

**CHALLENGES OF PUBLIC-PRIVATE PARTNERSHIP IN INFRASTRUCTURAL
FINANCING IN NIGERIA**

BY

IKPEFAN, OCHEI. AILEMEN Ph.D, ACA, ACIB.

DEPARTMENT OF BANKING & FINANCE

COVENANT UNIVERSITY, OTA, OGUN STATE

E-mail Ochei_Ikpefan@yahoo.Co.Uk

Tel 08053013418

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ABSTRACT

A Public-Private Partnership (PPP) involves the private sector in aspects of the provision of infrastructure assets or new or existing infrastructure assets or of new or existing infrastructure services that have traditionally been provided by the government. While many governments have traditionally reformed public utilities without private participation, it has become a growing fad to seek finance and expertise from the private sector to ease fiscal constraints and increase efficiency by engaging the private sector and giving it defined responsibilities, governments broaden their options for delivering better services and increasing the economic multiplier effects of engaging the private sector. This paper examines the challenges of Public Private Partnership investments in infrastructure financing, challenges and remedies in Nigeria. The methodology of the research is the content analysis. It also employs the Non-Probability Sampling using the Judgment sampling techniques. It is recommended that governments should demonstrate political will and co-partner with committed sponsors, experienced concession and Project Manager.

Key words: Public-Private Partnership (PPP), Build, Operate and Transfer (BOT), Build, Own and Operate (BOO), Lekki Concession Company.

1.0 INTRODUCTION

There are two major components of infrastructure: Economic and Social infrastructure. According to Okumagba (2008), Economic infrastructure consists of Public Utilities (i.e power, telecommunications, water supply, sanitation/sewage, solid waste collection/disposal and postal services); Public works (i.e roads, dams, canals works for irrigation and drainage); and transportation (i.e urban transportation, railways, ports and water ways, airports and air transportation). Social infrastructure refers mainly to healthcare delivery and education. Infrastructure projects differ in some very significant ways from manufacturing projects and expansion and modernization projects undertaken by companies because of longer maturity (5-40 years), larger amounts, higher risk, fixed and low (but positive) real returns.

For instance, transport infrastructure services in Nigeria are inadequate and in deplorable conditions. According to Olufowose (2008) the data obtained from African Economic Outlook in 2006 shows that Nigeria's transport sector contributed about 2.4% of real GDP in 2004 with road transport alone accounting for nearly 86% of the transport sector, of the total 193,200km of roads, only 15% of which are paved (and about 23% of the paved roads are in bad conditions, requiring urgent rehabilitation. The situation still remains the same as at 2008. Considering the infrastructural gaps, significant investments is required particularly in power, water, transportation and Sanitation in Nigeria. "Inadequate and unreliable infrastructure services are a fact of life for African people. For instance; many rural households do not have access to safe drinking water, electricity, good transportation or modern communication services. Africa's infrastructure costly and uncompetitive: high power costs, road freight 2-4 times as high as U.S , road freight delays 2-3 times as long as in Asia, low access to power and low reliability. A huge

gap exists between actual needs in investments and financing being provided for infrastructure development”, (Shonibare, 2008). According to Atser (2008) to overcome poverty and rank among the top 20 economies of the world by the year 20-2020, Nigeria needs to fix its parlous infrastructure. Infrastructure is the key to battle against poverty and the realization of the Millennium Development Goals. **Table 1 and 2** shows the various levels of Global and African involvement in infrastructure financing. Globally, infrastructural financing has taken the model of Build-Operate and Transfer (BOT) while in Africa, It has been given tremendous support by multilateral agencies as depicted by Table 2. With the global financial meltdown, Africa and Nigeria in particular need to take another look in their method of financing Infrastructure.

The Infrastructure Concession Regulatory Commission (ICRC) Act 2005 that is responsible for setting forth guidelines to promote, facilitate and ensure Public Private Participation (PPP) projects in Nigeria need to provide value for money for infrastructure services so as to enhance economic growth. The government has made move in the past few years in meeting the building blocks. The establishment of institutions such as the National Communications Commission (NCC) and National Electricity Regulatory Commission (NERC) Reform Act 2005, National Inland Waterways Authority Act 2004, Federal Highway Act 2004, Federal Environmental Road Maintenance Agency (FERMA), Lekki (Toll Road) Concession Company (LCC) etc will enhance more Public- Private Partnership policy investments in the infrastructural financing in Nigeria. The Public-Private Infrastructure Advisory Facility (PPIAF) a multi-donor technical assistance facility which was created to help governments in developing countries is expected to improve the quality of infrastructure through partnership with the private sector.

The methodology of the research is the content analysis. Although it is defined in various ways, in this research, content analysis will be seen as “a research technique for the objective, systematic and quantitative description of the manifest content of communication” (Selltize 1977: 335). To this end the research will involve a review of existing secondary sources in books, journals, magazines and Newspapers. It also employs the Non-Probability Sampling using the Judgment Sampling techniques.

TABLE 1: GLOBAL INFRASTRUCTURE FINANCING SHOWING VARYING LEVELS OF PRIVATE SECTOR PARTICIPATION

Globally Countries are Achieving their Infrastructure Objectives through Larger Private Sector Involvement

Project	Type	Country	Date	Amount (usd m)	Sponsors	Multilateral Support	
Yangshuo-Luzhai Expressway	BOT	China	1-Mar-07	493	MTD Capital		
Fujian Sanming Airport	BOT	China	1-Oct-07	55	Hainan Tongao,HK Zhilong	Hainan Tongao,HK Zhilong	
Kanci-Pejagan Toll Road	BOT	Indonesia	1-Mar-07	226	PT Bakrie Investindo	PT Bakrie Investindo	
Kanci-Seremban Highway M6 and M60	BOT	Malaysia	1-Apr-07	272	Antah Holdings IJM Corp. Bouygues,	Antah Holdings IJM Corp. Bouygues,	
Motorway Expansion	BOT	Hungary	1-Dec-07	1,588	Colas, John Laing Infra		Colas, John Laing Infra
Norte Sull Railroad	BOT	Brazil	1-Dec-07	794	Companhia ia,Vale do Doce.	Companhia ia,Vale do Doce.	
Source	World Bank and PPIAF, PPI Project Database. (http:// ppi.worldbank.org) 09/23/2009				worldbank.org) Date: 10		9/23/2009

Ihuoma (2008) opined that inadequate budgetary allocations are one of the reasons for the country’s huge infrastructure deficit.

TABLE 2: INFRASTRUCTURE FINANCING IN AFRICA SHOWING VARYING LEVELS OF PRIVATE SECTOR PARTICIPATION

Project	Type	Country	Date	Amount (Usd m)	Sponsors	Multi-Sectoral Support
Omdurman water Treatment Plant	Water Treatment	Sudan	2007	120	Biwater	
Kenyan-Ugandan Railways	Railroads	Kenyan, Ugandan	2006	400	Sheltam Century	Trans IDA, I
Kounoune 1 West African Gas Coy Ltd	Electric Power Gas Pipeline	Senegal	2005	87	Mitsubishi, Matelec	IDA, I
Pipeline Coy Ltd		Benin, Togo Ghana Nigeria	2005	590	Cheveron, Shell	IDA, M
Hamma Water Desalination Spa	Water Treatment	Algeria	2005	240	GE Capital	
Umeme Power Distribution	Power Distribution	Ugandan	2005	84	Eskom, Globelec	IDA, M
Dakar-Bamako Railways	Railroads	Senegal, Mali	2003	55	Canac, Getma	
Maputo Port	Port Gas Pipeline	Mozambique	2003	70	DP, Gestores, Grindro	MIGA
Mozambique South Africa Gas Pipeline		Mozambique South Africa South Africa	2003	1,200	Sasol	MIGA
Bakwene Platinum Toll Highway	Toll Road	South Africa	2001	450	ACS, CEFD, SAIF	
Mpumalanga Airport Terminal	Airport	South Africa	2001	34	ABB	
Abijan Port Expansion	Port	Cote d'Ivoire	2000	140	Maersk, C&N, TCI	ADB
AES Sonel		Cameroon South Africa	2000	532		
Darling Wind Farm	Electric Power		2006	10	Darling	ADB, I

Source World Bank and PPIAF, PPI Project Database. ([http:// ppi.worldbank.org](http://ppi.worldbank.org)) 09/23/2009

For low income countries, infrastructure investments have alluring benefits but also daunting costs. Where transportation, communication and power generation are inadequate, their provision can do much to boost productivity and growth. But where income and productivity are depressed by inadequate infrastructure, the financial resources needed to underwrite

infrastructure investments are difficult to mobilize. With lack of infrastructure limiting finance and the lack of finance limiting infrastructure, countries can find themselves in a low-level equilibrium trap which it is difficult to break out. The potential escape routes are government subsidies and public-private participation financing. From the time past, infrastructure development had been borne solely by the various tiers of government, ranging from development to maintenance but, with population explosion at a geometrical progression, there has been serious pressure on the available infrastructure in the country.

This development has brought about untold and unwarranted hardship on the citizenry in a country that boasts of virtually all natural resources that could transform it from its current unenviable status to a “Super Power”. The inability of government at all levels to provide adequate infrastructural facilities that could power the development of the country economically and socially has led to attempts by stakeholders to seek concerted efforts on how the country could wriggle out of its present unenviable situation. The President had at various levels emphasized that the rebuilding of Nigerian infrastructure is key to realizing its Vision 20-2020, stressing that it also recognizes that the effective tackling of our infrastructure challenge would require multi-billion dollar investment, noble policies and institutional reforms, such as the ones being pursued by the banking sector. Stanley (2008) “posited that private sector currently accounts for 10% of total infrastructure spending; a share that is growing as investors realize the vast potential and governments seek alternative sources of funding. It is estimated that a 1% increase in a country’s infrastructure stock leads to 1% increase in GDP while a 1% rise in income per head leads to a 0.5% increase in demand for infrastructure. The vast scale of investment will require more private-sector money. There is a large and growing demand for infrastructure finance across the world”.

“Infrastructure investments in emerging markets 2008-2017 is estimated to reach US\$22t over the next ten years. China requires 43% of total emerging markets infrastructure spending. China needs to build the equivalent of the Italian (87GW) electrical power system each year for the foreseeable future (90 GW installed in 2007 bringing total to 700 GW representing growth of 14%. India requires US\$ 515 billion over the next five years, Brazil needs US\$ 300 billion over the next four years, Indonesia US\$ 150 billion over the next five years while Nigeria requires US\$ 140 billion over the next five years” (Onno, 2008).

This is the best time to strongly advocate for the Public/Private sector Partnership (PPP) in the development of the nation and this can take the form of concessioning, build-own-operate-transfer (BOO), venture capital, etc. These are the common models of privatization for water supply, seaports, airports and too-roads, where government desire private participation and investment but do not wish to relinquish rights to ownership of the sector’s assets in the long term. In this paper, some of the models we be revisited that we undertook in the immediate past with sub-optimal results. In developing countries, an essential requirement for economic growth and sustainable development is the provision of efficient, reliable and affordable infrastructure services, such as water and sanitation, power, transport and telecommunications. The availability of efficient infrastructure services is an important determinant of the pace of market development and output growth, and, in addition, access to affordable infrastructure services for consumption purposes serves to improve household welfare, particularly among the poor.

The statement of the problem of this study precisely is that the high cost of doing business in Nigeria is on the high side due to bad state of our infrastructure. It is generally agreed by many informed analysts and players in the economy that the parlous state of our infrastructural

facilities is a causal and critical factor for the acknowledged high cost of doing business in Nigeria. Today, many business entities operate like independent communities as they have to generate their energy requirements, produce own water and communication facilities, construct own roads, etc. Given the magnitude of funds required to address the problem, the public sector resources alone will be grossly inadequate to finance the necessary infrastructural development needed to drive the economy as one of the largest economies by 20-2020. There is urgent need to address the discepit state of our infrastructure such that we can have uninterrupted power supply, motorable roads, functional transportation system, good health care delivery services, academically up-to-date educational institutions, etc. In developing countries, however, the potential contribution of infrastructure to economic growth and poverty reduction has not been fully realized, and existing infrastructure stock and services fall short of the requirements. This paper appraises the issues in the models of Public-Private Partnership, challenges and remedies in infrastructure financing in Nigeria using Lekki Concession Company, Lagos as a case study.

As stated earlier, the Methodology employs the NonProbability Sampling using the Judgment Sampling techniques. In this paper, Lekki Concession Company is believed to be the benchmark for Public Private Partnership in Nigeria. **Section One** above is the introduction, **Section two** dwells on the need for private infrastructure financing, **Section three** examines the models for private sector investment in public infrastructure, **Section four** draws lessons from the success story of Lekki Concession Company, **Section five and Six** dwells on Nigeria's infrastructural Financing requirements using selected sectoral review (Including the challenges) and ends with Conclusion and Recommendations.

2.0 WHY PRIVATE INFRASTRUCTURE FINANCING

In the past the government has been the sole financier of infrastructure finance and has often taken responsibility for implementation, operations and maintenance as well. There is a gradual recognition that this may not be best way to execute/finance these projects. According to Sehrawat and Nachiket (2006) this recognition is based on considerations such as cost efficiency, equity considerations, allocational efficiency, and fiscal prudence. Against the strength of these arguments, government has made several attempts to create the preconditions for a sustainable level of involvement of the private sector in the development of infrastructure within the country.

Governments have come to realize the importance of developing and maintaining adequate and efficient infrastructure services, as well as the implications of falling behind in the provision of these services. Often, severe fiscal constraints face countries because of past neglect in the maintenance of infrastructure. This increased awareness has resulted in governments looking to the private sector for resources. According to Adepetun (2008), most countries have adopted the PPP policy about two or three decades ago as a way of fixing their infrastructural gap and at the same time, delivering good welfare for their citizens. Aside from developed countries including the United Kingdom (UK), France, Germany and the United State of America (USA), emerging economies such as India, United Arab Emirate (UAE), Qatar, Singapore, and Malaysia, have adopted the PPP not only to develop but also to grow their economies. From the World Bank report, since 1984, 86 industrialized and developing countries have privatized 547 infrastructures in developing countries, as well as the shift away from public sector financing. This is far beyond the public sector's capacity and clearly highlights the opportunities for private sector involvement. It is in this light that many developing countries including Nigeria have therefore

begun a review of previously ‘natural’ monopolies in order to create opportunities for the private sector to add value in the provision of infrastructure and to provide relief to their already overstretched budgets. The restructuring of public enterprises is an efficient strategy and an important first step towards private provision of infrastructure. Through reform and privatization of public enterprises, new private infrastructure companies will emerge, with incentives to seek additional opportunities for further development.

According to Ferreira and Khatami (2008):

“Infrastructure divestiture in Latin America in the period 1988-93, for example, generated 22.5 billion US dollars in revenues and a significant number of private infrastructure companies. These transactions can also contribute to the development of both equity and debt capital markets. The Argentina government used debt/equity swaps in the privatization of their state telecommunications company to reduce the government’s debts to foreign commercial banks, while gaining capital to upgrade and maintain neglected equipment. The Ferreira-Khatami paper provides real-world experiences of public enterprise restructuring and the subsequent private provision of infrastructure. The reasons range from macroeconomic constraints (Argentina and Mexico) to a recognition of efficiency gains from private provision of infrastructure (Chile). Some Asian countries also present an interesting case in which private participation has been introduced as a way of complementing public sector efforts to keep pace with economic growth”.

The need for infrastructure development often exceeds the capacities of developing country capital markets. As private sector involvement becomes an option, foreign financing will play an important role in meeting this need. It is important to establish efficient contact between

governments and investors in order to confront risks associated with foreign financing of local infrastructure. Investors' unfamiliarity with local conditions also needs to be addressed by governments wishing to attract finance. A public-private partnership (PPP) involves the private sector in aspects of the provision of infrastructure assets or of new or existing infrastructure services that have traditionally been provided by the government. While many governments have reformed public utilities without private participation, it has become a growing fad to seek finance and expertise from the private sector to ease fiscal constraints and increase efficiency. By engaging the private sector and giving it defined responsibilities; governments broaden their options for delivery of better services and increasing the economic multiplier effects of engaging the private. The range of options for public-private partnerships has expanded enormously over the past three decades. Contractual agreements between public and private entities take many shapes and sizes for both new and existing services. At one end of the spectrum is a management or service contract, where a private company is paid a fee for a service. At the other end is full privatization or divestiture (outright sale), where a government sells to a private company. Outsourcing has become another popular option; here a private company might handle an aspect of service, such as billing, metering, transport, or even cleaning. From the World Bank report (2008) from 1990 to 2006, the World Bank sponsored "Private Participation in Infrastructure Project Database" tracked almost 3,800 projects involving private participation in the transport, energy, telecommunications, and water and sewerage sectors of developing countries. Investment commitments to these projects totaled US\$41, 00 billion.

3.0 MODELS FOR PRIVATE SECTOR INVESTMENTS IN PUBLIC INFRASTRUCTURE

Globally, the shift towards PPP has been necessitated by increasing dilapidation of public infrastructure, fiscal constraints as government seek alternative sources of investment funding, need to eliminate bureaucratic inefficiencies in government projects, search for a viable alternative in the face of rising public debt and the rising demand for public services in the face of increasing population and strong economic growth. Infrastructure is key to national development and remains the primary responsibility of the government. The role of the private sector is to aid the Government in selected projects. Private sector participation should be limited to infrastructure projects that will result in profitability for the private sector. PPP infrastructure projects are usually long term and as a result PPP participation will be limited to projects with acceptable internal rates of return.

Government will be required to provide at least 80%-90% of the funding for infrastructure while PPP will only account for 10%-20%. An example of Government spending on infrastructure can be seen in South Africa, where an investment of approximately One billion South Africa Rand (One hundred million US dollars) is estimated to add ¾% to Gross Domestic Product per annum. The benefits accruable there from include amongst others access to sustainable private sector funding, access to private sector skills and management expertise, significant increase in the quality of public services and infrastructure, improved transparency and performance management of public service delivery and risk sharing and value for money. Public-Private partnership involves collaboration between the Public sector and the Private sector. Often it is used for the construction and/or management of a specific asset or a group of assets and in some instance helps to assign risk to the partner best equipped to deal with it. In the course of the

collaboration, specialist skills and experience are assembled which are not readily available in the Public sector and for public interest projects. It enables public sector funds to be used for other programs, where private sector financing is part of the PPP package. PPP should not be confused with “privatization” which involves a transfer of ownership of the assets (eg through the sale of shares). PPP structures enable governments to achieve their infrastructure investment goals without breaking the budget. This helps to close spending gaps, enhances efficiency through private sector management, heightens growth which keeps pace with Gross Domestic Product growth and provides large benefits to the public. On the other side, it leads to private ownership of public goods, political risk if investment seen to be transferring wealth out of the country. A primary driver for emerging market infrastructure finance in the future can come by way government participation in the form of providing: Funding (equity, subordinated loans, etc.), Guarantees (principal, interest, etc), Tax exemptions, subsidies and Conducive legal and regulatory frameworks. Scarcity of capital will result in alternative sources including direct foreign investment, domestic financial markets, amongst others, gaining more importance.

3.1.0 Features of PPP Transactions

- i. Long term contract (concession) for construction and service delivery,
- ii. Concession company can be highly leveraged, if it has relatively stable cash flows, is contractually restricted to delivering its core business, is a monopoly supplier of the relevant service

There are various models or types (models) of Concession Agreements under the Infrastructure Law. These are:

- i. Infrastructure Financing
- ii. Design, Build, Operate and Transfer (DBOT);
- iii. Build, Own, Operate and Transfer (BOOT);
- iv. Rehabilitate, Operate and Transfer (ROT);
- v. Joint Development Agreement (JDA); or
- vi. Operation and Maintenance (OM);
- vii. Management Contract;
- viii. Leasing.

The toll that a concessionaire is entitled to levy is regulated by the terms and conditions of the concession agreement and the provisions of the infrastructure Law. It is important to note that the infrastructure Law provides that the terms to be embodied in a concession agreement would guide the concessionaire on the matters of tolls to be charged and collected in respect of the use of toll roads or facilities which are subject of any concession agreement. Every prospective private investor must pay particular attention to the negotiation of the concession agreement in order to protect its investments and ensure reasonable returns on its investments. Few of these PPP are discuss below. Private sector investments in infrastructure financing can assume any of the following models:

Infrastructure Financing is critical to infrastructural development. All of the world's fastest growing economies understand that by removing infrastructure bottlenecks, they can accelerate economic growth, create jobs, raise their quality of life index and also have a sustained impact on reducing inflation. Financial institutions, both domestic and institutional have a critical role to play in channeling capital into infrastructure development. They intermediate capital flows

between the users of capital and the providers of capital. The providers of capital are governments, small and large depositors, pension funds, insurance companies, corporate, local and international investors. The unique feature of most infrastructure investments is that it requires long term, patient capital. Private sector capital will not be channeled into infrastructure in an environment that is unstable, both economically and politically. It requires low inflationary environment with stable, well capitalized banks as well as deep and liquid capital markets. For instance, in Nigeria, specifically in Lagos state, we have seen significant public-private partnership such as Lekki Concession Company investment in infrastructure in recent years, but more remains to be done given the size of our infrastructure deficit. Lagos and Edo states government under Governor Raji Fashola and Adams Oshiomole have witnessed massive transformation in roads, education, health and transformation.

According to Shonibare (2008): “China is currently spending an estimated 12% of its GDP on infrastructure, equivalent to \$120 billion per year according to its 11th 5 year plan. For India the figure is 8%, Russia 5%. Brazil has notoriously been under spending at only 2% but they have realized that they need to brush up their act. Brazil launched a four plan to spend \$300 billion to modernize its network, power plants and ports. We estimate that Nigeria government is currently spending approximately 3.55 of GDP on capital projects’’. Public Private Partnership (PPP) can take any of this form such as BOT/BOO/BOOT: Build-Own-Transfer (BOT), Build-Own-Operate (BOO), and Build-Own-Operate-Transfer. (BOOT), Build, Operate, Transfer takes between 0-100% private sector participation. Asset Resource Management (ARM) on behalf of the Toll Systems Company Limited was granted a concession by the Lagos Government to develop and toll roads/bridges along 5 key land corridors on a Build-Operate-Transfer (BOT) basis and a Rehabilitate-Operate-Transfer basis (ROT). The Lekki Concession Company was

incorporated for the implementation of the first phase of the project-a 30 year concession granted under a PPP Model to design, build, finance and operate the Lekki-Epe Expressway. The concession also provides for the development, at a later date of a coastal road and southern bypass. Construction costs estimated at US\$ 430 for the project is expected to be recovered through toll tariffs that will be levied on road users. According to Olufowose (2008), Federal Airport Authority in May 2002 awarded a concession for the construction of a new domestic terminal at the Lagos Airport on a BOT basis and by the end of 2006, Bureau of Public Enterprises and the Nigeria Port Authority had fully executed 20 concession agreements, based on the “landlord”, is responsible for port planning and regulatory tasks related to safety, security and environment while the private sector is responsible for marine and terminal operations, construction, purchase and ownership of superstructure and equipment.

Build, Operate, Transfer (BOT) faces the challenge of construction risk, operating risk and social, and environment risk. In this outsourcing the private company might handle an aspect of service, such as billing, metering, transport, or even cleaning. Management contract and lease contracts involve a private entity taking over the management of a State-Owned Enterprises (SOEs) for a given period although the facility continues to be owned by the public sector. The public sector retains the responsibility of financing the investments in fixed assets. In the case of management contracts, the public sector also finances working capital. In this concessionaire plan, it is 100% Public sector owned. The challenge here is that of market risk, price risk and counterpart risk. In Build, Own, Operate (BOO), it is 100% private sector owned. The challenge here is that of regulatory risk, project risk and creeping taxation. In Lease Contract, the private investors build the infrastructure and lease it to government under finance or operating lease. With Greenfield projects a private entity or a public-private joint venture builds and operates a

new facility for the period specified in the project contract. The facility may return to the public sector at the end of the contract period or may remain under private ownership.

Another form of private participation in infrastructure is divestiture where a private entity buys an equity stake in a State-Owned Enterprise through an asset sale, public offering or mass privatization. For a country where the majority of the citizens is stricken by poverty, whatever model is adopted should place the benefit of citizenry at top most priority. The Public-Private Infrastructure Advisory Facility (PPIAF) is a multi-donor technical assistance facility created to help governments in developing countries improve the quality of infrastructure through partnerships with the private sector. Through policy, legal, and regulatory support, PPIAF helps governments explore arrangements for improving the delivery of services. It also supports capacity building for governments to strengthen their ability to design, manage, and regulate reform programs, capacity building and training for policy makers, regulators, and civil society groups. Support comes in the form of grants to help governments explore public-private partnerships in the financing, ownership, operation, rehabilitation, maintenance, or management of eligible infrastructure services. These include roads, ports, airports, railways, electricity, telecommunications, solid waste, water and sewerage, and gas transmission and distribution. PPIAF funds exploratory studies to help governments identify the most appropriate public-private partnership for their situation.

4.0 LESSONS FROM LEKKI CONCESSION COMPANY (LCC)

LCC's mission is to provide high quality road infrastructure and related services along the Lekki Peninsular of Lagos, Nigeria and to be recognized as the pioneer for the change in the way road infrastructure is delivered throughout Nigeria. LCC is a 30-year Public Private Partnership

between Lagos State and LCC, to solve historical problems of heavy ‘go slow’ along Lekki-Epe Axis. Phase 1 – Expansion and upgrading of 49.4km of Ozumba Mbadiwe Avenue/Lekki-Epe Expressway, Phase 11- construction of 20km of Coastal Road, plus option to do the Southern Bypass, Operation and maintenance of new road infrastructure over 30-year Concession term. The project cost is being financed by LCC, will be recovered principally through charging tolls. LCC is currently executing Nigeria’s first ever PPP Toll Road Concession, for which financial close has been achieved, including successful securing a N43.6 billion (US\$370million) long-term financing package on ground-breaking terms for Nigeria. Macquarie Bank, through the African Infrastructure Investment Fund, is a major shareholder in LCC. LCC is an initiative of the Asset Resource Management Group, which has a broad-based ambition to develop major infrastructure projects throughout Nigeria and West Africa.

From www.icc.com.ng, the success story of Lekki Toll Road Concession can be attributed to the following: a well –researched and structured project, backed by credible, experienced players hence it is able to attract the needed finance. It has committed sponsors, experienced concession and Project Manager, government support and commitment plus enabling legislation (2004 Lagos Roads Law), Financial Structure (Debt/Equity and Tenor Currency), Financial Advisors and Arrangers (robust financial model), technical and engineering (feasibility, tolling strategy, surveys and design) and legal and Regulatory expertise. The success witnessed today in Lagos State in Infrastructure development can be ascribed to the Lagos State Government of Nigeria (the State) which enacted the Lagos State Roads, Bridges and Highway Infrastructure (Private Sector Participation) Development Board Law (the infrastructure Law) to provide a legal framework for private sector financing of certain infrastructure. It may be said that this is the first time in Nigeria that any government has enacted a law specifically to regulate private sector

financing for infrastructure development and maintenance. Though there may have been private sector participation in the financing and provision of infrastructure especially in the power sector by way of independent power projects, these were done without any specific set of regulations or laws governing the transactions and the selection of concessionaires or other private financiers wishing to participate in infrastructural development.

5.0 NIGERIA'S INFRASTRUCTURE FINANCING REQUIREMENT (SELECTED SECTORAL REVIEW

According to Elebute (2008) major impediment to Nigeria's economic growth-based on the infrastructure sub-sector of the Global Competitive Index, Nigeria ranks 119th out of 139 countries. The current state of infrastructure suggests significant investment requirements as estimated below on **table 3**.

Table 3 Infrastructure Spending Requirement (6 years)

Sector	Requirements (2008-2013 US\$' bn	Spending (1999-2007 US\$' bn)
Power	18-20	13.27
Railways	10	n/a
Roads	14	4.2-8
Oil and Gas	60	n/a

Source: Federal Ministry of Finance 2008

n/a : not available

According to (CBN, 2008), investment of \$510 billion is required over the next 11 years in rail, power, energy and construction, Investment of \$104 billion over next 6 years in power, rail,

roads and oil and gas while infrastructure spending of about 20% of GDP is required to meet vision 2020 target.

Energy – Power Sector

There is slow pace of reform particularly on the privatization of Power Holding Company of Nigeria (PHCN). The funding issues for Nigeria Independent Power Project is very critical for successful resolution of any form of reform especially now that a target capacity (with NIPP) of 6,000MW (by 2009) and 10,000MW by 2011 has been set. Power projects usually require long term debt funding at attractive rates due to their investment horizon and regulated nature of markets/tariffs. Due to its underlying liability structure and cost of funds, local debt funding are usually of short to medium term not matching tenor requirements for power projects. Expensive relative to comparable international facility/instrument. The investment of US\$18-20 billion has been proposed for the next 6 years while investment of US\$85 billion is required to achieve 20-2020 target. It further stated that for Independent Power Project (IPP), 15 out of the 27 IPPs with planned capacity of 8,539 MW is required and are in project planning phases. Investments of \$8.5 billion will be required (Presidential Committee on Power Sector Reforms).

5.1.0 Challenges of Public-Private Partnership in Infrastructural Financing in Nigeria

The challenges confronting energy (power sector and) transport (railway and road) are presented below:

- i. Non-Availability of long term financing (10-15 years) with attractive interest rates for the investment opportunities in the sector.
- ii. Acquisition of Nigeria Independent Power Project assets for possible concessions (to be undertaken in the future) to refinance Government's investment.

- iii. Global credit and financial crisis limiting foreign investment in above opportunities.
- iv. Local community unrest/hostility in the Niger Delta region impacting supply of gas.
- v. Lack of pool of operations and maintenance personnel to manage projected increase capacity.

Energy - Oil and Gas

No doubt investments are required for developing refineries, depots, Liquid Natural Gas and pipelines. This will require long term financing with appropriate interest rates required to develop these opportunities. Relevant issues affecting investment in upstream gas infrastructure includes need to introduce appropriate fiscal incentives to encourage private sector investment. According to the Federal Ministry of Finance (2008) financing requirements in investment is estimated at US\$ 60billion and has been proposed for the next 6 years (LNG project- Brass LNG, \$8 billion) and OKLNG,\$12 billion), Elebute (2008).

Challenges

Absence of long term funding (local and offshore) at appropriate interest rates to fund required investments.

Transport – Railways

Federal Government has declared its commitment to continue to encourage investment in this sector. According to Federal Ministry of Transport, there is continued interest of about 4-5 operators (with railway operations in Africa) who submitted responses to Bureau of Public Enterprises (BPE's). Following proposals to improve attractiveness of concession and deliver immediate intervention, Federal Government is now to fully fund development of extensions to major ports (\$178m) as links to ports will generate traffic that will improve the viability of the concession with a commitment to fully rehabilitate and maintain projects with affordable

investment requirements to the tune of \$98m. It is expected that Federal Government will enhance the value of any concession arrangement. Investment of US\$ 10 billion has been proposed for the next 6 years (Ministry of Finance)

Challenges

Concessions will require long term funding (local/offshore) at appropriate pricing to achieve economic returns.

Transport –Road

The Federal Government of Nigeria under the PPP agenda has proposed concession of 10 roads by Federal Environment Road and Maintenance Agency (FERMA). The need to invest, maintain and rehabilitate roads is necessary due to lengthy transaction cycle for concessions and need to enhance viability of underlying concessions. It is expected that Federal Government investment will be refinanced from proceeds of concession. The financing requirement is estimated at US\$ 14 billion proposed for next 6 years (Federal Ministry of Finance). **Table 4** shows the roads earmarked for PPP while **table 5** shows the proposed Rail PPP projects.

Table 4: Proposed Road PPPs

Road Name	Total Length Km	Traffic Volume Per Day	Total Cost \$mm
Lagos-Ibadan (Dual Carriageway)	252	40,000	103
Shagamu-Benin (Dual Carriageway)	486	22,000	180
Abuja-Kaduna-Kano (Dual Carriageway)	810	20,000	170
Enugu-Onitsha Benin (Dual Carriageway)	440	12,000	133

Source : Federal Ministry of Transport 2008

Table 5: Potential Rail PPP Projects

Potential Rail PPPs	Total Length Km	Total Cost
Lagos-Kano (West)	1,126	450
Port-Harcourt	1,443	577
Maiduguri (East)		
Kaduna-Kanfanchan	168	66
Kuru-Jos	35	14
Idogo-Ifwa Junction	44	18
Apapa-Tincan	7	22
Port-Harcourt Onne	13	26
Itakpe-Warri	24	130
Total	2,858	1,303

Source: Federal Ministry of Finance 2008

Table 6: Federal Budget Allocation (Fund Providers)

Sector	2006	2007	2008
Power & Steel	5%	4.50%	4.80%
Water	5%	5.30%	6.60%
Education	11%	8.20%	7.30%
Health	7%	5.40%	4.80%
Works	6%	9.40%	4.90%
Total	34%	32%	28.40%

Source: Federal Ministry of Finance 2008

Table 7: Funding Requirements Estimated for the Next 6 Years	(A)	US\$' bn
		104

Funding Sources Identified/in Progress:

Federal & State Governments excess crude account for NIPP	5.3
Proposed LASG 10-Year Bond	2.3

Proposed Kwara State Govt. 10 -Year Bond	0.25
Estimated FGN capital expenditure budget for the next 6 years at \$3.5bn/p.a	21
Total (B)	28.85
Source: Federal Ministry of Finance	2008

Fund Providers

Globally, government is the oldest financier of infrastructure development. It, historically, used to be the sole financier, funding from infrastructural budgetary allocations. However, due to the need to balance competing interests, public resources for financing infrastructural development have dwindled over time. In recent times, about a third of the Federal Government of Nigeria budgetary allocations have been dedicated to infrastructure as shown on table 6 above.

Based on **table 7** above, (A) - (B) funding gap in the region of \$75bn (N9.375 trillion) over the next 6 years is the financing requirements made up of \$104bn (derived from table 3). Some of these funds are required for specific projects such as: LNG Projects – Brass & OkLNG \$20bn and 15 licensed IPPs for 8,535 MW \$8.5bn (Federal Ministry of Finance).

6.0 CONCLUSION AND RECOMMENDATIONS

There are various funding options open to infrastructure financing of the various models of Public-Private Partnership (PPP) such as government budgetary allocation, loan financing (institutional financing), equity resources from sponsors of the project, debt capital markets (bonds) and structured finance (securitization, collateralised debt obligations etc). However, to bridge the funding gap, it is suggested that a certain percentage of pension funds should be invested in bankable infrastructure project. Federal government of Nigeria should also attract

foreign private investment into infrastructure financing such as multilateral firms. State governments should lobby government of Nigeria to use certain percentage of the excess reserve to establish an Infrastructure Guarantee Fund for credit enhancement for banks to lend 10 to 15 years long term debts to bankable projects.

Recommendations

With special reference to the success story of Lekki Toll Road Concession the following are recommended:

- i. Any PPP project should be well – researched and structured backed by credible, experienced players in order to attract the needed finance.
- ii. Governments should demonstrate political will and co-partner with committed sponsors, experienced concession and Project Manager.
- iii. There should be legal/Regulatory framework plus enforcement from Government such as the (2004 Lagos Roads Law).
- iv. Appropriate Financial Structure (Debt/Equity and Tenor Currency), Financial Advisors and Arrangers (robust financial model) should be put in place that will sustain the plan.

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