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Journal Editor's Note:

2023 VOLUME 1, ISSUE 1

Prof. Tunde Esan, PhD.

When African countries signed a landmark agreement in March 2018, creating African Continental Free Trade Area Agreement (AfCFTA) which liberalize trade among African nations, it did not only vote for more and better trade with itself, it equally brought to the fore, increasing interest in the study of African trade and commerce, and it's evolution over time. (Vera Songwa, 2019) For example, AfCFTA agreement has encouraged radical response of Africa's key economic players to engage transformational strategies and utilize paradigms of the new economy, a transition from the physical exchange of goods to a new high growth industries that is the cutting edge of technology and the engine of economic growth and productivity. (Will Kenton, 2021).

For more than a millennium, physical exchange of goods and services has been the bedrock of the economy of states. While technological driven factors of growth is an indisputable fact of the future of commerce, rudiments of the old form of exchange of goods and services holds sway in most parts of Africa. Opinion on the new economy and the subsisting genres of commerce as it has always been, cannot but be of interest. The centers of commerce in Africa according to the classical school of thought, is an incontrovertible example of it's continuous contribution to the world economy. Gao, Timbuktu, Lagos, Kano, Onitsha in West Africa, In the North Africa are port cities of Marakesh, Cairo, and Tunis, while Cape Town is a worthy example in South Africa. Cities where major commercial exchange takes place. Where fortunes are sought, wealth are created and distributed. It is in reference to the above submissions that our job is cut out; African's contribution to the world of trade and commerce , it's evolution, exemplification on tenets of trade, industry and commerce in modern Africa.

The response of the Editorial Board to the above, would have ended at the conception table; save for the approval and contribution of the Deputy Chancellor of the IUO, Chief, Dr. Lucky Nosakhare Igbinedion and the Vice Chancellor Prof. Lawrence Ezemonye FAS ; further motivating the symbiotic relationship between the Editorial Board and IUO/OKADA CHAMBER OF COMMERCE INDUSTRY MINES AND AGRICULTURE, whose establishment the university supported as part of it's strategic collaboration method of institutional synergy with the host community; a credible example of the concept of town and gown. (Olaopa, 2018) The first by a University in

WestAfrica.

Extrapolating other factors on the development of commerce in Africa has been done with reference to Nigeria's leading environmental scientist, Professor of Ecotoxicology Prof. Lawrence Ezemonye's submission on climate change. His presentation: The Parallax and Paradox of Climate Change; Plight of Local Communities (Ezemonye, 2017) lucidly encapsulate global climate change and the effect on local communities.While Nigeria was his reference point in the above, the interdisciplinarity of his proposition is of immense value in assessing the effects of climate change on the local economies. For example, migrations occasioned by climate change has had effectson trade and commerce in many African countries.

Implementing the Journal's aim and objective has been enhanced with the Editorial advisory and review role of Editorial Board members; Prof. Raph Adeghe and Assoc. Prof. Atu Kingsley. Their individual reviews and submission of papers has enriched the process, after all waiting for submission of papers to meet deadline can be tasking.

Renowned professor of international relation and former Nigeria Minister of Education Prof. Tunde Adeniran's highly educative and stimulating paper; GREAT POWER RIVALRY IN GLOBAL POLITICS AND THE FUTURE OF WORLD ORDER enunciates the geo-political and geo-economic implications of great power rivalries and the future of international economic engagements.

In line with the goal of the Journal in engendering conversation with the town, the Journal's team interviewed the Minister of Trade and Commerce of the Federal Republic of Nigeria, Chief Niyi Adebayo. His expositions on the goals of the Nigeria policy on trade and commerce will be a benchmark for future engagements and strategic exchanges with authorities on trade and commerce in Africa and the world. Journal of African Commerce is dedicated to academic submissions that focus on how events and changes in the world shape commerce and industry in Africa and the contribution of Africa to the world economy, an objective of the featured paper; Effects of Russia Ukraine war on Africa's commerce and industry.

References:

Author: Vera Songwe
Date: January 11, 2019
Page Title: Intra African Trade: A path to economic diversification and inclusion.
Site: The Bookings Institution
Viewed: 6/4/2023

Author: Will Kenton
Date: March 4, 2021
Page Title: What is the New Economy?
Site: Investopidia
Viewed: 6/3/2023
Address: @investopidiaeconomy

Author: Lawrence Ezemonye
Date: January 21, 2017
Title: The Parallax and Paradox of Climate Change
Viewed: 7/4/2023
Site: Bassey Andah Foundation
Address: https//basseyandahfoundation.org

Author: Charla Griffy-Brown
Date: 2000
Title: Editor's Note: A Short Hello!
Viewed: 6/4/2023
Site: Graziado Business Review
Address: @2018 Pepperdine University

Author : Tunji Olaopa
Date: 19th August 2018
Title: Remaking the university tradition: The town and gown model
Viewed: 9th April, 2023
Site: www.punch.com
Address: theeditor@punch.com

SECTION ONE:

CAPITAL MARKET AND ECONOMIC GROWTH IN NIGERIA

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ABSTRACT

This study empirically investigated capital market performance indicators (stock market size) and economic growth in Nigeria. To achieve this objective, relevant data spanning from 1986–2021 was sourced from the Central Bank of Nigeria (CBN) Statistical Bulletin, and World Development Indicators for the period under review. Descriptive statistics, the Augmented Dickey-Fuller (ADF) test, the Granger causality-Johansen co-integration test, and the Ordinary Least Square (OLS) test were the analytical tools for this study. Real gross domestic product (RGDP) was used as the dependent variable, while market capitalization (MCAP), volume of transaction (VOT) and listed domestic companies total (LDC) were used as the independent variables. Based on the analysis, the F-statistic of the regression output stood at 72.04691, this implies that the regression plane was statistically significant, and R^2 = 0.871041implies that about 87.10% of the total variation was accounted for by the independent variables. All the variables were stationary at their respective levels; the variables granger cause each other since there is a unidirectional causality; the Johansen co-integration test indicates one co-integration equations; therefore, there is the existence of a long-run relationship between capital market performance indicators (stock market size) and economic growth. Based on the overall level of significance, Prob. (F-Statistic) 0.000000 is less than the 0.05 level of significance, indicating that all the independent variables can jointly influence the dependent variable for the period under review; hence, the variables were statistically significant. The study revealed that capital market performance had positive and significant impact on economic growth, and therefore concludes that capital market performance indicators (stock market size) promotes economic growth of a country. The study recommended that the government should encourage more profitable companies to enlist on the stock exchange to further increase the size of t he market; government should give adequate publicity to enlighten companies seeking long-term funds to go to the capital market because of the amount of funds available in it.

Keywords:
Real Gross Domestic Product,
Market Capitalization,
Volume of Transaction,
Listed Domestic Companies,
Capital Market.

SECTION ONE:

INTRODUCTION

Capital market plays an important role in the mobilization of long term financial resources for long term investment through financial intermediation. The capital market mobilizes long-term debt and equity finance for investments in long-term assets. Capital markets also help in boosting the financial system as well as improving the economic growth of a country (Al-Faki, 2006).
Well-functioning financial markets are very crucial for the promotion of global financial integration. An efficiently functioning domestic financial market can better position a country's competitiveness in the markets for global capital (Oluwole, 2014). There is no developed economy or country that accomplished any exceptional economic growth without the formation of efficient capital markets. An emerging country that aspires to achieve an advanced economy must establish systematic or structured capital markets. (Ewah, Esang and Bassey, 2009).

Acha and Akpan (2019) maintained that capital formation or accumulation of any nation is a function of various indicators. It is a result of domestic saving and foreign capital inflows or investment. In order to reduce the effect of macroeconomic failure on the economy, efficient and effective capital formation and accumulation is pivotal. Further, it is imperative to state that the rate of economic growth of a nation is based on an efficient capital market. Capital market drives economic growth, because it is essential for long-term capital formation. It is crucial in the mobilization of saving and channeling of such saving to self-liquidating investments.

Nigerian capital market has undergone a series of reforms all with the hope of creating a stable economic growth and development. The most recent reform was carried out in order to provide opportunities for greater fund mobilization, improved efficiency in resource allocation and provision of relevant information for appraisal. It is expected as a result of the reform the market can provide variety of financial instruments capable of enabling economic agents to pool, price and exchange risk. In spite of these vital roles that the reform is expected to play, there is however a great concern on the performance of the Nigerian capital market in relation to the economic growth and development which when viewed from the nature of activities taking place in the market appeared superficial.

Previous literatures review on the impact of the capital market on economic growth in Nigeria indicates mixed and contradictory results. The study of Adigwe, Nwanna and Amala, 2015; Udeh and Igwebuike 2019; Echekoba, Eze and Egbunike, 2013; Odo, Anoke, Oyeisi and Chukwu, 2017; Raymon 2014; Adeoye 2015 found out that the capital market had a negative and insignificant impact on economic growth in Nigeria, while the studies of Offumand Ihuoma 2018; Taiwo, Alaka and Afieroho, 2016; Mamudu and Gayovwi. 2020; Maku, 2020; Obudu, Konwe, Nwakenu, Omokri and Chijioke, 2016; Blessing 2020; Abina and Lemea 2019; show that capital market had positive and significant impact on economic growth in Nigeria. The study of Ini and Eze (2019) indicates mixed results. Based on these observed gap in literature and inconsistency in results of previous studies, the present study tend to fill the gap and investigate the impact of capital market performance indicators and economic growth in Nigeria, using real gross domestic product (RGDP) as the dependent variable

while stock market capitalization, volume of transaction and listed domestic companiesas stock market size proxy for capital market performance indicators from 1986-2021.

The main objective of the study is to examine the impact of the capital market performance on the economic growth of Nigeria. The specific objectives are to: examine the effect of the market capitalization on the economic growth of Nigeria; evaluate the effect of volume of transaction on the economic growth of Nigeria; examine the effect of listed domestic companies on the economic growth of Nigeria. The following research questions are formulated: to what extent has a market capitalization impacted on the economic growth of Nigeria? To what degree has volume of transaction impacted on the economic growth of Nigeria? To what extent has listed domestic companies impacted on the growth of Nigeria?;The following null research hypotheses formulated: $H0_1$: Market capitalization does not have significant impact on economic growth of Nigeria.$H0_2$: Volume of transaction does not have significant impact on economic growth of Nigeria.$H0_3$: Listed domestic companies does not have significant impact on economic growth of Nigeria. The study will be of immense significance to regulatory authorities such as the Central Bank of Nigeria (CBN), Nigeria Exchange Group (NGX) and Security and Exchange Commission (SEC) in coming up with sound financial policies and reforms that will boost the performance of the capital market. This would strengthen public companies by ensuring that corporate governance practices in Nigerian public companies are aligned with international best practices through improved financial disclosure of information and adoption of International Financial Reporting Standards (IFRS).

SECTION TWO: REVIEW OF RELATED LITERATURE

Conceptual Review:

The capital market is a part of a financial system that is concerned with raising capital by dealing in shares, bonds and long term investments. The capital market is a financial market in which long-term depth or equity backed securities are bought and sold.

Capital Market: The capital market acts as a vehicle for broadening the ownership base of firms and thus increases the economic activities of a country and its growth. Ekezie (2002) posits that the capital market is a market for lending and borrowing of long-term loanable funds. Ibenta (2005) states that "capital market is the market for the supply of long-term capital to firms". Therefore, the capital market is one in which the private and the public sectors, trade financial securities with individuals, institutional investors in order to raise funds. In a similar way, Sule and Momoh (2009) note that the capital market is the medium through which funds are mobilized and channeled efficiently from savers to users of funds. A capital market is a market for securities (debt or equity), where business enterprises (companies) and the government can raise long-term fund. Nzotta (2014) pictures the capital market as a segment of the fund market where long-term funds and enlistments are traded.

Analysis of the Nigerian Capital Market's Performance: According to Soludo (2006), market capitalization is the most widely used indicator in assessing the size of a capital market within an economy. In a bearish market, market capitalization falls and vice versa for a bullish market. Before 1988, the total market capitalization was less than N10 billion from 1988 to 1994, it hovering between N10 billion to N57 billion. In 2003 it was N1, 3593 trillion, N2.1125 trillion in 2004 and N5.12 trillion in 2006. Market capitalization recorded the highest value of N13.2294 trillion in 2007. But this figure fell to N9.562 trillion in 2010 due to the global financial meltdown.

Stock Market Capitalization: Stock market capitalization is the sum of the current market value of all listed equities in the market. It is a truism that a higher market capitalization indicates a more valuable company. Ibenta (2005) defines a market capitalization as the value of current market prices of all of a company's ordinary shares or the value at current market prices of a company's ordinary shares. In essence, it is the total value of all of a publicly traded company. Market capitalization is one of the basic measures of the worth of a publicly traded company; it is a way of determining the actual value of a company.

Also, the investment community uses this figure to determine a company's size or (worth), as opposed to sales or total assets figure (Ekezie, 2002). Market capitalization is the measurement of the size of businesses and corporations which are equal to the market share price multiplied by the number of shares in this case shares that have been authorized, issued, and purchased by investors of a publicly traded company (Al-Faki, 2006).

Volume of Transaction:

Volume of Transaction has to do with the number of shares or contracts traded in a security or in an entire market during a specific period. It is simply the total amount of shares that change hands between buyers and sellers (Mbat, 2001). Volume of transaction is the number of shares traded in a country's stock market or in an entire market over a specific period (Adebiyi, 2005). According to Ekezie (2002), volume of transaction is an important indicator in technical analysis as it is used to measure the worth of a market moves.

Listed Domestic Companies: *Listed domestic companies are the domestically incorporated* companies listed on the country's stock exchanges at the end of the year. That is, Listed domestic companies, including foreign companies which are exclusively listed, are those which have shares listed on an exchange at the end of the year. Investment funds, unit trusts, and companies whose only business goal is to hold shares of other listed companies, such as holding companies and investment companies, regardless of their legal status, are excluded. A company with several classes of shares is counted once. Only companies admitted to listing on the exchange are included. The value for Listed domestic companies, total in Nigeria was 177.00 as of 2020.

Economic Growth: Economic growth constitutes the extension of a nation's prospective national output or gross domestic product. Economic growth means an increase in the capital of an economy to produce goods and services, compared from one period to another. Economic growth is the process by which a nation increases overtime. One of the key contributors to economic growth is technology. Improved technology leads to increased production, which means more wages and more profits for employees and investors respectively. Changes or advancements in technology are attributed to many of the steps that the world economy has made so far. Another contributor that is perhaps worth taking note of would be globalization. Globalization has led to expanded markets, more opportunities for employment as well as investment, and more efficiency due to competition. The Organization for Economic Cooperation and Development (OECD, 2017) defines real gross domestic product (RGDP) as an aggregate measure of production equal to the sum of the gross values added of all resident and institutional units engaged in production (plus any taxes, and minus any subsidies, on products not included in the value of their outputs).

Theoretical Review: Theories have established that a relationship exists between stock market development as a financial institution and economic development. Schumpeter (1934), Goldsmith (1969) McKinnon (1973) and Shaw (1973), in their studies, strongly emphasized the role of a financial institution as an intermediary in economic growth.

Efficient Market Hypothesis: Eugene Fama developed the efficient Market Hypothesis in 1960. Efficient market hypothesis states that asset prices reflect all available information. A direct implication is that it is impossible to beat the market consistently on a risk-adjusted basis since market prices should only react to new information. The efficient market theory also states that share prices reflect all information and consistent alpha generation is impossible. According to the efficient market theory, stocks always trade at their fair value on exchange, making it impossible for investors to purchase undervalued stocks or sell stock for inflated prices. Therefore, it would be impossible to outperform the overall market through expert stock selection or marketing timing and the only way an investor can obtain higher returns is by purchasing riskier investments.

Solow-Swan Growth Theory: The neoclassical growth theory also known as the Solow-Swan growth theory or exogenous growth theory is a class of economic model of long-run economic growth. The growth theory explains long-run economic growth by looking at productivity, capital accumulation, population growth and technological progress (Solow & Swan, 1956). This theory was developed independently by Robert Solow and Trevor Swan in 1956 and supersedes the post Keynesian Harrod – Domar theory. Due to its attractive mathematical characteristics, Solow-Swan proved to be a convenient starting point for various economic growth theories.

Schumpeterian Theory: Schumpeter states that a well-developed financial sector will absolutely produce entrepreneurs that are successfully engaged in a process of resourcefulness. New projects require innovation and this does not come without a cost. In order to finance the cost, entrepreneurs cannot do this only most times. The entrepreneurs will have to turn to the financial sector that has the responsibility to channel funds from savers to the most viable projects that will grow the economy and vice versa influencing the private saving rate. This means that a financial institution can impact on economic growth by efficiently carrying out its functions among which is the sale of financial instruments through the stock market.

Neoclassical Growth Model: This model was first formulated by Robert Solow. It states that "a sustained increase in capital investment increases the economic growth rate only temporality". This is so because the ratio of capital to labour tends to go up (there is more capital available for each worker to use) and the marginal product of additional units of capital is assumed to decline. This will eventually move the economy back to a long term growth path. The real GDP (Gross Domestic Product) will grow in like manner with the working population plus a little improvement amid "productivity".

Theoretical Framework: This study is hinged on the efficient market hypothesis by Eugene Fama (1960). Efficient market hypothesis was developed in an effort to provide a framework to investigative the competence of the capital market. Now, it remains one of the theoretical explo its of the capital market and economic growth relationship. The efficient market theory was found on the belief that prices of securities in financial or monetary markets totally mirror all available information, because in a well-ordered market, prospects or opportunities for all unexploited profit are eradicated. The study adopts the efficient market theory based on the availability of information for all market players and equal opportunities, which will enhance economic growth.

Empirical Review:

Analyzed using the Descriptive statistics, ADF Unit Root Test and Ordinary Least Square regression method and findings revealed that gross domestic product has a significant relationship on market Oke et al (2012) examine the relationship between capital market performances and economic growth for a period of 1981 to 2012. The authors used the variables of GDP, MCAP, all share indexes, the total value of transactions and the number of deals. The model used was adopted from Demirgue-kunt & Levine (1996). Using the OLS method, the study shows that the stock market has a positive impact on economic growth.

Ovat (2012) investigates empirically the acclaimed positive role played by stock markets in driving economic growth, with evidence from the Nigerian stock market. Using the unit root test, co-integration test, and Granger causality test, the study disaggregates stock market development into two components: stock market size and stock market liquidity. The reason for this is to know the aspect of

the market that is responsible for driving the economic growth in Nigeria. His findings reveal the dominance of the market liquidity over market size. The causality test shows two-way causation between stock market liquidity and economic growth. The strength of the causality comes more from stock market liquidity, market size is found to have little or no impact on growth. Also, the results suggest a-one way causation between financial deepening and growth with causality flowing from financial depending on economic growth.

Oke (2013) studies the capital market and economic growth in Nigeria from 1985 to 2011. He recorded that market capitalization and the number of dealings shows a negative relationship with economic growth. The all-share index shows a positive impact on long-term economic growth. The study concludes that the increase in market capitalization and the number of dealings can reduce economic performance. The error correction mechanism indicates that the gross domestic product adjusts to past short-run distortion at a high speed of 146%.

Ikikii & Nzomoi (2013) analyze the effects of stock market development on the economic growth of Kenya using quarterly time series data from 2000 to mid - 2011. They made use of the gross domestic product (GDP) as a proxy for economic growth while market capitalization and trading volume are a proxy for stock market development indexes. The method of data analysis is the linear regression method and the result of the study shows that stock market development impacts positively on economic growth in Kenya.

Rurangwa et al (2017) study capital market development and economic growth in Rwanda using quarterly data from $2009Q_1$ to $2016Q_4$. They employed GDP as a proxy for economic growth and market capitalization, turnover, and volume of share traded as a proxy for capital market development indicators. The study employed an Ordinary Least Square method and Granger Causality test and found out that all independent variables positively contributed to economic growth in Rwanda while a bi-directional relationship exists between capital market development and economic growth.

Oladipo et al (2013) examine the link between capital market development and economic growth in Nigeria. The study applied co-integration and error correction modeling to the stock market and Macroeconomic time series data, the result revealed that the variables; All share Index, No of deals and market capitalization have an individual positive and significant combined impact on economic growth. All share-index has a positive coefficient and an insignificant effect on economic growth. The pairwise Granger causality test shows that there exists a unidirectional causality running from all share-index to economic development.

Algaeed, (2021), studied Capital market development and economic growth: an ARDL approach for Saudi Arabia for the period 1985-2018, using per-capita GDP growth as dependent variable while share price index, capitalization, liquidity, number of share transactions, and number of shares proxied for stock market indicators, employed ARDL, FMOLS, Descriptive statistics, Johansen co-integration test, Augmented-Dickey Fuller and Phillips-Perron tests, VAR,as methodology for the study; and found that applying Granger causality test, share price index, market capitalization and number of shares traded do not granger cause per-capita GDP. They are significant at 5% level.

Ezeaku & Osakwe (2022), investigated The effect of capital market on economic growth in Nigeria between 2000-2020, Gross domestic product was used to proxy Nigeria economy while market capitalization, all share index, total number of deals on the Nigeria stock exchange and value of transaction on the Nigeria stock exchange were used as proxies for capital market. Data were capitalization, all share index, total number of deals on the Nigeria stock exchange and value of transaction on the Nigeria stock exchange.

Adaramola & Popoola (2019), investigated Long and Short Run Relationship between Stock Market Development and Economic Growth in Nigeria, spanning from 1986-2017. Explanatory variables used are the Market capitalization (MCAP); Value of transaction (VOT); Number of deal (NOD); and All share index (ASI) while the dependent variable is the Real gross domestic product (RGDP). Using ADF Unit Root Test, Autoregressive Distributed Lag (ARDL) model, Granger Causality Test as methodology, the result revealed that all the indicators of market development exert positive effect on the RGDP in the short run. Again, all the indicators except number of deals, have direct and significant relationship with economic growth. Moreover, we find that market development causes economic growth.

Dike, (2016), examined stock market efficiency promotes economic development: empirical evidence from Africa between 1990-2015, using Gross domestic product growth (GDPG) as dependent variable listed value of shares in the stock exchange divided by GDP (MCR), value of total traded shares expressed as percentage of GDP (TR), and, total value traded share ratio (TVTSR) proxied for stock market indicators. While employing Panel Unit Root Tests, Panel Co-integration Test, dynamic panel vector error correction model (PVECM), and found that Stock market development plays an important role in generating gains in terms of economic growth.

SECTION THREE:

METHODOLOGY

Research Design

Ex-Post-Facto research design was used in this study. The study's primary emphasis is Nigeria, and its data ranges across a thirty six -year (36) period, from the years 1986 to 2021. Secondary data from the Central Bank of Nigeria (CBN) Statistical Bulletin and World Development Indicators were used in this study.

Market capitalization, Volume of transaction and Listed domestic companies as the independent variables, real gross domestic product (RGDP) was used as the dependent variable.

Method of Analysis:

Descriptive statistics, the Augmented Dickey Fuller (ADF) unit root test, Granger causality, Johansen co-integration test, and the OLS method are all used to test hypotheses. E-Views 9.0 is the statistical programme used in this investigation. Hence, the estimated result revealed that a unit change in MCAP, VOT and LDC will boost economic growth of Nigeria by value of 1.444137%, 0.003991% and 87.39968% respectively.

The coefficient of determination (R^2) is $R^2 = 0.871041$ which is 87.1041%. This implies that about 87.10% of the total variation were accounted for by the independent variables while 12.90% was unexplained and has been taken care of by the stochastic disturbance term or error term e during the period studied.

The Durbin-Watson statistic shows that there is presence of autocorrelation or serial correlation in the residual as its value of 0.730443, approximately 0.73 which is less than the Durbin-Watson value of 2 (0.73< 2). The F-statistic of the regression output stood at 72.04691. This implies that the regression plane is statistically significant.

Comparing Sign P-values with the chosen level of significance (0.05), it is observed that P-value 0.0000and 0.0295 for MCAP and VOT are less than the chosen level of significance (0.05), the P-values 0.0711 for LDC is greater than 0.05 chosen level of significance. But for the overall level of significance, Prob.(F-Statistic) 0.000000 is less than the 0.05 level of significance; indicating that all the independent variables can jointly influence the dependent variable for the period under review; hence, our null hypotheses (H_{01}, H_{02}, and H_{03}) are rejected and alternative accepted.

Discussion of Findings:

The results of this study confirmed those of other studies in related fields, such as Adaramola & Popoola (2019), who examined Long and Short Run Relationship between Stock Market Development and Economic Growth in Nigeria, spanning from 1986-2017 and revealed that all the indicators of market development exert positive effect on the RGDP in the short run; Ezeaku & Osakwe (2022), who examined the effect of capital market on economic growth in Nigeria between 2000-2020, and found that gross domestic product has a significant relationship on market capitalization, all share index, total number of deals on the Nigeria stock exchange and value of transaction on the Nigeria stock exchange.

The study also supports the validity of the Schumpeterian Theory which states that a well-developed financial sector will absolutely produce entrepreneurs that are successfully engaged in a process of resourcefulness. The entrepreneurs will have to turn to the financial sector that has the responsibility to channel funds from savers to the most viable projects that will grow the economy and vice versa influencing the private saving rate.

SECTION FOUR:

DATA PRESENTATION AND ANALYSIS

Data Presentation:

TABLE 4.1: EXTRACTED EFFICIENCY PARAMETERS FOR CAPITAL MARKET PERFORMANCE INDICATORS (STOCK MARKET SIZE) AND ECONOMIC GROWTH OF NIGERIA

Period	Real Gross Domestic Product at Constant Basic Prices (RGDP) N'B	Total Annual Market Capitalization (MCAP) N'B	Volume of Transaction/ Total Number of Deals (VOT)	Listed domestic companies, total (LCE)
1986	17,007.77	6.80	27,718	99
1987	17,552.10	8.20	20,525	100
1988	18,839.55	10.00	21,560	102
1989	19,201.16	12.80	33,444	111
1990	21,462.73	16.30	39,270	131
1991	21,539.61	23.10	41,770	142
1992	22,537.10	31.20	49,029	153
1993	22,078.07	47.50	40,398	174
1994	21,676.85	66.30	42,074	177
1995	21,660.49	180.40	49,564	181
1996	22,568.87	285.80	49,515	183
1997	23,231.12	281.90	78,089	182
1998	23,829.76	262.60	84,935	186
1999	23,967.59	300.00	123,509	194
2000	25,169.54	472.30	256,523	195
2001	26,658.62	662.50	426,163	194
2002	30,745.19	764.90	451,850	195
2003	33,004.80	1,359.30	621,717	200
2004	36,057.74	2,112.50	973,526	206
2005	38,378.80	2,900.06	1,021,967	215
2006	40,703.68	5,120.90	1,367,954	201
2007	43,385.88	13,181.69	2,615,020	211
2008	46,320.01	9,562.97	3,535,631	212
2009	50,042.36	7,030.84	1,739,365	214
2010	54,612.26	9,918.21	1,925,314	215
2011	57,511.04	10,275.34	1,235,467	196
2012	59,929.89	14,800.94	1,147,626	189
2013	63,218.72	19,077.42	3,245,866	188
2014	67,152.79	16,875.10	2,248,939	188
2015	69,023.93	17,003.39	950,001	183
2016	67,931.24	16,185.73	837,259	169
2017	68,490.98	21,128.90	879,067	166
2018	69,799.94	21,904.04	1,048,777	164
2019	71,387.83	25,890.22	875,711	180
2020	70,014.37	38,589.58	1,156,830	177
2021	72,393.67	42,054.50	94,094	157

Source: Central Bank of Nigeria (CBN) Statistical Bulletin and World Development Indicators for the Period under Review (1986-2021).

Interpretation of Result:

Table 4.2 shows the descriptive statistics for the dependent and independent variables' time series data. The purpose of this is to show the degree of difference between the variables.

Table 4.2: DESCRIPTIVE STATISTICS RESULT

	RGDP	MCAP	VOT	LDC
Mean	40530.17	8289.006	815446.3	175.8333
Median	34531.27	1735.900	536783.5	183.0000
Maximum	72393.67	42054.50	3535631.	215.0000
Minimum	17007.77	6.800000	20525.00	99.00000
Std. Dev.	20102.51	11162.19	939708.8	32.68245
Skewness	0.400680	1.460306	1.354791	-1.119392
Kurtosis	1.530271	4.560667	4.221098	3.437877
Jarque-Bera	4.203422	16.44848	13.24938	7.805839
Probability	0.122247	0.000268	0.001327	0.020183
Sum	1459086.	298404.2	29356067	6330.000
Sum Sq. Dev.	1.41E+10	4.36E+09	3.09E+13	37385.00
Observations	36	36	36	36

Source: Extracted from E-View 9 Output Result.

The descriptive statistics of the variables considered in our analysis are shown in the table above. Between 1986 and 2021, the average Real Gross Domestic Product (RGDP), Market Capitalization (MCAP), Volume of Transaction (VOT) and Listed Domestic Companies (LDC) are 40530.17, 8289.006, 815446.3, and 175.8333.

MCAP and VOT are positively skewed since they possessed a skewness value of 1.460306 and 1.354791 respectively which are greater than zero, and they are leptokurtic indicating that their distributions are highly peaked relative to normal, as their kurtosis figure of 4.560667 and4.221098 are greater than 3; RGDP is positively skewed since it possessed a skewness value of 0.400680 which is greater than zero and their distributions are flat peaked and had kurtosis of 1.530271which is less than 3, it is platykurtic. While LDC is negatively skewed since it possessed a skewness of -1.119392 which is less than zero, and is mesokurtic since it has a kurtosis value of 3.437877.

The Jarque-Bera statistic (JB) for MCAP, VOT and LDC provides enough evidence to reject the null hypotheses of normality since the p-values of the JB statistic of 0.000268, 0.001327 and 0.020183 respectively are less than 0.05. While the Jarque-Bera statistic (JB) for RGDP provides enough evidence to accept the null hypotheses of normality, the p-values of the JB statistic of 0.122247is greater than 0.05.

Table 4.3: SUMMARY OF ADF UNIT ROOT TEST

Variables	ADF Test Statistics	Mackinnon Critical Value @ 5%	P-Value	Oder of integration	Remark
RGDP	-3.177531	-2.951125	0.0302	1(1)	STATIONARY
MCAP	-4.667902	-2.951125	0.0007	1(1)	STATIONARY
VOT	-6.084757	-2.951125	0.0000	1(1)	STATIONARY
LDC	-3.987378	-2.986225	0.0054	1(2)	STATIONARY

Source: Extracted from E-View 9 Output Result.

RGDP, MCAP and VOT respectively, are stationary at first difference 1(1); while LDC is stationary at second difference 1(2).

Table 4.4 RESULT OF JOHANSEN CO-INTEGRATION TEST

Date: 12/26/22 Time: 12:02

Sample (adjusted): 1988 2021

Included observations: 34 after adjustments

Trend assumption: Linear deterministic trend

Series: RGDP MCAP VOT LDC

Lags interval (in first differences): 1 to 1

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.678322	67.70454	47.85613	0.0003
At most 1	0.401664	29.14157	29.79707	0.0594
At most 2	0.289441	11.67906	15.49471	0.1730
At most 3	0.001797	0.061165	3.841466	0.8046

Trace test indicates 1 cointegrating eqn(s) at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level

**MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None *	0.678322	38.56297	27.58434	0.0013
At most 1	0.401664	17.46251	21.13162	0.1513
At most 2	0.289441	11.61789	14.26460	0.1258
At most 3	0.001797	0.061165	3.841466	0.8046

Max-eigenvalue test indicates 1 cointegrating eqn(s) at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level

**MacKinnon-Haug-Michelis (1999) p-values

Source: Extracted from E-View 9 Output Result.

The result of the Johansen co-integration test presented above indicates one co-integration equations. The result, therefore, confirms the existence of co-integration among the variables.

Consequently, we can conclude that there is a long-run relationship between capital market performance indicators and economic growth in Nigeria. Thus, our null hypotheses were rejected and alternative hypotheses accepted.

TABLE 4.5: GRANGER CAUSALITY TEST

Pairwise Granger Causality Tests

Date: 12/26/22 Time: 12:08

Sample: 1986 2021

Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.
MCAP does not Granger Cause RGDP	34	0.86126	0.4332
RGDP does not Granger Cause MCAP		1.19893	0.3160
VOT does not Granger Cause RGDP	34	4.69325	0.0171
RGDP does not Granger Cause VOT		1.38948	0.2653
LDC does not Granger Cause RGDP	34	3.01158	0.0648
RGDP does not Granger Cause LDC		3.06025	0.0623

Source: Extracted from E-View 9 Output Result.

MCAP does not granger causes RGDP (0.4332 > 0.05), RGDP does not Granger Cause MCAP (0.3160 > 0.05) hence, there is no causality; VOT Granger Cause RGDP (0.0171 < 0.05) while RGDP does not Granger Cause VOT (0.2653 > 0.05), hence, there is unidirectional causality; LDC does not Granger Cause RGDP (0.0648 > 0.05) while RGDP does not Granger Cause LDC (0.0623 > 0.05) hence, there is no causality.

TABLE 4.4: OLS

Dependent Variable: RGDP

Method: Least Squares

Date: 12/26/22 Time: 12:11

Sample: 1986 2021

Included observations: 36

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	9937.817	7775.286	1.278129	0.2104
MCAP	1.444137	0.124755	11.57574	0.0000
VOT	0.003991	0.001752	2.278028	0.0295
LDC	87.39968	46.80920	1.867148	0.0711

R-squared	0.871041	Mean dependent var	40530.17
Adjusted R-squared	0.858951	S.D. dependent var	20102.51
S.E. of regression	7549.798	Akaike info criterion	20.80087
Sum squared resid	1.82E+09	Schwarz criterion	20.97681
Log likelihood	-370.4156	Hannan-Quinn criter.	20.86228
F-statistic	72.04691	Durbin-Watson stat	0.730443
Prob(F-statistic)	0.000000		

Source: Extracted from E-View 9 Output Result.

$RGDP_t = \alpha_0 + \alpha_1 MCAP_t + \alpha_2 VOT + \alpha_3 LDC_t + \varepsilon_t$

Thus, using the absolute values of all the variables, the estimated parameters of the regression model is:

$RGDP = 9937.817 + 1.444137 MCAP + 0.003991\ VOT + 87.39968 LDC + \varepsilon_t$

From the coefficient of regression, the estimated model shows that there exist positive relationship between RGDP, MCAP, VOT and LDC; distributed, MCAP and VOT are positively skewed and they are **leptokurtic**; RGDP is positively skewed and **platykurtic**; While LDC is negatively skewed and is **mesokurtic.** The bvariables were all stationary at their respective levels and significant; there was a unidirectional causality among the

variables. There is the existence of a long-run relationship between capital market performance and economic growth in Nigeria as the result confirmed the existence of co-integration among the variables.

From the coefficient of regression, the estimated model shows that there exist positive relationship between RGDP, MCAP, VOT and LDC; hence, the estimated result revealed that a unit change in MCAP, VOT and LDC will boost economic growth of Nigeria by value of 1.444137%, 0.003991% and 87.39968% respectively.

The coefficient of determination (R^2) is R^2 = 0.871041 which is 87.1041%. This implies that about 87.10% of the total variation were accounted for by the independent variables while 12.90% was unexplained and has been taken care of by the stochastic disturbance term or error term ε during the period studied.

The Durbin-Watson statistic shows that there is presence of autocorrelation or serial correlation in the residual as its value of 0.730443, approximately 0.73 which is less than the Durbin-Watson value of 2 (0.73 < 2). The F-statistic of the regression output stood at 72.04691. This implies that the regression plane is statistically significant.

Comparing Sign P-values with the chosen level of significance (0.05), it is observed that P-value 0.0000 and 0.0295 for MCAP and VOT are less than the chosen level of significance (0.05), the P-values 0.0711 for LDC is greater than 0.05 chosen level of significance. But for the overall level of significance, Prob.(F-Statistic) 0.000000 is less than the 0.05 level of significance; indicating that all the independent variables can jointly influence the dependent variable for the period under review; hence, our null hypotheses (H_{01}, H_{02}, and H_{03}) are rejected and alternative accepted.

Conclusion:

Based on the analysis, the descriptive analysis revealed that the variables were normally distributed, all the variables were positively skewed. The variables were all stationary at their respective levels and significant; there was a unidirectional causality among the variables. There is the existence of a long-run relationship between capital market performance and economic growth in Nigeria as the result confirmed the existence of co-integration among the variables.

R^2 = 0.871041 implies that about 87.10% of the total variation of the model was accounted for by the independent variables. Base on the overall level of significance, Prob.(F-Statistic) 0.000000is less than the 0.05 level of significance, indicating that all the independent variables can jointly influence the dependent variable for the period under review, hence, the variables were statistically significant.

The results and findings of this study revealed that capital market performance has positive and significant impact on economic growth in Nigeria, the variables were all stationary at their respective levels and significant; there was a unidirectional causality among the variables. There is the existence of a long-run relationship between capital market performance and economic growth in Nigeria as the result confirmed the

existence of co-integration among the variables. The study therefore, concludes that capital market performance promotes economic growth of a country.

Recommendations:

The study recommends that:

Continuous reforms should be in place to bring about a more robust stock market in the country towards accelerating growth in the entire nation Nigeria.

The government should encourage more companies to enlist by relaxing some of the listing requirements like allowing subscriptions list, to remain open for more than a maximum period of 28 working days. The number of days should be increased to allow for more participation. Another requirement to relax is the maximum of 10% of an offering to the staff of a company (or its subsidiaries or associated companies). The percentage should be increased to allow the employees more ownership status and commitment to the growth of the company.

Government should give adequate publicity to enlighten companies seeking long-term funds to go to the capital market because of the amount of funds available in it.

SECTION FIVE:

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATION

Summary of Findings:

The descriptive analysis revealed that the variables were normally **Model Specification:**

The chosen economic growth indicator is the Real Gross Domestic Product (RGDP) specified to depend on capital market performance indicators (capital market size).

The functional relationship between public expenditure and economic development in Nigeria is expressed as:

The functional relationship between capital market performance and economic growth in Nigeria is expressed as: Economic growth = ¦ (capital market performance).
The model for the study is presented in its functional form as shown below:

RGDP = *f*(MCAP, VOT, LDC).....Model (1)

$RGDP = \alpha_0 + \alpha_1 MCAP_t + \alpha_2 VOT + \alpha_3 LDC_t + \varepsilon_t$ .....Equation (1)

Where:

RGDP = Real Gross Domestic Product

MCAP = Market capitalization

VOT = Volume of Transaction

LDC= Listed Domestic Companies Total

ε = Error Term

α_0 denotes the constant term, α_1 - α_2 are slope of the coefficients representing Parameters to be estimated and ε is the disturbance term assumed to be purely random.

On apriori, it is expected that the dependent variable should have a positive relationship with the independent variables.

REFERENCE:

Abina, A.P.& Lemea, G.M. (2019). Capital market and performance of Nigeria's economy (1985-2017). *International journal of innovative finance and economics research*, 7 (2), 51-66.

Acha, I.A. & Akpan, S.O. (2019). Capital market performance and economic growth in Nigeria. *Noble International journal of economics and financial research,* 4 (2), 10-18.

Adaramola, A. O. & Popoola, M. F. (2019).Long and Short Run Relationship between Stock Market Development and Economic Growth in Nigeria. Journal of Economics and Behavioral Studies, 11(5):45-53.

Adeoye A. A., (2015). The Impact of the Nigerian capital market on the economy. European journal of accounting auditing and finance research . 3 (2), 88-96

Adigwe P. K., Nwanna I.O., & Amala A., (2015). Stock market development and economic growth in Nigeria: An empirical examination (1985-2014). *Journal of policy and development studies* 9 (5), 157-160.

Al-Fake, M. (2006). The Nigeria capital market and socioeconomic development. Paper presented at the 4 th Distinguished Faculty of Social Science Public Lecture, University of Benin 26 July, pp. 9-16.

Algaeed, A. H. (2021). Capital Market Development And Economic Growth: An ARDL Approach for Saudi Arabia. Journal of Business Economics and Management, 22(2): 388–409.

Blessing O. (2020). Financial market frictions and their effect on the Nigerian capital market: Empirical approach. *International journal of advanced academic research, social and management sciences* 6 (1): 2488-2599.

Dike, C. (2016).Stock market efficiency promotes economic development: empirical evidence from Africa. *International Journal of Economics and Financial Issues*, **6(3):1287-1298.**

Echekoba D. N., Eze G. K., &Egbunike C. F., (2013). The impact of the capital market on the growth of the Nigerian economy under democratic rule. *Arabian journal of business and management review* 3 (2), 20-26.

Ekezie, E. S. (2002). The Elements of Banking: Money, Financial Institutes and Markets. Onitsha: Africana – Feb Publishers Limited.

Ewah, S.O.E., Esang, A.E., & Bassey, J.U. (2009). Appraisal of Capital Market Efficiency on Economic Growth in Nigeria. *International Journal of Business and Management, December,* pp. 219-225.

Ezeaku, C. N. & Osakwe, C. I. (2022). The effect of capital market on economic growth in Nigeria. *Global Academic Journal of Economics and Business,*4(3): 80-90.

Ibenta, S.N. (2005). *Investment analysis and financial management strategy.* Enugu: Institute for Development Studies. Pp. 435.

Ikikii, S.M. &Nzomoi, J.N. (2013). An analysis of the effects of stock market development on economic growth in Kenya. *International Journal of Economics and Finance*, 5(11): 145-151.

Ini S. U., & Eze O. R., (2019). Implications of stock market efficiency on Nigerian manufacturing sector performance 1985-2017. *Global advanced research journal of management and business studies* 8 (2), 016-024.

Maku A. O., (2020). Stock market development and economic growth: Empirical evidence from an institutional impaired economy. *International journal of financial research* 11 (5), 30-40.

Mamdud Z. U., &Gayovwi, G. O., (2020). Capital market and economic growth in Nigeria: An empirical analysis. *International journal of economics, business and finance.* 7 (3), 12-15.

Mbat, D. O. (2001). *Financial Management.* Uyo: Domes Associates Publishers.

Nzotta, S. M. (2014). *Money, banking and finance, revised edition.* Owerri: Osprey Publication Centre. Pp. 254.

Obubu M., Konwe C. S., Nwabenu D. C., Omokri P. A., & Chijioke M., (2016). Evaluation of the contribution of the Nigerian stock market to economic growth: Regression approach. European journal of statistical and probability 4 (5), 11-27.

Odo S. I., Anoke C. I., Onyeisi O. S., & Chukwu B. C., (2017). Capital market indicators and economic growth in Nigeria: An autoregressive distributed lag (ARDL) model. *Asian Journal of Economics, Business and Accounting.* 2 (3), 1-16.

Offum, P F., & Ihuoma C. E., (2018). Capital market and industrial performance nexus: evidence from Nigeria, *the Nigerian Journal of Economic and Social Studies*60 (3), 1-16.

Oke, M.O. (2013). Capital market operations and economic growth in Nigeria (1985 -2011). *International Journal of Business and Social Science.* 4 (7). 166-172.

Oke, M.O. &Adeusi, S. O. (2012). Impact of capital market reforms on economic growth: The Nigeria experience. *Australian Journal of Business and Management Research,* 2 (2), 20-30.

Oladipo, T. & Bashorun, T. A. B. (2013). Capital market development and economic growth: Evidence from Nigeria. *International Journal of Humanities and Social Science Invention,* 2(12): 01-13

Oluwole, T. A. (2014). Capital Flow and Economic Transformation: A Conceptual Framework on proceeding of Central Bank of Nigeria 5th Annual Monetary policy Conference held in CBN Conference Hall Abuja.

Organisation for Economic Co-operation and Development (2017). Definition of gross domestic product.

Ovat, O.O. (2012). Stock Market Development and Economic Growth in Nigeria: Market Size versus Liquidity. *Canadian Social Science*, 8 (5), 65-70.

Raymond, O. A. (2014). Capital market, financial depending and Nigeria's economic growth: Cointegration and error correction model approach. *Global journal of commerce and management perspective*, 3 (3), 18-26.

Rurangwa, G. &Shukla, J. (2017). Capital market development and economic growth: Evidence from Rwanda. *International Journal of Economics, Commerce, and Management,* 5(10)

Schumpeter, J. A. (1912). The Theory of Economic Development. Cambridge, MA: Harvard University Press.

Solow, R.M. & Swan, T.W. (1956). *A contribution to the Theory of Economics and Capital Accumulation.* Quarterly Journal of Economics. Retrieved on 15/09/2012 from http://links.jstor.org/sici.

Soludo, C. C. (2006). Can Nigeria be the China of Africa?
Lecture Delivered at the University of Benin Founders' Day, November 2006.

Sule, O. K. & Momoh, O. C. (2009).The Impact of Stock Market Earnings on Nigeria per Capita Income. *African Journal of Accounting, Economics, Finance and Banking Research.* 5(5): 77-89.

Taiwo J. N., Alaka A.&Afieroho E. (2016). Capital market and economic growth in Nigeria. *Account and financial management journal* 1 (2), 497-525.

Udeh S. N.&Igwebuike E. C., (2019). Stock market capitalization and pension fund assets' perspectives of financial deepening in Nigeria (1981-2016). *International journal of business systems and economics.* 12 (3): 01-15.

BOARD ATTRIBUTES AND VOLUNTARY CORPORATE SOCIAL RESPONSIBILITY DISCLOSURE: OIL & GAS AND INDUSTRIAL SERVICE AMONG LISTED COMPANIES IN NIGERIA

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Abstract

The study examined board and on corporate social responsibility practices among listed Oil & Gas and Industrial service goods companies in the Nigerian Exchange Group. The study took a census of the eleven Oil & Gas firms and twenty five industrial goods firms during the period 2015 to 2021. The study adopts longitudinal research design, with secondary data sourced from the audited annual reports of the sampled companies. The study adopts two measures of corporate social responsibility practices, CSR disclosure score and CSR donations. Using the panel estimation technique, the result showed that (i) using the CSR disclosure proxy, BND appears to have a negative effect (-0.020) which is also statistically insignificant (p=0.359) at 5% level. While using the CSR donation proxy, BND appears to have a negative effect (-110) which is also statistically insignificant (p=0.594) at 5% level. (ii) using the CSR disclosure proxy, BS appeared to have a negative effect (-0.002) though not significant at 5% (p=0.139). While using the CSR donation proxy, BS appeared to have a positive effect (797.163) though not significant at 5% (p=0.956). (iii) using the CSR disclosure proxy, BGD appeared to have a positive effect (0.106) and it is statistically significant at 1% (p=0.000). While using the CSR donation proxy, BGD appeared to have a positive effect (632) and it is statistically significant at 1% (p=0.009). From the findings, it appears that board independence and board size do not conform to apriori and theoretical expectation, while board gender diversity, conform to apriori and theoretical expectation. The study therefore concludes that board attributes has a mild impact on CSR practices.

1. Introduction

Society's awareness of the importance of environmental, social and economic issues has increased over the last decades. As a result, society and the companies' stakeholders have become increasingly interested in companies' approaches to greater environmental, social and economic responsibility in their business models to ensure sustainable development (Soderstrom, et al., 2017). This increased interest has led to the development of the Corporate Social Responsibility (CSR) concept in which companies actively work simultaneously with environmental, social and economic issues that extend beyond what is legally required by these companies in order to achieve a more sustainable society (Barnea& Rubin, 2010). According to Bowen (2013), CSR is a company's voluntary contribution to sustainable development that goes beyond legal requirements. García-Sánchez and Martínez-Ferrero (2018) see it as a range of documents intended to inform all stakeholders on CSR company actions. Companies that engage in CSR focus not only on maximizing the short-term financial gain for the owners, but also on meeting the interests of other stakeholders with the intention to increase the long-term value of the company by satisfying multiple stakeholders.

In Nigeria, there is yet to be a legal framework for communicating CSR practices of companies numerous stakeholders through its annual reports. There are several implication for the absence of legal frame on CSR. First, it account for variances in its measurement. CSR measures in countries such as India, Mauritius, and Indonesia that practice standard procedures and enabling laws for mandatory disclosure may differ from others without such laws like UK, USA and Nigeria. This suggests that measurement issue could characterized CSR literature in countries where there are no stand-alone mandatory documents for such disclosure. For instance, a set of study could concentrate on annual report as a sampling unit of analysis for measuring CSR voluntary disclosure while others

may in addition to annual report considers other stand-alone report such as integrated report, integrity and sustainability report, ethics report etc. Also, the context and recording units of analysis may also presents differences in assessing CSR voluntary disclosures. Generally, the data used were self-reported by the companies involved being that voluntary CSR practices and its disclosure are voluntary. Consequently, one cannot doubt the subjectivity of the disclosure, most especially in an attempt to evade tax. Also, there is the lack of universal standards for voluntary CSR measures, especially when computing CSR disclosure scores which may lead to varying scores. For example, studies from developing countries tend to examine level of compliance with mandatory disclosure because of a relaxed enforcement policy compared to that of developed countries (Ali et al., 2004). Also, the degree of the researcher involvement in constructing a disclosure index varies from full involvement to no involvement. Full involvement means that the researcher controls the entire process of constructing a disclosure index from selecting the items of information to be included in the index, to scoring these items. No involvement means that the researcher depends on available disclosure indices from prior studies or professional organisations. A number of prior studies use available disclosure indices from professional organisations as measures of disclosure level (Patel et al., 2002; Richardson & Welker, 2001). Most studies relied on Global Reporting Initiative (GRI) checklist for measuring CSR using disclosure score which tends to erode local content.

Second, considering the voluntary nature of CSR practices in some countries such as Nigeria, UK, USA, its disclosure will be significantly influence by key internal decision-making process. For instance, in the UK, there is no explicit legislation that legally compels organisations to observe CSR, the supporting principles of the UK corporate governance codes states '' The board should set the company's values and standards and ensure that its obligation to its shareholders and others are understood and met'' and that risk assessment should cover not only narrow financial risks, but also those related to ''health safety and environmental, reputation, and business probity issues''. This suggests that board of directors, a major internal governance mechanism can influence CSR disclosure decisions (Rupley, Brown & Marshall, 2012). Corroborating this view, Cerbioni and Parbonetti (2007) opine that disclosure is generally one of the boards of directors' key tasks. The boards have the essential role of controlling the organizations' CSR behavior and are accountable to all the different interest groups (Hill & Jones, 1992). According to Barako and Brown (2008), it is expected that an independent board will question management more thoroughly and promote the disclosure of information. On the contrary, Prior et al (2008) state that some board attributes, such as CEO duality, lead to concentrating managerial power, thus enabling managers to suspend CSR investments when regarded as wasteful. Other studies have linked corporate governance to CSR voluntary disclosure (El-Bassiouny& El-Bassiouny, 2019; Farooq, Ullah, & Kimani, 2015; Haslinda, Alia, & Faizah, 2016). Considering the differences in assessing CSR voluntary disclosure among countries and corporate governance practices across different companies, sectors and economies, this study aims to contribute theory and practices by investigation selected board attributes on CSR disclosures measures among Oil and Gas companies listed in the Nigerian Exchange Group. First, the study added some constructs in addition to those of the GRI checklist in order to enhance local peculiarities. Second, rather than relying on CSR measure using quantitative content analysis based on the GRI index, the study also used the actual amount expended in CSR.

The paper is structure as follows: section 2 is on literature review; section 3 is on methodology; section 4 is on presentation and discussion of results; section 5 is on conclusion and recommendations.

2. Review of Literature and Hypotheses Development

2.1. Corporate Social Responsibility

Corporate social responsibility is a departure from what is perceived to be the traditional responsibility of corporate entities – that of satisfying the economic interests of their shareholders (Dickerson, 2002; Gordon &Pestre, 2002). According to Vitezić (2011), social responsibility is a balance between economic, ecological and social goals, which means distribution of assets on severalactors.Ruggie (2002) looks at CSR as a strategy for demonstrating good faith, social legitimacy, and a commitment that goes beyond the financial bottom line. Carroll and Bocholt, (2003) view CSR as economic, legal, ethical, and discretionary expectations that society has of organizations at a given point in time. The European Commission (2001) defined CSR as a concept whereby companies decide voluntarily to contribute to a better society and a cleaner environment, or a concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis. According to Holme and Walt (2001), corporate social responsibility is the continuing commitment by business to behave ethically and contribute to economic development while improving the quality of life of the workforce, and their family as well as the local community and the society at large. It is anchored on the philosophy that businesses as natural or artificial persons should take decisions that are considered in deed to be in the interest and benefit of a large number of people hence have respect for the fundamental rights of the public of the organization.

2.2. Measurement of Corporate Social Responsibility

The study measures CSR disclosure using disclosure scores and the actual amount ex-pended on CSR practices. Cerf (1961) appears to be the first researcher to undertake a study using disclosure scorer. In doing this, He developed an index consisting of 31 items, each of which was scored on a scale of 1 to 4 on the basis of interviews with financial analysts. With the foundation of Cerf (1961), the disclosure score approach has been widely used in many other studies, however with modifications. Considering a given a list of items, the value of the index for a particular company is obtained by dividing the number of information items disclosed by that company by the total number of information disclosure items that might be disclosed. In addition to using disclosure score, the study used actual amount expended on charitable donations.

2.3 Board Attributes and Corporate Social Responsibility

2.3.1 Board of Director Independence and Corporate Social Responsibility

This refers to the ratio of independent outside directors to the total number of directors on the board. Outside directors are non-executive directors of either affiliate or independent in nature (Daily, Johnson, Ellstrand, & Dalton, 1999). For board independence to be entrenched, the Nigerian Code of Corporate Governance issued by NCCG (2018) states that there should be an appropriate mix between

the executive, non-executive and independent non-executive directors on the board. Preferably, that most of the non-executive directors should be independent.

According to Hong, Li and Minor (2016), firms with more board independence are more likely to provide compensation to executives in the form of CSR activity incentives. Hong et al. (2016) suggest that CSR activities are more likely to be beneficial to shareholders, as opposed to agency costs. A study conducted by Huang (2010) found that independent directors brought about a major increase in a firm's CSR performance regarding different actors in society. Board members' level of independence has a significant impact on information disclosure because of the key role of external directors (Prado-Lorenzo et al., 2009). Rouf (2011) posits that their presence guarantees that shareholder interests are being fulfilled. Barako et al. (2006) states that in determining CSR disclosure, the independent directors' represents the interest of both the shareholders and other stakeholders. This suggests that an independent board would be more thorough on issues of disclosure information with management. Strandberg (2005) pointed out that appointing independent directors boosts a firm's CSR activities. More responsible firms, which tend to employ a greater number of independent directors, usually consider wider-ranging issues of sustainability when reviewing their governance codes. Independent directors also put pressure on firms to disclose CSR information in order to make corporate decisions that are more legitimate from a social perspective (Haniffa& Cooke, 2005). Independent directors may engage in better dialogues with stakeholders and this ought to be reflected in further transparency. Guerrero-Villegas (2018) state that independent directors help companies to adopt broader approaches to their work in society, potentially generating higher levels of unambiguous disclosure and CSR. Premised from the foregoing, the study expects that H_1: board independence has positive association with CSR disclosure among Oil & Gas and Industrial service goods companies Listed in the Nigerian Exchange Group.

2.3.2 Board of Directors Size and Corporate Social Responsibility

This refers to the number of directors on the board. Board size seems to differ from one country to another. This has led to two schools of thought: small; and large board size. In Malaysia, the corporate governance code does not specify the size of the board. Rather, every board should examine its size, with a view to determine the impact on its numbers. Dedman (2000) in a study conducted in the United Kingdom (UK) opines eight (8) members on the board of directors while Yermack (1996) opined twelve (12) members board of director size in the United States. The Nigerian Code of Corporate Governance (NCCG, 2018) issued by FRCN did not give a specific number of directors on the board. Rather, it states that the board should be of sufficient size to effectively undertake and fulfils its business; to oversee, monitor, direct and control the company's activities and be relative to the scale and complexity of its operation. It also states that the board should consider the following factors in determining the requisite number of its members are: (i) appropriate mix of knowledge, skills and experience, including the business, commercial and industry experience needed to govern the company; (ii) appropriate mix of executive, non-executive and independent non-executive members such that majority of the board are non-executive directors. It is desirable that most of the non-executive directors are independent; (iii) need for a sufficient number of members that qualify to

serve on the committees of the board; (iv) need to secure quorum at meeting; and (v) diversity targets relating to the composition of the board.

Conger and Lawler (1998) opined that there is no ideal size for a board; rather the right size should be driven by how effective the board is able to operate as a team. In the same vein, Park and Shin (2004) opined that the right size should be a function of how well it will impact on the board performance. Prior researchers argued that large board of director is more diversified in terms of directors' background, expertise and resources (Dalton et al., 1999; Haniffa&Hudaib, 2006). In the same vein, large board of directors is more effective in monitoring, protecting shareholders interest and developing external linkages (Dalton et al., 1999). According to Benson, Pfeffer and Salancik (1978), a greater board size has an impact on links with the external environment. Larger boards reflect a wider range of stakeholders. Luoma and Goodstein (1999) conducted a study on publicly traded US firms, finding that stakeholders were better represented in larger firms. Several studies highlight that large boards allow companies to connect better with their environment (Hillman et al., 2009). Certo et al. (2001) posit that board of directorskey role is to legitimize and boost a firm's public image and to build external relationships. Cormier et al. (2009) opines that firms with larger boards show better governance disclosure and better disclosure of compensation practices. Premised from the foregoing, the study expects that *H_2: board independence has positive association with CSR disclosure among Oil & Gas and Industrial service goods companies Listed in the Nigerian Exchange Group.*

2.3.3 Board of Director Gender Diversity and Corporate Social Responsibility

Board gender diversity refers to the ratio of female to male directors on the board. In the context of this study, we are referring to the ratio of number of women directors on the board. Due to the resource such as prestige, skills, knowledge and external linkage women possess, they are often appointed to corporate board (Dang &Vo, 2012; Hillman et al., 2000). According to Byrnes et al. (1999), female directors on the board help to prevent risky projects because they are more conservative, specifically risk-averse, unlike men. In the same vein, Loukil and Yousfi (2016) opine that female directors seldom make risky and challenging investment which could negatively impact on a firm's performance. On the contrary, female directors on the board are risk-averse and less confident in decision-making (Dowling &Aribi, 2013; Levin et al. 1998). Also, prior researchers have documented that women's participation on the board does not bring about effective board activities because they are less confident and in time of competitive business environment or challenges, may not be able to take quick decisions. Specifically, Smith et al. (2006) opine that in a challenging and more competitive business environment, board diversity may face more conflict, probably because of the averse-risk nature of female director which could slow down the pace of decisions making process and this may affect the ability of the firm to respond to the market due to the absence of a timely decision. Consequently, the risk adverse and less confident nature of female directors on the board could make a firm hold more cash (Loukil&Yousfi, 2016).

On the number of representation of female directors on the board, there are some countries that have made legislation. For instance, Norway and Sweden imposed gender quota on the board of directors

for public corporation (Rondoy et al., 2006). Also, the United States Securities and Exchange Commission (SEC) requires that all public corporations encourage the appointment of female director on the company board (Puthenpyrackal & Upadyaya, 2013). In Nigeria, the FRCN (2018) Nigerian Code of Corporate Governance stipulates that corporate board should promote diversity in its membership across a variety of attributes relevant for promoting better decision-making and effective governance. One of such attributes the code encourages is gender diversity. Previous research has found that female presence on corporate boards brings about qualitative improvements to board duties (Boulouta, 2013), such as CSR performance controls. An explanation commonly put forward is that women naturally have a more social outlook so they are better at making CSR decisions (Ibrahim &Angelidis, 2011).Women on boards potentially project an image of legitimacy to existing and future staff, and also symbolize career opportunities (Hillman et al., 2007). Furthermore, customer-oriented businesses are more inclined to appoint female directors to their boards, as this legitimates their activity and enhances relations with customer and stakeholders (Brammer et al., 2007). Premised from the foregoing, the study expects that *H_3: board gender diversity has positive association with CSR disclosure among Oil & Gas and Industrial service goods companies Listed in the Nigerian Exchange Group*.

2.4 Review of Theories

The study is anchored on the agency and stakeholders theories. Agency theory depicts the problems in the principal (shareholder) and agent (manager) relationship due to the existence of information asymmetry, and conflicts of interests between the two parties (Jensen & Meckling, 1976). Thus, the board of directors' acts as a corporate governance mechanism to alleviate the agency problems and to align principal and agent interests, and they also consider the interests of all stakeholders influenced by managers' decisions when performing their monitoring function (Jain &Jamali, 2016). With the responsibility of monitoring the management team, the board plays a vital role for enhancing CSR matters (Jamali et al., 2008). And there is a need for an appropriate mixture of experience and capabilities from the directors in order to monitor the management team, and assess the business strategies and their influence on CSR (Bear et al., 2010). It means that some attributes of the board may support and enhance CSR performance of the company.

Stakeholder theory expands the view of agency theory by stating that the board's concern is all stakeholder interests, not only the shareholder interests (Freeman, 1984). It means that the board will take into account all stakeholder interests when monitoring and evaluating any management team's decision, and they are a very effective corporate governance mechanism to get the management team involved in CSR issues, which are sometimes not an interest of the managers, but may be meaningful for the stakeholders (Pucheta-Martínez&Gallego-Álvarez, 2019). Chen et al. (2011) reveal that firms around the world are coping with enhanced stakeholders' pressure to be sustainable, and the board will be the key entity to pressure the managers to meet all stakeholder interests when operating the business (De Graaf & Stoelhorst, 2013).

3. Methodology

The study used a longitudinal research design. The population of the study consists of the twenty three (23) Oil and Gas firms listed in the Nigerian Stock Exchange during the period 2015 to 2021. The choice of the Oil and Gas firms is that their activities directly and adversely impact the environment, leaving damaging impact in the lives of people in the host communities. Secondary data was used for this study. The data were retrieved from corporate annual reports of the sampled companies for 2015-2021 financial years.

3.1 Model Specification

The model for the study is an adaptation of prior study of Lin and Nguyen (2022). The study of Lin and Nguyen (2022) examined board attributes and corporate social responsibility performance, evidence from Vietnam. The data is taken from CSRHub and companies' reports. The ordinary least square (OLS) multiple regression analysis is employed to examine the link among variables. The dependent variables include community (COM), environment (ENV) and CSR performance (CSR). Community and environment ratings are taken from CSRHub while the overall CSR performance is calculated by averaging the ratings of the two components (community and environment). There are four independent variables, comprising board size, board independence, CEO duality and board gender diversity. The study focused on the effect of board attributeson CSR performance under the support of agency and stakeholder theories. Based on the sample of sixty eight (68) companies at the beginning of October 2019, board size and board independence are found to positively affect CSR performance while CEO duality and board gender diversity exhibit a non-significant relationship with CSR performance.

The current study made the following changes to the model above. Fist, the control variables such as capital intensity and industry sensitivity dummy used in the study of Lin and Nguyen (2022) were excluded. The reason for the exclusion of industry sensitivity dummy is that the intending sample for the study is in the Oil and Gas sector which is already in high sensitive sector. Second, the current study only made use of core board attributes variables such as independence, size and gender diversity. Third, the study control for firm size, financial performance and financial leverage.

Adapting the models of Lin and Nguyen (2022), the functional form of the model is given below:

CSRDisc= f (BND, BS, BGD, FS, ROA, LEV)……i

Specifying the functional model into an econometric form, we have,

$CSRDisc_{it} = \beta_1 + \beta_2 BND_{it} + \beta_3 BS_{it} + \beta_4 BGD_{it} + \beta_5 FSIZE_{it} + \beta_6 ROA_{it} + \beta_7 LEV_{it} + w_{it}$ ……*ii*

Where: β_1= intercept for the twenty three Oil and Gas firms (23); β_2- β_7 = Unknown coefficients; i= Companies (1 ...23 companies) ; t= Time [(1 ...7 years), w_{it} = error term.

3.2. Measurement of Variables

Table 1: Measurement of variables

Variables	Measurement	Justification	Apriori expectation
Corporate social responsibility	CSR disclosure practices checklist	Kim and Lu (2011)	Nil
	Amount expended on charitable donations	Ibrahim and Angelidis(2011)	Nil
Board independence	Ratio of number of independent non-executive directors to total board members	Clikeman, Geiger and O'Connell (2011)	+
Board size	Number of board of directors	Yermack (2016)	+
Board gender diversity	Ratio of female directors on the board to total number of directors on the board	Yermack (2016)	+
Firm size	Logarithm of total assets	Rahmawati (2013)	+
Firm profitability	Ration of profit after tax to total assets	Machame (2017)	+
Firm leverage	Ratio of total debt to total assets.	Aburime (2008)	+/-

Source: Researcher's computation (2023)

The study adopts the panel least square estimation technique. The choice of the panel least square technique is that it takes into consideration the problem of heterogeneity associated in a cross section study. In estimating the panel regression, the random effect was first conducted; there after the fixed effect is done if found that the result is undermined. The choice between the random and fixed effect is based on the outcome of the hausman test statistic. If the hausman test is less than 0.05, then it is significant and implies that the result cannot be used for valid policy implication. This leads us to conduct the estimation based on mean-corrected value, i.e. fixed effect estimation. Other post diagnostic tests such heteroschedasticity, serial correlation, model specification were carried out.

4 Presentation and Discussion of Results

Table 2: Descriptive Statistics

Variables	Mean	Maximum	Minimum	Std. Dev.	J-Bera	Probability	Obs.
CSR_{DISC}	0.426	0.934	0.000	0.162	162.120	0.000	251
CSR_{EXP}	136543.6	3465161.	0.000000	438417.1	8012.025	0.000	251
BND	0.643	1.125	0.000	0.128	226.703	0.000	251
BS	9.606	18.000	4.000	3.155	14.630	0.001	251
BGD	0.175	0.667	0.000	0.130	36.706	0.000	251
FS	16.893	21.595	10.956	2.442	9.686	0.008	251
LEV	1.021	19.557	0.032	2.475	17058.17	0.000	251
ROA	0.054	6.174	-2.360	0.511	82365.85	0.000	251

Source: Researchers Compilation (2023)

Where CSRD = corporate social responsibility disclosure, CSREXP= corporate social responsibility expenditure, BND= board independence, BS= board size, BGD= board gender diversity, FS= firm size, LEV= firm leverage, ROA= return on asset.

Table 2 shows the descriptive statistics for the variables and as observed, the mean CSR_{DISC} stood at 0.426, which suggests a 42.6% level of non-monetary item disclosure of CSR disclosure practices, with the highest and lowest observation scores of 0.934 and 0.000 respectively. The standard deviation stood at 0.162which indicates clustering around the mean. The mean CSR_{EXP} stood at 136543.6, which suggests a ₦136, 543, 600 amount expended CSR practices, with the highest and lowest observation scores of ₦3,465,161.00 and 0.000 respectively. The standard deviation stood at ₦438, 417, 100 which indicates dispersion from the mean.

The mean BND stood at 0.643, which suggests that the ratio of non-executive directors to the total number of directors on the board is about 64.3%, which is in conformity with the Nigerian Code of Corporate Governance that majority of the board members should be non-executive directors. The highest and lowest observation scores are 1.125 and 0.000 respectively. The standard deviation stood at 0.128which indicates dispersion from the mean. The mean BS stood at 9.606, which suggests that the number of directors on the board is nine members. The NCCG did not specify the exact number of board size; rather it states that the board size should reflect the scale of operations and complexities of companies. The highest and lowest observation scores are 18.000 and 4.000 respectively. The standard deviation stood at 3.155which indicates clustering around the mean. The mean BGD stood at 0.175, which suggests that the ratio of female directors to the total number of directors constitute about 17.5%. The NCCG did not specify the exact number of female directors on the board; rather it states that there should be diversity of the board in line with certain attributes among which is gender. The highest and lowest observation scores are 0.667 and 0.000 respectively. The standard deviation stood at 0.130which indicates clustering around the mean.

On the control variables, the mean FS stood at log 16.893, which suggests that the total assets of the sampled companies stood at about ₦ 16.893 billion, with the highest and lowest observation scores of 21.595 and 10.956 respectively. The standard deviation stood at 2.442which indicates clustering around the mean. The mean LEV stood at 1.021, which suggests that the ratio of total debt to total assets is about 1.021. This implies that total debt is slightly above total assets by 0.021, with the highest and lowest observation scores of 19.557 and 0.032 respectively. The standard deviation stood at 2.475which indicates dispersion from the mean. Finally, the mean ROA stood at 0.054, which suggests that the ratio of profit after tax to total asset is about 5.4%, with the highest and lowest observation scores of 6.174 and -2.360 respectively. The standard deviation stood at 0.511which indicates dispersion from the mean. Jacque-Bera probability values were all significant (p = 0.000) at 1%, which indicates the presence of outliers in the distribution is not unlikely.

Table 3 Pearson Correlation Result

	CSR_{DISC}	BND	BS	BGD	FS	LEV	ROA	CSR_{EXP}
CSRD	1							
BND	-0.004 -0.061 0.951	1						
BS	0.366	0.015	1					

	6.210 0.000	0.236 0.813						
BGD	-0.047 -0.743 0.458	0.273 4.471 0.000	-0.084 -1.329 0.185	1				
FS	0.406 7.007 0.000	0.134 2.129 0.034	0.553 10.474 0.000	0.0786 1.245 0.214	1			
LEV	0.046 0.725 0.469	-0.011 -0.173 0.86	-0.036 -0.573 0.567	-0.172 -2.758 0.006	-0.373 -6.352 0.000	1		
ROA	0.055 0.862 0.390	0.068 1.074 0.284	-0.034 -0.543 0.588	0.012 0.185 0.853	-0.019 -0.303 0.762	0.084 1.325 0.186	1	
CSREXP	0.407 7.031 0.000	0.068 1.068 0.286	0.334 5.596 0.000	0.030 0.467 0.641	0.278 4.571 0.000	-0.048 -0.765 0.445	0.015 0.232 0.817	1

Source: Researchers Compilation (2023)

Table 3 shows the correlation relationship between the CSR (using both the disclosure score and amount expended) which is the dependent and board, CEO attributes which are the independent variables. The correlation statistics gives an indication of the direction and magnitude of relationships between the variables. Positive correlations indicate that increase in one variable is associated with increases in the other and vice-versa. Using the CSR disclosure score, the results reveal that CSR_{DISC} is positively correlates with BS (r= 0.366) which is significant at 1% (p= 0.000), with FS (r=0.406) which is statistically significant at 1% (p=0.000), with LEV (r=0.046) though not significant at 5% (p=0.469) and with ROA (r=0.055) though not significant at 5% (p=0.390). Conversely, it negatively correlates with BND (r=-0.004) which is statistically insignificant at 5% (p=0.951), and BGD (r=-0.047) which is statistically insignificant at 5% (p=0.458). Using the amount expended on CSR, the results reveal that CSR_{EXP} is positively correlates with BND (r= 0.068) which is insignificant at 5% (p= 0.286), with BS (r=0.334) which is statistically significant at 1% (p=0.000), BGD (r=0.030) which is statistically insignificant at 5% (p=0.641), with FS (r=0.278) which is significant at 5% (p=0.000) and with ROA (r=0.015) which is statistically insignificant at 5% (p=0.817). Conversely, it negatively correlates with LEV (r=-0.048) which is statistically insignificant at 5% (p=0.458).

4.1 Multicollinearity Analysis and Other Regression Assumption Test

Multicollinearity among the independent variables implies that they are perfectly correlated. If there exists perfect correlation between the independent variables, the parameter coefficients will be indeterminate. It is worth noting that accounting variables are influenced once the variables then show the same broad pattern of behavior over time. In the presence of multicollinearity, there will be large

standard errors of the estimated coefficients. In this study, the variance inflation factor test is constructed to test for multicollinearity. The result is presented below;

Table 4: Regression Assumptions Test

Multicollinearity Test				
Variables	CSRD		CSR Donation	
	Coefficient Variance	Centered VIF	Coefficient Variance	Centered VIF
C	0.005	NA	7.240	NA
BND	0.002	3.357	1.620	2.532
BS	2.310	3.100	2.400	4.020
BGD	0.001	2.054	1.970	2.039
FS	5.080	3.989	6.190	5.875
LEV	5.440	1.456	1.110	1.291
ROA	0.000	1.317	7.240	1.428
CSR_{DISC} Model				
Heteroskedasticity Test: ARCH				
F-statistic = 1.041		Prob. F(1,248)		0.308
Obs*R-squared = 1.046		Prob. Chi-Square(1)		0.307
Breusch-Godfrey Serial Correlation LM Test:				
F-statistic = 171.513		Prob. F(2,239)		0.000
Obs*R-squared= 147.931		Prob. Chi-Square(2)		0.000
Ramsey Reset Test				
t- statistics= 0.967		Df= 238		0.335
F-statistics =0.935		Prob. F(1, 238)		0.335
CSR Donation Model				
Heteroskedasticity Test: ARCH				
F-statistic = 67.962		Prob. F(1,248)		0.000
Obs*R-squared = 53.775		Prob. Chi-Square(1)		0.000
Breusch-Godfrey Serial Correlation LM Test:				
F-statistic = 38.711		Prob. F(2,239)		0.000
Obs*R-squared= 61.415		Prob. Chi-Square(2)		0.000
Ramsey Reset Test				
t- statistics= 3.202		Df= 238		0.002
F-statistics = 10.257		Prob. F(1, 238)		0.001

Source: Researchers Compilation (2023)

Before proceeding to conduct the regression, the test for multicollinearity between the variables is conducted using the variance inflation factor (VIF) (Appendices). Basically, the VIF explains how much of the variance of a coefficient estimate of a regressor has been inflated, as a result of collinearity with the other regressors. Essentially, VIFs above 10 are seen as a cause of concern as observed, none of the variables have VIF's values more than 10 and hence none gave serious indication of multicollinearity

The ARCH test for heteroskedasticity was performed on the residuals as a precaution for both CSRD and amount expended on CSR. For the CSRD models, the results showed probabilities in excess of 0.05, which leads us to reject the presence of heteroskedasticity in the residuals, unlike the amount expended on CSR model which shows probability value of less than 0.005, which leads us to accept the presence of heteroskedasticity. The Lagrange Multiplier (LM) test for higher order autocorrelation reveals that the hypotheses of zero autocorrelation in the residuals were not accepted. This was because the probabilities (Prob. F, Prob. Chi-Square) were lesser than 0.05 in both the CSRD and amount expended on CSR models. The LM test suggests that there is the presence of serial correlation problems for the model. The performance of the Ramsey RESET test showed high probability values that were greater than 0.05, meaning that there was no significant evidence of miss-specification unlike the amount expended CSR model which show probability value less of 0.05 and suggests there could be evidence of model miss-specification.

4.2. Panel Regressions

The focus of the study is to examine the impact of Board structure on corporate financial reporting quality of listed banks in Nigeria. The study utilizes the panel regression estimation technique. The results are presented below;

Table 5: Board and CSR_{DISC}RegressionResult

	Aprori sign	Dependent Variable: CSRD		
		Random effects Estimates	Fixed effects estimates	POOL
C		0.319*** (0.0882) {0.000}	0.337*** (0.047) {0.000}	-0.197** (0.069) {0.005}
BND	+	-0.020 (0.021) {0.361}	-0.020 (0.022) {0.359}	-0.065 (0.047) {0.167}
BS	+	-0.002 (0.001) {0.283}	-0.002 (0.002) {0.139}	-0.001 (0.002) {0.375}
BGD	+	0.106*** (0.025)	0.106*** (0.025)	0.055*

		{0.000}	{0.000}	(0.031) {0.084}
FS	+	0.003* (0.002) {0.075}	0.002 (0.002) {0.226}	0.030*** (0.002) {0.000}
LEV	+/-	0.002 (0.002) {0.295}	0.002 (0.002) {0.333}	0.006 (0.007) {0.447}
ROA	+	0.004 (0.004) {0.422}	0.003 (0.004) {0.418}	0.001*** (0.014) {0.955}
Model Parameters				
R^2		0.235	0.970	0.868
Adjusted R^2		0.206	0.964	0.861
F-statistic		8.203***	153.662***	142.260
Prob(Fstat)		0.000	0.000	0.000
Durbin-Watson		0.7	0.9	2.0
Huasman Test	17.645, p = 0.040			

Source: Researcher's compilation (2023) using Eviews 10. * sig @10%, ** sig @ 5% *** sig @ 1% ( ) Standard error{ } p-values

Table 5, above, shows the regression result using CSR disclosure as a measure of CSR. From the result, the fixed effect estimation is preferred to the random effect estimation as revealed by the hausman test result. The fixed estimation result showed R^2 is 0.970 which suggests that both board and CEO attributes explains about 97% of systematic variations in corporate social responsibility disclosure practices with an adjusted value of 0.964. The F-stat (153.662) and p-value (0.000) indicates that the hypothesis of a significant linear relationship between the dependent and independent variables cannot be rejected at 5% level while the D.W statistics of 0.9 indicates that the presence of serial correlation in the residuals is not unlikely, however this does not give much concern. Commenting on the performance of the specific board attributes, we observe that BND appears to have a negative effect (-0.020) which is also statistically insignificant (p=0.359) at 5% level. BS appeared to have a negative effect (-0.002) though not significant at 5% (p=0.139). BGD appeared to have a positive effect (0.106) and it is statistically significant at 1% (p=0.000). On the control variables, FS appeared to have a positive (0.002) though it is statistically insignificant at 5% (p=0.226). LEV appeared to have a positive (0.002) though it is statistically insignificant at 5% (p=0.333). Finally, ROA appeared to have a positive (0.003) though it is statistically insignificant at 5% (p=0.418).

Table 6: Board and CSR Donation Regression Result

	Aprori sign	Dependent Variable: CSR Donation		
		Random effects Estimates	Fixed effects estimates	POOL
C		203 (376) {0.589}	125 ** (447) {0.005}	-210 (851) {0.805}
BND	+	-458 (195) {0.814}	-110 (206) {0.594}	-485.771 (127) {0.997}
BS	+	252 * (118) {0.034}	797.163 (144) {0.956}	272 * (155) {0.080}
BGD	+	496 ** (217) {0.023}	632 *** (239) {0.009}	632 ** (444) {0.989}
FS	+	-117 (149) {0.436}	-326** (167) {0.052}	137 (249) {0.581}
LEV	+/-	153.551 (136) {0.991}	214 (151) {0.887}	724 (105) {0.945}
ROA	+	113 (381) {0.767}	642 (386) {0.868}	920 (269) {0.973}
Model Parameters				
R^2		0.060	0.633	0.347
Adjusted R^2		0.025	0.555	0.317
F-statistic		1.719 **	8.084 ***	11.525 ***
Prob(F-stat)		0.085	0.000	0.000
Durbin-Watson		0.9	0.1	2.0
Huasman Test	23.295, p = 0.006			

Source: Researcher's compilation (2023) using Eviews 10. * sig @10%, ** sig @ 5% *** sig @ 1%
( ) Standard error{ } p-values

Table 6 above, shows the regression result using amount expended on CSR as a measure of CSR. From the result, the fixed effect estimation is preferred to the random effect estimation as revealed by the hausman test result. The fixed estimation result showed R^2 is 0.633 which suggests that both board and CEO attributes explains about 63.3% of systematic variations in corporate social responsibility disclosure practices with an adjusted value of 0.555. The F-stat (8.084) and p-value (0.000) indicates that the hypothesis of a significant linear relationship between the dependent and independent variables cannot be rejected at 5% level while the D.W statistics of 0.1 indicates that the presence of serial correlation in the residuals is not unlikely, however this does not give much concern. Commenting on the performance of the specific board attributes, we observe that BND appears to have a negative effect (-110) which is also statistically insignificant (p=0.594) at 5% level. BS appeared to have a positive effect (797.163) though not significant at 5% (p=0.956). BGD appeared to have a positive effect (632) and it is statistically significant at 1% (p=0.009). On the control variables, FS appeared to have a negative (-326) and it is statistically significant at 5% (p=0.052). LEV appeared to have a positive (214) though it is statistically insignificant at 5% (p=0.887). Finally, ROA appeared to have a positive (642) though it is statistically insignificant at 5% (p=0.868).

4.3. Discussion of Results

The discussion of the result is based on the fixed effects estimation in table 5. The results are discussed below;

4.3.1 Board independence and Corporate Social Responsibility

The results show that BND appears to have a negative effect (-0.020) which is also statistically insignificant (p=0.359) at 5% level. This suggests that increase in board independence does not lead to an improvement in corporate social responsibility disclosure. Based on the statistically insignificant criteria, we fail to reject the null hypothesis (H_1)that board independence has not significant impact on corporate social responsibility among listed Oil and Gas firms, industrial goods sector firms in the Nigerian Stock Exchange. Board independence being negatively signed in our result does not conform to apriori and theoretical expectation. However, this could be justified on the ground that a particular line of study showed that board independence was negatively associated with CSR disclosure (Esa, &numMohdGhazali, 2012) and the likely reason for this could be that their reputational concerns may lead them to the adoption of risk-avoidance behaviors. Regarding voluntary reporting, independent directors will look closely at what risks a CSR strategy may present for their reputation. According to Cheng (2006), to reduce any financial or reputational risks associated with social and environmental issues, they may minimize the reporting of social and environmental contents that lack credibility or reliability.

Given that independent directors do not work within the company, they do not dispose in-depth knowledge of the measures taken to ensure social and environmental performance (Lefort, & González, 2008). Consequently, independent directors may be misled by the information provided by managers for lack of expertise (Cramer, 2006). Fama and Jensen (1983) opined that such information therefore presents risks for their reputation and future in other firms. Ravina and Sapienza (2010) state that independent director behaviors may be guided by personal interests and the preservation of their career prospects, i.e., they may simply prefer not to take any risk by disclosing CSR (Holmstrom, 1999). Other studies who

found an inverse relationship between board independence and CSR disclosure are (Gul, & Leung, 2004; Barako, Hancock, Izan, 2006;Eng&Mak, 2003).

4.3.2 Board size and Corporate Social Responsibility

The results show that BS appeared to have a negative effect (-0.002) and not significant at 5% (p=0.139). This suggests that increase in board size does not lead to an improvement in corporate social responsibility disclosure. Based on the statistically insignificant criteria, we fail to reject the null hypothesis (H_2) that board size has not significant impact on corporate social responsibility among listed Oil and Gas firms, industrial goods sector firms in the Nigerian Stock Exchange. Board size being negatively signed in our result does not conform to apriori and theoretical expectation. However, this could be justified on the ground that considering that a board size of nine members may be classified as a small board as seen in the descriptive statistics, there could be absence of diversity such as expertise, nationality, external linkages etc. which could undermine firm output. On the relationship between board size and CSR disclosure, the following studies have also shown that board size has no impact on CSR reporting (Dyduch&Krasodomska, 2017; Dienes&Velte, 2016; Cheng, 2006; Said, Zainuddin&Haron, 2009).

4.3.3 Board Gender Diversity and Corporate Social Responsibility

The results show that BGD appeared to have a positive effect (0.106) and it is statistically significant at 1% (p=0.000). This suggests that increase in board gender diversity lead to an improvement in corporate social responsibility disclosure. Based on the statistically significant criteria, we reject the null hypothesis (H_3)that board gender diversity has not significant impact on corporate social responsibility among listed Oil and Gas firms, industrial goods sector firms in the Nigerian Stock Exchange. Board size being positively signed in our result conforms to apriori and theoretical expectation. Previous research has found that female presence on corporate boards brings about improvements to board duties (Boulouta, 2013), such as CSR performance. An explanation commonly put forward is that women naturally have a more social outlook, so they are better at making CSR decisions (Ibrahim &Angelidis, 2011).Women on boards potentially project an image of legitimacy to existing and future staff, and also symbolize career opportunities (Hillman, Shropshire&Cannella, 2007). Furthermore, customer-oriented businesses are more inclined to appoint female directors to their boards, as this legitimates their activity and enhance relations with customer and stakeholders (Brammer, Millington &Pavelin, 2007).Frias-Aceituno, Rodriguez-Ariza and Garcia-Sanchez (2013) examined 568 companies from 15 countries and found that the presence of women on boards was a key factor regarding integrated dissemination of information. Furthermore, Liao, Luo and Tang (2015) noted that with the growing presence of female directors in British firms, there was an increasing tendency to be ecological and transparent. Expanding the scope to an international context, Fernandez-Feijoo, Romera and Ruiz (2012) found that boards with three or more women were decisive for CSRD and that their presence moderated the effects of cultural characteristics on CSR reporting. Moreover, Zhang, Zhu and Ding (2013) interpreted CSR performance as the extent of the firm's moral legitimacy, relating female directors with improved CSR practice according to a firm's economic sector.

5. Conclusion and Recommendations

CSR is a key internal decision-making process given that it permits measuring the value of long-term relationships and assets by identifying strengths and weaknesses across the whole corporate responsibility spectrum. The development of the CSR means that there is a shift in the shareholders traditional philosophy to multiplicity of stakeholders. Companies that engage in CSR focus not only on maximizing the short-term financial gain for the owners, but also on meeting the interests of other stakeholders with the intention to increase the long-term value of the company by satisfying multiple stakeholders. The corporate sector across the globe is coming to terms with its new role, which is to meet the needs of the present generation without compromising the ability of the next generation. Businesses are slowly but surely assuming responsibilities for the ways their operations impact society and the natural environment. The aim of all business is to improve the quality of life and build leadership that will generate sense of trust among people. CSR represents the human face of the highly competitive world of commerce. By establishing and maintaining a corporate agenda which recognizes social priorities and is tailored to meet them, business displays its human face to consumers, communities and opinion leaders.

In Nigeria, there is yet to be a legal framework for communicating CSR practices of companies numerous stakeholders through its annual reports. The implication of the absence of a legal framework on CSR is that it is a voluntary disclosure practices. Consequently, it therefore implies that its disclosure will be significantly influence by key internal decision-making process. Board of directors, a major internal governance mechanism, can influence CSR disclosure decisions. An X-ray of prior studies had shown a gap in this area of research, specifically with reference to how the attributes of a key decision maker can influence CSR disclosure and the measurement of CSR practices. Therefore, the study examined the impact of board on CSR disclosure. The study took a census of the entire Oil & Gas firms, also the entire industrial goods firms. The study adopts a longitudinal research design, using secondary data from the audited annual reports of the sample companies during the period 2015 to 2021. CSR was measured using, CSR disclosure checklist and amount expended on CSR. Using the panel estimation technique, the result showed that BND appears to have a negative insignificant impact on both CSR disclosure score and amount expended CSR, BS appeared to have a negative impact on both CSR disclosure measure and amount expended on CSR, with a negative and positive relationship respectively, BGD appeared to have a positive significant impact on both CSR disclosure score and amount expended on CSR. From the findings, it appears that board independence and board size do not conform to apriori and theoretical expectation, while board gender diversity conform to apriori and theoretical expectation. The study therefore concludes that board attributes has a mild impact on CSR practices.

References

Aburime, U.T. (2008). Determinants of bank profitability: Company-level evidence from Nigeria. Retrieved from http://www.researchgate.net.

Barako, D. G. Hancock, P., & Izan, H.Y. (2006). Factors influencing voluntary corporate disclosure by Kenyan companies. Corp. Gov. Int. Rev. [CrossRef].

Bamber, L. S., John, J., & Wang, I.Y. (2010). What's my style? The influence of top managers on voluntary corporate financial disclosure. The Accounting Review, 85 (4), 1131–1162.

Benson, J. K., Pfeffer, J., &Salancik, G.R. (1978). The external control of organizations. Adm. Sci., 23, 358

Boulouta, I. (2013). Hidden connections: The link between board gender diversity and corporate social performance. J. Bus. Ethics. [CrossRef]

Brammer, S., Millington, A., &Pavelin, S. (2007). Gender and ethnic diversity among UK corporate boards. Corp. Gov.Int. Rev. [CrossRef]

Certo, S. T., Daily, C. M., &Dalton, D.R. (2001). Signaling firm value through board structure: An investigation ofinitial public offerings. *Entrep. Theory Pract*. [CrossRef]

Clikeman, O., Geiger, K., & O' Connel, M. (2011). Ethical accounting practices and financial reporting quality. EPRA International Journal of Multidisciplinary Research, 4(12), 31-44

Cormier, D., Ledoux, M. J., &Magnan, M. (2009). The use of Web sites as a disclosure platform for corporateperformance. *Int. J. Account. Inf. Syst.* [CrossRef].

Daily, C., Johnson, J., Ellstrand, A., & Dalton, D. (1999). Compensation committee composition as a determinant of CEO compensation. *Academy of Management Journal, 41*(2), 209–220

Daily, C.M., & Dalton, D.R. (1994a). Bankruptcy and corporate governance: The impact of board composition and structure. *Academy of Management Journal, 37*(5), 1603-1617.

Dedman, E. (2000). An investigation into the determinants of UK board structure before and after Cadbury. *Corporate Governance: An International Review,* 8(3), 133-153.

El-Bassiouny, D., & El-Bassiouny, N. (2019). Diversity, corporate governance, and CSR reporting: A comparative analysis between top-listed firms in Egypt, Germany, and the USA. *International Journal of Management and Environmental Quality, 30*(1), 116–138.

Fama, E. F., & Jensen, M. C. (1983). Separation of ownership and control. *Journal of Law and Economics,* 26(2) 301-325.

Farooq, S.U., Ullah, S., &Kimani, D. (2015). The relationship between corporate governance and corporate social responsibility disclosure: Evidence from the USA. *Abasyn Journal of Social Sciences, 8*(2), 197–212.

Financial Reporting Council of Nigeria (2018). Adoption and compliance with Nigerian code of

corporate governance. Retrieved from www.frcn.gov.ng

Gottesman, A.A., & Morey, R.M. (2010). CEO educational background and firmperformance. *Journal of applied Finance,* 20 (2), 70-82.

Guerrero-Villegas, J.(2018). The relevance of stakeholders in an international context. *In Managerial Competenciesfor Multinational Businesses*. IGI Global: Hershey, PA, USA, 2018.

Haniffa, R. M., &Cooke, T.E. (2005). The impact of culture and governance on corporate social reporting. *J. Account. Public Policy, 24*, 391–430.

Hillman, A. J., Withers, M.C., & Collins, B.J. (2009). Resource dependence theory: A review. J. Manag. [CrossRef]

Hillman, A. J., Shropshire, C., &Cannella, A.A. (2007). Organizational predictors of women on corporate boards. Acad. Manag. J. [CrossRef]

Huang, C.J. (2010). Board, ownership and performance of banks with a dual board system: Evidence from Taiwan.*J. Manag. Organ*.

Ibrahim, N. A., &Angelidis, J.P. (2011). Effect of board members gender on corporate social responsiveness orientation. *J. Appl. Bus. Res. 10, 35*. [CrossRef]

Jensen, M., &Meckling, W. (1976). Theory of the firm: Managerial behavior, agency costs, and ownership structure. *Journal of Financial Economics*, 3(4), 305-360.

Kim, E.H., & Lu, Y. (2011). CEO ownership, external governance and risk taking. *Journal of Financial Economics, 102*(2), 272-292.

Lin, C. C., & Nguyen, T. P. (2022). Board attributes and corporate social responsibility performance: Evidence from Vietnam. Cogent Business & Management, 9(1), 1-16.

Luoma, P., &Goodstein, J.(1999). Research notes. Stakeholders and corporate boards: Institutional influences onboard composition and structure. *Acad. Manag. J., 42*, 553–563. [CrossRef]

Ocasio, W., & Kim, H. (1999). The circulation of corporate control: Selection of functional backgrounds of New CEOs in large U.S manufacturing firms. *AdministrativeScience Quarterly,* 44(3), 532-562.

Park, Y. W., & Shin, H. (2004). Board composition and earnings management in Canada. *Journal of Corporate Finance, 10*(2), 431-457.

Rahmawati, E. (2013). Information content and determinants of timeliness of financial reporting of manufacturing firms in Indonesia. Retrieved from http // vuir.vu.edu.au.

Rouf, A. (2011). Corporate characteristics, governance attributes and the extent of voluntary disclosure inBangladesh. *Afr. J. Bus. Manag.* [CrossRef]

Stranberg, C. (2005). *The convergence of corporate governance and corporate social responsibility: Though-leader study*. Coro Strandberg: Burnaby, BC, USA.
Yermack, A. (2016). Audit committee, board of directors' characteristics and earnings management. Journal of Accounting and Economics, 33(9), 375-400.

EFFECT OF RUSSIA-UKRAINE WAR ON AFRICA'S COMMERCE

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Abstract:

Russia launched a military offensive in Ukraine on the 24th of February 2022, with it's announcement of a 'special military operation" seeking the "demilitarization" of Ukraine. It ignited response and condemnation in key economic and diplomatic centers of the world and brought to the front burner discussions and possibilities of war, of global proportion in the twenty first century. Russia's projection of limited military operation lasting few weeks at most increasingly became a theater of war reverberating beyond it's expectations. The cry of Kyiz on Russia's plan, not only for a regime change, but equally, for altering the internationally recognized boundary of Ukraine drew the attention and interest of the United Nations and key Regional bodies like European Union. By June 2022, stable economic cum commercial exchange and interactions among nations, were being affected, by the war's ripple effects far beyond the East, West and Central Europe, with impacts on Africa economy. Continuous acrimony and war has had tremendous impact in Ukraine and fueled economic insecurity in many parts of the world. For example, the multiplier effect of oil and gas price instability affect local industries and market place engagements. While the geostrategic interests of Russia in Africa has been befuddled by the global outrage it's invasion of Ukraine caused, and with endogenous and exogenous shocks exacerbated by the war, it's initial economic gains and diplomatic mileage prior to February, 2022 is coming under increasing scrutiny. Although most countries in Africa, has not openly condemned Russia, the war's fallout and it's implications on Africa's trade and commerce has been far reaching.

Keywords: War, sanction, commerce, geostrategic interests, relationship, cooperation.

Introduction:

The relationship between Russia and Africa dates back to the Soviet era, as it supported many pro independence movements. In many parts of Africa, socialism as an ideology creates a sync between the euphoria of possible independence gains as opposed to capitalistic tendencies of the West: some of the countries were the colonial masters. This had included Britain, Italy, France and Portugal. The increasing ideological bent towards socialism by some countries and the popularity of the egalitarian society, as espoused by the Soviet Union created a platform for economic cooperation, even though some of them in form of financial aid. In addition, emerging authoritarian regimes in Africa looked towards the East and the Soviet Union. Ethiopia under, Marian Megistu of Ethiopia was an example. This and other relationship with countries like Zimbabwe when Soviet Union supported African National Union Patriotic Front (ZANU-PF) provided a basis for strong economic ties after independence. From 1991, with the collapse of Soviet Union, the bipolar political order of United States of America and Soviet Union paved the way for increasing uni-polarism, and a new world order. Unlike major external partners; China with it's direct investment in infrastructure, or America with deep rooted economic and financial ties to Africa, Russia may have seen Africa as a theater for it's larger global geostrategic interests. Although it often rely on asymmetric measures for influence , the importance of Russia as a major player Africa cannot be ignored.
Unlike Russia, Ukraine though with a much smaller GDP , has always had limited economic and commercial relationship with Africa. It's grain exports though massive was not accompanied with strong diplomatic presence in Africa. The war is motivating Ukraine to be more strategic and pro active in it's engagement with Africa. It's strategic position as a food basket in Europe, has shored up it's interest in creating a larger economic framework not excluding Africa. For example the closure of Ukraine major ports including that of Odessa and naval blockade of Ukraine has had effects beyond the borders of Ukraine This can be seen on it's impact on the global shipping costs and commodities supply chain. In a speech in December 2022, President Volodymyr Zelensky announced that Ukraine is restarting relations with a dozen of Africa countries. Ukraine also developed the concept of Ukraine-Africa Trading House; with the opening of its representative offices in the capital cities ofthe most promising countries of the continent.

Based on the foregoing, and the increasing exposure of Africans to the vagaries of the conflicts far beyond it'sborder, this paper reflects on the impact of the war on trade and commerce in and with Africa, the fundamental shift in economic relations caused by the war; in either enhancing or altering the economic relations between Africa and the warring parties: Russia and Ukraine, and other parts of the world.

Effects of the war on trade and commerce in Africa:

In examining the effects, it is important to look at the sanctions imposed on Russia. For example Russia and Ukraine produces about 25 percent of the world's grain, with Africa as the destination of a large percentage of this.

The imposition of sanction on Russia led to the exclusion of Russian banks from the SWIFT (a cross border financial messaging service) This was in addition to announcement from Visa and Mastercard of its suspension of operations in Russia. This has had tremendous effects on financial transactions between businesses and organisations that deals directly with Russian banks.
US, UK and other countries have sanctioned more than 1,000 Russian individuals and businesses.

What are the other sanctions imposed on goods and services?

A ban on all Russian flights from US, UK, EU and Canadian airspace.
A ban on the export of luxury goods to Russia.
Many international companies have either suspended trading in Russia, in other to avoid scrutiny or violation of international sanctions. The suspension of trading activities by these companies; many of the companies had business agents, associates and operations in Africa. In addition to this, half of Russia's $580b of currency reserve lies frozen and with most of its big banks cut off from the global payment system, it has prompted banks in several countries; African countries included, to curtail or sometimes severe ties with Russia financial sector.

The war has affected the prices of agricultural products with attendant impact in Africa. Maritime transport infrastructure and services has been under pressure due to the need for alternative trade routes for Ukrainian goods. Africa has not been excluded from the disruption of regional logistics. It has been estimated that before the war, African countries combined, imported US$3.7 billion worth of wheat; 32 percent of the African country's import from Russia, and additional US$1.4 billion worth of Grain from Ukraine. This is coming at a very difficult time in Africa, particularly with the economic difficulties associated with the COVID 19 lockdown, the effects of climate change in many African countries. Some regions like Horn of Africa and Sahel region are at greater risk of food insecurity as a result of the climate change. More than 38 million people in Africa are at risk of hunger and poverty due to climate change.
It is more serious when one think of country-specific shocks, export restrictions, the energy-intensive inputs, and it's effects on already unpredictable agricultural seasons. While food security has been on the front burner in Africa planning program, the effects of the war might be pushing some of the programs forward. For example, the African Common Position, is a synthesis and common view on how to transform and change Africa's food system and enhance it's security over the next decade. The program is based on the Comprehensive Africa Agricultural Development Program (CAADP) and Malabo Declaration on Accelerated Agricultural Growth.

Russia and Ukraine both often referred to as the world's breadbasket, are major players in export of wheat and sunflower to Africa. Algeria, Egypt, Libya, Morocco, and Tunisia in North Africa, Nigeria in West Africa, Ethiopia in East Africa and South Africa account for about 80 percent of wheat imports from the two countries. Wheat consumption in Africa is projected to reach 76.5 million tonnes by 2025 and at least 64 percent of it will be imported from outside Africa.

The closures and impediments in port operations particularly in the Black Sea, had affected the shipping routes and has had consequences. The shipping business is globalized. Food price increases cannot be divorced from higher shipping costs. The knock-on impacts for agriculture and importation of goods has been incredibly serious.
The sanctions constrained Russia from exporting fertilizer. Russia is the world's largest exporter. It has been estimated that in the second half of 2022, the futures prices of Urea jumped by 32 percent. The need for alternative trading routes for Ukrainian goods has put the transport infrastructure and services under pressure. This is in addition to trade restrictions occasioned by the war. This has had tremendous impacts on the market prices of consumables in many parts of Africa.

There are other diplomatic measures that seek to constrain Russia and can have impact on Russia economic relations with Africa. Though not officially passed, there are talks about Countering Malign Russian activities in Africa Act. This seek to counter what US policy makers, and Washington call and considers Russia's negative influence in Africa. African countries that relies heavily on aids from US would be sensitive to this. This is particularly important in some countries in Africa where Africa Growth and Opportunity Act (AGOA) has been of immense benefits in driving commercial activities with attendant positive economic growth.

In addition to grains export to Africa, are arms and extractives. Substantial parts of Russia export to Africa is however concentrated in just four countries—Egypt, Algeria, Morocco, and South Africa.

As referred, before the pandemic, many African economies were among the fastest growing in the world, with improvements recorded in the Human Development Index. For instance, by the end of 2021, sub-Saharan Africa's growth rate of 4.5 per-cent exceeded the projected growth rate of 3.7 per-cent. The Russia-Ukrainian war, has led to skyrocketing energy prices with it's knock-on effect on the economy. High inflation in many Western countries, has in turn led to imported inflation and thus the increased cost of living in several African countries. In August 2022, for example, around 1,000 workers marched to the Union Buildings in Pretoria, South Africa's seat of government, calling on the government to contain rising prices and cost of living. In many parts of Africa the magnitude of the problem was daunting. With challenges in the commercial sector, the number of job seekers continue to outpace the growth in jobs. Unemployment rate per annum is double digit. In Nigeria, the annual inflation rate for August 2022 was20.52% – the highest since 2005.

The spiralling effect of Russia Ukraine on the global economy nessecitated the The Black Sea Grain Initiative. To curtail the market effects of the war, the initiative was set up to reintroduce vital food and fertilizer exports from Ukraine to the rest of the world. Since Ukraine supplies around 45 million tonnes of grain to the global market, following the Russia invasion, tonnes of grains built up in silos. With ships unable to secure safe passage to and from Ukraine ports coupled with an unsafe land route. On July 22, 2022, the UN, Russian Federation, Turkey and Ukraine signed the Black Sea Grain Initiative in Istanbul. With the signing of the agreement, a safe humanitarian corridor was created from key Ukrainian ports of Odessa, Chornomorsk, and Yuzhny/Pivdennyi to the rest of the world.

The initiative implementation began on August 1, and by September 2022, it was reported that some three million tonnes had left Ukraine, with substantial part of the shipment going to Africa; one third of the shipments went directly to lower income countries: Egypt 8 percent, India and Iran, 4 percent, Kenya, Sudan, and Bangladesh (2 percent each) Tunisia (Slightly less than 1 percent)

The UN in emphasizing the importance of the Initiative, said it benefits people in need, helped to calm the markets and reduce food price inflation. Ms. Grynspan, who is the Coordinator of UN Global Task Team set up to help support countries deal with the triple economic shocks worsened by the effects of the war in Ukraine, pointed out that it has made a huge difference in a global cost of living crisis.

Conclusion:

In conclusion, while pre February 2022 Russia concerns about Africa were asymmetric, it's commercial engagements with Africa was growing. Though Africa exports to Russia amount to just 0.4 percent of Africa total, comprising mainly of fresh produce. Africa however depends on Russia for nearly 30 percent of it's grain supplies with a value of $3.3b. As submitted earlier, the food price shock caused by Russia Ukrainian war and it's market place effects reverberates beyond Europe. With ships unable to secure safe passage, to and from Ukrainian ports, and land routes unsafe, the price of staple food and other commodities jumped around the world, combined with increases in the cost of energy, many countries in Africa were pushed to the brink of bank default. The opportunities for commercial exchange that had hitherto opened for many Africa companies in trading directly with Ukraine and Russia have been curtailed. Major powers are re-strategising as they see opportunity to gain influence over financial and commercial markets, hitherto controlled by Russia. With no clear end to the hostilities, engagements and collaborations between nations to ameliorate the impacts, are continuous and for many African countries, the symbiotic relationship between diplomatic engagements and market place economics cannot be underestimated.

References:

Author: UNCTAD Prosperity for all
Date: 23 September 2022
Page Title: The Black Sea Grain Initiative:
What is it and why it's important for the world.
Viewed: 17/3/2023
Address: www.unctad.com

Author: Mussie Arega (PhD)
Date: Marc 16 2023
Page Title: Which way Ethiopia:
"Developmentalism" or "distractionism"
Site: SBS World News
Viewed: March 20 2023
Address: sbs.com.au

Author: Paul Stronski
Date: February 28, 2023
Page Title: Russia's Growing Footprint in Africa's Sahel Region
Site: Carnegie Endowment for International Peace.
Viewed: 22 March 2023
Address: megieendowment.com

Author: Joseph Siege
Date: January 6, 2023
Page Title: Decoding Russia's Economic Engagements in Africa
Site: Africa Center For Strategic Studies
Viewed: 22 March 2023
Address: https://africacenter.org

Author: Joseph Siegle
Date: February 2, 2022
Page Title: The Future of Russia-Africa Relations
Site: Brookings
Viewed: 17/3/2023
Address: www.brookings.edu

Author: Robert Green
Date: March 4, 2022
Page Title: How Sanctions on Russia Will Alter Global Payments Flow.
Viewed: 17/3/2023
Address: @carnegie endowment for International peace

Author: Paczynska Agnieszka. German Institute of Development and Sustainability
Date: 2020
Page Title: RUSSIA IN AFRICA: IS GREAT POWER COMPETITION RETURNING TO THE CONTINENT?
Viewed: 23/3/2023
Address:

idos@idos-research.de

Author: Joseph Siegle
Date: February 2, 2022
Page Title: The Future of Russia-Africa Relations
Site: Brookings
Viewed: 17/3/2023
Address: www.brookings.edu

Author: Al jazeera Network
List of key events day 387
Date: March 16 2023
Address: @2023 Al jazeera Media Network.

Author: Lyrr Thurston, Moina Spooner, Thabo Leshilo. The
Conversation.
Date: July 22, 2022
Page Title: Five essential reads on Russia-Africa relations.
Viewed: 20 March 2023
Address: https://the conversation.com

Author: Antonio Cascals
Date: 26/7/2022
Page Title: Russia's reengagement with Africa pays off.
Viewed: 20/3/2023
Address: www.dw.com

Author: Isaac Kaledzi
Date: 28/12/2022
Page Title: Ukraine's aim to deepen ties in Africa leaves open questions
Viewed: 23/3/2023
Address: www.dw.com

Martin Meredith; The State of Africa: A History of Fifty Years of Independence. Free Press. 2005

Author: Vamo Soko, Bintu Sakor
Date: 7/9/2022
Page Title: The Ukraine's Crisis and It's Impact on Africa Geopolitics: What Do We Know So Far?
Date Viewed: 25/3/2023
Address: blogs.prio.org

Author: Jasleen Mann
Date: July 1, 2022
Page Title: Russia-Ukraine conflict's global impact on maritime trade
Date Viewed: 15 April 2022
Address: @Verdict Media Limited

THE PARALLAX AND PARADOX OF CLIMATE CHANGE: PLIGHT OF LOCAL COMMUNITIES

(18TH BASSEY ANDAH MEMORIAL LECTURE. JANUARY 21ST 2017)

PROF. LAWRENCE EZEMONYE (FAS)

Preamble

I am really humbled by the invitation to deliver the 18th BASSEY ANDAH MEMORIAL LECTURE. I want to start by thanking the chairman and Board of Directors of the Bassey Andah Foundation (BAF) for the privilege and honour accorded me to be the keynote speaker at this 18th Bassey Andah Memorial Lecture. I am aware that the Bassey Andah Memorial Lecture series in honour of a foremost African Anthropologist, Archaeologist and Humanist was inaugurated about seventeen years ago. It is not only deserving of a celebrated erudite scholar but a well-conceived index for posterity.

The theme of this lecture The Nigerian Environment: A Threatened Heritage is fully captured in my presentation today titled- The Parallax and Paradox of Climate Change: Plight of Local Communities. It lucidly encapsulates global climate change scenario in the Nigerian space, vulnerability of the Nigerian environment to climatic alterations and the plight of local communities in Nigeria. The paper further examines the Conference of Parties (COPs) and response to Climate Change. Finally, the lecture reviews mitigation strategies in Nigeria, the challenges in executing these strategies and proffers the way forward for the Nigerian State.

OUTLINE

1. **The Nigerian Space**
2. **Vulnerability of Nigeria to Climate Change**
3. **Drivers of Climate Change in Nigeria**
4. **Plight of Local Communities.**
5. **Conference of Parties (COPs) and Climate Response**
6. **Nigeria's Response to Climate Change**
7. **Climate Change Mitigation strategies in Nigeria**
8. **Challenges of Climate Change Mitigation**
9. **Way Forward**
10. **Conclusion**
11. **References**

1. THE NIGERIAN SPACE

The Nigerian environment is characterized by a combination of natural features that makes it highly fragile and uniquely susceptible to anthropogenic environmental perturbations. This is due to its peculiar geographical, geological and geomorphological setting. In ecological terms, Nigeria is a land of extremes and has remained continuously at risk for ages, with the recent phenomenon of global warming further accentuating the rate of environmental degradation (Butler, 2012). Nigeria, like most parts of the world, is experiencing not only regional warming but also the essential features of climate change (Ojekunle *et al.,* 2014).

Climate change is driven by both natural and anthropogenic factors. Natural factors include events like continental drift, volcanic eruptions, and earth drift. On the other hand, anthropogenic causes include various human activities associated with population growth, urbanization, gas flaring and agricultural activities, which have continuously elevated the emission of greenhouse gases at an alarming rate, altering the natural composition of atmospheric greenhouse gases.

The environmental integrity of local communities now demands our care more than ever before because every passing day presents daunting and devastating challenges to its very existence (Ezemonye, 2013). Knowledge of existing environmental degradations and climate change complications bedevilling humanity appears to far outstrip current pragmatic ability to ensure sustainability. Consequently, Nigeria and her local communities fall into the vulnerable and susceptible countries in the world battling with the parallax and paradox of climate change.

2. THE VULNERABILITY OF NIGERIA TO CLIMATE CHANGE.

Nigeria is one of the few countries expected to be most affected by the impacts of climate change through sea level rise along her coastline, intensified desertification, erosion, flooding disasters and general land degradation. Environmental degradations and devastations associated with climate change are known to have wrecked rural livelihoods.

Incidentally, the country is among the vulnerable regions in the world exposed to climate change impacts (Adejuwon, 2008) and has a variety of ecosystems, ranging from mangroves, rainforest on the Atlantic coast in the south to the savannah in the north bordering the Sahara. According to Joiner *et al.,* (2012), Nigeria is highly susceptible to climate change in two primary locations: the Northern fringes particularly the Sahel and the Niger Delta regions. Other areas prone to climate change impacts include densely populated cities like Ibadan,

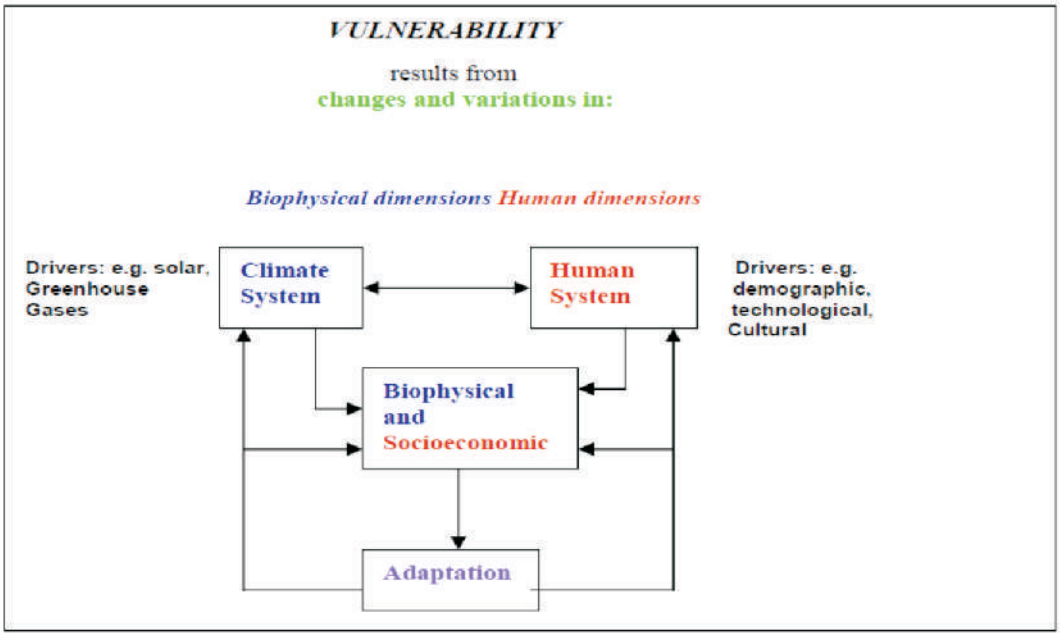
Lagos, Onitsha, Aba, Zaria, Bida, Ilorin and Jos. Vulnerability is hence magnified but not limited to the following interconnected factors;

a. Dependence on fossil fuel production and utilization.
b. Diverse tribal, religious and cultural groups.
c. High concentration of poverty especially in endemic regions.
d. Low literacy level and poor access to healthcare.
e. High dependence on natural resources and rain-dependent agriculture.
f. Limited technology for adaptation.

Nigeria's vulnerability will be in two ways; first, the resulting impacts of climate change and second, the impact of response measures. Changes in climate may alter Nigeria's major ecological zones such as agricultural ecosystems, freshwater and coastal resources, forests, and biodiversity are all susceptible to impacts from climate changes. Such impacts include increases in soil erosion, flooding, desertification, and salt-water intrusion

Its dependence on fossil fuel production and utilization

High dependence on natural resources and rain-dependent agriculture



Source: Warrick (2000)

The implication is that the vulnerability of Nigeria to the effects of climate change depends not only on the magnitude of climatic stress, but also on the sensitivity and capacity of affected people to adapt to or cope with such stress (Madu, 2016). A number of conditions that accentuate vulnerability according to Ranger and Garbett-Shiels, (2012) are geographical in nature, remote location and paucity of socioeconomic infrastructure. Consequently, rural dwellers are especially affected by local conditions which amplify their vulnerability to climate change.

3. DRIVERS OF CLIMATE CHANGE IN NIGERIA

3.1 Population Growth and Urbanization

The current population of Nigeria is put at 187million, representing 20% of the entire population of Africa and 2.37% of the world's population (UN DATA, 2016). The population had therefore grown dramatically since the 1952/1953 census when it was 31.5 million (FRN, 2007). By 2050, Nigeria's population is projected to rise to 289 million (UN, 2002).

The recorded rise in Nigeria's population in an accelerating rate has led to a commensurate increase in anthropogenic activities. This, in turn, has distorted the natural balance by increasing the amount of heat trapping gases such as carbon dioxide and other greenhouse gases that induce global warming.

Apart from population growth, Nigeria has experienced increased urbanization over the last five decades. The rate of urbanization rose from 3.5% to 3.8% between 2010 and 2015 (World facts Book, 2016). This is made possible by the improved infrastructural platforms such as power, transportation, housing, communication, healthcare and enhanced geographical mobility (Odjugo, 2011). These infrastructural growth associated with urbanization has always been accompanied with environmental cost (Ezemonye, 1992).

A scene in Oshodi Lagos.

3.2. Transportation, Traffic and vehicular emission

The process of burning fossil fuels to power cars, heavy duty vehicles and generators contributes greatly to the release of carbon dioxide and a variety of greenhouse gases into the atmosphere resulting in global warming and climate

change. The fleet of vehicles has steadily increased since independence in 1960 (ATPS 2013). Recent studies have shown that emission rate of CO_2 from average traffic volume in Minna, Bida and Suleja were 2956.8, 2803 and 3043 ppm respectively. These levels of CO_2 emissions were approximately eight times higher than internationally acceptable safe limit of 350ppmin (ATPS, 2013).

Vehicular Emissions in Nigeria

3.3. Emissions from cement manufacturing

It has been estimated that cement production contributes about 5% of global man made CO_2 emissions (Priyanka *et al.,* 2013). The typical gaseous emissions to air from cement production include NOx, SOx, CO, CO_2, H_2S, VOCs, dioxins, furans and particulate matters (Mishra and Siddiqui, 2014).

Cement Manufacturing

The main minerals used in the production of cement in Nigeria are limestone in some of the plants and marble in other plants (Okigbo, 2012). Nigeria produces over 25 million metric tonnes of cement annually (Osagie, 2011). Wilson and Law, (2007) stated that for every tonne of cement produced about half a tonne of carbon dioxide is released excluding the carbon dioxide released from the energy needed in the process. Emissions of Carbon dioxide take place during cement manufacturing due to decarbonisation of Calcium and Magnesium carbonate and burning of fossil fuels.

3.4. Deforestation and Land Degradation

Deforestation is a global threat, not only because it causes habitat fragmentation and loss of biodiversity, but it also degrades environmental

conditions and has an impact on global greenhouse gas emissions (GHG) by releasing CO_2 to the atmosphere. Forests are important sources of livelihoods to millions of people and contribute to national economic development of many countries. They provide critical ecosystem services and play a fundamental role in conservation of biodiversity.

Despite global acknowledgement of the importance of forests, recent data show that forest area has continued to shrink (Keenan *et al.,* 2015) as agricultural land continues to expand in 70% of countries. Unfortunately, Nigeria ranks 4th amongst the countries with the greatest net loss of forest area between 2010 and 2015 (FAO, 2015).

Rapid deforestation in Nigeria is clearly due to agricultural practices, commercial activities, overgrazing, uncontrolled exploitation of fuel woods, aggravated drought and industrial purposes (Agagu, 2009). Nigeria's 5% annual deforestation rate of natural forest means Nigeria loses about 350,000 to 400,000 hectares of land per year to deforestation. More worrisome is the fact that the country's forest cover is said to be less than 6%, way below the 26% recommended by FAO (FAO, 2015).

Deforestation

Land Degradation

Land degradation in recent times has become a matter of critical concern for Nigeria. Land degradation is a decline in the quality of the land over time which is usually caused by several anthropogenic activities (Imoke *et al.,* 2010). It also refers to the impairment of natural quality of soil component of any ecosystem, threatening its natural potentials.

It is primarily caused by deforestation, overgrazing, overexploitation for fuel wood, agricultural activities, increased flooding and industrialization (FAO, 1996). The fact that land degradation impacts world food security and the overall quality of the environment makes it of global concern (Imoke *et al.,* 2010).

3.5. Bush burning

Fire is clearly one of the most dominant forces affecting the Earth's land surface. Burning of forests in the tropics is of great concern (Dawson *et al.,*

2014). In Nigeria, bush burning contributes largely to the impact of climate change (Ogbo *et al.,* 2013). Slash and burn practice in agriculture and fire hunting is one of the major causes of desertification in Nigeria (Olugunju, 2015).

Owing to the low relative humidity in northern Nigeria coupled with very dry harmattan wind, there is always a high incidence of bush fires every dry season. Other regions of the country are also not spared from this scourge. There is need to prohibit the practice of bush burning and the release of greenhouse gases that result from the process. This could be achieved through clearing and raking of the grasses with the use of farm implements. Fire hunting is also a practice that should be totally discouraged.


Typical bush burning in Nigeria

3.6. Agriculture and chemical fertilisers

Climate change and agriculture are inextricably linked. Agriculture is both a cause and a victim of climate change (ITC, 2007). A significant portion of agriculture still depends fundamentally on the weather (rainfall, sunlight and other elements). However, agricultural practices also exacerbate climate change.

Reports by the Intergovernmental Panel on Climate Change (IPCC) puts the contribution of agriculture to greenhouse gas emissions at 13.5% (IPCC, 2004), and 32% if calculating both direct and indirect emissions from the food supply chain (land use, transportation, packaging and processing (Greenpeace, 2008). Prominent agricultural activities that significantly contribute to climate change include:

- Land conversion to agriculture: The conversion of forest into area suitable for agriculture has led to changes in the amount of sunlight reflected from the ground back into space (USGS, 2016). In Nigeria land conversion for agricultural practices in the Northern and Southern parts have reduced carbon sequestration.
- Nitrous oxide released from soils: Agriculture creates both direct and indirect emissions. Direct emissions come from fertilized agricultural soils and livestock manure (42%). Indirect emissions come from runoff and

leaching of fertilizers (25%). Agriculture creates 4.5 million tonnes of nitrous oxide per year globally (Ramachandran *et al.,* 2015).

- Livestock production: Livestock are responsible for over 18% of human-made greenhouse gas emissions (Steinfeld *et al.,* 2006). Nigeria has a thriving livestock subsector. Livestock production accounts for 5% of the total Gross Domestic Products (GDP) and between 17% and 20% of the GDP from agriculture (NBS, 2015). In a 2011 National Agricultural Sample Survey it was estimated that Nigeria had 19.5 million cattle, 72.5 million goats, 41.3 million sheep, 7.1 million pigs and 28,000 camels. Methane from cattle and enteric fermentation (15-20% global production of methane) contribute largely to greenhouse gas emission. In 2010, enteric fermentation accounted for 43% of the total greenhouse gas emissions (Ripple *et al.,* 2014).

Livestock Production

Crop Production

Another agricultural activity that significantly contributes to climate change is chemical fertilizer production and application. Synthetic/chemical fertilizers as well as oil-based pesticides release Green House Gases (GHG) including carbon dioxide, nitrous oxide and methane into the air

.

3.7. Oil and Gas Activities

Paradoxically, oil and gas activities contribute a substantial quota to Nigeria's economy and environmental pollution. Oil production in the 1st and 2nd Quarter of 2016, stood at 2.11 and 1.69million barrels per day (mbpd), while as a share of the economy, the Oil sector contributed 10.29% and 8.26% to total real GDP (NBS, 2016). Despite these gains, the environmental pollution from oil and gas activities such as gas flaring, oil spillage and land degradation contribute substantially to climate change impact.

- Gas Flaring in Niger Delta

Gas flaring is a significant contributor to climate change by the emission of carbon dioxide; Global estimates also show that flaring of Nigeria's gas contributes significantly to the world's carbon dioxide emission (UNDP, 2006). Nigeria flares more gas than any other country in the world (Guardian newspaper, 2015). Close to 80% of the associated gas produced from Nigeria's oil fields are flared. Nigeria flares 17.2 billion m^3 of natural gas per year in the Niger Delta, which is equal to approximately one-quarter of the current power consumption of the African continent (Ajugwo, 2013). In the first half of 2016, Nigeria lost about $336.33 million as oil and gas companies operating in the country flared 112.11 billion Standard Cubic Feet (SCF) of gas between January and June 2016 (NNPC, 2016).

Gas flaring in Nigeria (Horizontal and Vertical).

- Oil Spillage

By global considerations, Nigeria has a high rate of oil spill with approximately a thousand spills every year (Kalejaye, 2015). Oil spills occur due to pipeline and tanker accidents (50%), sabotage (28%) and oil production operations (21%), with 1% of the spills being accounted for by inadequate or non-functional production equipment (Nwilo and Badejo, 2001).

Equipment malfunctioning, corrosion of aged pipelines, sabotage of oil installations by militants and oil thieves are the primary drivers of this phenomenon. Extensive exploration and production of petroleum in Nigeria's sedimentary basins especially in the Niger Delta area have opened up such areas to massive pollution.

The Niger Delta has suffered for decades from oil spills, which occur both on land and Offshore. Oil spills on land destroy crops and damage the quality and productivity of soil that communities use for farming. Oil in water damages fisheries activities and contaminates water that people use for drinking and other domestic purposes. The region is characterized by a prevalence of both old and new oil spills. Over 9,343 incidents occurred in the last ten years, according to official records (Kalejaye, 2015).

From 2007 to 2012, SPDC has been dealt with an average of 172 oil spills per year, slightly more than the 169 average for the 2006 to 2010 period. In 2011 there were 181 spills over 100kg (SPDC, 2011). Similarly, official records from the National Oil Spill Detection and Response Agency, NOSDRA, covering the period, 2006 and 2015, indicate that there were over 5,000 spillage sites from the over 9,000 spills (Kalejaye, 2015).

Fire from Oil spills in Nigeria.

4. PLIGHT OF NIGERIAN COMMUNITIES.

Local communities show varied susceptibility to observed impacts of climate change and high propensity of endangered heritage. Their capacity to adapt to climate change has been highly compromised, not only because of the magnitude of the impacts of climate change, but also because inadequate provision of adaptive measures.

It is generally recognized that natural-resource dependent communities particularly in Nigeria, are especially vulnerable to the effects of climate change and suffer disproportionate impacts (IPCC, 2007). Their intricate relationship with their environment is the very basis of their plight.

In Nigeria, the activities propelling climate change have destroyed rural livelihoods in the oil producing regions; desertification has wreaked havoc in the north; deforestation in the west; while gully erosion has ravaged the east in a menacing fashion.

The implication is that rural communities throughout Nigeria have become impoverished and particularly vulnerable to the impact of climate change. There has been an increase in weather-related disasters over the past four decades, and the trend continues to grow. Events like sea level rise, flooding, erosion, biodiversity loss, low rainfall, desertification and emerging diseases are some of the effects of climate change already manifest in Nigeria. The reoccurring plight of local communities includes but not limited to the following:

4.1. Desertification

In a desertification map, produced by the Food and Agriculture Organization (FAO), World Meteorological Organization (WMO) and U.N.E.S.C.O, about 15% of Nigeria land is being ravaged by desertification (Emodi, 2013). Almost one-fifth of the land area of Nigeria is fast becoming a desert. Sadly, 35 million people located in the eleven (11) frontline states of Northern Nigeria and in other parts of the country are currently threatened with food scarcity as a result of extreme weather conditions (Odiogor, 2010).

An estimated 350,000 ha of arable land used is for agriculture and other economic activities are lost annually to desert encroachment (Tercula, 2015). Population pressure results in overgrazing, overexploitation for fuel wood of marginal lands and aggravated drought due to global warming, has accelerated the rate of desertification.

The Sahara desert is ravaging beyond the arid zones of Nigeria giving rise to the recession of Lake Chad. Reports have shown that the Sahara Desert is moving southward at a rate of 0.6 km/year (Armstrong-Ogbonna and Onoh, 2015).

Medugu *et al.*, (2009), reported that the significant socio-economic impact of desert encroachment is the loss of farmlands, which is immediately followed by massive migration syndrome because of the loss of farms, thereby putting pressure on food production in the country. Desertification also contributes to loss of biological diversity, national disease burden, alters the geochemical composition of the soil, and contributes to water scarcity and reduced economic growth among other unfavourable impacts (Armstrong-Ogbonna and Onoh, 2015).

Desertification in Nigeria

4.2. Flooding

In 2010, the National Emergency Management Agency (NEMA) reported that over 250,000 Nigerians were displaced by flood disasters that ravaged many communities across the country (Ethan, 2015). Similarly, Nigeria was ranked highest alongside India amongst countries that had high rates of displacements, with over 2.1million people been displaced by devastating floods in the country since 2012 (Punch newspapers 2016).

Available records from the National Emergency Management Agency (NEMA) shows that 2012 floods in Nigeria affected 30 States in the country killed approximately 363 people and displaced over 2.3 million inhabitants (NEMA, 2013). It led to an economic loss amounting to N2.5 trillion. No fewer than 25 million Nigerians living in coastal communities of Niger, Benue, Sokoto, Katsina, Lagos, Ondo, Delta, Rivers, Akwa Ibom, Bayelsa and Cross River states were affected by the floods of 2012.

NEMA reported that floods in 2016 had more volume of water compared to 2012. A recent report of floods shows that less than a million people have so far been affected by floods in 2016, with less than a hundred (100) lives lost. Some specific cases of floods in Nigeria include; 14 June 2016 in Ebonyi State that left thousands displaced; 11 September 2015 floods which affected over 300,000 persons in Adamawa State after Dam Failure; Flood in Cross River destroyed no fewer than 4,070 houses and 13,147 farms between August and September 2016; In Niger State, farm lands in 24 communities as a result of flood that ravaged Mokwa Local Government Area of the state on September 19, 2016.

Other key flooding disasters in Nigeria include severe flooding in 3 separate incidents in Plateau, Kebbi, and Cross River states on 11 September 2013; Floods in Yobe, Nigeria, 21 August 2013 and Kano on 13 August 2013 which displaced about 500 people (Floodlist, 2016).

Flooding in Nigeria

4.3. Decline in Agricultural Productivity

Increased desertification, drought in the North, coupled with incessant flooding in the south has negatively impacted the agricultural sector, which is one of the most important economic sectors in Nigeria (Ekpoh, 2014). There have been reported cases of marked changes in variability in timing and amount of rainfall in several parts of Nigeria.

This implies that farmers experience loss in length of growing days as a result of rising temperatures, which also makes the storage of root crops and vegetables more difficult for those without access to the refrigerator (Ebele and Emodi, 2016).

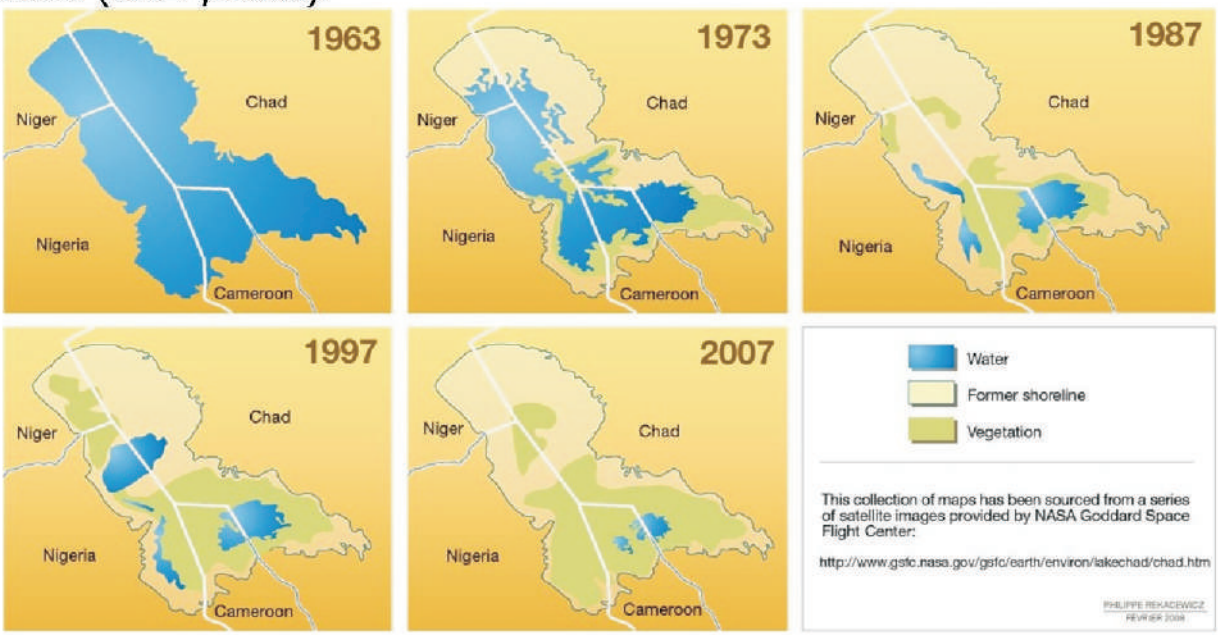
Water deficits have led to reduced crop and livestock production while farmers are now practicing shifting cultivation to suit the changes been observed in weather patterns (Usman and Dije, 2013). Another direct impact of climate change in agriculture in Nigeria is the reduction of arable lands as a result of sea incursion in coastal plains and desert encroachment in the North (Ebele and Emodi, 2016).

4.4. Effects on Water Resources

Climate change is having a multitude of immediate and long-term impacts on water resources in African countries including Nigeria. Reports have shown changes in hydrological seasons in Nigeria, longer dry spells, reduced rainfall, which will lead to reduced recharge capacity for lakes and rivers (Ekpoh, 2014). The current low levels of water in dams indicate the sensitivity of reservoirs storage to variations in runoff due to climate change and drought. Associated effects of climate change on water resources include:

- Irregular rainfall patterns: There is increasing variability in rainfall over Nigeria and particularly over the northern part of Nigeria due to climatic changes (NMetS). Studies have indicated a rapid shift in rainfall patterns in Nigeria, which could be attributed to changes in climate. More recently, Oguntunde *et al.,* (2011) reported that annual rainfall in Nigeria had been reduced to **50–350 mm** over 20% to 64% of the Nation's landscape. In another study, a comparison between monthly rainfalls received in two climatic periods in Nigeria shows rainfall reduction in all months except in August when there was a slight increase in the second climate period (Ogungbenro and Morakinyo, 2014).
  Disappearing lakes: A disturbing visible evidence of the impact of climate change in Nigeria can be found in the Lake Chad. The lake occupied 22,772 km^2 in June 1966, spanning the countries of Chad, Nigeria, Niger and Cameroon and bordering the Sahara desert (UNEP, 2008). The Chad basin is one of the most important agricultural heritage sites in the world, providing a lifeline to nearly 30 million people in surrounding countries (Salkida, 2012).

Sadly, current report show that the Lake Chad has contracted by a massive 95% between 1963 and 2001, with current data putting the surface area of the lake at 2500 km^2 (cblt.org). However, recent World Bank group reports a surface area of 1350 km^2. The main reason for the decrease in the size of the lake since the 1960s is attributed to human water use, and shifting climate patterns (UNEP, 2008).



Disappearing Lake Chad (UNEP, 2008)

- Energy (Power Production and Distribution): Reduced rainfall one of the footprints of climate change has led to a huge drop in the volume of water needed for efficient power generation. With four functioning hydroelectric power dams namely; Kainji Power Station, Jebba Power Station, Shiroro Power Station and Zamfara Power Station, Nigeria relies on adequate rainfall for sufficient power generation. Therefore a drop in rainfall volume greatly impacts power generation.

  In 2014, low rainfall in Kainji and Jebba areas resulted in low flows and reduced power generation by Kainji and Kabba dams (NiMet, 2014). In 2016, electricity supply was worsened in many parts of the nation as generation, dropped from over 5,000mw to 4,150.64mw, due to low rainfall, that resulted in a drop in water supply for hydro-power generation (http://www.nigeriaelectricityhub.com/, 2016).

4.5. Source of livelihood

According to the International Centre for Development Oriented Research in Agriculture (ICRA, 2012), a livelihood (making a living) is largely about generating income. A comprehensive definition by Carney (1998), shows that "A livelihood comprises the capabilities, assets (including both material and social resources) and activities required for a means of living. Nigeria is blessed

with a composition of individual with diverse livelihoods. In the rural communities, means of livelihood includes but is not limited to the following; crop production, fishing, livestock production, transportation, civil service, construction, fashion designing, Furniture / Carpentry, and lots more (Obi and Njoku, 2014).

Climate change impacts have a significant impact on livelihood especially in rural communities. The IPCC Working Group II 2001, reports that "Populations are highly variable in their endowments [of different capitals] and the developing countries, particularly the least developed countries have lesser capacity to adapt and are more vulnerable to climate change damages, just as they are more vulnerable to other stresses. This condition is most extreme among the poorest people".

Some means of Livelihood in Nigeria

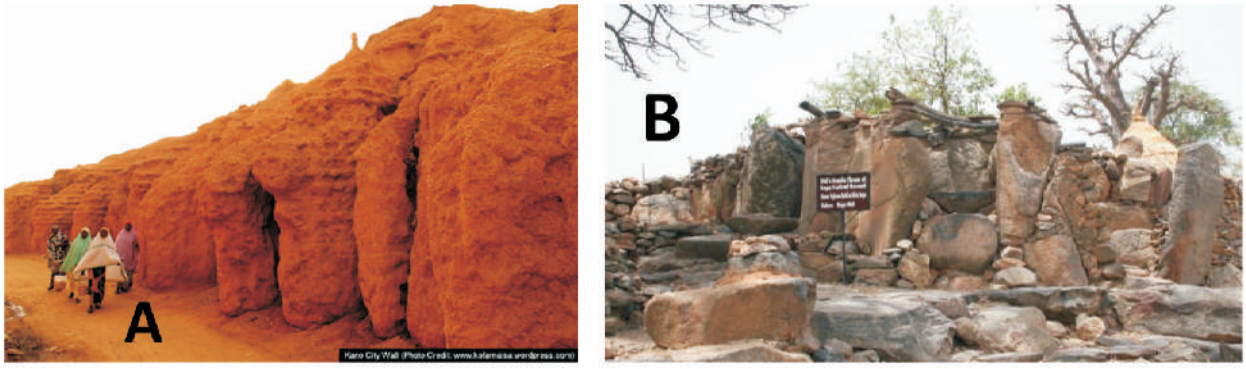
Climate change impacts have affected the livelihood of Nigerians in vulnerable regions. It threatens the capacity of community people to provide for their own livelihoods and also destroy or reduce the quality of the local natural resource base upon which current livelihoods depend. Some notable ways include the following:

- Rise in sea levels has led to flooding in several parts of the country and attendant displacement. Apart from displacements, there is huge reduction in natural resources (fisheries, mangroves and wetlands) that are essential to the current livelihood patterns of many poor communities. (IISD, 2003).
- Changes in temperature and rainfall patterns in Nigeria directly affect crop yields and have produced changes to ecosystem distributions and species ranges. This in turn affects the livelihoods of many people who depend on these resources (IISD, 2003).
- Changing climate patterns and extreme weather events have also impacted new livelihood like tourism. The impact is mostly felt in communities without social, political and financial power to attract protection after such events.

- Climate related health issues also strains means of livelihood in that, they pose a double jeopardy for poor people's livelihoods: the contribution of key productive members of the household is lost and the cost of health care is expensive and time consuming.
- Pests and crop diseases migrate in response to climate variations and potentially pose a threat to crop and livestock production.

4.6. Destruction of cultural heritage

Nigeria is blessed with ten (10) outstanding cultural, natural and significant heritage sites, which are listed among The UNESCO Heritage Sites (Leadership.ng). These sites exist nowhere else in the world and have become a great interest to visitors and Nigerians. Some of these sites include: Sukur Cultural Landscape, Adamawa State, Osun-Osogbo Sacred Grove, Osun State, Oban Hills, Cross River State, Ancient Kano City Walls, Kano State and Gashaka-Gumpti National Park, Taraba State etc. Sadly, most of these sites have come under the direct or indirect impact of climate change ranging from insecurity (insurgency), massive deforestation and other extreme weather conditions.



Some Notable sites of Cultural Heritage a) Kano City Walls b) Sukur Adamawa.

4.7. Climate Change related Health Issues

In 2015, the World Health Organization in its Climate and Health Country Profile reported that Climate change is threatening to worsen health problems in Nigeria. The problem of increased temperatures, intense heat waves, extreme rainfall, and floods intensifies existing challenges of communicable diseases, prevalence of cholera, meningitis, malaria, and pneumonia (Omoruyi and Onafalujo, 2012; WHO, 2015).

Changes in climate will naturally lead to changes in types of vectors, patterns infections and the manner which we originally know them. There would be an easy spread of insect-borne diseases such as malaria and dengue fever due to rising temperatures (Binitie, 2016).


Climate Related illness a) Cholera outbreak b) Meningities

The Nigerian Meteorological Agency (NIMET) has predicted a further increase in heat waves and high humidity (NIMET, 2016). Increased heat can cause heat stress, profuse sweating, and possible spinal meningitis/stroke, skin rashes, skin cancer, heat exhaustion and respiratory diseases. Recently, in 2016, over 20 children were killed by measles in Eti-Osa area of Lagos State. Measles is caused by serious heat and high humidity temperature in the atmosphere (NIMET, 2016).

4.8. Displacements and conflicts

Climate-related disasters have led to significant socio-environmental issues in Nigeria such as environmental refugees (Omoruyi and Onafalujo, 2012). Notable among these socio-environmental issues is displacement and conflicts. Nigeria is responsible for over 30% of all conflict-related internal displacement in Africa, with 737,000 people internally displaced (IDCM, 2016).

The increase in environmental degradation caused by irregular rainfall regimes, recurrent droughts, pollution, exacerbated by the combined effects of natural population growth has led to the displacement of millions of Nigerians from their homes and triggered violence in several hotspots within the country.

There has also been displacement of persons in northern Nigeria as a result of the impacts of climate change. The advent of drought, desertification, loss of arable lands, drying up of Lake Chad and a steady decline in food production has had a negative impact, directly or indirectly on over 70 million Nigerians in 11 frontline states (Odiogor, 2010). The massive drying up of Lake Chad to about 2500km^2 has resulted in the displacement of over 5 million people living in that region. These displaced persons migrate to urban areas/ towns, creating a huge competition for limited natural resources and overpopulation (Acted.org).

Internally Displaced persons in Nigeria

There is also the rise of insurgency in the north and militancy in the Nigeria Delta, because of the loss of livelihood and destruction of habitats. This has led to loss of employment opportunities for fishermen, farmers, and herders whose livelihood depended on natural resources (Acted.org).

Migrating headsmen in Nigeria

4.9. Land Grabbing and Food Insecurity

There is a connection between Climate Change and land grabbing. Sophia, (2013) reported that fears over Climate Change mostly influence the current wave of land grabbing. Primary drivers of land grabbing i.e. food security, energy, and private investments are connected to agriculture, which is also a major contributor to Climate Change.

Various agricultural practices have led to deforestation and release of greenhouse gases. Aside from these factors, there is an increasing amount of evidence that suggest that climate change is also caused by the industrial food system itself and the corporate quest for profits that drives its expansion, thus

creating an inextricable link between land grabbing and climate change (GRAIN 2016).

Globally, land grabbing has become a growing concern, with foreign interests seeking or securing between 37 million and 49 million acres of farmland between 2006 and the middle of 2009 (Buying Farmland Abroad, 2009).

Land grabbing is driven by several factors, some of which include:

- Fear of Food Insecurity: The fear of food insecurity occasioned by the 2007-08 global food crisis which led to an unprecedented hike in food prices is still one of the primary drivers of land grabbing (Cotula *et al.*, 2009).
- Energy and Manufacturing: A surging demand for agrofuels (biofuel and biodiesel), new sources of raw materials for manufacturing goods is also driving land purchases. The production of Biofuel has been central to the land grabbing phenomenon (Odoemene, 2015). To mitigate climate change, the use of greener fuel has been on the increase which will lead to the acquisition of cheap lands in developing countries notably pioneered by the Global West.
- Private Investments: After the 2008 financial crisis, food corporations, financial investors and other global institutions in a quest for more profit and in an attempt to switch from "hard" to the "soft" commodities market turned their attention to profits of investment opportunities presented by cheap and "available" farmlands in the developing world (Odoemene, 2015). This scenario has significantly fuel land grabbing in Nigeria.

Farmers protesting land grabs in Nigeria

Sadly, the people suffering the brunt of this are small-scale farmers, pastoralists, and Indigenous communities, who are displaced by multinational corporations and financial investors scrambling for arable lands and water resources (GRIAN, 2016).

5. STRATEGIES AND RESPONSE TO CLIMATE CHANGE

5.1 Conference of Parties

Conference of the Parties (COP) serves as a governing body for the United Nations Framework Convention on Climate Change (UNFCCC). It is the "supreme decision-making body of the Convention" and is currently composed of 197 countries, including Nigeria.

At the Rio Earth Summit in 1992, the UNFCCC was adopted, and it came into effect on March 21, 1994. This summit began the first international response to climate change. This Convention set out a framework for action aimed at stabilizing atmospheric concentrations of greenhouse gasses (GHGs) to avoid "dangerous anthropogenic interference with the climate system."(UNFCCC, 1992).

The primary objectives of the annual conference of parties is to review the Convention's implementation and any other legal instruments that the COP adopts and take decisions necessary to promote the efficient implementation of the Convention, including institutional and administrative arrangements (UNFCCC).

5.2. ROAD TO COP 21

1988- The first intergovernmental panel on climate change (IPCC) was set up with its focus more on the science of climate change. IPCC was established by the World Meteorological Organization (WMO) and the United Nations Environment Program (UNEP) to prepare, based on available scientific information, assessments on all aspects of climate change and its impacts, with a view of formulating realistic response strategies.

1990- IPCC released its first assessment report in 1990. The scientific evidence brought up by this report underlined the importance of climate change as a challenge requiring international cooperation. This led to the creation of the United Nations Framework Convention on Climate Change (UNFCCC).

1991- An Intergovernmental Negotiating Committee (INC) was convened to conduct these negotiations.

1992- The INC adopted UNFCCC recommendations. At the Earth Summit in Rio, the UNFCCC was opened for signature along with its sister Rio Conventions, United Nations Convention on Biological Diversity (UNCBD) and United Nations Convention to Combat Desertification (UNCCD). The Convention was adopted on 9 May 1992 and opened for signature at the UN Conference on Environment and Development in Rio de Janeiro, Brazil (UNFCCC).

1994- After receiving the necessary 50 ratifications the UNFCCC finally entered into force on 21 March 1994. The Convention had 186 member states (UNFCCC).

1995- The first Conference of the Parties (COP 1) took place in March/April in Berlin. This round of negotiations was aimed at strengthening the commitments of Annex I Parties. IPCC released its second assessment report, which provided relevant material drawn on by negotiators in the run-up to the adoption of the Kyoto Protocol in 1997 (UNFCCC).

1996- The UNFCCC Secretariat was set up to support actions under the Convention.

1997- Further negotiations resulted in the adoption of the Kyoto Protocol at COP 3 (Kyoto, December 1997). The Kyoto Protocol was a legally binding agreement adopted in 1995 by the COP. It specifically aimed at developed countries; it held them to be specific carbon emission reduction targets within specific time periods. The first commitment period lasted from 2008-2012. The second one began on Jan. 1, 2013, and was set to end in 2020 (Ulrich and Macpherson, 2016). The Kyoto Protocol, however, left many of its operational details unresolved and referred these to the COP and subsidiary bodies for further negotiation. The Kyoto Protocol was signed by 84 Parties, and has received some 39 ratifications (UNFCCC).

1998-Parties adopted the so-called "Buenos Aires Plan of Action," at COP 4 (Buenos Aires, November 1998), setting out a program of work to advance the implementation of the Convention and to flesh out the operational details of the Kyoto Protocol (UNFCCC).

2000- At COP 6 in Hague in 2000, a consensus was reached on the Bonn agreement. Work was also completed on a number of detailed decisions based on the Bonn Agreements, including capacity-building for developing countries and countries with economies in transition (UNFCCC).

2001- IPCC's releases its Third Assessment Report. At COP 7 in Marrakesh, parties agreed on a package deal, with key features including rules for ensuring compliance with commitments, consideration of Land use, land-use change and forestry (LULUCF) Principles in reporting of such data and limited banking of units generated by sinks under the Clean Development Mechanism (CDM) (the extent to which carbon dioxide absorbed by carbon sinks can be counted towards the Kyoto targets), alongside establishing a technology transfer framework (UNFCCC).

2005- Entry into force of the Kyoto Protocol. The first Meeting of the Parties to the Kyoto Protocol (MOP 1) took place in Montreal. In accordance with Kyoto Protocol requirements, Parties launched negotiations on the next phase of the

KP under the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol (AWG-KP).

2007- IPCC's Fourth Assessment Report released. Climate science entered into popular consciousness. At COP13, Parties agreed on the Bali Road Map, as a two-year process towards a strengthened international climate change agreement. It included the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol (AWG-KP) negotiations and their 2009 deadline, the launch of the Adaptation Fund, the scope and content of the review of the Kyoto Protocol, as well as decisions on technology transfer and on reducing emissions from deforestation.

2009- Copenhagen Accord was drafted at COP15 in Copenhagen which resulted in an agreement on the long-term goal of limiting the global average temperature to no more than 2^0C, subject to a review in 2015. A number of developing countries agreed to communicate their efforts to limit greenhouse gas emissions every two years (UNFCCC).

2010- Cancun Agreements was drafted at COP16. Parties agreed to: commit to a maximum temperature rise of 2 ; make fully operational by 2012 a technology mechanism to boost the development and spread of new climate-friendly technologies; establish a Green Climate Fund to provide financing for action in developing countries via thematic funding windows.

2011- The Durban Platform for Enhanced Action was drafted and accepted by the COP, at COP17. Parties decided to adopt a universal climate agreement by 2015, with work beginning under a new group called the Ad Hoc working Group on the Durban Platform for Enhanced Action (ADP). Parties also agreed to a second commitment period of the Kyoto Protocol from 1 January 2013. A significantly advanced framework for the reporting of emission reductions for both developed and developing countries was also agreed, taking into consideration the principle of common but differentiated responsibilities (UNFCCC).

2012- COP 18 also saw the launch of a second commitment period under the Kyoto Protocol, from 1 January 2013 to 31 December 2020, with the adoption of the Doha Amendment to the Kyoto Protocol (UNFCCC).

2015– COP 21: The Paris Agreement.

At the Conference of the Parties (COP) 21 in December 2015 in Paris, an international agreement was reached which is widely seen as a milestone in the global endeavour to respond to climate change. The Paris deal is the world's first comprehensive climate agreement (CBS News, 2015).

The agreement covers the main cornerstones of international climate action:

- Mitigation, i.e. the reduction of greenhouse gas emissions and the enhancement of sinks for greenhouse gases.
- Adaptation, i.e. the adjustment of natural and human systems in response to climate change.
- Averting, minimizing and addressing loss and damage associated with the effects of climate change.

In an attempt to encourage greater level of participation by parties, the ADP devised a radical new method, by asking all member Parties to create voluntary emission reduction targets that are not only achievable, but also reflect the basic policies and priorities of the UNFCCC. This strategy gave rise to the Intended Nationally Determined Contributions (UNFCCC).

Nigeria formally signing the COP 21 agreement

5.3. Critique of the COP 21 Paris Agreements

Despite getting 195 world leaders to sign up to a global warming target of between 1.5°C to 2°C and pledge actions to cut carbon emissions, critics say the deal is flawed and actions agreed are far too weak to get anywhere close to that target.

- The pledges countries have made to cut their carbon emissions are not sufficiently binding to ensure they are met, while the Paris Agreement will not force them to "rachet" them up as often as they need to (Bawden 2016)
- Of even greater concern, is the lack of dramatic immediate action that was agreed to tackle global warming. The Paris Agreement only comes into force in 2020 – by which point huge amounts of additional CO_2 will have been pumped into the atmosphere.

5.4. Loss and Damage in the Paris agreement

Loss and damage was arguably one of the most debated topics at the Paris climate talks, and it was only added to the agreement as proceedings came to a close. According to the UNFCCC, "loss and damage involves the development of approaches to address the effects of such events on the most vulnerable developing countries, who are recognized as bearing disproportionate costs from climate change, having both contributed the least to the problem and the least capacity to manage its negative impacts" (UNFCCC).

The issue of loss and damage wasn't on the agenda at UNFCCC negotiations until 2007, when the Bali Action Plan called for action on 'disaster risk reduction strategies and other means to address loss and damage in developing countries particularly vulnerable to the adverse effects of climate change (In Particular Small Island and developed countries).

These countries pushed strongly for the Paris Agreement to recognize loss and damage as a separate pillar of climate action – in addition to mitigation and adaptation – and create appropriate institutional and financial arrangement and provide consistent financing (UNFCCC).

The concept springs from the reality that there are some climate change impacts that cannot be adapted to. Loss and damage of this kind can arise from extreme weather events, extinction of species that result from ecosystem shifts, the loss of arable land to desertification, or the complete disappearance of low-lying island nations. Impacts like these are so severe that they leave in their wake permanent or significantly damaging effects.

The loss and damage article of the agreement calls on countries to cooperate to enhance understanding, action and support in areas such as early warning systems, disaster preparedness, risk assessment and management, and insurance. (Mogelgaard and McGray, 2015).

In the Paris agreement, the concept of loss and damage was integrated as an independent third pillar of the climate regime. It does so through dedicating a full article (Article 8) to loss and damage and integrating the Warsaw International Mechanism into the long-term cooperative structure of the climate regime, cementing its role beyond 2016 and linking it to the institutional architecture of the Paris Agreement (www.climatefocus.com).

6. Nigeria's Response to Climate Change

Nigeria has been actively engaged in international climate policy negotiations since it became a Party to the UN Framework Convention on Climate Change (FCCC) in 1994 ratifying its Kyoto Protocol in 2004. In 2003 and 2014, Nigeria

submitted its First National Communication (FNC) and a Second National Communication respectively.

It is important to note that Nigeria has hosted a number of Clean Development Mechanism projects as well as projects financed by the Adaptation Fund. In September 2012, the Federal Executive Council approved the Nigeria Climate Change Policy Response and Strategy.

To ensure an effective national response to the significant and multi-facetted impacts of climate change, Nigeria has adopted a comprehensive strategy, as well as a number of specific policies. The strategic goal of the Nigeria Climate Change Policy Response and Strategy is to foster low-carbon, high growth economic development and build a climate resilient society through the attainment of the following objectives:

- Implement mitigation measures that will promote low carbon as well as sustainable and high economic growth;
- Enhance national capacity to adapt to climate change;
- Raise climate change related science, technology and R&D to a new level that will enable the country to better participate in international scientific and technological cooperation on climate change;
- Significantly increase public awareness and involve private sector participation in addressing the challenges of climate change;
- Strengthen national institutions and mechanisms (policy, legislative and economic) to establish a suitable and functional framework for climate change governance.

6.1. Climate Change Adaptation

Nigeria's response to climate change has focused on increasing resilience and managing the unavoidable impacts. Adaptation to climate change requires development of strong adaptive capacities, including provision of tools, technologies and/or information, raising awareness of adaptation options, educating society, professionals on climate change through education, research and community engagements.

The National Adaptation Strategy and Plan of Action for Climate Change Nigeria (NASPA-CCN) describe adaptation priorities, bringing together existing initiatives and priorities for future action. The goal is to take action to adapt to climate change by reducing vulnerability to climate change impacts and increasing the resilience and sustainable wellbeing of all Nigerians; and to reduce or minimize risks by improving adaptive capacity, leveraging new opportunities, and facilitating collaboration inside Nigeria and with the global community.

7. Climate Change Mitigation Strategies

Climate change mitigation is any action taken to permanently eliminate or reduce the long-term risk and hazards of climate change to human life and property (Diara and Christian 2013). In Nigeria, Mitigation and adaptation are both necessary to alleviate the impacts of a changing global climate on our indigenous communities and national economy (Ijeoma, 2012).

- At the core of most mitigation programmes is the reduction of greenhouse emission through improved energy efficiency performance, environmentally sustainable lifestyles and reduction of greenhouse gases emission (Olaniyan, 2016).
- Reducing the rate of deforestation and increasing forestation and afforestation efforts across the country especially at areas worst hit by desertification and sea encroachment. An example is the Great Green Wall of the Sahara and the Sahel Initiative which runs across eleven frontline States of Adamawa, Bauchi, Gombe, Kebbi, Sokoto, Zamfara, Katsina, Kano, Jigawa, Yobe and Borno. It will cover 43 LGAs in the frontline states to be covered to rehabilitate 225,000 Ha of lands. Deforestation can also be reduced by encouraging integrated and mechanised farming while encouraging smarter cooking methods (Olaniyan, 2016).
- Improve climate forecasting capacity
- Modify agricultural practices to reduce emissions of greenhouse gases.
- Involve local actors and stakeholders in environmental management and bringing local and indigenous communities into climate change discus (Salami, 2010). There is the need to mainstream climate change and mitigation efforts into national, regional and state development plans. This would provide an important intersection between development and climate change adaptation and remediation.

8. Challenges of Climate Change Mitigation in Nigeria

8.1. Legal and Regulatory Framework

The lack of a legal and regulatory framework for mitigating and dealing with climate change issues is a big challenge in Nigeria (Idrisu, 2015). Although there is a bill creating the national climate change commission charged with the responsibility of coordinating the response to climate change, the commission is non-existent.

The bill signifies Nigeria's commitment to the implementation of the rules, institutions and procedures governing the national and international regimes on climate change as outlined in the UNFCCC, Kyoto Protocol and Marrakesh Accords (http://www.yusufali.net). Ogbo *et al.,* 2013, reported the

underdeveloped nature of polices frameworks geared towards aligning human development and Climate change.
Despite the existence of several institutions at the national level, like NESERA, SCCU in the Federal Ministry of Environment, NIMET and the Climate Centre in Minna, the country's institutional capacity to respond effectively to climate change is weak. This is because there is no formal institutional structure at state and local government levels to address climate change.

8.2. Mono Product Economy

Nigeria's effort to mitigate climate change and become a low carbon society is significantly hampered by the fact that its economy is highly dependent on fossil fuel (Salami, 2010).

8.3 Infrastructure

The recent and continuous increase in Nigeria's population is expected to put pressure on existing infrastructure. There is a direct link between population growth and climate change. The combination of these factors has made communities vulnerable to frequently occurring effects (Idrisu, 2015).

8.4. Expertise and Knowledge base

Another major challenge in climate change mitigation in Nigeria is the dearth of technical expertise to execute mitigation or adaptation strategies (Idrisu, 2015). There are very few people with proven competencies in the Unit and agencies saddled with climate change adaption programme, while facilities available in these institutions remain inadequate (Ogbo *et al.,* 2013).

8.5. Awareness

There is still a great level of ignorance on issues surrounding climate change including its causes and mitigation strategies. Numerous Indigenous communities in Nigeria still view climate change as a strange concept. This scenario significantly hinders mitigation strategies (Ogbo *et al.,* 2013; Idrisu, 2015).

8.6. Poverty and Finance

The implementation of adaptation strategies for climate change is usually capital intensive, out of the reach of people in rural communities. Furthermore, there is a minimal investment of the Nigerian government in renewable programmes or processes that ensure environmental sustainably (Onu and Ikehi, 2015).

9 WAY FORWARD

The vulnerability index of Nigeria to climate change impacts is critical and urgent steps must be taken to reduce its vulnerability and build its resilient adaptive capacity. To deal with the adverse impact of climate change in the Nigeria some steps and strategies are recommended herewith. These measures are centred on mitigation and adaptation (Culled from Olaniyi *et al.,* 2014; Emodi and Ebele, 2016 and Ezemonye, 2016).

- Oil spills and gas flaring in the coastal regions should be checked to help enhance carbon sink.
- Research into alternative energy sources and energy democracy should be encouraged.
- Introduction of a regulated urban mass transit would definitely reduce the intensity of traffic on the roads; hence reduce the emissions from vehicles that would have been on the road.
- Concerted efforts towards biodiversity conservation should be amplified by strengthening protected areas system (aquatic and terrestrial).
- Aquatic and Terrestrial ecosystems that act as carbon sink reservoir to greenhouse gases should be protected and sustained by reducing bushing burning and encourage afforestation
- Improved agricultural systems should be strengthened with the use of climate forecasting to reduce production risk.
- Climate change predictions and vulnerability assessments should be incorporated into national and local Protected Area and land use management policies
- Research on crops that are resistant to drought and heat should be increased.
- Continuous training of public health professionals for increased health impacts and emerging diseases.
- The Federal Ministry of Environment should check erosion problem by the construction of dikes and storm surge barriers against projected sea level rise.
- Developing and building actions plans for urban and rural area development for proper settlement so as to reduce the vulnerability to Climate Change in the environment.
- Commissioning an extensive study for an up- to- date Greenhouse gas (GHG) inventory, projection and mitigation strategies.

- International cooperation to support the implementation of adaptation Actions should be vigorously pursued.
- Use of modelling tools for assessing climate change impacts to biodiversity, including regional climate models, vegetation models, and species bioclimatic envelope models.

10. CONCLUSION

In this lecture I have tried to emulate the scholarly ethos of Bassey Andah of blessed memory by presenting various positions, deduced from multifarious perspectives of climate change on the plight of the local communities and their endangered heritage. It is my humble submission that veritable and pivotal strategies advocated in the lecture must be engaged to protect the fragile Nigerian environment. Res judicata.

Thank You.

REFERENCES

Acted.org. In the Lake Chad basin, populations are trapped between climate change and insecurity. December 17, 2015. http://www.acted.org/en/lake-chad-basin-populations-are-trapped-between-climate-change-and-insecurity

Adakayi PE (2012). An assessment of the rainfall and temperature variations in parts of Northern Nigeria. PhD thesis. University of Jos.

Adejuwon, J.O. 2008. Vulnerability in Nigeria, a national level assessment. In N. Leary, C. Conde, J. Kulkarni, A. Nyong and J. Pulhin, eds., Climate Change and Vulnerability. Earthscan, London, UK.

African Technology Policy Studies Network, (ATPS) (2013): Vehicular Carbon Emissions Concentration Level in Minna, Nigeria the Environmental Cum Climate Change Implication [Okelola Olumayokun Francis, Okhimamhe Apollonia], ATPS WORKING PAPER No. 71

Agagu, O.K (2009). Threats to the Nigerian Environment: A call for positive action. A Lecture delivered at the 7th Chief S.L Edu Memorial Lecture, Nigerian Conservation Foundation (NCF), Lagos

Ajugwo, A. O. (2013). Negative Effects of Gas Flaring: The Nigerian Experience. Journal of Environment Pollution and Human Health, 1(1), 6-8.

Ann Ogbo, Ndubuisi Ebele Lauretta and Wilfred Ukpere 2013. Risk Management and Challenges of Climate Change in Nigeria. J Hum Ecol, 4 1(3): 22 1-235.

Armstrong-Ogbonna Augustina and Innocent Onoh (2015). Encroaching desert fuels conflict in northern Nigeria. https://climate.earthjournalism.net/2015/12/11/encroaching-desert-fuels-conflict-in-northern-nigeria/

Bawden Tom (2016). COP21: Paris deal far too weak to prevent devastating climate change, academics warn. Environment Editor. Friday 8 January 2016. http://www.independent.co.uk/environment/climate-change/cop21-paris-deal-far-too-weak-to-prevent-devastating-climate-change-academics-warn-a6803096.html

Binitie Alero (2016), Nigeria: Climate Change Fuels Spread of Diseases in Nigeria. The Guardian Newspapers. 25 February 2016. http://allafrica.com/stories/201602250369.html.

Butler. Rhett, A. (2012). Concequences of Deforestation. www.rainforest.mongaby.com.

Buying farmland abroad: outsourcing's third wave (May 23, 2009) The Economist.

Carney, D. (1998). Sustainable rural livelihoods: what contribution can we make? Conference proceedings of the International Development's National Resources advisers' conference, July 1998pp428

cblt.org. The Lake Chad Basin Commission. http://cblt.org/en.

Coe M.T. and Foley J.A. (2001). Human and natural impacts on the water resources of the Lake Chad basin. *Journal of Geophysical Research (Atmospheres*) 106: 3349-3356.

Cotula L, Vermeulen S, Leonard R, Keeley J. Land grab or development opportunity? Agricultural investment and international land deals in Africa. Rome/London, UN (FAO) / (IFAD) /(IIED) 2009. http://www.iied.org/pubs/display.php?o=12561IIED.

Daily Trust (2015). Nigeria: 185 Flights Delayed, 130 Others Cancelled Over Bad Weather. http://allafrica.com/stories/201501080757.html.

Diara C.D. Benjamin and Christian Nche George (2013). Theology of Climate Change Mitigation and Adaptation: The Place of the Church. Academic Journal of Interdisciplinary Studies. Vol 2, No 13.

Ebele Nebedum Ekene and Emodi Nnaemeka Vincent (2016). Climate Change and Its Impact in Nigerian Economy. J*ournal of Scientific Research & Reports 10(6): 1-13, 2016;*

Ekpoh Imeh Jackson (2014). Slow Response to Climate Change in Nigeria: the Need for Urgent and comprehensive action. *Studies in social sciences and humanities* Vol 1(1): 19-29.

Emodi EE (2013). Drought and Dsertification as they affect Nigerian. Environment. Journal of environmental management and safety. 4(1): 45-54

Ethan Saul (2015). Impact of climate change on agriculture and food security in Nigeria: challenges and adaptation. Global Advanced Research Journal of Medicinal Plant (GARJMP) Vol. 3(1) pp. 001-009, February 2015.

Ezemonye L.I.N. (1992). Heavy metals concentration of water, sediment and fish fauna of Warri River and its tributaries. Ph.D. Thesis. University of Benin. Benin City.

Ezemonye, L.I.N. (2013). Effects of Human Activities on Climate Change". Being a paper presented at the AEBSA Week, University of Benin, Benin City.

Ezemonye L.I.N. (2016). Protection of biological diversity of the ecosystems, habitat and biomes from global warming being a paper presented at a three day conference with the theme, National Conference on Energy and Environment held at the National Centre for Energy and Environment, Energy Commission of Nigeria, University of Benin. 30 November to 2nd December, 2016.

FAO (1996). Our Land Our Future. Rome and Nairobi, Food and Agriculture Organization and United Nations Environment Programme.

FAO, 2015. Global Forest Resources Assessment 2015. FAO Forestry Paper No. 1//.UN Food and Agriculture Organization, Rome.

Federal Republic of Nigeria (FRN) (2007). Official Gazette on the breakdown of the National and State Provisional Totals 2006 census, S.I No. 23 of 2007, 94 (24), Lagos.

Floodlist 2016. Nigeria Floods and Flooding. http://floodlist.com/tag/nigeria.

Greenpeace (2008). "Cool Farming: Climate Impacts of Agriculture and Mitigation Potential." http://www.greenpeace.org/international/press/reports/cool-farming-full-report (accessed 26th Dec 2016).

GRIAN, (2016). The global farmland grab in 2016: how big, how bad? https://www.grain.org/article/entries/5492-the-global-farmland-grab-in-2016-how-big-how-bad.

Guardian newspaper, (2015). Nigeria burns off $5 billion resources yearly from gas flaring. By Roseline Okere 06 November 2015. http://guardian.ng/features/weekend/nigeria-burns-off-5-billion-resources-yearly-from-gas-flaring.

http://www.climatefocus.com/ Loss and Damage In the Paris Agreement Climate Focus Client Brief on the Paris Agreement IV. www.climatefocus.com.

http://www.nigeriaelectricityhub.com/

Ibimilua, A.F. (2013). Biodiversity-Ecosystem Management and Sustainable Development in Ekiti State, Nigeria. British Journal of Humanities and Social Sciences. 9(1): 35-44.

IISD. (2003). Livelihoods and Climate Change, Paper No. 12, Unigraphics, Winnipeg.

Ijeoma, Stanley (2012). Nigeria and Climate Change Adaptation. International Society of Sustainability. Professionals Insight, 1-6.

Imoke, Eni, D., Upla,J. Ibu, Oko, C. Omonya, Obiefuna, J.N and Njar, G.N. (2010). Effects of land degradation on soil productivity in Calabar south local government area, Nigeria. European Journal of Social Sciences (18) 166-170.

Intergovernmental Panel on Climate Change (2007). From Climate Change 2007: Chapter 8 "Agriculture.": www.ipcc.ch/pdf/assessment-report/ar4/wg3/ar4-wg3-chapter8.pdf (accessed December 11, 2016).

Intergovernmental Panel on Climate Change (IPCC) (2001). Impact, Adaptation and Vulnerability. Contribution of Working Group II of the Intergovernmental Panel on Climate Change (Third Assessment Report). London: Cambridge University Press.

Intergovernmental Panel on Climate Change (IPCC) (2007). Impact, Adaptation and Vulnerability. Contribution of Working Group I of the Intergovernmental Panel on Climate Change (Third Assessment Report). London: Cambridge University Press

International Trade Center (ITC) (2007). Organic Farming and Climate Change.www.intracenorg/Organics/documents/Organic_Farming_and_Ciim ate_Change.pdf.

Joiner Emily, Derell Kennedo, and Jesse Sampson (2012). Climate Change and African Political Stability (CCAPS). A student working paper no. 4 for the Robert S. Strauss Center for International Security and Law.

Kalejaye Kunle (2015). Nigeria records 9,343 oil spill incidents in 10 years. Sweet Crude Reports.

Keenan, R., Reams, G., Freitas, J., Lindquist, E., Achard, F., Grainger, A., (2015). Dynamics of global forest area: results from the 2015 Global Forest Resources Assessment. Forest Ecology and Management. 352, 9–20.

Leadership.ng. Nigeria's Top 10 Heritage Sites by Chika Okeke. May 27, 2016. Assessed on 30th December 2016.

Madu A. Ignatius (2016). Rurality and climate change vulnerability in Nigeria: Assessment towards evidence based even rural development policy. Being a paper presented at the 2016 Berlin Conference on Global Environmental Change Held from 23-24 May 2016 at Freie Universität Berlin.

Medugu NI (2009). Nigeria and the advancing Desert. Environmental Synergy World Press.com

Mishra Shraddha and Siddiqui Nehal Anwar (2014). A Review On Environmental and Health Impacts Of Cement Manufacturing Emissions.

Mishra, S., Siddiqui, N.A (2014). Review on Environmental and Health Impacts of Cement Manufacturing Emissions. nternational Journal of Geology, Agriculture and Environmental Sciences 2 (3): 26-31

Mogelgaard Kathleen and McGray Heather (2015). When Adaptation Is Not Enough: Paris Agreement Recognizes "Loss and Damage". December 24, 2015. http://www.wri.org/blog/2015/12/when-adaptation-not-enough-paris-agreement-recognizes.

National Bureau of Statistics (2015). Nigerian Gross Domestic Product Report, Quarter One. http://www.nigerianstat.gov.ng/pdfuploads/GDP_Q1_2015_old.pdf

Ndoke, P. N. Akpan, U.G., and Kato, M. E. (2006), Contributions of Vehicular Traffic to Carbon Dioxide Emissions in Kaduna and Abuja, Northern Nigeria. Leonardo Electronic Journal of Practices and Technologies (online). http://lejpt.academicdirect.org/A09/081_090.htm (Accessed on August 15, 2012)

Nigerian Meteorological Agency (NIMET). (2014). Seasonal Rainfall Prediction for 2014. http://www.nimet.gov.ng/publication/seasonal-rainfall-prediction-2014.

Nigerian Meteorological Agency (NIMET). (2016). Seasonal Rainfall Prediction for 2016. http://www.nimet.gov.ng/publication/seasonal-rainfall-prediction-2016.

Nwafor JC (2006). Environmental Impact Assessment for sustainable Development. Enugu. EDPCA Publishers

Nwilo, P. C., & Badejo, O. T. (2006). Impacts and management of oil spill pollution along the Nigerian coastal areas. Administering Marine Spaces: International Issues, 119.

Obi Ifeanyi C.C and Njoku Matthews, E.C (2014). Socio-Economic Factors Affecting Choice Of Livelihood Activities Among Rural Dwellers In Southeast Nigeria. IOSR Journal of Agriculture and Veterinary Science (IOSR-JAVS). Vol 7(4) 52-56

Odiogor H (2010). Special Report on Desertification in Nigeria: The Sun heats our land. The Vanguard May 3rd (Assessed 30th December 2016).

Odjugo, P. A. O. (2011) "Climate Change and Global Warming: The Nigerian Perspective" Journal of Sustainable Development and Environmental Protection. Vol. 1(16): 6-17

Odoemene Akachi (2015). Climate change, Food (In)security and the Land Grab Syndrome in Africa. Brown University, Providence, (USA).

Ogungbenro, S. B., & Morakinyo, T. E. (2014). Rainfall distribution and change detection across climatic zones in Nigeria. Weather and Climate Extremes, 5–6, 1–6. http://dx.doi.org/10.1016/j.wace.2014.10.002

Oguntunde P.G., Abiodun B.J., Lischeid G. (2011). Rainfall Trends in Nigeria.

Ojekunle Z.O., Oyebamji F.F., Olatunde K.A., Amujo B.T., Ojekunle V.O . & Sangowusi O.R (2014). Global Climatic Change in Nigeria: A Reality or Mirage. *Global Journal of Human Social Science* Vol 14: 6 1.0.

Okhimamhe, A. A.and Okelola, O.F 2013. Assessment Of Carbon Dioxide Emission At Road Junctions In The Southeast Of Niger State, Nigeria. Alam Cipta Vol 6 (2): 59-71.

Okoli Josephine Nwanneka and Amaechi Comfort Ifeakor (2014). An Overview of Climate Change and Food Security: Adaptation Strategies and Mitigation Measures in Nigeria. Journal of Education and Practice. Vol.5, No.32, 2014.

Olagunju, T.E (2015). Drought, desertification and the Nigerian environment: A review. Journal of Ecology and the Natural Environment. 7(7): 196-209,DOI: 10.5897/JENE2015.0523.

Olaniyi O.A., Funmilayo O.A., Olutimehin I.O., (2014). Review of Climate Change and Its Effect on Nigeria Ecosystem. International Journal of Environment and Pollution Research. Vol.2,No.3, pp.70-81, December 2014

Olufemi Fatile Jacob and Adejobi O. Samson (2012). Climate Change, Environment and Conflicts in Nigeria. British Journal of Arts and Social Sciences. ISSN: 2046-9578, Vol.6 No.1 (2012).

Omoruyi Eke Patrick and Onafalujo Akinwumi Kunle (2012). Effects of Climate Change on Health Risks in Nigeria. *Asian Journal of Business and Management Sciences.* Vol. (1)1 [204-215].

Osagie C. 2011, Boosting Nigeria's cement manufacturing. This day newspaper of 1st February 2011 p 40.

Osagie C. 2011, Boosting Nigeria's cement manufacturing. Thisday newspaper of 1st February 2011 p 40.

Priyanka A. Jadhav and Dilip K. Kulkarni (2013). Effect of replacement of natural sand by manufactured sand on properties of cement mortar. *International Journal of Computational Science and Engineering*. IJCSE, vol.3, no.3

Punch Newspapers (2016) Floods displaced over 2.1million Nigerians, by Olalekan Adetayo. November 15, 2016

Rai Priyanka, Mishra RM and Parihar Sarita, Quantifying the Cement Air Pollution related Human Health diseases in Maihar city, MP, India, 2013

Ramachandran S, P.L. da Silva Dias, S.C. Wofsy and X. Zhang. Couplings Between Changes in the Climate System and Biogeochemistry. In: *Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, 2007

Ranger, N. and Garbett-Shiels, S.-L. (2012) Accounting for a Changing and Uncertain Climate in Planning and Policymaking Today: lessons for least developed countries. Climate and Development.

Ripple, W. J., Smith, P., Haberl, H., Montzka, S. A., McAlpine, C., & Boucher, D. H. (2014). Ruminants, climate change and climate policy. Nature Climate Change, 4, 2-5.

Salami Abayomi (2010). Climate Change Mitigation and Adaptation Options: The Nigeria Experience.

Salkida Ahmad (2012). Africa's vanishing Lake Chad; Action needed to counter an "ecological catastrophe. April 2012. http://www.un.org/africarenewal/magazine/april-2012/africa%E2%80%99s-vanishing-lake-chad

Sophia Murphy (2013). Land Grabs and Fragile Food Systems: The Role of Globalization. The Institute for Agriculture and Trade Policy. Published February 2013. http://www.iatp.org/files/2013_02_14_LandGrabsFoodSystem_SM_0.pdf.

Tercula I (2015). Desertification: Water Scarcity hits Sokoto Farmers. Sunday, 09 February. www.sundaytrust

The Internal Displacement Monitoring Centre (IDMC) (2016). Africa report on internal displacement. The Internal Displacement Monitoring Centre (IDMC). http://www.internal-displacement.org/assets/publications/2016/2016-Africa-Report/20161209-IDMC-Africa-report-web-en.pdf.

Ulrich Emily and Macpherson Martina (2016). The Climate Change Challenge – From COP 21 to COP 22. https://www.spglobal.com/our-insights/The-Climate-Change-Challenge--From-COP-21-to-COP-22.html.

United Nations (2002). World Population Prospects: The 2001 Revision. Data Tables and Highlights. United Nations. Department of Economic and Social Affairs. Population Division. New York.

United Nations DATA (2016). Country Profile: Nigeria. United Nations Statistics Division. http://data.un.org/CountryProfile.aspx?crName=NIGERIA

United Nations Environment Programme (UNEP) (2008). Lake Chad: almost gone. http://www.unep.org/dewa/vitalwater/article116.html

United Nations Framework Convention on Climate Change (UNFCCC). A Brief Overview of Decisions. http://unfccc.int/documentation/decisions/items/2964.php.

United States Geological Survey (USGS) How does land-use change affect climate change? URL: www2.usgs.gov/faq/node/5601 Accessed 27th December 2016.

Usman Y. Dutse and Dje B. Ibrahim (2013). Potential Challenges of Climate Change to Nigerian Economy. IOSR Journal of Environmental Sciences, Toxicology and Food Technology . Vol 6 (1) 7-12.

Warrick,R.(2000): Strategies for Vulnerability and Adaptation Assessment in the Context of National Communications paper presented at the 2nd AOSIS Workshop on Climate Change Negotiations 31 July to 3 August 2000 Apia, Samoa

Wilson J. and Law S. (2007). Global Warming. Magpie Books London. p18.

World Facts Book (2016), US Bureau of Statistics quoted by Wikipedia, AMPS 2016).http://mediaperspectives.ng/nmag/analyze/?sector=nigeria&data_title=Urbanization+%7C+Nigeria+Urban+Population+Trend

World Health Organization (WHO), (2015). WHO warns climate change to threaten human health in Nigeria. WHO Regional Office for Africa. http://www.afro.who.int/en/nigeria/pressmaterials/item/8168whowarnsclimatechangetothreatenhumanhealthinnigeria.html.

GREAT POWER RIVALRY IN GLOBAL POLITICS AND THE FUTURE OF WORLD ORDER

Tunde Adeniran

Guest Lecture delivered at the annual Diplomatic Dialogue of the Department of International Relations and Diplomacy, Afe Babalola University, Ado-Ekiti (ABUAD), Nigeria. Tuesday 11 April, 2023 at the Owolabi Hall of ABUAD. 1

GREAT POWER RIVALRY IN GLOB AL POLITICS AND THE FUTURE OF WORLD ORDER

by

Tunde Adeniran

For those in the gathering here who are familiar with my official relationship with the Afe Babalola University, Ado-Ekiti (ABUAD), let me make it clear that I have not come to address you in that capacity. By a letter dated January 13, 2023 Dr AjindeOluwashakin, as the Acting Head, invited me to be the Distinguished Guest Speaker at this year's Diplomatic Dialogue of the Department of International Relations and Diplomacy. Knowing my forte and to compel me to find space for the lecture in my very crowded schedule for the year, he stressed the essence of the lecture:

It is an annual event aimed at bringing seasoned diplomats and scholars of International Relations (serving or retired) across the global diplomatic community to address, educate and share experiences with our students and the entire university community on topical issues relating to contemporary international relations.

Your Excellency, the Cold War period (1945 -1991) was a unique era in the development of international relations. The end of it has been a growing rivalry between the Great Powers, in particular the P-5 (Britain, China, France, Russia, United States) for dominance on the global stage. This rivalry has been exacerbated by the Russian invasion of Ukraine on February 24, 2022. The growing relationship between Russia and China, as champions of autocracy, is posing a grave challenge to Western Europe and United States as the custodians of democracy. As Russia successfully invaded Ukraine, so also it seems China is likely to do so to Taiwan, which it marked as a "redline" between China and the United States. Given this rivalry and competition between autocratic and democratic powers, what kind of world order does the future hold, social, political and economic? Given your position as a seasoned scholar and diplomat with impressive track records, we humbly request that your Excellency speak to us on the Theme**: "Great Powers Rivalry in Global Politics and the Future of World Ord er.**

We are, presumably, expected to achieve two goals here. A speech or talk or lecture is to be delivered and we are to have dialogue. We, of course, all know what a lecture is; an *exercise which, from its latin roots of lectura (from legere),* gets lecturers (especially from tertiary institutions) to be excited to disgorge what they have read, discovered or thought of. Dialogue, on the other hand, is a discussion or conversation between people who desire to explore a subject or resolve an issue. In view of this, we are going to have an interactive session against the backdrop of the lecture.

World Order

The theme of our lecture and dialogue revolves around "World order". This requires thorough explication. It has attracted so much attention in International Relations that many scholars have devoted considerable attention to it[1].
Toward the end of February 2023, to mark one year anniversary of the Russian invasion of Ukraine, various perspectives were collated from twenty experts as "Global Memo" from Council of Councils (mostly foreign policy Think Tanks). Titled "The Invasion that shook the World",[2] the perspectives include:
- The war as the greatest threat to world peace since the Cold War and emergence of Cold War-type rivalries;
- a wake-up call as it represents a threat to the prevailing world order;
- a reshaping of national foreign policies;
- increased global militarization and great power polarization;
- renewed confrontation in the relations among great powers;
- a rebalancing of the world order and a transformed global governance architecture; and
- at the end of the Russia-Ukraine war and its wreckage, there will emerge a new world order determined by factors beyond Russia- United States/West relations yet underpinned by nuclear deterrence.

*In our **Introduction to International Relations**, a "world order" was put succinctly thus: In international relations, "World Order" means some discernible regular pattern of relationships among various actors within the world system. Such an order must be fairly stable over a period of time and must aim at specific and achievable goals. The component units of a world order are the systemic hierarchies, institutions and individual human beings fitted into the hierarchies. The nature or degree of order in the world's system is determined by the extent to which harmony prevails within the system as the various actors interact in their efforts to achieve the systemic goals that comprise basic needs, security, human rights, social justice, etc for the benefit of humanity.*
Over the Years, it has come to be appreciated by scholars and practitioners in international politics and diplomacy that there is, or ought to be, some "order" in world affairs or global politics. In other words, human beings are governed by institutions that are structured for operational effectiveness. When new challenges come, the structures are restructured or reordered to meet those challenges so as to maximize or optimize the goals of the community. In the process, some arrangements or "order" become old while a new one emerges to last for some length of time depending upon circumstances and the dynamics of power which will also be discussed in the course of this lecture. Meanwhile, let us have a short digression to illustrate how the global perspectives of two brilliant international relations and diplomacy gurus were projected in their attempts to alter world orders or create new orders.
World Order was so fascinating that a prominent American Statesman during the last century wrote a book in 1969 which he titled "Present at the Creation". He said in the book something to the effect that if he had been present at the creation he would have offered some useful hints for the reordering of human and world Affairs. Dean Gooderham Acheson (1893-1971) was the man. He was the United States Secretary of State from 1949 to 1952, very critical years after the World War II during which he was an Assistant Secretary of State (1941 -1945). Under Dean Acheson"s direction as the US Secretary of State, the policy of the containment of communist expansion through foreign economic and military aid was developed. He also

played a vital role in the establishment of the *North Atlantic Treaty Organization (NATO)* and the security pact with Australia and New Zealand.
Nigeria once had Akinwande Bolaji Akinyemi as Minister of External Affairs (1985-1987). It was under the regime of General Ibrahim Badamasi Babangida during which there was unlimited opportunity for initiatives and experimentation in governance. Bolaji Akinyemi"s became head of Nigeria's Ministry of Foreign Affairs with a rich background and deep knowledge of international affairs and diplomacy after some years as a university don and eight years (1975-1983) as the Director-General of the Nigerian Institute of International Affairs (NIIA), the country's foremost Think Tank (a centre of excelle nce) on foreign affairs. In less than three years of being in charge of Nigeria"s external relations, Bolaji Akinyemi's came up with two programs of international significance. With proper coordination and consolidation, they had potentials for influencing a new world order. The first was the Technical Aid Corps (TAC) scheme, a major diplomatic instrument for expressing and asserting Nigeria's status as a regional power able to assist other African states and some Caribbean states develop the human resources capabilities in areas where Nigeria had comparative expertise and numbers. It was modelled after the United States Peace Corps program and the United Kingdom's VSO, which expressed benevolence and friendship in the era of Cold War that will be discussed shortly. The second was the concept and agenda of the Concert of Medium Powers (CMP). This was Akinyemi's creative reaction to the decline of the Non-Aligned Movement (NAM) which emerged during the Cold War. The NAM was formed to promote issues and agenda of the less developed countries within the framework of the United Nations system and the world at large. It was led by Presidents Josip Broz Tito, of the former Yugoslavia, Gamal Abdel Nasser of Egypt and Prime Minister Jawaharlal Nehru of India. By the mid-1980s Akinyemi's saw a need to organize what he recognized as relatively powerful middle-level countries of the global South especially as a centre of power in a multipolar world. The Concert was a forerunner to today's Brazil, Russia, India, China & South Africa (BRICS) and the incipient Mexico, Indonesia, Nigeria & Turkey (MINT) whose main objective is to increase the voice of the global South in evolving a new world order. Both Acheson and Akinyemi sought to influence the prevailing world orders of their time with a view to creating new orders. Their strategic interrogation of the international milieu and packaging of some institutional structures for its modification was part of the means through which world orders could be created. One single issue could lead to the creation of a new world order. This, however, does not foreclose application of a theoretical inductivism through which many variables are considered. This is why so many orders have existed and could be grouped together as the old world order. At this point, permit, me to draw from some of my previous thoughts on the issue.

The old World Order could be analysed as covering the pre-colonial, post-colonial, post Cold War or the World Wars I & II and the assumed end of the Cold War or the fall of the Iron Curtain periods. Furthermore, the years falling under those eras could be demarcated in such a way that the colonial era and the pre-World War II are separated from the post World War II. Essentially, however, the old order prevailed duri ng the 20th century until the advent of globalization which ushered in the new order in the 21st century.
Following some significant developments, the immediate post World War I witnessed the establishment of the League of Nations which transformed into the United Nations

Organization (UN) at the end of World War II. The founders of the organization took cognisance of the issues and events that led to World War I (1914 -1918) and World War II (1939-1945) and ensured the UN was established to promote peace and security. Also, in order to forestall the reoccurrence of the experience that led to World War II, one of the organs, the Security Council, was established under the UN system and specifically charged with the responsibility of maintaining international peace and security. The Security Council has fifteen members, five permanent with veto power and ten non-permanent members without the veto power, selected for a two year term on regional basis.

Some scholars might, of course, argue that the new world order began at the end of the Second World War. It was against this backdrop that the system was put under pressure for reform and expansion, since the latter part of the 20th century. The need had been stressed for the expansion of the permanent membership of the Security Council to include Africa and South America hitherto unrepresented in the Security Council's veto wielding members. The economy is a vital factor in shaping world orders. Students of international relations would discover that there is a deterministic relationship between economic and political factors in a country's external relations. What was hidden in the past has become more apparent today, especially the dependence on an international currency issued by an advanced capitalist state as a vital factor in a country's level of development or dependency. Just as Nigerians found out earlier this year at the level of the individual, a state's financial dependency (through trade, aid, investment) is at the root of all other aspects of a country's dependence as it weakens the base of a country's participation in international political relations.

As a result of the economic devastation and destruction of diplomatic relations amongst states caused by World War II, the Bretton Woods institutions (i.e. the International Bank for Reconstruction and Development (IBRD) or World Bank and the International Monetary Fund (IMF) were established to aid reconstruction. Under this scheme, funds were provided under the Marshall Plan for the reconstruction and rehabilitation of Germany and other countries in Europe destroyed by the war.

As a result of the two-pronged economic policy arrangement, it did not take much time for Europe to bounce back to development and growth after the devastation.

It is important to note that one significant outcome of the second World War was the ideological division of the world into two blocs; that is the East (communist) and the West (capitalist democracies). The division had relevance to the two types of socio-political and economic systems in operation in either bloc, compounded by the attendant cold war type of relations between the two. After independence resulting largely from internal agitation and from the United Nations, some groups of third world and developing countries compromized their independence and aligned themselves to either of the two blocs. However, a third group later emerged as stated earlier in the name of the Non-Aligned Movement (NAM), led by Presidents Tito of the former Yugoslavia, Nasse r of Egypt and Prime Minister Nehru of India. As the vanguard for the promotion of issues and agenda of the developing countries within the framework of the UN system and the world as a whole, it was on the platform of NAM that the Third World countries pursued trade issues under the auspices of the United Nations Conference on Trade and Development (UNCTAD) and the moribund General Agreement on Trade and Tariff (GATT), now World Trade Organisation (WTO). This group of countries were also able to push for the new world economic order that would see the flows of capital and the transfer of technology from the Organisation for Economic Co-operation and

Development (OECD) countries to the developing countries, and the reform of the Bretton Woods institution to accommodate the interests of members of NAM.

With the end of the Cold War, manifested through the fall of the iron curtain and the demise of communism, the continued existence of NAM became more of a relic of past history. It became largely ineffective as most of its function were taken over by the all embracing Group of „77"*. 1. The Group of „77", under the Doha rounds of trade talks, represented by a sub-group of Brazil, India, Egypt and China, were pushing for a fair world trade and urging the OECD countries, particularly the United States and the European Union, to remove agricultural and trade distorting subsidies, which always had adverse effects on exports from the developing countries, especially Africa. Incidentally, the Doha round of trade negotiations stalled principally because the developed countries refused to drop subsidies. Instead, all that the developing countries could get was a call on them to adopt the Singapore options, which involve transparency in public procurement, fair competition as well as promotion and protection of investments. The snag is

**The largest intergovernmental organisation of developing countries in the United Nations.*

that these issues seem to be designed to throw open the market of the developing countries for OECD countries to dump their wares.

Essentially, the developing countries, especially those of Africa, Asia, and the Pacific have been victims of colonialism, the relic of the old order, as they have been pushed to the periphery of the centres of global decision-making. Their goals over the decades, as well as those of other players in world politics who stand for justice, have been to see the emergence of a new world order in which the achievement of the millennium development goal, the realization of the benefits embodied in globalization, and the emergence of the economies of Asia, South America and Africa, will be realized.

This brings us to the issue of a new world order. As pointed out earlier, the new world order is usually viewed from different perspectives, depending on what part of the world the person viewing the world originates from. To people in the powerful G8@2 countries, a new world order entails attainment of those benefits or advantages being enjoyed by the G8. And even within the G8 itself, the idea of a new world order varies from one country to another. For instance, in Russia, a new order is reflected by the relative freedom being enjoyed by its citizens since the change from communism. Such freedom is expressed

@ *Canada, France, Germany, Italy, Japan, Russia, the UK and the USA.*

in accessing the internet, watching the television and reading the newspaper to obtain whatever information they like, etc. The emergence of thousands of multimillionaires and the slow but unmistakable transition to a free- market economy are achievements which, a Russian would argue, were impossible during the old Cold War International order.

The age-long adversary of Russia, the United States, still comes squarely into Russia"s reckoning in the ordering of a new world. Both are still guided, quite often, by a cold war mentality that stimulates the national urge to watch each other through a power periscope, in attempt to balance their influence in key aspects of international relations. For example, their postures over Ukraine, which prefers to move closer to the West and be part of NATO, against the backdrop of Russia"s interests in Ukraine, pose a question as to what a new world order really is. The Russian invasion of Ukraine in 2022 and the war which resulted was prompted by the mutual perception of the nature of a new world order. Outside of politics, Russia"s view of a new world order is a world environment in which Russia is predominant in the energy

sector. The country believes in using its mass energy resources not only to its economic advantage, but also to attain political leverage. With Europe and China becoming increasingly dependent on Russian energy, the country is converting oil and gas into an effective tool of foreign policy. Some years ago when the state-controlled gas company – Gazprom – shut off supplies to Ukraine for several days, other countries realized the implications of Russia‟s energy muscle. The 2022-2023 Russian-Ukraine war has added new dimensions.
It was no longer the Organization of Petroleum Exporting Countries (OPEC) alone that could use energy as a political or economic weapon, Russia has begun to realize that the new world order seems to support such a policy. And this development has prompted a review of their energy policies by many industrialized countries as part of measures for coping with the realities of the new order
The United States and many of the Western democracies have been guided in their promotion of a new world order by a history of self- propagation. Some scholars consider the United States‟ idea of a new world order as starting with the creation of the League of Nations, which was the time when the concept was first used. It was at about the same time when the American Council on Foreign Relations was founded. Other scholars trace it from the post World War II, with the signing of the Bretton Woods Agreement in 1944 and the founding of the United Nations in 1945.
When on 11 September, 1990 President George HW Bush, the American President, addressed a joint session of the United States Congress on “Toward a New World Order”, he meant that the fall of the Berlin Wall, the break-up of the Soviet Union and other such concrete manifestations of the failure of communism were signals of the beginning of a new world order. With the Gulf War and the activation of the WTO in 1995, followed by the consolidation of the G8 countries as the world‟s economic power brokers, the new world order began to be seen as a mixture of political and economic adventurism that would continue to reflect the preferences of powerful states in international relations. To other scholars still, it is actually a new form of imperialism, the extension of rule or influence by one government, nation or society over another. While imperialism started from the time of the empire builders of Assyria, Persia and Rome, it was its rebirth in the West with the emergence of the modern nation-state which led to the evolution of great powers and rivalries among them.

Great Powers
Which of the countries or states of the world qualify to be called “great powers”? Or maybe we should start by establishing the basis for being a state in the first place and then examine what elements or factors make a State a “power” and a great one at that.
There are profound differences among the states of the world due to historical evolution and other factors. As territorial states, the differences includes their powers and their goals but there are certain attributes common to all of them. According to Article 1 of the International Convention on the Rights and Duties of States, adopted at the Inter-American Conference in Montevideo in 1933, a state is recognized as an entity in international law if it possesses a permanent population, a defined territory, a government and a capacity to enter relations with other states. In other words, when we talk about states, we should focus on such characteristics as (a) boundaries, (b) government, (c) sovereign equality, (d) external recognition, and (e) internal cohesion.

What does it then mean when a state is referred to as a power? A thorough understanding of power is vital in international relations and diplomacy. Just as it is in domestic politics, its misperception is a basic cause of international woe. Accurate perception or understanding of power is cardinal to the appreciation of political dynamics – especially it‟s predictability, stability and the avoidance of destructive conflict. In the various text books you would have come across different definitions of power. Its use is elastic because it is largely what domestic politics and international relations are all about. There is always the need to influence, control or dominate others. And, as students of International Relations and Diplomacy, you will be confronted with distinguishing between influence and power. You need to always bear in mind that influence does not go beyond the capacity to move others through promises and grants of benefits while power entails the ability to move others by the implicit or explicit threat of infliction of serious deprivations. In practical terms, It boils down to the pursuit and exercise of some control over others. Powerlessness, the antonym of power, shows a state of being unable to influence or more others to do one‟s will or produce some intended effects. One of the frequently quoted authors you will find in the literature and who I wish to interpret here is Hans J. Morgenthau whose idea of power could be summed up as control over the minds and actions of men, to provoke such desired actions as restraint, submission, enthusiasm and cooperation.

In the exercise of power at the individual level, one gets what one wants by such means as reasoned argument, eloquence, threat, trade, by arousing pity or by coercion. At the state level, various scholars write about states using tangible and intangible resources to affect the behaviour of other states, meaning that the resources are instruments of power. But who employs or deploys these resources of state? Obviously, the government. To do this it must first of all have control over the territory. It also does not mean the executive arm of government alone but the legislature and the judiciary as well. They, together, constitute what Max Weber identified as the agency of government which successfully claims monopoly of legitimate use of coercive force within a given territory. In international relations, however, it is the executive branch of government and the diplomatic division or sector of the civil (i.e. administrative) service that are the decisive actors. With the physical and non-physical resources of the state, including the use of technology, it‟s national character, culture and reputation, they build a “great power” out of a mere state. We need to bear in mind that “greatness” in relation to states as “powers” is relative. Over the years however, especially since the emergence of the modern nation state, the states or countries that have been referred to as such at one time or another include Britain, China, France, Russia (The Soviet Union) and the United States of America (USA).

(i) Britain

As a result of history, internal developments and international records and achievements, Britain was so great that it acquired the title and was recognized as Great Britain. Its imperial adventures were so widespread, effective and astonishingly successful that it presided over an empire (covering America, Asia and Africa) in which the sun never set. The empire, of course, became a burden from which relief came through emancipation. Great Britain, a constitutional monarchy used to be known officially as the United Kingdom of Great Britain and Northern Ireland but more often referred to simply as Britain.

Britain's greatness has been derived from being one of the world's leading industrialised nations, despite the lack of most of the raw materials needed for industry, except coal. The country's imperial exploits of course brought into its coffers the needed raw materials such that during the reign of Queen Victoria (1837-1901) Britain became the acknowledged commercial and industrial leader of the world, wielding as well the greatest political influence. As small as the country was in terms of size and population, vast areas of the world map were painted in British colours as a result of its mastery of the world through naval technology and gun boat diplomacy. This was why, in addition to the experience of the American Revolution, it was able to deal with many challenges across the globe, including some avenging angels, and could enter into World War I and World War II differently while gunning for similar results.

Against the backdrop of Britain's greatness, King George V drew his sword at the start of World War I in 1914 in the name of the entire British empire. At The beginning of World War II in September 1939 George VI his son, took cognizance of the dominions, "the autonomous communities within The British Empire" (Australia, New Zealand, South Africa, Ireland) and the growing consciousness in the colonies before venturing into the war. The blood shed by the colonies turned out to be part of the prices they had to pay for their liberties. Britain, on the other hand, transformed its imperial greatness into an acknowledged bulwark of democracy, the host to the first Assembly of the United Nations in London as the Springboard from which lasting peace might come and, of course, leader of the (British) Commonwealth of nations.

(ii) China

China is the most fascinating among the great powers. The reasons for this are many. Two are important for purposes of our analysis here. Firstly, it is one great power that many scholars have been reluctant to acknowledge in spite of the apparent evidence of its relative greatness. Secondly, it is one great power whose present global standing is rooted in, and a reflection of, its socio-cultural and political past.

From the 2nd millennium BC a unique and fairly uniform culture has spread over almost all of China. It is a country as diverse as Nigeria but the substantial linguistic and ethnological diversity of the south and the far west result from their having been infrequently under the control of a central government. And it has a history of continuous development with certain repetitive tendencies. Dynasties are supplanted on the basis of excessive warfare, toleration of corruption or inability to keep the populace gainfully employed. In traditional Chinese view, failed leaders have forfeited the right to rule, they have "lost the mandate of heaven", prompting a revolt that leads to the change of administration. That achieved, a central authority is re-established, public works constructed, the taxation modified to ensure relative equality and land redistributed.

With the overthrow of the Ch"ing dynasty during the early part of the 20th century, a republic was established in China. This was followed by a period of dynamic internal consolidation and changes with decisive impacts on China's external relations of relative isolation. External threats, especially Japanese attack, invasion and occupation of the coastal areas and the Yangtze valley in 1940, prompted a review of China's p osition. It allied with Britain and the United States to dislodge the Japanese. The threat of Japanese domination and the abolition of extraterritoriality achieved, China faced a serious ideological conflict between the nationalists

led by Sun Yat-Sen and Chiang Kai -Shek and the revolutionary communists led by Chairman Mao TseTung. The latter triumphed and, from their headquarters in Peking, they proclaimed a central people"s government on October 1, 1949. The nationalists moved on to establish a separate authority in Taiwan but the communist government was recognised immediately by the Union of Soviet Socialist Republic (USSR) and shortly thereafter by Great Britain, India and many other nations. The United States, however, withheld recognition and maintained close ties with the regime in Taiwan. With the assistance of the USSR, large agricultural and industrial developments took place in China coupled with efficient national administration and discipline, it began a rather gradual external Projection of interest. Chinese communist troops took possession of Tibet in October 1950 and, that same month, intervened in the Korean War to meet a drive by United Nations forces toward the Manchurian border. Large scale Chinese participation in the war persisted until the armistice of July 1953 after which China emerged as a diplomatic power in Asia. Subsequently, it played a part in the Cold War and its status as a giant country and a great power has not diminished since its acquisition of nuclear capability and, more importantly, since Mao"s death in 1976 and the rise of Den Xiaoping and the global events of the 1990s to the present.

The global economic crises (especially 2008-2012 and 2014-2016) and the attendant shocks and, of course, the COVID 19 pandemic convinced the world that China is one of the world"s great powers. It was able to achieve this externally as a result of a very disciplined leadership with an enviable fiscal policy, propelled by a culture and structure which inspired the highest level of patriotism, domestic transformation with stable leadership renewals and standardized succession.

(iii) France

France"s great power status could largely be attributed to its imperial exploits, the capacity to be a champion in global Colonisation and to perspicacity to key into Europe"s march of western civilisation. With inherent attributes of a potential great state, it overcame the Romans conquest of the 1st century BC (known to the Romans then as Gaul), took part in building Gallo-Roman civilisation, went through the reigns of the Capetians, the Valois and the Bourbons, and ran five republics interspersed with two empires.

Before France;s First Empire (1804-1815) with powerful Napoleon Bonaparte as Emperor, there was the First Republic ushered in through a National Convention (1792-1795), and followed by a period of Consulate in which Napoleon Bonaparte served as the First Consul. From then on to the Second Republic and the Second Empire (a period of colonial expansion) under the Bonapartes, to the Third, Fourth and Fifth Republics marked by the ascendancy of Charles De Gaulle, France"s power as a state was tested multidimensionally at home and severally abroad.

The years before 1914 were marked by continued colonial expansion in Indochina and Africa (Madagascar, Morocco, Tunisia and some West African territories). By subsequently allying with England and Russia in the face of serious threats from the combined forces & Germany, Austria and Italy (Allied powers versus Axis powers), it saved its prestige and power. For, while it bore the brunt of the ground fighting in the West during World War I, it obtained

heavy German reparations and the right to occupy the left bank of the Rhine for fifteen years (the Paris Peace Conference/Treaty of Versailles). The defeat and occupation of France by German forces in the early part of World War II notwithstanding, Charles de Gaulle summoned a "free French" spirit to mobilize French people at home and in the colonial territories for resistance. The Allies in the war backed him up and, by the end of 1944, what turned out to be a costly and oppressive German occupation had ended and France liberated. From the end of World War II in 1945, and in spite of the intervening Fourth Republic, the influence of Charles de Gaulle loomed large as a builder of a powerful nation up until and even beyond April 1969 when he handed over the affairs of the Fifth Republic to Georges Pompidou. Wielding awesome and ambiguous powers during which most of France's colonial territories were granted formal independence, Charles de Gaulle ensured that France kept pace with domestic and external challenges. From one of Europe's rather unstable monarchies he built a presidential democracy from which Frances's unitary semi-presidential Republic has benefitted. And this was in spite of some perverse policies toward Europe as well as towards Britain and the United States.

Faced with the challenge of a new post World War II Europe in an Atlantic context, France was propelled by a complex of atavistic rebellion, populist passions, a socially self-conscious political awakening and national pride to make France great. The greatness has not been solely as a result of Charles de Gaulle's striking achievements or due to the country's impressive culture and the wines and sophisticated cuisine for which it is renowned but to a combination of factors. Possession of military hardware and capacity for war plus a relatively stable economy are no doubt factors of power and France, a France, a very strong member of the European Union and of the North Atlantic Treaty Organisation (NATO), has them. In addition, France has been among the leading nations in science, technology and innovation, the key instruments of invention that power and propel the world. Among many achievements in this regard, the French army was the first to use camouflage (in 1915 during World War I), the world"s first artificial heart transplant and face transplant both took place in France while the country has more Nobel Prize winners in literature than any other nation.

(iv) Russia

Russia as a great power has an exciting history which will only be briefly summarised here. But first, some clarifications. Until 1917, Russia was an Empire. Thereafter, it became the Russian Soviet Federated Socialist Republic, the largest and key member of the Union of Soviet Socialist Republic (USSR). The union dissolved in 1991 and was replaced with a commonwealth of independent states with Russia resurfacing as a state after the break-up. The origin of the Russian state in the 9th century coincides with the arrival of Scandinavian traders and warriors known as the Varangians. Rurik, one of their leaders, established a dynasty which grew into principalities during contacts with others, especially the Byzantine empire, and later to the rise of the Muscovite princes (of the grand duchy of Vladmir). The Russian state was consolidated before it assumed the status of empire and eminence in Europe and this was made possible through the activities of some powerful leaders. One of them was Ivan IV (Ivan the Terrible, 1533-1584) who was crowned Czar of all Russia at the age of 17. Significantly, he crushed the opposition of the feudal nobles, conquered Russia's

neighboursand established its rule over the huge area of middle and lower Volga and laid the basis for the colonization and annexation of Siberia.
By the 17th century, maritime power had become a sign of national power in the Known world. During the reign of Peter I (Peter the great: 1689-1725) Russia witnessed, beyond autocracy, the rise of a reformed empire, a regular conscript army and navy. Emperor Peter sou ght to make Russia a maritime power by acquiring Livonia, Ingria/Ingermaland, Estonia, parts of Karelia and Finland; thus securing a foothold on the Baltic Sea. He founded St. Petersburg (now Leningrad), on the Gulf of Finland and transferred the capital there. While Russia suffered the consequences of war led by its various leaders up until the Russian Revolution of 1917, from Napoleon's downfall and the peace settlement at the Congress of Vienna, Russia (along with Austria) had become a leading power on the continent of Europe.
The contending philosophies for revolutionary change in Russia of 1917 were Bolshevism and Menshevism, the two main branches of Russian Socialism from1903 until the consolidation of Bolshevik dictatorship under Vladimir Lenin in the civil war of 1918-20. Lenin was the major force behind the Russian Revolution under his leadership; fifteen constituent republics came together as the Union of Soviet Socialist Republic (USSR). It became the third largest country in the world after China and India. In spite of the serious challenge of changeover from a market economy to a planned Socialist economy and the loss in human resources occasioned by wars up to World War II, there was rapid industrial development and economic growth. The USSR had great amounts of energy resources (notably coal, gas, water power and petroleum) while its global leadership in crude steel production was complemented by massive wheat growing in the Ukraine regions. It was also the world‟s leading producer of timber and very rich in gold, silver, chromite, asbestos, bauxite, antimony, manganese ore, platinum, iron ore, mercury and tungsten.

The leader of the Russian Revolution took the country from an agrarian society to a larger and industrialized one with a frightening military capability through the Warsaw Pact agreement. And it steadily rose to become a super-power. While not involved in the colonisation in the Americas, Asia and Africa, the USSR played a prominent role in the decolonisation of African states directly through its bloc. In fact, the decades of the 1970s and the 1980s witnessed the Soviet‟s momentum and intensive activities in the Third World. The events which unfolded within and outside the Soviet Union in the 1980‟s threw up Mikhail Sergeyevich Gorbachev as the Soviet political leader who served as the eighth and final leader of the Soviet Union from 1985 to its dissolution in 1991. He had to bear the burden of systemic change. Following some economic and security imperatives, technological innovation and alliance dynamics, the dissolution was facilitated domestically through the restructuring policies of glasnot(openness) and perestroika (rebuilding).

The year 1991 thus marked the beginning of a new Russia and a new era in global politics. The Berlin Wall, iron curtain, fell and the Western World‟s, particularly the United States‟, grand strategy of "containment" policy toward the Soviet bloc yielded to an opening for cooperative relationship. The Cold War had come to an end and new opportunities had surfaced, including the need to discuss not just nuclear proliferation generally but Biological Weapons (BW) research as a result of increased threat to humanity. On the other hand, it appeared as if Gorbachev inherited an empire in revolt, the influence of a universal desire for freedom. There

was hyperinflation as economy slid in attempt to grapple with some systematic reforms, how best to relate with the new global trading system and the destabilisation variables within and outside Russia, including the Ukraine policy choices. However, under very strong, principled and focused leadership, Russia has sustained the status of a great power. From Soviet President Mikhail Gorbachev through Boris Yeltsin to Vladimir Putin and Dimitri Medvedev and back is Putin, Russia has been kept firmly on the path to greater power even when it entailed such costly ventures as the invasion of Ukraine in 2022.

(v) The United States of America (USA)

Through conquest and purchase, the United States emerged out of the territories explored chiefly by agents of England, Spain and France in the 1490s. Today, the conterminous states within its fifty states and the federal district, Washington DC, stretches across central North America from the Atlantic Ocean on the east to the Pacific Ocean on the west, and from Canada on the north to Mexico and the Gulf of Mexico on the south. These are complemented by outlying territories of Puerto Rico in the West Indies, the Virgin Islands and the island territory of Guam in micronesia.

Unlike such great powers as Britain, China, France and Russia, the United States began as "colonial America" with the colonies subject to English mercantilism. This was in the form of Navigation Acts, begun under Oliver Cromwell ("the Lord Protector of England") and developed fully after the Stuart Restoration. The American colonies subjected themselves to British protection until they felt it was time for freedom and this came in the form of the American Revolution of 1775-1783. In spite of the American colonies‟ disenchantment with British control and domination, they did not cause the war of liberation until British troops had combined with the colonial forces to drive the French from Canada and the Great Lakes region in the French and Indian War of 1754-1760. Initially, the American Revolution resulted in the independence of thirteen colonies (Massachusetts, New Hampshire, Connecticut, Rhode Island, New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, North Carolina, South Carolina and Georgia) before it expanded. Significantly, the Revolution also broadened representation in government, advanced the movement for the separation of Church and state in America, increased opportunities for westward expansion and prompted the abolition of the remnants of feudal land tenure. They, of course, did not have a privileged aristocracy and strong feudal encumbrances on their land. To lay a solid foundation for an American nation, professionals and outstanding political elites, including members of the propertied class, advocated for a federal as against the confederal arrangement advocated by some groups. Eventually, the federal Constitutional Convention of 1787 created a national government with ample powers for effective rule. They were limited by "checks and balances" to forestall tyranny or dictatorship and its concept of a strong and orderly union was popularised by the ***Federalist Papers*** of Alexender Hamilton, James Madison and John Jay.

George Washington, the hero of the American Revolution (and Commander in Chief of the Continental army), was the first man to be elected President in 1789. He introduced many government practices and institutions based on an enabling constitution. They have been built up as legacies sustaining the United States till today. In foreign relations, specific philosophies

and doctrines have guided the nation. One of them was the ***Monroe Doctrine*** of 1823 which proclaimed United States opposition to European intervention or colonisation in the American hemisphere. The greater part of the 19th century was devoted to technological innovation, the exploitation of discovered minerals, industrialisation and the disappearance of the American frontier. It also witnessed the American Civil War in which Abraham Lincoln, the 16 th President of the United States, fought secession successfully. In spite of initial hesitation, he issued the ***Emancipation Proclamation***, the executive order abolishing slavery in the confederate states of America, and died a martyr after blessing the United States with his political skill and great humanity as an exceptional statesman of noble vision.

The 20th century marked the United States out as a great power. It rose from isolationism and marched through two world wars and a Cold War to become not just a great power but a super power. The attempted neutrality of the United States at the outbreak of World War I ended when provoked with German submarine attacks, leading its entry into the war on April 16, 1917. With World War I over, isolationism sentiments increased and, in spite of its major role in the Naval Conferences for disarmament and in the engineering of the ***Kellogg-Briand Pact*** which outlawed war, the United States did not show the globally expected interest in international affairs until world peace was disrupted in the late 1930s by the Axis nations (Germany and Italy) in Europe as well as Japan in the Far East.

When World War II broke out in September 1939 due to Axis aggression on different fronts, the United States did not get into the war until December 7, 1941 when Japanese bombs fell on Pearl Harbor. It promptly declared war and, four days later, Germany and Italy declared war on the United States.

Thereafter, the United States gave two gifts to the world under the self-confident and purposeful leadership of President Franklin Delano Roosevelt, the man responsible to a large extent for the rapid growth of American military strength. As a result of the ***Manhattan Project***5, the Second World War was brought to an end as a consequence of Hiroshima and Nagasaki. Secondly, although he died a few months before World War II came to an end, he had before then spoken eloquently for human freedom and worked for the establishment of the United Nations which he coined. The end of World War II and the establishment of the UN as an international organization to replace the League of Nations set the stage for new rivalries among the victorious powers. 33

Some Attributes of a Great Power* THE GREAT POWERS	(i) A nation-state with endowment and natural resources with visionary leaders to maximise opportunities and realise the inherent potentials of the state.	(ii) A socio-culturally dynamic polity with capacity to stimulate change and cope with the challenges of change.	(iii) Modern technology and military capability	(iv) Sustained economic diversity and growth, innovative industrialisation, economic nationalism and global competitiveness.	(v) A history of challenges of nationhood, patriotism, socio-political reforms, regeneration and stability.
BRITAIN	✓	✓	✓	✓	✓
CHINA	✓	✓	✓	✓	✓

FRANCE	✓	✓	✓	✓	✓
RUSSIA	✓	✓	✓	✓	✓
UNITED STATES OF AMERICA (USA)	✓	✓	✓	✓	✓

INTERVIEW WITH

THE MINISTER OF TRADE AND INVESTMENT

Otunba Niyi Adebayo

1- Hon. Minister, as the Minister in charge of the biggest commercial and industrial sector in Africa, how will you rate industrial and commercial development in the country?

I would say that the industrial growth and development of Nigeria is going in the right direction. The growth of the industrial sector is one of the critical levers in providing sustainable jobs and ensuring the socio-economic transformation of the people. Thus, the industrial and commercial development of the country is one of our topmost priorities.

Nigeria's manufacturing sector contribution to GDP increased **by 2.7% between 2019 and 2021** which is a result of the implementation of our industrialisation initiatives over the years. Additionally, Foreign Direct Investments (FDI) into the country has increased from **USD2.3billion in 2019 to USD4.8billion in 2021**and total export grew by **63%** in 2021.

Nigeria is witnessing transformational investment in areas that will accelerate its growth. Nigeria is home to the largest Granulated Urea Fertiliser plant in Africa with a production capacity of 3 million MT, thus, surpassing local demand of 1.5 million MT. The Lekki Deep Sea port, Dangote Refinery with 600,000 bpd capacity, an increased capacity cement production, development of new rail lines and road networks and other industrial milestones achievements that are set to catalyse the Nation's industrial growth.

Having said all that, I would like to acknowledge that we still have a long way to go; even though we are heading in the right direction.

2. The essence of the Ministry is to boost the non-oil sector investment. What are the policies and innovation the government has put in place to achieve this?

There are many incentives that the Federal Government of Nigeria has put in place to promote investments in the non-oil sector. These include the **Pioneer Status Incentive–**which grants qualifying industries and products, relief from payment of corporate income tax for an initial period of three years, extendable for one or two additional years; **Investment Tax Relief** – available for companies that do not enjoy pioneer status incentives for 3 years, grants companies an investment allowance of 10% on the cost of qualifying expenditures in respect of plant and machinery, **Agricultural Credit Guarantee Scheme Fund** – provides guarantees of up to 75% for loans granted by banks for agricultural purposes, **Agricultural Credit Support Scheme** - Provides access to affordable agricultural credit at 8% to 14% interest rates which are well below the commercial interest rates of 20% and so on.

The Ministry is also accelerating non-oil sector investment by improving export finance. One of the ways this is being achieved is through the **Nigerian Export Promotion Council (NEPC) which operates an Export Expansion Grant (EEG)**programme that supports and incentivises exporters by giving back up to 15% of their annual export value.

Furthermore, the **Nigerian Export-Import-Bank export credit guarantee facility** offers various lending facilities to exporters through the commercial banks by covering associated exports risks including insolvency of buyer, protracted default of both buyer and exporter etc. In addition, the **Central Bank of Nigeria (CBN) launched the 'Race to $200 billion in FX Repatriation (RT200FX) Programme**, stimulating non-oil exports with a $200 billion FX income target.

We have seen evidence of growth of the non-oil sector in its contribution to Government Revenues. The 2022 Federal Government Budget Performance shows a 55% growth in non-oil revenues and 123.3% over budget performance i.e. we realised more than the budgeted revenue.

3. Which is in your view, in the past four years; a most significant trade initiative that the ministry has undertaken, that will have long term effect on the growth of the Nigeria economy?

Nigeria signed the AfCFTA agreement on 7th July 2019 and deposited her instrument of ratification at the African Union Commission on 5th December 2020.

AfCFTA will grant Nigerian businesses preferential access to the market of 54 African countries, with a population of 1.2 billion people, a combined Gross

Domestic Product (GDP) of over US $3.4 trillion, and an annual trade value with the world of over $US 1.35 trillion.

For Nigeria in particular, the AfCFTA presents an opportunity to grow economic output across sectors and improve macro-economic stability and resilience through the export of a diversified range of products and services to Africa. These will:

a. Create jobs and reduce unemployment levels and, in turn, reduce the elevated level of insecurity in the country which partially stems from to inadequate economic opportunities;
b. Stabilize our foreign reserves and improve the resilience of businesses in hedging their investments against the devaluation of the Naira;
c. Position Nigeria is the destination of choice to produce for the African market as well as incentivize Nigerian businesses to invest in other markets in Africa; and
d. Grow manufacturing value-add; considering that Africa's imports, which AfCFTA seeks to substitute with made-in-Africa products, are mostly semi-finished and finished goods.

Another key benefit of the AfCFTA is the opportunity its presents for country-wide economic viability through a focus on the development of export-oriented products and services ecosystems which exist in each state.

4. Hon. Minister what do you think would be the implications of the CBN policy of redesigning of naira to trade and investment?

The redesigning of the Naira is one of the monetary policy initiatives that is currently being implemented by the Central Bank of Nigeria (CBN), which I believe, singlehandedly does not have effect on trade and investment. Also, recall that CBN has given valid reasons for this move, which include the need to curb money laundering, kidnapping and related crimes.

The CBN has gone to great lengths to explain the transition arrangements for businesses and individuals. These clearly provide numerous touch points for potential investors to seek clarifications as required.

5. We read in recent report that NNPC will be opening fuel stations in some West African countries, a key regional investment drive. As the Ministry of investment is there a mutual policy pursuit and agreement between Ministry of Petroleum and your Ministry, with regard to this?

The Nigerian National Petroleum Company Limited (NNPCL) as part of its growth and expansion strategy, acquired the assets of OVH Energy which currently operates in Nigeria and Togo. This is being coordinated by the Ministry of

Petroleum Resources and I believe the Ministry is better positioned to provide further details on the subject matter in the coming days.

6. One of the most important factors for aiding industrial growth and investment, is security of lives and property, in view of the security challenges of the past few years, what are the steps the Ministry has taken and is still taking, in coordination with other departments of government in assuring investors of the security of their investment?

Security is a collective effort and I can say that the Federal Government has continued to strengthen the fight against insurgency, banditry and kidnapping.

Mr. President heads various platforms with in which the security ch allenges and interventions are deliberated and agreed. These strategies are continuously being adapted to evolving security challenges and to ensure that persons and capital inflows are well-protected.

7. One of the most significant facts of the African economy is that Nigeria is the biggest. What significant role is your Ministry playing to aid economic integration in West Africa?

Nigeria is committed to economic cooperation amongst Member States and integration in Africa and Regional integration and the underlying principle of Africa as a center are enshrined in Nigeria's foreign policy.

Nigeria has always been a major participant in ensuring African development including the formation of institutions such as the Economic Community of West African States (ECOWAS) to further bolster economic and political integration among African States.

Nigeria is host to the ECOWAS Secretariat and President Muhammadu Buhari was elected as the Chairman of the ECOWAS Authority of Heads of State in 2018.

President Muhammadu Buhari has played a pivotal role in resolving the political crises on the continent; through his special envoy Former Head of State, Obasanjo in Guinea Bissau and in Burkina Faso, where the Vice President, Professor Yemi Osinbanjo represented Nigeria to ensure a democratic government was also returned.

Nigeria has also played an important role in ensuring peace and resolving conflicts in Africa. Nigeria contributed to ECOWAS Monitoring Group (ECOMOG), which served as mediation to end the civil war in Liberia.

Through our active participation in the Lake Chad Basin Commission and the Niger Basin Authority, Nigeria has contributed to the harnessing and management of

common water resources for agricultural and socio-economic development of member countries, as well as expanded the scope of sub-regional economic integration.

8. What are the challenges you could say the Ministry of Trade, Investment and Industry is facing, in implementing its programs?

There are challenges that the Ministry faces whilst implementing its different policies and initiatives. Some of them are one-off and/or peculiar to a particular initiative, whereas, some are not. However, I can assure you that the ministry has been able to navigate through these challenges.

9. African Continental Free Trade Zone, AfCFTA, the biggest Free Trade Zone in any single continent in the world, has been launched by Africa Union Commission, how prepared is your Ministry which coordinates the Export Free Trade Zones in Nigeria in liaising with AU and using it to boost the Nigeria economy and creating jobs?

We are fully prepared to maximally realise the potential benefits that the AfCFTA poses to the nation. In this same light, the Federal Government has approved the use of Export Processing Zones EPZs as an instrument for stimulating exports, manufacturing, generating foreign exchange, employment and economic growth. We have 17 operational Special Economic Zones (SEZs) with 4 others, currently under construction. 14 out of these are general economic zones which support export processing, large-scale manufacturing, warehousing, logistic services, tourism, food processing and packaging and technology development

10. What would be your vision for the Ministry in the next few years?

My vision for the Federal Ministry of Industry, Trade and Investment in the next few years is the full implementation of its mandate in terms of building an industrial base for the economy, engendering confidence in economic activities, creating an enabling business environment and oiling the wheels of commerce.

Thank you.