

CAN CRUDE OIL BE USED AS A FUEL TOWARDS SUSTAINABLE
DEVELOPMENT IN NIGERIA

by

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ABSTRACT

Nigeria is presently the largest economy in Africa. However, the level of development in the country presently is far below potential and gravely inadequate. This paper aims not only to analyze the Nigerian economy since independence and try to resolve why it is still underdeveloped, but also to ensure that in pursuing development, the stakeholders realize the importance of ensuring that development is sustainable. This paper critically analyses whether the developmental issues in Nigeria stem from the Dutch disease and resource curse phenomena. Using secondary research information, it gives a detailed overview of the present state of the Nigerian economy and evaluates the socio-economic and political systems in the country leading up to its present state. It shows that the current social systems, political environment, and economy of Nigeria are underdeveloped and unsustainable. It then explains the need for sustainable development and suggests a radical change in the way funds from crude oil extraction and exports are utilized in the country. More funds need to be channeled towards supporting sustainable agriculture in order to improve the livelihood and standard of living of rural Nigerians and among the general population. Human capital development also needs to be funded and actively sought after in the country. Another major point of this paper is that Nigeria should reduce her overdependence on oil for income and diversify GDP. The thematic structure of this paper stems from the economic theories of the Dutch disease and the resource curse and how these can be observed in the Nigerian economy.

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CHAPTER 1

INTRODUCTION

Nigeria accounts for almost half of the population on the African continent and had a gross domestic product (GDP) of 503 billion dollars as of 2014 (Provost, 2014). Compared with other developing sub-Saharan African economies, Nigeria has a higher present and forecast annual GDP growth rate (Appendix 1). It has large reserves of human and natural resources, and is Africa's largest oil exporter, with crude oil accounting for close to 90% of its exports (Appendix 2; The World Bank, 2013). In spite of this, the country is ranked 153 on the Human Development Index (HDI) reported by the United Nations Development Programme (UNDP, 2011). Unemployment rates are formidably high, poverty levels and the inequality index are disheartening, and life expectancy rates and mean years of schooling are below optimum. A large portion of the Nigerian population lives below the poverty line and at concerning low standards of living. The inefficiencies of Nigeria's economy and government are not only costly to the country itself, but also costly to the global market in terms of lost income. This paper will proffer policy recommendations for improving the Nigerian economy and encouraging a move towards sustainable development. Since considerable effort will need to be put into improving the country's economy, it is both judicious and imperative that this development be sustainable for generations to come. This paper is divided into three major parts to simplify the issue at hand. The first section includes a detailed synopsis of

the Nigerian economy, how it has operated in the past and how it presently operates, and the sociopolitical and economic issues in the country, as well as comparative data on important variables relating to the economy. The second section defines sustainability for the purposes of this paper and explains what it means to a country like Nigeria. It calls upon the area of environmental and natural resource economics to evaluate the impact of important economic activities on the environment, on the economic agents related to Nigeria, and on future generations that may be affected by these economic activities. Finally, the last section provides conclusions from this data and includes recommendations for fostering sustainable development in the Nigerian economy. It also explores financing options for the recommended strategies. This paper offers a comprehensive contribution to the present literature by analyzing the ways that sustainable development is viewed and approached in terms of policy focus. It also provides practical suggestions and steps for how developing economies can approach sustainable economic development.

CHAPTER 2

LITERATURE REVIEW

The topic of sustainable development has gained worldwide popularity over the past few years, particularly as climate change concerns have become a priority on the agenda of governments, businesses and individuals. However, the discussion often falls short of the all-encompassing change in social, economic, environmental and human structures that its implementation entails. Sustainability is frequently talked about in the sense of recycling, reducing waste, and preventing global warming, while development is usually wrongly viewed simply as increasing the income of a populace. Several research papers have tried to tackle the important issues of promoting sustainable development in developing countries and the problems that the Dutch disease and resource curse phenomena create for the development of an oil-rich nation such as Nigeria.

Jourdan (2008) explores the factors that prevent lower developed countries (LDCs) from utilizing their resource endowments as “blessings” as opposed to letting them become a “curse.” He explains that the short-term spending of income from natural resources creates a culture of limited reinvestment in the economy. The resource curse phenomenon is fueled by weak and corrupt governance that fails to utilize appropriate policies. The macroeconomic impacts of the sudden inflow of income, such as the underdevelopment of other sectors of an economy, can cause a resource curse problem.

This paper explains that if the income is invested in programs that foster economic

development, standards of living in the country can be improved. In the same vein, Odedairo et al. (2011) examines the need for sustainable infrastructural development in LDCs and the role of public-private partnerships in achieving it. The authors explain that countries with large available natural resource rents need to channel the income towards providing and improving infrastructure in the economy. Their argument is based on the claim that infrastructural development provides a basic foundation upon which a nation can develop. However, this analysis is limited in that it does not include human or social resources and infrastructure. While it is true that enhancing physical infrastructure supports the development of a nation, physical improvements alone are inadequate. Improvements in human capital are essential for the long-term development of a nation, and sustaining this development depends largely on the enhancing of human capital and the improving of social structures.

Omojimito (2011), on the other hand, provides evidence of the need to cultivate human capital by drawing upon various studies showing that human capital improvements can advance the development of physical capital. This paper examines the effectiveness of Nigeria's education sector in supplying skilled labor for economic output, and finds that there is a great need for educational improvements if the country is to attain sustainable development. However, just like the paper written by Odedairo et al. (2011), this paper implies that improving physical capital is the primary focus of sustainable development. The analysis neglects the importance of social and environmental sustainability and their roles in fostering human and economic sustainability. In addition, when dealing with human capital improvements, Omojimito (2011) talked solely about education. In a developing country such as Nigeria, where the life expectancy is quite low, improving health is just as vital to human capital

development efforts.

Meanwhile, Ogbodo (2010) contributed to research by explaining how the Nigerian government has been working towards environmental sustainability using their legislative power. The country's present environmental laws, such as the National Environmental Standards and Regulation Enforcement Agency (NERSEA) act, call for reduced degradation of the environment and a focus on sustaining not only the land, water, and other physical attributes of the environment, but also the animals and human beings that use them. Ogbodo calls for Nigeria's federal, state, and local governments to come together to raise public awareness about environmental sustainability. He also explains that addressing poverty is crucial because citizens who are less poor and desperate will be more willing and able to benefit from sustainability.

Oyedepo (2012) suggests that sustainable development can be attained in Nigeria with a progressive way of utilizing the large reserve and supply of energy resources like crude oil in the country. He indicates that efficient and sustainable use of the country's resources is key to achieving social, human, and environmental progress. While the income from crude oil has been available to the country for more than 4 decades, it has not been utilized effectively. He argues that what is needed is a better understanding of how developmental goals can be achieved using energy resources in Nigeria. Ogunleye and Ogwumike (2008) reach a similar conclusion to Oyedepo's. They evaluate the need for a resource-led strategy towards sustainable development. Using a regression analysis of crude oil's impact on economic development in Nigeria, they found that if oil revenue is properly managed and unconstrained by corruption, oil-led sustainable development can be achieved in the country.

Goodland (2002) and McKenzie (2004) both try to explain the concept of

sustainability more comprehensively than it is usually discussed. Goodland gives a good explanation of the dimensions within which sustainability should be viewed, while Mckenzie focuses on social sustainability in Australia and gives general considerations that should be taken into account when defining social sustainability.

Based on these studies and the other information used in the writing of this paper, the thesis statement is as follows: This paper aims to analyze the extent to which the Nigerian economy suffers from the Dutch disease and how this affects development in the country. It will explore how sustainable development can be fostered in Nigeria and discuss the possibility of income from crude oil exports being used to finance sustainable development strategies. This paper proposes that the government and people of Nigeria reorient the priorities of the nation towards fostering an environment of sustainable agriculture, enhancing human capital and a reduction in the country's dependence on crude oil for GDP.

CHAPTER 3

THEORETICAL FRAMEWORK

The Nigerian economy is not unique in its experiences, and therefore fits into various existing frameworks for understanding a newly independent and developing economy. A good framework for understanding the Nigerian economy and its developmental experiences is known as the Dutch disease phenomena, first observed in the Netherlands in the late 1950s. Following their gas export boom, the Dutch currency experienced an appreciation, leading to a loss of competitiveness of the exports from the manufacturing and service sectors. The Dutch were able to recognize the currency appreciation and loss of export value as a problem and quickly worked towards increasing their gas exports more gradually. However, in many developing countries that are rich in high-demand natural resources, exports of nonnatural resources in relation to GDP are extremely low, causing them to resemble a monoprodut economy by depending solely on their high-demand natural resources for income.

The Dutch Disease

The Dutch disease is typical of countries such as Nigeria, Mexico, and Saudi Arabia that experience an export boom of primary commodities. A boom in the export of a primary tradable commodity, such as that seen when there is a rise in global prices, leads to an increased inflow of foreign currency into the country. This can cause a fall in the country's real exchange rate (an appreciation of the value of the country's currency on the

world market). It can also lead to inflation through the increased inflow of income into the country from the rising export earnings. Inflation causes the production of other export commodities to be more expensive and can cause a real appreciation in the value of a country's currency through a rise in the price of nontraded goods. Companies have to pay higher wages to employees and input materials cost more, making other export commodities less profitable and less competitive on the world market. Reduced profits cause firms to decrease production and lay off workers. If the booming industry can employ the surplus labor, unemployment does not become a problem; however, because most primary commodities are capital intensive rather than labor intensive, the unemployment rate rises.

Primary sector commodities typically pay a higher tax and therefore earn more revenue for the government. Therefore, when there is a primary export boom, government revenue rises. In turn, government expenditure rises, worsening the domestic inflation that is already brewing because of the inflow of foreign exchange. The increased government spending is frequently on frivolous projects that do not earn substantial returns (Perkins et al, 2006).

Therefore, there is a negative relationship between primary product exports and economic growth and development. However, this relationship does not necessarily have to hold. In some countries of the world, such as Indonesia, Botswana and Chile, the primary exports windfall has been used to stimulate growth and development in the respective economies. During the oil boom of the 1970s, Indonesia experienced an appreciation in their real exchange rates and the government increased spending by more than 60 % between 1973 and 1974. However, the country was committed to development and growth and so the income from oil was invested in agriculture, fostering self-

sufficiency in rice production. The government invested in health care and education for the citizens and provided infrastructure such as roads. In addition, the country balanced the exchange rate appreciation by devaluing the currency in 1973, 1983 and 1986. This prevented their nonoil exports from becoming less profitable and less competitive on the world market. Therefore, between 1971 and 1981 their nonoil exports grew by more than 7 %. Thus, Indonesia was able to provide an early cure for the Dutch disease and experience economic growth and development despite the oil windfall.

The story of the Nigerian economy is different from Indonesia's. In Nigeria, the oil windfall led to a decline in the development of other sectors of the economy such as mining and agriculture. Instead of being invested in agriculture, oil income was wasted on unworthy projects, infrastructure and industry. The inflow of income caused the government to increase spending, and by 1984, the government deficit averaged 12 % of the nonmining GDP.

The Dutch disease is also known as the "resource curse." This term is used to describe the harmful consequences that have been observed in economies where high-demand natural resources are in massive deposits. It refers to the core problems of economic stagnation in spite of large revenues from natural resources. The problems are caused by the sharp price fluctuations typical of international tradable commodities, the tendency for the resource extraction to be dominated by large multinational corporations, and the tendency for the government to spend the income from the resources on bad projects. These projects generate limited income while fueling domestic inflation and causing a loss of competitiveness of other domestic tradable commodities.

In Nigeria, the volatility of crude oil prices has a significant effect on the economy. Using monthly data from January 1970 to May 2011, Demachi (2012) explored the

effects of changing international crude oil prices on the Nigerian economy. The results showed that Nigeria's economy is affected by the volatility of the international prices of crude oil through its strong effect on the Nigerian exchange rate. The real effective exchange rate (REER) shows the value of a country's currency (adjusted for inflation) in relation to other major currencies like the dollar. Appendix 2 shows the REER in Nigeria since 1980. An upward movement shows a depreciation in the value of the Naira because more Naira is needed to purchase a dollar and a downward movement shows an appreciation in the value of the Naira. Appendix 2 shows the graph of petroleum exports and total exports from 1995 to 2013. Petroleum exports are shown to be a large part of total exports by the fact that the two graphs follow the same pattern. It is not surprising therefore that the price of crude oil affects the REER in Nigeria so significantly. The graph on the share of petroleum in GDP emphasizes the point and shows that a large portion of GDP in Nigeria comes from the export of crude oil and related materials.

The Nigerian economy suffers from a great susceptibility to external shocks through the resource curse. Nigeria also faces the problem of wasted resources. Oil income is rarely channeled back into the economy but is instead squandered by corrupt leaders. Resource extraction in Nigeria is dominated by large multinational corporations such as Chevron and Shell, and the government has not done enough to encourage the employment of Nigerian citizens by these corporations. As such, these corporations provide jobs for non-Nigerians while the unemployment rate of Nigerians keeps rising.

Sala-i-Martin and Subramanian (2003) propose that a solution to the resource curse problem could be the distribution of the income from natural resources to the public. They explain that "waste" is a comprehensive way to explain the natural resource problems of Nigeria. After the discovery of oil, the Nigerian government invested rapidly

in manufacturing, infrastructure and physical capital. The government tripled their physical capital in the 8 years between 1970 and 1983. However, capacity utilization fell from 77 % in 1975 to 50 % in 1983 and has been at an average of 35 % since the end of the 1980s, meaning that a large portion of the government's investment in manufacturing has been wasted and has not yielded further income.

This is the theoretical framework upon which this paper is based. This paper focuses on how Nigeria can use the large reserves of available natural resources to the advantage of the economy and the populace instead of leaving it as a "curse." The country must work towards sustainable development by encouraging sustainable agriculture, developing human capital, and encouraging economic and social equity. Nigeria will benefit by funding these changes using the income from the export of crude oil instead of borrowing.

CHAPTER 4

THE STRUCTURE OF THE NIGERIAN ECONOMY

Nigeria officially became an independent nation in October 1960, and since then, the country has been through various political, social and economic transitions. Today, it is the richest African country in terms of GDP and the most populous black nation in the world (Central Intelligence Agency, 2014; West Africa Gateway, 2012). The real state of the economy, however, is dramatically different. Although the growth rate in the country has risen at an average rate of 7 % over the last decade, the country is still an underdeveloped one. Nigeria is characterized by a high and rising rate of poverty, and a level of unemployment so high that the country would need to maintain double digit rates of growth in order to sustain the present and future unemployed population (The Economist, 2014). The country suffers from political corruption, mismanagement of funds, tensions and violence, lack of stable power supply, poor transportation systems, high levels of illiteracy, red tape and bureaucracy in the business startup and operation process, and many more characteristics of underdevelopment (Central Intelligence Agency, 2014; The Economist, 2014; The World Bank, 2013). This first part of the paper provides a detailed description of the socio-economic and political history of Nigeria since independence in 1960, then sheds light on present-day Nigeria and its problems in order to truly analyze the real state of the economy. Understanding the problems Nigeria faces and the background of these problems will give a better perspective of the need for

well-thought-out sustainable development policies and intricately designed implementations of these policies.

Historical Background of the Nigerian Economy

Prior to its independence, Nigeria was an agriculture-based economy, exporting products like corn, rice, rubber, and cocoa to Great Britain. After gaining independence, the country focused on developing human capital, creating infrastructure, and generating electricity. Hydroelectric dams were built to provide electricity, industries and plants were created to provide employment opportunities, and the government provided startup capital to encourage innovation and entrepreneurship. The economy began a steady period of growth, recording up to 3.1 % average annual growth from 1960 to 1970 and up to 6.8 % of average growth for the decade after 1970.

The military governments of General Olusegun Obasanjo in the late 1970s and his civilian successor President Shehu Shagari supported food production through agriculture improvement programs such as Operation Feed the Nation and Green Revolution. These encouraged farmers to grow more food by providing them with the resources and machinery to produce food efficiently and profitably. Agricultural research intensified, and the Nigerian Agricultural Bank (NAB) was established in 1973 to provide funds for farmers. Government policies focused on increasing agricultural output to combat poverty, reduce malnutrition, and improve the standard of living for the Nigerian people. (Bank of Agriculture, 2011)

The government also started to intensify efforts towards industrial and human development in the country in the 1970s. In 1971, Nigeria began to develop its steel industry in response to the increasing global demand for steel. By 1975, literacy in the

country had improved immensely, and 13 universities had been established with up to 53,000 students enrolled.

Since finding oil in Nigeria, however, the country has slowly ignored sectors of the economy that were painstakingly developed after gaining independence. Large-scale industrialization and improvement in manufacturing became the main objectives of the Nigerian government. Although industrialization led to growth and development in countries such as England and the United States, the time and manner with which it was operated in Nigeria was detrimental. The country lacked the funds, skilled human capital, and infrastructure to follow through with large-scale industrialization. A growing population combined with the decline in agriculture after the 1970s oil boom led to food shortages. Nigeria, previously the world's largest producer of palm oil and Africa's largest exporter of corn, began to import such products. By the end of the 1980s, the Nigerian economy had a negative GDP growth rate (Ekpo & Umoh, 2014).

During the 1980s, a debt crisis was brewing on the world market for a variety of reasons. Developing countries had been "encouraged" by the World Bank, International Monetary Fund (IMF) and Bretton Woods Institutions to borrow money to adopt the strategies of the Washington Consensus, a plan to accelerate growth through the privatization and liberalization of systems in developing countries. In the United States, the dollar had just been removed from the gold standard in the year 1971, increasing the inflation and interest rates in the U.S. As a result, the debt owed by less-developed countries increased drastically because of variable interest rates. Also, in 1973 and 1978, the Organization of Petroleum Exporting Countries (OPEC) cut the world oil supply, causing the price of oil to rise and creating macroeconomic instability in many countries. During this time, under the regime of Ibrahim Babangida, Nigeria underwent an

economic structural adjustment programme (SAP) prescribed by the IMF to reduce the country's dependence on oil and promote sustained, noninflationary economic growth. The IMF lent Nigeria money to take on "efficient" policies to foster long-term growth and economic stability (Anyanwu, 1994). The results of the SAP were far from the positive expectations. A large portion of the borrowed money did not even reach the country, and the part that did was put into nonperforming public sector projects. Nonetheless, the country was left heavily indebted, and the policy conditions imposed by the IMF caused a reduction in education and health care spending.

At the end of the 1990s, newly elected President Olusegun Obasanjo tried to secure debt relief from creditors, but they were unwilling to grant Nigeria debt relief based on the premise that the country had enough oil wealth to pay back its debt. President Obasanjo's two terms were spent privatizing public firms to improve efficiency, dealing with corruption to encourage accountability of funds, redirecting funds into projects to improve citizens' quality of life, getting back money lost to corruption by previous heads of state, improving banking, and introducing telecommunications to the country. However, by the end of his terms, infrastructure was still deficient, the gap between the demand and supply of power had widened with population growth, access to capital was insufficient, the country suffered from capacity underutilization, and the government management still lacked transparency.

From 2003 to 2007, the Nigerian government implemented an economic reform program known as the National Economic Empowerment Development Strategy, or NEEDS (Library of Congress, 2008). The reform was designed to improve the standard of living for Nigerians by fostering macroeconomic growth and stability, privatizing and liberalizing some public entities, making systems more transparent, diversifying the

economy, creating more jobs, encouraging the growth of nonoil exports, and increasing industrial capacity utilization.

In mid-2007, the new civilian president, Umaru Musa Yar'adua, created Vision 2020, a "seven point agenda" that Nigeria would work to achieve by the year 2020. It aimed to put Nigeria in the ranks of the top 20 economies in the world by the year 2020

(Accenture, 2009). The seven points included encouraging stable and sound macroeconomic growth, improving the democratic system in the country, improving the education sector of the country, providing more adequate infrastructure, encouraging a more globally competitive, improved and industrialized manufacturing sector to increase the sector's contribution to GDP, improving life expectancy by developing the health care sector with more funds, resources and incentives to encourage highly skilled and trained doctors and personnel to enter the sector, and enhancing efficiency in the agriculture sector by providing modern technology and encouraging the use of the vast available arable land. Although efficient implementation of these strategies would be a step in the right direction for Nigeria, realistically the execution has been flawed and ineffective. Corruption still hinders the appropriate use of funds, while political instability and social unrest distract both the government and the population from focusing on important economic mandates.

The present government of President Goodluck Johnathan, which started in 2011, created the Transformation Agenda (TA) in line with Vision 2020. The TA was designed to transform Nigeria into a strong, inclusive developed economy by the year 2020, focusing on strengthening the major sectors, creating jobs and reducing poverty. Its goals include increasing the literacy rates and improving the education of the Nigerian citizens by transferring more funds into the education sector, training better teachers, providing

more books and resources, and building more school. It also hopes to improve employment rates by not only expanding industries and creating more jobs, but also promoting youth education and vocational training (Gyong, 2012). The possibility of attaining these benefits seems promising because of the way the agenda was carefully thought out, analyzed and articulated. The country also has enough funds to successfully implement most of the plans. However, corruption, bureaucracy, sidetracking of funds, and a lack of co-operation and synergy between political office holders are just a few of the hindrances to attaining the benefits of the transformation agenda.

Sociopolitical and Economic Structure of Present Day Nigeria

The social structures and political environment in Nigeria are quite tense. Almost 130 million Nigerians live below the empowerment line. The empowerment line is a comprehensive way to measure a person's standard of living by using eight basic household needs needed to achieve a certain "decent" standard of life. (McKinsey Global Institute, 2014). Although the Nigerian economy has been growing at a steady rate over the past decade, total poverty and inequality still remain almost the same. In the Niger Delta, crime and civil disorder has broken loose in recent years as a reaction to constant environmental mutilation, degradation and destruction by large multinational corporations like Shell and Chevron (OSAC, 2013).

Poverty in Nigeria is also still a social and economic problem. Under the Harmonized Nigeria Living Standard Survey (HNLSS) comprehensive method of household survey, poverty in Nigeria was 46 % of the population in 2003/2004 and 48 % of the population in 2009/2010. In the Nigeria Economic Report (NER) for 2014, poverty was reassessed using a different panel: the general household survey (GHS) of 5000 households in

Nigeria. The GHS survey showed that poverty was at 35.2% of the population in 2009/2010, which is significantly lower than the NHLSS estimate. The GHS is carried out yearly with 22000 households and every other year with 5000 households while the NHLSS is conducted every 5 years. The GHS results also show the breakdown of poverty between the Nigerian regions from the south to the north. As shown in Table 1, poverty in the northern part of the country is higher than in the southern part and the reduction in poverty in the north was not as significant as in the south.

Table 1 shows that the level of poverty is worse in the northern part of Nigeria than in the southern part. The northern economy is largely dependent on agriculture and therefore is the poorest. This may account for the rising incidence of violence in the north

Table 1: Poverty Rates in Nigeria

POVERTY RATES PER CAPITA			
	(% OF THE POPULATION)		
	GHS	GHS	HNLSS
	2010-2011	2012-2013	2009-2010
National	35.2	33.1	62.6
North Central	33.4	31.1	65.8
North East	47.1	50.2	75.4
North West	46.9	45.9	74.2
South East	31.7	28.8	54.9
South	27.7	24.2	53.3
South West	21.2	16	47.9

of Nigeria (Nigeria Watch, 2014). Urban poverty is also significantly less than rural poverty.

Poor social structures are made worse by the unstable power supply in the country. The power sector in any economy is essential for the process of industrialization, development and the smooth running of the economy. In Nigeria, power has been supplied by a state monopoly for almost its entire existence, and efforts to privatize this sector have led only to a change in form without eliminating or significantly reducing monopoly power. As expected, this creates gross inefficiency in the sector and a demand for power that greatly exceeds supply, leading to exorbitant prices and low standards of living. Many of the poor are unable to afford generators and have to live and work without electricity. Those who can afford generators must buy expensive fuels such as diesel and petroleum, increasing their cost of living. The opportunity cost of inadequate investment in this sector and the subsequent power outages has been estimated to be almost US\$ 130 billion annually (Oyedepo, 2012). Many new Nigerian businesses have gone under because of the high cost of fueling generators and paying exorbitant prices for an unstable power supply.

Ogbeidi (2012) explains that a major cause of Nigeria's economic instability and slow economic development is political corruption. He concludes that for the country to encounter sustainable economic growth and development, unstable and corrupt political structures must be replaced with more reliable governance. Aisen and Veiga (2010), using a sample of 169 countries over 5-year periods between 1960 and 2004, found that higher levels of political instability lead to lower GDP. This is not surprising, as corruption can negatively affect investment, the number of business startups, and the cost of living. Testing 71 countries over the period from 1960 to 1985, Alesina and Perotti

(1996) found an inverse relationship between income inequality and economic growth, focusing on political instability as the link between the two factors. They used the positive relationship between income inequality and political instability to test the effects of political instability on economic growth and investment in a country. The analysis indicated that political instability implicitly increases the risk of investment and therefore causes a fall in investment in a country and can also cause GDP and economic growth to decrease. Political instability in Nigeria is therefore a major sociopolitical problem for the country.

Agriculture in Nigeria

Productivity in the agricultural sector has increased rapidly since 1960, despite the slow development in the sector, as can be seen from Appendix 3. Labor productivity in agriculture has also increased. This reflects a move from subsistence to modern, and most likely, export-oriented agriculture. Appendix 3 shows that the country faces import food dependency because of the increase in export-oriented agricultural production. The fact that Nigeria must import a lot of food even though agricultural productivity is rising indicates that a large portion of the food and crops being produced is being exported. This makes the country susceptible to export and income price shocks of food and produce.

Agriculture is a major means of survival in rural Nigeria. The country benefits from a tropical climate and lavish crop-growing land, enabling it to grow various crops all year round (Poverties Org, 2013). However, according to the World Bank (2013), the rural population has seen a steady decline from 56 % in 1994 to 47 % in 2012. The slow development in the agricultural sector has caused rural areas to be the most underdeveloped and poor areas of the country. Not enough funds are put into the

improvement of rural communities and their standard of living. Nigerian farmers lack the machinery needed for maximum efficiency in production. Major social unrest and widespread violence such as armed robberies are prevalent in rural areas due to the high incidence of poverty and low standard of living. Such violence can find its way to the urban population through rural-urban migration. Funds from oil exports are rarely channeled into the improvement of the economy or the other nonoil sectors of the economy because of corruption and wrong economic policies. This results in underdevelopment of rural areas and the country as a whole.

The agriculture sector faces several constraints in Nigeria. The focus on oil not only diverts funds and attention from agriculture, but also damages agricultural land and compromises water for fishing. Crops on environmentally damaged lands no longer grow as fast or as well. The environment of oil-producing areas, mainly in the Niger Delta, has been compromised by the extended increase in oil-extraction activities by big oil firms such as Shell, Texaco and Chevron. The fish in polluted seas and oceans die or become too toxic for human consumption, thereby shutting down the livelihood of many farmers and fishermen. The increasing rural-urban migration and falling emphasis on agricultural education amongst the younger generation is an added constraint on the ability of agriculture to contribute to GDP. In addition, inadequacies of property rights laws and unfavorable land tenure rules have hindered the availability of long-term agricultural investment.

Oil and the Nigerian Economy

Infrastructural development in Nigeria is severely lacking and the main emphasis of operation in the country is its biggest natural resource: crude oil. Nigeria is the biggest

exporter of oil in Africa and has the largest natural gas reserve on the continent. It is the fifth-largest oil supplier to the United States and the twelfth-largest producer of oil in the world (Miranda, L. 2012). Although the greatest percentage of GDP in Nigeria comes from oil exports, some economists have attributed more than half of the underdevelopment experienced in the economy to oil. (Iweniji, 2013) The overdependence on oil in the country is detrimental to the development of the country. Even though there is a positive relationship between the price of crude oil and GDP in the country, there is a negative relationship between the price of crude oil and the degree of industrialization because of the high levels of corruption and the mismanagement of oil funds. This means that even though oil contributes positively and largely to GDP in Nigeria, the income from oil has not translated into industrialization in the country. A large portion of oil income in Nigeria ends up missing or channeled into unproductive ventures instead of being put back into the economy for the development of infrastructure or the improvement of economic conditions.

Appendix 5 shows the distribution of output by sectors in Nigeria since 1960. Mining and agriculture can be seen to have had the most output as a share of overall output since 1960. This is indicative of the economy's dependence on crude oil production for GDP. Agricultural products do not earn as much income as petroleum products and oil-related materials even though output in that sector is also high.

Overview of the Nigerian Economy

Nigeria is the richest African economy as of 2014. Appendix 6 shows how real GDP since 1960 has experienced a steady average growth. There was a spike in real GDP and real GNI between 2002 and 2008, most likely because of the rise in the price of crude oil

within those periods. By 2012, real GDP and GNI reached around 180 billion US\$; meanwhile Nigeria is home to some of the poorest people in the world. As of 2012, poverty was 54.4 % greater than the rate of poverty in 1980 when poverty was 27.1%. Nigeria currently ranks 169 (10 places down from the year 2009) on the Human Development Index (UKAID, 2012). Women earn less and have fewer opportunities than men. The northern part of the country is predominantly more uneducated and poor than the southern part. These inequalities cause social and institutional tensions that have sometimes translated into violence. Nigeria has a hard time attracting foreign investment for many reasons, including the high cost of business operation in the country, the bureaucratic and corrupt processes and systems, the sociopolitical instability, and the high occurrence of violence in the country. The savings and investment levels in the country are lower than they should be because of a prevailing lack of trust in the economic system. Inflation in the country is fueled by the lack of adequate power supply, which raises the operating cost of any business and translates into higher commodity prices. These problems are compounded by the lack of transportation infrastructure such as good roads. Not surprisingly, the poorest people in the population are the most affected by the socio-economic problems. Nigeria operates on large-scale inefficiency and that is economically unacceptable for both the country and the world as a whole. The skilled labor population of the country represents an untapped source of income and a large potential market for investment and growth. As the world keeps globalizing, Nigeria operating on this large-scale inefficiency causes lost opportunity costs for businesses and investors in America, China, and all across the world. Radical changes must occur soon in order to move the country into efficiency and sustainable development.

CHAPTER 5

SUSTAINABLE DEVELOPMENT IN NIGERIA

This part of the paper is going to examine the Nigerian economy with respect to socio-economic and political development and sustainability.

Sustainable Development

Development has become a buzzword in the world today. In other words, it is a term often used by politicians, researchers, teachers, and laymen, but its actual meaning varies depending on the context in which it is used and the person or people using it. The common conclusion is that development is to be desired and might even be necessary. A true and comprehensive definition of the development of a nation should include human, social, and economic progress. It should take into account all the aspects of the welfare of individuals in a country, which will include not only economic growth and productivity, but also indicators of improved standards of living such as socio-economic equality, access to healthcare and education, and economic and political freedom.

Much like the word “development,” sustainability has become a popular term in recent years. While most advocates for sustainability have only a vague understanding of what it truly means, they know for sure that it is to be desired in the world today. The famous Brundtland definition (World Commission on Environment and Development, 1987) of sustainability calls it a process of development that caters to the needs of the present generation without jeopardizing the ability of future generations to cater to their

needs. For example, concerns about climate change threatening the future generation's ability to meet their own needs have been exacerbating over the past few years.

Sustainability in a process has also been widely thought to mean that the process causes little pollution and damage to the environment. These views of sustainability can sometimes impact the definition of sustainable development and therefore affect policy prescription and institutions in countries. Snorth, (2012) in the Environment section of ABC magazine gave a concise example of the distortion of the word "sustainability." He explains that it has become a business of carbon emission control and a hiatus on climate change. Carbon emission control and climate change are pressing issues; however, those are not the only important issues to discuss when it comes to sustainability. In fact, they are only a small part of what sustainability is and should be. With this distorted view of sustainability gaining media fame and public acceptance, more public policy is being thought through for carbon emissions and climate change while the other pressing important macroeconomic issues of sustainable development are basically ignored. The focus of sustainability has become the sustaining of human civilization at the level of comfort of the rich.

Sustainable development is therefore difficult to describe. For the purpose of this paper, it will be defined as improvements in economic, social and human development at which individuals in a country attain a greater, more equal, and less environmentally damaging quality of life that can be maintained or sustained at least at that level for generations to come.

Sustainability can be viewed in three different dimensions: social, economic and environmental sustainability. These will be discussed in detail in the next few subsections. It is important to point out that the three dimensions of sustainability can be

viewed, as shown in Figure 1, as having concentric circles. The social and economic aspects of sustainability depends on the environmental aspect and the economic aspect is influenced by the social and environmental dimensions. The concentric circles show that these three dimensions depend on each other, therefore all three should be simultaneously achieved in order for sustainability to be considered successful.

A second model proposes overlapping circles where the three aspects of

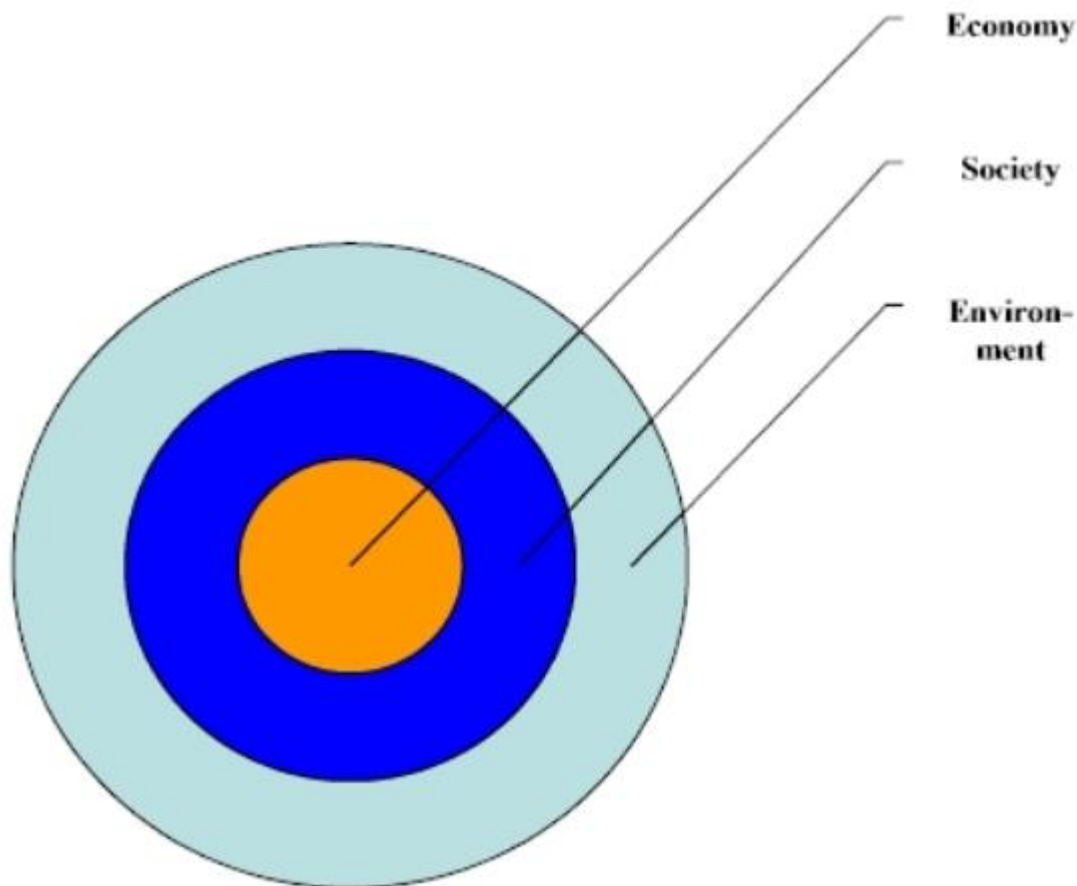


Figure 1: Dimensions of Sustainability 1. Reprinted with permission from the University of South Australia. Eco-social Sustainability Research Network. 2014. *Eco-social sustainability of the Murray-Darling Basin* published at <http://www.unisa.edu.au/Research/Hawke-Research-Institute/Research-projects/Eco-social-sustainability-in-the-Murray-Darling-Basin-research-network/Background-paper/>. Source: Hawke Research Institute, University of South Australia.

sustainability are equally influential on each other and essential for the other two to be achieved. It is shown in Figure 2. This model of overlapping circles is similar to John Elkington's of his expression "the triple bottom line." He basically explains that the sustainability that economies seek cannot be achieved without the presence of at least basic levels of social, economic and environmental sustainability.

Environmental Sustainability

When the word sustainability is used, more often than not it is being used in the context of environmental sustainability. In one of their Millennium Ecosystem Assessment

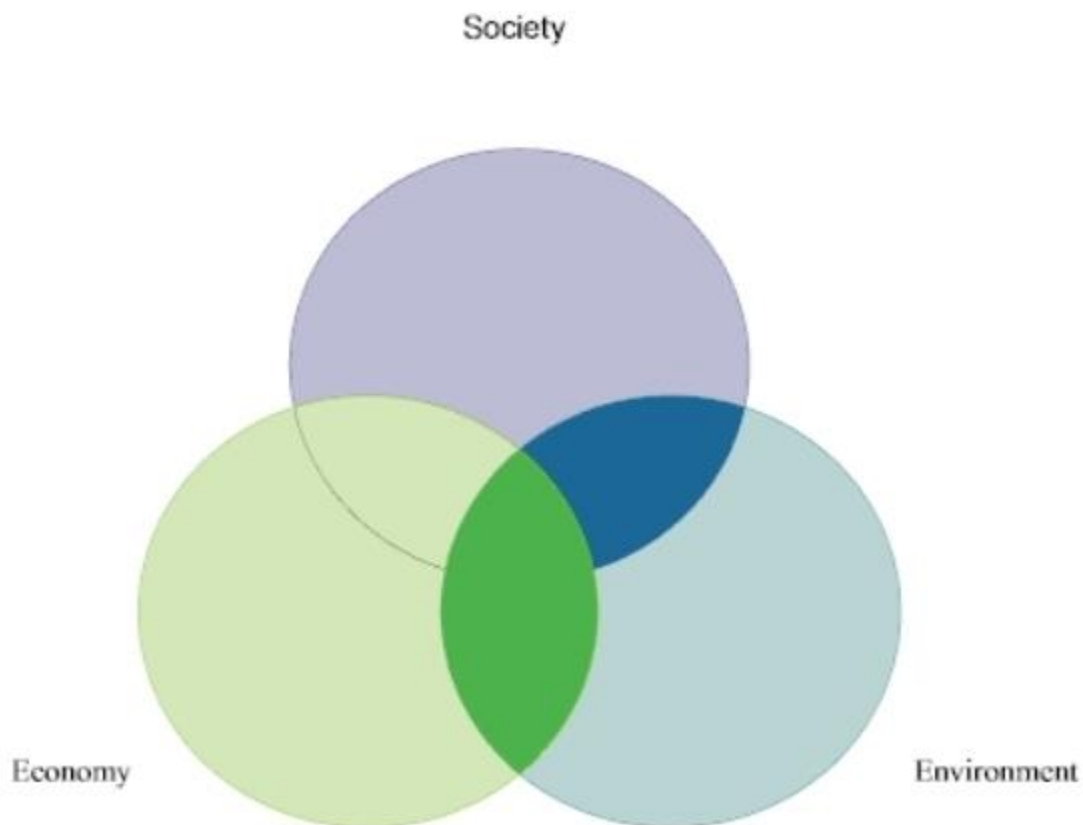


Figure 2: Dimensions of Sustainability 2. Reprinted with permission from the University of South Australia. Eco-social Sustainability Research Network. 2014. *Eco-social sustainability of the Murray-Darling Basin* published at <http://www.unisa.edu.au/Research/Hawke-Research-Institute/Research-projects/Eco-social-sustainability-in-the-Murray-Darling-Basin-research-network/Background-paper/>. Source: Hawke Research Institute, University of South Australia.

reports (2005), the United Nations stated that environmental damage and degradation is a major hindrance to the achievement of the Millennium Development Goals (MDGs): a set of goals that 191 UN country members are working towards achieving, which includes reducing global poverty in half by the year 2015 and stopping the spread of HIV/AIDS. Environmental sustainability inherently means promoting a reduction in environmental damage in the process of industrialization and development. This means that all processes in an economy should do as little damage to the environment as possible to not only improve the overall well-being and quality of life of the present generation but to ensure that the future generation also has equal access to the environment and its usefulness. Essentially, this means meeting the need for a healthy environment of the present generation without jeopardizing the ability of the future generation to meet their own needs.

Social Sustainability

This is the least popular aspect of sustainability and when the term sustainability is used, this aspect is often ignored, even though it is both essential in itself and crucial for the achieving of economic and environmental sustainability. Social sustainability involves the maintaining of an equitable and just society or the achieving of such a society where it does not already exist and then the sustaining of such a society. Social sustainability is a dynamic concept that is difficult to measure and fully understand. Stephen McKenzie (2004) explains that the important principles that should be included in any comprehensive definition of social sustainability are the fundamental and comprehensive equity of opportunities and outcomes for all, the promotion of integral

interconnectedness and diversity, a good quality of life for all such that, at the very least, basic needs are met, and there is an open and accountable democratic government.

Physical environmental good can positively foster social sustainability theoretically and practically (Dempsey, 2006). This further supports the model of concentric circles explained earlier and which demonstrates that social sustainability efforts can be influenced positively by efforts to improve environmental good and sustainability.

Economic Sustainability

Neoclassical macroeconomics places a lot of emphasis on economic growth as an indicator of economic success; however, what is more important is sustained economic growth. Rising GDP does not always translate to economic development. Focus needs to be placed on a country's ability to sustain economic growth and success for generations to come rather than simply having periods of rising GDP.

Economic sustainability depends on environmental and social sustainability in the concentric circles model because it involves ensuring that future generations have at least the same level of access to economic good. This will be made possible only if they have access to the same level of environmental and social good.

Sustainability and Oil Extraction in Nigeria

The socio-economic and political problems that came with finding oil are still present in the Nigerian environment and are quite numerous. They include unemployment, environmental damage, crime and violence in the Niger delta area, high levels of inequality, and an increase in corruption amongst others

Oil is majorly extracted from the Niger Delta region in Nigeria. It is a small region compared to the rest of the country, therefore the people of the area are a minority group.

The “rents” gotten from oil have not always been channeled back to the region. In fact, most of the proceeds never get back to the Niger Delta area. Therefore the region is left greatly impoverished and environmentally damaged. The ability to generate income is also hindered due to environmental damage, land is the main source of income for most of the inhabitants of the Niger Delta area. The environmental damage is also associated with health hazards, causing problems in the Niger Delta region where most of the people are too poor to get proper healthcare.

Natural resource wealth in a country is usually seen to be wrongfully and unjustly distributed (Humphrey, 2005). These feelings have caused the Niger Delta people to react with violence and drastic measures to get nationwide and global attention for their plight. Therefore social unrest is the order of the day in the Niger Delta; the people feel marginalized and minimized in the country.

Rural-urban migration is worsened by the social issues in these rural areas. Rural-urban migration may not always be detrimental to development in rural and urban areas, as can be seen in the cases of the United States and China; however, in the case of Nigeria, urban areas are already overpopulated and unemployment rates are already high, so migration poses problems for the urban areas. The capacity for growth is being underutilized because many of the younger generation are migrating to urban areas, leaving a greater population of older people in the rural areas. Population in urban areas is rising faster than the resources available in these areas, causing more macroeconomic problems such as inflation and unemployment. The rise in urban population can be seen in appendix 4. The urban population as a percentage of total population has risen from 15 % in 1960 to almost 50 % in 2012. This means that a small part of the country in comparison to the entire available space is holding almost 50 % of the entire population.

There is an implicit trade-off between economic progress (from crude oil extraction and exports) in the country and global sustainability efforts. Leaving oil in the ground can contribute greatly to global sustainability efforts, but lose the country millions of dollars in potential income. Oil extraction can be a very environmentally damaging process with great external costs, but the process is made worse in Nigeria because not enough effort is put into correcting the damages and bad governance causes income to be wasted rather than reaching the deserving states.

Nigeria also faces issues of further unsustainability because oil is being extracted too rapidly and the environment is being destroyed; however, the income is not going towards the improvement of most citizens, therefore this process is even more economically inefficient.

Overview of Sustainable Development in Nigeria

According to the World Bank (2014), sustainable growth is a part of Nigeria's vision for 2020. This is a commendable vision to have, however, the history since independence clearly shows that whatever economic growth the country has attained is not sustainable. For more than 3 decades, oil has been Nigeria's major source of foreign exchange income (Dode, 2011). Not only do prices of crude oil tend to be volatile and unpredictable, but by definition as an exhaustible natural resource crude oil does not replenish itself and is not replenished as it is pulled out of the ground; therefore, it is not a sustainable source of income. A lot of research has gone into estimating when oil will run out in Nigeria, and most researchers conclude that around the year 2040 there will not be enough oil to sell. Paul Roberts (2004) explained that the "peak and decline" pattern of oil is inescapable. Even presently, it is harder to extract the same amounts of oil as it was possible to at the

onset of finding oil in Nigeria. He gave the example of the United States during the First and Second World War when there was a peak in their supply of oil and America was the largest world supplier of oil. American suppliers of oil have long since had to expand out of the country to find other sources of oil extraction. In order for crude oil, which is an exhaustible resource, to be a sustainable source of income, a very large portion of the income from oil must be saved because exhaustible resources depreciate at very high rates.

The World Bank (2014) explains that in order to reduce poverty in Nigeria, a focus on nonoil economic growth and human development will be required. The political and justice systems are tainted with corruption and bureaucracy. Social problems in the country are still too plenteous and extensive and they need to be addressed. Therefore, Nigeria is yet to attain satisfactory levels of environmental, social, economic, and human development and sustainability and the country has to begin to develop policies that address these shortcomings.

CHAPTER 6

POLICY CONSIDERATIONS AND RECOMMENDATIONS

One need not look too far to come to the conclusion that present-day Nigeria is neither developed nor sustainable. Although Nigeria ranked number 25 on the World Bank GDP ranking in 2013 (The World Bank 2014), she is far from being adequately developed socially, economically, or politically. The country has aims towards sustainable development but needs more action in that path. This part of the paper will suggest actions and policy implementation strategies that can push the country towards attaining sustainable development.

Policy Decision Questions

In order to start moving Nigeria as a nation towards sustainable development, some policies are essential. Three important questions need to be asked: Should Nigeria focus on making oil as a source of income and development more sustainable; is there a need for structural transformation in the country towards industrialization, or should Nigeria focus on developing the agricultural sector further in order to increase agricultural productivity even more and generate more income from agricultural exports?

Industrialization has led to economic growth in Western countries in the past, but over the past few years, concerns over the sustainability of the present level of industrial development have arisen. Income from agricultural exports may be insufficient to sustain a whole economy's demand for jobs, income, and sustenance. Therefore, what is a well-

rounded way to move the Nigerian socio-economy towards development and also ensure the sustainability of development?

Strategies for Sustainable Development

Nigeria needs to focus on developing a more balanced economy that focuses not only on industrialization and infrastructural development, but also on fostering improvements in agriculture and on improving and enhancing human capital. As much as industrialization is essential for economic growth, economic growth from industrialization alone often leads to inequality and fewer chances for future growth. The model of reform in India viewed industrialization as being synonymous with development, but this strategy of rapid industrialization turned out to be ineffective at developing the Indian economy (Kaplinsky, 1997). In China, where industrialization efforts intensified in the 1980s in order to foster economic growth and reduce the level of poverty, agriculture played a very important role in poverty reduction, especially in the rural areas where poverty is more rampant. The role of agriculture and other less industrial processes in growth are usually side-lined during industrialization, even though these processes are essential to large parts of the population of the country and important even for sustained economic development, as can be seen from the case of China. The agricultural reforms of the 1970s led to a large reduction in poverty and a more efficient agricultural sector, allowing surplus labor to be transferred from agriculture into manufacturing. China did not jump straight into industrial reforms; rather the country increased productivity through agricultural reforms, then embarked upon industrial reforms. This decision may be responsible for some of the sustained economic success the country has experienced over the last few decades.

Nigeria has potential for great agricultural productivity that can support economic growth, provide employment, reduce poverty, and provide food security (African Development Bank Group, 2013). The agricultural sector of the Nigerian economy does not resemble China's before the 1970s. However, if Nigeria can further develop its agriculture to make it more productive and generate more income, poverty in the rural areas can begin to be tackled and the issues of the underutilization of agricultural land and machinery can be addressed. More income needs to be channeled into the agricultural sector to provide farmers with the appropriate education, resources, and machinery for effective and efficient production in agriculture. The Ministry of Agriculture needs to be more diligent in the protection of agricultural land and the monitoring of all stake holders to ensure that the land is not being overworked. Farming breaks and crop rotations should be enforced to preserve the long-term usefulness of the land. Farming should be regulated so that land-destroying techniques are limited and land-preserving techniques and measures are put in place. These policies may be criticized on the basis that it reduces the short-term potential for agricultural revenues and profits, but in the interest of sustained income and development, these policies are better suited for the Nigerian economy. Human capital improvements need to be paramount on the Nigerian government's agenda. Research done in this area shows that increased investment in human capital can lead to an increase in physical capital, which in turn fosters economic growth and development. (Barro & Lee, 1993; Romar 1990). Human capital improvements are generally viewed in terms of the provision of, and access to, good education and adequate health care. Lawanson (2009) studied and found (based on a regression analysis) positive strong relationships between government expenditure on education and health care and economic growth.

The education system in Nigeria is inadequate. Most of the primary schools lack appropriate and adequate resources such as space, good teachers, and good books. A study done by Omojimiti (2011) to assess the effectiveness of the Nigerian education system based on the level of funding and Nigeria's Human Development Index (HDI) ranking shows that the country's system is severely lagging behind and needs to be reformed. Investment in the sector is insufficient, and the teaching curriculum is mostly borrowed from outside the country rather than tailored towards the specific training needs of Nigerian citizens. Brain drain, a phenomenon where skilled labor migrates away from the country, causes there to be a scarcity of essential human capital such as teachers and educators. According to the UN statistics on Nigeria, more than 3 million Nigerians work in North America as medical doctors, lawyers, IT programmers and many other advanced fields (African Development Bank Group, 2013). Tertiary education in Nigeria is also substandard. Federal universities are not sufficiently funded, and teachers are undertrained on appropriate teaching methods and use antiquated tools to teach obsolete material that does not suitably equip students with the knowledge and skills required to work in the labor market. The students and teachers go on separate administrative or nonadministrative strikes at least once a year, causing a halt in all systems for long periods of time. Programs that normally take 4 years in university to complete end up taking 7 or 8 years. This creates opportunity costs of lost income from the extra time spent getting a substandard level of education rather than being an employed member of society. Problems of cultism, corruption, and administrative inefficiencies are the order of the day at government-owned tertiary institutions in Nigeria. For there to be sustained economic development in the country, these issues need to be seriously addressed. The ministry of education in Nigeria needs to be fortified with funds and other resources to

improve the education sector.

On the topic of human capital development, the health care situation in Nigeria is wanting and deficient. Adequate access to basic healthcare is available to only a few in the Nigerian population and others are constrained by financial, social, educational, and transportation barriers. Most people cannot afford good health care, some do not have an education on the usefulness of Western health care alternatives, and as such they prefer traditional health care methods. Hospitals are not evenly distributed in location, meaning that some people cannot transport themselves to the hospitals even when they know their usefulness. Life expectancy at birth is a very low 52 years old. At the Nigerian national health conference in 2009, the problems of the weak health care systems and the lack of coordination and clarity of roles between the ministry of health, local governments, and the federal government was recognized (Osain, 2011). Total health expenditure in 2012 was 6.1 % of total government spending, and private spending on health was two times larger than public spending on health, because public hospitals are unreliable and lacking in resources. In purchasing power parity, only 161 dollars is spent on health care per person per year (World Bank, 2014). Access to health care is essential for national security, a good and acceptable standard of living, and the overall well-being of the populace. It is important for the development of a country. A bigger portion of GDP in Nigeria needs to be spent on improving health care in the country so that it can become more readily available, more easily accessible, more efficient and effective. The health care systems themselves need to be improved in the sense that there is still a great need for medical resources such as nurses, doctors, and medical equipment.

The Nigerian government and economic decision makers need to feel pressure towards diversifying the composition of GDP in the country. Nigeria cannot keep

depending on oil for national income. The percentage of oil in GDP needs to be drastically reduced and the composition of GDP needs to be more diversified. This diversification in the composition of GDP is an important prerequisite for industrialization because the process of sustainable development cannot depend on income from an unreliable and unsustainable source for a long time. The process of industrialization is necessary for economic development, but should be embarked upon when the necessary factors for a thriving industrialized economy are put in place. Local, state, and federal governments need to have better clarity of their roles and need to be held accountable for the performance of their roles.

The government needs to be more active in seeking to improve the standard of living of the citizenry. Solving the power supply crisis in the country will significantly improve the standard of living of the populace. It is expensive for businesses and individuals to privately provide themselves with power because of the high cost of power generators and the constant cost of gas, diesel, and petroleum required for the operation of these generators. A better supply of power will also reduce the cost of living in Nigeria and therefore reduce the rate of inflation in the country. It will encourage more business operations in the country, which will open up opportunities for job creation.

Women's empowerment programs and economic development have been seen to have a positive interrelationship. Duflo (2012) points out the need for continuous active processes that seek to encourage equality between men and women because of how essential equality is in supporting economic development and social sustainability. A report done by the British Council in Nigeria (2012) recognized the need for greater levels of investment in women and girls if there is to be sustained economic growth in the country. Socio-economic equality between men and women needs to be encouraged in

Nigeria. The achievement of the MDGs is also largely dependent on the fostering of a country where women and men have equal opportunities.

As the country plans a national election in the early part of the year 2015, it is imperative that the newly ushered in government has sustainable development as the main—perhaps only—agenda for the country. The strategies for sustainable development in this paper must be implemented in the nation if the country is to attain development in the near future and sustain it for years and generations to come. Federal, state, and local government must collaborate to move the country towards sustainable development. How can the implementations for these strategies be funded? The question of funding sustainable development strategies is a tough one, but this paper offers some options to the Nigerian policy makers.

One option for funding strategic growth and development that has been used by various countries is borrowing. Nigeria has the option to present these strategies to the World Bank or the International Monetary Fund (IMF) in order to request loans for funding the strategies. This is a dangerous and potentially unfavorable option. Take the East African country of Ethiopia, for example. The IMF during the era of the Washington consensus by the World Bank lent Ethiopia some money to grow the economy. However, IMF loans are based on policy conditions that undermine the sovereignty of independent countries. The Ethiopian government had to put the money into reserves and open up their financial system in order to “strengthen” it according to the IMF. When Ethiopia wanted to repay the loans owed to an American bank early, the IMF disputed this perfectly sensible transaction, mainly because Ethiopia did not consult them before making the decision. This is an undermining of national sovereignty and an example of the inherent neocolonialist state of economies because a truly sovereign economy should

not need permission from the IMF before making decisions. The policy strings attached to loans from the IMF or World Bank and the way in which these loans were administered have caused great problems for many developing countries. There are very few, if any, success cases from these policies (Stiglitz, 2003). Now, these organizations may have slightly changed the way that they administer loans and the policy requirements to keep loans from them, but the overall problem still remains: loan money from the World Bank or IMF leads to an inherent loss of sovereignty and may cause Nigeria to be unable to follow the strategies for sustainable development suggested in this paper because the policy “recommendations” of the IMF and World Bank may not coincide with these strategies.

There is also the risk of the borrowed money being embezzled by corrupt governance, which would create debt for the country but no income from the loan to refinance its repayment.

A much better option will be to use the large income from oil to fund the implementation of sustainable development strategies. Nigeria still needs to reduce her dependence on oil and the percentage of income from oil. However, just leaving oil in the ground may be inefficient because of the opportunity cost in the form of lost oil income for the country. The Dutch disease and resource curse phenomenon can be turned around with the appropriate policies, according to Jourdan (2008). This can be seen from the cases of economies such as Indonesia, Sweden, Australia, Canada, New Zealand, and Botswana that have been able to foster strong and sustained growth using their natural resources. Instead of the money from oil being put into unproductive schemes that do not generate favorable returns, the country will gain greatly if the income is used to invest in sustainable development strategies. These strategies will quickly generate income for the

country. This can then be used to improve the standard of living of the citizens and reduce the level of poverty in the country through reinvestment in sustainable agriculture and human capital improvements. Over time, as these strategies start to generate income for the country, Nigeria may be able to reduce the extraction of oil to serve just her citizens in order to protect the environment where oil is being extracted. The government should also invest some of the oil income in cleaning up the Niger Delta area and restoring the environment using the appropriate available technology. The country can also draw upon some of its available reserves to fund the strategies recommended in this paper.

Nonetheless, based on the present governmental institutions in place presently, it is difficult to hope that Nigeria will pursue these strategies using the income from crude oil exports. From the theoretical framework of this paper, it is obvious that there is a great tension between economic rents from crude oil and governance. The rents from crude oil more often than not are corruptly distributed and such an institution of corruption as is observed in the Nigerian economy is terribly difficult to dismantle.

All in all, the country might need to deal with the deeply embedded political problems of corruption before it can begin to embark upon sustainable development because only when the income from oil and revenues from other sources in Nigeria can be put towards strategies for sustainable development will the country grow.

APPENDIX A

GROSS DOMESTIC PRODUCT GROWTH IN NIGERIA, SUB-SAHARAN AFRICA AND LOWER MIDDLE INCOME COUNTRIES

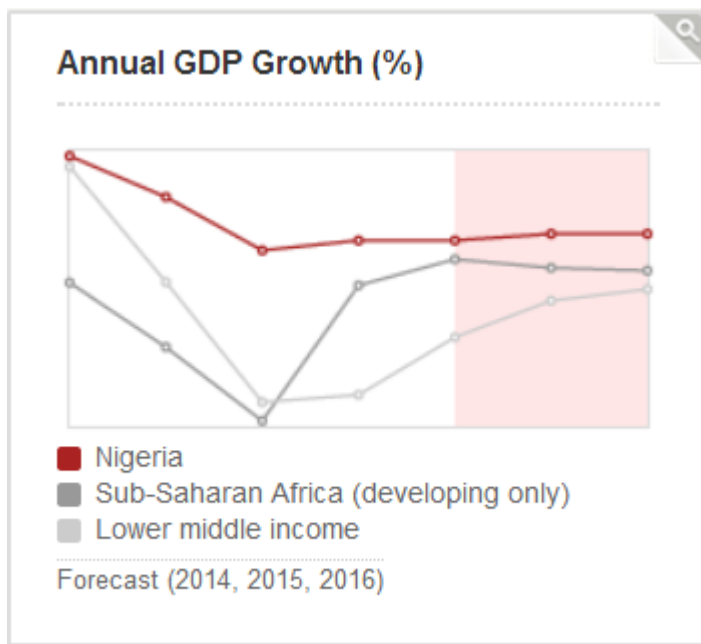
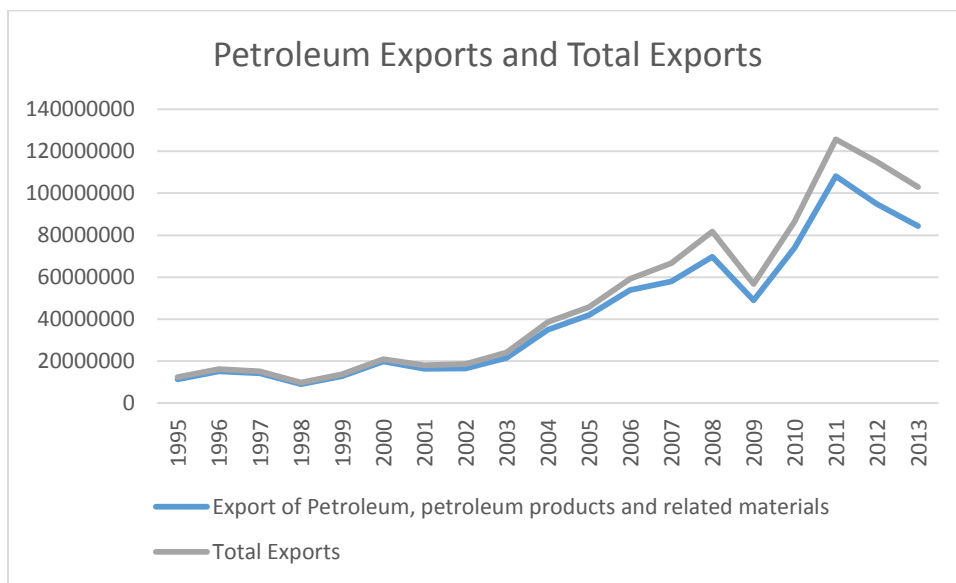


Figure from The World Bank: Global Economic Prospects – Forecasts. World Bank.

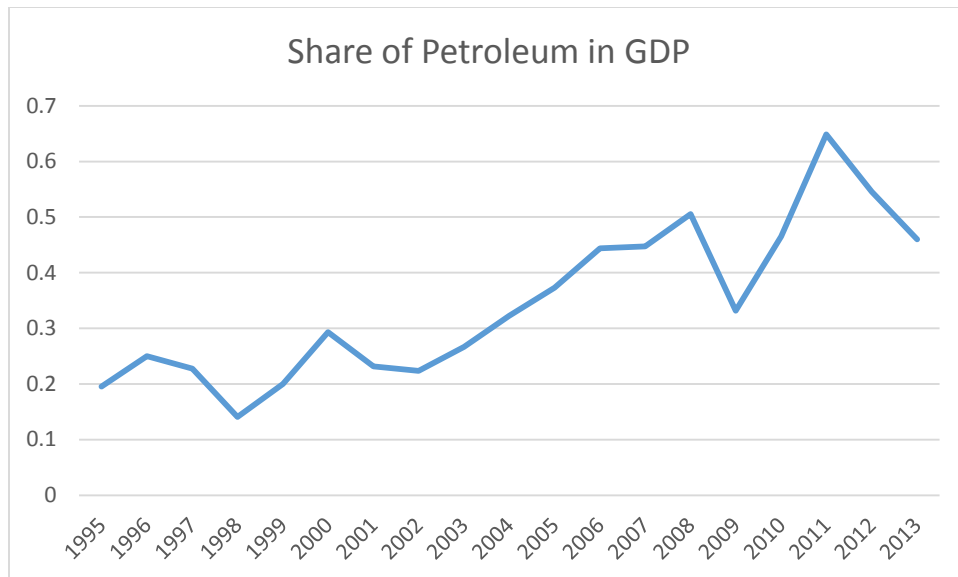
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APPENDIX B

THE EXTENT OF AND EFFECT OF PETROLEUM EXPORTS ON THE REAL EXCHANGE RATE



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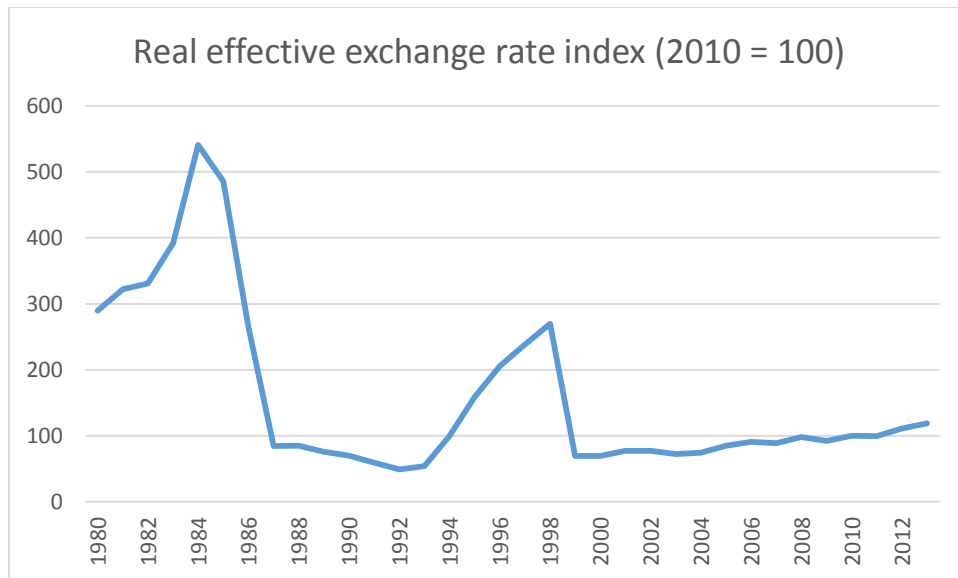


Figure from The World Bank: World Development Indicators-Nigeria: World Bank.

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APPENDIX C

PRODUCTIVITY IN AGRICULTURE

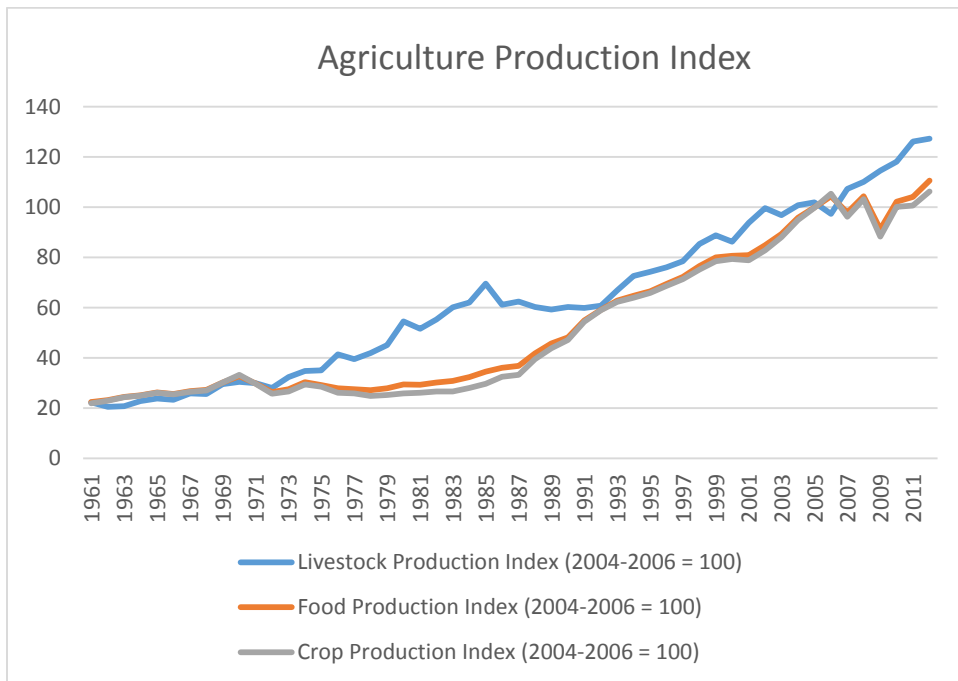
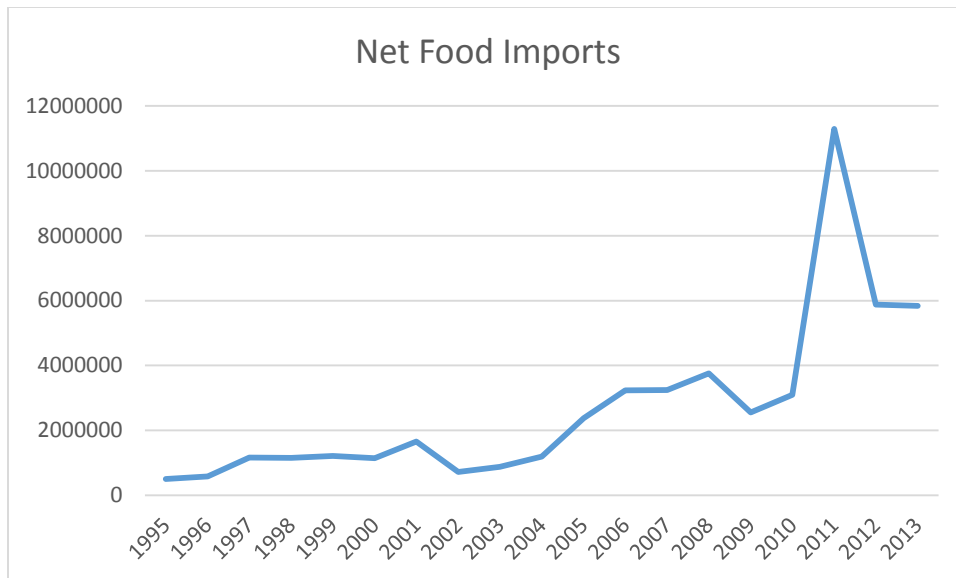


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APPENDIX D

URBAN POPULATION GROWTH

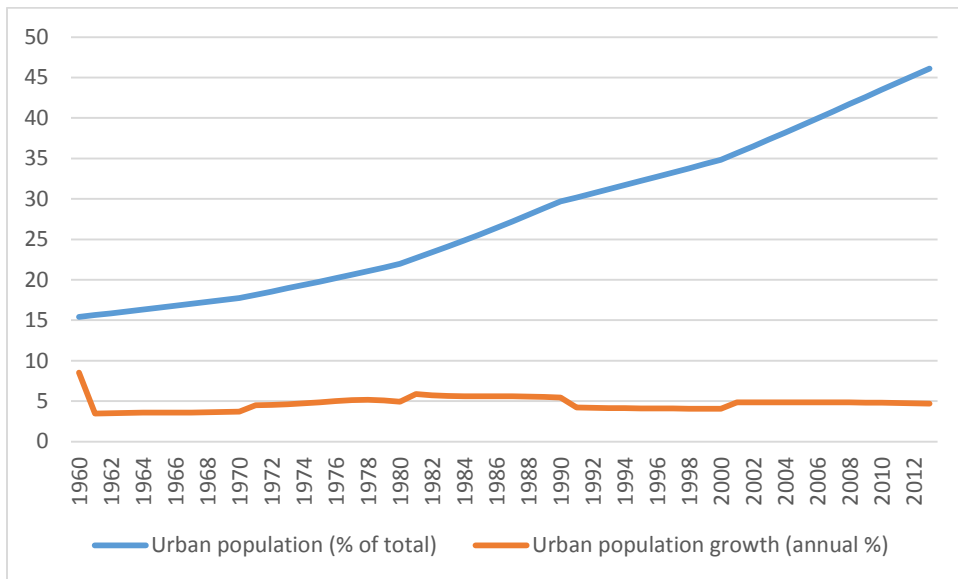
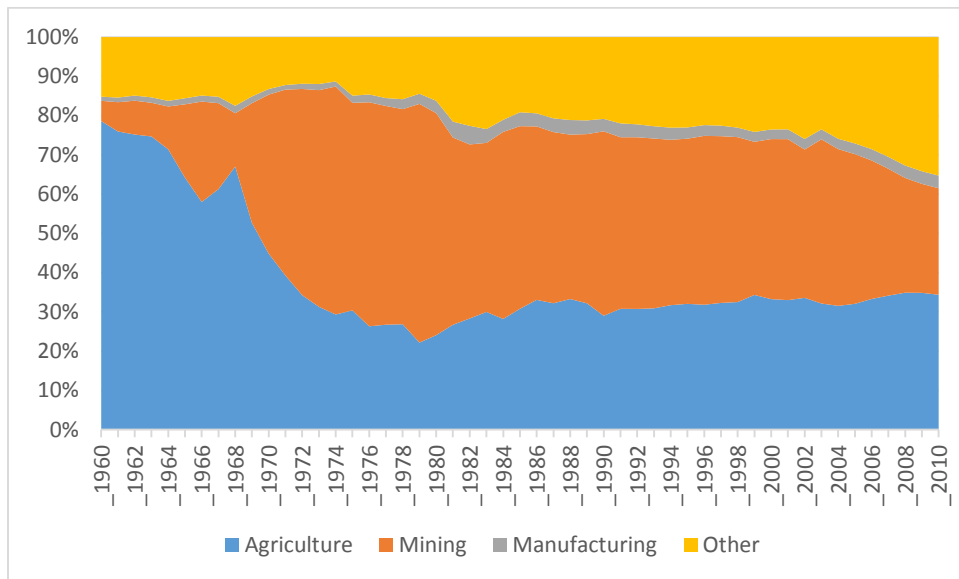


Figure from The World Bank: World Development Indicators-Nigeria: World Bank.

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APPENDIX E

SECTORAL DISTRIBUTION OF OUTPUT



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APPENDIX F

GROSS DOMESTIC PRODUCT AND GROSS NATIONAL INCOME FOR NIGERIA

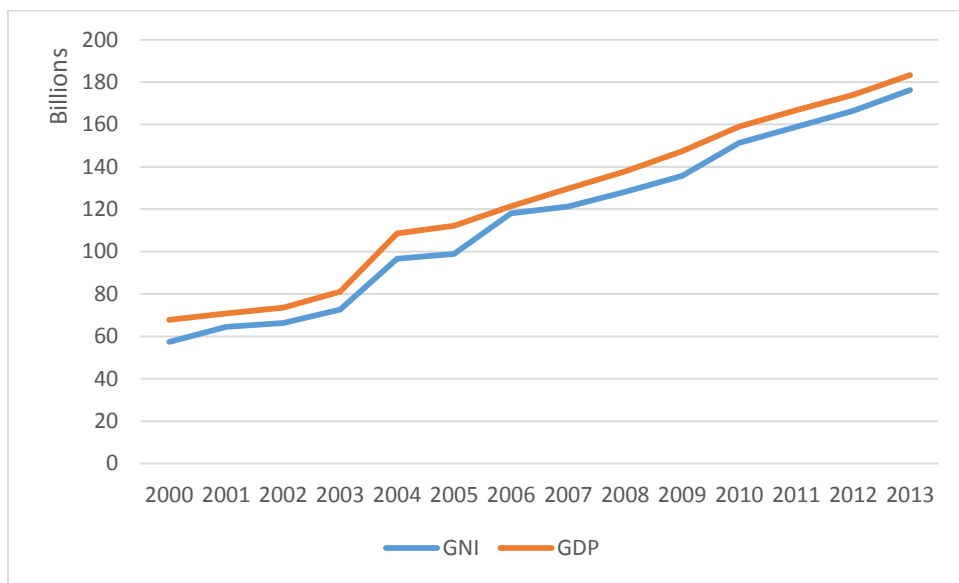


Figure from World Development Indicators-Nigeria by the World Bank (2015).

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