InfraSpotlight

INFRAMONI

Unlocking Financing and Investment towards Nigeria's Infrastructure Potential

JUNE, 2025

ABOUT INFRASPOTLIGHT

InfraSpotlight is a youth-led, non-governmental organisation and a knowledge hub for infrastructure development in Africa. Our theory of change is that awareness is the starting point for meaningful advocacy, engagement and change. We are on a journey to raising awareness of the state and trend of infrastructure in Africa, empowering people and communities with the right information to take local actions that will drive change and sustainable development. Our mission is to bridge the infrastructure knowledge gap by being the one-stop hub for accurate, reliable and up-to-date information on infrastructure issues and trends in Africa. InfraSpotlight is building the capacity of citizens, communities, development actors and key stakeholders in evidence-based advocacy, policy making and planning across the continent by increasing their knowledge of infrastructure development.

ABOUT INFRAMONI

InfraMoni is an annual publication by InfraSpotlight focused on tracking, monitoring and reporting on infrastructure financing in Nigeria. InfraMoni provides citizens, development actors, public officials and key stakeholders access to the infrastructure finance and investment landscape in Nigeria. The aim of this publication is to identify gaps and provide data-driven recommendations to drive the country's infrastructure future.

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ABBREVIATIONS

AFC - Africa Finance Corporation
AfDB - African Development Bank
AIDI - African Infrastructure Development Index
CBN - Central Bank of Nigeria
CPI - Corruption Perceptions Index
CRBDA - Cross River Basin Development Authority
DBSA - Development Bank of Southern Africa
DMO - Debt Management Office
DRE - Distributed Renewable Energy
FAAN - Federal Airports Authority of Nigeria
FCT - Federal Capital Territory
FDI - Foreign Direct Investment
FERMA - Federal Roads Maintenance Agency
GDP - Gross Domestic Product
ICRC - Infrastructure Concession Regulatory Commission
ICT - Information and Communications Technology
IEA - International Energy Agency
IFC - International Finance Corporation
InfraCorp - Infrastructure Corporation of Nigeria
ISA - Infrastructure South Africa
LCC - Lekki Concession Company
LTE - Long Term Evolution
NBS - National Bureau of Statistics
NEP - Nigeria Electrification Project
NERC - Nigerian Electricity Regulatory Commission
NIF - Nigeria Infrastructure Fund
NIIMP - National Integrated Infrastructure Master Plan
NISER - Nigerian Institute of Social And Economic Research
NNPC - Nigerian National Petroleum Corporation Limited
NSIA - Nigeria Sovereign Investment Authority
NSP - North South Power Company Limited
ONHYM - Moroccan National Office of Hydrocarbons and Mines
OPEC - Organisation of the Petroleum Exporting Countries
PCOA - Put and Call Option Agreement
P&ID - Process & Industrial Developments Ltd
PIDF - Presidential Infrastructure Development Fund
PIDG - Private Infrastructure Development Group
PPA - Power Purchase Agreement
PPP - Public Private Partnership

RAAMP-SU - Rural Access Agricultural Marketing Project- Scale Up
RDB - Rwanda Development Board
SEforALL - Sustainable Energy for All
SPIN - Sustainable Power and Irrigation in Nigeria
SWF - Sovereign Wealth Funds
TCN -Transmission Company of Nigeria
WASH - Water, Sanitation and Hygiene

FOREWORD

Since the 1970s and for the ensuing four decades, Nigeria capitalised on oil windfalls and simultaneously spent a fortune subsidising it. The government abandoned agriculture, despite Nigeria's previous status as a leading producer of groundnut, palm oil, and cocoa, and shifted 100% of corporate tax revenues from the States to the Federal level, sharing them by landmass and "minimum state responsibility" rather than derivation. The Nigerian National Petroleum Corporation (NNPC), lacking infrastructural refining capacity, relied on crude oil exchange to import refined fuel, which were then sold at a discount to Nigerians. This opaque system delivered little to no returns to government coffers.

The cumulative effect was a structurally weak fiscal regime: oil wealth was neither reinvested in infrastructure nor translated into broad-based economic development. Public spending remained dominated by debt servicing and recurrent expenditure, and by many metrics, Nigerians today are worse off economically and financially than they were in 2000.

It follows, as a corollary, that efficient anti-poverty government spending in areas such as health, education, and technology, will depend in part on the fundamentals of infrastructure financing. These fundamentals include significant financial outlays, as well as economic, political, and technological variables that influence risk and returns, credit-yield characteristics, illiquidity, and the performance of capital-intensive projects.

Measuring and monitoring these variables is incredibly challenging due to the dearth of adequate and sufficient data. InfraMoni, our annual publication, will aim to provide relevant stakeholders including citizens, individual and institutional investors, and other public interest entities with insights into these areas to support informed decision-making and greater awareness. Topical issues on the nuanced complexities of infrastructure financing, challenges, budgetary implications, and their economic impact on both the formal and informal sectors will be explored.

Given the strategic interest of global capitalists, users of this report should ponder whether infrastructure financing in Nigeria should be viewed as an asset class, a public good, or perhaps a potential financial vehicle for collateral securitisation alongside other economically relevant financing methods. If Nigeria's domestic debt markets, particularly the municipal and infrastructure bond segments, were deeper and more transparent, the delta between perceived risk and actual returns could be narrowed significantly. InfraMoni, along with other sister publications from InfraSpotlight, will evaluate the investment options available to and already being deployed by some of the country's leaders, as well as global investors.

Despite its immense promise, Nigeria is vulnerable to persistent macro-financial stressors: revenue volatility due to oil dependency, unsustainable debt service costs, interethnic tensions, and lagging productivity in the informal economy. Yet its youthful population, expanding fintech ecosystem, and regional economic importance make it a vital destination for next-generation infrastructure bets especially in technology, education and transportation among others.

Informational efficiency will be pivotal in addressing the agonisingly long list of structural issues plaguing the country, and in unlocking the immense, unrealised economic potential within. InfraSpotlight and InfraMoni aim to close the gap of information asymmetry by highlighting the initiatives that ensure risks and opportunities in Africa are not mispriced or overlooked.

Ajibola Oshunnuga, FCCA
Member, Board of Trustees
InfraSpotlight

BEFORE WE BEGIN -

A Reflection on Nigeria's Infrastructure Present and Future

I started off writing this section of the study as an Executive Summary to provide an overview of this study and why it is both important and timely. But I have now opted to write this as a note or sincere letter to/for Nigeria. Infrastructure is a recurring topic in many development conversations. This is not an attempt to be annoyingly repetitive but an emphasis of the obvious - that development is nearly impossible without infrastructure. If I may be more direct, development is ABSOLUTELY impossible WITHOUT infrastructure. Development will remain wishful thinking without the decisive pursuit of infrastructure development.

Nigeria stands at a pivotal moment in its development journey. If there is anything the past decades have proven is that rising above our current economic woes will require laser focus investment to revamp infrastructure sectors from transportation to energy to telecommunication, housing, and water and sanitation. There is a clear and direct line between inadequate infrastructure and the financing gap. With an estimated $3 trillion infrastructure deficit and an annual investment requirement of up to $170 billion, the urgency to mobilise financing has never been greater. But this is not 'mission impossible!' With the right set of reforms in the public sector supported by an enabling business environment, Nigeria will be well-positioned to attract both domestic and international financing for its infrastructure ambitions.

InfraMoni by InfraSpotlight will shed light on the current infrastructure financing landscape in Nigeria with the ultimate goal of identifying key financing and investment pathways towards the country's infrastructure future. More than a research study, it is a call to action for policymakers, investors, development actors and citizens alike to reimagine what is possible when capital is purposefully directed toward development goals and aligned with national policy priorities.

This study is both a mirror of our present and a blueprint for a better tomorrow.

Oluwabusola Fadipe
Founder and Executive Director, InfraSpotlight

1. INTRODUCTION

Background on Nigeria's Infrastructure Deficit

The term "infrastructure deficit" refers to the gap between the current level of infrastructure in a country or region and the level of infrastructure required for economic development in the country or region. The World Bank estimates that Nigeria would need to invest $3 trillion by 2050 in order to provide the infrastructure needed for the economy's maximum potential.

Nigeria's infrastructure deficit is not a recent development. Like other countries under colonial occupation, the pre-Independence focus of infrastructure development in Nigeria was "infrastructure by colonialists, for colonial interests", and any contributions to Nigeria's development during this era were centred around utility for colonial goals and not necessarily for the good of local communities. Just six (6) years after gaining her independence in 1960, Nigeria entered into a thirty-three (33) year period of political upheavals marked by multiple coup d'etats, which unsurprisingly were not conducive for meaningful infrastructural development.

Even after twenty-five (25) years of civilian rule, the level of infrastructure development in Nigeria remains poor. As the International Trade Administration points out, Nigeria's total infrastructure stock is 30% of its Gross Domestic Product (GDP) which falls far below the 70% infrastructure stock-to-GDP benchmark recommended by the World Bank. Therefore, compared to global standards, Nigeria has a stark infrastructure deficit of about 40%. Some of the major causes of the infrastructure deficit in Nigeria include but are not limited to: institutional corruption, inadequate budgetary allocation, poor investment prospects, poor quality of existing infrastructure stock, and complications in the execution of infrastructure projects.

Institutional corruption has particularly been a drain on the national revenue which could otherwise be utilised for infrastructure development. As at 2024, Transparency International reported that Nigeria ranks 140 out of 180 reviewed countries, with a score of 26 out of 100 on the Corruption Perceptions Index (CPI), where 0 represents "highly corrupt" and 100 indicates "very clean". Institutional corruption is not a recent occurrence in Nigeria; there are myriad of corrupt cases in national infrastructure projects. For instance, an investigation carried out in 2020 revealed that a multi-billion naira contract for the rehabilitation of a section of Nigeria's Eastern Railway Line was awarded to an unregistered entity. Likewise, an audit report by the Office of the Auditor-General of the Federation found that Cross River Basin Development Authority (CRBDA) mismanaged the sum of ₦2.5 billion through illegal disbursements, and payments to incompetent contractors amongst many others between 2008 to 2015. Recently, in 2023, Nigeria was involved in a legal ruling regarding the 2010 deal for Process and Industrial Developments Limited (P&ID) to build a gas processing plant in Calabar where it was held by the court that the contract was obtained by fraud. Corruption contributes significantly to Nigeria's infrastructure deficit, particularly in large-scale projects such as the Lagos-Ibadan Expressway, where multiple allegations of corruption and mismanagement of funds have slowed down completion.

Furthermore, national budgetary allocations in Nigeria do not adequately prioritise infrastructure. For example, in 2024, a total of ₦1.91 trillion was allocated to infrastructure and this amounted to only 6.63% of the total budget. Infrastructure projects are capital-intensive. Funding from the public sector is often insufficient to drive the needed development across various infrastructure sectors. The budget analysis by BudgIT Foundation in 2024 highlighted that Nigeria's annual budgets have historically favoured recurrent expenditures such as salaries and administrative costs over capital expenditures. This imbalance limits the share of the public budget devoted to infrastructure development. This arguably makes a strong case for private financing supplementing government's budgets. However, the current economic reality and political landscape often deter prospective investors, both local and foreign, from investing in infrastructure projects in Nigeria.

Again, the measure of meaningful infrastructure is in its capacity to address the needs of the people. Beyond the relatively absence of infrastructure development in many parts of Nigeria, the poor quality of existing infrastructure is another contributor to the infrastructure deficit in the country. The poor maintenance culture has largely contributed to the deterioration of existing infrastructure to such an extent that the available stock is unable to serve the needs of citizens who depend on the optimum functionality of these infrastructure assets. Using the power sector as an example, aging infrastructure has been cited as one of the contributing factors to the frequent collapse of the national grid with some transmission lines and substations aged over forty (40) years. Similarly, many road networks in Nigeria have continued to deteriorate without regular maintenance. The Federal Roads Maintenance Agency (FERMA) is an agency set up for the monitoring and maintenance of all Federal roads in Nigeria. However, it is lacking in this duty as multiple reports claim that only about 30% of Nigeria's road network is in good condition. In 2017, the Director-General of Infrastructure Concession Regulatory Commission (ICRC), Mr Chidi Izuwah said that Nigeria has about 195,000 km of road network out of which only about 60,000km are paved. Of the paved roads, a large proportion is in very poor condition due to insufficient investment and lack of adequate maintenance. Without adequate maintenance, existing infrastructure is unable to meet the country's critical socio-economic needs.

Aside from financial constraints, other complications such as legal challenges, poor planning, poor project management, etc. have contributed to delays and in some cases, abandonment of infrastructure projects; thus further contributing to the infrastructure deficit in the country. For example, it has been over fifty (50) years since ***the Mambilla Hydropower Project*** in Taraba State was originally conceived in 1972. Yet, due to various challenges, it has stalled till now and is not expected to be completed till 2030. This story is no different from the Ajaokuta Steel Project conceived and awarded in the 1970s yet has failed to live up to its industralisation dream.

Importance of Infrastructure to National Economic Growth

There is rich evidence indicating that infrastructure development has a positive impact on economic growth. A 2023 Study carried out by the World Bank concluded that infrastructure development in the energy, transport, and communications sectors significantly improves economic growth in developing countries. Indeed, the InfraMoni Research Study acknowledges that the impact of infrastructure on national development is multidimensional but focuses specifically on the social and economic dimensions of the development spectrum.

1. **Improved Standard of Living** - Poor access to healthcare, electricity, clean water, sanitation, and proper waste management all contribute to a low standard of living. As of 2021, the share of deaths in Nigeria attributed to unsafe sanitation and water sources were 2.7% and 3.4% respectively. In total, about 6% of deaths in Nigeria could have been avoided with better water and sanitation facilities. This shows how poor infrastructure contributes to poor living standards and results in declining life expectancy.

2. **Entrepreneurship and Local Businesses** - In 2021, the Federal Ministry of Finance, Budget and National Planning estimated that Nigerians and their businesses spend about $14 billion annually on private electricity generators. As a result, this adds to the overall cost of doing business. The high cost of doing business can easily discourage local entrepreneurs whereas good road networks, access to electricity, availability of financial credit infrastructure, and stable internet and communication facilities provide a conducive arena for local businesses to thrive. Entrepreneurship and the rise of local businesses in the economy contributes to increased GDP, which is a marker of economic growth. With a thriving local economy, there will be reduction or over-reliance on importation which are often a drain on national income.

3. **Development of Rural Areas and Decongestion of Urban Areas** - Like many other developing countries, Nigeria is faced with the problem of congestion and overcrowding in its urban areas. In 2022, the Nigerian Minister of Interior declared that the housing deficit in Lagos State had reached about 2.5 million due to the overcrowding and congestion in the state. This state of affairs is revelatory of the inadequacy of housing infrastructure to meet the needs of the inordinately large population in the state. The overcrowding in Lagos and other urban cities in Nigeria is largely due to massive rural-urban migration resulting from poor infrastructure, causing lower standard of living, minimal job opportunities, and other disadvantages at the grassroots. As of 2022, access to electricity and safe drinking water in rural areas in Nigeria recorded 27% and 69.4% respectively in comparison to urban values of 89% and 96.6% respectively.

Unfortunately, this rural-urban migration is harmful for the economy in various ways. For instance, acres of arable land not so easily available in urban areas are left untended and unfarmed. Also, overcrowding in urban areas stresses the revenue of the government to combat the housing crisis, scarce public transportation, and other drawbacks that are caused by the high population's pressure on infrastructure. Closing the infrastructure gap between rural and urban areas in Nigeria would potentially decrease the incidences of migration, relieve the stress on infrastructure in urban areas, and contribute to the overall economic growth.

Objectives of the Study

InfraMoni explores the dynamics of infrastructure financing and investment in Nigeria, with a focus on identifying opportunities to unlock funding and deliver inclusive growth for Nigeria's infrastructure development. The objectives of this report includes:

- To assess the current state of infrastructure financing in Nigeria, including sources and volume of funding across key infrastructure sectors.
- To evaluate the effectiveness of national initiatives, efforts and policies aimed at improving infrastructure financing, including public-private partnerships (PPPs), sovereign wealth funds, and budgetary allocations.
- To analyse the contribution of multi-stakeholders in bridging Nigeria's infrastructure financing gap.
- To identify key barriers to infrastructure investment and provide actionable recommendations for unlocking financing from a wide range of sources.
- To amplify citizen-focused insights and raise awareness on how infrastructure investments can be more transparent, inclusive, and impactful.

2. Nigeria's Current Infrastructure Landscape

Nigeria's current infrastructure landscape reflects both the scale of its development potential and the challenges that continue to limit progress. With a rapidly growing population and urbanisation demands, there is a pressing need for reliable infrastructure across sectors now more than ever. Yet, despite the surge in demands and ambitions, the reality remains a patchwork of underdeveloped, poorly maintained, and often overstretched infrastructure assets that fall short of meeting the country's socio-economic needs. This chapter provides an overview of the state of infrastructure across key sectors and highlights government-led initiatives aimed at addressing long standing gaps.

State of Infrastructure Across Key Sectors

Understanding the present is the only way to properly prepare for the future. Nigeria's current infrastructure reality requires a sector-by-sector analysis. This section highlights the current conditions in key sectors namely transportation, power, water, sanitation and hygiene (WASH) and ICT, drawing attention to systemic challenges and drawbacks plaguing each sector.

Transportation

Nigeria's transportation network comprises roads, railway, airway and waterway. Transportation is an essential sector as it aids mobility of persons and ensures access to jobs and markets. Trade depends on the efficiency of the transportation systems. As of 2023, the World Bank reported that only 22.3% of Nigerians have access to safe and dependable transportation throughout the year. Road transportation is the most common means of transportation in Nigeria. The bulk of cargoes are transported via road networks across different parts of the country. Despite the reliance on road transportation, 80% of road networks are in poor conditions. Similarly, rail transportation despite being an old means of transportation since British colonial rule is relatively underdeveloped and inadequate in the country. Available rail networks serve a small percentage of the population. According to the National Bureau of Statistics (NBS), rail infrastructure accounted for less than 1% contribution to GDP in 2021. As at 2015, Nigeria ranked 125th for road transportation scoring 2.7; ranked 100th for rail transportation scoring 1.5, and 121st for air transportation scoring 3.2. It is evident that the Nigerian transportation sector is not only inadequate for meeting the average economic needs but also not globally competitive. According to the Minister of Mines and Steel Development, the road infrastructure deficit in Nigeria had reached 70% by 2022, as only 50,000km out of 200,000km of road networks in the country were paved at the time. Although available data paints a gloomy picture of Nigeria's transportation as a whole. However, it is important to highlight laudable initiatives by the Federal Government to attempt rewriting the current story. For instance, in 2013, Nigeria received $600 million loan from China's Export Import Bank to build a 2,000 mile (3,218 km) nationwide high speed rail system, a twenty-five (25) year project plan with the intention of building railway connectivity across some of Nigeria's commercial hubs: Lagos and Kano, Kaduna and Warri, Bauchi and Abuja, and Abuja and Port Harcourt. Acknowledging growth in the railway transport sector, Veriv Africa remarked, "in the third quarter of 2023, the number of passengers that used the rail system grew to 594,348, a significant increase from the 500,348 it was in the third quarter of 2022."

This represents a 18.79% growth rate. Again, at the end of 2024, the World Bank approved a $500 million concessional financing towards the Rural Access Agricultural Marketing Project- Scale Up (RAAMP-SU). This project could be a game changer for road infrastructure by supporting the rehabilitation, upgrade, and maintenance of 6,500 km of rural roads in Nigeria. Nonetheless, there is a need for increased investment and decisive implementation to see these government-led initiatives for transport infrastructure succeed.

Power

Regular blackouts and reports of grid collapses are the defining features of Nigeria's power sector; pointing to the inadequacies of power infrastructure to meet the needs of the large population. According to the World Bank, as of 2022, approximately 60.5% of Nigeria's population had access to electricity. Adoghe et al. in 2023, highlighted that the Nigerian electricity generation capacity of 4,500 megawatts is insufficient to meet the needs of approximately 200 million people in Nigeria. By the fourth quarter of 2024, the Nigerian Electricity Regulatory Commission (NERC) declared that although national electricity generation capacity had increased to 5,296.89 megawatts, over 61% of the 28 grid-connected power plants in Nigeria were producing below their installed capacity leading to a decline in the actual electricity generated to 4,207.41 megawatts. This reveals that actual electricity generated in Nigeria is below the nation's generating capacity. Some of the factors limiting the efficiency of electricity generation include poor transmission networks and the use of poorly maintained or outdated equipment. The NERC reports that there were three (3) incidents of total collapse and two (2) incidents of partial collapse, amounting to a total of five (5) incidents of national grid collapse within a period of just 3 months (September -December 2024).

Water, Sanitation and Hygiene (WASH)

Safe drinking water facilities are also not readily available in the country. In 2022, only 29% of Nigerians had access to safely-managed drinking water facilities and the amount of people with access to these facilities in rural areas is over 10% less than in those residing in urban areas. Safely managed drinking water facility refers to water sources which are located on the premises, available when needed, and free from contamination. Therefore, Nigeria does not just have poor drinking water facilities generally, there is a greater deficit of safe drinking water facilities in its rural areas compared to its urban areas. Also, only 32% of Nigerians had access to safely managed sanitation facilities as of 2022. Safely-managed sanitation facilities are those which are designed to hygienically separate excreta from human contact, are not shared with other households, and involve the safe disposal of excreta on-site or its transportation and treatment off-site. In addition, a survey carried out by the Federal Ministry of Water Resources in 2021 revealed that only 11% of public water systems in Nigeria are dependable in respect of their operation and maintenance. Suffice to say, WASH facilities are essential for the overall health and wellbeing of citizens. Without adequate infrastructure for clean water, sanitation and waste management, citizens are at risk of various diseases. According to UNICEF, "The use of contaminated drinking water and poor sanitary conditions result in increased vulnerability to water-borne diseases, including diarrhoea which leads to deaths of more than 70,000 children under five annually."

We see this happen every time in Nigeria. For instance, in September 2024, there were 10,837 cases and 359 deaths reported across 35 states and the FCT arising from cholera outbreak in the country. A research by Isukuru et al. regarding the 2024 cholera outbreak identified the poor state of infrastructure within Nigeria's water management sector as a chief cause as it presents an obstacle to effective service delivery and water resource management. Thus, there is a need for improved infrastructure for water treatment and waste management to avoid future public health incidents like this.

ICT

According to the NBS, the ICT sector contributed about 20% of Nigeria's real GDP in the second quarter of 2024, evidencing the positive contribution of the Nigerian ICT sector to the national economy. In Africa, Nigeria is one of the largest mobile markets, with at least 84.2% of Nigerians having access to 4G LTE network services by 2023 which is greater than the African regional average of 70.9% in 2024. Also, mobile data is relatively affordable with reports showing that as of 2024, mobile data broadband plans consumed an annual 1.75% of income per person in Nigeria. Under the leadership of the current Minister of Communications, Innovation and Digital Economy, Dr. Bosun Tijani appointed in 2023, the ICT sector has made positive strides with potential for greater achievements due to laudable initiatives like the Strategic Plan 2023-2027 which aims to propel Nigeria into the top 25 percentile of global research in technology and to achieve 70% digital literacy by 2027. Also, Nigeria recently entered into a partnership with Ericsson to establish a 5G Innovation Hub and leverage 5G for advancements in the education, agriculture, and mining sectors. This is a promising development considering 5G mobile network's capacity for greater internet speed and improved connectivity compared to its 4G LTE predecessor.

Recent Developments and Government Initiatives

In response to the vast infrastructure deficit, successive Nigerian governments have launched various initiatives and reforms to improve planning, funding, and delivery of infrastructure projects. This section highlights past initiatives, ongoing reforms, and notable government-led interventions shaping Nigeria's infrastructure agenda.

1. **The Renewed Hope Cities Project** was launched in 2024 to be a collaboration between the Nigerian government and private sector actors to increase the housing infrastructure by providing 50,000 home units across the country. At the time of the announcement, the private sector actors in the project had reportedly committed to about ₦2 trillion funding to the project. The project is a part of the broader Renewed Hope Agenda championed by the President Bola Ahmed Tinubu. It has nationwide coverage and it is coordinated by the Executive arm of government through the Federal Ministry of Housing and Urban Development.

2. Infrastructure Corporation of Nigeria (InfraCorp) is a government-backed platform responsible for the mobilisation of investment for improving key infrastructure sectors such as water and sanitation, power supply, transport, and ICT. InfraCorp was established in 2021 without a specific end date. It has a nationwide scope and it is co-owned by the Central Bank of Nigeria (CBN), Africa Finance Corporation (AFC), and the Nigeria Sovereign Investment Authority (NSIA).

3. Medium Term National Development Plan (2021–2025) is a blueprint for national development aimed at propelling the socio-economic transformation of Nigeria, which is part of a long-term aspiration contained in the Nigeria Agenda 2050. The Medium Term National Development Plan (2021–2025) is a successor to the Economic Recovery and Growth Plan (ERGP) between 2017-2020. The National Development Plan is divided into seven (7) parts and Part 2 of the Plan is dedicated to infrastructure development in the following six (6) sectors: transportation, power, housing, digital economy, financial sector, and science, technology and innovation. For each of these sectors, the Plan explicitly outlines overall objectives, specific targets, and strategies for their achievement by the end of 2025. The Plan has nationwide coverage and is coordinated by the Executive arm of government through the Federal Ministry of Finance, Budget, and National Planning.

4. Road Infrastructure Development and Refurbishment Investment Tax Credit Scheme is a ten (10) year scheme approved by Executive Order No 007, 2019 , signed by the President Muhammadu Buhari on 25 January, 2019. It is set to end in 2029. The purpose of the scheme is to stimulate private sector participation in road construction and rehabilitation projects in Nigeria. This is done by providing the private sector with a reimbursement of the costs expended on eligible projects, in the form of a credit against their Companies Income Tax liabilities. The scheme is not directly linked to any pre-existing policy. It is coordinated by the Executive arm of government through a Management Committee headed by the Minister of Finance.

5. Nigeria Electrification Project (NEP) is a Federal government initiative, which is supported by World Bank funding and was launched in August 2018. Its activities are managed by the Rural Electrification Agency (REA) and its aim is to increase electricity access for households, public institutions, and Micro, Small and Medium Enterprises (MSMEs) in underserved rural communities across Nigeria. The NEP is an ongoing initiative contributing to Nigeria's broader goals to increase national access to energy. The project comprises four (4) essential components: the implementation of solar hybrid mini grids, the installation of stand-alone solar systems for homes and MSMEs, the energising of education by providing power to Federal universities and teaching hospitals across Nigeria, technical assistance to build a framework and improve institutional capacity for rural electrification.

6. The Presidential Infrastructure Development Fund (PIDF) is a specialised fund that was established in February 2018 by the Presidency to intensify critical infrastructure projects which are essential for Nigeria's economic growth. The PIDF is coordinated by the NSIA, under the Executive arm of the government, as a continuing initiative with no particular end date. It is not directly linked to the cessation of a pre-existing policy; rather it is a part of the government's broader efforts to employ a focused approach to infrastructure development. The PIDF has nationwide coverage. Some of the projects currently under the PIDF include: the Lagos-Ibadan Expressway, the Abuja-Kano Road, the Second Niger Bridge. The NISA is the official funder and project manager for the PIDF.

7. The National Integrated Infrastructure Master Plan (NIIMP) is a detailed policy plan by the government to increase the stock of Nigeria's infrastructure to at least 70% of its GDP by 2043. The NIIMP was originally established in 2014 and was later reviewed and updated in 2020. It is intended to run from 2014-2043. It covers government plans to improve national infrastructure across key sectors such as transportation, energy, ICT, housing, agriculture, water and others. With this plan, the government aims to continue building on previous efforts to address infrastructure deficiencies in Nigeria. The NIIMP has nationwide coverage and it is managed by the Federal Ministry of Finance, Budget, and National Planning which is under the Executive arm of government. There have been successfully completed projects aligned with the NIIMP like the Abuja-Kaduna Railway, which was inaugurated in 2016. However, in the course of its implementation, the actualisation of the NIIMP has encountered delays due to funding gaps and insufficient investments.

Benchmarking Nigeria Against Peer Economies in Africa and the Global South

The African Infrastructure Development Index (AIDI) reveals some interesting results about the performance of infrastructure in Nigeria compared to other African countries. Based on 4 indicators: Electricity, Transport, ICT, Water and Sanitation, the AIDI provides a composite score on infrastructure development in African countries between the range of 0 to 100, with higher scores indicating better infrastructure development. In 2024, Nigeria scored 25.7 out of 100. Meanwhile, top performing African countries such as South Africa (Southern Africa), Egypt (North Africa), and Seychelles (East Africa) received scores of 82.54, 91.43, and 99.77 respectively indicating high levels of infrastructure development. This grave disparity between the infrastructure development in Nigeria versus top performing countries in other African regions raises questions as to the factors which have contributed to these state of affairs.

You might wonder why and how these countries are comparative or relevant benchmarks. Like Nigeria, these countries have a history of colonialism. For example, Seychelles gained independence in 1976, over fifteen (15) years after Nigeria. Often, Nigeria's colonial history is cited as a factor for limited development. This report acknowledges the relationship between colonialism and underdevelopment however, considers it as but only one factor in the grand scheme of things rather, years of institutional failures and inadequate investment have become

the more influential factors for the current infrastructure deficit.

It is important to note that Nigeria is not exactly comparable in population size as the previously cited high performing African countries. The World Bank reveals that as of 2023, Seychelles had a population of 119,773, while Nigeria had a population of 227,882,945. Again, the total population in Egypt and South Africa were between these two (2) figures, making Nigeria the most populous of its African peers with higher infrastructure development. Certainly, the influence of population on infrastructure cannot be overstated as a greater amount of resources and investment will be required to meet the needs of a larger population size. Nevertheless, when compared to countries like China which according to the World Bank, far exceeds the population size of Nigeria at 1.41 billion in 2023, Nigeria's infrastructure development still shows a grave disparity.

Going by the 2024 World Competitiveness Ranking, Nigeria's infrastructure was ranked 66th out of 67 countries, with a score of 5.4, while China's infrastructure was ranked 15th out of 67 countries with a score of 68.8. Japan with a population of 120.3 million ranks a few spots below China on the World Population Review's 'latest infrastructure by countries' ranking at 23rd place and with a score of 63.2.

Indonesia's population is nearly comparable with Nigeria at 285.7 million, making it the 4th largest country in the world. Despite its population size, Indonesia ranked 52nd for infrastructure and 27th overall in the IMD World Competitiveness Ranking 2024. Suffice to say, Indonesia has a track record of improvements where infrastructure is concerned. For instance, Indonesia ranked 52nd for infrastructure in the World Economic Forum's Global Competitiveness Index of 2018, improving from 60th in 2016 and 62nd in 2015. Similarly, prior to the IMD World Competitiveness Ranking, Indonesia ranked 55th for infrastructure and 40th overall in 2020, just four (4) years earlier. Although the move up from 55th in 2020 to 52nd in 2024 is not a significant improvement, it is still noteworthy. This seemingly proves that Nigeria's large population does not inordinately disadvantage the country from making strides in infrastructure development. It foregrounds that it is possible to make steady improvements in infrastructure development over the years despite population growth.

In conclusion, this benchmarking exercise highlights that while population size and colonial legacy are important contextual factors, they are not definitive barriers to infrastructure development. The experiences of countries like Indonesia, China, Egypt and so on demonstrate that with strategic investments, consistent policy implementation, and institutional reforms, even populous countries can achieve significant infrastructure development. For Nigeria, this comparison serves not just as a reflection of the current state of its infrastructure, but as a call to action underscoring the urgent need to adopt policy reforms and prioritise infrastructure as a strategic objective for national development.

3. Sources of Infrastructure Financing in Nigeria

Public Sector

The nexus between infrastructure and holistic national development is clear cut. Without infrastructure, national development potentials will be both limited and unattained. It is evident that the state of Nigeria's infrastructure is deficient to meet the demands for economic growth, social development and competitiveness. However, to scale the stock and value of infrastructure in Nigeria, the financing dimension cannot be ignored. A significant portion of the required infrastructure finance comes from the public sector. In particular, the government through a combination of its annual budget and various funding mechanisms has been a major contributor to infrastructure financing in the country. Traditionally, the provision of infrastructure has been seen as a public good with the government entrusted with the responsibility of providing infrastructure assets and services for the benefit of citizens. Thus, it makes sense that public spending reflects this duty. This study examined three (3) types of public sector financing: government budgetary allocation, sovereign wealth funds and reserves, and infrastructure bonds.

1. Government Budgetary Allocations

Since independence in 1960, infrastructure development in Nigeria has been primarily financed through the public budget. This is not an isolated phenomenon rather a shared experience in many other parts of Africa. In a 2018 research undertaken by Andreas Kappeler et al, it was discovered that financing for infrastructure development in Africa is highly dependent on the contributions of national governments, which account for an estimated 42% of total infrastructure financing. Similarly, in a much earlier research by Dailam and Leipziger (1986), it was demonstrated that "out of the $1.3 billion infrastructural financing raised by developing countries, only $100 million is sourced from private sources."

The role of government as a primary financier of infrastructure projects in Nigeria has been challenged over the last couple of years given prevailing macroeconomic factors. There is now a consensus that there is a need for innovative financing solutions to address the infrastructural financing deficit in Nigeria. Nonetheless, the annual budgetary allocation remains a major financing mechanism, thus, this study highlights allocations to infrastructure from 2023 till date. The rationale for the selection of this strict timeline is to focus solely on the current administration led by President Bola Ahmed Tinubu elected and sworn into office in 2023

On the 3rd of January 2023, President Muhammadu Buhari signed the 2023 Appropriation Bill of ₦21.83 trillion into law, Nigeria's largest budget at the time. This was a transitional period as it was the final Appropriation Bill by President Buhari before the Tinubu administration was ushered into office. For the 2023 budget, ₦258.49 billion was allocated to the power sector, ₦141.34 billion to transportation, and ₦534.46 billion to works and housing making a total of ₦934.29 billion infrastructure-related allocations. All things being equal, given efficient controls and management of the budget, it would have translated to a progress in Nigeria's infrastructure however, this is not the case. Not only was there a ₦10.78 trillion deficit in the budget as revenue from oil dropped, but also a huge chunk of the budget (₦6.31 trillion) was spent on debt servicing which in turn impacted allocation to capital projects. .

In the following year, 2024, the approved budget was ₦28.78 trillion as total expenditure and ₦19.60 trillion as projected revenue, leaving a ₦9.18 trillion fiscal deficit, arguably smaller in comparison to the previous year. President Bola Ahmed Tinubu originally submitted an Appropriation Bill of ₦27.50 trillion for the 2024 fiscal year. Following review by the National Assembly and consequent passing into law, the budget arrived at the final figure of ₦28.78 trillion. Under the 2024 budget, allocations to infrastructure development stood at 6.63%, a total of ₦1.91 trillion. The bulk of this was allocated for public works and projects, followed by the power sector receiving an estimated allocation of ₦418.37 billion (1.45% of the budgeted expenditure). In addition, the transportation and water sectors received ₦110.06 billion and ₦296.69 billion respectively. Although these figures indicate at face value extensive financial commitment to infrastructure, it does not account for what proportion goes into actual projects and what proportion of the budget is expended on personnel costs. For instance, of the ₦110.06 billion earmarked for transportation, ₦17.72 billion was reserved for personnel costs and ₦1.17 billion for overhead costs leaving ₦91.18 billion for capital expenditure.

For this current fiscal year 2025, President Bola Ahmed Tinubu signed the 2025 Appropriation Bill of ₦54.99 trillion into law, Nigeria's largest and most ambitious budget yet. Allocation to infrastructure represents 8.16% of the total budget at ₦4.06 trillion. Infrastructure received the second largest share of the budget after defense and security, indicating increased prioritisation of long-term infrastructure development in the annual budget. At the time of conducting this study, it was considered too early to analyse the budget performance. Nevertheless, there are indications of budget underperformance just as the previous years. According to Nigerian Institute of Social And Economic Research (NISER), a public research institute, "the effective implementation of the 2025 budget requires strong fiscal-monetary policy coordination, efficient resource allocation, economic diversification, governance reforms, and data-driven decision-making to address challenges such as inflationary pressures, exchange rate volatility, and social inequalities, thereby fostering sustainable growth."

The analysis of budgetary allocation between 2023-2025 is instructive. First, it is clear and evident that budgetary allocation is a consistent source of infrastructure financing in Nigeria that is, provision for capital projects are made annually in the budget to key infrastructure sectors as a testament of the government's duty to provide basic amenities. It will be unimaginable for the Federal Government to deliberately omit sectors such as power and transportation in its budget for instance. As such, this is a constant source of financing. However, the mismatch between revenue and expenditure makes the annual budget an unreliable and inadequate source of infrastructure financing. With the decline in revenue, infrastructure financing is at risk as the Government (at Federal and State levels) is seemingly able to invest in infrastructure where there is a steady revenue base. A good example of this is the global oil market crises.

Revenue from oil and gas has been a major driver of Nigeria's income. The global oil market is volatile. The International Energy Agency (IEA) in a recent report published in March 2025 highlighted that benchmark crude oil prices fell in February and early March and there are mounting concerns over the outlook for the economy and global oil demand coupled with potential production cuts in April 2025 by OPEC. In light of this, fluctuations in the global oil market can have a detrimental impact on Nigeria's oil earnings which in turn affects the country's revenue.

Furthermore, according to the Debt Management Office (DMO), Nigeria's External Debt Stock as at 31 December 2024 stood at $45.78 billion. Given loan repayment, debt servicing, depleted oil revenues and other macroeconomic challenges, the government budget is largely inadequate to single handedly cater to the country's infrastructure needs. The World Bank (2020) states, "with 60% of the low levels of overall spending being absorbed by the public sector salaries and pensions, and growing interest payments, fiscal space for implementing projects, especially multi-year projects remain highly constrained." The World Bank equally predicts that at the current levels of public investment allocations, it would take Nigeria three hundred (300) years to provide the basic infrastructure that the country needs.

Finally, the World Bank in 2022 remarked that Nigeria has one of the lowest levels of public spending in the world. Consequently, "low public spending translates into poor development outcomes." This simply suggests that for Nigeria to perform at a higher level of development, there is an urgent need to raise its public spending through its budgetary allocation mechanisms. More than that, there is a need for diverse funding options to supplement the government budget where infrastructure financing is concerned.

2. Sovereign Wealth Funds and Reserves

Sovereign Wealth Funds (SWF) are state-owned investment funds which typically consist of the country's surplus revenues. Veriv Africa explains in a very simple way:

Resource-rich nations with large reserves of commodities and crude oil usually benefit from a surge in prices in the global market. As market prices increase, these nations profit from the sale of these resources and sometimes profit beyond projections. These excess profits would need to be saved or used to invest in critical infrastructure and, in many cases, to serve as a buffer during economic hardships, and this is where a sovereign wealth fund comes in.

Nigeria's sovereign wealth funds (SWF) are managed by the NSIA. These funds primarily consist of surplus crude oil revenue. The NSIA was established in May 2011 by an Act of the National Assembly. According to Section 3 of the Act, the purposes of the NSIA is to:

- build a savings base for the Nigerian people
- enhance the development of Nigerian infrastructure, and
- provide stabilisation support in times of economic stress.

The funds managed by the NSIA are divided into three (3) major categories: Nigeria Infrastructure Fund, Future Generations Fund, and Stabilisation Fund. For the purpose of this study, the Nigeria Infrastructure Fund (NIF) is the most relevant. NIF is centred around the development of domestic infrastructure through investments in strategic sectors including agriculture, healthcare, power, and transportation.

SWF if optimised is a key source of infrastructure financing due to its long investment nature and large amounts of capital. This simply means SWF holds large capital for a long period of time. Infrastructure projects are often large scale, capital intensive and long term in terms of the amount of years it takes to complete. As a result, infrastructure investments are considered risky because it can take a long period of time for the investment to yield returns. Thus, SWF is well suited to fund infrastructure projects as it can guarantee a huge capital to be invested over a long period of time because there is no pressure for the investment to yield returns immediately. For instance, the NIF as at 2016 managed an estimated sum of $400 million (twice the annual recommended national infrastructure spending of $130-$170 million by AfDB). As a matter of fact, SWF can wait several years to slowly build the investment to grow and yield returns. This is an advantage of SWF in comparison to many private sources of investment as it will be discussed later on in this chapter.

Furthermore, asides providing long-term capital for infrastructure projects, SWF attracts additional funding from third-party sources (both domestic and foreign) to supplement the public budget for infrastructure. For instance, to unlock finance for vital infrastructure development, the Private Infrastructure Development Group (PIDG) worked with the NSIA to establish the Nigerian Infrastructure Credit Enhancement Facility (InfraCredit) in 2017. Similarly, in March 2025, NSIA partnered with global actors such as: Sustainable Energy for All (SEforALL), the International Solar Alliance (ISA) and Africa50 to launch an innovative partnership called the DRE Nigeria Fund of $500 million to develop and finance distributed renewable energy (DRE) projects in Nigeria.

The benefits of SWF to domestic infrastructure financing cannot be overstated. However, there are limitations that threaten the overall effectiveness of SWF. First, the initial capital may be limited to absorb the huge infrastructure needs. This is clearly demonstrated in that the initial allocation given to the NSIA in 2012 at inception was a seed capital of $1 billion of which the NIF received 40% of the total allocation, that is, $400 million. This is considerably small given the World Bank estimates Nigeria's infrastructure deficit to amount to $3 trillion as aforementioned. Although the capital base of the NSIA has increased over the years; $3.5 billion as at 2021. Nonetheless, it is not immuned from various macroeconomic shocks which leads to the second point. SWF relies on the country's surplus revenue which means its sustainability depends on the country's revenue base.

Since its establishment, the NSIA has financed a slew of infrastructure projects all over Nigeria, by itself and in concert with other organisations. Some of these projects include: the ***Kano Solar project for the construction of a power plant, and the Lagos-Ibadan Expressway.***

In sum, SWF is an innovative financing mechanism. It has the potential to catalyse long-term infrastructure development in Nigeria. To maximise its potentials, it is of absolute necessity to drive economic diversification as this could ensure a steady and constant revenue base for the country.

3. Infrastructure Bonds

Infrastructure bonds are financial instruments which are sold to investors to raise capital for infrastructure projects. These bonds often come with guarantees or incentives that make them attractive to investors such as competitive interest rates. Infrastructure bonds may be issued by Federal government agencies like the DMO which manages government bonds. They may also be issued by private entities or development finance institutions. An example of infrastructure bonds issued by a private entity in Nigeria is the Series 1 Green bonds, issued by North South Power Company Limited (NSP) in 2019 to raise capital for power generation projects. For development finance institutions, the Second Niger Bridge Project was funded in part by infrastructure bonds issued by the NSIA.

As a financing tool, infrastructure bonds serve as a dependable means of raising the significant capital required for large-scale infrastructure projects. However, where the projects do not deliver the expected returns, the issuer runs a risk of defaulting in repayments.

Private Sector

In 2020, 42.2% of infrastructure investment in African countries came from the public sector. It has already been established that this model of financing is not sustainable to meet the pressing infrastructure demand. Private sector participation can be the game changer for infrastructure financing. As at 2016, it was observed that private capital has played a very limited role in financing infrastructure in Africa as a whole. Nevertheless, the private sector has increasingly become a player in infrastructure financing over the years. For instance, African sovereign states launched the Africa Finance Corporation (AFC) in 2007 to mobilise private sector-led investment banks and development finance institutions promoting private-sector investment in power, transport and telecommunications infrastructure projects. Without any doubt, there is huge potential for the private sector to become an even stronger player in infrastructure financing. However, significant barriers exist in the ability of this sector to provide capital at a large scale.

1. Public-Private Partnerships (PPPs)

The World Bank defined PPP as "a long term contract between a private party and a government entity, for providing a public asset or service, in which the private party bears significant risk and management responsibility and remuneration is linked to performance." PPP is a contractual arrangement between a government and a private actor. PPP is an effective tool for infrastructure financing by combining the strengths of both the public and private sectors to close the infrastructure gap. What makes the private sector a vital source of infrastructure financing is that beyond capital, the private sector also contributes technology and operational expertise needed for the efficient delivery of infrastructure projects.

It is not far-fetched, the private sector is motivated by profit making hence, there is a vested interest in minimising delays, keeping costs at minimum and ensuring projects are delivered in time in order to optimise the commercial value of the infrastructure assets. Similarly, private sector participation ensures capital is injected into projects that have the potential to yield returns in the long-term thereby, reducing projects with no future prospects to the overall economy. This is so true of Nigeria where there are many elephant projects, expensive to build and maintain but have little to no tangible socio-economic benefit.

In 2008, the Federal Government established the Infrastructure Concession Regulatory Commission (ICRC) under the Infrastructure Concession Regulatory Commission (Establishment, etc) Act, 2005 to regulate PPP efforts of the government and address Nigeria's physical infrastructure deficit.

Some examples of PPP projects in Nigeria are:

- **Lekki-Epe Expressway Toll Road** - This is a landmark PPP project in Nigeria and West Africa which involved the development and widening of the existing 49.5km Lekki-Epe expressway. The primary purpose of the project is to improve and modernise road infrastructure along the Lekki-Epe Corridor. With a thirty (30) year concession agreement between the Lagos State Government and the Lekki Concession Company, the project's total cost is estimated at ₦44.91 billion (AfDB).
- **Murtala Muhammed Airport Terminal 2 (MMA2)** - The MMA2 is funded and operated by Bi-Courtney Aviation Services Limited under the PPP concession agreement between the Federal Government and Bi-Courtney.
- **Azura-Edo Independent Power Project** - The Azura-Edo IPP is a 461 Megawatt open cycle gas turbine power station, a significant stride in resolving Nigeria's electricity woes. Azura Power West Africa Ltd. (the project company) includes a consortium of private investors serving as project sponsors making up 97.5% of the investment share alongside the Government of Edo State contributing 2.5% (World Bank).

The above examples demonstrate the vast and undeniable potential of PPP in closing the infrastructure financing gap. PPP could be a lifeline for revamping Nigeria's infrastructure financing landscape. However, PPP should not be seen as a silver bullet. In fact, there are important factors to consider for PPP to yield benefits. In particular, the public sector has a critical duty in ensuring a conducive business environment for the private sector to operate and thrive. Incentives such as but not limited to: business reforms, stability of the financial market, project bankability and stable political environment are factors that will attract private participation in infrastructure projects. Today, the private sector faces significant challenges that hinders its overall performance or ability to guarantee capital for infrastructure projects. A major challenge is lack of continuity in government administrations, political instability and policy inconsistencies. For example, the MMA2 in its project lifespan from 2006 has dealt with six (6) different Ministers and five (5) different Chief Executives of the Federal Airports Authority of Nigeria (FAAN). As infrastructure projects typically last for several years, changes in the government can delay progress and ultimately, impact the overall success of the project.

Again, the PPP model involves risk sharing and allocation. It is common practice for associated project risks to be transferred to the private party who will in turn ensure risk mitigation. However, in some instances, risks are not properly managed as in the case of the Lekki-Epe Expressway Toll Road which posed challenges to the project's success. George Nwangwu in 2022 did a comprehensive study highlighting drawbacks and lessons from this project on account of inadequate risk management. A good example identified in that study is legal and regulatory risk. Prior to the project, the Lagos State Roads, Bridges and Highway Infrastructure (Private Sector Participation) Development Board was established within the Ministry of Public Works to grant concessions to investors for road infrastructure projects. However, the Body comprised mainly public works staff with little or no PPP delivery experience thus, making them unfit to negotiate certain aspects of the contract with LCC.

According to Nwangwu, the concession agreement did not contain a detailed performance regime for LCC making it nearly impossible to penalise LCC for failure to meet key performance indicators (KPIs) in the course of the project. This risk could have been mitigated by the Lagos State Government hiring experienced personnel or consultants to drive the negotiation of the concession. In 2017, the World Bank highlighted that "Nigerian laws and regulations governing PPPs are not clear, and that key stakeholders need more knowledge to plan, structure, and implement complex PPPs."

To conclude, PPP can be the missing link to infrastructure financing in Nigeria but only on the condition that there is a robust legal and institutional framework to support project success from transparent bidding processes, effective contract management, progressive legislations and an efficient court system, PPP can rescue Nigeria's infrastructure financing in the foreseeable future.

2. Foreign Direct Investment (FDI)

FDI can directly or indirectly boost infrastructure financing in Nigeria. FDI inflows can be referred to as "the investment made by foreign entities into domestic businesses and assets of a host country." FDI inflows are important for economic growth as it brings in capital, technology and expertise which in turn creates economic opportunities. The oil and gas sector has traditionally attracted FDI with multinational companies bringing in capital to establish extractive operations in the country. However, there has been progress to diversify FDI inflows to non-oil sectors in Nigeria particularly, telecommunications. Investment Monitor highlighted that FDI accounted for 20.8% of the country's GDP in 2021.

One of the ways FDI supports infrastructure growth is that multinational companies when investing can undertake supporting development projects to protect and optimise the value of their investment in the host country. This could take the form of constructing connecting roads, providing water services or supplying electricity for their industrial operations while benefiting the immediate community(ies). Foreign investors and oil companies have been instrumental in building critical public infrastructure in Nigeria such as roads, electric cables, ports, and power plants often as part of broader agreements to support their operations and the country's economic development.

3. Domestic Banks

The Nigerian banking sector has undergone restructuring to stabilise the industry. Summarising some of these reforms, Chuks Ibechukwu, a lawyer and development financier describes how the restructuring process has produced Nigerian banks having stronger balance sheets, capital base, corporate governance and risk management practices. In essence, Nigerian banks have become key players in infrastructure lending and financing. For example, the Infrastructure Group of First Bank of Nigeria offers financing and investment strategies to project sponsors working in key sub-sectors in the transport industry (public transportation, roads and toll roads, rail and light rail transit, seaport and airport development), pipeline construction and water utilities.

Despite the laudable progress in the Nigerian banking and financial industry, it is still not in the position to inject huge levels of financing into long-term infrastructure projects. The reason for this is not far-fetched. In a Stears article, it was explained that projects such as pipelines and airports tend to operate for a twenty (20) to thirty (30) year period making it nearly impossible for commercial banks to provide funding towards long-term infrastructure projects of this nature. The same article highlighted, "Nigerian commercial banks are not designed to lend for over a seven (7) year period given the short term nature of their business." We see this in the Lekki-Epe Toll Road Project where Nigerian banks were unable to provide long-term loans for the project. To overcome this barrier, multiple banks had to come together as a syndicate to provide loans as a collective.

Multilateral Institutions, Development Banks and Foreign Loans

1. Spotlighting World Bank and AfDB: Funding from Development Banks

Based on a study of infrastructure financing from multilateral development banks between 2007-2020, Lee and Gonzalez (2022) reported that the AfDB, the International Finance Corporation (IFC), the European Investment Bank, and the World Bank were Sub-Saharan Africa's largest contributors to infrastructure financing within the period of study. Since 1958, the World Bank has been active in lending to poverty alleviation programmes and improvements of living standard in Nigeria with over one hundred and thirty (130) recorded loans and credits. In particular, the World Bank's Annual Report in 2024 showed that Nigeria was one of its top ten (10) borrowers for the 2024 fiscal year. As part of its ongoing partnership with Nigeria, the World Bank entered into a Country Partnership Framework in 2020 to guide its operations between 2021-2025.

More specifically, regarding infrastructure, the World Bank has been instrumental in financing multiple projects in Nigeria such as the Sustainable Power and Irrigation in Nigeria (SPIN) project. The SPIN project aims to address the tripartite nexus of water-food-energy challenges through investments in irrigation systems, dams, and hydropower. For this project, the World Bank committed to the provision of a $500 million credit loan out of the total projected cost of $700 million.

Also, the World Bank has been a notable financing partner for infrastructure in the Nigerian energy sector. NEP (earlier mentioned in Chapter 2) is one of such initiatives which has provided over 5.9 million Nigerians with access to electricity, installed over a hundred and fifty (150) mini-grids, and provided training on the construction of solar hybrid power plants to over a hundred and forty (140) female students in Nigeria.

At the regional level, the AfDB is a significant multilateral institution contributing to infrastructure financing in Nigeria. Since 1971, the AfDB has made numerous financial commitments to Nigeria amounting to about $10.47 billion. Infrastructure development is the AfDB's first priority area in its strategy for Nigeria. Therefore, as of December 2024, the AfDB had twenty-one (21) completed and eight (8) ongoing projects in Nigeria within the power, transport, communications, water supply and sanitation sectors. The AfDB has also contributed to the local infrastructure financing sector through the provision of a subordinated loan of $15million to InfraCredit in June 2024, to strengthen InfraCredit's capital base and attract investors to help close Nigeria's infrastructure financing gap.

From the above, it is clear that multilateral and development financial institutions like the World Bank and the AfDB are integral to the financing and partnership for infrastructure development in Nigeria. They are an external source of financing that helps to augment the infrastructure development efforts of the Federal Government which would otherwise be confined to its revenue. Unlike private investors with the main aim of making profits, multilateral and development financial institutions such as the World Bank and the AfDB are seemingly more concerned with contributing to holistic development. As a result, they often offer more favourable credit conditions than private investors and in some cases, they offer grants which do not require repayment. For example, ***the Lagos Urban Transport Project*** was partly funded by a $4.5 million Global Environmental Facility Grant from the World Bank in 2010. Hence, multilateral and development finance institutions are invaluable sources of infrastructure financing for developing countries like Nigeria with domestic revenue constraints due to heavy debt burden and macroeconomic instability.

2. Bilateral Agreements and Concessional Loans

Bilateral agreements refer to formal agreements between two (2) countries for cooperation on a particular project. There are many instances where this has been used in Nigeria as a source of infrastructure financing. One notable example is ***the Nigeria-Morocco Gas Pipeline Agreement,*** which was signed in 2022. The purpose of the agreement is to design a pipeline to transport natural gas from Nigeria to Morocco. As the major stakeholders, the NNPC and the Moroccan National Office of Hydrocarbons and Mines (ONHYM) have jointly contributed to the project, supported by external funding from organisations like the OPEC.

On the other hand, concessional loans are loans offered by a party on favourable terms such as low interest rates, extended repayment periods, and others. The purpose of a concessional loan is to lessen the debt burden of the borrower compared to a traditional commercial loan. Concessional loans are often used by international organisations and foreign governments to support sustainable development projects in developing countries. For example, the World

Bank's approved concessional loan for the ***RAAMP-SU Project*** (earlier mentioned in Chapter 2) for strengthening rural road infrastructure in Nigeria in order to improve the marketing of agricultural products. Another example is the ***Zungeru Hydropower Plant*** in Niger state which was completed in 2023 with the potential to contribute 700 megawatts of electricity to the national grid. This significant contribution to Nigeria's power infrastructure was 75% funded by a Chinese concessional loan.

4. Infrastructure Financing Gap in Nigeria

Despite various funding sources and mechanisms, the scale of required financing significantly exceeds current allocations and commitments. This chapter explores the reality of the infrastructure financing landscape in Nigeria by examining the magnitude of Nigeria's infrastructure financing requirements vis-a-vis available funding. It is intended as a diagnostic to evaluate and uncover some of the persistent root causes behind the financing gap.

Estimated Infrastructure Financing Needs

The term, 'infrastructure financing gap' refers to the gap between the available funding for infrastructure development and the actual amount that is required or needed. It is the difference between what is available and what is needed to address the infrastructure needs. For a gap to exist, there must be an existing standard. This standard becomes the measuring tool for assessing whether infrastructure financing is adequate or not. It is important to note that there is no single standard for how much Nigeria's infrastructure financing should be. According to Chuks Ibechukwu,

"The quantum of the infrastructure gap and infrastructure financing deficit seems to vary depending on your source, because of the different methodologies and assumptions applied in arriving at the figure."

Whilst there is no single standard for Nigeria's infrastructure financing gap, there is a consensus that the funding levels are inadequate. As previously mentioned, the World Bank estimates that Nigeria's required infrastructure financing would be $3 trillion by 2050. The AfDB's recommended annual infrastructure spending for African countries of which Nigeria is among is pegged somewhere in between $130-$170 million. The Global Infrastructure Hub recommends an estimated sum of $878 billion in infrastructure spending per annum to close the infrastructure gap in Nigeria. The NIIMP 2014-2043 however, agrees with the World Bank about needing $3 trillion dollars to provide critical infrastructure over the next 23 years of the policy plan.

The basis for the 'standard' or recommended infrastructure financing has been called to question by development economists and finance experts. There is a question of what is the yardstick or criteria for deciding how much should be spent? Chuks Ibechukwu observing Africa as a whole posits that the idea of an infrastructure gap makes a business case for international organisations, finance institutions and businesses to invest in Africa. This does not in any way disregard the existence of a gap; rather, a critical assessment of popular assumptions and prevailing narratives to identify the best way forward. For instance, in 2019, the World Bank recommended that developing countries like Nigeria should invest up to 4.5% of their GDP in infrastructure. Nigeria, according to the Global Infrastructure Hub, currently invests 4% of its GDP in infrastructure; just slightly lower than China which invests 6.7% of its GDP in infrastructure. As previously discussed, the infrastructure allocation under the 2025 budget is approximately 8.16% of the total budget.

Chuks Ibechukwu noted that in 2017, 30% of the budget was earmarked for capital expenditure on infrastructure despite the drop in global oil price which affected the national income as a way of further demonstrating that the Nigerian government is not simply folding its hands where infrastructure financing is concerned. However, this is not to say the infrastructure financing gap is a myth, rather, it perhaps points to the fact that infrastructure commitments do not deliver maximum value or make tangible transformations to the infrastructure sectors. It points to the fact that available infrastructure financing is often lost to institutional inefficiencies and corruption.

Barriers to Infrastructure Financing in Nigeria

Some of the barriers to the level of financing and investment the country can attract for infrastructure development include but not limited to the following:

- **Macroeconomic Instability** - Macroeconomic instability refers to economic fluctuations in a country that negatively impact its economic growth and stability. The manifestations of macroeconomic instability such as exchange rates volatility, inflation, and national currency devaluation, are not beneficial for infrastructure investment. Poor financial conditions and macroeconomic instability have been proven to have a negative impact on private sector financing for infrastructure. Lenders, especially those from the private sector are primarily motivated by profit, and would be discouraged from investing their funds in an environment that is not financially stable as this would pose risks to their returns.

- **Lack of Counterpart Funding** - Counterpart funding refers to the financial contribution required from governments to complement external funding. This arrangement is often employed by multilateral institutions such as the World Bank. An advantage of counterpart funding especially in infrastructure development is that it facilitates a sense of ownership of the funded projects as governments develop a vested interest in the success of projects they have contributed funds to. Also, it enables multilateral institutions to extend and expand the impact of their funds as they can invest in a greater number of projects where some of them are partly funded by the recipient governments. However, the inability to fulfill counterpart funding obligations often lead to delay in accessing finances promised by the organisation providing the additional funding to support government's own funding thus, frustrating infrastructure financing. For example, by 2021, the Mambilla Hydropower Project had received a commitment of 85% funding from the Chinese Export Import Bank with the remaining costs expected to be borne by the Federal Government as counterpart funding. However, there have been delays in raising the counterpart fund for this project; therefore, obstructing the entire financing of the project.

- **Policy and Regulatory Bottlenecks** - Lengthy approval processes, multiplicity of policies covering the same matter, and complex licensing requirements are not conducive for infrastructure investment. Based on a study on private-sector financing in 36 Sub-Saharan African countries from 2008-2019, Chinzara, Dessus and Dreyhaupt (2023) declared that institutions are a strong driver for private sector participation in infrastructure financing, especially in the areas of regulatory quality, control of corruption, the rule of law, and freedom of expression and accountability.

- **Governance, Corruption, and Transparency Issues** - High levels of corruption at all levels of government and insufficient accountability processes contribute to the loss of investor confidence and low infrastructure investment. Corruption is also a drain on the revenue which could otherwise have been channeled to infrastructure projects. This is reflected in a 2023 study on corruption and its challenges to infrastructure development in Nigeria (Dimuna, 2023). In that study, the author submits that corruption not only increases the initial cost of infrastructure but also contributes to lower quality, durability, and economic returns from infrastructure development in Nigeria. Oluseye (2024) submits that the lag in the Lagos-Ibadan Highway Project is better understood by investigations into the occurrences of influence peddling, embezzlement, and biased law enforcement in the course of the project.

- **Political Risks** - Political instability which may manifest as terrorist attacks, secessionist movements, civilian protests and others increase the risk of doing business and affect investor confidence. Based on a study of data from 1990-2022, Omodero (2023) posits that insurgency, terrorism, and political instability adversely impacts FDI flows to Nigeria.

5. Case Studies and Success Stories

Case Study 1 - South Africa

South Africa's successful infrastructure financing has been centred around the prioritisation of infrastructure in its national budgetary allocations. In February 2025, the South African government in its national address pledged to devote more than R940 billion, which amounts to approximately $50 billion, to infrastructure development over the next 3 years. Also, a specialised Infrastructure Fund was launched in 2020 as a partnership between the National Treasury, the Development Bank of Southern Africa (DBSA), and Infrastructure South Africa (ISA). This Infrastructure Fund has been instrumental in facilitating twelve (12) blended finance projects worth about R38 billion covering key sectors such as water and sanitation, health, energy, transportation.

Case Study 2 - Rwanda

Rwanda's successful infrastructure financing has been mainly centred around leveraging private sector participation. As at 2021, the World Bank reported that Rwanda's PPP framework which was approved in 2016 generated investments in infrastructure of over $900 million by contributing to more than twenty-four (24) PPP projects in energy, transport, housing and ICT. Also, Rwanda has been adept at attracting increased FDI as the World Bank reports that Rwanda's FDI inflows rose from $119 million in 2009 to about $420 million by 2019. This is due to Rwanda's strong investment policies and institutions such as the 2021 Investment Law, which introduced performance-based investment incentives, and the establishment of the Rwanda Development Board (RDB), which is a one-stop shop for company registration and collection of all business permits. As a result, the World Bank reported in its 2021 Rwanda Economic Update that Rwanda ranked 2nd in FDI-investment climate in Sub-Saharan Africa.

Case Study 3 - Nigeria's Azura-Edo Independent Power Plant

Amidst the many challenges and inadequacies of its infrastructure financing model, there are instances of successfully financed projects in Nigeria such as the Azura-Edo Independent Power Plant. This gas plant project was co-financed by multilateral institutions such as the World Bank, IFC, and the AfDB and Azura Power Holdings Ltd, which is a private investor. Construction began on the Azura-Edo power plant in 2016 and the plant was completed and commissioned in 2018, a couple of months ahead of schedule. Now, it contributes about 10% of the electricity supplied to the national grid. This project highlighted the following:

1. **Importance of Private Sector Investors** - Amaya Capital, majority owner of Azura Power Ltd, Aldwych International and other private entities, together contributed $190 million for the financing of the Azura-Edo Independent Power Plant. This shows the beneficial potential of private investors in infrastructure development.

2. **Diversification of Funding** - Apart from private sector investments, the rest of the funding for the Azura-Edo power plant was gathered from a mix of multilateral organisations, international banks, foreign governments, and the CBN Power and Aviation Intervention Fund; thus illustrating the importance of diversifying funding sources and reducing the burden on a single funding source.

3. **Risk Mitigation Strategies and Government Safeguards** - In the Azura-Edo power plant project, the Nigerian government signed a Put and Call Option Agreement (PCOA) to mitigate financing risks and boost investor confidence. According to the PCOA, premature termination of the project's Power Purchase Agreement (PPA) would require the Nigerian government to buy back the project or permit the investors to sell it at an agreed price.

4. **Strong Institutional Capacity and Project Efficiency** - The completion of the project ahead of schedule demonstrates the value of good project management facilitated by national institutions such as the NERC which ensured legal compliance and efficient licensing as well as the Transmission Company of Nigeria (TCN) which oversaw the integration of the plant's electricity into the national grid; thus avoiding post-construction delays.

With a greater emphasis on mitigating risk and boosting private investor confidence, the Azura-Edo Independent Power Plant has become a commendable success story for infrastructure financing and development in Nigeria.

6. **Citizens Corner:** What Nigerian Citizens Think about Infrastructure Development and Financing in Nigeria

When we started this study, we wanted it not only to be about the 'hard facts' from credible and authoritative sources. There is sufficient data from international to regional to national sources about Nigeria's infrastructure financing and development as a whole. We had a premise, that financing and investment for infrastructure in Nigeria is inadequate and all through this study, we have proven why this is so. Beyond this, we wanted this study to reflect the experience and perceptions of the average Nigerian who is at the receiving end of the infrastructural financing deficit. Hence, we conducted a survey to gather responses as an input to this study.

Our survey opened on **10th of April 2025** and closed on **22nd of April** after 12 days of both online and offline publicity. To summarise our approach to collecting primary data, the survey was designed to be anonymous to encourage openness. As such, personal information (name, phone number, email address, contact address) that might identify the respondents were not collected. The closest to personal information that was collected is 'location', a generic question on what State the respondent is filling the survey from. This was deliberately collected to evaluate perception of respondents across different States as well as compare experiences. It was important for the survey to have a relative geographic spread such that we can test other assumptions as to what geopolitical zone(s) possibly have better infrastructure development or whether certain experiences and perceptions are common to a particular region.

However, there are some limitations to this primary data collection exercise. First, the anonymous nature of the survey prevented the accurate validation of responses. It is therefore not possible to ascertain whether some entries were randomly completed or generated by automated means. Nevertheless, the survey results are considered valuable for narrative analysis and remain sufficiently reliable for the purposes of this study.

Demography of Our Respondents

The majority of respondents were relatively young or middle-aged. Specifically, 56.9% (161 respondents) identified as being between 21 and 30 years old, while 6.7% fell within the 16–20 age bracket. Additionally, 26.9% of respondents were aged between 31 and 40 years. In contrast, only 6.7% identified as being between 41 and 50 years, and 2.8% were above 50 years of age.

Also, in terms of the occupation of the respondents, there were four (4) categories to select from: Student, Unemployed, Employed, and Entrepreneur/Business Owner. 49.8% (141 of the respondents) indicated that they are employed while 20.8% indicated that they are entrepreneurs or business owners hence, self-employed. 23.3% of the respondents identified as students leaving 6% who indicated that they were unemployed.

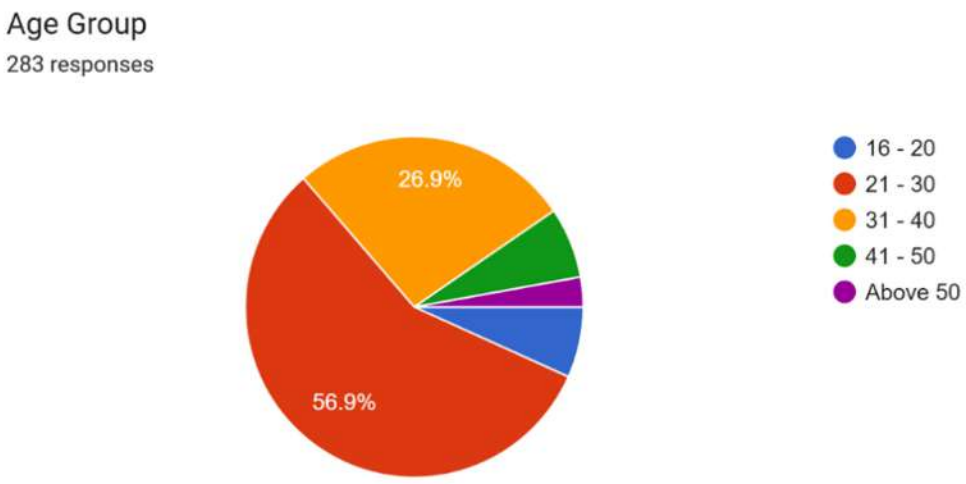


Chart showing the age of the respondents

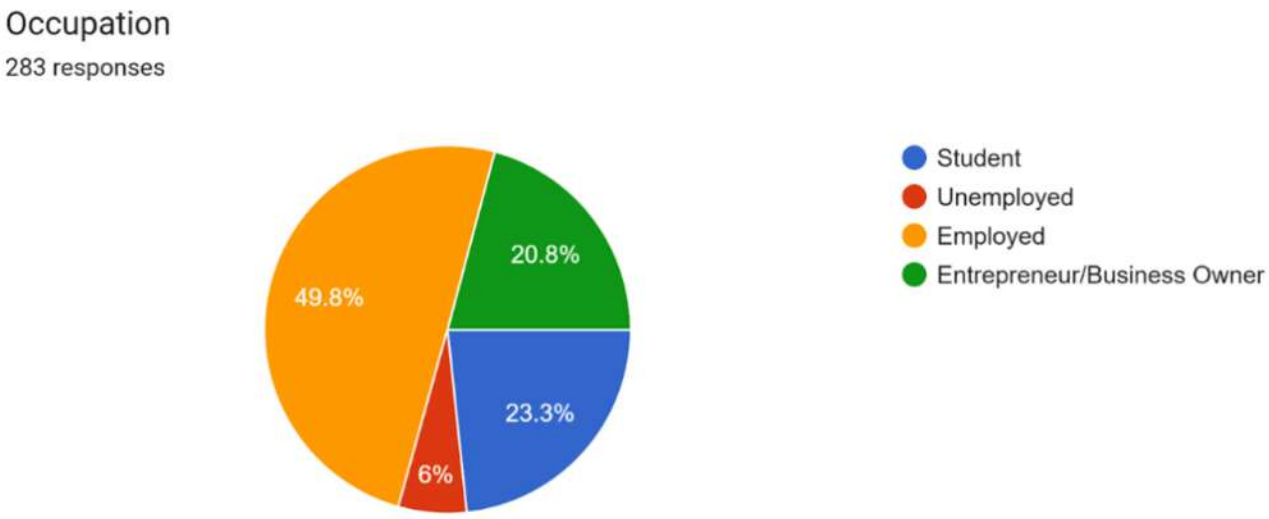
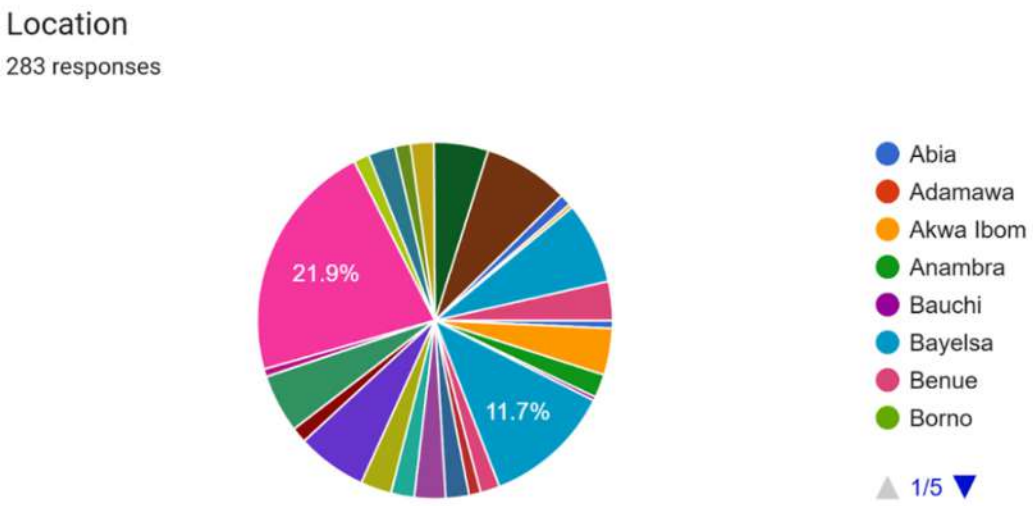


Chart showing the occupation of the respondents

In total 283 respondents completed the survey from twenty-five (25) States in Nigeria including the FCT. The top six (6) States with the highest responses are:

- **Lagos (South West) - 21.9%**
- **Bayelsa (South South) - 11.7%**
- **Plateau (North Central) - 7.8%**
- **FCT (North Central) - 7.4%**
- **Enugu (South East) - 6.4%**
- **Kaduna (North West) - 5.3%**

States with the lowest number of responses (each accounting for less than 1%) included Abia, Bauchi, Kwara, and Taraba. Additionally, 3.5% of respondents indicated that they were residing outside Nigeria. The option for respondents living outside the country was important to include the perspectives of diaspora Nigerians.



General Perception of Infrastructure Development

We asked respondents a general and opening question on how they would rate the current state of Nigeria's infrastructure. This question was intended to be a verdict on the performance of infrastructure in Nigeria across board with five (5) options to select from: Excellent, Good, Average, Poor and Very Poor. Unsurprisingly, the majority of respondents were split between poor and average: 39.2% (111 respondents) selected 'Poor' which was the highest while 38.2% (108 respondents) selected 'Average'. Following behind, 15.9% (45 respondents) voted Nigeria's infrastructure as 'Very Poor'. It is quite telling that 4.9% and 1.8% of the respondents voted 'Good' and 'Excellent' respectively.

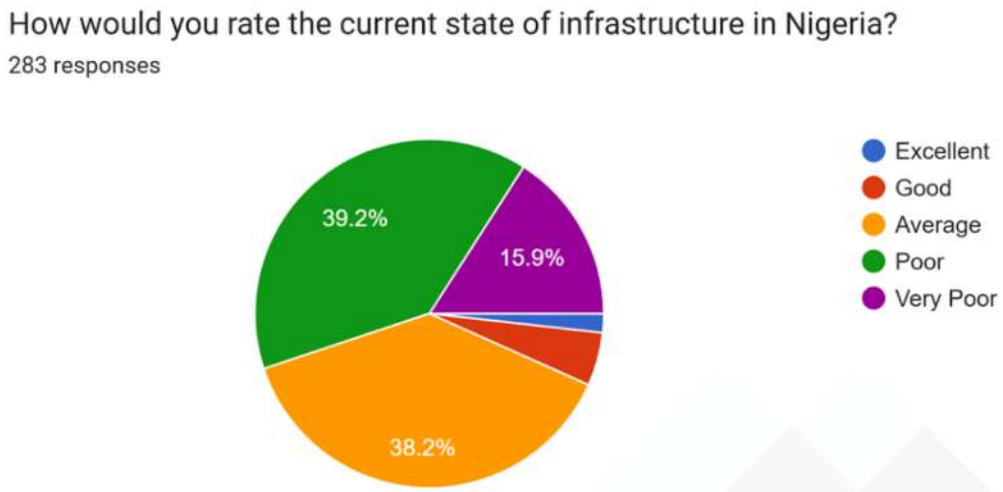


Chart showing respondents opinion on the current state of infrastructure in Nigeria

Attempting to unpack the public perception of the current state of infrastructure in Nigeria, we asked a separate question on the biggest challenges to infrastructure development in Nigeria. Seven (7) options were given for respondents to select only three (3). The three (3) most popular responses (in order of popularity) were: **Corruption and Mismanagement** (88.7%)**, Inadequate Maintenance of Infrastructure Facilities** (61.5%) and **Project Execution Gaps** (33.6%). To our utmost surprise, insufficient government funding was not one of the top three (3) responses in terms of popularity, ranking 5th of the seven (7) options with 33.6% (95 of the respondents) selecting this as one of the factors affecting infrastructure development in Nigeria. Nonetheless, we consider the most popular choice that is, 'Corruption and Mismanagement' as indicative of how available financing is lost due to misappropriation of public funds. Beyond misappropriation, corruption marks a dent on Nigeria's global perception which affects how the country is able to attract foreign investment in its infrastructure sectors.

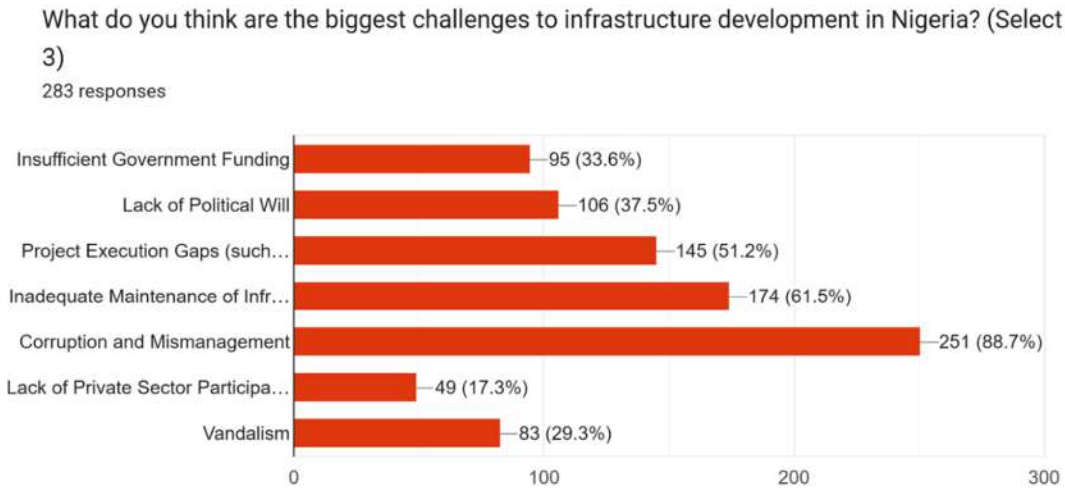


Chart showing the respondents opinion on the biggest challenges facing infrastructure

Perceptions on Infrastructure Sectors and their Performance

For the purpose of this study, five (5) sectors were considered as the primary infrastructure sectors: Roads and Transportation, Energy and Power Supply, Water and Sanitation, Housing and Urban Development and Digital Infrastructure, that is, ICT.

On what infrastructure sector is the best performing, the verdict was cast in favour of 'Digital Infrastructure' (38.2%) followed closely by 'Roads and Transportation' (27.6%) and Housing and Urban Development (18%). The two (2) lowest ranking sectors for this question were: Energy and Power Supply (9.9%) and Water and Sanitation (6.4%).

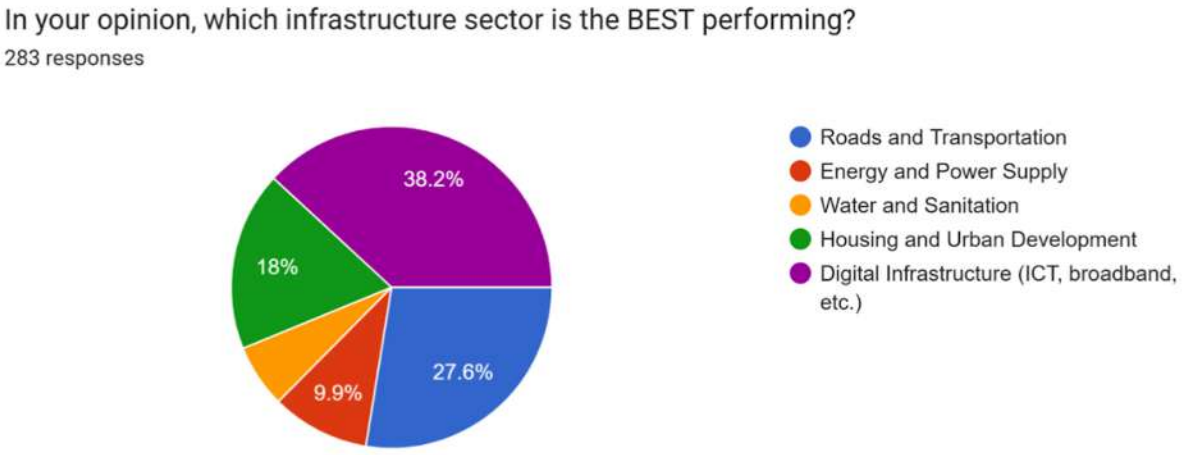


Chart showing the respondents opinion on the best performing infrastructure sector

On what infrastructure sector is the worst performing, the verdict was unsurprisingly cast for 'Energy and Power Supply'. This was a clear margin and an overwhelming majority of 141 respondents agreed that the energy sector has the lowest performance. This is followed by Roads and Transportation (20.5%) and Water and Sanitation (14.8%). Both Housing and Urban Development and Digital Infrastructure received scores of 9.2% and 5.7% respectively.

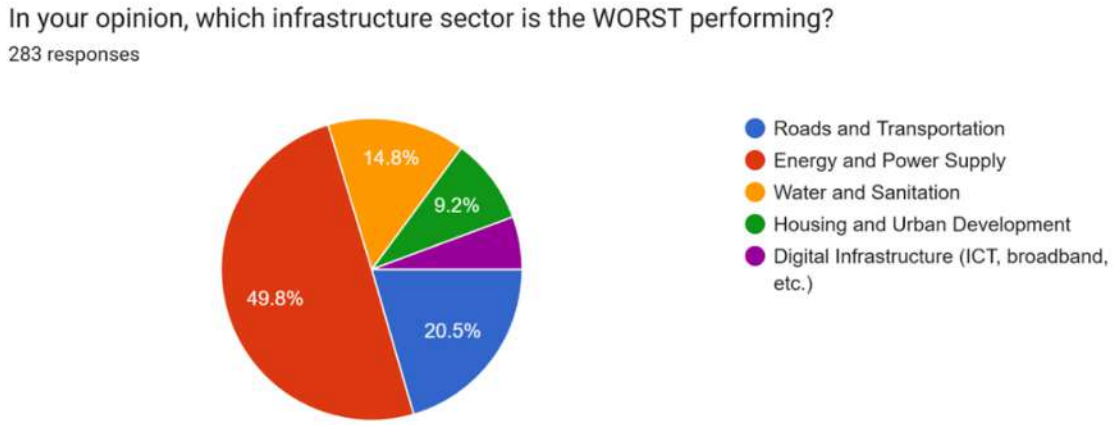


Chart showing the respondents opinion on the worst performing infrastructure sector

This is why it is no surprise that when we asked the respondents a follow-up question on what infrastructure sector requires the most urgent investment, 53% (150 of the respondents) selected 'Energy and Power Supply' followed by 21.9% selecting Roads and Transportation. This study considers these two (2) sectors as areas deserving utmost priority. Improving both the energy and transportation infrastructure will boost trade, productivity and competitiveness as well as attract further investment.

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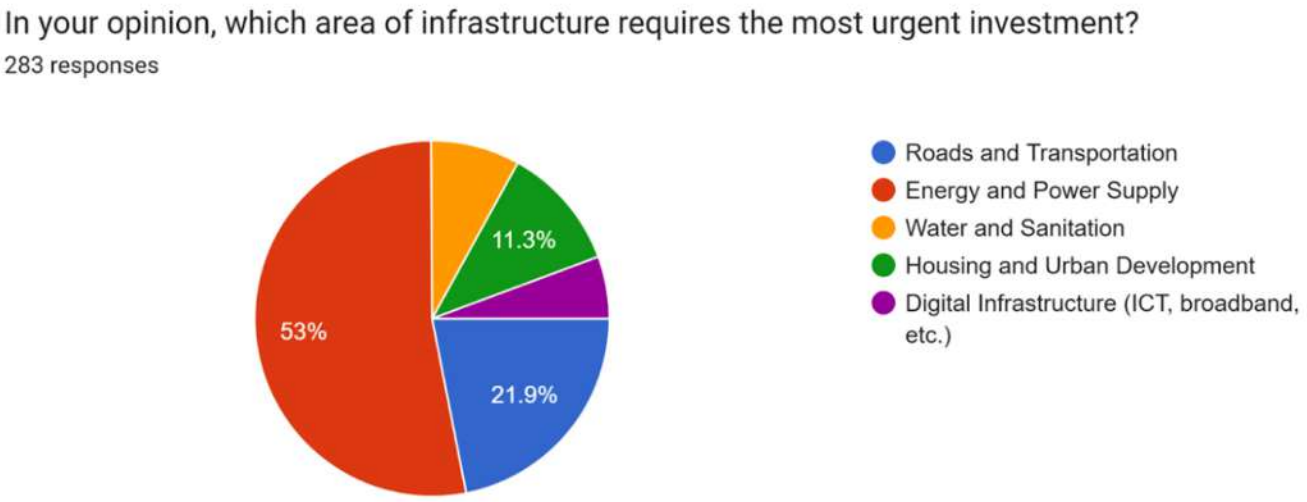


Chart showing the respondents opinion on the infrastructure sector requiring urgent investment

Perceptions on Infrastructure Financing

Moving on, we asked respondents if they think the government allocates enough funds to infrastructure development. This was a straightforward question with 58% responding 'No', a smaller 18% responding 'Yes' and 24% responding as 'Not Sure'. There was no criteria provided for what qualifies as 'enough funds' which means the interpretation of this was up to the respondents discretion. This somewhat aligns with one of the key arguments made in this study that there is no consensus as to what is adequate infrastructure financing and whether the often cited benchmarks are the right standards to use. This study concludes on this note that what counts as adequate funding is if it is able to cover the demands or needs. To this end, infrastructure financing by the government is indeed insufficient on the grounds that there is a mismatch between what is allocated and what is required to fix the extent of our infrastructure gap.

As a follow-up, we asked respondents, what source they think is the primary source of infrastructure financing in Nigeria giving four (4) options:

- Government/Public Sector
- Private Sector
- Loans from multilateral institutions (e.g. World Bank, AfDB)
- Loans from developed countries (e.g. USA, China)

The responses were largely balanced with 37.8% of respondents selecting Government or Public Sector as the primary source, followed by 31.4% selecting loans from multilateral institutions including development banks such as the AfDB, and 24% selecting loans from developed countries. Only 6.7% of the respondents selected the private sector as the primary source of financing.

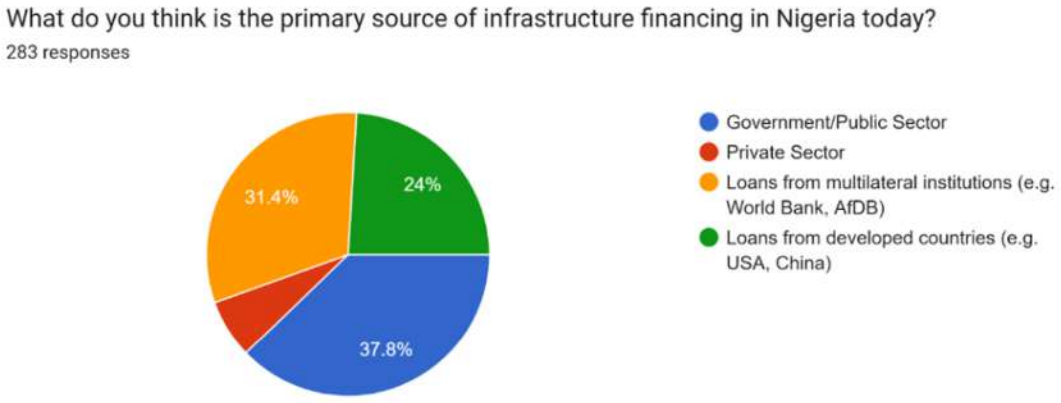
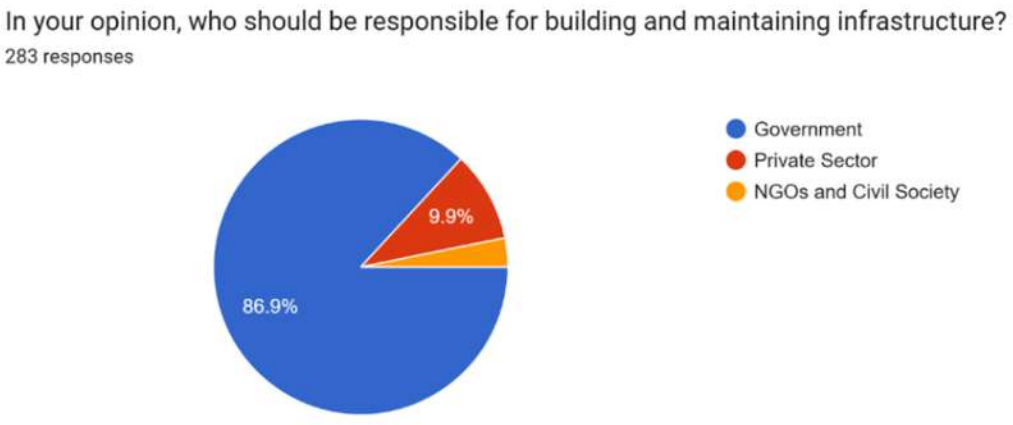


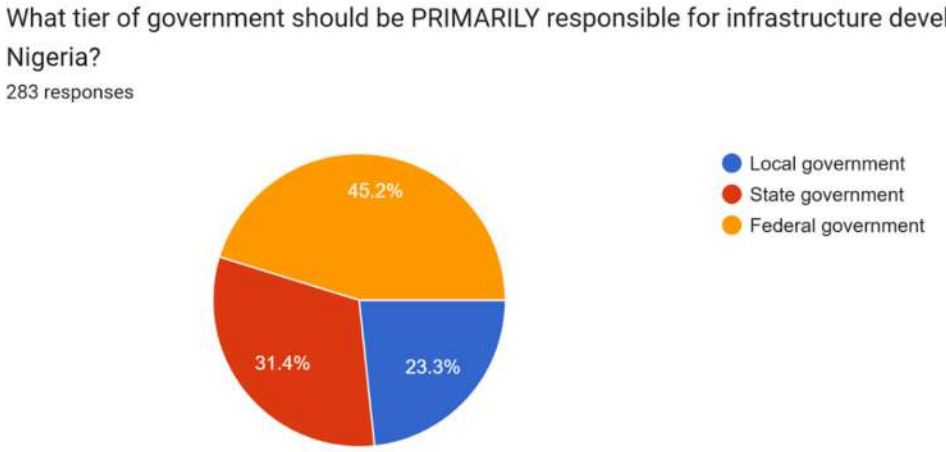
Chart showing the respondents opinion on the primary source of infrastructure financing

Closely related to this, we asked respondents who should be responsible for building and maintaining infrastructure in Nigeria. Unsurprisingly, 86.9% (246 of the respondents) selected 'Government', a very small fraction of the respondents, only 9.9% selected 'Private Sector' and a smaller 3.2% selected 'NGOs and Civil Society'.



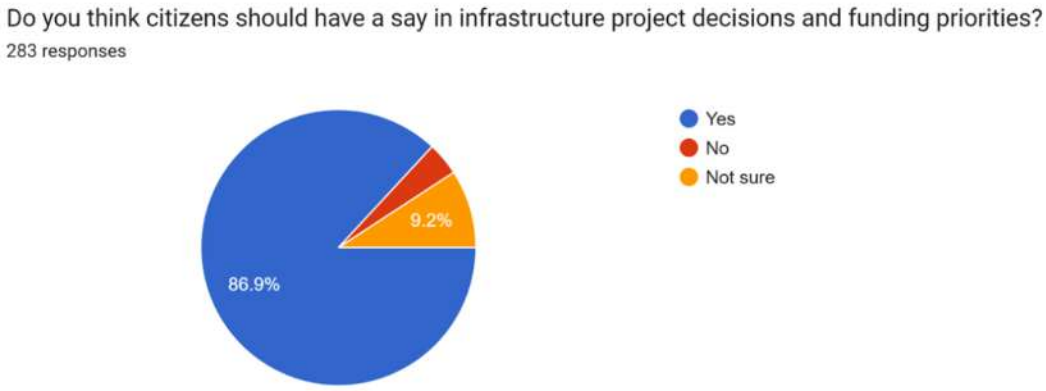
We believe that the responses to both questions reflects the general perception of citizens that the provision of infrastructure is a public duty but on the other hand, it suggests that there is relatively low participation of the private sector in infrastructure financing in comparison to the huge potential of the private sector given the right circumstances. As discussed in Chapter 3, more than ever, there is a need to push for a PPP model of financing in Nigeria's infrastructure planning.

To further understand the response in the previous question, we asked respondents what tier of government should be primarily responsible for infrastructure development in Nigeria. Majority of respondents (45.2%) selected 'Federal Government' while 31.4% selected 'State Government' and 23.3% selected 'Local Government'. This study did not make a distinction between the three (3) tiers of government. However, since the Federal Government is the tier responsible for capital projects in the major infrastructure sectors particularly power generation and the major transportation modes including ports and aviation, it is fitting that it should bear a huge responsibility for infrastructure development and by extension, securing financing for the same. Nonetheless, it would be ideal for both state and local governments to decisively push for infrastructure development within their areas of jurisdiction.



In Conclusion

We asked respondents an open question as to whether citizens should have a say in infrastructure project decisions and funding priorities. An overwhelming majority, 86.9% (246 of the respondents) indicated 'Yes' leaving only 3.9% and 9.2% indicating 'No' and 'Not Sure' respectively. This is decisive and clear-cut. This study supports that citizens must be placed at the centre of infrastructure planning and decision-making because there is no development if it does not meet the socio-economic needs of the citizens who bear the brunt of infrastructure deficit. Thus, this study proposes increased public consultation and citizen engagement in infrastructure development in Nigeria.



Regarding what African or developing country Nigeria should model its infrastructure development after, there was no consensus as this was an open-ended question with no options provided therefore, allowing the respondents to suggest any country of their choice. However, the most popular choices were (in alphabetical order): Indonesia, Malaysia, Rwanda, and South Africa.

CONCLUSION AND RECOMMENDATIONS

Nigeria's infrastructure story is one of persistent potential yet to be fully realised. This study has revealed the critical role of infrastructure in shaping national development outcomes and economic competitiveness, and has laid bare the extent of Nigeria's infrastructure financing challenges. Despite notable efforts by government institutions, multilateral partners, and the private sector, current financing remains grossly inadequate. Moreover, benchmarking against regional and global peers has shown that Nigeria's infrastructure development lags significantly behind, even when accounting for population size and historic context.

Nonetheless, the pathway to progress is not elusive. There is growing momentum through institutional reforms, innovative financing mechanisms, and global partnerships to transform Nigeria's infrastructure landscape. As this study has shown, addressing Nigeria's infrastructure financing gap requires not only greater financial commitment but also an enabling policy environment, strong institutions, and greater collaboration between the public and private sectors.

This study concludes with a sense of cautious optimism. Nigeria's infrastructure challenges are surmountable. What is required is not merely more funding, but smarter, better-targeted, and transparently managed investment anchored in long-term national interest. With the right political will, regulatory framework, and stakeholder synergy, it is possible to unlock the required financing and investment towards Nigeria's infrastructure potential.

Recommendations - Unlocking Infrastructure Financing and Investment in Nigeria

1. Strengthening Legal and Regulatory Frameworks - Streamlining approval processes and regulatory requirements and ensuring clearly defined provisions to avoid loopholes are necessary to improve investor confidence to unlock financing for infrastructure development. Chinzara, Dessus and Dreyhaupt (2023) estimate that with four (4) years of positive regulatory reforms, private sector investments in African countries such as Nigeria can increase by up to 1.5 %.

2. Enhancing Public-Private Partnerships (PPP) Effectiveness - Enhancing PPP effectiveness is crucial to unlock financing for infrastructure. This is because the involvement of the private sector in infrastructure development lessens the burden on limited public funds and incorporates the technical expertise of the private sector. Therefore, the strengthening of the legal framework for PPPs and ensuring transparency of project selection and execution are necessary to enhance PPP effectiveness for the unlocking of financing for infrastructure development.

3. Enhancing Investor Confidence and Risk Mitigation - To guard against the dissuading of investors as a result of political risk and economic instability, risk mitigation tools such as sovereign guarantees, credit enhancement mechanisms, and political risk insurance can guarantee protection of investments.

4. **Strengthening Institutional Capacity** - Facilitating training to improve technical expertise and project management skills as well as developing systems for better communication between oversight agencies and financing partners and between national agencies would go a long way towards strengthening institutional capacity; thus boosting investor confidence, increasing output efficiency and unlocking more financing for infrastructure development.

5. **Leveraging Technology and Data for Infrastructure Development** - Data-driven proposals are more likely to garner financial support for infrastructure investment. This is because the reliance on data ensures that the proposals reflect the reality of the populace's needs and that the proposed projects are suitable to address identified needs; thus guaranteeing more efficient results. Also, the use of technology for infrastructure development can boost infrastructure financing by enhancing access, transparency, accountability, and streamlining government processes. These make it simpler for investors to navigate regulatory requirements and improve investor confidence in infrastructure development.

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