounding testing of labels. Reporting after issuance is weak and prone to deterioration; the assertions about the impact made during issuance are not always verifiable; failures have low costs; and the incentives that make labeling attractive only kick in upon issuance, before knowing the result. Misuse, through eligibility dilution, refinancing without additional impact, reporting deterioration, verification arbitrage, and in carbon markets, over-crediting, takes place in areas with minimal oversight.

The key point here is thus that the issue lies at the systemic level as opposed to the individual level. Leverage from labelling requires that verification, incentives, and local accountability all be strong, since any deficiency in any one of the three provides an avenue to circumvent the other two. It is clear from the evidence presented that leverage can be achieved. Issues certified, sovereign issues as part of parliamentary and audit oversight, and repeat issuers with their reputational risks come close to the ideal model.

The practical conclusion is that the next evolution of African sustainable finance should shift scrutiny and consequences away from the point of sale and into the life cycle of the instrument. The combination of ongoing reporting requirements, supervision of the verifiers, sharing costs across the life cycle of the instrument, local taxonomies, and means by which affected communities could voice concerns would collectively turn the classification system into one of conditioning. The stakes could hardly be higher. In a region where capital is both scarce and expensive, and climate risks serious, a classification without consequences amounts to more than just an oversight; it is a squandering of credibility for future finance. The issue is one of deciding whether African labels will go down the route of lemons or be constructed in such a way as to signal

transformation. The policy implication includes;

7.1 For securities regulators and exchanges

Make post-issuance reporting a continuing listing obligation: The allocation and impact reports should be submitted within stipulated deadlines. Non-reporting during the grace period should be followed by an announcement and subsequent stripping off the label tag from the sustainability portion while retaining the listing status of the bond, an action which is proportional to the breach and not punitive to the investor.

Require assurance of allocation reports and phase in impact assurance: Allocation assurance is similar to financial auditing and is inexpensive. Impact assurance would begin with a few metrics per category, such as renewable power installed, where established processes exist.

Register and supervise external reviewers: Following the EU Green Bond Standard and IOSCO (2021), it is recommended that regulators register those who can give opinions about the green bonds listed locally, through regulation regarding disclosure of methods used, conflicts of interest and competence. Cooperation among regions, such as the East African Community and the Southern African Development Community, may share costs.

Mandate disclosure of refinancing shares: The frameworks should indicate the maximum percentage of refinancing, while the allocation reports the actual percentages, which directly solves the second misuse channel.

7.2 For Finance Ministries and sovereign issuers

Embed labelled issuance in public financial management: Climate and Sustainable Development Goals (SDG) tagging throughout the budget would enable fungibility to be measured, while supreme audit institutions ought to audit allocation and, where possible, impact, presenting their results along with investor reports.

Design sovereign sustainability-linked debt with care: The KPIs must fall within the ambit of policy control, dates of observations sufficiently early, and the penalties must not exacerbate the debt burden. Concessional financing for step-down arrangements may work well for heavily indebted sovereigns, and the KPI data must be independently validated by a statistical authority.

Condition debt-for-nature swaps on monitoring and participation: Contracts must incorporate provisions for independent monitoring, reporting on conservation success and community involvement in managing the conservation fund.

7.3 For development finance institutions and investors

Fund verification over the life of the instrument: Technical assistance must involve post-issuance assurance throughout the entire tenor of the bond, while pooled verification facilities can reduce fixed costs for small issuers.

Use contractual leverage: Anchor investors, particularly development financial institutions, may be able to

secure reporting and assurance covenants with penalties that include step-ups and consultation rights.

Report exposure to label risk: Disclosure should be made by investors of the percentage of those labelled investments that have current, assured reports after issuance.

7.4 Future Research

Future research needs to investigate whether these types of labels lead to any observable results concerning financial, behavioral, and sustainability outcomes in African countries. Specifically, it is important to consider the interplay between verification quality, incentives, enforcement mechanisms, and cross-country variation in institutional and regulatory capacity. Also, longitudinal analysis might help us understand whether labeling becomes more effective as the market for sustainable finance matures.

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