



Africa Green Bond Toolkit

A practical
guide to
issuing
green bonds
for Africa

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List of Acronyms

APG - Advance Payment Guarantee
CBI - Climate Bonds Initiative
CBS - Climate Bonds Standard
CEO - Chief Executive Officer
COP - Conference of the Parties
CSR - Corporate Social Responsibility
ETF - Exchange Traded Fund
EU - European Union
GBP - Green Bonds Principles
GDP - Gross Domestic Products
HNI - High Net-worth Investors
ICMA - International Capital Market Association
IPCC - Intergovernmental Panel on Climate Change
ISAE - International Standard on Assurance Engagement
KPIs - Key Performance Indicators
SDG - Sustainable Development Goals
SPO - Second Party Opinion
TEG - Technical Experts Group
ToR - Terms of Reference
USD - United States Dollar
ZAR - South African Rand

Preamble

The increase frequency and costs of climate change impacts in Africa are predicted to result in extreme losses to agriculture production, livestock, water supply, and human health, which if not abetted will in time become major social, economic and national security issues. Meeting these challenges will require the continent to take advantage of a diverse range of 'green' capital raising tools and sources of funding, which are issued in exchange for the delivery of positive environmental outcomes. Green Bonds are one tool that can offer the African capital markets an opportunity to leverage private capital at scale towards building a more climate resilient, greener economy.

The development of the Africa Green Bond Toolkit initiative was sponsored and led by Financial Sector Deepening Africa (FSD Africa) and prepared by the Climate Bonds Initiative (CBI).

FSD Africa is a specialist development agency working to reduce poverty by strengthening financial markets across sub-Saharan Africa. Based in Nairobi, FSD Africa's team of financial sector experts work alongside governments, business leaders, regulators and policy makers to design and build ambitious programmes that make financial markets work better for everyone. Established in 2012, FSD Africa is incorporated as a non-profit company limited by guarantee in Kenya. It is funded by UK aid from the UK government.

CBI is the world's leading organization working to mobilize the largest capital market of all, the \$100 trillion global bond market, for climate action. The CBI works with investors, issuers, development banks, regulators and governments to develop green bond programmes and markets across six continents including Africa where CBI has supported market development programmes in Nigeria and Kenya in partnership with FSD Africa, for which this toolkit was commissioned.

Introduction

Climate change is one of the greatest challenges of our time, requiring far more capital than governments alone can provide. Private sources of finance are needed. Tapping into the international capital markets, as well as domestic capital, will be critical.

Recent reports from the Intergovernmental Panel on Climate Change (IPCC) highlighted the urgent need to limit global warming to 1.5°C, to avoid catastrophic impacts on human society that could result from extreme weather conditions and rising sea levels. In response to this threat, many cities and countries have committed to net zero greenhouse gas emissions by 2050.

To make the 1.5°C target a reality, portfolio analysis and investment strategies will need to be overhauled – and transition towards low- and zero- carbon investments across key economic sectors such as energy, transport and water.

One of the most promising opportunities for the private sector to transition to a low carbon and climate resilient economy is green finance. Green finance has significant potential to support public and private sector efforts to restore sustained and equitable growth, boost job creation, and protect the more vulnerable segments of society, by developing resilient capital markets that can channel capital towards investments with environmental and social benefits.

Green Bonds, the Trojan horse driving the green finance momentum, have been an effective financial instrument to moving institutional capital to priority economic sectors in the global economy, promoting the development of climate-resilient, low carbon infrastructure that allows for equitable and sustainable development.

Green Bonds generate financing for projects in renewable energy, energy efficiency, sustainable housing and other eco-friendly industries. They tap the vast pools of financing—the trillions of dollars held by institutional investors such as pension funds, insurance companies and sovereign wealth funds—available in domestic and global capital markets. These investors are looking for climate-smart initiatives that make good business sense: opportunities that carry the right risk-reward profiles and meet investor-specific criteria for rating, tenor, yield and geographic diversity.

The goal of the green bond market is to promote and amplify the important role that financial markets can play in helping to address the global climate change crisis. By explicitly specifying the environmentally beneficial projects to which the bond proceeds are allocated, Green Bonds allow investors to assess and allocate capital to environmentally sustainable investments.

This Green Bond Tool Kit has been developed to provide the African capital markets with the guidance on how to issue green bonds that are in line with international best practices and standards. It provides a backdrop to the development of the market and features successful examples of green bond issuances that have emerged out of Africa. The Tool Kit sets out guidance on the process that issuers and verifier firms are expected to adhere to when issuing a green bond.

1. Green Bond Market - A Brief Overview

1.1. What is a Green Bond?

A Green bond is a Bond (a debt instrument), which can be issued by entities such as corporates (banks and other companies), governments and quasi-governments (councils, municipalities) to finance or refinance projects.

The issuer of the bond (the borrower) owes the bond holder/investor (the creditor) a debt and depending on the terms they agreed, is obliged to pay back the amount lent within a certain period of time (tenor) and with a certain interest (coupon). Unlike a loan, the bond is a transferable instrument that can be traded on a secondary market if publicly issued.

Green Bonds are regular bonds with one distinguishing feature: the proceeds are allocated exclusively for projects with environmental benefits (understood to be intrinsically coupled with social co-benefits). In other words, structurally, green bonds are the same as regular bonds, offering comparable risk/reward profiles and following the same issuance procedures but, the proceeds are used for a wide variety of climate and other environmental projects.

Figure 1: Labelled Bond Definitions

Green Bond	A bond is labelled 'green 'or 'environmental' where the proceeds from the bond are directed to projects or assets with environmental benefits
Climate Bond	A subset of green bonds, where proceeds are directed to projects/assets that have specific climate benefits
Certified Climate Bond	Where a green bond has been certified against the Climate Bonds Standard (CBS) as having met the criteria for Use of Proceeds and disclosure for Impact Reporting
Social Bond	Where the proceeds of the bond are used for projects and assets with positive social outcomes such as health care and education
Sustainability Bond or SDG Bond	A bond that is financing a range of both social and environmental projects/assets. An SDG Bond invests in projects and assets that are aligned and contribute to the achievement of the Sustainable Development Goals (SDGs)
Blue Bond	<p>The proceeds are used for projects and assets related to the marine and coastal industries and ecosystems</p> <p>The proceeds are used for projects and assets related to the marine and coastal industries and ecosystems. A Blue Bond could be categorised as a Green Bond if the project brings climate and/or other environmental benefits. A small number of "Blue Bonds" have been issued globally to date</p>

1.2. Who buys Green Bonds?

The growth of the Green Bond market has attracted a diversified and more mainstream investor base. The institutional investor community (pension fund managers, assets managers, High Net worth Individuals - HNIs), with large portfolios including those with sustainability related mandates are increasingly seeking green and low carbon investment opportunities.

As the impact of climate change risks are recognised and better understood, asset owners are increasingly looking for low-carbon opportunities to shift investments out of potentially stranded assets in order to minimise their exposure. Investor demand for green bonds has also increased in Africa. However, despite the numerous opportunities to scale, issuance of green debt has been slow to date.

1.3. Benefits of Green Bonds to Issuers and Investors

Green Bonds offer several benefits to both issuers and investors. From greater transparency and better environmental risk management for investors to a more diverse and sticky investor base and enhanced reputation for issuers. Below is a list of those benefits, which may vary depending on the market.

Figure 2: Benefits to issuers	
Investor diversification across regions and	Environmentally green/low carbon integrity of the bond enables issuers to raise capital from a much broader base of investors
Strong over-subscription	Demand for Green Bonds generally outstrips supply and investors acquiring Green Bonds often hold them to maturity. As a result, green bonds are generally 'sticky' in the secondary market as investors are not inclined to sell their green bonds
Lower cost of capital	Green Bonds enable issuers to raise large amount on the capital markets; Refinancing through green bonds and obtaining lower-cost debt is particularly attractive for low carbon infrastructure assets as they have a particularly low operating post-construction compared to the construction phase
Tighter yields	Given the demand for Green Bonds, 'strong pricing' has been achieved by recent green bond issuance. Some corporate issuers claimed to have achieved a lower cost of capital especially for bonds denominated in Euros and Dollars
Stickier pool of investors	Typically, green bond investors invest for the long term, which is a major benefit for infrastructure projects seeking longer term investments
Reputational benefits	Requirements for enhanced transparency disclosure associated with a Green Bond issuance will appeal to investors. Green credentials, also issuer reputation overall, and can be part of a wider sustainability strategy

Figure 3: Benefits to investors

Enhanced risk management and improved long term financial returns:	Good Environmental, Social and Governance (ESG) track record is recognised as a proxy for overall more efficient companies. Investing in sustainability meets and often exceeds the performance of comparable traditional investments. Furthermore, the transparency and disclosure requirements on Use of Proceeds and performance of the projects are an additional risk management tool
Addressing climate risk	Green Bonds can help mitigate climate change-related risks in the portfolio due to changing policies such as carbon taxation which could lead to stranded assets. Instead a green bond invests in climate friendly assets, such as green buildings, renewable energy, that overtime bear a lower credit risk
Alignment of CSR (or core business when pure play) with funding scheme	Some investors make the case that the intrinsic risk and return for most green bonds was usually the same as any conventional bond with the same rating and hence the benefits were for “purpose-based investing” only
Green Bonds give investors a chance to direct capital to climate change solutions	Where as at the moment there is little opportunity (“lack of deal-flow”) such as the \$22 trillion of investors who are members of the Global Investor Coalition on Climate Change
For pension funds	Investment in Green Bonds matches long term liabilities and will also help build a sustainable society for pensioners to retire into
Alignment with National Development Agenda	The Institutional Investor Stewardship Code as well as International recognition as an innovator in green finance

2. Global Benchmarks: Green Definitions & Standards

The green label is a discovery mechanism for investors; it facilitates the identification of climate-aligned investments more easily, reducing friction in the market. Global benchmarks have been established to promote integrity in the Green Label through guidelines and standards that recommend transparency, disclosure and reporting.

At the international level, two main voluntary processes for green bond issuance have emerged including sustainable finance policy developments in the European Union:

1. Green Bond Principles (GBP) focus on the process for labelling green bonds providing issuers with guidance around the Use of Proceeds, selection of projects, management of proceeds and reporting for green bonds; GBP serve as the market entry point for issuing green bonds.

2. International Climate Bonds Standard¹ incorporates the GBP process into a standardised framework and provides guidance on 'what is eligible for green bonds', via an extensive list of green definitions.²

3. EU Action Plan on Sustainable Finance was established in 2018 with the aim to connect sustainability with finance in the EU economy. A comprehensive set of measures has been put forward that includes a clear and detailed EU classification system - or taxonomy - for sustainable activities and a green bond standard for labelling financial products that falls in line with the GBP and the Climate Bonds Standard.

2.1. Green Bond Principles

The Green Bond Principles (GBP) are a set of underlying global principles for green bond issuance and disclosure process. They are an industry-led initiative convened by the International Capital Market Association (ICMA), promoting the Use of Proceeds for green projects. The Green Bond Principles were launched in 2014 and gets revised on a yearly basis.

The GBPs are based on the four pillars outlined below:



2.2. International Climate Bonds Standard

The *International Climate Bonds Standard* is a standard for Green Bonds that is consistent with the Green Bond Principles with a set of sector-based criteria that lay out clear definitions (thresholds and requirements) which are used in the certification of green assets and projects.

Certification under the Climate Bond Standard confirms that the bond, loan or debt instrument used to finance a project is:

- fully aligned with the Green Bond and/or Green Loan Principles;
- uses best practices for internal controls, tracking, reporting and verification and;
- financed assets are consistent with achieving the goals of the Paris Climate Agreement.



2.3. EU Action Plan on Sustainable Finance

In June 2018, the European Commission set up a Technical Expert Group (TEG) on sustainable finance to assist in four key areas of the Action Plan through the development of the following:

1. a unified classification system for sustainable economic activities
2. a European Union (EU) Green Bond Standard
3. benchmarks for low carbon investment strategies
4. guidance to improve corporate disclosure of climate-related information

The objective of the report on the Green Bond Standard, published by the TEG in June 2019, is to enhance the effectiveness, transparency, comparability and credibility of the green bond market and encourage market participants to issue and invest in EU green bonds.

Whilst the sector-based criteria and taxonomy from Climate Bonds Initiative has formed the basis for Green Bond certification, the draft EU Green Bond Standard has built on the Climate Bond Standard (CBS) to clarify and potentially expand the universe of eligible green projects. It is anticipated that the expansion of the green bond universe would capture a wider set of projects and make it easier for corporates to issue green bonds.

The EU Green Bond Standard is currently in development while the Report on the EU Taxonomy, published in March 2020 is readily available and can be found here: https://ec.europa.eu/info/publications/sustainable-finance-teg-taxonomy_en



2.4. Case Studies of Green Bond Issuance in Africa

The market has seen an increase in the issuance of corporate green bonds in Africa, from Namibia in the South, through Kenya in the East to Nigeria in the West. Below are some case studies highlighting the experience from investors, issuers and service providers on the continent.

2.4.1. Nedbank Limited: Oversubscription of 328% signals strong investor demand for green bonds

Nedbank Limited issues first private sector Climate Bonds Certified green bond in Southern Africa



Nedbank Limited became the first private sector institution in South Africa to issue a Climate Bonds Certified Renewable Energy Bond pioneering the way for other private sector players in the local market.

The Renewable Energy Bonds were auctioned on April 24, 2019, attracting bids of ZAR5.4bn. Targeting an issuance size of ZAR1bn with an option to upsize, Nedbank issued ZAR1.66bn to accommodate all investor bids at the clearing levels thus demonstrating significant demand for the Renewable Energy Bond with an oversubscription of 3.28 times. Pricing expectations, supported by the significant oversubscription, also exceeded, with the notes pricing mid guidance in the 3-year space and at the tighter end of guidance in the 5 and 7-year space.

The proceeds of this Renewable Energy Bond will be applied towards the construction of four new renewable energy projects located in South Africa (3 solar projects and 1 wind project), thereby bringing additional cleaner renewable energy sources to the global energy mix and reducing CO2 emissions to the environment.

2.4.2. First Green Bond from Kenya: Acorn Holdings USD 40M

Acorn Holdings issues first green bond from Kenya



Acorn Holdings successfully issued Kenya's first green bond. The KES 4.3 billion (USD40m) Climate Bonds Certified issuance, will finance green and environmentally friendly accommodation for 5,000 university students in Nairobi.

Moody's rated Acorn's medium-term note programme B1 which is one notch higher than Kenya's sovereign rating of B2. This is the first non-governmental green bond rated by Moody's in Africa and will serve as an example for other corporate issuers who wish to seek funding from institutional investors.

The bond is a significant step in the development of green finance for East Africa, driven in part by the multi-stakeholder Green Bonds Program Kenya that includes, FSD Africa, FMO Dutch Development Bank, KBA, NSE and Climate Bonds Initiative amongst its backers.

2.4.3. Access Bank issues first corporate green bond in Africa

Access Bank Plc issues first Climate Bonds Certified Corporate green bond in Africa



Access Bank Plc became the first corporate institution in Africa to issue a Climate Bonds Certified Bond pioneering the way for other corporate players in Africa's largest economy.

The five-year, 15.50% fixed rate green bond, issued on 1st April 2019 was fully subscribed, raising a sum of USD 41m. The issuance is the first corporate bond to benefit from the Nigerian Green Bond Market Development Programme launched in June 2018, by FMDQ, Climate Bonds Initiative and FSD Africa.

Providing an issuer's perspective on the issuance, the Group Managing Director/ CEO, Herbert Wigwe said, *"With our pace-setting experience in the mainstreaming of sustainability in our business activities and operations, we are confident that the green bonds will further help in supporting environmentally friendly investors to meet their investment objectives. It will also simultaneously support the Bank's customers towards realising growth opportunities in a fast-developing low carbon economy"*.

Dr Greg Jobome, Executive Director - Risk Management Division, in addition said, *"We recognise that the journey to improving climatic conditions in Africa is not one that can be achieved by one organisation. It is important that other financial and non-financial organisations buy into this vision, as only then would we achieve the critical mass that is required."*

The proceeds of the bond were applied towards the construction of renewable energy projects and flood defence at the new Eko Atlantic project built to project the integrity of Lagos City.

2.4.4. The role of intermediaries in leveraging the local market

Critical to the development of the green bonds market in Africa is the support and enhancements (first loss guarantees etc.) provided by various organisations, as part the strategies required to accelerate the issuance of green bonds in the region. GuarantCo provided investors with a partial credit guarantee to cover 50% of principal and interest due to investors on the green bond issued by Acorn Holdings Plc in Kenya while the African Local Currency Bond Fund was a corner stone investor to the North South Power Company Limited (NSP) bond to support local currency issuance in Nigeria.

Guarantees strengthen investor confidence on the issuance

GuarantCo provides partial credit guarantee to investors in AcornHoldings' KES 5 billion note program

GuarantCo, through the PIDG Technical Assistance Facility, provided Acorn Holdings Plc with a part returnable grant to contribute towards the costs of the loan note issue, creating a significant enabling effect for the transaction.

The CEO of GuarantCo, Lasitha Perera said of the transactions, *"We are proud to have provided the 50% local currency credit guarantee for the Acorn student housing note programme, our first project bond in Kenya. For university students, the options for accommodation during their educations in Nairobi are severely limited, often unsafe, poorly built and lacking basic amenities. This is why we joined forces with Acorn to pioneer the first ever green bond in Kenya and lead the way by setting new standards of quality, safety, convenience and comfort in the provision of purpose-built accommodation so students can fulfil their potential."*

Emilio Cattaneo, Executive Director at Emerging Africa Infrastructure Fund, said *"This is EAIFF's first investment in the affordable housing market in Africa. That 5,000 students in Nairobi will have high quality accommodation is a great endorsement for EAIFF's future in the affordable housing sector"*

Cornerstone (Anchor) investors crowds in other investors with similar investment needs and could increase investor appetite for the issuance, which may lead to an over-subscription and a successful capital raise.

African Local Currency Bond Fund invests in the North South Power Company Limited's (NSP)

African Local Currency Bond Fund invests in the North South Power Company Limited's (NSP) NGN8.5 billion 15-Year 15.60% Series 1 Guaranteed Fixed Rate Senior Green Infrastructure Bonds Due 2034 (the "Series 1 Green Bonds") under a NGN50 billion Debt Issuance Programme. NSP is the operator of a 30-year concession on the 600MW Shiroro Hydroelectric Power Plant.

The proceeds of the Series 1 Green Bonds will fund the overhaul of a 150MW hydropower turbine, support the increase of up to 30MW in its hydropower generation capacity and fund replacement of the company's current short term (naira and dollar denominated) bank facilities with long term local currency debt, thereby eliminating the currency and tenor mismatch in the company's funding structure

Fund Manager, African Local Currency Bond Fund, James Doree commented: *"The first corporate green bond in Nigeria, issued by North South Power and supported by InfraCredit, sets a benchmark for the domestic and regional capital market. North South Power's ongoing investments in the Shiroro power station since 2013 have restored nameplate capacity, with minimal environmental impact, and NSP is now able to generate more than 2,000 GWh on an annual basis. Based on its contribution to the energy mix of the Nigerian grid, NSP is estimated to be able to reduce absolute GHG emissions for Nigerian energy production by more than 900 MtCO₂e, compared to the average national energy mix."*

3. Green Bonds Issuance Process

3.1. Green Bond Issuance Overview

The issuance of a Green Bond requires additional steps to the normal bond issuing process to ensure the credibility of the green label to investors. These steps provide investors with the transparency and disclosure on what is being financed by the green bond and to ensure it complies with international best practices and standards.

Figure 4: International Best Practices and Standards

Green Bond Principles (GBP)	Climate Bonds Taxonomy & Sector Criteria guidance notes	EU Green Bond Standard	The National Policy on Climate Finance
<p>The GBP provide high level project categories. These categories can be complemented by taxonomies such as those provided by the Climate Bond Initiative and Multilateral Development Banks</p>	<p>Definitions of green projects and asset, which are consistent with the COP21 Paris Climate Agreement</p>	<p>A voluntary, non-legislative standard to enhance effectiveness, transparency, comparability and credibility on the green bond</p>	<p>Identifies priority sectors to support sustainable development and the transition to a green economy - where?</p>
<p>https://www.icmagroup.org/green-social-and-sustainability-bonds/resource-centre/</p>	<p>https://www.climatebonds.net/standard/taxonomy</p>	<p>https://ec.europa.eu/info/publications/sustainable-finance-teg-green-bond-standard_en</p>	

3.1.1. Preparation- Pre-Issuance Phase

The following steps are involved in the pre-issuance of the green bond:



Step 1- Identify qualifying green projects and assets

The key feature of a Green Bond is that the proceeds are solely used for eligible green projects or assets. The 'greenness' of a company does not matter - it's about the physical assets or projects. References that list out eligible project categories that can be considered for a green bond and help guide the identification process can be found in the GBP's, the Climate Bonds Taxonomy or the EU Taxonomy.

Step 2- Develop a Green Bond Framework

The green bond framework sets out the issuer's policies and internal procedures governing the issuance of the Green Bond - See Section 4 for full details

Step 3 - Arrange an independent verification

A credible independent review and verification is a requirement and protects the issuer's reputation while providing investors with assurance. The verification process is typically performed by an external reviewer, who assesses the list of projects using the Climate Bonds Standard for Certification or the Green Bond Principles in the case of a Second Party Opinion.³ The verifier can also assist with identifying green assets.

Who is an Approved Verifier under the Climate Bonds Standard?

An Approved Verifier under the Climate Bonds Standard is an external reviewer that is able to demonstrate the competency and experience in the following areas:

- a. Issuance of debt instruments in the capital markets and management of funds within issuing organisations
- b. Technical characteristics and performance of low carbon projects and assets in the areas covered by the specific criteria available under the Climate Bonds Standard
- c. Provision of Assurance Services in line with the International Standards on Assurance Engagements ISAE 3000

In addition to the 3 criteria laid out above, approval of Verifiers is also based on their geographical coverage and areas of technical competence:

- d. Geographic coverage of the approval is aligned with the coverage provided by the Verifier's insurance policies for professional indemnity/professional liability
- e. Technical scope of the approval is determined by the Verifier's levels of experience and expertise in the different technical sectors covered by the Climate Bonds Standard

Refer to the Climate Bonds Initiative website for a comprehensive list of Approved Verifiers, along with their geographic scope, technical scope and context details: <https://www.climatebonds.net/certification/approved-verifiers>.

Step 4 - Issue your Green Bond

The normal steps for issuing a vanilla bond applies.

- Structure the bond working with an investment bank or advisor
- Prepare bond documentation i.e. Information Memorandum
- Seek the required regulatory approval
- Market the Green Bond

3.1.2. Post-Issuance

For Certified bonds, the issuer must issue a post-issuance report signed off by an independent verifier. The post-issuance report is a one-off report which confirms that the proceeds have been applied and the systems (documentation, processes, systems, etc.) have been setup as described in the pre-issuance Green Bond Framework. See sample in annex ***

The annual report is a report that is published for the life of the bond to confirm:

- That the proceeds are still properly allocated to green projects
- The report is a self-declared document and does not require external signoff

See sample in annex **

4. Issuer's Green Bond Framework

The framework communicates to investors on how the issuer's internal processes meet international best practices and standards on green. The framework covers two parts of the issuance phase: Pre-issuance (Use of Proceeds, Selection of Projects and Assets, Management of Proceeds, External Review) and post-issuance (Post-Issuance Audit and Reporting).

The Green Bond Framework is a document that is generally made publicly available to the market and is considered the centrepiece of the green bond issuing process. Whilst there is not a prescribed way to write it, the structure of Green Bond Framework commonly reflects the four pillars of the Green Bond Principles, which are also fully integrated in the Climate Bonds Standard.

4.1. How to prepare a Green Bond Framework

The issuer of a Green Bond should establish, document and maintain internal decision-making process that the issuer will use to determine the eligibility of the underlying projects and assets.

This decision-making process begins with the elaboration of a statement regarding environmental objectives of the Green Bond and is generally reflected in the 'Introduction' or 'Overview' section of Green Bond Framework.

This is a very important aspect of the issuance process because it provides the issuer with the opportunity to directly explain to investors why and how Green Bonds fit within their long-term vision or corporate strategy. For instance, the Government of Nigeria issued a Green Bond in December 2017 that was ultimately Certified under the Climate Bonds Standard. With the issuance of the bond, the Government of Nigeria saw an opportunity to signal to the market that they perceived Green Bonds as one of the tools to fulfil their obligations under the UNFCCC and their emissions reductions targets under the Paris Agreement as clearly stated in the relevant Green Bond Framework. In the Kenyan example, Acorn Holdings prepared a Green Bond Framework that gives the perspective of a private debt issuance.

4.2. Use of Proceeds

The main difference between a plain Vanilla Bond⁴ and a Green Bond is that, for green issuances, the proceeds are allocated to projects and assets that are considered 'Green'. It is therefore crucial that the issuer clearly identifies the categories of 'Green' that the underlying projects and assets need fall under in order to be eligible for inclusion in the bond.

These categories of 'Green' are linked to the intrinsic nature of the underlying projects and assets that the issuer wants to finance/re-finance and are generally aligned with either the Green Bond Principles or the Climate Bonds Taxonomy. The former describes broader categories of 'Green' such as Energy Efficiency, Renewable Energy, Sewage Management Systems, Air Pollution and so on, whereas the latter tends to define 'Green' in a narrower way such as Solar Energy, Low Carbon Buildings (Residential/Commercial), Off-Shore Wind and Water.

Some issuers want to provide an even more in-depth description of the nature of the underlying projects and assets so that they directly choose to align their bond with the Sector Criteria of the Climate Bonds Standard (see annex **). Normally, it is left to the issuer to decide which categories of 'Green' to align with but, it is important to note that the Green Bond Principles represent the minimum required by the market while the Sector Criteria of the Standard are the most specific as they provide very clear requirements and thresholds projects and assets have to meet.

4.3 Selection of assets and projects

This section describes the issuer's internal set up for the selection of projects and assets. It is about the specific governance mechanisms the issuer has established to select the underlying projects and assets.

For instance, most issuers will set up a Selection Committee consisting of Senior Members of staff from relevant departments (such as Finance, Engineering and CSR) who will be in charge of screening the underlying projects and assets according to the requirements discussed in the Use of Proceeds section above. The Committee will generally provide recommendations for the selection of projects and assets that will then be sent to the Board of Directors for final approval.

Similarly, a sovereign issuer will describe the governance process for the selection of projects and assets. For instance, it could be that the relevant projects and assets are screened by a joint committee consisting of representatives of both the Ministry of Finance and the Ministry of Environment (or equivalent) and then sent to Parliament for final approval.

It is important to highlight that, while each issuer might have a different way of selecting underlying projects and assets, the key point is that this selection process should be as transparent as possible in order to provide investors with comfort that the internal processes within the issuer are robust.⁵ Once the underlying projects and assets have been selected, they are referred to as "*Nominated Projects and Assets*."

4.4. Management of proceeds

This step refers to the mechanisms that the issuer needs to establish in order to manage and track the proceeds internally.

4.4.1. Set up the internal tracking and reporting system

The value of the assets and projects must be equal to or higher in value than the amount of the bond to be issued. The issuer is required to establish internal mechanisms (processes and procedures) that allows it to effectively track and allocate proceeds from the bond to eligible projects and assets. Generally, there are two ways to manage the proceeds:

- **Earmarking:** The proceeds enter the balance sheet of the issuer and are set aside for future allocation to the Nominated Projects and Assets. This is common practice amongst issuers of Green Bonds (including sovereign issuers) and is widely used to finance future capital investment or to refinance payments on long term projects.
- **Ring-fencing:** This occurs when the issuer decides to separate the proceeds from its business-as-usual operations. For instance, ring-fencing could happen when a public utility company managing wind farms decides to financially separate itself from the parent company in order to allow investors to have more of a direct link to a specific asset (the wind farms) while also enjoying the full credit support of a parent company's balance sheet.

Furthermore, when establishing the processes for the Management of Proceeds, the issuer also needs to decide how it will manage unallocated proceeds. Typically, any balance of proceeds that have not been allocated to Nominated Projects and Assets should be held in temporary cash investments, short-term deposits and other short-term liquidity instruments (for instance, short-term notes with a tenor of less than two years).

Moreover, it has become best practice in the market for the issuer to clarify that the proceeds will not be used to fund carbon-intensive projects while they remain unallocated. Finally, proceeds should not remain unallocated for any longer than a limited period of time that both the Green Bond Principles and the Climate Bond Standard define as no longer than 24 months.

4.5. Reporting

The reporting process is essential for investors because it creates a direct link between their investment and the environmental performance the Nominated Projects and Assets. For this purpose, the issuer should report to investors at least once annually but, some issuers might opt to report twice per year or even every quarter. The issuer should report about the following aspects:

On-going eligibility of projects and assets: the issuer should report any material changes⁹ that have occurred to the Nominated Projects and Assets since issuance and whether those changes have affected eligibility. In case the eligibility of a portion of the Nominated Projects and Assets has been compromised, the issuer should report on whether the proceeds have been re-allocated to new eligible assets.

Balance of unallocated proceeds: the issuer should report the total balance of unallocated proceeds and how they are being held in accordance with the processes set up in the Management of Proceeds. Typically, this will also include a confirmation that the unallocated proceeds are not being used to fund carbon-intensive projects.

Key Impact Indicators (KPIs): they refer to qualitative and quantitative environmental performance metrics of the Nominated Projects and Assets. For instance, these indicators could be the number of annual tonnes of abated CO₂, generated electricity in terms of Kilo Watt per hour (kwh), miles of transmission lines installed or number of hectares of restored forest land. KPIs are generally determined at pre-issuance but their relevant data is gathered, monitored and presented at post-issuance.

As a minimum requirement, the reports should be made available to the bond's investors but, most issuers decide to go a step further and to publish them on their website as a way to enhance the transparency of their Green Bond issuance. Also, while the reporting process is established at pre-issuance, the publication of the reports actually happens at post-issuance.

5. Second Party Opinion, Verification and Certification

Transparency and disclosure on what is being financed by green bonds is important for investor due diligence. Credible, science-based, widely supported guidelines about what assets/projects qualify for green bonds helps investors make informed decisions about the green credentials of a bond.

Evaluating the green features of underlying assets/projects may be referred to as verification or external review.

5.1. External review

The phrase 'External Review' refers to the independent assessment on the green credentials of a bond provided to the issuer by an external auditor (reviewer). Most external reviews can provide both a Second-Party Opinion (SPO) as well as a Verification (Assurance) Report against the Climate Bonds Standard.

External reviewers are generally engaged while or soon after the issuer has set up a Green Bond Framework and the review is normally made public before the road show. This is because the issuer can then use the independent review to promote the green credentials of the bond during the road show and it is now common practice for the review to accompany the bond's information memorandum or prospectus when it is sent to potential investors.

Figure 5. External Reviews under the Green Bond Principles



The most comprehensive list of external reviewers is provided on the Climate Bonds Initiative website, which also lists the reviewers in terms of geographical scope. Almost all the external reviews for Green Bonds will fall under one of the two categories below:

5.1.1. Second Party Opinions

An issuer can seek advice from consultants and/or institutions with environmental expertise which are independent from the issuer. These are independent, research-based assessments on the sustainability credentials of Green Bonds and their underlying projects and assets. The methodological approach underpinning the assessment is generally designed by the Opinion Provider. This is normally an assessment of the alignment with the Green Bond Principles and an assessment of the issuer's overarching objectives, strategy, policy and/or processes relating to environmental sustainability and an evaluation of the environmental features of the type of projects intended for the Use of Proceeds.

Second-Party Opinions are normally issued at pre-issuance and can vary quite a lot depending on the methodology used by the Opinion Provider. As an example, the Republic of France commissioned Vigeo Eiris (the reviewer) to provide a Second-Party Opinion on the Green Bond issuance in January 2017.

5.1.2. Third Party verification and Certification Process

The Climate Bonds Standard provides clear, sector-specific eligibility criteria for assets and projects that can be used for Climate Bonds and Green Bonds. An issuer can have its Green Bond or associated Green Bond framework or Use of Proceeds Certified against the Climate Bonds Standard. The standard defines specific criteria and alignment with such criteria is normally tested by qualified, accredited third parties, which verify compliance with the certification criteria.

The certification process is divided into two phases:

1. Pre-issuance Verification: prior to issuing the bond, when the bond is formulated, confirmed, launched, registered, priced and marketed.

The Verifier provides a Pre-issuance Verifier's Report which states whether the bond conforms with the Pre-issuance requirements of the Climate Bonds Standard

The Climate Bonds Standard Board will review the above three documents and award Certification as appropriate. Upon approval, the issuer receives a formal Certification Letter as well as a Certificate, which they can use to market their bond.

Certification of a Climate Bond at the pre-issuance phase enables the issuer and underwriters to market the bond as a Climate Bonds Certified bond in their investor roadshow.

2. Post-issuance Verification: is undertaken up to 24 months (previously 12 months under the previous Version 2.1 of the Climate Bonds Standard). The period when the proceeds of the bond is allocated to the nominated projects & assets

Further assurance and verification activities must be taken up to 24 months (previously 12 months under the previous Version 2.1 of the Climate Bonds Standard) after issuance in order to confirm post-issuance Certification and maintain the Climate Bonds Certification.

The Climate Bonds Standard Board reviews the two documents above and where the Climate Bonds Standard requirements are met, post-issuance Climate Bonds Certification is confirmed and it is valid for the term of the bond.

After the post-issuance verification, the Certification must be maintained by the issuer submitting annual reports throughout the tenor of the bond, up until it matures.

Figure 6. Certification Process for a bond, loan or other debt instrument



5.2. Post-issuance review

In order to provide an extra layer of comfort to investors, issuers might decide to re-engage an external reviewer at post-issuance. This kind of audit can refer to:

Post-issuance Reviews: the reviewer is engaged to provide a more thorough assessment of the green credentials of the bond and of the eligibility of internal procedures within the issuer. Generally, post-issuance reviews provide investors with extra assurance that the proceeds are being allocated correctly to the Nominated Projects and Assets. While a post-issuance review is voluntary in the Second-Party Opinion model, it is indeed mandatory under the Climate Bonds Standard and Certification Scheme.

Report Audit: the issuer might decide to engage a reviewer (generally annually) in order to have their reports to investors periodically assessed. The practice allows issuers to provide investors with the certainty that the data gathered for the elaboration of the pre-determined KPIs is robust.

Under the Climate Bonds Standard and Certification Scheme, Post-Issuance Audits are referred to as Post-Issuance Assurance Reports and, while periodic external review is not mandatory, the release of an annual report throughout the lifetime of the bond is required to maintain Certification.

6. Conclusion

This Green Bond toolkit has been developed as a resource for potential issuers in Africa who are interested in learning more about the opportunities and process for issuing green bonds. Green bonds provide a promising new opportunity for tapping into private sector investment for sustainable development. African capital markets may be in their infancy, but green bonds have already started to emerge on the continent attracting both domestic and international investors to supporting investments that have a positive environmental impact for African economies.

FSD Africa strongly recommends this tool kit to support issuers on how to issue green bonds based on international best practices that will lead to new sources of capital while ensuring a long term credible African green bonds market.

7. Appendix

7.1. Climate Bonds Taxonomy for Eligible Projects

<https://www.climatebonds.net/standard/taxonomy>

ENERGY	TRANSPORT	WATER	BUILDINGS	LAND USE & MARINE RESOURCES	INDUSTRY	WASTE	ICT
Solar 	Private transport 	Water monitoring 	Residential 	Agriculture 	Cement production 	Preparation 	Broadband networks
Wind 	Public passenger transport 	Water storage 	Commercial 	Commercial Forestry 	Steel, iron & aluminium production 	Reuse 	Telecommuting software and service
Geothermal 	Freight rail 	Water treatment 	Products & systems for efficiency 	Ecosystem conservation & restoration 	Glass production 	Recycling 	Data hubs
Bioenergy 	Aviation 	Water distribution 	Urban development 	Fisheries & aquaculture 	Chemical production 	Biological treatment 	Power management
Hydropower 	Water-borne 	Flood defence 		Supply chain management 	Fuel production 	Waste to energy 	
Marine Renewables 		Nature-based solutions 				Landfill 	
Transmission & distribution 						Radioactive waste management 	
Storage 							
Nuclear 							

 Certification Criteria approved
 Criteria under development
 Due to commence



7.2. Categories of Projects according to the GBP

The following project lists are used as a reference and include the types of projects accepted by GBP. In this regard, they do not exclude other categories or types of projects that may appear after the Guidelines.⁷

1. Green Bonds:

Funds obtained from a green bond may be used in any of the following project categories:

- Renewable energy (generation, production and transmission of energy from renewable sources, devices and products).
- Energy efficiency (for example new and restores buildings, energy storage, thermal enclosures in buildings, district heating, efficient water heaters, solar water heaters, smart grids, household appliances and products, etc.)

- Pollution prevention and control (for example: wastewater treatment, reduction of atmospheric emissions, control of greenhouse gases, soil remediation, waste prevention, waste reduction, waste and energy recycling, efficient waste emissions for energy, value added waste products and remanufacturing, and associated environmental monitoring, etc.)
- Environmentally sustainable management of living natural resources and land use (for example: environmentally sustainable agriculture, environmentally sustainable animal breeding, climate smart agricultural inputs, biological crop protection, drip irrigation, sustainable fisheries from the point of view of environmental vision and aquaculture, environmentally sustainable forestry, reforestation and preservation or restoration of natural landscapes, etc.)
- Conservation of terrestrial and aquatic biodiversity (for example: protection of coastal, marine and river basin environments, etc.)
- Clean transport (for example: electric, hybrid, public, rail, non-motorized, multimodal transport, infrastructure for clean energy vehicles (bike paths or cycle paths), and reduction of harmful emissions, etc.)
- Sustainable management of water and wastewater (for example: sustainable infrastructure for drinkable and clean water, wastewater treatment, sustainable urban drainage systems and training in rivers and other forms of flood mitigation, etc.)
- Products, production technologies and processes adapted to the ecological economy and/or circular economy (such as, for example: development and introduction of products that respect the environment with an ecological label or environmental certification, efficient packaging and distribution in terms of resources, etc.)
- Ecological buildings that meet regional, national or international standards and certifications.

7.3. Resources and support tools

- Understanding Themed Bonds

<https://www.climatebonds.net/resources/understanding>

<https://www.icmagroup.org/green-social-and-sustainability-bonds/questions-and-answers/>

- Information Templates from GBP

https://www.icmagroup.org/assets/documents/Regulatory/Green-Bonds/Resource-Centre/Market-Information-Template_Green-Bonds-071117.docx

https://www.icmagroup.org/assets/documents/Regulatory/Green-Bonds/Resource-Centre/Market-Information-Template_Social-Bonds-071117.docx

https://www.icmagroup.org/assets/documents/Regulatory/Green-Bonds/Resource-Centre/Market-Information-Template_Sustainability-Bonds-071117.docx

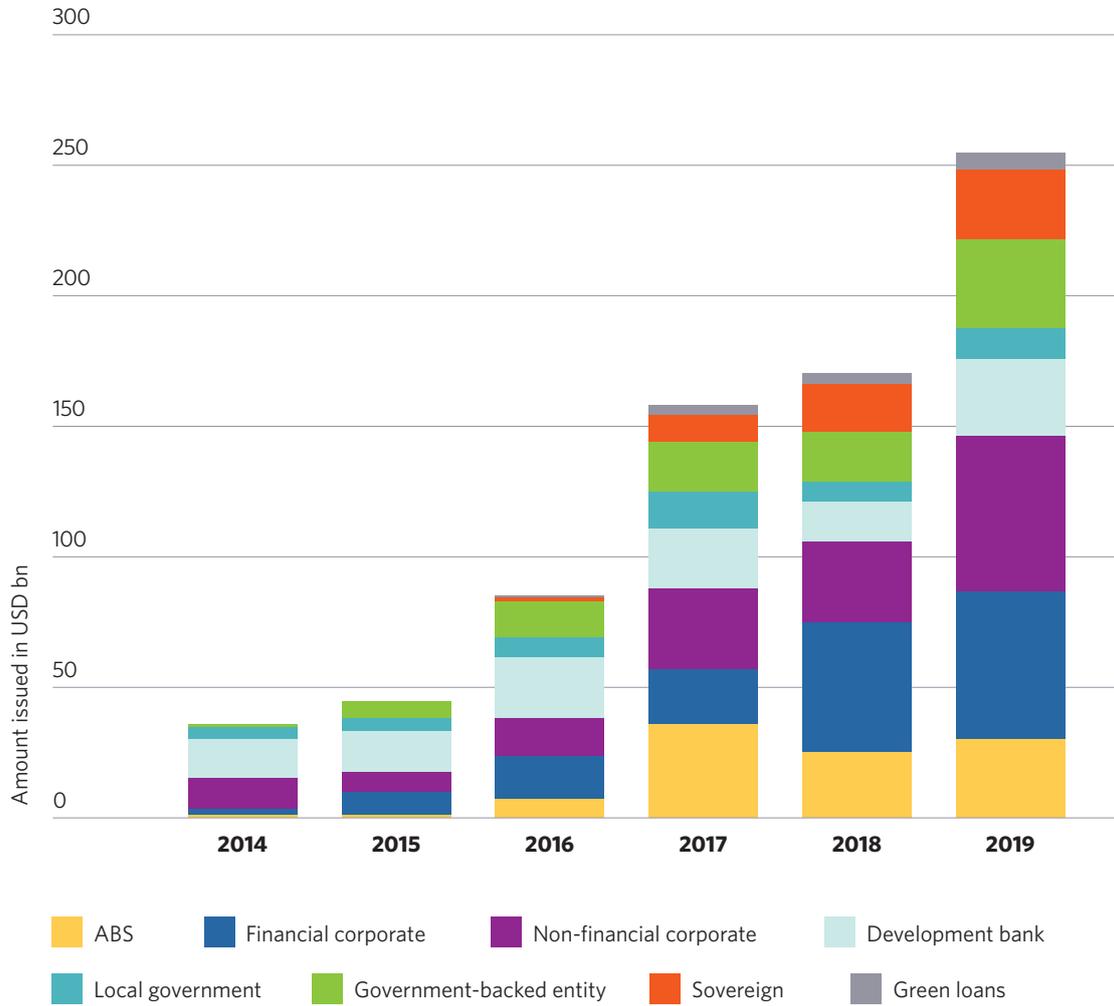
- Climate Bond Initiative Resources for Issuers & Verifiers

<https://www.climatebonds.net/certification/resources>

<https://www.climatebonds.net/certification/approved-verifiers>

7.4. Growth of the Green Bond Market

Figure 7: The Green Bond Market by issuer type (2014 - 2019)



Source: CBI. Data as of 31 Dec 2019.

7.5. African Green Bond Issuers

Figure 8: Green Bonds Issuance in Africa as of December 2019



Endnotes

1. <https://www.icmagroup.org/Regulatory-Policy-and-Market-Practice/green-social-and-sustainability-bonds/green-bond-principles-gbp/>

2. <https://www.climatebonds.net/standard/about>

3. A sub-2-degree world is one where the increase in global average temperature by the end of the century is kept below 2 degrees C above pre-industrial levels. The limit of 2 degrees global warming by 2100 is a threshold identified by scientists to limit the most severe impacts of climate change.

4. Please see section 5.6 for more information on external review

5. For example, investors have started to scrutinise at the background of the members of Selection Committees (or equivalent) in order to assess the robustness of the selection process. Specifically, investors will typically expect the Selection Committee to include members with either a science or engineering background who can apply a sound and scientific approach to the selection process.

6. Material changes are generally referred to as substantial changes that have affected the eligibility of the Nominated Projects and Assets. For instance, if a Green Building is purchased and the new landlord decides to alter some of the characteristics of the building such as level of insulation, removal of solar panels and so on, then the building might no longer meet the eligibility criteria established by the issuer and, hence, it might no longer be considered "green".

7. Issuers and other interested parties may check different examples by clicking on the following link: www.icmagroup.org/gssbresourcecentre

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