



Climate Bonds INITIATIVE



GREEN BONDS IN NIGERIA

*The Nigerian Green Bond Market
Development Programme Impact
Report* **2018 - 2021**



GREEN BONDS IN NIGERIA

*Catalysing Nigeria's Transition to
a Climate-Resilient, Inclusive and
Sustainable Economy*

Acknowledgment

The Nigerian Green Bond Market Development Programme's ("NGBMDP" or the "**Programme**") Impact Report is a joint product of Financial Sector Deepening ("**FSD**") Africa, Climate Bonds Initiative ("**CBI**") and FMDQ Group PLC ("**FMDQ Group**"). The Programme received support from private institutions and Ministries, Departments & Agencies of government that participated and supported the various activities, initiatives and events captured in this Impact Report. They include but are not limited to:

- Federal Ministry of Finance, Nigeria
- Federal Ministry of Environment, Nigeria
- Securities and Exchange Commission, Nigeria
- Debt Management Office, Nigeria
- Agosto & Co. Limited
- Debt Capital Market Development (DCMD) Project Sub-Committees
- Association of Issuing Houses of Nigeria
- World Bank Representatives from Abuja
- Access Bank PLC
- Infrastructure Credit Guarantee Company Limited (InfraCredit)

We would also like to appreciate the British High Commission for the support received over the past three (3) years of the Programme's operation in Nigeria. This includes the launch of the State of the Market Report in 2019 and various individual and inter-personal consultative meetings.

Foreword

Climate change is an existential threat to humanity. Global warming, reaching 1.5°C in the near-term, would cause unavoidable increases in multiple climate hazards and present multiple risks to ecosystems and humans. However, the temperature rises are already on track to increase by 2.7°C, far ahead of the Paris Agreement of limiting rises to 1.5°C. Nigeria is listed among the



Dr. Evans Osano
Director, Capital Markets
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top ten (10) most vulnerable countries to climate change globally.

The Intergovernmental Panel on Climate Change (IPCC) sixth assessment report¹ released in March 2022 paints two troubling pictures on the global climate change trajectory: first, global warming is increasing at a faster rate than we initially thought and second, its effects are proving more adverse at smaller temperature rises.

This demands for more concerted and urgent action from the global community. We cannot delay action, even as the worst security and humanitarian crisis in Europe following Russia's invasion in Ukraine has posed unprecedented challenges on the availability and cost of energy globally. Steeper reductions in emissions will be needed in future, as the window of opportunity to limit climate change rapidly closes behind. Investments into climate mitigation and adaptation must increase if we are to make any dent.

Nigeria has raised its ambition to cut emissions through its enhanced Nationally Determined Contributions (NDCs) pledging 20.00% emissions reductions below business as usual and a further 47.00% reductions conditional on receiving financial support, capacity building, and technology transfer. The estimated investment required to deliver the conditional target is US\$177.00 billion. The capital market in Nigeria is expected to play a critical role in raising long-term finance requirements to support climate resilient investments.

According to the Climate Policy Initiative, to meet our global climate objectives, by 2030 annual climate finance must increase by at least 550.00% to US\$4.35 trillion. This investment is needed for energy systems, agriculture, buildings, industry, transport, and other mitigation and adaptation solutions.

FSD Africa has been working with stakeholders across the continent to explore ways of unlocking sustainable investments in building a better and greener economy. We believe that the capital market is essential in mobilising private capital for sustained economic growth.

The Nigerian Green Bond Market Development Programme strategy presents an approach to accelerate the development of Green Bonds as a tool for Nigeria to broaden investment in green projects and assets. Some of the program's key features include regulatory support for the development of guidelines and listing requirements for Green Bonds, developing a pool of local Green Bonds licensed verifiers, training and supporting demonstration transactions.

Through the programme's support, ₦47.82 billion has been raised through the issuance of Green Bonds in Nigeria, over five hundred (500) capital markets professionals have been trained and five (5) green issuers have been provided technical assistance to support their issuances.

We at FSD Africa are committed to making finance work for Africa's future. By working with different partners, we can create well-tailored financial structures and programmes that address market gaps and, where necessary, crowd-in other partners in developing a sustainable economy.

We hope this report will provide more insight into the challenges and opportunities in the Nigerian Green Bond market and motivate stakeholders in taking actionable steps toward addressing climate change in Nigeria.

¹ IPCC (2022); Climate Change 2022 Impacts, Adaptation and Vulnerability Working Group II Contribution to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change

Executive Summary

This report documents a comprehensive overview of the Nigerian Green Bond Market Development Programme, with a focus on market capacity building, policy advisory and technical support for Green Bond issuance. The report provides a breakdown of the Programme's activities and how they have supported the use of Green Bonds in financing low carbon infrastructure.

The NGBMDP has successfully organised ten (10) capacity building sessions for Investors, Intermediaries, Regulators, Media, Solicitors, Rating Agency, State Executive Councils and Verifiers. Also, it has delivered five (5) focused trainings for Banks, the Securities and Exchange Commission, Nigeria (SEC), and National Pension Commission (PenCom), etc. The Programme has also assisted in the issuance of four (4) corporate green bonds and issuance/reporting of two (2) sovereign green bonds while supporting five (5) issuers with green bonds verification reports and post issuance impact reports.

As part of its market development and capacity building efforts, the NGBMDP provided support for the development of guidelines and listings requirements for Green Bonds in Nigeria by the SEC, and organised training sessions focused on developing a pool of local Green Bond licensed verifiers, issuers, investors and intermediaries.

The Programme is committed to accelerating the development of the Green Bond market in Nigeria and supporting broader debt capital markets reforms that impact green bond as a financing instrument for the transition to a climate resilience economy in Nigeria. The Programme has the overarching objective of developing a non-sovereign green bond market that will entrench the principles of sustainability into the Nigerian capital markets over the next three (3) years.

Table of Contents

Acknowledgement	2
Foreword	3
Executive Summary	4
The Global Rise of the Green Bond Market	6
Fig. 1: Trend of Nigeria's Top Foreign Currency Denominated Earnings in 2019	7
Fig. 2: Global Green Bond Issuance: 2015 – 2021	8
Benefits of Green Bonds	9
Fig. 3: Benefits of Green Bonds to Market Stakeholders	11
The Green Bond Principles	12
Climate Bonds Standard & Certification Scheme	13
Fig. 4: Process for Labelling a Green Bond Against CBI Standards	14
Nigeria's Green Bond Market	15
Fig. 5: Revised Nationally Determined Contributions (NDCs)	18
Fig 6: Key Opportunities in Nigeria's Transition to a Low Carbon Economy	20
Fig 7: Share of the Available Opportunities in the Nigerian Sustainable Finance Market	20
The Nigerian Green Bond Market Development Programme	21
Progress and Impact	22
Fig 8: Key Highlights of the Nigerian Green Bond Market Development Programme	24
Fig 9: Green Bonds Issued through the Nigerian Green Bond Market Development Programme	25
Programme Objectives and Workstreams	26
Workstream 1: Facilitate the Establishment and Development of a Green Bond Market	28
Workstream 2: Support the Development of Guidelines and Listing Requirements for Green Bonds	30
Workstream 3: Develop a Pool of Nigeria-Based Licenced Verifiers to Support Issuers	31
Workstream 4: Develop a Pipeline of Green Investments and Facilitate Engagement with Potential Investors	31
Workstream 5: Support Broader Debt Capital Markets Reforms that have an Impact on the Non-Government Bond Market in Nigeria	34
Call to Action: Challenges and Opportunities	35
Fig 10: Example of a Green Smart City	35
Launch of the FMDQ Green Exchange	36
Annex	39
Annex: List of Key Stakeholder Events Executed by the NGBMDP since its Inception	39

The Global Rise of the Green Bond Market

The concept of the Green Bond market is a simple one where the proceeds raised are dedicated to financing projects, assets, and expenditures with environmental and/or climate related benefits. For the most part, green bonds are no more complex in structure to vanilla bonds. It is this simplicity that has been the key to the success of the global Green Bond market. Green bonds mirror the same repayment structures as conventional bonds with clearly laid out performance metrics. The green bond market demand is part of a broader shift to finance an economy-wide transition to a low carbon economy in line with the goals of the Paris Agreement. It is noted that one hundred and ninety-seven (197) countries have endorsed the Paris Agreement on climate change, which calls for keeping the global temperature to 1.5°C above pre-industrial era levels². With data from the National Aeronautics and Space Administration (NASA) showing that global temperatures hit 1.0°C (decade average) above pre-industrial levels in 2020, Green Bonds seek to reduce this pressure on the environment by addressing green-house gas emissions, tackling pollution, minimising waste, and improving efficiency in the use of natural resources³.

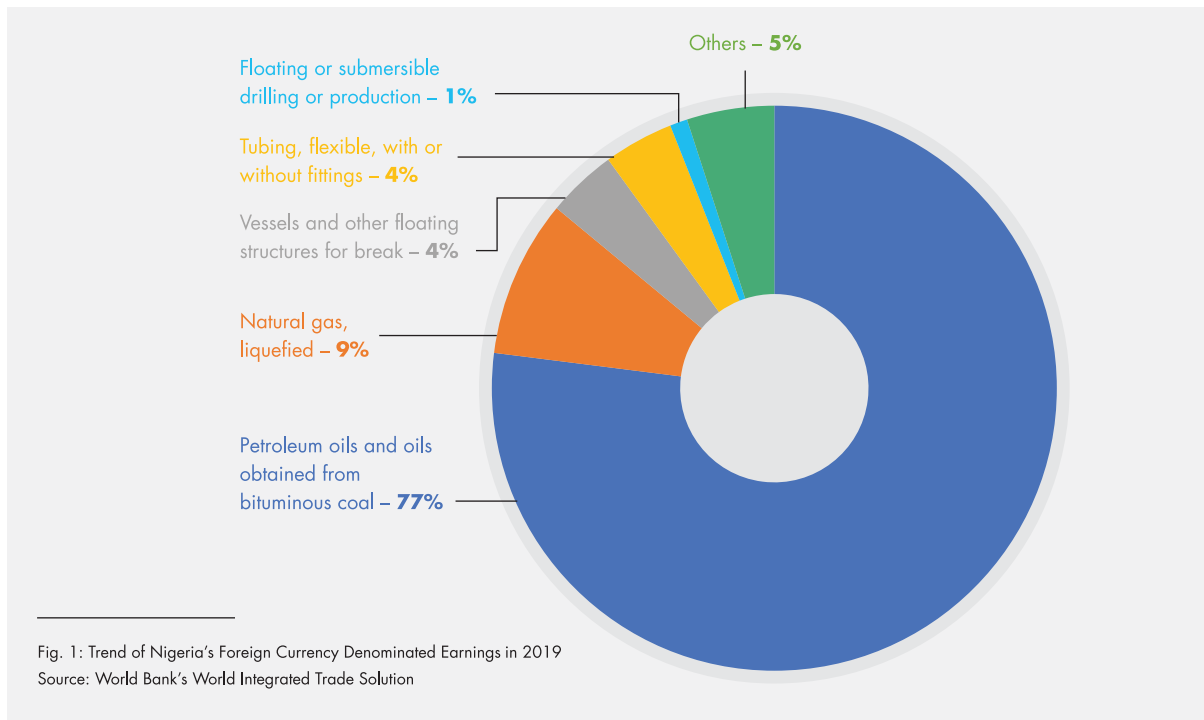
This will require huge allocations of capital to shift

away from stranded high carbon assets towards those aligned with zero carbon by 2050 even as investor sentiments are shifting away from new fossil fuel projects. Coal, in particular, is now viewed as a stranded asset with declining share prices of coal companies in the United States of America (USA) and attendant implication on shareholders returns, leading to some investors ruling out future direct investments in new coal projects. Gas, which was previously proposed as a transition fuel, is now increasingly viewed as high-emission due to the risks of methane leakage implying that projects of this nature may find it difficult to attract financing in the future. Over \$60.00 trillion is required to achieve the Paris Agreement from now until 2050. Climate change presents a US\$3.00 trillion investment opportunity in Africa by 2030 with 75.00% of the investments expected from the private sector. This has huge implications for fossil fuel dependent economies like Nigeria's, even as the country seeks massive investments to enable it exploit huge gas reserves currently viewed as being critical to solving the energy infrastructure crisis (**over 50% of the population – about 100 million people lack access to electricity**) and a major substitute for its current dependence on crude oil foreign exchange receipts.

² <https://unfccc.int/process/the-paris-agreement/status-of-ratification>

³ <https://climate.nasa.gov/causes/>

Trend of Nigeria's Top Foreign Currency Denominated Earnings in 2019



Nigeria had 203.16 trillion cubic feet (tcf) of proven gas reserves as of 2020, ranking 9th in the world⁴. Despite the fact that replacing small polluting diesel/petrol generators with clean, reliable gas-powered generators is imbedded in its National Determined Contributions (NDCs) as a transition pathway, Nigeria runs the risks of not attracting the level of funding critical to financing these projects in the future.

There has been a shifting focus pertaining to sustainability by investors as nearly 733 investors with \$52.00 trillion in Assets Under Management (AUM)⁵ under the umbrella of "The Investor Agenda", published a statement calling the world governments to achieve the Paris Agreement's Goals, accelerate private sector investment into low carbon transition and commit to improve

climate-related financial reporting. Investor's demand for green bond is getting stronger due to increasing evidence that "green" factors have a positive impact on long-term financial returns. The Green Bond market have provided a critical link between assets and financial instruments with a 'use of proceeds' (UoP) model whereby finance raised is directly linked to green assets to projects on the ground. The first green bond was issued by the European Investment Bank (EIB) in 2007 and named the Climate Awareness Bond "CAB". The global Green Bond market has grown exponentially in the last six (6) years in terms of both the number of issuers and cumulative amount issued, surpassing the \$1.50 trillion mark as of December 2021, despite the COVID-19 pandemic.

⁴ <https://www.thisdaylive.com/index.php/2020/06/04/dpr-nigerias-proven-gas-reserves-now-203-16tn-cubic-feet/>

⁵ <https://theinvestoragenda.org/press-releases/>

Green Bonds in \$'bn - 2021

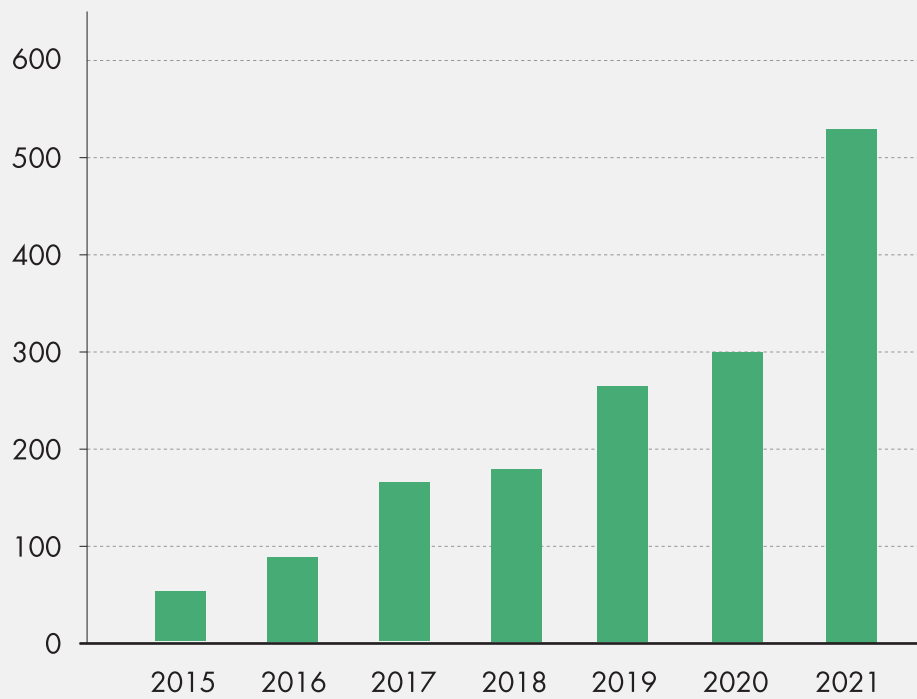


Fig. 2: Global Green Bonds Issuance: 2015 – 2021
Source: Climate Bonds Initiative – 2021



Benefits of Green Bonds



Fig. 3: Benefits of Green Bonds to Market Stakeholders	11
The Green Bond Principles	12
Climate Bonds Standard & Certification Scheme	13
Fig. 4: Process for Labelling a Green Bond Against CBI Standards	14

Benefits of Green Bonds

Green bonds are important because they are financial innovation securities designed to facilitate sustainable investing for institutional investors such as Pension Fund Administrators (PFAs), Insurance Companies and Funds/Asset Managers. Green bonds are viewed as being pivotal to the growth of sustainable infrastructure investments from institutional investors by improving the liquidity of infrastructure assets.

Green bonds have many benefits to various market stakeholders some of which are shown below:

Investor Benefits	Issuer Benefits	Systemic Benefits
<ul style="list-style-type: none"> ■ Comply with regulation ■ Invest in sustainable products and initiatives without taking on additional risk ■ Develop better-informed investment strategies ■ Broaden restricted investment portfolios 	<ul style="list-style-type: none"> ■ Increase investor demand and diversification ■ Improve relationships with debt providers ■ Strengthen issuers' leadership ■ Enhance issuers' reputation and brand value ■ Help communicate issuers' sustainability narrative and strategies ■ Boost integration between finance and sustainability teams 	<ul style="list-style-type: none"> ■ Stimulate positive stock market reaction and improvements in financial performance ■ Foster green innovations ■ Help transition towards low-carbon and resource-efficient economies ■ Contribute to public-private-partnerships development opportunities ■ Facilitate the implementation of climate policies

Fig. 3: Benefits of Green Bonds to Market Stakeholders
Source: Climate Bonds Initiative 2021

Green bonds present a unique opportunity for Nigeria to promote the 2030 Agenda and the seventeen (17) Sustainable Development Goals (SDGs) towards achieving a more sustainable future by diversifying its economy and providing institutional investors, such as insurance companies and PFAs, the opportunity to increase their investment exposure to Nigeria through sustainable projects and assets.

The Green Bond Principles

The Green Bond Principles ("GBP") are voluntary guidelines set out by the International Capital Markets Association (ICMA). They are intended to encourage transparency and disclosure and promote integrity to facilitate the development of the Green Bond market. The GBP are intended for broad use by the market: they provide issuers with guidance on the key components involved in launching a credible green bond; they aid investors by promoting the availability of information necessary to evaluate the environmental impact of their green bond investments; and they assist underwriters by moving the market towards expected disclosures that will facilitate transactions.

The GBP has four (4) core pillars:

1. Use of Proceeds

The cornerstone of a green bond is the utilisation of the proceeds of the bond for Green Projects, which should be appropriately described by the issuer in the bond transaction documentation. All designated Green Projects should provide clear environmental benefits, which will be assessed and, where feasible, quantified by the issuer.

In the event that all or a proportion of the proceeds are or may be used for refinancing, it is recommended that issuers provide an estimate of the share of financing vs. re-financing, and where appropriate, also clarify which investments or project portfolios may be refinanced.

2. Process for Project Evaluation and Selection

Issuers of green bonds should clearly communicate to investors:

- the environmental sustainability objectives
- the process by which the issuer determines how the projects fit within the eligible Green Projects categories (Climate Change Mitigation, Climate Change Adaptation, Natural Resource Conservation, Biodiversity Conservation, and Pollution Prevention and Control)
- the related eligibility criteria, including, if applicable, exclusion criteria or any other

process applied to identify and manage potential environmental and social risks associated with the projects

Issuers are encouraged to position this information within the context of the issuer's overarching objectives, strategy, policy and/or processes relating to environmental sustainability. Issuers are also encouraged to disclose any green standards or certifications referenced in project selection.

3. Management of Proceeds

The net proceeds of the green bond, or an amount equal to these net proceeds, should be credited to a sub-account, moved to a sub-portfolio or otherwise tracked by the issuer in an appropriate manner, and attested to by the issuer in a formal internal process linked to the issuer's lending and investment operations for Green Projects.

So long as the green bond is outstanding, the balance of the tracked net proceeds should be periodically adjusted to match allocations to eligible Green Projects made during that period. The issuer should make known to investors the intended types of temporary placement for the balance of unallocated net proceeds.



The GBP encourage a high level of transparency and recommend that an issuer's management of proceeds be supplemented by the use of an auditor, or other third party, to verify the internal tracking method and the allocation of funds from the green bond proceeds.

4. Reporting

Issuers should make, and keep, readily available up-to-date information on the use of proceeds to be renewed annually until full allocation, and on a timely basis in case of material developments. The annual report should include a list of the projects to which the green bond proceeds have been allocated, as well as a brief description of the projects and the amounts allocated, and their expected impact. Where confidentiality agreements, competitive considerations, or a large number of underlying projects limit the amount of detail that can be made available, the GBP recommend that information is presented in

generic terms or on an aggregated portfolio basis (e.g., percentage allocated to certain project categories).

Transparency is very important in communicating the expected impact of projects. The GBP recommend the use of qualitative performance indicators and, where feasible, quantitative performance measures (e.g., energy capacity, electricity generation, greenhouse gas emissions reduced/avoided, number of people provided with access to clean power, decrease in water use, reduction in the number of cars required, etc.), and disclosure of the key underlying methodology and/or assumptions used in the quantitative determination. Issuers with the ability to monitor achieved impacts are encouraged to include those in their regular reporting.

Climate Bonds Standard & Certification Scheme

The Climate Bonds Standard and Certification Scheme is a Fair-Trade-like labelling scheme for Green Bonds. The rigorous scientific criteria ensures that it is consistent with the 2°C warming limit in the goal of the Paris Climate Agreement. The Scheme is used globally by bond issuers, governments, and investors to prioritise investments which genuinely contribute to addressing climate change. The Climate Bonds Standard is fully aligned with the Green Bond Principles and the Green Loans Principles.

Many stakeholders see certification as the future for ensuring the integrity of the green bond market. The diagram below describes the process for getting a green labelled bond verified against the Climate Bonds Standard Certification Scheme.

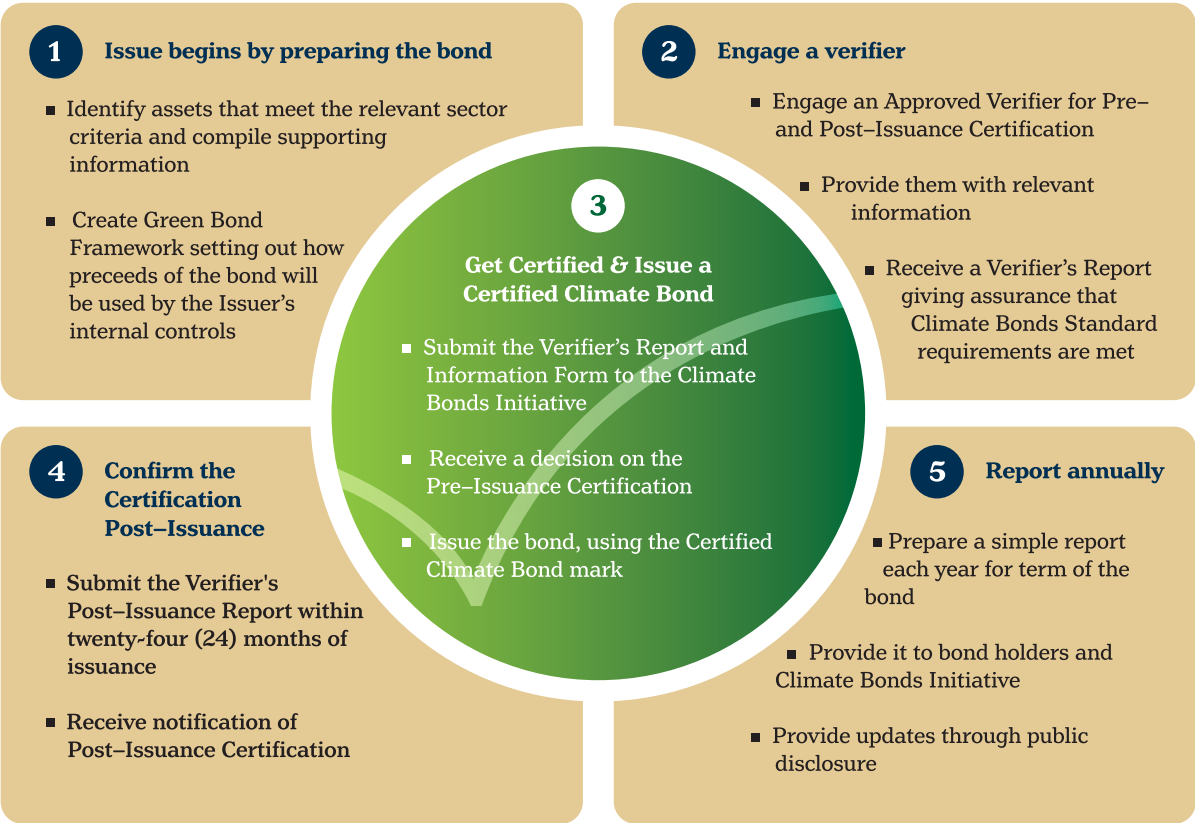


Fig. 4: Process for labelling a Green Bond against CBI Standards
Source: Climate Bonds Initiative - 2021



Nigeria's Green Bond Market



Nigeria's Green Bond Market	15
Fig. 5: Updated or new Nationally Determined Contributions (NDCs) submitted	18
Fig 6: Key Opportunities in Nigeria's Transition to Low Carbon Economy	20
Fig 7: Share of the Available Opportunities in the Nigerian Sustainable Finance Market	20
The Nigerian Green Bond Market Development Programme	21
Progress and Impact	22
Fig 8: Key Highlights of the Nigerian Green Bond Market Development Programme	24
Fig 9: Green Bond Issued through the Nigerian Green Bond Market Development Programme	25

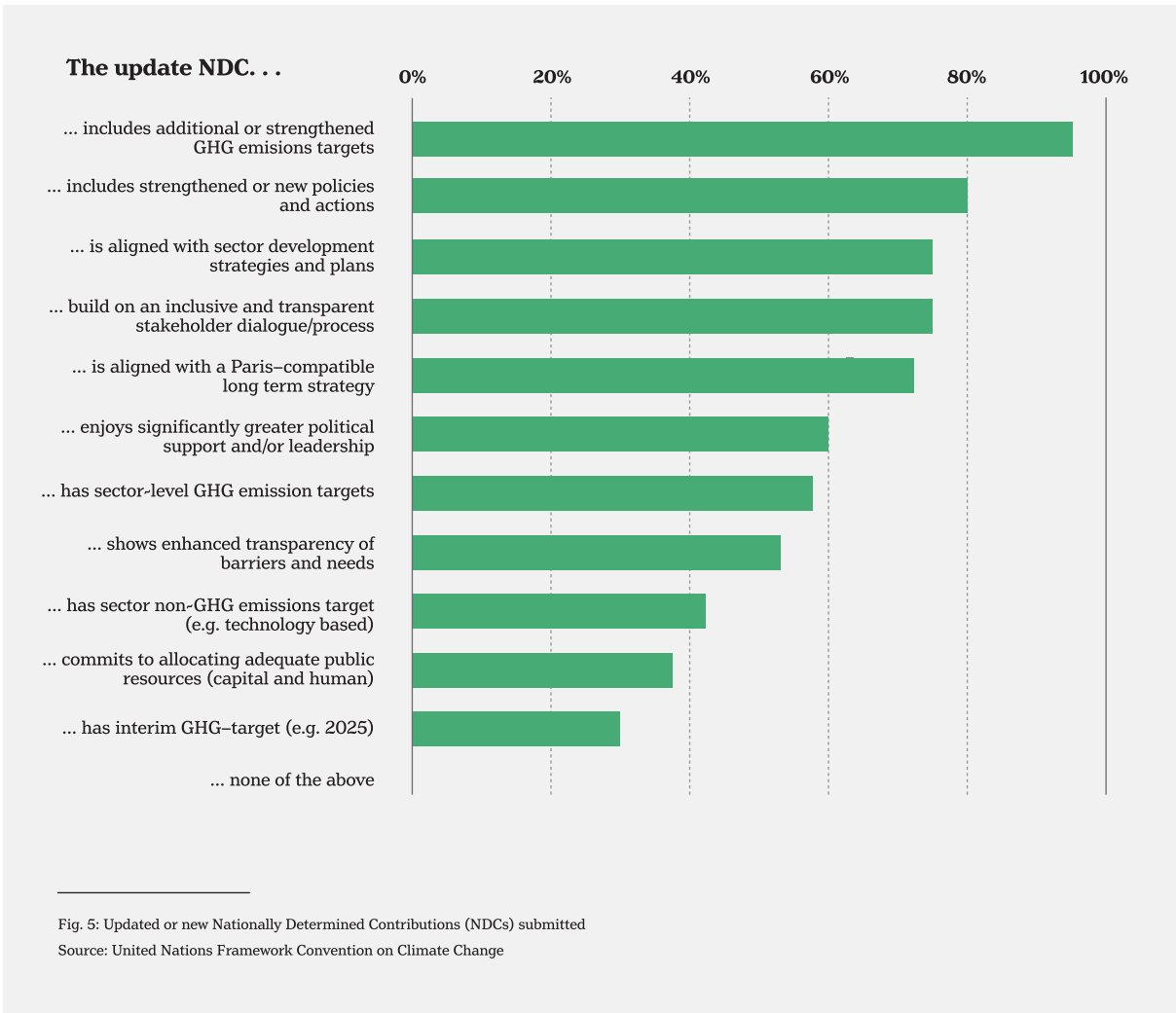
Nigeria's Green Bond Market

In December 2017, Nigeria issued its first sovereign green bond signalling the government's green intentions in meeting its Nationally Determined Contributions (NDCs) to reducing CO₂ emissions in line with the Paris Agreement. This was a watershed moment for the country as this was the first ever sovereign green bond certified against the Climate Bonds Standards and Certification Scheme⁶. The proceeds from the 5-year, ₦10.69bn demonstration green bond, issued with international support (World Bank, UNEP, Climate Bonds Initiative) in collaboration with the Federal Ministry of Finance, the Federal Ministry of Environment, and leading financial advisors from the Nigerian Capital Market, was used to finance renewable energy (Rooftop Solar) and afforestation projects.

⁶ The Climate Bonds Standard and Certification Scheme is a labelling scheme for bonds and loans. Rigorous scientific criteria ensure that bonds and loans with Certification, are consistent with the 2 degrees Celsius warming limit in the Paris Agreement. The Scheme is used globally by bond issuers, governments, investors and the financial markets to prioritise investments which genuinely contribute to addressing climate change.



How is the new NDC an improvement from its previous one? (n=60)



Nigeria, Africa's largest economy with a population size currently estimated at above 200 million people and an average age of 19.70 years, is predicted to grow to more than 450 million people by 2050. The disruptive impacts of climate change on the various Nigerian communities have accelerated more in recent years than ever experienced previously. Increased heat, droughts and insect outbreaks, all linked to climate change have increased wildfires and disrupted rural communities. In addition, the country has seen reduced agricultural yields as a result of declining water supplies, negative health impacts in cities due to heat, flooding and erosion in low lying coastal areas. These factors have subsequently resulted in mass migration from affected states upcountry to cities like Lagos, etc. thereby increasing security challenges, proliferation of urban slums, demand for scarce energy resources, exerting additional pressure on existing infrastructure and worsening city congestion problems.

There is an urgent need for the government to industrialise and create jobs for an ever-growing population albeit without the heavy emissions profile that was common to the industrialisation of China, India, and some countries in Europe. Tapping into Nigeria's vast renewable energy resources, such as solar and wind, can help bridge the energy gap as well as contribute immensely

towards climate change adaptation whilst unlocking income opportunities for its people.

Nigeria has a huge opportunity to be the first oil and gas-based economy in Africa to make a successful transition to a low-carbon economy particularly in the energy sector. Today, 85 million Nigerians do not have access to grid electricity. This represents 43.00% percent of the country's population and makes Nigeria the country with the largest energy access deficit in the world⁷. Considering the size of the country's GDP, electricity generation from the grid should be at least four to five times higher than the current reality. However, with only about 25.00% of Nigeria's installed capacity reaching the end user, the current situation provides massive opportunities for patient funds seeking to invest in low-carbon energy solutions.

Given the linkages between poverty and the agricultural sector, it is anticipated that adverse impacts of climate change on agriculture will exacerbate the incidence of rural poverty. Changing weather patterns (unpredictable rainfalls, increased droughts and flooding) over the years that could lead to reduced productivity and threaten the nation's food security, present massive opportunities for investment in sustainable agriculture.

⁷ <https://www.worldbank.org/en/news/press-release/2021/02/05/nigeria-to-improve-electricity-access-and-services-to-citizens>

Key Opportunities in Nigeria's Transition to Low Carbon Economy

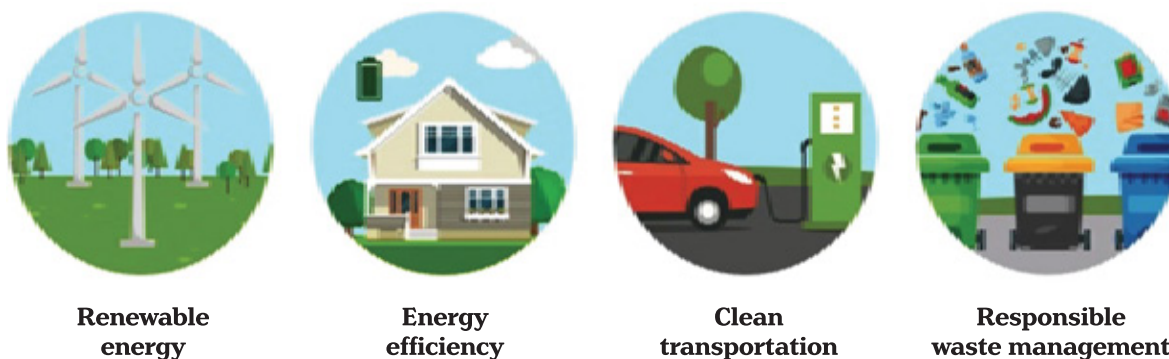


Fig 6: Key Opportunities in Nigeria's Transition to Low Carbon Economy
Source: CBI

Share of the Available Opportunities in the Nigerian Sustainable Finance Market

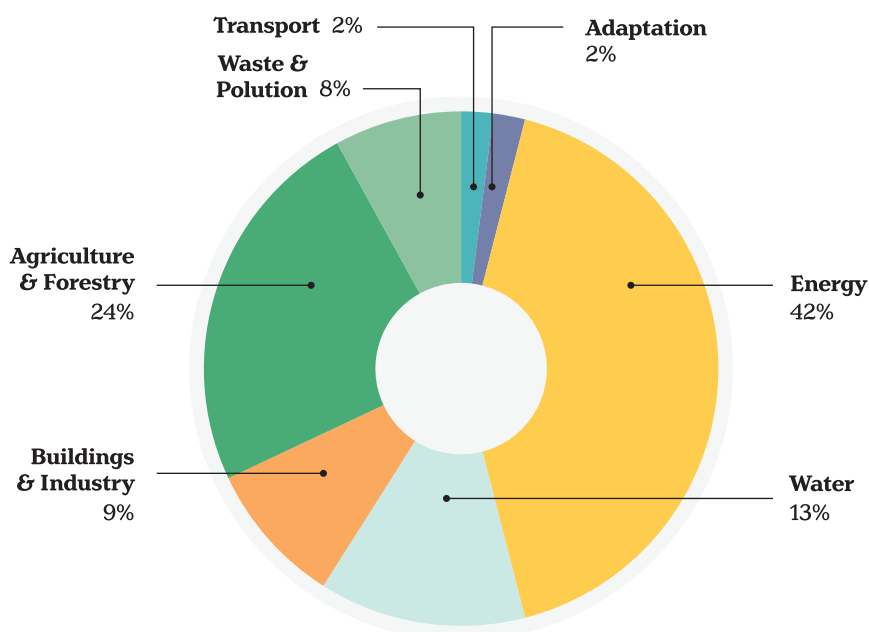


Fig 7: Share of the Available Opportunities in the Nigerian Sustainable Finance Market
Source: Nigeria Sustainable Finance Roadmap 2018

The Nigerian Green Bond Market Development Programme

In March 2018, the parties to the Nigerian Green Bond Market Development Programme signed a "Co-operation Agreement" to develop a corporate and non-sovereign Green Bond programme for the Nigerian market. This section reviews the performance of the Programme and how its objectives have been delivered. It assesses the impact of the Programme in driving the adoption of green and sustainable finance and the opportunities for future growth of green bond issuance through capital markets

Nigeria's Green Bond Market is in a nascent state. However, given the unique global role of green bonds in financing climate and environmental projects, advocates of green finance and sustainable investments within the capital market sought to replicate and entrench the role of sustainability in Nigeria's economic growth. In December 2017, the Federal Government of Nigeria issued its inaugural sovereign green bond, making this the first sovereign green bond to be certified against the 'use of proceeds' criteria of the Climate Bonds Standard. The proceeds from the 5-year ₦10.69bn inaugural green bond issuance were used to finance forestry and solar energy projects as part of efforts to meet its Nationally Determined Contributions under the Paris Agreement as well as catalyse private sector investment to financing sustainable opportunities and low-carbon projects.

Following a series of feasibility studies on establishing a Green Bond market, FMDQ Group, CBI and FSD Africa formalised a partnership through the execution of a three-year Cooperation Agreement to support the development of the Nigerian Green Bond Market Development Programme. This was officially launched in June 2018, at a three-day conference in Lagos where local and international green finance stakeholders gathered to discuss the impact of climate risk on investment portfolios, the role for the regulator in developing the local market and a better understanding of the opportunity for Green Bond in Nigeria.

Implementing Parties of the Programme

FMDQ Group is Africa's first vertically integrated financial market infrastructure group, strategically positioned to provide registration, listing, quotation and noting services; integrated trading, clearing & central counterparty, settlement, and risk management for financial market transactions; depository of securities, as well as data and information services, across the debt capital, foreign exchange, derivatives and equity markets. FMDQ Group serves as the secretariat of the Programme and the appointed project manager that oversees the implementing activities, convenes meetings, organises workshops, and provides administrative coordination of events.

Climate Bonds Initiative is an investor-focused, not-for-profit international organisation whose mandate is to solely mobilise the \$100.00 trillion bond market, for climate change solutions. CBI served as the lead consultant of the Programme, charged with the provision of technical support to accelerate the uptake of the Green Bond as a tool for Nigeria to tap into the international and domestic capital markets.

FSD Africa is a specialist development agency working to help make finance work for Africa's future. 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.

It uses funding, research and technical expertise to identify market failures, and strengthen the capacity of its partners to improve access to financial services and drive economic growth. FSD Africa is actively supporting the development of capital markets in Africa, given their central role in channelling investment and driving economic growth and their ability to galvanise entire financial systems, e.g., by making long-term capital more accessible, with significant consequences for broad financial inclusion.



Progress and Impact

At the beginning of 2018, Nigeria was just recovering from the economic impact of the deepest recession in two (2) decades, which was triggered by low global oil prices and falling domestic outputs. Crude oil accounted for 90.00% of foreign currency earnings and nearly 70.00% of the government's income. By implication, the dependence on oil revenue to finance national development made the Nigerian economy highly susceptible to oil price volatility and financing critical infrastructure a major challenge. The Nigerian Green Bond Market Development Programme was launched at a time when arguments for economic diversification had taken centre stage and most African countries were seeking to align their economies to take advantage of opportunities within the green finance space.

Over the last three (3) years, the Programme has made considerable strides towards developing the market and supporting green bond issuances at both sovereign and corporate levels in Nigeria. Some of the Programme's main achievements are summarised below.

Key Highlights



Fig 8: Key Highlights of the Nigerian Green Bond Market Development Programme
Source: NGBMDP

Green Bonds Issued through the Nigerian Green Bond Market Development Programme

S/N	Year	Amount (₦.bn)	Tenor (Years)	Green Bond Issuer	Use of Proceeds
1	2019	8.50	8.50	North South Power Company Limited	Acquisition of 30MW Gurara Hydropower Plant, Kaduna
					Rehabilitation of overhead cranes and System/Control Upgrades
2	2019	15.00	5	Access Bank PLC	Flood Defence in Victoria Island, Lagos
					Solar Energy generation in Lagos Metropolitan areas including (Ojo, Magodo, Ikeja, Ikoyi and Ajah), Enugu, Jos, Port Harcourt and Abuja
3	2019	15.00	7	Federal Government of Nigeria	Construction of 10MW Katsina Wind Farm
					Construction of 0.6MW Solar Mini Grids
					12.5MW Rural Electrification Agency (REA) Energise Education
					Afforestation/Reforestation in nine (9) states and Federal Capital Territory
					Establishment of Acacia Senegal Plantation in the frontline states
					Establishment of woodlots in the arid zone
					Restoration of degraded areas in various National Parks
					National Afforestation Programme
Dry lands restoration through massive afforestation					
4	2021	6.32	10	North South Power Company Limited	Development of the 15MW Pre-Phase 1 Solar Project and the transmission evacuation infrastructure for North South Power Company's solar project
5	2021	3.00	7	OneWattSolar Limited	Provision of solar as a service for corporate clients

This does not show the Federal Government's ₦10.69bn bond issued before the Programme commenced

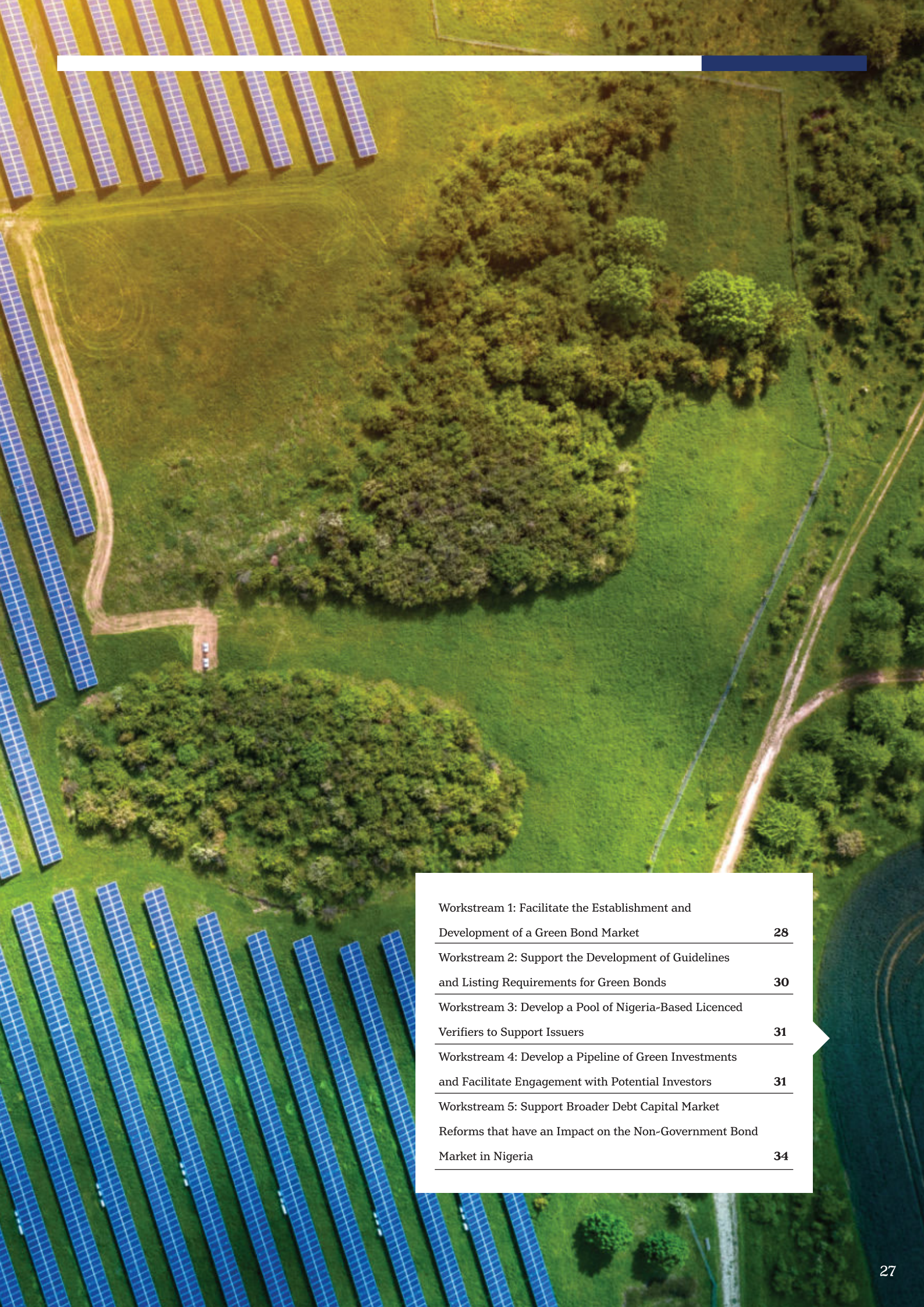
Fig 9: Green Bonds Issued through the Nigerian Green Bond Market Development Programme
 Source: Access Bank PLC 2018 and 2019 Impact Report, Federal Government of Nigeria Impact Report, North South Power Company Limited 2019 Impact Report, and conversations with North South Power Company Limited and OneWattSolar Limited



Programme Objectives and Workstreams

In developing the corporate and non-sovereign Green Bond market, the partners of the Programme implemented five (5) key strategic workstreams:

1. Facilitate the establishment and development of a Green Bond market
2. Support the development of guidelines and listing requirements for Green Bonds
3. Develop a pool of Nigeria-based licensed verifiers to support issuers
4. Develop a pipeline of green investments and facilitate engagement with potential investors
5. Support broader debt capital markets reforms that have an impact on the non-government bond market in Nigeria



Workstream 1: Facilitate the Establishment and Development of a Green Bond Market	28
Workstream 2: Support the Development of Guidelines and Listing Requirements for Green Bonds	30
Workstream 3: Develop a Pool of Nigeria-Based Licenced Verifiers to Support Issuers	31
Workstream 4: Develop a Pipeline of Green Investments and Facilitate Engagement with Potential Investors	31
Workstream 5: Support Broader Debt Capital Market Reforms that have an Impact on the Non-Government Bond Market in Nigeria	34

Workstream 1: Facilitate the Establishment and Development of a Green Bond Market



The launch of the Nigerian Green Bond Market Development Programme was one of the major market education events that took place during the Green Bond Week in June 2018. The events of the week saw both local and international green finance stakeholders gather in Nigeria's largest city, Lagos, to discuss the impact of climate risk on investment portfolios, the role for regulators in developing the local market and a better understanding on the opportunity for Green Bonds in Nigeria. The key activities of the **Green Bond Week** included rolling out a "Green Bond Bootcamp" and a series of deep-dive training sessions. These were aimed at demystifying the concept of Green Bonds as an alternative financing instrument by creating awareness and driving education amongst capital market operators and regulators to pave the way for integrating the principles of green financing into the Nigerian debt capital markets. The focused roundtable events which culminated into a plenary on the final day where the Programme was officially launched with over two hundred (200) participants from government, ministries, agencies, regulators and key market stakeholders in attendance.

Market education and capacity building sessions have been the main market development tools for driving awareness and the adoption of green finance in Nigeria. Over the last three (3) years, the Programme has executed fifteen (15) green bond capacity building sessions, reaching over eight hundred and eighty (880) key market operators including over one hundred (100)

delegates from the Securities and Exchange Commission, Nigeria. The Programme also published a State of the Market Report in 2019 as a critical communication tool to track the market's performance of Green Bonds.

"Climate change is a global issue and Africa is already suffering the from its effects – from flooding during excessive rainfalls to the recent cyclones. It is therefore imperative to attract private capital towards Environment, Social and Governance-aligned and resilient projects. The Nigerian Green Bond Market Development Programme has exerted commendable efforts in capacity building among key stakeholders in a bid to drive the paradigm shift towards green and sustainable finance".

– Dr. Olubunmi Peters, Executive Vice Chairman/CEO, North South Power Company Limited

Climate risk is a "Transverse Risk" that is not a risk in its own right but one that can be translated into multiple categories (e.g. as credit risk, operational risk, reputational risk, etc.). Therefore, firms can use current risks frameworks to begin to assess the impact of climate risks. The Programme introduced green bonds to market participants as a risk mitigating tool, which helps strengthen the internal procedures and financial controls of companies/organisations through the Green Bond Principles (GBP) and the Climate Bonds Standards.

Workstream 2: Support the Development of Guidelines and Listing Requirements for Green Bonds

The growth and development of the global Green Bond market has been driven by a set of voluntary guidelines and standards, relying on independent verification by issuers. However, regulators in some markets such as the European Union (EU) are increasingly insisting on the mandatory application of the taxonomies for issuers as the market grows. In Nigeria, requirements for the issuance of green bonds falls under the regulatory oversight of the SEC.

Working with Climate Bonds Initiative, the SEC drafted and published the domestic Rules (Nigeria Green Bond Guidelines) for issuing green bonds in December 2018. Green bonds are subject to the same issuing rules as vanilla bonds but with the additional requirements for green labelling and reporting. Unlike the Green Bond Principles, the Nigerian Green Bond Guidelines are mandatory for all green bonds issued in the Nigerian Capital Market.

"The Programme's capacity building effort was critical in finalising the Commission's Rules on Green Bonds and provided critical information for issuers and other stakeholders that facilitated sovereign and corporate issues"

– Dr. Momodu Oamegbe, Head of Strategy, Securities and Exchange Commission, Nigeria

In September 2018, the Programme successfully executed a 2-day focused training workshop aimed at expanding the knowledge of green bonds for capital market regulators and key agencies responsible for developing environmental and climate mitigation and adaptation policies that aided the issuance of sovereign Green Bonds. Participants for the workshop were drawn from the National Pension Commission, Central Bank of Nigeria, Financial Sector Strategy 2020, Debt Management Office, Nigeria, Federal Ministry of Finance, Nigeria, Federal Ministry of Environment, Nigeria, and the Office of the Accountant General of the Federation.

Given the importance of disclosure and transparency in the green bond pre/post issuance process, in addition to the support provided to the SEC, the Programme organised and facilitated a focused training workshop in July 2019 on Reporting Compliance to the Compliance and Examination Departments of the FMDQ Securities Exchange Limited and the Nigerian Exchange Limited. The workshop was aimed at strengthening the internal capabilities of the functions within the Exchanges responsible for ensuring that post-issuance reporting requirements for listed green bonds comply with global standards.

Workstream 3: Develop a Pool of Nigeria-Based Licenced Verifiers to Support Issuers

The associated verification costs of labelling green bond varies depending on the "Use of Proceeds" and complexity of the assets being financed. These costs are potentially higher if the verification process is undertaken by a foreign firm. To this end, the Programme was charged with the task of developing a pool of Nigerian-based licenced verifiers to support domestic issuers of Green Bonds. The Programme developed and executed two (2) training workshops for potential verifiers focused on green asset identification in line with the Climate Bonds Standard and Certification Scheme.

"The Nigerian Green Bond program has deepened the capital market in the West Africa corridor. The verification (assurance) provided as part of the certification process gives investors' confidence in the viability of sustainable projects to deliver financial returns as well as ESG benefits moving us towards a net-zero emission future."

– Mr. Joseph Owolabi, Chief Executive Officer, Rubicola Consulting Limited

The first training session took place in July 2019 while the second session took place in March 2021. Following the training sessions, Rubicola Consulting Limited was approved as a CBI verifier and Agosto & Co. Limited has also been approved as a local verifier.

Workstream 4: Develop a Pipeline of Green Investments and Facilitate Engagement with Potential Investors

Potential Issuers:

Private Sector

Aside from South Africa where there have been a few issuances, the rate of corporate green bond issuance in Africa has generally been low. In February 2019, North South Power Company became the first Nigerian corporate to issue a labelled green bond, whilst in March 2019, Access Bank PLC became the first African corporate to issue a Green Bond certified against the Climate Bonds Standard, having benefited from the Nigerian Green Bond Market Development Programme's technical assistance.

"Access Bank PLC has been on its sustainability journey for about 13 years, with a deliberate strategy to ensure that we help build a truly sustainable society. Part of our efforts naturally led to our work with the Nigerian Green Bond Market Development Programme and subsequently the issuance of Access Bank's CBI-certified Green Bond in 2019 – the first such certified corporate green bond in Africa. The green bond issuance is a true reflection of our sustainability commitment and a demonstration of our willingness and capacity to lead in fostering the creation of sustainable growth and development paths for Nigeria, and for all markets in which we operate. The work done with and through the

Nigerian Green Bond Market Development Program is laudable and will help guide policymakers, nudge markets, and accelerate the transition towards sustainability best practices while providing support for new issuers and assurance to investors".

– Dr. Gregory Jobome, Executive Director, Risk Management, Access Bank PLC

The Programme has since organised and facilitated a number of focused training sessions and bi-lateral meetings for potential private issuers in the banking, agricultural and automobile sectors looking to follow in the steps of the two green issuers. The participants in the banking sector include Zenith Bank PLC, Sterling Bank PLC, First City Monument Bank PLC, Wema Bank PLC, Stanbic IBTC Bank PLC, and Access Bank PLC. Also benefiting from the technical support were Kaduna Electricity Distribution Company in the power sector and Peugeot in the automobile sector that attended focused online meetings in July 2020.

The first half of 2021 has seen some development in the green finance space, North South Power Company Limited through its special purpose vehicle – NSP-SPV PowerCorp has issued the 2nd tranche of its Green Bonds programme, a ₦6.32 billion offer at 12.00% to finance a solar generated power plant. The bond was independently verified by TUV Nord using the Programme's technical assistance and certified against the Climate Bonds Standard.

"Our experience in raising Green Bonds has been very positive as it gives an additional sense of mission for employees and signals to investors our underlying and enduring values to be a socially conscious company... Amazingly, our bond was oversubscribed, and the ability to exercise the "greenshoe" option increased it from ₦5.50 billion to ₦6.32 billion".

– Kolapo Joseph, General Manager - Corporate Finance and Corporate Development, North South Power Company Limited

Another issuance to benefit from the Programme's technical assistance is a ₦3.00 billion bond from One-Watt Solar Limited to finance PV Solar installations. The Company intends to deploy and provide solar energy as a service to commercial banks, telcos base towers and residential estates. This will require installing up to seven hundred and fifty (750) standalone off-grid solar systems to varied outlets belonging to the above identified clients. The Company has secured off-take agreements from some of the clients in this respect.

The cost of the above project is estimated at ₦6.00 billion. With a 20.00% equity contribution (₦1.00 billion) from the Company, the Company intends to raise the balance of ₦5.00 billion from the debt capital market and has approached Comercio Partners Capital Limited in that respect. The funding will be raised in two (2) series, with the first series raising ₦3.00 billion with a preferred tenor of up to 10 years. This will be privately noted on FMDQ Private Markets Limited.

Collaboration with the Public Sector

Over the last three (3) years, the Programme has worked closely with the Federal Ministry of Finance, Nigeria and the Federal Ministry of Environment, Nigeria through focused capacity building training workshops, close briefing sessions, and technical assistance to build internal structures for issuing green bonds and aligning the green bond reporting process with global standards. The Programme provided technical support for the issuance of both the first and second Sovereign Green Bond in 2017 and 2019, respectively. The Programme supported the CBI certification of the first green bond and the post-issuance Report on the first Sovereign Green Bond through TUV Nord, a German consulting firm. The Programme also supported the assurance and post-issuance assurance of the second sovereign bond through TUV Nord. The Programme is currently working with the

Department of Climate Change of the Ministry of Environment, Nigeria to constitute an Inter-Ministerial Climate Advisory Committee to develop a pipeline of green and climate-aligned projects that can be financed through a green bond programme.

Since June 2020, the Programme has engaged with the Executives of the following sub-nationals (Oyo State, Akwa Ibom State and Lagos State), to explore opportunities for the issuance of Green Bonds that will finance critical infrastructure through the domestic capital markets.

Investors and Financial Intermediaries

In October 2018, the Programme delivered capacity building and training to educate the buy-side community on the importance of diversifying their portfolios and the need to incorporate Environment, Social and Governance (ESG) principles into their investment decisions. These were reviewed from two-dimensional risk and return analysis to a three-dimensional risk, return and impact analysis. The training focused on the information in the Green Bonds Framework as a useful tool for decision-making, the importance of independent verification processes and the impact of climate risk on their investment portfolios.

In March 2019, the Programme facilitated the

Series II Investors' Capacity Building session targeted at the Pension Fund Administrators, Pension Fund Custodians, Infrastructure Credit Guarantee Company, African Local Currency Bonds Funds, Development Bank of Nigeria, etc., about market awareness of green investment and risk of portfolio concentration in fossil fuel assets. In addition, the Programme organised and facilitated a Masterclass on Green Bonds for Capital Market Intermediaries targeted at the Credit Rating Agencies, Solicitors, Accounting Firms, Issuing Houses and Investment Banks in July 2019.

One of the shared experiences on how securities regulators support the Sustainable Development Goals (SDGs) and strengthen corporate governance is to clarify investor duties on sustainability and provide a guide on the integration of sustainability into their investment decisions. In support of this objective, the Programme facilitated a focused training session for key staff of the National Pension Commission (PenCom), the investors' regulator.

Workstream 5: Support Broader Debt Capital Market Reforms that have an Impact on the Non-Government Bond Market in Nigeria

The Nigerian Green Bond Market Development Programme has become a catalyst for other development agencies in leveraging their resources for breaking market barriers and developing green financing opportunities:

- In January 2019, the Programme engaged with the Climate Finance Accelerator (CFA), a new programme funded by the UK Government through the Department of Business, Energy & Industrial Strategy (BEIS), that provides technical assistance to low-carbon project developers to access finance at scale. The aim of the Programme is to encourage the flows of finance required to deliver on countries' ambition to limit global warming to 1.5°C
- In February 2020, the Programme supported the 'Financial Centre for Sustainability, Lagos (FC4SL)'s Green Tagging Project, which is aimed at exploring the banking sector's level of exposure to green assets
- In August 2020, the Programme also partnered with the FC4SL to organise a focused Green Bond Roundtable for the Executive Council of Lagos State

By partnering with programmes with complimentary objectives, the NGBMDP is able to extend its impact beyond its initial mandate.

Call to Action: Challenges and Opportunities



Fig 10: Example of a Green Smart City

Source: <https://greenplinthafrika.com/portfolio-item/green-smart-cities/>

As a direct result of the Nigerian Green Bond Market Development Programme's advocacy on climate change, key stakeholders in Nigeria, especially financial institutions, have become more aware of the climate-related financial risks associated with their business due to the exposure of their 'loan book' portfolio to high polluting sectors such as oil and gas. On the flip side, there are ample opportunities for green financing in several sectors of the Nigerian economy, ranging from power and energy to agriculture, housing, and transportation, amongst others. The NGBMDP has provided a framework on green finance to support the private sector in mainstreaming sustainability into finance and investment opportunities.

On the part of the regulators, in addition to the SEC Rules on green issuance, the Nigerian Exchange Limited (NGX) also published its guidelines to encourage good corporate governance and transparency among companies or issuers listed on the NGX. In addition to these, the Financial Services Regulation Coordinating Committee recently released the Nigeria Sustainable Finance Principles which emphasises regular reporting and disclosures by all regulated companies on Environmental, Social And Governance Principles (ESG) issues.

Launch of the FMDQ Green Exchange



Another key success is the support the Programme provided to FMDQ Group on the launch of the Green Exchange in November 2021. FMDQ Green Exchange is an information platform dedicated to promoting transparency, good governance, and the growth of Green and Sustainable Finance in the Nigerian financial markets by showcasing sustainability-linked capital raising activities (securities issuances) that align with global ESG.

In the spirit of continuous improvement, FMDQ Group as the local partner continues to educate capital market intermediaries and issuers on the importance of the ESG Impact Reports and disclosures through the utilisation of the United Nations (UN) Sustainable Development Goals (SDGs), which is used to identify sustainability issues and demonstrate the company's contribution to the global initiative.

FMDQ Group periodically monitors the issuances and, on an annual basis, requests the submission of the issuers' Impact Reports and Independent Assurance Reports. Additionally, issuers of corporate green bonds are also required to render a Quarterly Compliance Report (within ten (10) business days of the end of each quarter). Issuers are also obligated to provide updated Issue/Issuer Rating Reports, as may be required from time to time. These disclosures are published on the FMDQ Securities Exchange Limited website.

The issuers fulfil these requirements through their sponsors to list these securities, which are Members of FMDQ Securities Exchange Limited ("FMDQ Exchange") under the Registration Member (Listings) category. To support the compliance efforts of the Registration Members, in the next phase of the NGBMDP partnership, the NGBMDP will support the development of a Registration Member Toolkit that will provide additional guidance on disclosure/notification obligations and serve as a handbook.

In addition, FMDQ Exchange periodically conducts regulatory update sessions for Members of the Exchange to provide relevant information to guide the optimal performance of Member-compliance related activities within FMDQ Exchange's markets.

"Green Bonds have become bright additions to the toolsets available for investors concerned about the environment, society, and governance as Nigeria's capital market has risen to the challenge by providing a number of 'green' instruments courtesy of supportive regulation by the SEC Nigeria and the capacity building interventions of the Nigerian Green Bond Programme... The SEC, FMDQ Group, NGX and DMO need to be congratulated on the collaboration that has made the new debt instruments poster-boys for the possibilities in the capital market."

- Ms. Mary Uduk, former Ag. Director General, Securities and Exchange Commission Nigeria

The impacts of COVID-19 have accelerated the need for economic diversification, making Nigeria poised for a green infrastructure finance revolution. However, to create a dynamic green finance market in Nigeria, there is a need to diversify the pool of innovative financing solutions in the financial sector, particularly in the banking sector. This presents an opportunity for the Central Bank of Nigeria to push policies that encourage banks to provide green credit, especially to Micro, Small and Medium Enterprises (MSMEs), as a strategy for developing the market for green finance. This could be in the form of regulation that mandates banks and other financial institutions to set aside a certain percentage of their loan portfolio for green investments or to finance environmentally aligned projects.

Though Nigeria is growing from a recent zero base, its Green Bond market is still in its infancy. A large percentage of sustainable financing is still being done by the public sector. The proportion of private

⁷ <http://www.financialnigeria.com/developing-green-investment-market-in-nigeria-blog-566.html#:~:text=Green%20finance%20is%20growing%20from%20a%20recent%20zero,energy%20to%20agriculture%2C%20transportation%2C%20housing%2C%20manufacturing%2C%20among%20others>

sector financing needs to drastically increase in the future, given the constraints on the government's balance sheet. However, to realise the opportunities for private sustainable finance in Nigeria, current financial capital allocation patterns will need to shift. The volume of capital invested in polluting and environmentally damaging activities will need to decrease whilst allocations to low-carbon activities with sustainable benefits will have to increase.

For the NGBMDP's advocacy to be more impactful on the Nigerian economy and produce the desired levels of private sector issuance and green investments, it must:

- connect directly with representatives of the Ministries, Departments & Agencies (MDAs) of government responsible for developing the pipeline of green projects for the sovereign issuance. The absence of a large pipeline of green or sustainable projects despite the demand is a clear gap that needs to be addressed to facilitate coordination and capacity between the ministries
- educate more potential issuers on the benefits of labelling and financing green projects especially where the extra efforts and marginal added costs do not immediately translate into a pricing benefit
- work with Development Finance Institutions (DFIs) and the Central Bank of Nigeria to inject concessional capital into the system to reduce the costs of funding for local banks
- encourage the banks to focus on green bonds as a risk management tool for 'greening' the loan book and mitigating future exposure to potential stranded assets by reducing capital allocation to 'brown assets' using portfolio reviews

- support for risk management mechanisms, such as guarantee structures, FX⁹ hedging, aggregation structures for small projects, and microloan products that can stimulate private sector participation
- collaborate with the regulators and Exchanges to periodically mandate the disclosure and transparency of carbon footprints as a prerequisite for access to green finance, and/or encourage innovative financial products through incentives
- establish or support a project preparation facility such as the Climate Finance Accelerator (CFA) to catalyse early-stage projects and small local developers to scale to a size that is commercially bankable and attractive to institutional investors
- provide technical assistance and capacity building for renewable energy projects (off-grid and grid connected) and develop more technical specialised knowledge of sustainable farming practices, including adopting climate smart agriculture (CSA) practices

In conclusion, aside from Green Bonds, other innovative financing solutions will need to be created to finance the transition to a low-carbon economy. These include green loans, green commercial papers and sustainability-linked instruments. Green financing instruments are a necessity if Nigeria is to meet its commitment to the global agenda for sustainable finance for its own long-term economic resilience.

⁹ Foreign Exchange

Annex

Annex: List of Key Stakeholder Events Executed by the NGBMDP since its Inception

In the period between June 2018 to June 2021, a total of nine hundred and twenty-eight (928) stakeholders attended meetings, focused briefings sessions and training workshops organised by the NGBMDP.

Event Title	Date	Number of Attendees
The Nigerian Green Week <ul style="list-style-type: none"> ▪ Series I Regulators Bootcamp (32) ▪ Intermediaries Roundtable (50) ▪ Investors Roundtable (60) ▪ Issuers Roundtable (30) ▪ Formal Launch (104) 	Jun. 4 - 7, 2018	276
Focused Training for Staff of Access Bank PLC	Sep 25, 2018	20
Series 2 Regulators Bootcamp	Sep. 25-26, 2018	25
Focused Training for Staff of Sterling Bank PLC	Sep. 27, 2018	12
Series I Investors' Capacity Building Session	Oct. 22, 2018	43
Focused Training for Securities and Exchange Commission	Oct. 24-25, 2018	100
Series II Investors' Capacity Building Session	Mar. 21, 2019	69
Engagement Workshop for the Media Community	May 30, 2019	42
Masterclass for Capital Markets Intermediaries	Jul. 25, 2019	46
Focused Training Session for Securities Exchanges	Jul. 26, 2019	5
Series 3 Regulators Roundtable Session	Jul. 29, 2019	31
Focused Training for National Pension Commission	Jul. 30, 2019	15
Maiden capacity building webinar on Green Bonds	Jun. 2020	174
Lagos State Executive Council Roundtable Session with members of the Lagos State Executive Council	Aug. 5, 2020	21
2-Day training for potential local green bond verifiers - nine (9) firms were represented	Mar. 25-26, 2021	18
Capacity Building Session for Capital Markets Intermediaries	May 5, 2021	31



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