

Infrastructure Knowledge Exchange Report





2023 REPORT

Infrastructure Knowledge Exchange Report

Funding Partners:













Strategic Partner:





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VISION

Our vision is to be a catalyst and the most trusted partner in the attraction of long-term capital into infrastructure finance in Nigeria.



MISSION

Our mission is to successfully unlock the potential for long term local currency infrastructure finance in Nigeria creating value for our stakeholders and being the best at what we do.



OUR VALUES

Our values define who we are. Through integrity, passion, innovation, collaboration, and impact, we are focused on building a vibrant company where ideas can flourish, people can succeed and success can be nurtured.

Our business model requires a reliance on our people to drive all aspects of the business. We aim to build our organization from within, promoting and rewarding people without regard to any difference

unrelated to performance. Thus, as we attract and recruit the best talent in our field of endeavor, we complement this by highlighting the specific values and behaviour which define the 'InfraCredit Employee'.

Integrity:

Doing the right things always.

Passion:

Love what you do and be the best at it. Align our individual passion with InfraCredit's vision and shared values.

Innovation:

Run with great ideas without delays and continue to seek better ways of doing things.

Collaboration:

Helping and impacting each other positively.

Impact:

Influence one another and the society while constantly seeking opportunities to make a difference.



INFRACREDIT AT A GLANCE

Unlocking Long Term Local Currency Infrastructure Finance in Nigeria



OUR MANDATE To provide local currency guarantees and mobilise long term domestic debt financing for infrastructure in Nigeria

RATINGS







CAPITAL PROVIDERS SOVEREIGN WEALTH













PRIVATE INSTITUTIONA INVESTORS









CAPITAL

TOTAL **CAPITAL**

CORE **CAPITAL** SUBORDINATED **CAPITAL**

CALLABLE CAPITAL

200 U\$D

104m 71m

GUARANTEE CAPACITY

NGN 925 billion \$972 mln USD EQUIVALENT

IMPACT



N204.8 bn TOTAL SIZE OF GUARANTEED DEBT



NUMBER OF PENSION FUND INVESTORS

INFRASTRUCTURE PROJECTS THAT REACHED FINANCIAL CLOSE

WE PROMOTE

Financial inclusion

UP TO 2 1 yrs

By bringing first-time issuers to the domestic bond market

Financial deepening

By extending bond tenors for corporates, and by broadening pension fund investor bases

Financial innovation

By introducing new fixed income instruments such as green bonds

ELIGIBILITY CRITERIA

- · Naira denominated
- Debt Instrument (including Sukuk)
- Must be an eligible Infrastructure
- Acceptable Credit Profile based on InfraCredit's internal credit assessment
- Asset value is not directly
- Minimum 'Bbb-' investment
- Adequate Security Package
- · Debt Tenor of up to 20 years
- Satisfies InfraCredit's Environmental and Social Safeguards Standards
- Is not on IFC's Project Exclusion List
- Issuer is PENCOM Compliant

ELIGIBLE SECTORS

- Renewable Energy
- Electricity Generation, Transmission and Distribution
- Gas to Power
- Agricultural Infrastructure
- · ICT/Telecoms
- Inputs to Infrastructure
- Transportation
- · Urban infrastructure, Housing, Healthcare and Education
- Water Distribution and Treatment
- · Waste Management Services

DEVELOPMENT PARTNERS

















RECOGNITION

Harvard Business School Case Study



HBS Case Study:

Infrastructure in Nigeria: Unlocking Pension Fund Investments is being taught on HBS's MBA Program.



O 1 CHAPTER



Foreword

CEO'S REMARK

MESSAGE FROM OUR DEVELOPMENT

AND STRATEGIC PARTNERS (PENOP)



CEO's Remarks

Over the past six years, the InfraCredit Infrastructure Knowledge Exchange Programme has been largely successful by significantly equipping institutional investors with enhanced capacity of infrastructure as an asset class, and thereby have increasingly become co-creators of the asset class.

Nigeria's government aims to increase its infrastructure stock to up to 70% of GDP in line with peer emerging market countries, which requires an annual spending of above 7% of GDP over the next 30 years to close the infrastructure gap, therefore increasing institutional investor funding of infrastructure is crucial. Currently, within the Nigerian pension fund industry (with assets under management (AUM) of NGN18.3 trillion \$11.8 billion) only around 1.5% of total assets are invested in infrastructure debt even though pension funds are permitted to invest up to 35% of their assets in corporate debt. Capacity building on infrastructure project financings will help increase capital allocation to infrastructure from lower risk appetite investors like pension funds.

Clearly, the challenge is not capital availability but rather the dearth of bankable infrastructure projects. To address this gap, InfraCredit has launched innovative products that has increased deal pipeline including blended finance, Agro-Infrastructure, Affordable Housing, Digital Infrastructure, and Renewable Energy projects. The goal is to provide investors with new asset class, support their portfolio diversification, ensure sustainable long-term local currency infrastructure financing, and ultimately deliver quality, affordable infrastructure.



In 2023, in response to emerging trends in infrastructure financing, the program integrated training in key areas including sessions on ESG and Impact considerations in corporate infrastructure bond investment to foster responsible climate investing. Additionally, sessions on the Impact of Credit Enhancements on Bond Ratings, Pricing, and Impairment Assessment were conducted for Pension Funds Administrators, aiming to broaden their understanding of relevant concepts in infrastructure financing. Furthermore, a roundtable session with Chief Risk Officers was held to delve into evolving trends in infrastructure financing.

As at December 2023, under the programme, from inception to date, 43 (Forty-three) trainings have been implemented including 10(ten) investor roundtable workshops, 24 (twenty-four) investors' trainings and 9 (nine) co-due diligence exercises targeted at participants at different levels of executive management, as well as investment and risk teams of the participating institutional These programs attracted one investors. thousand, seven hundred and eighty-seven (1787) participants one hundred and three (103) institutions including twenty-six (26) Pension Fund Administrators, Twenty-one (5) Life Insurance Companies, Five (5) Regulatory bodies, and Sixty-seven (67) other institutions.

InfraCredit as a result, has increased access to local currency finance from the domestic debt market to an aggregate of N2O4 billion (c. USD 432.6 million) and up to 20-year tenor for infrastructure projects from local pension fund investors, with investment by 19 pension fund investors that participated in the

knowledge exchange programme, signifying increased investor appetite in infrastructure as an asset class.

Going forward, InfraCredit is committed to leveraging the Programme to enhance investor appetite in additional asset classes such as agriculture and renewable energy. This will be achieved through catalytic innovation and outcome-driven training sessions aimed at unpacking these asset classes. Furthermore, the programme will focus on increasing stakeholder participation by designing and executing special training sessions for regulators and board members of pension fund administrators.

We're thankful to our key partners whose support has enabled us to sustain successful market-building activities aligned with our vision of being a trusted catalyst in attracting long-term capital to infrastructure finance in Nigeria.



Chinua Azubike, Chief Executive Officer, InfraCredit



MESSAGE FROM PENOP

Infrastructure development remains a critical driver of Nigeria's economic growth. However, the investments in infrastructure over the years has been very low and Nigeria suffers from a critical lack of investment in infrastructure.

You do not need to go too far to see the dearth of infrastructure in the country, with the bad road network, epileptic power supply, limited airports and seaports, limited storage facilities for agricultural produce, etc. All of these speaks to the lack of infrastructure investment over the years in Nigeria.

But we are beginning to see a shift towards private investment in infrastructure and this is being driven by the pension Industry and we are proud as an industry to support infrastructure growth and development in Nigeria.

Over the years however, one of the things that has hampered pension funds from investing in infrastructure is lack of adequate knowledge, case studies and practical examples to serve as reference points to give us the needed confidence to be able to fund infrastructure. However, our partnership with InfraCredit is helping to breach these with their bespoke knowledge exchange sessions, trainings, and their engagement with the industry.

We are happy with the partnership and engagement, and we look forward to more, to enable us as an industry to be more comfortable and confident to be able to put a dent in this infrastructure deficit which can be remedied by more private investment in infrastructure in Nigeria.

We look forward to more partnership with InfraCredit and similar organization in this regard to deepen capacity among pension funds for infrastructure investments.



Oguche Agudah FCIB, FCS CEO PENOP

Oguche is currently the Chief Executive Officer (CEO) of the Pension Fund Operators Association of Nigeria (PenOp). In this role he leads the efforts of the \$ 28 billion pension industry in Nigeria in engaging the government, regulators, the media, the financial markets and other stakeholders in ensuring that the interests of the pension operators are protected and promoted and that the pension industry has a positive impact on National Development. Before this appointment, Oguche was Nigeria's Regional Director for OurCrowd, a crowd funding, venture capital and impact investment firm with headquarters in Israel.

Before then, he was the Chief Investment Officer/
Executive Director of a start-up alternative asset
management company and social enterprise, where he
was in charge of engaging local and foreign investors
and lenders on behalf of the firm. Prior to this, he worked
as a Special adviser to Nigeria's Minister of Industry,
Trade and Investment. His portfolio was "Access to
Finance". In this role, he advised on and implemented
policies and programmes that could help to increase
access to finance to start and grow local businesses.

Along with a team of others, he was involved in the formulation and implementation of Nigeria's most ambitious industrial revolution plan, christened- The Nigeria industrial Revolution Plan (NIRP). In addition, he worked with a team to implement Nigeria's entrepreneurship development strategy at the time, christened – National Enterprise Development Plan-NEDEP.

Prior to this, he worked with Standard Chartered Bank (SCB) as an Associate Director in their Lagos office, where he was in charge of the credit quality of a portfolio of assets worth USD 7 billion dollars. This included various loan products and derivatives to banks, the government and sovereign owned enterprises (SOEs) in Nigeria. In SCB, he had short term assignments in South Africa and London, working in the Risk management, Credit and Corporate Finance functions. In his 14-year stint with SCB he held various roles spanning financial control, operations, Risk management & Credit, financial institutions and strategy. He possesses a degree in Banking and finance (University of Lagos) and is a fellow of both the Chartered Institute of Bankers, Nigeria and the Chartered Institute of Stockbrokers, Nigeria, which are the highest professional qualifications locally for Banking and the Capital Market respectively.

He sits on the advisory boards of some small businesses in Nigeria. He is deeply involved in community work, as he mentors a group of volunteers, focusing on building global businesses and leaders out of Nigeria. He has been privileged to experience life as an entrepreneur, a policy maker and an employee in a world class organization operating in an emerging market. These varied circumstances have enabled him to appreciate different perspectives, arming him with a unique blend of the business acumen of the private sector and the social impact objective of the public sector.



02 CHAPTER

Introduction

Our Strategic Approach

SUMMARY OF 2023 ACTIVITIES
STRATEGIC OUTLOOK



OVERVIEW OF NIGERIA'S INFRASTRUCTURE SECTOR

Nigerian pension fund assets recorded a 16.25% increase in value in 2023, resulting in a net worth of around 17.9 trillion naira at the end of November 2023. Pension funds are predicted to continue expanding, which will increase the amount of long-term capital that is available; yet there are not many investment options for using this long-term cash. The development of a financing instrument that enables the effective and sustainable distribution of this long-term capital into bankable infrastructure assets is required by our market.

The Reviewed Natural integrated Master plan (NIIMP) estimates an investment need of US\$2.3trillion to finance its infrastructure deficit on a 23-year period (2020-2043). In the short term, Nigeria requires US\$150billion in 5 years, an average of \$30 billion dollars per year to bridge the current infrastructure gap and grow core infrastructure stock. The NIIMP also expects the share of the private sector investment to increase to 56% by 2025.

The current debt to GDP ratio (35%) and interest expense to revenue ratio (47%) has reduced the fiscal space required to fund capital expenditures. Therefore, there is an increased need for private sector investment and PPP financing for infrastructure projects.

The National Pension Commission (PENCOM) strategic goal is to increase pension funds investment in infrastructure. According to the 2019 PENCOM Amended Investment Regulation on Pension Assets, Pension fund assets can be invested in infrastructure projects up to 35% of accumulated pension assets through structured instruments such as Infrastructure Bonds (25%) and Infrastructure Funds (10%). Even while pension funds investment in infrastructure projects have improved and increased recently, as of September 2023, it still accounts for less than 1% of the total pension assets.

New infrastructure assets ("greenfield") are the majority source of demand for infrastructure finance. This is particularly risky in emerging economies like Nigeria. PENCOM, however, prioritizes the safety of pension savings and fair return on investment. Therefore, most Pension funds are more interested in investing in low-risk infrastructure projects that have already been in operation ("brownfield").



30 YEARS

Ave. Contractual Maturity of Pension Funds & Insurance liabilities with limited assets of matching duration

N38.5 **TRILLION**

Total Par Value Outstanding in Nigerian Debt Markets as at January 2024



\$150 **BILLION**

Annual Funding required to bridge infrastructure deficit (next 23 years)

According to Nigeria's National Integrated Infrastructure Master Plan ("NIIMP")



N17.93 **TRILLION PENSION FUND ASSETS**

as at December 2023

A 16.25% increase in 2023 and a steady annual growth rate of 15% p.a. from an initial size of **N47** billion in 2004 to its current level



N19 TRILLION

FORECAST of the nation's Pension Assetsby the end of 2024.



N5.37 TRILLION

Estimated Minimum Potential Eligible Infrastructure Bonds

New infrastructure assets ("greenfield") are the majority source of demand for infrastructure finance. This is particularly risky in emerging economies like Nigeria. PENCOM, however, prioritizes the safety of pension savings and fair return on investment. Therefore, most Pension funds are more interested in investing in low-risk infrastructure projects that have already been in operation ("brownfield").

The ability of domestic investors, such pension and insurance fund managers, to assess infrastructure projects internally is limited; building up internal knowledge is also expensive and time-consuming. Experts have shown that one of the main barriers to investment is institutional investors' inability to accurately assess infrastructure assets.

As a result, while the market is teemed with new infrastructure projects' demand for funding and its urgency, domestic institutional investment from pension funds is still very limited to low-risk assets with established high-performing track records that meet investment-grade criteria.

\$2.3T

investment gap 23year period \$150B

Infrastructure nvestment annually between 2021 & 2025 56%

Infrastructure investment private sector contribution

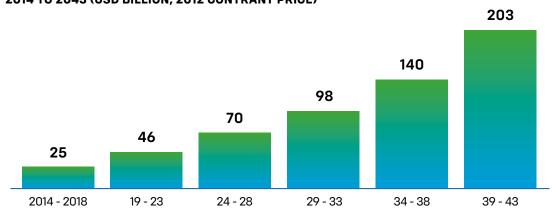
44%

investment public sector contribution

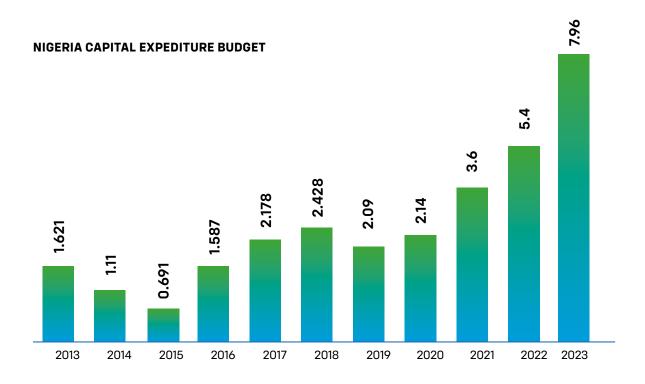


In contrast to international benchmarks of 70%, Nigeria's core infrastructure stock is estimated at 30% of GDP

AVE. ANNUAL INFRASTRUCTURE SPEND, 2014 TO 2043 (USD BILLION, 2012 CONTRANT PRICE)



- Estimated \$100 billion p.a. required from 2020 2023
- Infrastructure Stock to increase from c. 30% of GDP to 70%
- Est \$3 trillion required over the next 23 years
- Annual Spend to increase to c.70% of GDP



- 2023 Capex is currently 32% of estimated annual spending.
- 2023 Capex is currently c.36.4% of the annual budget

OUR COMMITMENT TO KNOWLEDGE EXCHANGE

Infracredit believes that to improve investor confidence and drive private sector participation in infrastructure requires a few steps. First, there needs to be enhancement in investors' analytical capacity, which can be achieved by arming investors with comprehensive data and information that provides an indepth understanding of the investment dynamics of the subsectors within the infrastructure space. There is a need to highlight the risks and mitigants whilst providing access to platforms where queries can be addressed.









This should ultimately increase the investment appetite of investors towards long-term infrastructurerelated instruments and thereby deepen the Nigerian Debt Capital Market. The Infrastructure Knowledge Exchange Programme is coordinated by InfraCredit in collaboration with Development Partners PIDG, GuarantCo and the German Government through KFW.

As at December 2023, under the programme, from inception to date, 43 (Forty-three) trainings have been implemented including 10(ten) investor roundtable workshops, 24 (twenty-four) investors' trainings and 9 (nine) co-due diligence exercises targeted at participants at different levels of executive management, as well as investment and risk teams of the participating institutional investors. These programs attracted one thousand, seven hundred and eighty-seven (1787) participants one hundred and three (103) institutions including twenty-six (26) Pension Fund Administrators, Twenty-one (5) Life Insurance Companies, Five (5) Regulatory bodies, and Sixty-seven (67) other institutions.

In 2023, the Knowledge Exchange programme conducted Six (6) training programmes including two (2) investor roundtable workshops and seven (3) investors' training exercises and One (1) Due Diligence Exercise. The events had a total of three hundred and ninety-eight (398) participants from ninety (90) institutions including nineteen (19) Pension Fund Administrators, six (7) Closed Pension Fund Administrators, Three (3) regulators Five (5) life insurance companies, and eight (67) other institutions.

Subsequently, InfraCredit has successfully facilitated financing for seventeen (17) infrastructure projects through local currency-denominated debt in the domestic debt capital market. The aggregate amount reached N204.8 billion (approximately USD 432.6 million dollars), with average tenors extending up to 20 years. These financing programs experienced significant investments from local pension fund investors, including 19 participants from our Knowledge Exchange program. This underscores the considerable potential and investor appetite for infrastructure projects.

STRATEGIC OUTLOOK

Since its inception, the approach underlying the Infrastructure Knowledge Exchange Programme has matured into a substantiated and empirically validated idea. Through strategic alliances, we have successfully broadened donor support and refined the effectiveness of our partnerships to engage institutional investors in numerous comprehensive knowledge-sharing sessions.

Our ongoing commitment revolves around the seamless integration of Environmental, Social, and Governance (ESG) principles and Sustainable Development Goals (SDGs), the strengthening of our impact through clearly defined standards, and the clear demonstration of our long-term sustainability activities.

A. Institutionalizing the Programme

As we aim to expand the programme, institutionalising the operating framework in order to scale capacity and impact is an imperative, this will be accompanied with a re-aligned "Theory of Change" to be implemented under InfraCredit's

Development Impact Framework. A key outcome of this process will be defining measurable outcomes, evidence-based data and indicators geared towards informing the decision-making process with our stakeholders for effective monitoring, evaluation and reporting.

B. Strengthening Technical Assistance Support

There are a multitude of donor programmes addressing some part of the greater challenge of catalysing private investments into SDG related infrastructure that will reduce poverty, and we aim to use this programme and its theory of change to align, incentivize and increase donor

coordination and funding support into more effective, efficient, integrated and scalable intervention in sustainable infrastructure finance. Leveraging InfraCredit's contribution and market positioning to crowd-in development capital and technical assistance from other donors/DFIs to the programme.

C. Building Strategic Partnerships with Key Stakeholders²

Addressing the complex challenges of infrastructure deficit and sustainable finance requires building strong multistakeholder partnerships that can create systemic change. The Programme will aim to evolve into a multi-stakeholder

^{2 (}Self-Regulatory Organisations e.g. PENOP, Regulators, e.g. SEC, PENCOM, Local Press e.g. Capital Market Correspondent Association), Donors

partnership, by collaborating with key stakeholders to create shared values and successes. We will leverage the power of multi-stakeholder partnerships as a key mechanism to deliver on the goals by pooling knowledge, expertise, and resources.

D. Capacity Building of Boards, Regulators and Public Officials

As ultimate decision makers and policy makers, the boards and regulators have an especially important role to play in influencing the effectiveness of the expected development outcomes of this programme. In response to feedback from surveys conducted during the initial phase with participants, we will increasingly aim to equally focus on capacity building and training programmes for the leadership of this core group of market decision makers and regulators in order to develop and maintain a very cordial and trusted relationship on the mutual aims and objectives of this programme.

E. Strengthen Stakeholder Roundtables

Finding a path towards sustainable development will require the pooling of diverse perspectives, knowledge and resources. We recognise the need to adopt

a more strategic approach to engagement activities by improving communication, and close dialogue with key stakeholders in building market awareness consensus on key contemporary issues in infrastructure and expected development outcomes of this programme. Importantly is building trust with our stakeholders.

F. Integration of ESG and SDGs

Infrastructure underpins many of the UN Sustainable Development Goals (SDGs) and the bond market as the largest source of long-term investment capital is emerging as an important source of financing to meet the UN SDGs. Therefore integrating ESG considerations into investment decisions has become crucial, and one key area of focus in the capacity building and training courses will be sustainable, responsible investing and educating institutional investors on best practice approaches to ESG investing in order to engender a proactive action-oriented programme focused on sustainable long-term value.





Activities and Events

CO-DUE DILIGENCE EXERCISE

INVESTOR TRAININGS

ROUNDTABLE DISCUSSIONS



Summary of Knowledge Programme

Activities as at December 2023





10



24





09

CO-DUE
DILIGENCE
EXERCISES



1789
TOTAL NUMBER OF

INVESTORS TRAINED



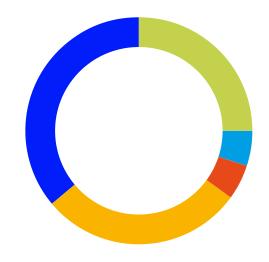
90

TOTAL NUMBER OF INSTITUTIONS



Participation by institution

PFAs, PFDs, and CPFAs	25%
Life Insurance	5%
Regulator	5%
Legal Firms and Trustees	29%
Others	36%





CO-DUE DILIGENCE EXERCISE



3.1.1 EVALUATING GAS PROCESSING AND DISTRIBUTION PROJECTS IN NIGERIA

Nigeria's proven natural gas reserve rose to 209.5 trillion cubic feet (TCF) in January 2022 (a 1.42 percent increase when compared to 2020 figure), ranking as the largest in Africa and ninth largest in the world. According to the World Bank, gross gas production in Nigeria was reported at 3.0 TCF in 2019, of which only 55 percent was processed for productive industrial use and 22 percent was used domestically. Historically, the quantity of gas re-injected or flared has been higher than the domestic consumption largely due to inadequate pipeline infrastructure, insecurity, and sabotage, as well as market governance issues relating to the pricing and allocation of gas resources for the domestic market.

The upstream gas producing sector is dominated by the International Oil Companies (IOCs), licensed to explore and produce gas. As part of efforts to grow the gas sector to support industrialization and reduce national grid-based power prices, gas producers are required to commit a portion of gas produced to the domestic market through the Domestic Gas Supply Obligation (DGSO) set by the Nigerian Upstream Petroleum Regulatory Commission- NUPRC, formerly Department of Petroleum Resources (DPR) from time to time. However, since the introduction of the DGSO, actual supply has remained below the required supply largely due to the lack of requisite infrastructure (e.g., gas pipeline).

The Infrastructure Knowledge Exchange Programme organized a co-due "Evaluating Gas Processing and Distribution Projects in Nigeria". The session featured a macroeconomic overview session as well as several due diligence sessions such as environmental and social due diligence, legal due diligence, operational due diligence and financial due diligence. The session also featured a presentation from the



management of Green Liquified Natural Gas (GLNG) which shed more light on the company's business objectives, strategies and outlook. Additionally, it highlighted opportunities and activities within the gas sector's supply chain. The session was specifically designed

for institutional investors and Pension Fund Administrators. The roundtable took place on April 6, 2023, with thirty-three (33) participants in attendance, representing thirteen (13) Pension Fund Administrators.



3.1.2 **COMPANY PROFILE**

Green Liquified Natural Gas (GLNG) was incorporated in July 2018 to carry on the supply of LNG and provide captive power solutions to industrial customers. The Company's LNG business is currently in the development stage while captive power operations commenced in October 2018. GLNG was established as part of Green Fuels Limited's (GFL) strategy to expand its operations and market coverage (as a result of

growing demand for natural gas by industrial users including some of its existing CNG customers) into -GLNG liquefaction and forward integrate into the provision of end-to-end captive power solutions to its customers in a bid to enhance the Company's competitiveness and expand its radius of market coverage as LNG, compared to CNG, presents better storage requirement, cost efficiency, and volume portability.



Size	Up to NGN14.7 Billion (equivalent of US\$38 Million subject to prevailing I&E exchange rate) Senior Secured Guaranteed Infrastructure Bonds under a NGN50 Billion Programme	
Expected Maturity Date	2033	
Yield	15.2%	
Use of proceeds	To finance the:	
	construction of a 200,000scm per day Liquified Natural Gas (LNG) liquefaction plant	
	construction and installation of five (5) regasification systems for off-takers	
	acquisition and installation of storage facilities at the liquefaction and customer regasification plants (i.e., with total capacity of 2,150 cubic meter) and	
	acquisition of 16 unit of 21.6tonnes	
Executive Summary		
Purpose of Application	This application seeks the approval of the Board Credit Committee for InfraCredit to guarantee up to NGN14.7 billion of up to 10-year debt under a NGN50 billion bond programme in favour of Green Liquefied Natural Gas Limited (GLNG).	
Principal Obligor	Green Liquified Natural Gas (GLNG) was formed in July 2018 under Green Fuels Limited's (GFL) strategy to expand operations. GLNG focuses on supplying LNG and offering captive power solutions to industrial clients. While the LNG business is in development, captive power operations began in October 2018. The establishment of GLNG aligns with GFL's plan to meet the growing demand for natural gas from industrial users, including existing CNG customers. The goal is to enhance competitiveness and broaden market coverage by transitioning from CNG to LNG, which offers advantages in storage, cost efficiency, and volume portability.	
Co-Obligor	Green Fuels Limited (GFL), established in 2007, operates a CNG processing and distribution business in Southwest, Nigeria, catering to industrial customers in areas without piped gas infrastructure. The company owns and operates two compression plants in Ota and Abeokuta, Ogun state, with a total capacity of 180,000 standard cubic meters. The plants are equipped with six compressors, sourced feedstock gas from Shell Nigeria Gas (SNG) and Nigeria Gas Company (NGC). Key customers of GFL include Nigerian Breweries Plc., Lagos Continental Hotel, Fan Milk Plc., Tosett Agro Industries Limited, and Chi Farms Limited.	

Key Business Risks	The key business risks for the Company include completion risk and counterparty/concentration risk, with completion risk being the most significant. Although GFL/GLNG has experience in operating CNG plants, entering the LNG business is a new venture. To mitigate risks, GLNG has chosen Cryosys, an experienced LNG plant contractor from Texas, as the Engineering and Procurement (E&P) contractor for the Project. Cryosys will handle the project under a bid build contracting arrangement, providing design, technology, supervision, and a performance guarantee for the LNG plant. The Company is also in the process of selecting a reputable EPC contractor for turnkey pricing, supported by an acceptable performance bond
Key Financial risk	The company GLNG has so far avoided taking on any debt and relies on shareholders' equity to pursue its business goals. Its sister company GFL manages its debt responsibly with local banks, with a debt amount below NGN 150 million. This financial stability provides GLNG with the capacity to leverage additional debt for the planned new LNG plant. The company aims to establish key performance metrics, ensuring manageable gearing ratios for a specified period before considering dividend payouts, as part of a strategy to mitigate financial risks.
Rating Summary	GLNG has been assigned a BBB long-term credit rating based on factors such as projected growth from the proposed LNG plant, government policy support, reliable cash flows from existing off-take contracts, strong counterparties, sufficient working capital, satisfactory profitability, an experienced management team, and a diverse customer base. The demand for cleaner energy due to unreliable power supply in Nigeria positions CNG and LNG as attractive alternatives for industrial users. The limited pipeline infrastructure supports GFL and GLNG as virtual pipeline operators, especially for unconnected industrial customers. The expansion into LNG processing is seen as a growth opportunity.
	However, GLNG's credit rating is constrained by project completion risk associated with the proposed LNG plant, considering the nascent LNG business in Nigeria. The involvement of experienced OEM (Cryosys) and support from Novi Energy and Energy Culture, under USTDA-funded technical assistance, provide some assurance. An independent project manager appointed to monitor the project closely is expected to ensure successful execution within timeline and budget, mitigating potential risks.
Business Strategy	The Company has identified Cryosys LLC (Cryosys), an engineering company with expertise in building modular LNG plants, as the OEM and the Engineering and Procurement Contractor to provide the design and technology as well as procurement services for the proposed LNG plant. The compressors of the LNG plant are however expected to be supplied by Atlas Copco Competed LLC, South Carolina (Atlas Copco). Technical and commercial engagements with the two (2) America-based OEMs have reached advanced stage and proposed technical details of the design and technology have been reviewed by Novi Energy and Energy Culture Limited (the two consultants appointed to provide project feasibility review and development services under the USTDA funded technical assistance for the benefit of InfraCredit).

Under the proposed arrangement, Cryosys is required to manufacture the equipment and deliver at the plant site in Abeokuta within thirteen (13) months of a firm purchase order, backed by the payment of a minimum of 10 percent initial deposit. The plant is expected to be installed within three (3) months of the delivery while a commissioning (i.e., testing) is estimated at two (2) months post installation. Under the proposed arrangement, the Company is currently undergoing a selection process for the EPC subcontractor that will deliver the required civil, electrical and mechanical works at the designation site. The Request for Proposal has been circulated and responses are pending. The selected subcontractor will be expected to work under full supervision of and in strict compliance with the technical design issued by Cryosys.

Off take agreement

The Company has obtained Letters of Interest from eleven (11) potential off-takers expressing interest to execute long term contracts to purchase LNG from the proposed LNG plant. These prospective off-takers are a mix of existing power and CNG customers as well as prospective customers mostly in the southwestern Nigeria (i.e., Lagos State, Ogun State, Osun State and Oyo State). The combined LNG requirement of the prospective off-takers estimated at 303,367 scm per day represents c.1.5x of the capacity of the proposed LNG plant. As part of our technical due diligence workstreams, our technical consultants, met with all the eleven (11) named prospective off-taker and visited their respective operating sites to validate the quoted daily volumes.

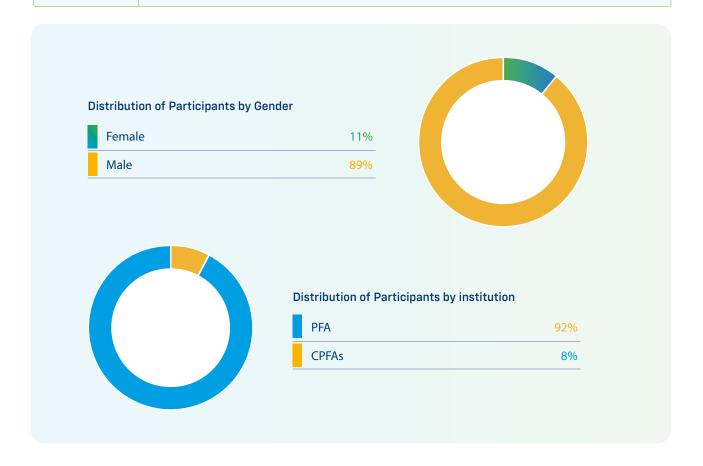
Of the eleven (11) prospects, the Company has executed 10-year GSPAs with two (2) off-takers; Tosett Agro Industries Limited - Tosett) and Paras Energy and Natural Resources Development Limited (Paras Energy), on August 5, 2020, and September 4, 2020, respectively, Tosett is GFL's existing client (more details on these off-takers is provided in the appendix section). Our technical assessment revealed anticipated daily volume requirement amounts to 80,700 scm per day (i.e., 40% of total plant capacity) for both customers. Under the GSPAs, the Company can pass 100%, 40 percent, 20 percent of any change in the Company's cost as a result of changes in gas price, exchange rate and inflation respectively, to its customers.

Green Fuels limited

Green Fuels Limited (GFL), established in 2007, operates CNG processing and distribution in Southwest, Nigeria, serving diverse industrial customers without access to piped gas infrastructure. GFL owns two compression plants in Ota and Abeokuta with a combined capacity of 180,000scm, operating at 68 percent capacity utilization. Natural gas is compressed to 250 bar pressures, stored, and distributed to customers using specialized

GFL has Gas Supply and Purchase Agreements (GSPAs) with over twenty industrial customers, including Nigerian Breweries and Chi Limited, with contract tenors ranging from 1 to 7 years. The Ota plant receives gas from Shell Nigeria Gas Limited, while the Abeokuta plant receives gas through a dedicated pipeline from Nigerian Gas Marketing Company Limited.

	The company aims to expand operations into liquefaction, establishing Green Liquified natural Gas Limited (GLNG) to provide end-to-end captive power solutions. GLNG seeks to enhance competitiveness and market coverage by leveraging the benefits of LNG, such as lower storage requirements, cost efficiency, and volume portability. This strategic move is part of GFL's broader plan to grow and serve a wider customer base.
Green Liquified Natural Gas	Green Liquified Natural Gas (GLNG) was incorporated in July 2018 to carry on the supply LNG and provide captive power solutions to industrial customers. The Company's LNG business is currently in the development stage while captive power operations commenced in October 2018.
Finale Rating Rationale	GLNG has received a BBB long-term credit rating based on various factors such as projected growth from a proposed LNG plant, government policy support, stable cash flows from existing contracts, reliable counterparties, sufficient working capital, satisfactory profitability, experienced management, and a diverse customer base. The demand for CNG and LNG in Nigeria due to unreliable power supply presents significant growth opportunities. However, credit rating is constrained by project completion risk associated with the proposed LNG plant, considering the nascent LNG business in Nigeria. Mitigating factors include the company's track record, involvement of experienced OEM, identified LNG off-take, robust pipeline gas supply history, and quality project preparation support. An independent project manager is appointed to ensure successful execution of the LNG project within timeline and budget.



3.3

INVESTOR TRAINING

2023 REPORT

Infrastructure Knowledge Exchange Report

INVESTORS TRAINING



3.2.1 IMPACT OF CREDIT ENHANCEMENTS ON BOND RATINGS, PRICING AND IMPAIRMENT ASSESSMENT

Over the last decade, financial markets have evolved from traditional products to accommodating more innovative financing strategies in a bid to deepen market capacity, expand risk profiles, and improve expected returns. The sentiment of institutional investors towards risk management has informed the need for credit enhancements on alternative asset classes.

Credit enhancements are powerful catalysts utilized in the financial markets to attract private sector investments and commercial funding that will drive significant development outcomes for any economy. Therefore, credit enhancements play a crucial role in improving the financial ecosystem and offer a myriad of benefits to

investors in the financial market. Essentially, credit enhancement mechanisms strengthen the credit risk profile of financial instruments and prospective issuers, as well as boost investors' confidence hence enabling capital flow.

Credit enhancements take numerous forms but are generally designed to act as support structures to improve the credit quality of financial instruments and drive bullish sentiment. We note that credit enhancements strengthen the quality of financial assets, thereby reducing its risk profile and moderating cost of capital. Consequently, credit enhancement mechanisms help mitigate credit risk by



providing an additional layer of protection to investors, particularly for alternative asset classes such as Infrastructure.

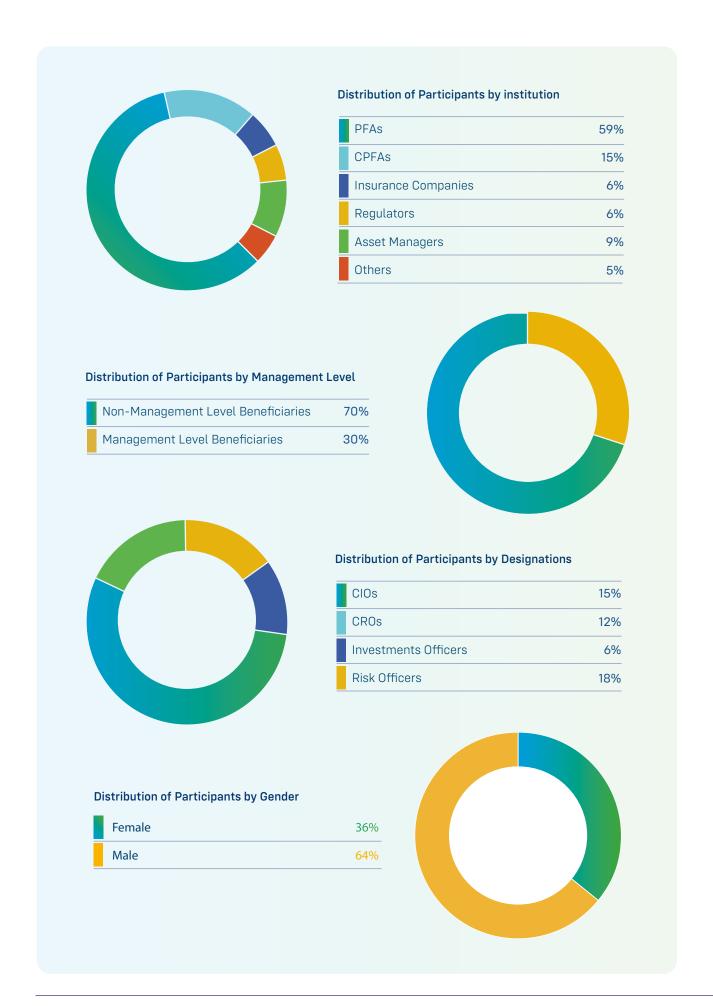
The inherent and perceived risks associated with infrastructure projects sometimes hinder investment from domestic institutional investors such as Pension Fund Administrators whose mandate is ultimately to protect funds of the beneficiaries. Credit enhancements such as guarantees, and credit wraps help de-risk infrastructure investments to a level suitable for prospective investors. These enhancement mechanisms, particularly issued by a high quality third party such as InfraCredit, are reflected in an instruments' credit rating, invariably impacting how market participants price financial instruments. Generally, pricing of credit enhancements in the debt capital market are reflected through lower spread and yield, owing to the protective mechanisms embedded in these types of financial instruments.

Over the last five years, the financial markets have experienced increased susceptibility to risks, owing to macroeconomic headwinds, rising interest rates and exchange rate volatility. Consequently, IFRS 9 sets out the guidelines for the impairment of financial assets. This has emphasized the need for guaranteed financial

instruments in this regard, credit enhancements (specifically guarantees) provide improved price stability and eliminate credit losses which arise from downgrade risks InfraCredit has been awarded the highest rating ('AAA') by the two major domestic credit rating agencies due to a strong balance sheet position, and capital base which is the foundation for stable and sustainable growth in infrastructure finance.

This session focused on delivering a clear and concise understanding of credit enhancements, exploring their impact on bond ratings, pricing, and yield, as well as examining the implications of impairment assessment on the profitability and equity base of PFAs. Additionally, the course offered a reference-based assessment of live case studies on recent rating downgrades, causal factors, and the relationship between such downgrades and InfraCredit's credit enhanced instruments. The session was facilitated by Agusto Co Limited, Deloitte, and InfraCredit.

This training was held between the 3rd of August,2023 had 90 participants from 32 institutions in attendance. The course was targeted at CIOs, CROs of PFAs, Fund and Asset Managers.



3.2.2 ESG AND IMPACT CONSIDERATIONS IN CORPORATE INFRASTRUCTURE **BOND INVESTMENT**



Infrastructure plays a crucial role in promoting and sustaining the well-being of people and communities, shaping how they live, what they do and how they interact with one another. Whether it is energy generation, healthcare facilities, telecommunication networks, transportation systems, infrastructure is a critical pillar in achieving sustainable and inclusive development. Covid-19 pandemic accentuated the acute and chronic global infrastructure deficits particularly in developing economies in Sub-Saharan Africa. This course was specifically developed to assist members of the Investment Committee in the process of evaluating, assessing and recommending projects for investment decisions.

According to Global Infrastructure Hub, the gap between infrastructure needs and investment is likely to reach US\$15 trillion by 2040, requiring mobilisation of private capital to complement public funding. Bridging this gap requires investments in sustainable infrastructure - planned, designed, constructed, operated, and decommissioned in a manner that ensures economic and financial, social, environmental, and institutional sustainability over the entire lifecycle (United Nations Environment Programme). Consequently, there is increased focus on embedding environmental, social and governance (ESG) and impact considerations in infrastructure development to meet the goals and targets of the UN Sustainable Development Goal 9 (Innovation, Industry, and Infrastructure).

In the same year, the Nigeria Integrated Infrastructure Masterplan (NIIP) was unveiled as a roadmap for closing an estimated infrastructure investment gap of \$2.3 trillion over the 23-year period, translating to \$150 billion annually by both the private and public sectors between 2021 and 2025. The private and public sectors' contribution to this investment target are 56% and 44%, respectively. Thus, the private sector is critical to unlocking long-term capital for sustainable infrastructure investments and development in

Nigeria. Institutional investors such as pension funds, insurance companies and other private actors are diversifying investments to include infrastructure as an asset class, although the perception of risk remain high and the need for Knowledge Exchange Sessions to bridge knowledge gap is widely acknowledged.

In specific terms, the lack of ESG considerations in infrastructure development could increase the costs associated with compliance with environmental regulations and compensating affected stakeholders in cases involving physical and economic displacement. Even when project risks are allocated to third parties to reduce commercial and technical risks, investors have now realized that unless ESG risks are duly factored in project planning and operations, there is potential exposure to increase in costs, decline in revenue and supply chain breakdown.

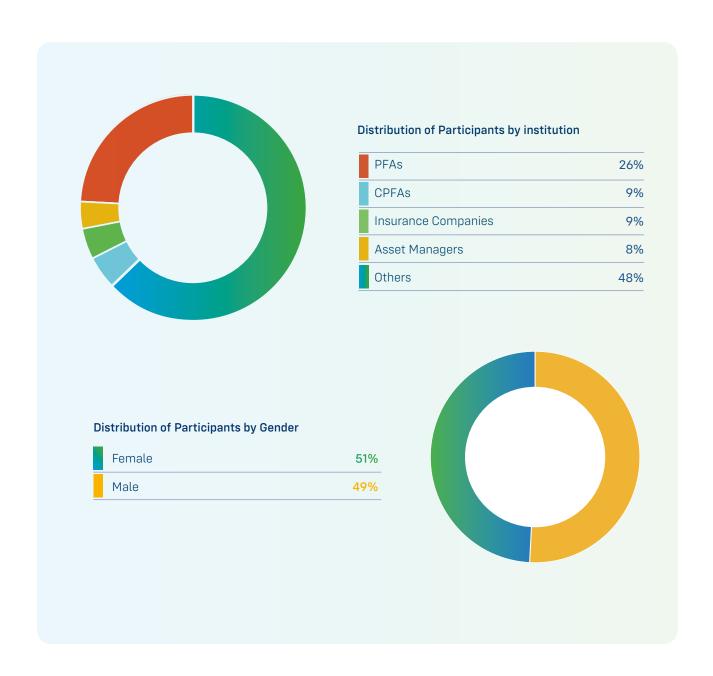
Notably, ESG considerations apply to all financing instrument (debt, equity, or blended) and when not properly factored into investment decisionmaking could weaken project company's position and long-term profitability. Consequently, credit analysis by rating agencies increasingly factors ESG criteria in credit ratings of infrastructure operating entities with implication for access to and cost of capital, whether its first-time access to or refinancing through the debt capital market. As a signatory to the Operating Principles for Impact Management, InfraCredit has developed a robust Development Impact Framework which guides how it assesses potential development impact of new deals as well as monitor impact of portfolio infrastructure across its lifecycle. The impact due diligence process illustrates how InfraCredit applies impact criteria in screening deals and prioritizing projects with medium to high impact potential. At the portfolio level,

InfraCredit's Monitoring, Evaluation and Learning (MEL) Framework ensures that projects impact output and outcomes are tracked based on real, verifiable quantitative and qualitative data obtained through primary and secondary data collection methodologies.

The session was a training session focused on developing a Theory of Change and MEL framework. It showcased what the various tools did and how to develop various components, such as effective indicators. The second session focused on the example from InfraCredit – first showcasing the Theory of Change and then having an InfraCredit hotseat discussion on what this looked like in reality.

The program aimed to enable participants to develop an understanding of InfraCredit's environmental and social risk assessment and impact management proces9s throughout the infrastructure project's deal cycle and portfolio management. Additionally, it aimed to strengthen participants' knowledge and competency in applying ESG and impact considerations for decision-making investment and portfolio monitoring, in alignment with fiduciary responsibilities.

This session was specifically designed for Investment Officers, Portfolio Managers, Chief Risk Officers (CROs), and Chief Investment Officers (CIOs) of Pension Fund Administrators, Insurance Companies, and other Institutional Investors. This session took place on September 20, 2023, with one hundred and twelve (112) participants representing eighteen (18) institutions. The session was facilitated by Dalberg Advisors, ImpactCrest Consulting, and InfraCredit.



3.3.3 DOCUMENTING CREDIT GUARANTEES FOR LONG TERM LOCAL CURRENCY INFRASTRUCTURE FINANCING TRANSACTIONS

InfraCredit is the first local currency credit enhancement facility in sub-Saharan Africa providing access to long-term affordable financing for infrastructure by guaranteeing infrastructure bonds of issuing companies.

Given its novel nature, InfraCredit's guaranteed bond issuance are faced with several market roadblocks, owing to the lack of market precedence. The negotiation phase with professional advisers, (particularly the law firms and trustees engaged in negotiating the transaction documents) are protracted resulting in some cases an extension of the transaction time and cost. This is largely

due to a lack of familiarity with the transaction documents, processes, and dynamics.

Over the past few years, InfraCredit has engaged with these intermediaries, reviewing and negotiating, and re-negotiating the bond and guarantee documents, resulting in an increase to the time to market for our guaranteed instruments, increasing transaction cost, and prolonging the transaction. It has become apparent that there is a knowledge gap in the local market due to information asymmetry and limited track record of executing similar transactions by the service providers and intermediaries.

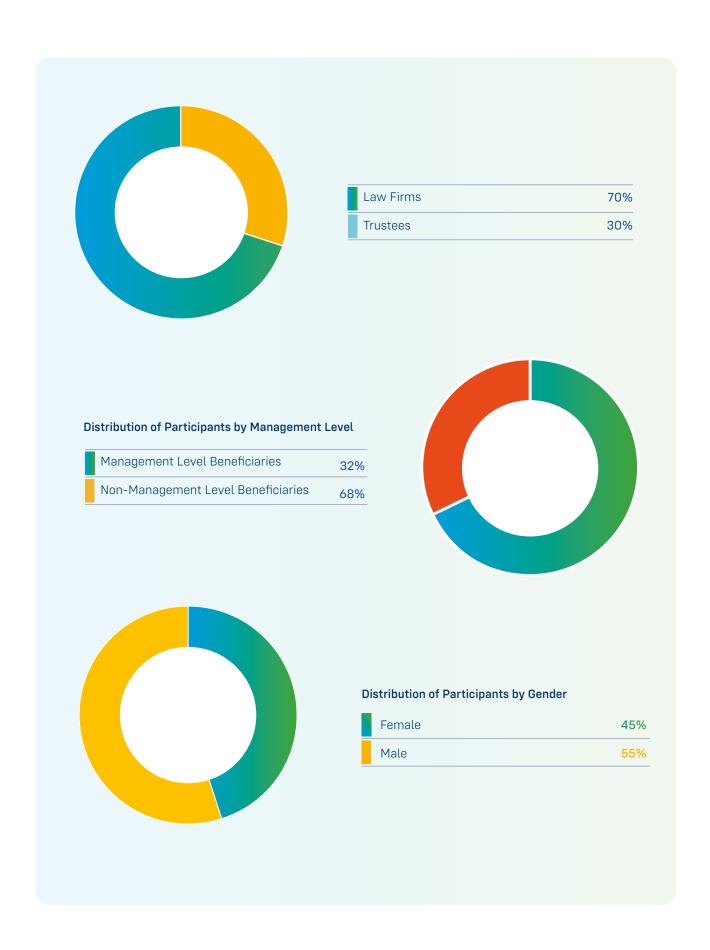


In furtherance of its policy and strategic objective to ensure that its guaranteed debt instruments have strong market acceptance, InfraCredit has developed a standard form guarantee and bond documentation which it typically adapts for its guaranteed bond issuance transactions (Transaction Documents). These Transaction Documents are documented in a form to protect its capital, and maintain market standards. In this regard, a thorough understanding of the relevant provisions of the bond and guarantee documents and the resolution of the common issues which transaction advisers typically encounter in transactions of this nature will ensure that time spent negotiating. Transaction Documents are abridged due to a well-rounded understanding of the intent of the Transaction Documents. As part of its market development role, and in view of the foregoing, InfraCredit conducted a knowledge

exchange session building exercise for the market. In this regard, the organization selected reputable law firms and trustees to participate in the pilot phase of the exercise.

This exercise was geared towards deepening market knowledge and inclusiveness familiarizing participants with InfraCredit's bond and guarantee documentation with the objective that participants become fully aware and acquainted with the nature of guarantee documentation so as to ensure that negotiation of our standard documents are abridged and limited to transaction specific issues thereby reducing execution time and increasing the efficiency and speed of closing transactions. The event was held on December 12th and 13th ,2023 and brought together 90 lawyers from 30 organizations.







ROUNDTABLE DISCUSSIONS

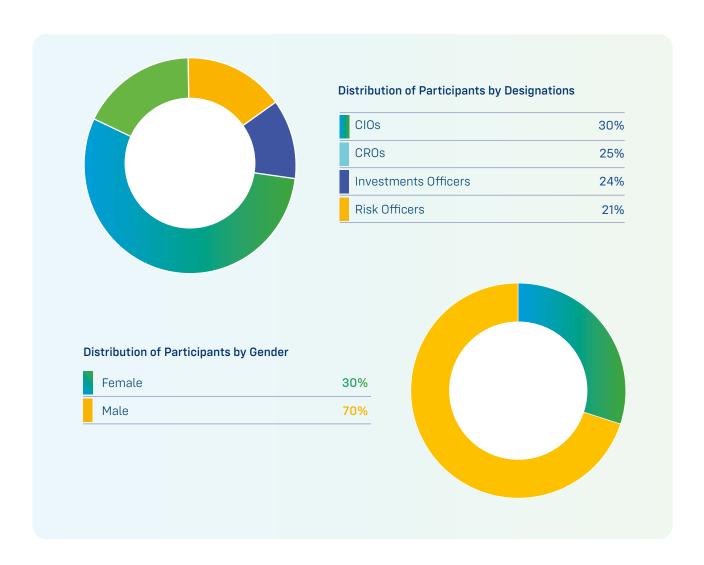
3.3.1 A ROUNDTABLE SESSION ON MOBILIZING DOMESTIC INSTITUTIONAL INVESTMENT FOR CLIMATE FINANCE.



In October 2023, a collaborative initiative unfolded as InfraCredit collaborated with the Foreign, Commonwealth and Development Office, Nigeria Office (FCDO), to organize an informative interactive session. This exclusive event took place at the British Deputy Commissioner's Residence, attracting together a diverse array of key stakeholders in the financial landscape.

The primary objective of this session was to actively involve domestic institutional investors in constructive discussions centered around unlocking climate finance from the private sector. With a keen emphasis on sustainable financial practices, the event delved into the strategies and approaches aimed at encouraging climate-focused investments. In particular, the gathering explored the pivotal role of blended finance models, shedding light on their effectiveness in mitigating investment risks and fostering a conducive environment for sustainable financial growth.

Moreover, the interactive session served as a vibrant platform to showcase and celebrate the successful fruition of case study projects. These projects, recently funded through collaborative efforts between domestic investors and InfraCredit in Nigeria, stand as tangible examples of impactful contributions to sustainable development within the financial sector. This session was designed for Investment Officers, Portfolio Managers, CROs and CIOs of Pension Fund Administrators, Insurance Companies and other Institutional Investors This session was held on the 24th of October, 2023. The session attracted 47 participants across 22 domestic institutional investors with an estimated Asset Under Management of about NGN8.2 trillion (US\$9.83 billion).



3.3.2 A ROUNDTABLE SESSION ON THE EVOLVING ROLE OF RISK MANAGEMENT IN UNLOCKING INFRASTRUCTURE OPPORTUNITIES **NAVIGATING RISK AND REWARDS**

Infrastructure projects across the continent, such as transportation, energy (on-grid, off-grid, andrenewables), telecommunications, and social infrastructure have gained increased attention fromboth domestic and international investors. Moody's study highlights Africa's default rates on debt for infrastructure projects are amongst the lowest in the world compared to other regions, suggesting that the African infrastructure investment landscape, including Nigeria, has demonstrated resilience and reliability (especially when financed in local currency). Nigeria boasts of a growing pool of pension funds available for investment in infrastructure projects. As of

August 2023, the total assets under management by the Pension Fund Administrators (PFAs) stood at NGN17.29 trillion, with up to NGN2.4 trillion for infrastructure project investment.

However, there are concerns that have prevented PFAs from making substantial investments in infrastructure projects, encompassing a spectrum of risk-related factors and regulatory complexities that have led to the avoidance of private debt infrastructure. These barriers have become a topic of significant importance, hence the need to explore potential solutions.

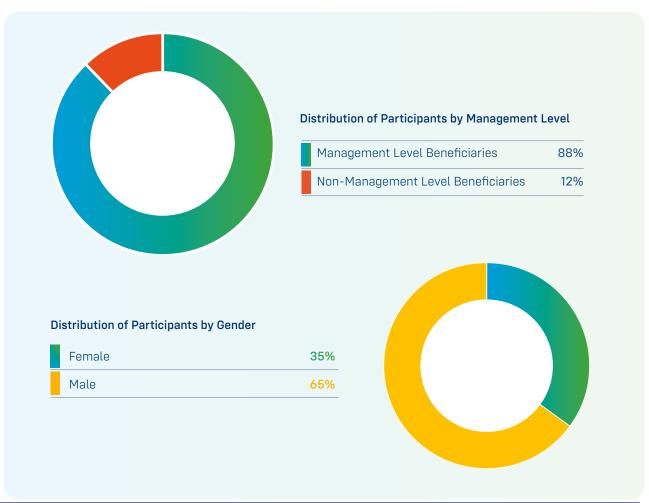
The theme, "The Evolving Role of Risk Management in Unlocking Infrastructure Opportunities: Navigating Risk and Rewards," emphasizes the importance of risk management in unlocking infrastructure opportunities and highlights how well-structured infrastructure projects are catalysts for sustainable economic development in Nigeria. While infrastructure investments hold the promise of long-term returns and job creation, these investments come with unique risks and challenges. The complex nature of infrastructure projects and regulatory frameworks have led to some level of apprehension by PFAs for this asset class but they remain key players in the local capital market and provide a significant proportion of liquidity for infrastructure projects.

The roundtable event was specifically designed to facilitate dialogue and knowledge sharing among key stakeholders in the Pension Industry, Development Finance Institutions, and representatives from rating agencies who were involved in infrastructure financing and risk management. The event addressed critical questions and concerns related to infrastructure investments in Nigeria, comprising risk and reward,

regulatory hurdles, credit rating considerations, and strategies for financing greenfield as well as brownfield projects. The discussions, facilitated by a panel of experts, provided a deep understanding of the opportunities and challenges in infrastructure investments across the continent This forum facilitated extensive dialogue and knowledge sharing on infrastructure development opportunities, perceptions of risk versus actual risk, peculiar risk factors, and structural approaches to managing defaults, as well as mitigating losses that would promote favorable investment in greenfield and brownfield infrastructure projects in Nigeria. Participants also discussed applicable risk rating methodologies, regulatory issues, and blended financing strategies for infrastructure projects. The event, held on November 16th, 2023, brought together Chief Risk Officers from 19 Pension Funds, accounting for an estimated Asset Under Management (AUM) of over NGN 12.6 trillion (USD 16.8 billion), along with representatives from Development Finance Institutions and top executives from Rating Agencies who are actively involved in infrastructure financing and risk management.







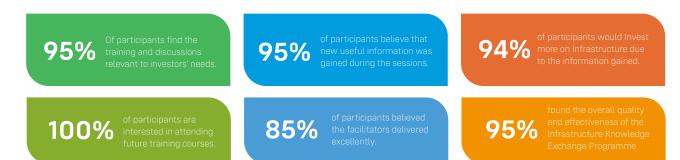


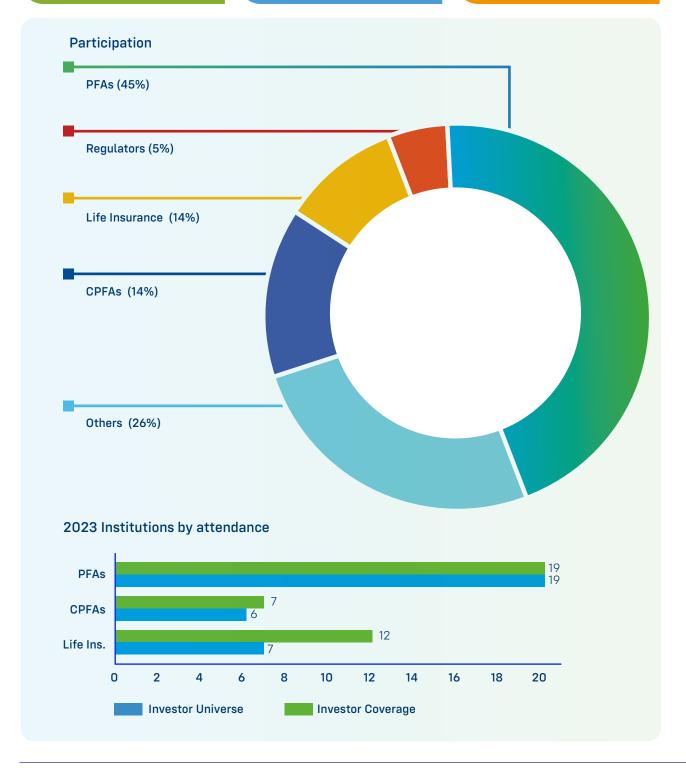
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Feedback



FEEDBACK







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