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Master's Thesis in Industrial Economics spring 2016

Norwegian university of Life Sciences
Department of Mathematical Sciences and Technology

Technology and knowledge transfer in Nigeria – the possibilities, challenges and requirements

**Teknologi og kunnskapsoverføring i Nigeria - mulighetene,
utfordringene og kravene**

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Industrial Economics

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by
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Foreword and Acknowledgements

This is my master thesis in Industrial economics, and the final step in my study for the five-year university degree; Master in Technology at The Norwegian University. The project work has been carried out at the Department of mathematical sciences and technology, where I have chosen to specialize in mechanical engineering, product development and economy. As an individual that grew up in Nigeria and as a witness to the challenges facing Nigeria as an “independent nation”, I feel the great need to clarify the various areas and activities that hinders the advancement of progressive development in the country and thereby give some suggestions and recommendations on what to do to improve the situation. I attended primary and secondary school in Nigeria and I experienced the suppression and favoritism meted to selected regions in educational system through “quota system”. I also witnessed the corruptive activities in the Nigerian democracy, the inhibition of free and fair elections, the activities of the politicians forcing themselves in power through favorable manipulative elective processes, media restrictions through constitutional laws and the corruptive policies from the democratic rulers to divert all the revenues to themselves.

I am motivated by how the Norwegian government maximizes the effectivity of human resource utilization. Norway, a very small country in contrast to Nigeria in terms of human population, utilizes its human resources very effectively and do not depend on the oil. If Norway can achieve so much with just a population of less than 6 million, imagine what Nigeria can achieve with a huge population of about 180 million people. My motivation is also based on my observation of the essence and benefit of job creation in Norway. I realized by living in Norway that one of the biggest investment one can make is investing in human resources through the provision of good educational system and job opportunities. This becomes a life cycle where the government invests on its people and then gets returns by taxation and developments. I am also motivated by the humility of Norwegians in general. I once took a tram with a former Norwegian Prime minister Kjell Magne Bondevik from National Theatre to Majorstua. I was highly overwhelmed to see a former Prime Minister sitting side by side with me in a tram. This never happens in Nigeria, rather Nigerian former presidents ride on private jets and expensive cars with entourages at the expense of the national revenues even after they are no longer in offices. I am further motivated by how easy life can be with good, reliable and well-functioning infrastructures. The Norwegian school system is good. Not only that it is free for everyone, but the quota system does not suppress or discriminate people, but it encourages all to be involved.

I wish to extend my gratitude to the Associate Professor Jan Kåre Boe, who gave me the insight and the support that I needed in making this project a reality. Even when I was undecided on what to write, he stood patiently and solidly behind me and encouraged me to use my inspirations and experiences from my past Nigerian background to increase knowledge of the region of Africa and lay foundations for further studies and decisions in collaboration with the existing governments.

Aas, May 15th 2016

Ema David

Abstract

Technology transfer should be an act of transferring technology through knowledge, facilities and better managements that can enhance economic growth to the recipients. The role should be establishing strategies that will boost industrial and technological development to the recipient countries. Through the strategies, the recipients can utilize their natural and human resources effectively through technology implementations. The word technology transfer for the developed countries is an act of helping the recipient countries to gain better technological infrastructures to improve their standard of living. Though technology transfer is applicable to the LDCs and DCs, the developed countries have indulged in this within themselves for a very long time with remarkable results. With the establishment of effective technology transfer on the ground, it can pave ways for increase in skills and job creations which in turn can increase labor forces and then finally the economic growth of the recipients. Technology can be transferred directly by the contraction of the individual experts and consultant companies where those transferring the technology are engaged in engineering designs and plant construction enterprises, training nationals for specific production projects, technical information activities, and transferring of the technology that is embodied in capital goods by the importation of equipment that are purchased directly from machine manufactures. Therefore, by doing so, the advancement of the technological capabilities will be finally achieved through the adaptation, importation and utilization of the foreign technology.

The background of this project is based on the imbalance between the LDCs, DCs and the developed countries. The result of this imbalance can be seen in Security issues which the world is trying to address in wrong ways. The strategies, the policies and the practices that are devised to continue the dominance over the other gives no anticipated result for the peace and tranquility the world desires, but on the contrary, it makes things worse and the world face the most security problems they have never had in many centuries. The current exodus of the masses from the LDCs and DCs is a great concern and needs to be addressed. The situation in these countries gives rise to the exploitation of these masses both by their own people and also some people from the developed countries. The masses become a target for human trafficking, hard labor and terrorist tools. The fact is that people who are used are the poor masses who do not have reasons to live. Those that brainwash them use their vulnerable circumstances to mount pressure on them and make them become a menace to the society. The influence of the developed and the rich countries towards the LDCs and DCs is also a major threat to the global unity and can also be abated through genuine and functional technology transfer.

The issues to be addressed is the inability of Nigeria and the other African countries to address their underdevelopment and unprogressive issues due to corruption and dependency on the developed countries for monetary aids. Due to this dependency, African countries lack good functioning and reliable infrastructures; no good roads and railways, no reliable electricity and no reliable communication system

African health system is nothing to write home about and the educational system is far below standard. The cultural diversities which supposed to be a blessing becomes a means of

discrimination which is a very big hindrance to the development of the continent. The others issues are the external issues from the developed countries like the immigration policies, the organizations that works to suppress the development of the continent. Until these issues are well addressed, the African continent will always be in the dark and as long as they remain in the dark, they will always create problems for the developed countries because Africans are already exposed to the good lives of the developed countries.

Immigration problem is also an issue of concern. The Europeans migrated to the many countries in Africa including Nigeria when they had need for their natural resources. They called it colonial era. Some of them never went back. USA, Australia and South Africa are examples of places where Europeans migrated to and never returned back to their place of origin. While the Europeans killed some of the habitants of the places where they migrated to, Nigerians and other African countries migrate to Europe to work. If there is no genuine technology transfer to the needed areas, the masses from the affected areas will always have the need to emigrate to better places. The developed countries feel that they will lose their power, influence and dominance if the less developed countries become significant as the them.

The main aim of this project is to point out those areas that needed changes and then give recommendations on what can be done to get an effective result. Those areas include channeling the monetary aids into knowledge and skills for an effective technology transfer, joining force in fighting corruption and drawing potential investors to Nigeria to invest in Agriculture.

The project is presented by the use of historical events, analysis of the current and past events, researches, argumentative and statistical illustrations that supports the theoretical facts of the project. To analyze the events, tables, figures and pictures are used to clarify the importance of the necessary changes in Nigeria and other African countries at large with due considerations of the motives, the causes, and the driving forces of every activity that brought Nigeria and other African countries into the erratic situations they have faced and are still facing today.

My recommendations include channeling the monetary aids into technology transfer through skills and knowledge, better policies that helps to abate corruption and not policies that promotes and suppresses economic growth and technological advancements to the recipients. Nigeria must learn from the developed countries to solve their internal problems through provision of good and reliable infrastructural system like power system, transport system and communication system, establishing well-functioning and unbiased school system, job creation for the masses, natural resources diversity like agriculture and human resources and provision good health care system.

With Nigeria's big population, investment in Agriculture can be the most lucrative way of getting revenues and this is what I am working further on. Lots of neighboring countries depends on the products that comes out from Nigeria. Nigeria has always been the center point for all the west and central African countries and industrialized agricultural products will be a very big success. The demand of agricultural products by the Nigerian population alone is enough for any interested investor in agriculture in Nigeria to be very successful. With good research into agriculture, facilitated with aids to the farmers, there will be no need of importing agricultural products in Nigeria as this will both create jobs for the masses and good revenues for the government. This will go a long way in creating food security for the masses.

Sammendrag

Teknologioverføring bør være en handling av overføring teknologi gjennom kunnskap, fasiliteter og bedre ledelse som kan forbedre økonomisk vekst til mottakerne. Rollen bør være etablering av strategier som vil øke industriell og teknologisk utvikling i mottakerlandene. Gjennom strategiene, kan mottakerne utnytte sine naturgitte og menneskelige ressurser effektivt gjennom teknologiske implementeringer. Ordet teknologioverføring for de utviklede landene er en handling som hjelper mottakerlandene for å få en bedre teknologiske infrastrukturer for å bedre sin levestandard. Selv om teknologioverføring gjelder for utviklingslandene, har de utviklede landene vært i dette i seg selv for en svært lang tid med oppsiktsvekkende resultater. Med etableringen av effektiv teknologioverføring, kan det danne veie for økt kompetanse og jobbscaping som i sin tur kan øke arbeidsstyrken og til slutt den økonomiske veksten av mottakerne. Teknologi kan overføres direkte av sammentrekning av de enkelte eksperter og konsulentselskap hvor de som overfører teknologien er engasjert i ingeniørdesign og anlegg bygging foretak, opplære statsborgere for spesifikke produksjonsprosjekter, tekniske informasjonsvirksomhet, og overfører av teknologien som er nedfelt i kapitalvarer ved innførsel av utstyr som er kjøpt direkte fra maskin produsenter. Derfor ved å gjøre det, vil fremskritt av de teknologiske mulighetene bli endelig oppnådd gjennom tilpasning, import og bruk av utenlandsk teknologi.

Bakgrunnen for dette prosjektet er basert på ubalanse mellom utviklingslandene og de utviklet landene. Resultatet av denne ubalansen kan sees i sikkerhetsproblemer som verden prøver å ta opp i feil måter. Strategiene, politikk og praksis som er oppfunnet for å fortsette dominans over den andre gir ingen forventet resultat for fred og ro verden ønsker, men i motsetning gjør ting verre og verden står overfor de fleste sikkerhetsproblemer de aldri har hatt i mange århundrer. Den nåværende utvandring av befolkningene fra utviklingslandene er en stor beskyrning, og må tas opp. Situasjonen i disse landene gir opphav til utnyttelse av disse befolkningene både av sine egne folk, og også noen folk fra de utviklede landene. Befolkningene blir et mål for menneskehandel, tvangsarbeid og terror verktøy. Faktum er at folk som er brukt er de fattige folk som ikke har grunn til å leve. De som hjernevaske dem bruke sine sårbar omstendigheter for å presse dem og gjøre dem til å bli en trussel for samfunnet. Påvirkningen av den utviklede og de rike landene mot de minst utviklede landene er også en stor trussel mot global enhet, og kan også avtatt gjennom ekte og funksjonell teknologioverføring.

De problemløsning er manglende evne av Nigeria og andre afrikanske land til å ta sin ikke utviklet og ikke framgang problemer på grunn av korrupsjon og avhengighet av de utviklede landene for penge bistander. På grunn av denne avhengigheten, mangler afrikanske landene god fungerende og pålitelige infrastrukturer; ingen gode veier og jernbaner, ingen pålitelig strøm og ingen pålitelig kommunikasjonssystem

Afrikansk helsevesenet er ikke noe å skrive om, og utdanningssystemet er langt under standard. De kulturelle forskjeller som er ment til å være en velsignelse blir et middel for diskriminering som er en veldig stor hindring for utviklingen av det kontinentet. De andre problemløsningene er de eksterne problemer fra de utviklede land som innvandringspolitikk, organisasjoner som arbeider for å undertrykke utviklingen av kontinentet. Inntil disse problemene er godt ivaretatt,

vil det afrikanske kontinentet alltid være i mørket, og så lenge de forblir i mørket, vil de alltid skape problemer for de utviklede landene fordi afrikanere er allerede utsatt for de gode livene til de utviklede landene.

Innvandring problem er også problem av beskyrning. Europeerne emigrert til mange land i Afrika, Nigeria inkludert, da de hadde behov for sine naturressurser. De kalte det kolonitiden. Noen av dem vendet seg aldri tilbake. USA, Australia og Sør-Afrika er eksempler på steder der europeerne emigrerte til og aldri vendet tilbake til sitt opprinnelsessted. Mens europeerne drept noen av de som bor i de stedene der de emigrerte til, nigerianere og andre afrikanske land emigrere til Europa for å jobbe. Hvis det ikke er noen virkelig teknologi overføring til de nødvendige områdene, vil folkene fra de berørte områdene alltid har behov for å emigrere til bedre steder. De utviklede landene føler at de vil miste sin makt, innflytelse og dominans dersom mindre utviklede land blir viktig som dem.

Hovedmålet med dette prosjektet er å peke ut de områdene som trenger endringer og deretter gi anbefalinger om det som kan gjøres for å få en effektiv resultat. Disse områdene omfatter kanalisering de økonomiske hjelpemidler til kunnskap og ferdigheter for en effektiv overføring av teknologi, bli med kraft i kampen mot korrupsjon og tegning potensielle investorer til Nigeria for å investere i landbruket.

Prosjektet er presentert ved bruk av historiske hendelser, analyse av nåværende og tidligere hendelser, undersøkelser, argumenterende og statistiske illustrasjoner som støtter de teoretiske fakta i prosjektet. For å analysere hendelser, tabeller, figurer og bilder er brukt til å klargjøre betydningen av de nødvendige endringene i Nigeria og andre afrikanske land for øvrig med vurdering av de motiver, årsaker og drivkrefter for hver aktivitet som førte Nigeria og andre afrikanske land i de uberegnelige situasjoner de har opplevd og fortsatt overfor i dag.

Mine anbefalinger omfatter kanalisering de monetære hjelpemidler til teknologioverføring gjennom ferdigheter og kunnskap, bedre politikk som bidrar til å minske korrupsjon og ikke politikk som fremmer og undertrykker økonomisk vekst og teknologiske fremskritt til mottakerne. Nigeria må lære av de utviklede landene til å løse sine interne problemer gjennom formidling av god og pålitelig infrastruktur system som energi, transport og kommunikasjonssystemet, etablering av velfungerende og saklig skolesystemet, jobbskaping for befolkningene, naturlige ressurser mangfold som landbruket og menneskelige ressurser og avsetning godt helsevesen

Med nigerianske stor befolkning, kan investering i Landbruk være den mest lukrative måte å få inntekter på, og dette er hva jeg jobber videre med. Massevis av nabolandene er avhengig av produktene som strømmer ut fra Nigeria. Nigeria har alltid vært midtpunktet for hele Vest-og Sentral-afrikanske land og et industrialisert landbruksprodukter vil være en veldig stor suksess. Etterspørselen av landbruksprodukter fra den nigerianske befolkningen alene er nok for alle interesserte investorer i landbruket i Nigeria for å være svært vellykket. Med god forskning på landbruk, tilrettelagt med hjelpemidler til bøndene, vil det ikke være behov for å importere landbruksprodukter i Nigeria da dette vil både skape arbeidsplasser for befolkningene og gode inntekter for staten. Dette vil gå langt i å skape matsikkerhet for befolkningene.

Table of contents

Foreword and Acknowledgements.....	2
Abstract.....	3
Sammendrag.....	5
List of abbreviations.....	11
1. Introduction.....	14
1.1 Historical background.....	14
1.2 Africa and Nigeria, potentials and challenges.....	15
1.2.1 Nigeria at a glance, its regions and multicultural diversity.....	15
1.2.2 Root causes of Nigerian underdevelopment and technological advancements	20
1.3 The role of technology and knowledge transfer.....	26
1.4 Project motive.....	26
1.5 Scope and focus points	26
2 Project plan.....	27
2.1 Main objective.....	27
2.2 Partial objectives.....	27
2.3 Limitations of the project research.....	28
2.4 Research process chart.....	29
2.5 Work plan and milestones.....	30
3 Methodology.....	31
3.1 Methodological approach	31
3.2 Methodological methods.....	31
3.3 The structure of the thesis.....	32
4 Technology and knowledge transfer	33
4.1 Meaning and aspects of technology	33
4.2 Technology classifications.....	33
4.3 Current systems of technology and knowledge transfer, a road to success?	34
4.3.1 Definitions of technology transfer.....	35
4.3.2 The Know-How Agreement	35
4.3.3 Technical Assistance Contracts.....	36
4.4 Categories of technology transfer.....	36
4.5 Channels of technology transfer	37
4.5.1 Educational system.....	37
4.5.2 Public sector	37
4.5.3 Private sector.....	38
4.6 Technology Transfer Classifications	38
4.6.1 Design transfer.....	38
4.6.2 Capacity transfer.....	38
4.6.3 Material transfer	39
4.6.4 Problem with the various classification of technology transfers.....	39
4.7 Technology components classifications.....	39
4.8 Technological achievements in developed countries.....	39
4.8.1 Country that improved its economy through genuinely technology transfer	40

4.9 The dangers of technology.....	40
5 Monetary aids, distribution and transfer inhibitions.....	42
5.1 Aids to the LDCs and DCs in form of education.....	42
5.2 Reasons for suppressing technological advancements.....	42
5.3 Technology transfer inhibitions.....	42
5.3.1 Factors inhibiting technology transfer.....	43
5.4 Inhibition of technology transfer through organizations and policies	44
5.4.1 Inhibition of progressive technology transfer through IMF	44
5.5 Corruption effect	45
5.6 Creation of animosities within LDCs and DCs by the developed countries	46
5.7 Problems of aid distribution.....	47
5.7.1 Conditions of the aid distribution.....	47
5.8 “The conspiratorial game”	47
6 Natural and human resources	48
6.1 Untapped mineral resources, a viable option for Nigerian government	48
6.2 Location of Nigerian natural resources, agricultural products, cultural heritages and tourist attractions.....	49
6.3 Nigerian human resources and its cultural diversities.....	54
7 Infrastructure.....	55
7.1 Energy sector.....	55
7.1.1 Total primary energy consumption.....	57
7.1.2 Power plant (electricity).....	58
7.1.3 Hydroelectricity.....	59
7.1.4 Fossil fuel (Thermal Energy).....	59
7.2 Transportation system.....	62
7.2.1 Railways transportation system	63
7.2.2 Water transportation system and Pipelines	65
7.2.3 Ports and Harbors.....	65
7.2.4 Air transportation system.....	66
7.3 Communication system.....	67
7.3.1 Telecommunication system.....	67
7.3.2 Network providers in Nigeria and licensing Regime.....	67
7.3.3 Nigerian telecommunications industry statistics data	70
7.3.4 The Top mobile markets: The 100 million club.....	75
7.3.5 Internet.....	76
7.3.6 Radio and Television stations.....	78
8 Education and training.....	79
8.1 Education, the pacesetter.....	79
8.2 School system.....	79
8.2.1 The primary institution.....	81
8.2.2 The secondary institutions	82
8.2.3 Tertiary institutions.....	84
8.2.4 The universities.....	84
8.2.5 Technical and Vocational Higher Education.....	87
9. Policy and decision making	88

9.1 National Policy issues	88
9.1.1 Employment quota in the federal and government sectors.....	91
9.1.2 Quota system in the school system for tertiary institutions.....	91
9.1.3 Quota system in the school system for secondary school's entrance	92
9.1.4 Corruptive policies.....	94
9.1.5 Regional, tribal and discriminative decisions.....	100
9.1.6 Technology transfer inhibited by media censor & control by Nigerian government	101
9.1.7 Environmental preservation regulations in Nigeria.....	101
9.1.8 Environmental Impact Assessment Act.....	102
9.2 Foreign policies and decision makings.....	103
9.2.1 Inhibition of technology transfer through immigration policies.....	103
9.2.2 The Western perception and definition of the LDCs and DCs.....	104
10 Economy.....	106
10.1 Commerce.....	106
10.2 Finance.....	109
10.2.1 Oil, the giant of Nigeria's economy revenue	109
10.2.2 Nigerian oil managements.....	110
10.2.3 Production and consumption.....	111
10.2.4 Problems of oil spills in Nigeria.....	112
10.2.5 Oil dependency.....	112
10.2.6 Natural gas.....	116
10.2.7 Natural gas flaring.....	117
10.2.8 Liquefied Natural Gas (LNG) and pipeline exports.....	118
10.3 The effect of oil falls to the Nigerian GDP.....	118
10.4 The Nigeria's Gross Domestic Product (GDP).....	118
10.5 The Nigerian infrastructural GDP.....	120
11 The role of foreign aid and collaborations.....	123
11.1 Multinational Corporations and International Technology Transfer.....	123
11.2 Technology transfer through MNCs.....	123
11.3 Foreign Direct Investment (FDI).....	124
11.3.1 The statistical data of FDI.....	124
11.4 Statistical data of monetary aid with no economic growth and technological	126
advancements to the recipients.....	126
11.4.1 Norwegian monetary aids recipients.....	127
11.5 The effects of MNC to the LDCs and DCs.....	130
12 Nigeria's gateway to development.....	131
12.1 Development concepts associated with technology transfer.....	131
12.1.1 Development in terms of countries.....	131
12.1.2 Benefits and ways of achieving developments.....	132
12.2 Resource diversification, Nigeria's gateway to development through technology	132
updates.....	132
12.3 Maximization of the utilization of human resources.....	133
12.3.1 Unemployment issues and Statistical data on unemployment rate in Nigeria ..	134
12.3.2 Factors hindering the progressive utilization of the human resources	135

12.3.3	Human Resource Management (HRM).....	137
12.3.4	Improving the utilization of human resources in Nigeria.....	137
12.3.5	Human Resource Development (HRD)	138
12.3.6	Human resource development through Educational contribution	138
12.3.7	Contrasts between HRD and HRM.....	140
12.4	Health system.....	140
13	Recommendations for improvement.....	141
13.1	External recommendations.....	141
13.1.1	Transforming monetary aids into genuine technology transfer and leadership roles	141
13.1.2	Policy changes of immigration and organization formation motives.....	141
13.1.3	Change of the LDCs and DCs inferiority perception by the developed countries	141
13.2	Internal recommendations.	142
13.2.1	Genuine way of fighting corruption and not only witch hunting oppositions.....	142
13.2.2	Investing more in Education.....	142
13.2.3	Job creation through the diversification of other natural resources.....	143
13.2.4	Better policies that improves technology transfer and attracts investors.....	143
13.2.5	Dealing with the security issues.....	143
14	Process discussion.....	144
14.1	The history behind aids.....	144
14.2	International aids to the LDCs and DCs.....	145
14.3	Why monetary aids to the LDCs and DCs are not working	145
14.4	International aids within developed countries.....	146
14.5	The debate on the statistical data used on the project research.....	146
14.5.1	The unreliable statistical corruption data from the developed countries.....	146
14.5.2	MNCs statistical data and literature	149
14.5.3	Statistical motives of the “technology transfer” through FDI.....	150
14.5.4	Problem with Norwegian data on monetary aids recipients.....	150
14.6	The prejudice of the developed countries.....	152
14.7	SWOT analysis.....	154
15	Conclusion.....	155
15.1	Results.....	155
15.2	Recommendations.....	155
15.3	Further work.....	157
16	References.....	158
16.1	Written sources.....	158
16.2	Internet sources:.....	163
17	Attachments of the pages of tables and figures.....	166

List of abbreviations

Alphabets	Abbreviations	Meaning
A	ADB	African Development Bank
	AGO	Automobile Gas and Oil
	AIT	African Independent Television
	APC	All progressive congress
B	BP	British Petroleum
C	CKD	Completely Knocked Down
D	DC	Developing Countries
E	ECOWAS	Economic Community of West African States
	EFCC	Economic and Financial Crimes Commission
	EIA	Energy Information Administration
	ELD	Educationally Less Developed
F	FDI	Foreign Direct Investment
	FERMA	Federal Roads Maintenance Agency
	FRCN	Federal Radio Corporation of Nigeria
G	G8	Group of 8 industrialized countries namely Japan, Germany, France, Russia, Italy, Britain, USA and Canada
	GDP	Gross Domestic Product
	GNI	Gross National Income
	GNP	Gross National Product
	GSM	Global System for Mobile communication
H	HHK	House Hold Kerosene
	HRD	Human Resource Development
	HRM	Human Resource Management
I	ICT	information and communications technologies
	IMF	International Monetary Fund
	IPP	Independent Power Producer
	IVM	Innoson Vehicle Manufacturing
J	JAMB	Joint Admission and Matriculation Board
	JSCE	Junior Secondary Certificate Examination

List of Abbreviations continues

Alphabets	Abbreviations	Meaning
J	JSS	Junior Secondary School
L	LDCs	Less Developed Countries
M	MNC	Multinational Corporations
	MTN	Mobile Telecommunication Network
N	NABTEB	National Business and Technical Examinations Board
	NATO	North Atlantic Treaty Organization
	NBC	National Broadcasting commission
	NBS	National Bureau of Statistics
	NCAA	Nigerian Civil Aviation Authority
	NCC	Nigerian Communications Commission
	NCC	National Commercial Certificate
	NDPHC	Niger Delta Power Holding Company
	NECO	National Examination council
	NEPA	Nigerian Electrical Power Authority
	NGO	Non-Governmental Organization
	NIPP	Nigerian Integrated Power Project
	NITEL	Nigerian Telecommunications Limited
	NLC	Nigeria Labor Congress
	NNOC	Nigerian National Oil Corporation
	NOTAP	National Office for Technology Acquisition and Promotion
	NPA	Nigerian Ports Authority
	NSIA	Nigeria Sovereign Investment Authority
	NTA	Nigerian Television Authority
	NTC	National Technical Certificate
	NRC	Nigerian Railway Corporation
	NUC	National Universities Commission
O	OAU	Organization of African Unity
	OGJ	Oil & Gas Journal
	OPEC	Organization of petroleum Exporting Countries

List of Abbreviations continues

Alphabets	Abbreviations	Meaning
P	PAN	Peugeot automobile Nigeria
	PDP	Peoples Democratic Party
	PHCN	Power Holding Company of Nigeria
	PHR	Personal Home Remittance
	PIB	Petroleum Industry Bill
	PMS	Premium Motor Spirit
	PPPRA	Petroleum Products Pricing Regulatory Agency of Nigeria
	R	RWAFF	Royal West African Frontier Force
S	SAFE	South Africa Far East
	SAT – 3	South Atlantic 3
	SSCE	Senior Secondary Certificate Examination
	SSS	Senior Secondary School
	STV	Silver bird Television
T	TI	Transparency International
	TNC	Transnational Corporations
U	UAE	United Arab Emirates
	UBE	Universal Basic Education
	UD	Undeveloped Countries
	UN	United Nations
	UNCTAD	United Nations Conference on Trade and Development
	UTME	Unified Tertiary and Matriculation Examination
V	VAT	Value Added Tax
W	WAEC	West African Examinations Council .
	WAGP	West African Gas Pipeline
	WASC	West Africa Submarine Cable
	WASSCE	West African Senior School Certificate Examination
	WENR	World Education News and Reviews

1. Introduction

Chapter 1 introduces Nigeria, its history, potentials and challenges it faces as a developing country. This also shows the historical background and roles of technology transfer. The project motive, scope and focus points are also written here.

1.1 Historical background

The problem of the technology transfers to the Less Developed Countries (LDCs) and Developing Countries (DCs) can be attributed to the lack of necessary capital, technical knowledge and the experiences in entrepreneurial managements and skills. One of the major ways to help improve the economic growth and standard of living of the LDCs and DCs is the effective transfer of a genuine and well functional technological transfer. Technology transfer can be achieved through the transformation of the lives of the people through genuine transfer of skills and knowledge from the developed countries. For materialization of technology transfer, there must be high ambition from the recipients just as the developed countries did during industrial revolution, which will enable the recipients to engage themselves in the task of eliminating the problems facing the technological advancement. The genuine transfer of technological skills and knowledge can enhance the effective use of the recipients natural and human resources in a maximum way. African countries do not need to be saved as the developed countries seems to portray



Figure 1.1: Showing African impression towards the developed countries before and now
The African countries still feel that the same motive used by the slave dealers and the colonial masters are still in practice today through aids and charity organizations.

Industrialization is a form of processing of raw materials into usable products for economical values through human consumption. Industrialization occurs through the application of specialized technology, mechanical and electrical power to supplement human labor. During the industrial revolution in the developed countries, people made sacrifices for the actualization of development. Industrial revolution was the major occurrence that changed the developed countries between 1760 and 1840 as countries like Japan, some European countries and North America utilized the opportunity to set in motion what we see today as technological advancements. During the era, magnificent changes were made in Agriculture, transportation system, commerce, textile and metal productions. Advanced agricultural techniques and practices resulted in an increased supply of food and raw materials. Changes in economic policies and new technology gave birth to what we see today in the modern world as developed countries. The effectivity of the implementation of these policies resulted in the increased production of foods and better standard of living. The LDCs and DCs contributed immensely to the developed country through the tap of their natural and human resources which was done through the use of slaves trafficking in the past and at present by selective measures through immigration policies. In other words, the European industries were largely built with the natural resources of the LDCs and DCs while the developments were largely achieved by the use of LDCs and DCs manual labors. The past is gone, now is the present, the recipients should therefore rise to the occasion, face the reality and do something for themselves and stop blaming the developed countries for their past woes. The developed countries should on the other hand, be honest to themselves and stop creating problems for the LDCs and DCs in order to continue their dominance over them.

1.2 Africa and Nigeria, potentials and challenges

1.2.1 Nigeria at a glance, its regions and multicultural diversity

- **Nigeria at a glance**

Population: Approximately 180 million

Area: 923,768 sq. km

Major language: Igbo, Hausa, Yoruba

Colonial language: English

Circa 800 BC. Jos plateau settled by Nok, an ancient Neolithic and iron age civilization

16th - 18th centuries: Slave trade: Millions of Nigerians, mostly people from eastern and western region were forcefully and illegally trafficked as slaves by Britain and other European countries.

1850: The establishment of British colony which lasted for about 70 years

1922: Part of German Cameroun colony was added under the league of the nation's mandate.

1960: Nnamdi Azikiwe and Herbert Macaulay led the fight for the independent of Nigeria.

1967 – Eastern region felt marginalization and tried to secede as the Republic of Biafra, sparking a civil war that lasted for three years.

Nigeria is a tropical country located on the west coast of African along the Gulf of Guinea, it borders the Republic of Benin by the West, Niger by the north, Chad by the north-east and

Cameroon by the east. It is a country with rich in natural resources, human resources and cultural diversity. The discoveries of the natural resources and their potentials were made manifest when Britain tried to exploit Nigeria without planting desirable facilities that promotes development in the country, rather they planted policies that inhibits technological advancement and economic progress in the country. Not only did they amalgamate people of different interests and heritages together, they also sat in motion conditions that favored the uneducated and incompetent region, and put them at the helms of the country's management thereby imposing and protecting their selfish interests in the country.



Source: www.mapsworld.com

Figure 1.2: Showing the map of the African continent with its countries and their capitals

- **Nigerian multicultural diversity**

Nigeria, is a country of multicultural diversity of about 250 ethnic groups. Each group have their own separate language that differs from each other. Many of these languages have no resemblances to each other at all as one group cannot understand any word from another group. Nigeria, a country with enormous natural resources limits the utilization of only crude oil since oil discovery, the country and have forgotten to tap the other natural resources available at their disposal. Before venturing into these areas, it will be good to have a very good knowledge of Nigerian people. Combating and abating corruption must be the first step to take for a successful technology transfer in Nigeria. It will be of great importance to note that the effectivity of genuine functional technology transfer will be highly influenced by the social and economic conditions of Nigeria as an entity. The country has its rules, regulations, lifestyle, beliefs and ethics. These things must be fully analyzed and put in consideration for effective technology transfer.



Figure 1.3: Nigerian map showing the locations of some Nigerian tribes and languages

- **Regions of Nigeria**

Creation of regions and states in Nigeria and the year of their creations

GOVERNMENT/REGIME	YEAR	NO	NAME OF STATE AND REGION
Lord Lugard	1952	4	Northern, Western, Mid-West and Eastern
General Yakubu Gowon	1967	12	North East, South East, Benue, Plateau, East Central, mid- West, Kano, Kwara, Lagos, North West, North Central, rivers, South Western states
General M. Muhammed	1976	14	Sokoto, Niger, Ondo, Oyo, Kaduna, Bauchi, Imo. Kano, Cross River, Gongola, Anambra, Borno, Bendel, Ogun
General Ibrahim Babaginda	1987	2	Kastina, Akwa-Ibom.
General Ibrahim Babaginda	1991	10	Yobe, Osun, Taraba, Jigawa. Kogi, Abia, Delta, Enugu, Edo, Adamawa
General Sani Abacha	1996	6	Zamfara, Bayelsa, Gombe, Ekiti, Ebonyi, Nasarawa

- **The Northern region**

The northern part of Nigeria is dominated by the Hausa and Fulani tribes who are mainly cattle rearers before the invasion of Nigeria by the British colonies. The Fulani’s are believed to be nomads who came from other parts of Hausa speaking tribes. They are mainly Muslims of Islamic religion and were ruled authoritatively by the sultan dictator. The northerners were reluctant in embracing education due to their religious beliefs. However, the northerners were more harmonized people within themselves and were not much engaged in slavery, due to the lack of physical attributes Europeans needed for slaves.

- **The Western region**

They are dominated by Yoruba tribe who are mainly farmers before the invasion of the British colonies. They were also the tribe that had the opportunity to have education, because Britain entered Nigeria through Lagos and made Lagos the capital due to the availability of seaport for

the transportation of natural resources by the British colony. They have a similar political system like the northern part.

- **The Eastern region**

The eastern part of Nigeria is dominated by the Igbo tribe who are also known to be farmers, hunters, blacksmiths and traders before and after the invasion of the British colony. Just like Yoruba's, the easterners had the opportunity to embrace education from their British masters because the colonial masters transported the resources from Nigeria through the coastal areas in the eastern region. The Igbo political system is contrast to that of the north and the west. Though they have monarchs, but they practiced a democratic system of government where the people decides the affairs of the community through every clan's representatives by "Ndi nze na ozo".



Figure 1.4: The Nigerian map showing the regional areas after the independent



Figure 1.5: Nigerian map showing the two religious areas in Nigeria at present

Though the people from the eastern and the western region were the intellectuals and the educated people that fought for the independence, the British colony deemed it necessary to hand the leadership to the northern region knowing fully well that they are incompetent due to the lack of the educational backgrounds and the knowledge to handle the affairs of Nigeria as a nation. This will leave the country into endless conflicts and hinder development in the country and thereby further pave way for British colony to have access to the resources and still rule the country indirectly. In the northern region, although the Hausas were unwilling to embrace British education due to their Islamic faith and refused the acceptance of British Christian religion, Nevertheless, it was still easy for the British colony to manipulate and use them in other areas as they made their leaders (Emirs) reliable agents, even though that the colonial government was also afraid to alter their Islamic faith.



The eastern region that tried secession
 Other regions (western and northern)

Figure 1.6



Figure 1.7

Figure 1.6 and 1.7: Nigerian map showing the eastern region (Biafra Republic) that tried to secede from Nigeria

However, the southern protectorate (eastern and western region that hates each other) were later fused together. This hatred was clearly made manifest during the civil war when the westerners joined forces with the northerners to fight easterners, their fellow “southerners”.

Lugard was unhappy with the easterners for resisting his influence in the area, this made him become bias and favorable to the northern region. He tried moving the capital from Lagos to Kaduna, a northern region where he can easily manipulate the people, but he did not succeed due to the fact that Kaduna had nothing to offer. In contrast, Lagos is a coastal area with sea ports, surrounded by sea and intellectuals. He also allocated the handling of the judicial authority to the northern emirs even though that they had no educational background for leadership.

1.2.2 Root causes of Nigerian underdevelopment and technological advancements

- I) British influence
- II) Slave trade in Nigeria
- III) The colonial rule
- IV) The division of northern and southern protectorate by the British colony
- V) The amalgamation of Nigeria

I. British influence, the genesis of Nigerian problem

The reasons for British meddling in the affairs of the entity called Nigeria is for the exploitation of human resources and the natural resources. Europeans and Africans have always have problems with each other.[1] The major problem today is immigration.

Some of the problems Nigerians are facing today includes:

- Human trafficking: it was initiated as slave trade in the colonial era and promoted today through immigration policies.
- Immigration problems: Humans are termed illegal through immigration policies and laws.
- Crimes like frauds, kidnapping, abducting minors for marriage, stealing, drug trafficking.
- Dominance: Marginalization of one region by the other in power, initiated by Britain.
- Corruption: Developed countries promotes corruptions by creating organizations that force their interests on others and take what they want by policy makings like sanctions and veto powers.

II. Slave trade in Nigeria

The first British contact with the people within the land mass “Nigeria” was during the slave trade that took place between 1600 AD and 1850. For several decades, Nigerians and other Africans were bought, sold and used like mere animals of burden. Nigeria was heavily affected during slave trade as people from the western and the eastern region were mainly the victims of human trafficking by the Europeans due to their physical attributes that includes hard working and strong physique structures. These attributes made them targets for the British and other European states who exploited their resources and used their loved ones as slaves for the development of the European states and USA. Some of the leaders of eastern and the western Nigeria were greedy people and should be blamed too. The British having great need for cheap labor from the slaves for their economic improvement and development, legalized the slave trade for over 200 years. The slave trade commenced in west Africa before 1650 with about 3000 captives each year. Towards the end of the century, the rate of captives increased to 20 000 per

year. The rate grew even higher between 1700 – 1800 reaching its epic between 1783 – 1792 when on average 76 000 slaves were bought from west Africa by the Europeans.

Britain was the predominant traffickers in Nigeria during slave trades. In 1767, the British merchants that dealt in this human trafficking connived, conspired and masterminded a massacre of hundreds of people from the eastern region at Calabar after luring them into ships with a pretentious offer of settling a local conflict.[2] Lagos was made the major slave port during the late 1700s and up till 1850s. According to the Trans-Atlantic Slave Voyage Database, a tract was reached between British and French human traffickers to smuggle about 308,800 through the Atlantic Ocean via Lagos in 1776– 1807 and later replaced by the Spanish and Portuguese human traffickers while the British navy interfered heavily with Lagos slave export between 1826 – 1850. Olatunji Ojo wrote "Slave production in the interior raised exports from Lagos tenfold, making it West Africa's leading slave port. The most accurate trade figures are found in the Trans-Atlantic slave voyage database (TSD), which put the number of slave exports between 1776 and 1850 at 308,800. Of that number only 24,000 slaves were shipped before 1801, while 114,200 and 170,600 were sold during 1801–25 and 1826–50, respectively. Exports from Badagry lagged far behind, with about 37,400 slaves sold during 1776–1860".[3] When the call for the abolition of trade was announced and the treaty signed, another strategy was device by Britain and called "British colony" to further instigate their selfish desires in the country.[4]

III. The colonial rule

By the time the need for human resources were less significant, and the high need of raw materials for industrialism in Europe was on the rise, Europeans devised another plan of exploiting the natural resources in Africa through "colonization". The reality being that by the 18th Century, manual labor had become increasingly less profitable. Science and technology advancement from the Industrial Revolution of the 1770's had created efficient machines which made things more feasible and replaced the slave's manual labors. Economic expediency and the sudden technological advancements in the 1800's was therefore Western European financial theory and economic realities. In the 1700s, Britain and other European countries had settlements and forts in West Africa but dare not enforce their authorities as colonies as in Americas. Adam Smith wrote that "Though the Europeans possess many considerable settlements both upon the coast of Africa and in the East Indies, they have not yet established in either of those countries such numerous and thriving colonies as those in the islands and continent of America thus creating a more formidable barrier to European expansion.[5] A chief of Bonny in 1860 explained that he refused a British treaty due to the tendency to "induce the Chiefs to sign a treaty whose meaning they did not understand, and then seize up the country.".[6] While the British Government withdrew its support for slave traders, they now provide it for the exploitations of natural resources. Therefore, from 1850 to about 1885, the British Government encouraged its citizens to develop the growth of raw materials such as palm kernels, ivory and rubber in Nigeria. The British adventures and scientists embarked on the probation of the interior of the country, deeply discovering tributaries and new crops with commercial potentials, just as slaves were procured cheaply and exported overseas to develop the plantations owned by Europeans from 1600 – 1850. From 1850 –1885, the Nigerian produced crops were procured cheaply in Nigeria to develop factory production in British industries.

Britain established its authority in Lagos in November 1851, as they ousted the existing oba Kosoko of Lagos who supported slave trafficking and installed a new one oba Akitoye who was more friendly to the British empire. With this Oba, they reached a treaty to make Lagos a crown colony in 1861. Lagos colony which was governed by British colony in London was made a cosmopolitan port due to the existence of many black English language speakers from Sierra Leone and freed men who were repatriated from Brazil and Cuba.[7] The then Lagos legislative council became representatives for all the African assembly. Nigerian Police Force of Hausa troops was created by captain John Glover who was the colony's administrator in 1861. "In the Lagos Colony Captain John Glover, as administrator of the Colony, created between 1861 and 1862 the famous Hausa militia ('Glover's Hausas') which became the nucleus of the Lagos Constabulary (itself splitting after 1895 into two bodies, one a civil police force, the other a military unit)[8]. The earliest recruits into the Lagos militia came from the African liberated yard or depot which Glover had established in the Colony for the reception of run-away domestic slaves from the surrounding local communities. The Royal Niger Company organized its own constabulary forces between 1886 and 1899 in the Niger territories. At the Niger Coast Protectorate, the Consular Administration with its headquarters at Calabar, established after 1891 the Niger Coast Protectorate Force or Constabulary, sometimes known as the 'Oil Rivers Irregulars' (which acquired the name of the 'forty thieves' under Consul Annesley). When the WAFF was created in 1897, British West Africa had known almost half a century of European or British military presence and activity". While the African banking corporation operated the Bank of British West Africa in 1891 in Lagos,[9] the British traders introduced the British pound by demonetizing the Maria Therea dollar in 1880.[10]

IV. The division of northern and southern protectorate during the British colony

The British colony influence was established in 1861 when they invaded Lagos and formed the oil river protectorate in 1884. The acknowledgement of British colony over the area was recognized during the Berlin convention in 1885. Between 1886 – 1899, the area was ruled by royal Niger company and governed by George Taubman Goldie. The British forces entered Lagos in 1851. The eastern region was first called "oil protectorate" by the British colony in 1884. This area comprised the Niger delta river line areas and then was extended to Calabar. It was later named "Niger coast protectorate" on 12th May 1893. The motive of the formation of the protectorate was to control the trade and commerce in the areas. British colony had an impossible task in the eastern region as the people of the eastern region resisted all the warrant chiefs imposed on them by the British colony for the lack of traditional claims. While Vice consuls were assigned to the ports after the conclusion of the treaties in cooperation with the Foreign Office, local rulers remained the administrators of their territories with consular authorities assuming jurisdiction for the equity courts established earlier by foreign mercantile communities. The Oil protectorate was renamed Niger Coast Protectorate in 1894 after the territories were extended to Lagos colony and Lokoja which was the capital of Royal Niger Company. By 1901, the ethnic groups were submerged into British protectorates.[11] Between 1900 and 1960, the two protectorates were fused together in amalgamation by Frederick Lugard and was called Nigeria. They mainly operated in these two regions during the slave trade and colonial activities.



Figure 1.8: Map showing northern and southern protectorate during the British colony
One significant thing here is that while the northern region was the minority group during the creation of the protectorate, today's northern region has been carved out to be the majority taking many of the southern parts of the protectorate to shift the leadership to northern side.

In the western region, they created what they called “royal Niger company” with its capital at Lokoja while the western leaders were used as vehicles of indirect rule. Their western leaders became double allegiances as they combined both their traditional activities and the activities of the British colony. This makes them neither reliable for the British escapades, nor for their traditional beliefs. After a successful amalgamation, the company was renamed “National African Company” and the leaders of the various areas were forced to sign a treaty giving Britain autonomous power over them. The treaty stated “We, the undersigned King and Chiefs... with the view to the bettering of the conditions of our country and people, do this day cede to the National Africa Company (Limited), their heirs and assigns, forever, the whole of our territory... We also give the said National African Company (Limited) full power to settle all native disputes arising from any cause, and we pledge ourselves not to enter into any war with other tribes without the sanction of the said National Africa Company (Limited). We also understand that the said National African Company (limited) have full power to mine, farm, and build in any portion of our territory. We bind ourselves not to have any intercourse with any strangers or foreigners except through the said national African Company (Limited), and we give the said National African Company (Limited) full power to exclude all other strangers and foreigners from their territory at their discretion. In consideration of the foregoing, the said National African Company (Limited) bind themselves not to interfere with any of the native laws or customs of the country, consistently with the maintenance of order and good government... (and) agree to pay native owners of land a reasonable amount for any portion they may require. The said National African Company (Limited) bind themselves to protect the said King and Chiefs from the attacks of any neighboring tribes.”

V. The amalgamation of Nigeria, the perfection of desired plan

Nigeria's problem today is caused by the fusion of different people with different thinking together.[12] For instance, Norway and Sweden are the same people, same language, similar thinking and the same culture, yet they are two different independent countries. While people that made up Nigeria are different people with different cultures, beliefs, languages, yet Britain

amalgamated them together for selfish interests. Up till today, Nigeria have been suffering because of these vast differences.

Below is the narration of British amalgamation of Nigeria by Chief Richard Akinjide
"THE AMALGAMATION OF NIGERIA WAS A FRAUD" by Chief Richard Akinjide, SAN[13]

"I was in the first cabinet that was overthrown by the military in this country. I entered parliament in December 12, 1959. And I remained in parliament until January 15, 1966 when the government was overthrown. I was the Federal Minister of Education in that cabinet. I woke up one morning in my official house in Ikoyi to discover that my telephone was not working. I had never experienced coup before nor did I know that it was a coup, thinking it was just a telephone fault; until a colleague of mine in the cabinet Chief Abiodun Akerele, came in and told me there had been a military coup. So I had the fortune or the misfortune of being a victim of the first coup in this country. Many people may not know that I spent 18 months in detention in prisons across the country. I've spent time in KiriKiri prison, Ilesha prison, Ibadan prison and the Abeokuta prison. Two of us who were in Balewa's government emerged when the military handed over to the civilians in 1979 as part of the civilian government. In Balewa's government, Alhaji Shehu Shagari was the Minister of Works while I was the Minister of Education. When the military handed over to us after about 14 years, Shagari emerged as the President while I became the Attorney-General and Minister of Justice. Again, Shagari's government was overthrown just a few months after I left the cabinet. Of course, we suspected it was coming. A lot of things that happened between that period and now would never see the light of the day. When you are in government, you know a lot of things, you see a lot of things. A lot of things you know or did or saw will die with you. This is the practice of the whole world. People have asked me to write my memoirs, I just laugh because there are certain things I can never reveal.

When I was in Tafawa Balewa's Cabinet, all Cabinet Ministers had access to written intelligence report every month. That was the practice at that time. But when Shagari came in, for reasons which I cannot explain, that practice was no longer followed. But by virtue of my duties as the Attorney-General and as a member of the National Security Council, I continued to have access to some sensitive matters. Nigeria is a very complex country. Our problems did not start yesterday. It started about 1894. Lord Lugard came here about 1894 and many people did not know that Major Lugard was not originally employed by the British government. He was employed by companies. He was first employed by East Indian Company, by the Royal East African Company and then by the Royal Niger Company. It was from the Royal Niger Company that he transferred to the British government. Unless you know this background, you will not know the root causes of our problems. The interest of the Europeans in Africa and indeed in Nigeria was economic and it's still economic. They have no permanent friends and no permanent interest. Neither their interest nor their friends are permanent. Nigeria was created as British sphere of interests for business. In 1898, Lugard formed the West African Frontier Force initially with 2,000 soldiers and that was the beginning of our problems. Anybody that wants to know the root cause of all the coups in this book and our present problems and who does not know the evolution of Nigeria would just be looking at the matter superficially. Our problems started from that time. And Lugard was what they called at that time imperialist. A number of British soldiers, businessmen, politicians were very patriotic. But I must warn you, they were operating in the interest of their country. Lugard became a Lord. Nigerians, too, should operate in the interest of their country.

When Lugard formed West African Frontier Force with 2,000 troops, about 90 percent of them were from the North mainly from the middle belt. His dispatches to London between that time and January 1914 was extremely interesting. Lugard came here for a purpose and that purpose was British interest. Between 1898 and 1914, he sent a number of dispatches to London which led to the Amalgamation of 1914. The Order-in-Council was drawn up in November 1913, signed and came into force in January 1914. In those dispatches, Lugard said a number of things which are the root causes of yesterday and today's problems. The British needed the Railway from the North to the Coast in the interest of British business. Amalgamation of the South (not of the people) became of crucial importance to British business interest. He said the North and South should be amalgamated. Southern Nigeria came into existence on January 1900..... At the centenary of the fall of Benin, I wrote a piece in a number of papers but before I published the piece, I sent a copy to the Oba of Benin. So when Benin was conquered in 1896, it made the creation of the Southern Nigerian protectorate possible on January 1, 1900. If you remember, Sokoto was not conquered until 1903. So, there was no question of Nigeria at that time. After the conquest of Sokoto, they were able to create the Northern Nigeria protectorate. Lugard went full blast and created what was to be known as the protectorate of Northern Nigeria. What is critical and important are the reasons Lugard gave in his dispatches. They are as follows: He said the North is poor and they have no resources to run the protectorate of the North. That they have no access to the sea; that the South has resources and that they have educated people. The first Yoruba Lawyer was called to the Bar in 1861. Therefore, because it was not the policy of the British Government to bring the tax-payers money to run the protectorate, it was in the interest of the British tax payer that there should be Amalgamation. But what the British Amalgamated was the Administration of the North and South. That is one of the root causes of the problems of Nigeria and the Nigerians.

When the amalgamation took effect, the British government sealed off the South from the North. And between 1914 and 1960, that's a period of 46 years, the British allowed minimum contact between the North and South because it was not in the British interest that the North be allowed to be polluted by the educated South. That was the basis on which we got our independence in 1960 when I was in the parliament. I entered parliament on December 12, 1959. When the North formed a political party, the Northern leaders called it Northern People's Congress (NPC). They didn't call it Nigeria's people Congress. That was in accordance with the dictum and policies of Lugard. When Aminu Kano formed his own party, it was called Northern Elements Progressive Union (NEPU) not Nigerian Elements Progressive Union. It was only Awolowo and Zik who were mistaken that there was anything called Nigeria. In fact, the so-called Nigeria created in 1914 was a complete fraud. It was created not in the interest of Nigeria or Nigerians but in the interest of the British. What were the structures created? The structures created were as follows: Northern Nigeria was to represent England; Western Nigeria like Wales; Eastern Nigeria was to be like Scotland. In the British structure, England has permanent majority in House of Commons. There was no way Wales can ever dominate England, neither can Scotland dominate Britain. But they are very shrewd. They would allow a Scottish man to become Prime Minister. They would allow a welsh man to become Prime Minister in London but the fact remains that the actual power is rested in England. That was what Lugard created in Nigeria, a permanent majority for the North. The population figure is also a fraud. In fact, a British Colonial Civil Servant who was involved in the fraud was trying to expose it but he was never allowed to publish it.”[14]

1.3 The role of technology and knowledge transfer

The role of the technology transfer to the recipients is to balance the inequalities between the rich and the poor. Though in the developed countries, there are inequalities, but the difference is not that much as in Nigeria. While the developed countries have mainly the majority of its masses as middle class, Nigeria have its majority masses as low class. The developed countries are able to achieve this because of well-organized system of government and well revenue distribution through well-established functional infrastructures. The romance between the developed countries and the recipient corrupt leaders aids the suppression of the LDCs and DCs by use of power and policies to inhibit progress to the recipient countries. Hatched plans are perfected through the creation of organizations and trade unions like IMF and MNCs that monitors and dictate the affairs of Nigeria and all the LDCs and DCs by promoting only the selfish interests of those they represent. Other bodies are formed through the organization and orientation of health services, and the exportation of inappropriate structures and procedures for public bureaucratic and administrative systems. Technological knowledge and skills through the establishment of well-functioning school system can help to avert the quest and dependency on monetary aids from the developed countries. This can give way to technological advancement, economic growth through job creation, improved national development and minimizing of immigration problems

1.4 Project motive

The motive for the project is to expose the weakness of technology transfer through monetary aids and organizations like MNCs to Nigeria, the LDCs and DCs and thereby point out the inefficient schemes that destabilizes the economic progress of the recipients through the mediums of technology transfer.

1.5 Scope and focus points

- Reducing the effects of the strong reduction of the Nigerian oil revenues due to industrial policy, restructuring in industry structure and the needs for investment and increased international development cooperation.
- Finding the best strategical choices that can promote positive business development, sustainable industrialization, technological development and also finding the substantial achievements that can be drawn from other countries, and what one can learn from each other.
- Clarifying the biggest impact of the types of knowledgeable initiatives, organization, entrepreneurship and local technology investments in connection to the local resources and how they can trigger positive effects locally and nationally in the longer term.
- Dealing with the corruptive tendencies that hinders the development of the country.
- Dealing with the infrastructural problems that inhibits the technological advancement and the economic growth of Nigeria.
- Dealing on technology transfer issues and concepts on the media especially on how much aids the developed countries have wasted to help the LDCs and DCs. Are these concepts really justified and well equated?

2 Project plan

The project plan explains the procedures and plans for the project. It shows the time schedules of the events and the working plan for the successful accomplishment of the project. The work plan gives an insight to the drafting of the information on how the project became manifest. It shows the progressions of the various activities and the time schedules that occurred during the project formation. It also shows the main and partial objectives of the project. The chapter also contains the work plan and milestones, research process chart and the limitations of the project.

2.1 Main objective

The main objectives are to clarify the needs and requirements needed to put more effective and functional transfer technology to Nigeria, to suggest better ways of channeling monetary aids instead of physical cash to the recipient countries and to explain the needs for the improvement of the Nigerian infrastructures and diversification of the natural resources for economic growth and progressive development in the country.

2.2 Partial objectives

1. To study, investigate and shed light on the challenges and opportunities for the increased oil dependent value creation and interact and equate the social and economic differences in Nigeria, through the use of targeted knowledge and technology transfer that suits local needs, ethics, economic and environmental requirements.
2. To divert the dependency from oil and gas and focus more on the other natural resources including agriculture and human resources.
3. To explain the multicultural diversity of the nation for the interested investors, Nigerian political build ups, its ethnic diversities and local relations to long term strategies, perception of things, how things are organized and also how things work in the country.
4. To point out the effects of aids given so far, the advantages and disadvantages, the impacts in the national economy, the effects on the masses and the contribution to the national development.
5. To find the most effective and functional methods and channels of technology transfer for the benefit of each of the recipient countries. This will help to abate corruption and give the desired results as in improving the economic and living standards of the recipient countries.
6. To find a better way of approaching each individual recipient country by studying the people as an autonomous body, not grouping them or generalizing every country that have similar problem as the same. This is very common with the western world that generalizes the whole African continent as a country with the same culture and life style. This is totally wrong and can also inhibit progressive technology transfer. What works for one country, may not work for the other country even though that the countries are in the same continent.
7. To find the best ways of diversifying the use of the different resources available to each

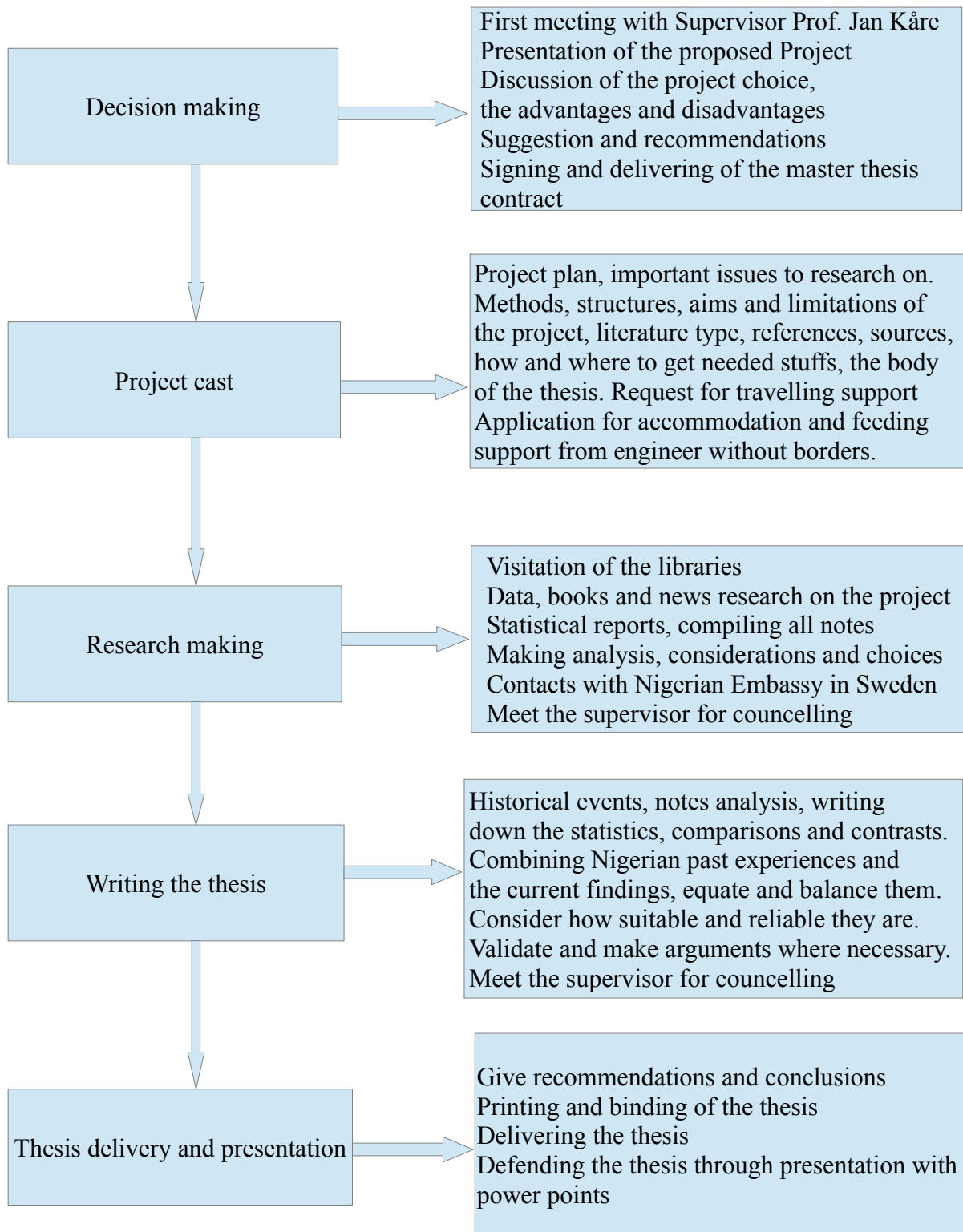
individual recipient country by the recipient countries themselves and not by exploiting them with the creation of policies that helps the beneficiaries to take these resources from them for almost free of charge.

8. To find the appropriate desired technology needed by each individual country and transferring the required technology to the needed recipient country at the needed time.

2.3 Limitations of the project research






1. Some of the limitation of the research is the inability to include some important data which seems to relate directly and indirectly to the technological transfer, such as race, management and productivity factors, political ambitions and implications, religions and the inability to quantify all the findings. Factors such as wars, natural disasters like earthquakes, drought, famine, floods and plagues were also not included in the research data.
2. The limitation period of the statistical demonstration of motives behind the “technology transfer” through FDI is 22 years, that is between 1970 to 1992.
3. The limitation period of the statistical data of the 5 largest individual recipients of bilateral Norwegian development aid is 44 years, that is between 1960-2014.
4. Only one individual benefactor country with detailed data (Norway) is used in the analysis.
5. The accuracy of the provided data depends on the sources where the data are obtained from, so the reliability of the whole data should be based on the published sources.
6. The FDI, MNC, corruption and aids data are only limited to one sided source as the source of the data comes only from the developed countries who portrayed themselves as saints on the list because of their technological advancement. The FDI and corrupt data is therefore absurd.
7. The equation and balance of the whole research is based on a biased system where the data is only limited to only the aids given by the developed countries, and not what the developed countries benefitted from the aids. This is because the statistical data was also made by the developed countries, hence promoting only their good image. The developed countries do not want the world to know what they actually gain from these aids and the real reason while they continue giving it even when it is very clear that it is not serving its “portrayed” purpose.
8. The data limited its conclusions on the LDCs and DCs as the recipients, also the beneficiaries while the developed countries that coffers a lot through these aids are not referred as benefactors, rather they are portrayed simply as donors, in order words as saviors.
9. The detailed statistical data of how much loots and menaces that were taken and done by the individual developed countries especially during the colonial era in order to equate and balance the monetary aids from the developed countries is nowhere to be found. Again it shows how the developed countries promote their images by working only on the statistical data that they deem necessary to better their images.
10. Not all the benefactors and the recipient countries are included in the data.

2.4 Research process chart



2.5 Work plan and milestones

Table 2.: Work plan and milestones

		week																		
Activities		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	Decision making																			
	Sketching of project plan																			
	Research making on the project																			
	Setting up of the objectives 																			
2	Project formation																			
	Project layout																			
	The limitations of the project																			
	researches about Nigeria 																			
3	Writing of the project																			
	Technology transfer orientations																			
	Notes on Nigeria																			
	Recommendations																			
	Conclusions 																			
4	Finishing touches on the project																			
	Editing of the project																			
	Printing of the project report 																			
5	Delivering the project																			
	Power points for presentation																			
	Defending the project 																			

3 Methodology

The methodology maps out the systematic methods, principles, and rules that regulates the research accomplishments mainly through documentaries where the use of both theory and data are involved. This includes the structure, methodological approach and method of the thesis.

3.1 Methodological approach

1. The unit of the analysis is built up on a body called Nigeria, which is an “independent” country.
2. The reliability of the research is based on universal assumptions and further strengthened by my own local knowledge and experiences as an individual who is a participant and witness to the to the failure and ineffective technology transfer in this particular country.
3. The systematic order of the research representation is a combination of theoretical facts and obtained data that supports the theory where necessary
4. The embodiment of the study is on the events that took place over a change of time, that is to say that it is longitudinal.
5. The theory and the data of the study is verified or falsified with facts and assumptions to drive my point home.

3.2 Methodological methods

- **Historical method:**
 - Using the past history of documented events to ascertain the present and then project the future.
 - Learning from the various diversities and trying to get the best result from the diversifications.
- **Research method:**
 - Researches that shows the inefficiency of monetary aids.
 - Researches that shows areas of successful and unsuccessful technology transfer.
 - Researches that shows the inefficiency of the various technology transfer in the affected areas.
- **Analytical method:**
 - Analyzing the situations through the use of tables, images and figures.
 - Analyzing why the previous transfers are not successful and offering steps for changes
 - Using SWOT analysis to clarify everything.
- **Statistical method:**
 - Using data and statistics to explain the situation
 - Using of facts to evaluate the process.

- **Argumentative method:**
 - Using arguments to determine the authenticity of some of the statistical data.
 - Arguing the effectivity of the past and current methods of technology transfer.
 - Verification or falsification of the obtained data where it deems necessary.
- **Recommendations:**
 - Recommending alternative ways of achieving a better result

3.3 The structure of the thesis

The structure of the thesis consists of chapters that are divided into subchapters chapters.

Chapter one starts with the introduction that comprises of the historical background of the thesis, the potentials and challenges facing Nigeria in Africa, the role of technology and knowledge transfer, the motive of the project and the issues to be addressed. It also gives account on how British sojourn in the area brought the existence of an entity called Nigeria.

Chapter two detailed the project plan, the main and partial objectives, the limitations and lastly the research process chart.

Chapter three deals mainly on the methodology and the structures of the thesis.

Chapter four introduces technology and knowledge transfer, the meanings and aspects of technology transfer, its effects to the recipient countries, classifications and transfer channels.

Chapter five analyzes international aids and monetary aids, distributions and transfer inhibitions.

Chapter six envisages on the various resources that are at Nigeria's disposal, including the human resources, their locations and the possibility of technology transfer through these resources.

Chapter seven comments on Nigerian infrastructures, the reliability and potentials.

Chapter eight explains Nigerian educational system and training as means of technology transfer.

Chapter nine analyses the conditions and policies that determines the aid distribution.

Chapter ten elaborates on the Nigerian economy explaining the source of income before oil was discovered, with statically data of Nigerian GDP in oil revenues and infrastructures. It further analyses the Nigerian dependency on oil, the effect of its dependency on the national growth and the instability of the Nigerian economy due to the current fall of oil price.

Chapter eleven explains the role of foreign aid and collaborations. It further gives the analysis of the technology transfer with the literature and the statistical data that shows some of the countries that are the benefactors and the recipients of the technology transfer.

Chapter twelve deals on Nigeria's gateway to development through human resources and natural resources diversity

Chapter thirteen gives recommendations for improvement

Chapter fourteen discusses the process of the research using arguments and critics where necessary to clarify the bias and unreliable statically data and media perceptions used to dominate the LDCs and DCs. SWOT analysis is also presented in this chapter

Chapter fifteen draws conclusion on the whole research

Chapter 16 presents the references, the written and internet sources and the attachment of tables and figure pages.

4 Technology and knowledge transfer

When infrastructures that supports the technology transfer are at place, then the qualified people who are trained to make the technology transfer attainable will be able to manage the technical aids and give the desirable results. The two major problem facing successful implementation of technology transfer is bad policies and bad management. The policies can be attributed to the benefactors who decides the ways the technology transfer should be carried out. The decision and policies they make determines the manifestation of results. The management can be attributed to the recipients where the people who are at the helms of the management are people who have no interest of their nations at heart, rather they concentrate only on the weight of their own pockets and collaborate with the corrupt benefactors, thereby rendering the motives and the success of the proposed technological advancement unattainable. The chapter analyses the meanings of technology and the knowledge of transferring technology, the channels, classifications, components, categories and the achievements of technology transfer.

4.1 Meaning and aspects of technology

The term technology is a very complex word and it embodies almost everything that has to do with a progressive society. Many people have tried to define technology in a way that fits their encounters and the assessment of the events in their various places at their time.

Dunning (1993) sees technology as the output of technological and organizational capacity, which determines the way in which tangible and intangible resources may be physically converted into intermediate and finished goods and services.[15] Merrill finds technology to be body of skills, knowledge, and procedures for making, using, and doing useful things.[16] Root envisages technology as the body of knowledge that is applicable to the production of goods and the creation of new goods[17] Peno and Wallender visualizes technology as a knowledge that is embodied in products, process formulas, and techniques needed for managing operations.[18] Barquin (1981) analyzes technology as the set of disciplines, methods, techniques, and supporting instruments, which makes up the process by which a tangible product is elaborated.[19] Dosi (1984) contemplated that technology is a set of segments of knowledge, containing directly practical and theoretical know-how, procedures, experiences of successes, and he further points out that technologies consists not only of hardware but also comprise the technical knowledge and skills of participants of an organization.[20]

4.2 Technology classifications

Classifications of technology can be broad in terms of systematic measures. Technology can be attributed to the cost of its supporting hardware, the type of end-product obtained, or the complexity of its methods and techniques. Hall and Johnson narrowed technology transfer in three ways.[21] :

1. Generally, technology consists of the technical information common to companies operating in the same activity.
2. Technology corresponds systematically to the derivative knowledge and skills firms

develops for solving particular industrial problems. Specifically, technology embodies the information possessed by a firm or an individual in a firm, which might have been gained by the acquisition of certain tasks or projects. Both (systematic and specific) technology measures are acquired and disposed by a firm in one industry, and not usually by other firms in the industry that manufacture similar item or engage in the same activity, rather it gives the disposing firm a competitive edge or differentiation.

3. The company's specific technology covers the corporate skills and capability derivations from the general activity and experience of each individual firm. That is to say that it points to the knowledge, that a firm acquires beyond the general knowledge possessed by the industry as an entity. The achieved knowledge is attributed to the collective efforts of the company and not by any specified systematic approach or product from the company.

Other researchers have their own technological classification according to their own views Mansfield uses contradictory term like "embodied" (capital or physical goods and skilled labor) versus "disembodied" (soft goods such as, industrial property, skills, technical data, technical services and technical assistance) to classify technology transfer.[22] Madeuf detailed his own classification as capital embodied, human embodied and disembodied technology.[23] APO (Asian Productivity Organization) 1994 classified technology as visible and invisible messages. While visible includes drawings, specifications, manuals, documentation, computer programs, data-base, and patents, the invisible includes the knowledge, skills or software that are not easily transferable in a descriptive form.[24] The Atlas Team, 1987, narrowed it to four components of technology.[25]

1. Object-embodied technology which can be called "Techno-ware" and consists of tools, equipment, machines, vehicles, and physical facilities.
2. Person-embodied technology, also called "Human-ware" and refers to experiences, skills, knowledge, wisdom, and creativity.
3. Document-embodied technology, also called "Info-ware" and embodies all kinds of documentation pertaining the process specifications, procedures, theories, and observations.
4. Institution-embodied technology, also called "Organ-ware" and consists of management practices and linkages.

4.3 Current systems of technology and knowledge transfer, a road to success?

In order to fully understand the mediums of genuine and effective technology transfer, it will be good to elaborate on the issues that truly defines the means of these transfers. The implementation problem of technology transfer facing the world today is the approach of the various mechanisms and channels in which the technologies are being transferred. The same problem the masses of the LDCs and DCs are battling today is promoted and practiced by the developed countries in terms of technology transfer.

4.3.1 Definitions of technology transfer

Technology transfer is the act of exchanging technical knowledge, skills and final products from one body to the other. People like Meissner totally misunderstands the mechanisms of effective technology transfer. Meissner views technology transfer as the act of sharing know-how by such devices as constancy, joint ventures, gifts, licenses, franchises, and patents.[26] His definition of technology transfer is totally out of proportion and it is simply a list that promotes means of business approach through aids management. These mechanisms have nothing to do with effective way of transferring technology from one individual, organization or country to the other. Though there can be mutual benefits between the benefactors and the beneficiaries, yet those skills that helps individuals, organizations or countries to develop and advance on its own independently are found wanton. All the listed mediums are just a way of creating dominance and dependency from one part to the other.

The various people who understands the effective way of transferring technology gives a logical, effective, functional and genuine medium that paves ways to achievable technology transfers includes the following:

Chile Foundation, Praeger Aggrawal clarifies technology transfer as the communication, adaptation and use of technology from one place or economic region into a second region. He also adds that this technology has to be adapted to local conditions by the receiver to fit to its social, political, cultural, economic, and educational environment.[27] Chesnais defines technology transfer as the transition of the capability of manufacturing a product or process from firms in one country to firms in another. He stated further that this transfer includes not only the technical knowledge needed to produce the products, but also of the capacity to master, develop, and later produce autonomously the technology underlying these products.[28] Derakhshani (1983) [20] states that technology transfer is the “acquisition, development, and utilization of technological knowledge by a country other than that in which this knowledge originated”. [29] Van Gigch believes that technology transfer encompass the acquisition of “inventive activity” by secondary users.[30] Madu Christian N 1992 thinks that technology transfer may not always involve the transfer of machinery or physical equipment. He also believes that knowledge can also be transferred through training and education, which could include training on how to effectively manage technological processes and changes.[31]

4.3.2 The Know-How Agreement

Know-how agreement can be regarded as the most important methods of technology transfer to the recipients through the acquisition of industrial useful, secret and valuable information which can be associated with technical knowledge and skills that covers the various processes, formula, and industrial techniques. It is important to note here that the know-how agreements with MNCs enables the recipients' enterprises to gain potential access to developments in products and processes. This is mainly because know-how agreements usually provide recipients organizations with a package of technical information needed for efficient adaptation and assimilation of imported technologies.[32]

4.3.3 Technical Assistance Contracts

Technical assistance agreements are another important genuine means of technology transfer to the recipient countries. It includes the manufacturing drawings, machinery maintenance, specifications acquisitions, facility production set up assistance, know-how process advice, engineering services like procurement of materials and equipment, personnel training, manufacturing consultation, quality control procedures, and testing of final products. Technical assistance is therefore very essential for firms in LDCs and DCs which has less experience in operation and setting up of any productive activity. Stewart stretches that the advantage of this method of technological acquisition is that it may enable the recipient countries to access the foreign technology easily and quickly with the technical assistance of the technology supplier.[33]

4.4 Categories of technology transfer

Technological transfer can be done in many ways but only few researchers are able to distinguish themselves with the genuine systematic mechanisms of transferring a reliable and well-functioning technology for the progressive development and economic growth of its recipients. Buckley (1985) divided the modes of “ international technology transfer ” into two main categories, namely internal and external.[34].

- **Internal modes**

1. Wholly owned foreign subsidiaries (conventional form of foreign direct investment)
2. Joint ventures
3. Foreign minority holdings
4. "Fading-out" agreements

- **External modes**

5. Licensing agreements
6. Franchising
7. Management contracts
8. Turnkey contracts
9. International subcontracting

- **Both internal and external**

10. Contractual joint ventures

These modes of technology transfer can also be done through commercial and non-commercial mediums. The commercial modes include the direct foreign investment, joint ventures, license measures, franchising, marketing contracts, technical service contracts, turnkey contracts, and international subcontracting. The non-commercial modes of international technology transfer include the review of technical journals and the training of foreign students, exchange of scientists and engineers, co-operative research and development.

4.5 Channels of technology transfer

Autio and Laamanen maintained that the channel of technology transfer mechanism is any specific form of interaction between two or more social entities during which technology is transferred.[35] Radosevic, S. Insists that technology transfer channel is the link between two or more social entities in which the various technology transfer mechanisms can be activated.[36] Cooper and Sercovich (1971)[37] and Stewart (1979)[38] meant that channel of technology transfer mechanism can be either direct or indirect mechanisms. The Direct mechanisms involves direct contact between benefactors and the recipient of the technology in which the individual experts and consultant companies are contracted directly. This includes engaging the recipients in engineering design and plant construction enterprises, training nationals for specific production projects, technical information activities, and transfer of the process technology that are embodied in capital goods through the importation of equipment that are purchased directly from machine manufactures. The Indirect mechanism of technology transfer is just the assembling of the products from the benefactors.

According to Tho, channels of technology transfer can be done either by the public or private and in many cases by both ways.[39]

4.5.1 Educational system

Technology transfer can be effectively done through proper educational. Education serves as the basic introductory channel of technology transfer. For an effective well functional technology, there is a need for sound knowledge and skills to fulfill the necessary obligations required for every satisfactory mission. In order to achieve this, an appropriate educational systems and personnel training must be developed. Without proper education, the recipients will be largely dependent on their benefactors for the supply of the right labor force, technological innovations, research and development. Therefore, educational system is the area that facilitates training programs that addresses the needs and the problems of the recipients and how they may be solved through technology transfer. Singh Z. N. explains that effective research and development (R&D) activities are influenced by appropriate educational systems.[40] Ito, S. Thinks that unless the recipients of technology transfer becomes sufficiently capable of maintaining production systems it has implemented independently, it will never be able to enhance the capability to modify and improve its technology.[41]

The essence of education can be greatly felt in the advanced developed countries where corporations spend millions of dollars to retrain and re-educate their workers. The programmers are very familiar with this as there is always the need for updates all the time. Programs like in-house training, on-the-job training, and seminars are often carried out to keep these workers up to technological changes. This is not only necessary for updates, but also for competitive advantage.[42] Andrews and Miller points out that the training of local manpower for the provision of the required knowledge is the base for technology transfer as it will enhance the productivity and the transfer of skills to take place simultaneously.[43]

4.5.2 Public sector

Technology transfer can be executed as public investments, whereby the transfer is conducted by

public organization from the competent government of technological advanced countries and international agencies. The transfer of such technologies becomes a part of the technical assistance to the recipients. Here the technologies become a public property and not liable to the public sector.

4.5.3 Private sector

The private channels of transfer can also enhance development, though maximization of profits is always the ulterior motive behind every private investment. The private sectors can relate only on the transfer of the technologies that are developed by private firms through commercial basis. The mediums of the technology transfer normally goes through the MNCs, who usually transfer their technologies as Foreign Direct Investment (FDI) through the external modes like licensing agreements, plant export, and original equipment manufacturing depending on the characteristics of the technologies, policies, absorptive capacity, and managerial resource endowments of the recipient countries. What the private sector does is developing and transferring their own products or other products related to technologies from other private firms and selling the products for commercial use.

The channels of the private transfer may be fully private or partly government and partly private firms.

4.6 Technology Transfer Classifications

Technology transfer can be classifications consists of vertical and horizontal transfer.

Vertical transfer entails the transfer of technical information within the innovative process to the final production which can go from basic research to applied research, from applied research to development, and from development to production.

Horizontal transfer occurs when technology is used in one place, organization or country and is transferred and used in another place, organization or country. This includes sales transaction and the final use of the product.

Mansfield narrowed technology transfer into three categories.[44]

- Design transfer
- Capacity transfer
- Material transfer

4.6.1 Design transfer

Design transfer consists the transfer of knowledge and skills of the designs, blueprints, and the production guidelines. The objective of the design transfer is transferring the basic information, data, and guidelines needed to create and produce a desired designed product or equipment. In this transfer, foreign items are imported in order to copy their designs and the recipients begins to produce domestically the artefact formerly imported in the material type of transfer.

4.6.2 Capacity transfer

Capacity transfer includes provision of the know-how and software, not simply manufacturing of

the existing products but more importantly, to innovate, adapt and improve the existing technologies and products, and thereby design ultimately and produce new products. Nevertheless, design transfer and the capacity transfer are the main technology transfer that gives the needed results and thereby can be the main criteria that can be used to give a clear and right statistical data for the technology transfer to the LDCs and DCs from the developed countries.

4.6.3 Material transfer

Material transfer consists of the transfer of the various materials, the components of the materials, the final products where it is needed, the equipment needed for the production of the products from the materials, and even turnkey plants. It is not so much a transfer of knowledge as it is the transfer of the results of knowledge. This is just assembling of finished products where the recipient is merely passive consumer of the knowledge produced by other countries which it cannot produce by itself. The main objective is to produce and supply their desired finished products. In other words, Material transfer is the transfer of final products or finished components. In real sense, it is the same as importing or exporting finished products for human consumption. If this can be used to classify technology transfer, it means that the developed countries have received more technology transfer than the LDCs and DCs due to the fact that most of the resources used in the production of the finished products are from the LDCs and DCs.

4.6.4 Problem with the various classification of technology transfers

The first two technology transfer classifications (design transfer and capacity transfer) are the right, effective and genuine mediums of technology transfer to the recipients with the desired results. The third (material transfer) is just a business transaction between two countries. According to the United Nations Conference on Trade and Development, (UNCTAD), technology transfer is defined as “the transfer of systematic knowledge for the manufacture of a product, for the application of a process or for the rendering of a service and does not extend to the transactions involving the mere sale or lease of goods”.

4.7 Technology components classifications

Hall and Johnson viewed technological components classifications as the cost of its supporting hardware, the type of end-product obtained, or the complexity of its methods and techniques.^[45] This components are divided into three namely

1. General technology that includes common technical information within companies operating in the same activity.
2. Specific technology system that corresponds to the basic knowledge and know-how that each firms develops in order to solve a particular industrial problem.
3. Company-specific technology covers the corporate skills and capabilities that comes from the general activity and experience of each individual firm.

4.8 Technological achievements in developed countries

Japan is one of the major countries that have a high percentage of technology input in their

economy. About 65% of Japanese national revenue comes from technological inputs. Moreover, about 29% of the growth in manufacturing industry in Japan during the period between 1955-1979 could be attributed to technological progress.[46] South Korea is another example of a developed country that have most of their national revenue from technology. Sweden, France and Germany are also very highly technically developed countries in Europe.

4.8.1 Country that improved its economy through genuinely technology transfer

Malaysia

Malaysia came to recognition due to the brand they created for themselves in electronics. They were able to achieve this not because they got monetary aids from the developed countries, rather they got genuine technology transfer from Japan. During the late 1970s, Japan shifted labor intensive assembly operations out of Japan to a number of low wage developing countries and Malaysia happened to be one of them. Japan did not distribute money to these countries, rather Japan transferred technology as a means of aid instead of monetary aid. This is exactly what the LDCs and DCs needs today. Unlike other developed countries who send money to LDCs and DCs and posts the statistics of how much they give every year, Japan engaged themselves in the three classifications of technology transfer as they assembled some of their products (material transfer), they also transferred the production processes especially the production of crucial components parts like picture tubes, fly back transformers and housing (design and capacity transfer). By 1990, Japan became the biggest foreign investor in Malaysian electronic market with ten chip makers alone employing about 9,000 Malaysian workers.[47]. Simple, this is exactly what genuine technology transfer with desired results is all about.

One of the reasons why Malaysia was able to succeed was that they had good government which was independent of the foreign monetary aids and were able to create a conducive environment that attracted foreign investments. Other reasons were that they were able to produce under healthy climatic conditions, they had good industrial relations, they had good political and economic stability, they had good infrastructures including good telecommunication system. The competitive advantage forced USA to move some of their electronic manufacturing companies to Malaysia especially the production of semiconductors to Malaysia. This they did to compete with the Japanese electronic products not that they intended to transfer technology to Malaysia. By 1972, 17 American electronic manufacturing company were established in Malaysia and 13 of these companies were manufacturing semiconductors and its components. (MAEI 1992) Nevertheless, as of 1972, American electronic company created massive job opportunities in Malaysia employing almost 41 000 Malaysian people and exported electronics worth of RM7,3 billion. The total of American electronic investment was almost RM6 billion (US\$ 2,2 billion). [47]

4.9 The dangers of technology

Everything that exists have positive and negative effects. The only choice is to equate and balance the two effects and always work to maximize the positive and minimize the negative at the same time. Technology have its positive and negative effects but many organizations and countries focuses mainly on the exploitation of the positive effects neglecting the negative effects that follows it. Some negative effects can be dangerous both to the living and non-living things.

Others may not be harmful to anyone but still can affect humans in other ways. Example of a negative effect that are not dangerous but affects humans is the use of robots and machines that replaces manual labor. Robots and machines replacing humans makes humans lose their means of income, even though the robots and machines makes the works easier and less stressful. Some of the dangers of the technology are:

- **Pollution and damage to the environment and human health**

This affects every creature, both living and non-living. The oil spills pollute the land, the sea and the air, while Pesticides that are used to control unwanted insects destroys the lives of other living organisms, carbon dioxide emissions from motor engines pollutes the air, toxic waste from factories and industries pollutes the water and the living creatures in the water, while the recycle and the non-recycle plastics that everyone uses daily pollutes the earth.

- **Emptying the world's natural resources**

Every technology in existence is derived from the natural resources which are at the great expense of the environment that tends to make the earth conducive for living. From the drilling of oil and gas to the material used in producing the advanced electronics, all comes from the mother earth.

- **Wild life extinction**

It is of great concern that the forestry where the wild lives exists is being used for industrial and technical purposes thereby making the creatures living in those areas to come to extinction.

- **Preservation methods**

The use of preservation methods has also contributed to many sides effects of food products which usually loses its nutritional values after preservation. Some of the preservation methods contains products which are harmful to the human system.

- **Effects of technological apparats**

Some researchers had noted that the constant use of technological apparats can be health hazards. While some can cause cancer, constant use of computer and television screens are harmful to the sight organs and can also lead to isolation as people become addicted to the social media making artificial friends and loosing physical contacts with people.

- **The mess in the oil sector**

The menace of the oil industry in the Niger Delta is of major concern. Nigeria government and Shell who are the main oil company operating on land in the Niger Delta have neglected their responsibility to clean up oil spills and other polluted actions the oil industry have caused in the Niger Delta. The soil there is no longer fertile for cultivation, nor the water good for both human consumption and for the water creatures. With the persistence of pollution and environmental damage, the long-term damage to human health and livelihoods becomes an area of concern to humanity.

5 Monetary aids, distribution and transfer inhibitions

While the statistical data of monetary aids recipients normally contains the lists of the LDCs and DCs, the list of the statistical data of FDI is filled with the developing or developed countries. This chapter analyses the areas of monetary aids distribution, the effects, motives, problems and inhibitions of the distribution. The available data clearly shows how the system works.

5.1 Aids to the LDCs and DCs in form of education

It is very common to see that many of the developed countries offer scholarships to many bright students from many developing countries as an aid. This is very good, but what happens to the students after obtaining their degrees with the sponsorships. The system of aid through education is very good and should be encouraged but it is of no use when the sponsored students could not practice what they have learned anywhere in their own country because of the lack of technological facilities.

These people also end up practicing their professions in the developed countries thereby helping the developed countries to advance even further. With the immigration policies by the developed countries, the sponsored students find it more advantageous to work in developed countries where there are facilities and technologies to practice what they have studied. It is still a selective measure, whereby the brightest students are selected, sponsored and allowed to work in the developed countries. The best professionals and skilled personnel from the LDCs and DCs get easy access to immigrate to the developed countries allowing them to stay there and work and be useful to the benefactors' society and government. The benefactors are therefore the ones that reap the results of the sponsorships not the recipient countries.

5.2 Reasons for suppressing technological advancements

- The fact that many of the LDCs and DCs have enormous natural resources poses problem for the developed countries because they are afraid that with the availability of the natural resources in the LDCs and DCs, the chance of them becoming technologically advanced will make them (developed countries with less natural resources) less significant
- The LDCs and DCs will become economically independent of the developed countries.
- There will be no more tapping of the natural resources of the LDCs and DCs by the developed countries.
- There will be power shift as the rise of Chinese technological advancement is a very good example today.
- The need for selection of the best human resources by the developed countries from the LDCs and DCs countries for cheap labor will be a closed chapter.

5.3 Technology transfer inhibitions

Whether it was done by the past menaces and atrocities of Europeans through the horrific slave trades, or colonization through multi-National Companies like United African Company (U.A.C)

for the exportation of what they call legitimate trade as trades in Ivory, Palm oil and palm products, rubber, cocoa, gold, diamond and other natural resources, the Europeans especially Britain have exploited Nigeria and other LDCs and DCs. Today they are exactly doing the same through monetary aids, organizations that enforces their interests on others through policies and unreliable nonfunctioning MNCs. One thing is clear, majority of the developed countries are not interested in the development of the LDCs and the DCs, they are only interested in maximizing profits and exploiting the natural resources of the recipients.[48] It is time for the LDCs and DCs to wake up and realize that running to the developed countries is creating more damage than helping them, instead they should embark on the fight and elimination of the following factors which tends to inhibit technology transfer.

5.3.1 Factors inhibiting technology transfer

- Corruption from developed countries, LDCs and DCs.
- Lack of technical knowledge and skills from the LDCs and DCs.
- Bad infrastructures from the LDCs and DCs
- Bad policies from developed countries, LDCs and DCs.
- Selfish interests from developed countries, LDCs and DCs.
- Bad management by LDCs and DCs.
- Perception of LDCs and DCs by the developed countries. Example, school system of the LDCs and DCs are perceived as inferior by the developed countries and western world.
- The transfer of inappropriate educational structures, curricula, and school systems.
- Formation of Western-style trade unions that promotes only the western world's interests.
- The bad organization and orientation of health services by LDCs and DCs.
- The importation of inappropriate structures and procedures for public bureaucratic and administrative systems.
- The influence of rich-country social and economic standards on LDCs and DCs-salary scales, life-styles, and general attitudes toward the private accumulation of wealth.
- The penetration of rich-country attitudes, values and standards that also contributes to a problem widely recognized and referred to as the international brain drain
- The migration of best qualified professionals and skilled personnel to the developed countries.
- Bad leadership models from the developed countries

Another significant factor that suppresses development to the LDCs and DCs by the developed countries is the transfer of the second world values to these countries. This is widely observed in the colonial transfer of second value educational structures, curricular, and school systems. The fact that the educational system is regarded as under standard by the developed countries is because the developed countries themselves have transferred a low standard educational system to these countries. The education obtained from the LDCs and DCs countries are regarded as of no standard in the developed countries. It is very common to see an engineering from the LDCs and DCs working as a cleaner in the developed countries while the demand for the engineering workers are very high in those developed countries. Even some of the products that are usually send to the LDCs and DCs are low valued products or second hand products which are already used by the developed countries.

5.4 Inhibition of technology transfer through organizations and policies

The major medium used by the developed countries to inhibit technology transfer is through policy. The developed countries form allies and organizations with the main aim of making policies in form of restrictions and sanctions towards countries that oppose their plans and interests. Even though that these organizations may seem like they are working for global interest, but in reality, the organizations are working for the interests of the world powers and developed countries. Some of these organizations may appoint someone outside the developed countries as a leader to portray the organization as representing everyone, but in reality the opposite is the case. The individuals they normally appoint outside the developed countries are usually puppets that always represent the interests of the developed countries. IMF and UN are examples of the organizations used by the developed countries to checkmate the activities of other countries thereby enforcing their interest to the countries of their choices. The developed countries have their own organizations like NATO, G8, Veto powers etc. that make decisions that affects all non-members of these organizations. One of the major reasons of the formation of these organizations is for the members with mutual interest to work together and create policies that they use as a weapon against oppositions and unfriendly allies. Their aims are normally achieved through sanctions or governments restrictions of the exportation of certain technology, in order to protect their allies against potential enemies. This policy is common with the United States, which restricts the export of advanced defense weaponry to nations such as Iraq, Libya, Syria, and Iran. The worst effect of these policies are the poor masses while the leaders of the countries they normally sanction enjoys lots of luxuries, benefits and freedoms from the same organizations and developed countries. What a hypocrisy and contradiction. A whole country can be sanctioned just because one man who dictates what the government does is against the developed countries. Countries who their masses are currently suffering this today just because their single leader is not in good terms with the western countries are North Korea, Zimbabwe. Other policies that can influence the technology transfer process includes foreign exchange limitations, trade barriers, high taxes, indigenization policies, and legislation on foreign investments.[31]

5.4.1 Inhibition of progressive technology transfer through IMF

The IMF was created in 1944 to promote international economic cooperation, but in reality the IMF activates clearly shows the practice of a modern day colonialism of the LDCs and DCs where they constantly mount pressures on the leaders of LDCs and DCs to cut in spending on education and health care, removal of subsidies, devaluing their currencies to make exports cheaper so that the developed country can have easy access to LDCs and DCs resources, privatization of national assets and freezing of wages. By doing so, they promote poverty, suppress development and building of strong economy and promote exploitation tendencies through MNCs on the LDCs and DCs.

The work of the IMF to the LDCs and DCs in mounting pressure on the devaluation of LDCs and DCs currencies and urging them to borrow more each time the countries' economies are becoming strong in order to "promote trade" is clearly shown when the economy of China began to grow rapidly. What IMF did was mounting pressure on China to revalue their currency. This is because it was easier for China to compete over the products the developed countries were

exporting to other countries. If China revalue their currency, it will make the developed countries have better advantage and still dominate the market. Of course China did not heed to their pressures, we all know the result of China's decision today. Recently, IMF are mounting pressure on Nigerian government to devalue Nigerian currency and encourage them to borrow more money. When Nigerian president refused to devalue the Nigerian currency, IMF refused to loan them money. The reasons are that Nigerian president did not succumb to IMF's request added to the downsized oil prize. So there is nothing to gain for IMF and they left the country in anger realizing that Nigerian did not succumb to their plans. If Nigeria had devalued their currency, it will have been easier for the developed countries to import oil and other valuable resources at very cheap price. What about inflation? The problem here is still that IMF is developed countries organization and as such is always seeking for the interest of the developed countries

5.5 Corruption effect

African leaders may be corrupt but many of the policies made by the developed countries promotes corruption in the highest order and major lootings from the corruptive LDCs and DCs leaders are stored securely in developed countries. Corrupt leaders in LDCs and DCs are trying to do the same thing developed countries are doing, making policies and laws that allows them tap the masses resources and prevent the masses from reaching the loots that they have acquired. No matter how much the western world tries to portray the leaders of the LDCs and DCs as corrupt, the real fact remains that the developed countries promotes corruption through the leaders of the recipient countries in many ways. Nigeria for an example have all the loots from their corrupt leaders scattered all over the developed countries like Britain, Switzerland, USA etc. A very good example is the loot of former Nigerian President General Sani Abacha who died in power, he had the biggest all his loots scattered in Britain and Switzerland and these countries and their leaders call him corrupt while they are using his corrupt money to develop their country. The difference is that while the leaders of the LDCs and DCs take things meant for masses by force, the developed countries leaders make policies and laws that enables them take away what belongs to the masses through these polices and laws. Once a policy is made, nobody has any right to question the laws. Once it is a law, anyone that breaks it becomes a criminal. Another difference between the developed countries, LDCs and DCs is that while the corrupt cabals in the developed countries have remorse for their wrong doings and resign in whatever position they hold, the corrupt cabals in LDCs and DCs are never remorseful for their actions as they can go to any length to defend their nefarious acts and obvious open scandals. This further destabilize any efforts to make any changes as the leaders always shows that anybody can go scot free with any crime as long as the person has the money and is well connected. Examples of unrepentant, shameless corruptive African politicians who go to the extent of foolishly defending and denying their blatant lies and nefarious acts in order to tenaciously hold on to power are

1. The president of South Africa Jacob Nzuma faces corruption scandal and rape case, yet instead of burying his face in shame, he goes around arrogantly trying to deny and justify his actions.[49]
2. The current Nigerian senate president who even hired 90 lawyers to defend a clear proof for his bridge of conduct in assets declaration in public office.[50]

5.6 Creation of animosities within LDCs and DCs by the developed countries

The world has been witnessing one war or the other among the LDCs and DCs, while there is no single war among the developed countries after the end of the 2nd world war. Africa have had its own conflicts and wars based on external and internal causes. A very good example is the case of the British government using Tony Blair as a president to persuade Thabo Mbeki to topple Mugabe, the president of Zimbabwe. South Africa and Britain held different views over how to respond to the crisis in Zimbabwe. While Mr. Mbeki favored a negotiated settlement, Mr. Blair wanted Mr. Mugabe to go by force. Never have Europeans suggested those things towards fellow European countries on European corrupt leaders. Silvio Berlusconi was a very notorious corrupt Italian prime minister, yet no European president or prime minister suggested the use of force to remove him from power. Some of their arguments is that some of the African leaders have been in power for so long and needs some changes. As true as this may be, there also many monarchs in the developed countries who have been serving as monarchs all their lives, though they may be portrayed as not exerting powers, but practically, they all live more luxurious lives with the citizen tax revenues than the so called long serving African presidents, while many of the tax payers live in dormitories as an apartment in their developed countries. They say that charity begins at home. The developed countries should start from the land of their origins.

The video on Thabo Mbeki's interview [51]

“The problem was, we were speaking from different positions,” said Mr. Mbeki, who served as South Africa’s president from 1999 until 2008. “There were other people saying ‘yes indeed there are political problems, economic problems, the best way to solve them is regime change. So Mugabe must go’. This was the difference. So they said ‘Mugabe must go’. But we said ‘Mugabe is part of the solution to this problem’.” Mr. Mbeki noted:

“There is a retired chief of the British armed forces and he said that he had to withstand pressure from the then prime minister of the United Kingdom, Tony Blair, who was saying to the chief of the British armed forces, ‘you must work out a military plan so we that can physically remove Robert Mugabe’.”

Mr. Mbeki explained that the idea was rejected on principle because Britain had no right to decide who leads African countries. “You are coming from London, you don’t like Robert Mugabe for whatever reason - people in London don’t like him - and we are going to remove him and we are going to put someone else in his place? Why does it become British responsibility to decide who leads the people of Zimbabwe?” asked Mr. Mbeki. “So we said ‘no, let Zimbabweans sit down, let them talk’.” [52]

This is exactly what is going amongst the LDCs and DCs and the worst case is that after the invasion, the countries invaded by the developed countries becomes ghost countries. Look at Iraq before the war, when Saddam Hussein was in power, look at Iraq today after Saddam Hussein had been toppled, which is better? The same is applicable to Libya, Libya was a country with lots of developments, economic progress and even the only African country with social welfare when corrupt Muammar Gaddafi was in power, today after he was toppled how does Libya look like? All these things show that the meddling of the developed countries in the affairs of the LDCs and DCs brings nothing but depredation.

5.7 Problems of aid distribution

The two reasons for the ineffective of aids distributions are

1. Conditions of the aid distribution
2. The policies governing the aid distribution

5.7.1 Conditions of the aid distribution

Conditions portrayed, though not easy to fulfill, were closely interrelated with an aim of activating the activity increase in one direction and spurred by resolute predominance of the developed countries over the LDCs and DCs in another direction. Further, this interdependence scheme of aids distribution to the leaders of the LDCs and DCs is a manifest from keeping the LDCs and DCs from advancing forward. The conditions clearly created problems when one attempts to delineate them for the purpose of analysis in the modern world. These things are illusions by the developed countries to continue keeping the recipients in the dark. The fact is that the developed countries were able to achieve technological advancements because they created good environment for this purpose. They did not achieve it by printing money and distributing them to their citizens as they are doing to the LDCs and DCs. They created an atmosphere for the effectivity of technological advancements. Monetary aids to the LDCs and DCs should be discouraged, instead, there should be creation of an atmosphere that is conducive for the technological advancements and better implementation of aid distribution through an accountability and good management of genuine technology transfer.

5.8 “The conspiratorial game”

While the developed countries likes tapping the resources of LDCs and DCs, they refrain in developing the countries. It baffles me whenever the developed countries work together with the corrupt leaders of the LDCs and DCs as long as these corrupt leaders are in accord with the interests of the developed countries when they are in power, but the developed countries normally go against them immediately they lose power. The case of the immediate past Nigerian government is an example of the game. Miss Diezani Alison-Madueke, a well-known Nigerian corrupt minister was the first female to be appointed an OPEC president at the 166th OPEC ordinary meeting in Vienna on 27 November 2014 knowing fully well that she is a corrupt politician, the government she represented was also very corrupt, yet they deemed her fit and elevated her and her government to the post of the OPEC president just to get what they needed from the corrupt government, though acting as OPEC president, she was there as a ceremonial and puppet president who makes no valid decisions. However, immediately the power shifted to the opposition in Nigeria, as she was no longer a part of the government, she was arrested in Britain for money laundering. Funny though. One thing is also observed here, while this corrupt minister Miss Diezani Alison-Madueke was honored and dignified while she was in power just because she was not against the west, a whole country of Zimbabwe was sanctioned just because one man Robert Mugabe was against the west. The different between these two is their view against the western world, and what the two have in common is corruption that eats deep in their veins. Why would the western world adore one in power and despise the other in power?

6 Natural and human resources

Nigeria, the most populated country in Africa is endowed with the biggest human resource in Africa, but these human resource is not utilized in any way. Apart from its human resources and natural oil and gas, Nigeria is also blessed with other enormous natural resources. Nigeria's other natural resources that are not fully explored includes, gold, tin, iron ore, coal, columbite, limestone, niobium, lead, zinc and arable land. Petroleum oil and gas sector accounts for about 35 per cent of gross domestic product. This chapter clarifies other resources at Nigeria's disposal.

6.1 Untapped mineral resources, a viable option for Nigerian government

Coal: Uses of coal. Coal has many important uses worldwide. The most significant uses of coal are in electricity generation, steel production, cement manufacturing and as a liquid fuel. Steam coal - also known as thermal coal - is mainly used in power generation.[53] Among the fossil fuels, coal is the most widely used fuel in power plants. Coal fired power plants boiler use different kinds of machinery that convert heat energy produced from combustion into mechanical energy. Coal advantages is that it is cheap, affordable, reliable, abundant in nature, safe, and easy to use not as complicated as other energy sources. The disadvantages includes emission of carbon, generation of tons of waste, mining destruction of the habitat and scenery and emission of harmful substances to the environment.[54] Before the discovery of crude oil, coal has been used as a commercial fuel both in Nigeria and other parts of the world. Today the Nigerian government focuses more on the exploration of oil and gas while the exploration has declined drastically for the fact that many users of coal have diverted to an alternative energy source such as the use of diesel, natural gas and hydro resources for the generation of electricity.

Lignite: (a soft coal, usually dark brown, often having a distinct woodlice texture, and intermediate in density and carbon content between peat and bituminous coal) and bituminous coal (any of various natural substances, as asphalt, maltha, or gilsonite, consisting mainly of hydrocarbons). Can be located at Eastern part of Nigeria (Umuezeala, Umuahia, Nnewi, Oba, Ogwashi, Asaba, Mgbiiigliba, etc.).

Columbite: Columbite is a black, crystalline mineral, iron niobate, $(\text{Fe, Mn, Mg}) (\text{Nb, Ta})_2\text{O}_6$, the principal ore of niobium, an end member of a series of solid solutions in which manganese and tantalum combine to form tantalite. It has a submetallic luster and a high density, a niobate of iron and manganese. Columbite ore is used as an alloy of steel to form weldable high speed steel for radio transmitting valves and heat sensitive detective devices. Columbite is a substitute for tantalum, which is often used in the electronics and telecommunications industry for the production of electronic gadgets.

Columbite can be found in Northern part of Nigeria (Plateau, Kano, Kaduna, Bauchi, Kogi and Nassarawa states). Columbite is a black mineral group, an ore of niobium. The estimated Return of Investment (ROI) of columbite ore is between 10 to 15%

Limestone: Limestone is a sedimentary rock consisting predominantly of calcium carbonate,

varieties of which are formed from the skeletons of marine microorganisms and coral. Limestone is used as a building stone and in the manufacture of lime. Other uses of limestone include building of sculptures and monuments, production of paints, tooth paste, detergents, soaps, pharmaceutical products, cosmetics, ceramics, asbestos, industrial adhesives, paper conversion, livestock concentrate, chemical fillers (rubber and plastic products) steel and iron refinery. Limestone is located both in the eastern and northern regions (Borno, Sokoto, Cross River and Benue) of Nigeria.

Tin: Tin is a low-melting, malleable, ductile metallic element nearly approaching silver color and luster. Tin is used in plating and in making alloys, tinfoil, and soft solders. Tin is an element with chemical Symbol Sn, atomic weight of 118.69, atomic number 50, and a specific gravity of 7.31 at 20°C. The production of tin oxide is used in paint, paper and ink industries, production of tin oxide resistors, electric lead wires. If fully utilized, the estimated Return of Investment (ROI) in the milling, packaging and export of tin ore is between 10 to 30 percent. An estimated 10,546 tons are found in the northern part of Nigeria (Jos and Plateau).

Some major industries in Nigeria and their locations

Rice:	Abakaliki, Ogoja and Ekiti
Marble:	Igbeti
Salt:	Ebonyi and Abia
Wood processing:	Port Harcourt and Sapele
Palm Oil products:	Rivers, Kogi, Cross River, Anambra, Imo and Delta, etc.
Cement:	Cross River, Ondo and Oyo

6.2 Location of Nigerian natural resources, agricultural products, cultural heritages and tourist attractions

Below are some of the natural resources at Nigeria's disposal, the agricultural products, the cultural heritages and tourist derivations through the tribal diversifications.

Eastern region

Abia State

Natural Resources: Gold, Limestone, Lead/Zinc, Oil and Gas, Glass-Sand, Gypsum, Iron-ore, Lignite, Phosphate

Agricultural products: Yams, Cassava, Palm oil and palm products, Rubber.

Tourist attractions: National War Museum at Umuahia where relics of the Nigerian civil war and inventions are displayed. Akwette - Blue River Tourist Village, Uwana Beach Akwette is also famous for its unique weaving industry.

Market places: Aba - Central Market, electronics and indigenous technology city.

Anambra State

Natural Resources: Iron Ore, Limestone, Coal, Lead, Zinc, Oil and Natural Gas.

Agricultural Products: Cocoa, Palm Oil and palm products, Maize, Rice, Cassava.

Tourist attractions: Odinani Museum at Nri. The River Niger with the famous Niger bridge links the bustling commercial town of Onitsha with ports at Port Harcourt, Burutu and Warri in Delta State.

Market places: Onitsha main market, the biggest market in west Africa, Nnewi main market

Akwa Ibom State

Agricultural Products: Largest Palm Forest in Nigeria, salt.

Natural Resources: Oil and Gas, Iron, Coal, Gold, Clay, Limestone, Laterite and Gravel, Uranium

Tourist attraction: Ibeno famous for yachting and swimming, Oron Museum - collection of finest carvings in Africa, Opobo Boatyard. Natural sand beaches at Ikot Abasi.

Bayelsa

Agricultural Products: Palm oil and palm products, rubber, cocoa, rice, plantation, banana, yams, coco yams, coconut, cassava, sugar cane, sweet potatoes and pineapple.

Natural Resources: Gypsum, Limestone, Uranium, Manganese, Lignite, Lead/Zinc, Oil and Gas, Uranium

Cross River State

Natural Resources: Limestone, uranium, Manganese, Lignite, Lead/Zinc, Oil and gas, Barte, Uranium

Agricultural Products: Fish production, Salt.

Tourist attraction: Obudu Cattle Ranch. Agboin Falls and Kw Falls near Oban. Gamer Reserve at Okwangwo in Obudu local government and Boshi Game Reserve.

Delta State

Natural Resources: Glass-sand, Gypsum, Iron-ore, Kaolin, Lignite, Marble & Oil/Gas

Agricultural Products: Rubber

Tourist attraction: Sandy beaches of Asaba, Koko Port Ajagbodudu,

Industry: ATP Timber and Plywood Factory at Sapele

Ebonyi State

Natural Resources: lead, zinc, Gold

Agricultural Products: Rice, Yam, Groundnut

Tourist attraction: Modotel, Ebonyi Hotel, Modern golf course. Abakiliki was one of the oldest towns in the Eastern Region that displayed annual agricultural shows through the initiative of Dr. M. Okpara.

Industry: Nkalagu cement factory

Enugu State

Natural Resources: Coal, Lead, Limestone, Gypsum.

Agricultural Products: Rice, Yam, Cashew Nuts, Cassava.

Natural Resources: Coal, Lead, Limestone, Gypsum.

Tourist attraction: Miliken Hill, Nike Lake, Iva Valley Coal Mines.

Imo State

Natural Resources: Lead/Zinc, Oil and Gas, Limestone, Gypsum, Lignite, Marcasite, Phosphate

Agricultural Product: Cassava, Palm oil and palm products, Rubber, Cocoa, Rice, Maize, Yam, Salt

Tourist attraction: Oguta Lake Holiday Resort. The Rolling Hills of Okigwe. Owerri amusement Park, The Nekede Botanical Zoological Gardens. The Palm Beaches Tourist Village at Awomama.

Rivers State

Natural Resources: Crude Oil, Natural Gas, Lignite, Glass sand

Agricultural Products: Palm oil, Citrus fruits, Coconut, Banana, Cassava.

Tourist attraction: Isaac Boro Park, Nigeria's first petroleum refinery at Elesa Elema, Water Glass Boatyard. Isaka Holiday Cruise Island, Oil well at Oloibiri. The River line town of Bonny with Finima Beach. Monument of King Jaja of Opobo. Slave transit hall at Akassa. The Onne Port.

Western region**Edo State**

Natural Resources: Limestone, Iron-ore, Gypsum, Gold, Dolomite, Phosphate, bitumen, Oil and gas

Agricultural Products: Rubber and Crepe. Timber, Palm Produce, Cocoa.

Tourist attraction: Benin Museum, Benin Moat, Emotan Statue, Somorika hills, Udo Tourist Centre, Benin is famous for its unique bronze, brass, ivory works of art.

Lagos State

Seaports: Apapa and Tin Can Island.

Industry: There are more than 2,000 industries of various sizes and descriptions in Lagos State.

Tourist attraction: Victoria Island bar beach, Badagry beach, Lekki Penninsula. National Museum

Market places: Trade fair complex, Alaba international, Oshodi, Idumota lagos, Ikeja computer village

Ogun State

Natural Resources: Large deposits of Limestone, Phosphate, Kaolin.

Agricultural Products: Cocoa, Rubber, Timber, Kolanuts.

Tourist attraction: The Centenary hall at Abeokuta, Olumo Rock.

Ondo State

Agricultural Resources: Cocoa

Tourist attraction: Owo National Museum, brass and bronze works Egbaren Estate, Ikogosi Warm Spring, Idanre Hills Igbokodo Water Front, Ipole-Iloro Water falls, Oko Marie Hills, Ebomi Lake

Oshun State

Natural Resources: Marble, Tin Columbite.

Agricultural Products: Cocoa, Coffee, Soya beans, Kola-nuts, Tobacco.

Tourist attraction: Opa Oranmiyan at Ile-Ife, Ife City Walls at Ile-Ife.

Oyo State

Natural Resources: Tin, Gold, Columbite and Marble exist in commercial quantities.

Agricultural Products: Tobacco, Cocoa, Palm Produce, Beans, Plantain, Cassava, Maize, Kolanuts.

Tourist attraction: Ibadan Zoo, Agodi Zoological Garden, Mbari Arts Center, Egungun, Ode-Ibadan

The Northern region

Adamawa State

Natural Resources: Bentonite, Gypsum, Kaolin & Magnesite

Agricultural Products: Guinea Com, Maize, Cattle, Fish, Millet, Cotton.

Tourist attraction: Three Sisters Hill

Bauchi State

Natural Resources: Columbite, Gold, Cassilerite, Coal, Limestone, Iron Ore, Antimony, Marble,

Agricultural Products: Millet, Coffee, Cottom, Guinea Corn, Maize, Yams, Tomatoes.

Tourist attraction: Yankari Game Reserve with warm spring at Wikki Lame Burra Game Reserve,

Benue State

Natural Resources: Barite, Coal, Gemstone, Gypsum, Iron-Ore, Lead/Zinc, Limestone, Marble

Agricultural Products: Coffee, Rice milling, Seed crushing for oil.

Tourist attraction: Enchanting scenic view of the Rivers Niger and Benue confluence. Ushango Hills. Enemebia Falls, Pleasant beaches, numerous fishing festivals.

Borno State (Home of boko haram, not recommendable for visits at the moment)

Natural Resources: Bentonite, Clay, Diatomite, Gypsum, Hydro-carbon, Kaolin & Limestone

Agricultural Products: Tomatoes, Carrots, pepper Isorghum.

Tourist attraction: Kyarimi Park in Maiduguri, Lake Chad, Sambisa Game Reserve, Fishing festival at Gahsua (Usur) Ngeji Warm Springs. Leather tanning & ornamental leather work.

Kaduna State

Natural Resources: Amethyst, Aqua Marine, Flosper, Gemstone, Gold, Graphite, Kaolin, Hyanite, Mica, Ruby, Sapphire, Sihnite, Superntinite, Tentalime, Topaz & Tourmaline

Kano State

Natural Resources: Tin, Columbite, Casseterite. Pyrochlore, Copper, Gemstone, Tantalite

Agricultural Products: Wheat, Groundnut

Tourist attraction: Baturiya Birds Estuary, The Ayanduwa Fishing Festival, Ancient City Walls

and Gates. The Gidan Makaman Museum, Koofar Mata Dyeing Pits, Kano zoological Garden at Gankum Albaba, Kazaure Rock Ranges. Famous Tiga Dam.

Markets: Kurmi, Sabon-Gari and Kantin-Kwan

Kastina State

Natural Resources: Kaolin

Agricultural Products: Peanut, Maize, Cotton, Guinea Corn, Rice, Yam, Onions, Tomatoes, Wheat.

Tourist attraction: Wall that surrounds Katsina-900 years old with its seven different gates.

Kebbi State

Natural Resources: Gypsum, marble, and Kaolin

Agricultural Products: Millet, wheat and Guinea Corn

Tourist attraction: Argungu Fishing Festival, Kanta Museum

Kogi State

Natural Resources: Iron ore, marble

Tourist attraction: Old buildings used by the Royal Niger Company when it had a royal charter over Nigeria. The Iron of Liberty-located in the compound of the first primary school in Northern Nigeria. The confluence of Rivers Niger and Benue at Lokoja, Borgu Game Reserve.

Kwara State

Natural Resources: Coal, Limestone, Iron, Ore, Feldspar, Tin, Talc, Gold.

Agricultural Products: Cotton, Coffee, Cocoa, Kolanut, Tobacco leaves, Berniseed

Tourist attraction: Esie Stone Image at Esie Kudn Igbomina-Ekiti area of the state. the Kainji and Jebba dams, major sources of hydro-electric power for the country. Mungo Park Monument at Jebba.

Niger State

Agricultural Products: Rice, Maize, Sorghum, Groundnuts, Millet, Sheanut, Beans, Soya, Cotton.

Tourist attraction: Guara Falls in Boru Village, Zuguma Park, Zuguma, Shiror Hydroelectric Dam, Mungo Park's Cenotaph.

Plateau State

Natural Resources: Emerald, Tin, Tantalite/Columbite, Barytes, Iron-ore, Kaolin, Cassiterite, Gold, Lead/Zinc, Dolomite, Bentonite, Cassiterite, Phsochlore, Coal, Wolram, Bismuth, Fluoride, Molybdenite, Gemstone, Bauxite

Agricultural Products: cotton, groundnuts, rice, Irish potatoes, maize, soya beans. Salt

Tourist attraction: National Museum Jos, Traditional Nigerian Architecture Museum, Jos wildlife Safari Park, Zoological Gardens. Asop falls, Kura falls, Wase Rock, Kerang volcanic Mountain

Sokoto State

Natural Resources: gold, Clay, Kaolin, Gypsum, Salt, Marble, Granite, Flipper and Limestone.

Agricultural Products: wheat, Maize, Millet, Guinea Corn, Rice, Beans, Groundnut, Cotton, Sugarcane, Tobacco. Livestock production is a major activity in Sokoto State.

Tourist attraction: Gibadi Rocks ancient fossils

Taraba State

Natural Resources: Lead/Zinc

Tourist attraction: Enchanting Mamilla Plateau, Gashaka and Karimbela Game Reserves

Yobe State

Natural Resources: Soda Ash and Tintomite

Agricultural Products: Millet, wheat.

Tourist attraction: Biu

6.3 Nigerian human resources and its cultural diversities

Current facts about Nigeria

- Africa's largest economy and most populous nation
- Oil rich, but facing worst economic crisis in years after falling oil prices
- Approximately 46% of about 180 million population live in poverty
- Average annual earnings - \$2,970 (£2,117)

Source: World Bank

7 Infrastructure

Unreliable Infrastructures and their potentials

The urgent need for technology transfer through infrastructures can be seen in terms of the Nigerian infrastructural conditions today. The conditions of the Nigerian infrastructures are nothing to write home about. For a well-functioning society, there are always a balance between infrastructures and population growth, but in Nigeria, with the enormous wealth they realized from oil during the oil boom era, today Nigeria have no reliable functioning infrastructures. The poor infrastructures stretches from roads and rails, to irrigation systems and water pipelines, to mobile and broadband networks, and to housing and energy, the current supply is simply bad, the question is how worse can it get? The problem is the lack of insight by the Nigerian leaders as the already made ones are saddled with poor construction and bad maintenance. Another problem is that the Nigerian government does not know that the development of the infrastructures should be proportional with the growing population, but in reality, the infrastructures are reverse proportional with the growth. While the Nigerian population is fast growing, the state of the infrastructures is deteriorating. Poor construction, bad maintenance and under investment are among the reasons that hinders the masses from enjoying good reasonable and reliable infrastructures. Nigerian inability of awarding contracts to the organizations with good reputations is also a huge problem. Mr. Dore from the African Development Bank (ADB) said that “Because of lack of infrastructure, industrialization and manufacturing that are known to create jobs have not grown”, he concluded that Nigerians cannot imagine what the infrastructure deficit is costing Nigerians. The Infrastructure Bank’s Mr. Oyinloye laments that “it translates into an atrocious environment for doing business poor quality of life, low national productivity, a very thin industrial base, and over dependence on imported products. All of these perpetuate poverty, unemployment and underdevelopment. The most internal cause of technology transfers and underdevelopment in Nigeria is lack of functional infrastructures. Infrastructures consists of the fundamental facilities and systems in which a country is build.

This chapter focuses on the present state of the various infrastructures in Nigeria at the moment. These infrastructures include, power plants (electricity), transportation system, communication system, school system. Some detailed infrastructures, their effects and the potentials includes:

7.1 Energy sector

One of the worst non-functioning infrastructures in Nigeria is the power sector and this is also where the masses are exploited most. There is no reliable electricity in every household, yet the power operatives send gigantic bills to all households each month to pay for the electricity they never used. Imagine a country with a population of about 180 million today with the same power generation of about 4,000 MW, with installed capacity of about 5,900 according to the data from United States in 2011. in comparison to South Africa with an installed capacity of 44,000 MW, having a population of about 53 million as of 2013, according to the Department of Energy. In Nigeria, the huge population exerts extra pressure. “The population has grown, but the energy stocks have not been increased since the 80s,” argues Kunle Oyinloye, CEO of The Infrastructure Bank. Chinedu Nebo, the former Minister of Power during Goodluck Jonathan’s administration

lamented on the poor infrastructural development in Nigeria. “our economy has been growing on average 6 percent annually for the last five years, yet more than 50 percent of the population has no access to electricity, imagine what would happen in terms of economic growth when our nation attain sufficiency in power supply”.

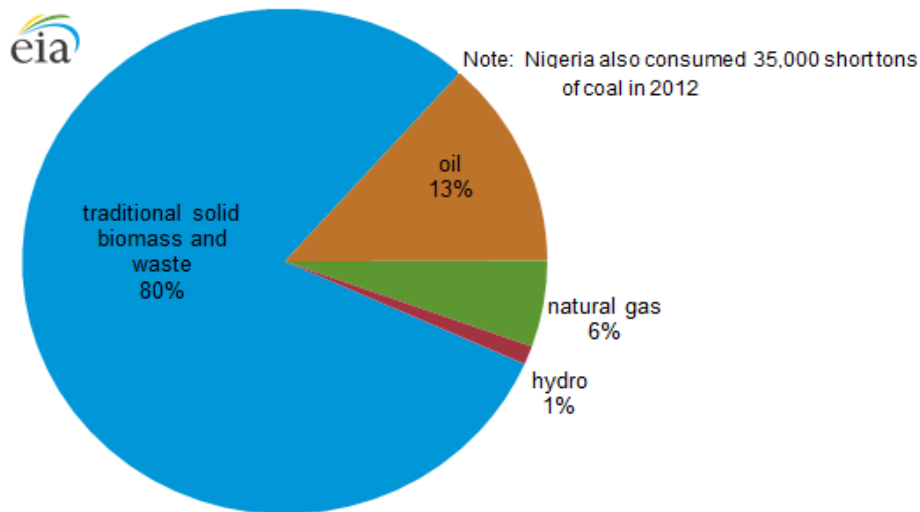
The quest for infrastructural improvements led to the government's approval in the appetite of private investors for investment in Nigerian infrastructure by ushering a multibillion dollar privatization program for energy generation and assets distribution, as it led to the largest power reform ever seen in sub-Saharan Africa. Its aim is to improve the notorious opaque management of the former state power monopoly the Power Holding Company of Nigeria (PHCN), whose acronym entered common parlance and came to be jestingly referred to by many Nigerians as “Please Hold Candle Now” and to make blackouts a thing of the past. Trust Nigerian criminal politicians, every progressive move by well meaningful Nigerians is another tactical way for the corruptible politicians to exploit the situation. The regrets here is that each time good suggestions are made, the Nigerian government always connives with some of the corruptible individuals in and outside the government and allot the privatization of everything including the energy sector to the same unqualified, inexperienced and corrupt individuals, family relations or friends with criminal records who in many ways made their wealth by looting the national resources and economy dry. In the energy sector, What the Nigerian government did was worsening the situation by allowing criminals to take over the power sectors as investors. All Nigerian investors have the problem of working like contractors without proper experiences, while those with proper experiences never gets the chance to practice what they have learned because of connection principles. Nigeria is one of such countries where many high ranked and profiled national contractors have managing directors who are stark illiterates, trumpet blowers and inexperienced personnel who are managing the positions because the owner of the company happens to be the father or a friend who became rich by looting the Nigerian economy. This is why its normal in Nigeria to see an investor who have no knowledgeable experience investing in power sector and then inflates monthly bill without rendering any services just to make profits. How is it possible to deteriorate from services when the actual aim is to improve? This is the actual changes that is known in Nigerian government. Nigerian government should now encourage experienced foreign investors with good knowledge and advanced technologies in energy who can be able to transfer this knowledge and skills to enormous Nigerians who are ready to be utilized as tools for the development of the power sector in Nigeria.

As Nigerian government open up doors for investors in the energy sector, there are challenges to be met. Power investors have been confronted regularly with inadequate supplies of gas to power the newly privatized plants. Therefore, this is also another area where investors are required to intervene. “Nigeria is well endowed in natural gas, which is the logical way to generate the bulk of its power needs, but there is a shortage of infrastructure for gas,” says Seven Energy’s Mr. Ihenacho, pointing to opportunities in gas supply through pipelines and road. His company recently invested \$100m in gas-to-power infrastructure, in partnership with the Nigeria Sovereign Investment Authority (NSIA). This will also enhance a competitive advantage that will lower the hiked price from the monopolized inexperienced private thieves with no skills who are handling the power sectors now. In the energy sector now, these individuals have devised another method of exploiting the human resources through inflating bills. Imagine a scenario where an average

family who usually receives a monthly electricity bill of 300 naira now receives 30 000 naira monthly bills just like that without even enjoying a day of electricity. To compound the problems, the state of the energy is now worse than it was when the government organization PHCN through Nigerian Electrical Power Authority (NEPA) was entirely in charge of the Nigerian energy distribution. The question now is which way Nigeria, are Nigerians moving forward or backward? The menaces of the poor infrastructures in Nigeria leads to the low quality of the life of the millions of Nigerians. The majority of Nigerian citizens, who cannot afford either fuel or diesel generators to supplement the blackouts and the unreliable power sector in Nigeria, have little or no access to electricity. Those rich ones who can afford it continue polluting the environment with emissions from their generators and the noises they give to the society. This is unclean energy consumption!

7.1.1 Total primary energy consumption

The U.S. Energy Information Administration (EIA) estimates that in 2012 total primary energy consumption in Nigeria was about 4.5 quadrillion British thermal unit (Btu). 80% of this amount are traditional biomass and waste consisting of wood, charcoal, manure, and crop residues. This occurs because the use of biomass to meet off-grid heating and cooking needs, mainly in rural areas. It's important to note that estimates of traditional biomass consumption are not accurate because biomass sources are not typically traded in easily observable commercial markets. The electricity rate in Nigeria is estimated at 41% leaving about 100 million people in Nigeria without access to electricity.[151]



Source: U.S. Energy Information Administration, International Energy Agency

Figure 7.1: Total primary energy consumption in 2012

Capacity, demand, generation and comparison with other countries

All the ranking is taken without the European Union which was added in the statistics as a country to determine the ranking. This is because European Union is not a country but an organization.

- **Electricity**

Year of research and comparison:	2012
Estimated production:	27,27 billion kWh
Country comparison to the world (ranking):	67th out of 219 countries
Estimated usage:	24.78 billion kWh
Country comparison with other countries:	67th out of 218 countries
Total installed generating capacity:	6.09 million kW
Country comparison to the world (ranking):	71th out of 213 countries

- **Year of research: December 2013 [55]**

Total installed capacity of the power plants:	6,953 MW.
Available capacity:	4,598 MW.
Actual average generation:	3,800 MW

- **Year of research: December 2014[56]**

Total installed capacity of the power plants:	7,445 MW.
Available capacity:	4,949 MW.
Actual average generation:	Less than 3,900 MW.

Year of research: April 2015

The Presidential Task Force on Power's peak demand forecast is 12,800 MW

7.1.2 Power plant (electricity)

The effectivity of the industrialization of every country depends on the availability of sustainable power in that country. Without effective power in place, industrialization becomes unattainable, and without proper facilities for industrialization, technology transfer becomes unachievable. Though the Nigerian government claims that Nigerian power plant are in two major operations, but these power plants are far from generating reasonable power to the masses. The main commercial city of Nigeria Lagos, does not enjoy an average of 2 hours' steady power generation a day. The blackout can occur from hours to days, from days to weeks and from weeks to months. The same goes to all the other places in the country.

The major problem with the unsustainable and unstable power is that it suppresses development and progress and makes the processing of everything in the country especially agricultural products and industrialization impossible. Lots of people have great ideas but cannot develop them technically due to unstable power supply in the country. There are many Nigerian citizens that live in many developed countries where they had gained knowledge and skills that are needed for technology transfer, but due to power problem, they are forced to stay in the developed countries and practice their skills over there.

The two operative power plants in Nigeria are

1. Hydroelectricity
2. Fossil fuel (Thermal Energy)

The power plants are either solely owned by the federal government, jointly owned by the federal government and the locals or even owned by private companies. The power plants are operated under various names like NEPA, IPP, NIPP, NDPHC

7.1.3 Hydroelectricity

Hydroelectric is electricity generated through waterfalls with the gravitational force of falling or flowing water. This is done by directing water flow through a turbine, where the water causes fans to turn, creating the torque needed to drive an electric generator.

The hydroelectric power plant stations in Nigeria, locations and capacities includes:

Electricity from hydroelectric plants

Year of research and comparison: 2012
 33.5% of total installed capacity
 Country comparison to the world (ranking): 66th out of 213 countries

Electricity from other renewable sources

Year of research and comparison: 2012
 1.5% of total installed capacity
 Country comparison to the world (ranking): 87th out of 211 countries

Table 7.1: Operating stations (cost in million US dollars)

Station	Region(state)	Type	Capacity	Commission	Name	River	Cost
Kainji	North(Niger)	Reservoir	800MW	1968	Kainji Dam	Niger river	209
Jebba	North(Niger)	Reservoir	540MW	1985	Jebba Lake	Niger river	
Shiroro	North(Niger)	Reservoir	600MW	1990	Shroro Lake	Kaduna river	
Zamfara	North(Zamfara)	Reservoir	100MW	2012	Gotowa Lake	Bunsuru	

Source: Nigeria's <Hydroelectric Dams

Table 7.2: Under construction

Station	Region(state)	Type	Capacity	finish	Name	River	Coordinate
Kano	North(Kano)	Reservoir	100MW	2015		Hadeja river	
Kiri	North(Adamawa)	Reservoir	35MW	2016	Kiri Dam	Benue river	
Mambilla	North(Taraba)	Reservoir	3050M W	2018	Gembu,S um	Donga river	6°41'46"N11°0 9'16"E

Source: Nigeria's Hydroelectric Dams

7.1.4 Fossil fuel (Thermal Energy)

Fossil fuel is generated by hydrocarbon of natural gas, petroleum or coal formed in the geological past from the remains of living organisms. The azura proposed[57]

Electricity from fossil Fuels

Year of research and comparison: 2012
 65% of total installed capacity
 Country comparison to the world (ranking): 120th out of 213 countries

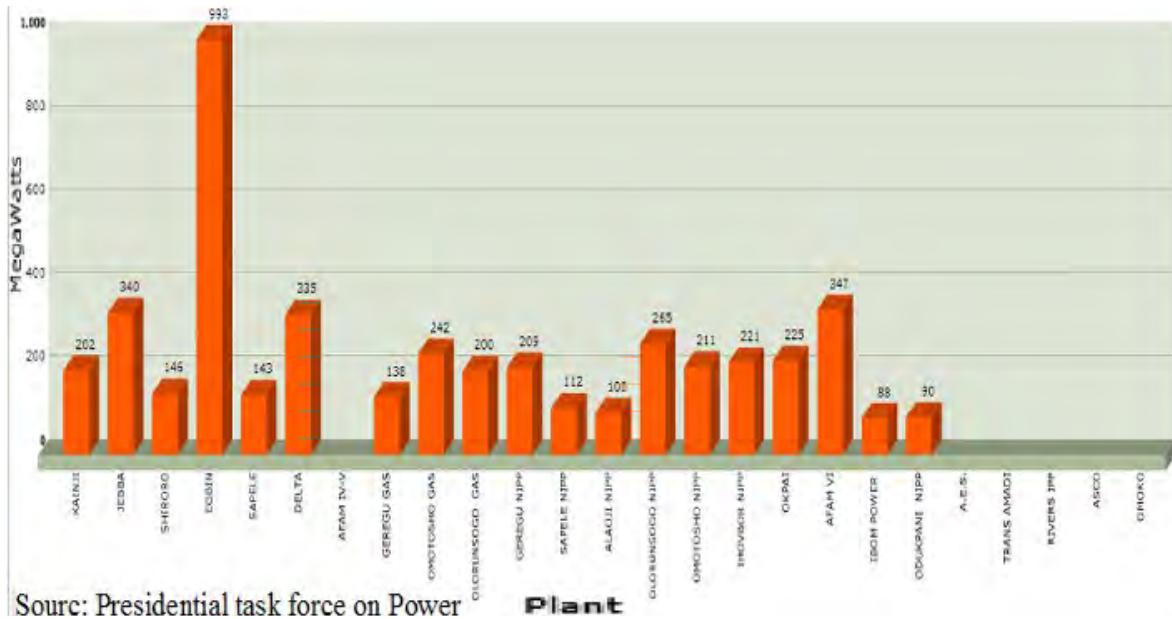


Figure 7.2: The Peak Generation Details (PGD) 14.08.2015

Table 7.3: The fossil power stations in Nigeria generated by natural gas. Azura proposed [57]

Station & Ownership	Region(s) (state)	Type	Capacity in MW	Commi ssioned	Status	coordinate	Source
Egbin	West (Lagos)	Gas-fired steam turbine	1320 (6x220)	1985 - 1986	Partially operational	6°33'47"N 3°36'55"E	Escravos Lagos Pipeline System
AES Barge(IPP)	West (Lagos)	Simple cycle gas turbine	270	2001	Non operational	6°33'33"N 3°36'54"E	Escravos Lagos Pipeline System
Aba (IPP)	East (Abia)	Simple cycle gas turbine	140	2012		5°09'11"N 7°18'38"E	
Afam IV (FGN)	East (Rivers)	Simple cycle gas turbine	450 (6x75)	1982	Non operational	4°51'05"N 7°15'17"E	Okoloma gas plant
Afam V (FGN)	East (Rivers)	Simple cycle gas turbine	276 (2x138)	2002	Non operational	4°51'05"N 7°15'17"E	Okoloma gas plant
Afam VI (IPP)	East (Rivers)	Combinecycl e gas turbine	624	2009	Partially operational	4°50'58"N 7°15'24"E	Okoloma gas plant
Alaoji (NIPP)	East (Abia)	Combinecycl e gas turbine	1074	2012 – 2015	Partially operational	5°04'00"N 7°19'24"E	Norten Option Gas Pipeline
Calabar (NIPP)	East(Cross River)	Simple cycle gas turbine	561	2014	Non operational		UQUO gas plant
Egema (NIPP)	East (Imo)	Simple cycle gas turbine	338	2012 – 2013	Non operational	5°33'56"N 6°44'18"E	Gbarain Ubie gas plant

Table 7.3: The fossil power stations in Nigeria generated by natural gas continues

Station & Ownership	Region(s tate)	Type	Capacity in MW	Commi ssioned	Status	coordinate	Source
Gberegus I Privatised	North (Kogi)	Simple cycle gas turbine	414	2007	Partially operationa		Oben-Geregu pileline, gas
Gberegus II (NIPP)	North (Kogi)	Simple cycle gas turbine	434	2012	Partially operational		Oben-Geregu pileline, gas
Ibom (NIPP)	East(Ak walbom)	Simple cycle gas turbine	190	2009	Partially operational	4°33'53"N 7°34'06"E	
Ihovbor (NIPP)	West (Edo)	Simple cycle gas turbine	450	2012 – 2013	Partially operational	6°24'20"N 5°41'00"E	Escravos Lagos Pipeline System
Okpai (IPP)	East (Delta)	Combinecycl e gas turbine	480	2005	operational		Obiafu-Obrikom gas plant
Olorunsug o I	West (Ogun)	Simple cycle gas turbine	336 (8x42)	2007	Partially operational	6°52'55"N 3°18'52"E	Escravos Lagos Pipeline System
Olorunsug o NDPHC	West (Ogun)	Combinecycl e gas turbine	450(4x1 12.5)	2012	Partially operational	6°53'08"N 3°18'56"E	Escravos Lagos Pipeline System
Olorunsug o II(NIPP)	West (Ogun)	Combinecycl e gas turbine	225(2x1 12.5)	2012	Partially operational	6°53'08"N 3°18'56"E	Escravos Lagos Pipeline System
Omoku I	East (Rivers)	Simple cycle gas turbine	150	2005	Non operational		
Omoku II (NIPP)	East (Rivers)	Simple cycle gas turbine	225	2013	Non operational		
Omosho FGN Priva	West (Ondo)	Simple cycle gas turbine	336	2005	Partially operational	6°44'09"N 4°42'39"E	Escravos Lagos Pipeline System
Omosho (NIPP)	West (Ondo)	Simple cycle gas turbine	450	2012	Partially operational		Escravos Lagos Pipeline System
Sapele	East (Delta)	Gas-fired steam turbine	720 (6x120)	1978 – 1980	Partially operational	5°55'31"N 5°38'44"E	Escravos Lagos Pipeline System
Sapele	East (Delta)	Simple cycle gas turbine	300 (4x75)	1981	Partially operational	5°55'31"N 5°38'44"E	Escravos Lagos Pipeline System
Sapele (NIPP)	East (Delta)	Simple cycle gas turbine	450(4x1 12.5)	2012	Partially operational	5°55'40"N 5°38'41"E	Escravos Lagos Pipeline System
Transcorp Ughelli	East (Delta)	Simple cycle gas turbine	900	1966 - 1990	Partially operational	5°32'28"N 5°54'56"E	Utorogu, Ugheli East gas plant
Azura Benin City	West (Edo)	Simple cycle gas turbine	450	Propose d	In Progress		

Table 7.4: The various fossil power stations in Nigeria generated by coal

Station	Region(state)	Type	Capacity	Commission	Status
Itobe	North (Kogi)	Circulating Fluidized Bed technology	1200MW	2015 - 2018	In Progress

- **Solar Energy, an alternative to the Nigerian power problems**

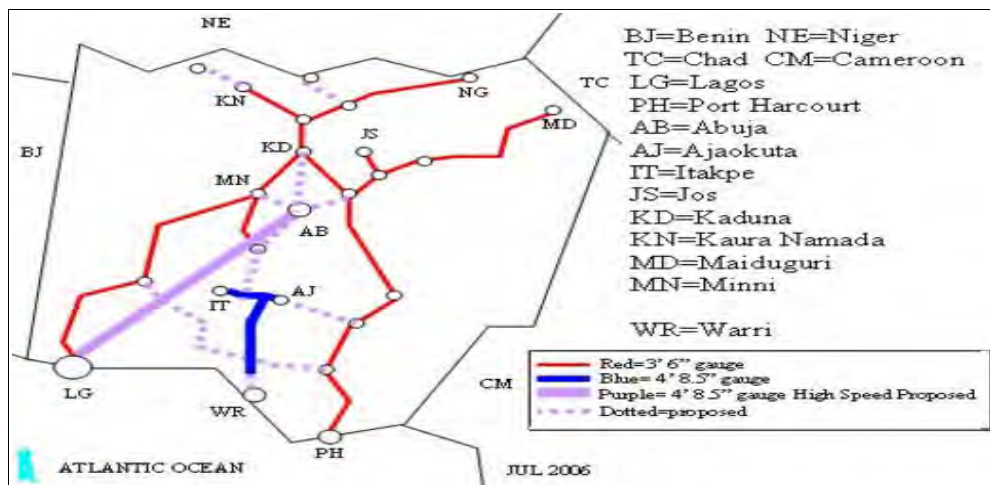
Nigerian power demands can be improved with the availability of solar energy. I therefore recommend Nigeria for any Norwegian energy company that wishes to invest in solar energy in Africa. Investing in solar energy will help to increase technology transfer and at the same time help Nigerians with clean, sustainable energy and steady power consumption

7.2 Transportation system

It is a big shame that a country with the biggest population in Africa cannot use the advantage of its human resource to increase its GNI due to the fact that the northern regions think that creating good and better transportation system in the commercial cities of the eastern and the western region will add to the cities growth rather than the growth of the northern region. This is why better transport system is mainly found in the north where it does not give any economic growth to the nation. The Weakness of Nigerian's infrastructural developments is a very big hindrance to the progression of foreign and local investments. The difficulties in markets access through crumbling roads, clogged up ports, and vast expenditure on generators required to avoid blackouts, are regularly cited as being among the biggest challenges to investors in Nigeria at the moment. Due to the poor roads and heavy traffics, Nigerian masses usually spend hours commuting distances that should have taken minutes in all the commercial cities in Nigeria. Majority of the accidents on the roads are caused by poor roads as many of the highways are full of potholes thereby endangering the lives of the Nigerian masses every day and even contributes immensely to the post-harvest losses that stretches and destroys the livelihoods of millions of farmers all year round. This is why there is a great need for Nigerian government to prioritize the development of the national economy by investing heavily on the transport system. There is no organized mass transport system as the only thing that exists are commercial transporters who commute passengers at their own expense. It is quite awkward to note that with the enormous human resources at Nigerian disposal, Nigerian government are yet to realize the benefits of utilizing the human resources through the operation of a well-functioning transportation system in the country. Well organized mass transport can go a long way into increasing the country's economic growth. If there are well organized transport system by the government, the nation will gain a lot by creating jobs. It is quite unfortunate that the bogus budgets made every year on transportation always goes directly into the pockets of criminals who tender themselves as contractors. Up till today, Nigeria have no functioning railway system. Many of the old railways have become market places as the rail lines are not in operation any longer. Even the refineries in Nigeria are all bad and out of shape. What Nigerian government is doing is that it exports the raw crude oil to foreign countries to refine and then buy this back after it had been refined for local consumption. Roads are awarded, but none of the awarded roads have neither been constructed nor completed to international standards. Foreign construction companies like Julius Berger have been constructing roads in Nigeria for many years now, but yet, there is little or no Nigerian construction company that have a reputation of constructing roads up to an international standard.

7.2.1 Railways transportation system

Nigerian railways are operated by Nigerian Railway Corporation (NRC). It has two major rail lines that links the eastern region and the western region to the northern region. Nigeria's rail system has 3,557 kilometers ft. 6 in (1,067 mm) gauge track. The railway from the east links the north from Port Harcourt to Borno, (the home of boko haram in the north). The railway from the west starts from Lagos, pass through bight of Benin and nguru to Kano, also the north.[58] Recently, Nigerian rail network is in a mess as the only operational segment of Nigeria's rail network is between Lagos and Kano as of 2013. It takes Passenger trains 31 hours to complete the journey at an average speed of 45 km/h.[59],[60]



Source: Railway Gazette International October 2008

Figure 7.3: Nigerian Railway tracks

From the map figure 7.3, though the western and eastern region are the commercial regions in Nigeria, the railway main routes are basically routed to the northern region where nothing is happening. The only two routes in the eastern region are located at Warri and Port Harcourt, while the west have only one route located at Lagos. Transportation revenues should be maximized if it is located at a place where it will be fully utilized. While northern region is notorious for its sharia law practice and hence prevent commercial activities in the region, the railways that were constructed and commissioned in Nigeria are practically routed to the north and are not in maximal operation because people have no need to travel to the locations they are routed. China Civil Engineering construction Corporation was awarded a contract by the Nigerian government to build the Lagos to Kano standard Gauge Railway, but the progress of the contract became slowed due to lack of funds as political and sectional regional interests forced divided the contract in segments, While it is expected that the segment from Abuja to Kaduna (another northern region) will be functioning in May 2016, the other segments have not even yet commenced construction.[61] This shows how tribalism keeps the country from moving forward. Using substantial amount of money to construct a railway in a place where there is no need of it is another way of suppressing the technological transfer and economic growth of the country.

The need for good transportation system is to create an easy and better movement for the masses

in order to improve the technological advancements and the growth of the national economy. The marginalization is so huge that it suppresses the advancement of technology in Nigeria. The worst is that all the revenues they are using in the north comes from the east, they do not want to develop the east even when the oil spills in the areas have polluted the soils thereby making it impossible for farming. This is why there are lot of agitations in the eastern region for secession. While Onitsha in the eastern and Lagos in the western region are the main commercial cities in Nigeria, there is no rail lines that connects directly these two regions to these cities. Nigeria supposed to have metros and trams at Onitsha and Lagos to lessen the human traffic experiences in those commercial cities. With the technological advancements in the world today, even with the enormous revenues from oil when the price of crude was at its peak, Nigeria still do not have any single metro or tram network in any of its overpopulated commercial cities as of 2016, though a metro is proposed for the megacity of Lagos but till today, there is no imminent sign of metro establishments in Lagos or Onitsha.[62] Nigerian government is now seeking for the privatization of Nigerian Railway Corporation in order to remedy the poor state of the whole system and thereby embark on an efficient and profitable way of utilizing the Railway system for economic growth. The duration of the three separate concessions will be between 25 to 30 years and thereby can give grants to any interested capable private sector to run the train services in the three regions.[63]

Railways

Year of research and comparison:	2014
Total:	3,798 km
Standard gauge:	293 km 1.435-m gauge
Narrow gauge:	3,505 km 1.067-m gauge
Country comparison to the world(ranking):	50th out of 136 countries

I) Road transport internal (Internal Highways)

Nigeria have no organized road transport system. The commercial transport is operated by private individuals that transport people with commuter buses and cars without any rule or law guiding their mode of operation. In Nigeria there are no traffic laws as the commercial transporters can stop anywhere or anytime they like on the road and pick passengers, increasing the traffic problem on the roads. As of 1990, it was recorded that Nigeria has the largest road network in West Africa and the second largest in south of the Sahara, which is roughly 108,000 km of surfaced roads, however the roads are poorly maintained and is the main cause of the country's high rate of traffic fatalities. In 2004 Nigeria's Federal Roads Maintenance Agency (FERMA) started patching the 32,000-kilometre federal roads network while in 2005 FERMA initiated a more substantial rehabilitation. [63] Though Nigeria can boast of the biggest highway network in Africa, the conditions of this roads are pot holes that normally leads to accidents and destruction of human lives all the time. The two major commercial cities in Nigeria, Lagos and Onitsha are the worst places where the traffics are unbearable. Transporters by the road can sometimes experience 3 to 5 hours of hold ups on the roads before they reach their destinations. The fact that the roads are not properly maintained suppresses the advancement of technology and the improvement of the national economy.

Roadways

Year of research and comparison:	2004
Total:	193,200 km
Paved:	28,980 km
Unpaved:	164,220 km
Country comparison to the world(ranking):	27th out of 223 countries

II) Road transport (International highways)

The Trans Sahara highway to Algeria is proposed and in progress. The trans sahelian highway to Senegal is in progress. The Trans West African Coastal Highway connecting Nigeria, Benin, Togo, Ghana, Ivory coast, Burkina Faso, Mali and further to Liberia, Sierra Leone reaching the other seven other ECOWAS nations further west is still in progress

7.2.2 Water transportation system and Pipelines

The medium where Nigeria can increase its revenue and technology transfer is by the utilization of water ways. There is no governmental interest on the water ways as the only waters ways in utilization are that of the Niger Delta through Lagos lagoon to Cross Rivers. The longest water ways between River Niger and River Benue are not in use. In Norway, the government gets lots of revenues through the sea transportation of masses to different destinations.

- **Waterways**

Year of research and comparison:	2011
Total:	8 600 km
Country comparison to the world:(ranking):	15th out of 107 countries

- **Nigerian Pipelines**

As of 2004 Nigeria had 105 kilometers of pipelines for condensates, 1,896 kilometers for natural gas, 3,638 kilometers for oil, and 3,626 kilometers for refined products. Various pipeline projects proposed by Trans-Saharan gas pipeline for the expansion of the domestic distribution of natural gas and exportation natural gas to Benin, Ghana, Togo through the West African Gas Pipeline (WAGP), and to Algeria the location of the export terminals. [66]

The capacities are: Crude oil 2,042km, Petroleum 3000km, Natural gas 500km

7.2.3 Ports and Harbors

Nigerian have two ports that are managed by the NPA. The main Port is located at Lagos. The Lagos port consists of Apapa and Tincan with rail connections to point inland. The Lagos port handles about 5,75 million tons of cargo every year. The second port is at Port Harcourt a transshipment port located 66 km from the Gulf of Guinea. The port handles about 0.815 million tons of cargo every year. These two ports are used by Nigeria and other neighboring countries Chad and Niger. With all the potentials, the government's negligence of improving the development of the facilities and qualities that can boost the full functioning of the ports to

international level suppress the technological advancements that were needed for the maximum efficiency. A new port with modern and efficient terminals which will be managed by multinational oil companies is under construction at Onne about 25 kilometers south of Port Harcourt. Its main aim of establishment is for the handling of oil and gas exports. [66]

- **Merchant Maritime**

Total: 89
 Type: cargo 2, chemical tanker 28, liquefied gas 1, petroleum tanker 56, specialized tanker 1
 Passenger/cargo 1,
 Foreign-owned: 3 (India 1, UK 2)
 registered in other countries: 33 (Bahamas 2, Bermuda 11, Comoros 1, Italy 1, Liberia 4, North Korea 1, Panama 6, Seychelles 1, unknown 6)(2010)
 Country comparison to the world:(ranking): 54th out of 156 countries

7.2.4 Air transportation system

NCAA are the organization responsible for the management of the air transport in Nigeria. The five international airport in Nigeria and their locations (regions) are[64]

1. Murtala Mohammed international Airport in Lagos (Western region)
2. Akanu Ibiam international Airport in Enugu (Eastern region)
3. Nnamdi Azikiwe international Airport in Abuja Northern region)
4. Mallam Aminu Kano international Airport in Kano (Northern region)
5. Port Harcourt international Airport in Port Harcourt (Eastern region)

Airports

Year of research and comparison: 2013
 Number of functioning airports: 54
 Country comparison to the world(ranking): 87 out of 235 countries

Table 7.5: Statistical data on paved and unpaved airports

Airport type	Airports with paved runways	Airports with unpaved runways
Year of research	2013	2013
Total	40	16
over 3,047 m	10	1
Between 2,438 to 3,047 m	12	0
Between 1,524 to 2,437	9	2
Between 914 to 1,523 m	6	11
under 914 m	3	2

Heliports: Nigeria have about 15 Heliports today

7.3 Communication system

Communication system in Nigeria is another area where technological advancements is much needed. Nigeria suffer much technology transfer through the restriction of media and other communication areas. Though it seems like Nigeria has come a long way in communication system in comparison to other LDCs and DCs, but Nigeria still have a long way to go in comparison to the developed countries. In Nigeria, communications are mainly carried out through media and telecommunications. While communication medium of television, radio and newspapers are becoming outdated, the use of internets through computers and mobiles phones has become trendy and Nigerians are not left out. The main drive for modern communication system in Nigeria is advancing day by day to match that of the other developed countries, though many of the communication systems are not as sophisticated as that of the developed countries yet, but this generation are working on it. Nigerians are not left out as they among the countries that have over 100 million internet subscribers. Even with the high demand for good communication system is in Nigeria, the communication system is very unreliable in the country. Nigeria need an advanced communication system to cover the demand of the population who are in need of quality communication services

7.3.1 Telecommunication system

Telephone system

There is a great need for technology transfer in the telecommunication system in Nigeria as modernization and expansion of fixed line network and quality remains a big problem. The Nigerian fixed-line telephone network needs upgrading to match the modern telephone technology as the one functioning now is not effective. With telecommunication's technological advancement, it is only 1 percent of the population that have installed fixed telephones at their homes and place of works. The non-availability of good quality network prompt Nigerians to give up on fixed lines and use only the services of mobile telephones

Calling code: +234 [65] International call prefix: 009 [66] Connected lines: [67]

Table 7.6: Internet broadband statistical data

Telephone type	Fixed line	Mobile-cellular
Year of research and comparison	2014	2014
Total subscriptions	180 000	139 million
Percent subscriptions per inhabitants	1.00%	78.00%
World comparison (ranking) out of 218 countries	129	8

7.3.2 Network providers in Nigeria and licensing Regime

The distributors of network services in Nigeria includes GSM, GSM operates on 900/1800 MHz spectrum. Other network service providers include MTN Nigeria, Airtel, Globacom, and Etisalat. These network providers are providers that mostly replaced NITEL which was a former ineffective and unreliable fixed lines services network provider in Nigeria.[69]

Table 7.7: Monthly Subscriber Month: August 2015 – Mars 2016

	Operator	Aug2015	Sep 2015	Oct 2015	Nov 2015	Dec 2016	Jan 2016	Feb 2016	Mar 2016
Connected Lines	Mobile (GSM)	N/A	N/A	N/A	N/A	N/A	210,465,003	210,202,453	211,732,836
	MobCDMA	N/A	N/A	N/A	N/A	N/A	3,678,068	3,677,676	3,678,796
	Fixed-line	N/A	N/A	N/A	N/A	N/A	351,625	353,923	353,830
	Total	N/A	N/A	N/A	N/A	N/A	214,494,696	214,234,052	215,765,462
Active Lines	MobGSM	148,703,160	148,427,043	149,683,259	149,787,120	148,681,362	149,022,919	146,288,370	147,398,854
	MobCDMA	2,125,941	2,042,015	2,130,345	2,149,120	2,148,727	2,147,982	2,147,323	1,170,031
	Fixed-line	189,523	191,573	189,517	186,772	187,155	186,868	184,666	176,579
	Total	151,018,624	150,660,633	152,003,124	152,123,172	151,017,244	151,357,769	148,620,359	148,745,464
Tele density	107.87	107.61	108.57	108.66	107.87	108.11	106.16	106.25	

Tele density is calculated based on a national population of 140 million. According 2006 Last Census Population Figures.

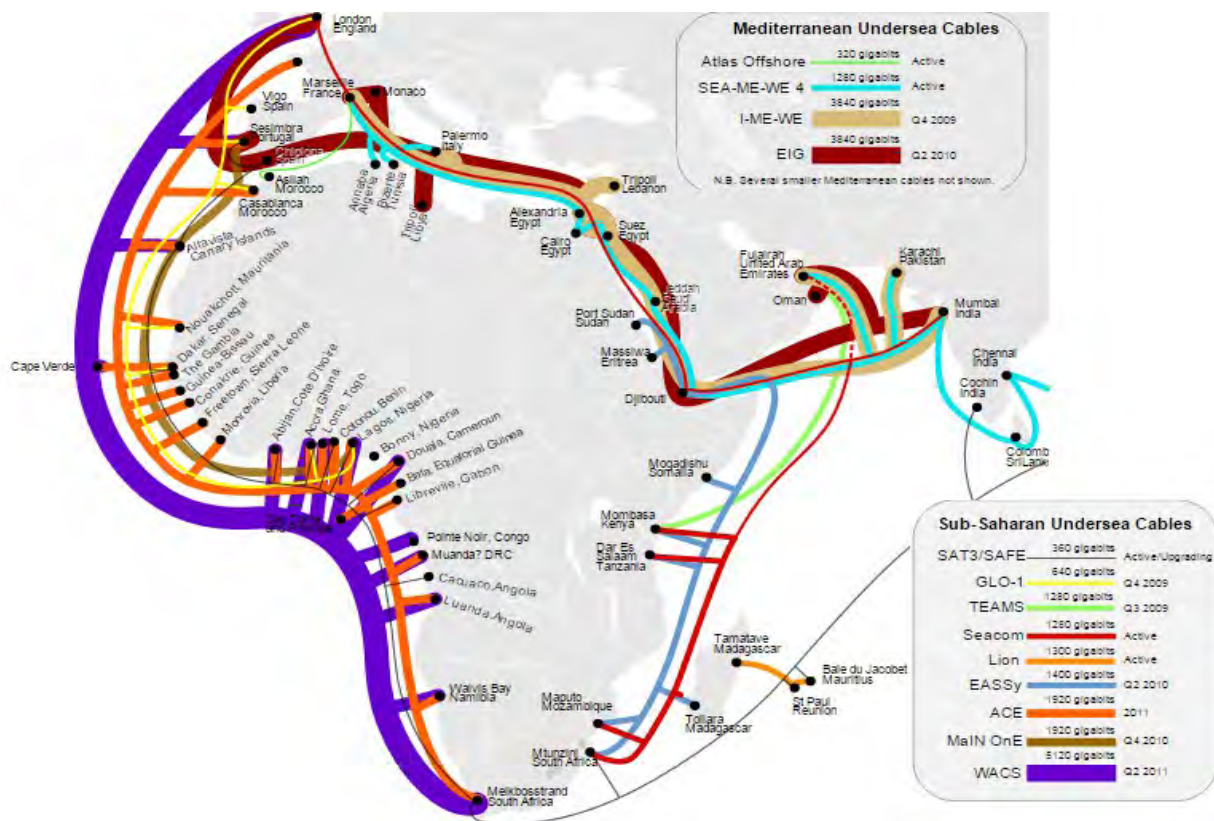


Figure 7.4: Submarine cables in Africa

Satellite earth stations: 3 Intelsat consisting of 2 Atlantic Ocean and 1 Indian Ocean Submarine cables[68]

SAT-3/WASC/SAFE connects countries along west coast of Africa further to Europe and Asia.

ACE connects countries along the west coast of Africa and on to France.

GLO – 1 connects countries along the west coast of Africa and on to the United Kingdom.

Main one connects countries along the west coast of Africa and on to Portugal.

I) Airtel Group

Airtel Africa is a subsidiary of Indian telecommunications company Airtel. It operates a GSM that provides a 2G, 3G or 4G network in 17 countries across Africa depending on country's network operation.[70]










II) Glo

Globacom Limited (GLO) which operates within West African countries of Nigeria, Ghana, Benin Republic and Ivory Coast is a privately owned Nigerian multinational telecommunications company with headquarter in Lagos, Nigeria was established in 2003. As of June 2009, the company has over 2,500 workers,[71]

III) MTN Group

MTN Group a brand formerly known as M-Cell telecommunications company with the head office located at Johannesburg.[72] It operates in many African, European and Asian countries. Nigeria is MTN's biggest customer and subscribers.[73]



Table 7.8: Statistical data of MTN subscribing countries

Country *	Subscribers (in millions) *	Note *
 Afghanistan	6.058	(formerly Investcom)
 Benin	3.259	(formerly Investcom)
 Botswana	1.700	(operates under the Mascom brand)
 Cameroon	9.236	
 Republic of Congo	1.865	
 Cyprus	0.399	
 Ghana	13.055	(formerly Investcom)
 Guinea	2.885	(formerly Investcom)
 Guinea Bissau	0.490	(formerly Investcom)
 Iran	41.783	(operates under the MTN Irancell brand)
 Ivory Coast	7.521	
 Liberia	1.355	(operates under the Lonestar Cell brand)
 Nigeria	57.224	
 Rwanda	4.001	
 South Africa	24.875	
 Sudan	8.672	(formerly Investcom)
 South Sudan	0.732	(formerly Investcom)
 Swaziland	0.813	
 Syria	5.723	(formerly Investcom)
 Uganda	9.549	
 Yemen	5.185	(formerly Investcom, operates under the Spacetel brand)
 Zambia	4.4	

IV) Etisalat

Etisalat is an UAE multinational based telecommunications services provider that operates in countries across Asia, the Middle East and Africa known for its innovative products and services such as the Eco Sim.[74]. It is Nigeria’s fourth GSM operator with about 14 million subscribers.

Table 7.9: Statistical data of Airtel subscribing countries in Africa

Country	Site	Remarks
 Burkina Faso	Airtel Burkina Faso	Airtel Burkina Faso is the dominant player with 1,433,000 customers representing 50% market share.
 Chad	Airtel Chad	Airtel Chad is the #1 operator with 69% market share.
 Democratic Republic of the Congo	Airtel DRC	Airtel is the market leader with almost 7 million customers at the end of June 2012.
 Gabon	Airtel Gabon	Airtel Gabon has 829,000 customers and its market share stood at 61%
 Ghana	Airtel Ghana	Ghana Mobile Voice subscriber grew from 29,815,213 in September 2014 to 29,990,581 at the end of October 2014 The subscriber base of Airtel decreased from the September figure of 3,790,636 September 2014 to end October 2014 at 3,742,970
 Kenya	Airtel Kenya	Airtel Kenya is the second largest operator and has 4 million customers
 Madagascar	Airtel Madagascar	Airtel holds second place in the mobile telecom market in Madagascar, has a 39% market share and over 1.4 million customers.
 Malawi	Airtel Malawi	Airtel Malawi is the market leader with a market share of 72%.
 Niger	Airtel Niger	Airtel Niger is the market leader with a 68% market share
 Nigeria	Airtel Nigeria	Airtel Nigeria holds second place with a 20% market share having 25 million customer base as of March 2014.
 Republic of the Congo	Airtel Congo B	Airtel Congo is the market leader with a 55% market share
 Rwanda	Airtel Rwanda	Airtel launched services in Rwanda on 30 March 2012
 Seychelles	Airtel Seychelles	Airtel is the leading comprehensive telecommunications services providers with over 55% market share of mobile market in Seychelles.
 Tanzania	Airtel Tanzania	Airtel Tanzania is the market leader with a 30% market share.
 Uganda	Airtel Uganda	Airtel Uganda stands as the #2 operator with a market share of 38%

Licensing Regime

The introduction of Unified Licensing Regime became mandatory with the expiration of exclusive period of the main GSM network providers by the Nigeria's telecom regulator NCC, NCC mandated a registration of SIM cards in March 2011 for all network subscribers for security reasons with dead line for nationwide registration of the subscribers in 28 September 2011.[75] MTN Group faces problems with the Nigerian government for failing to register some of its subscribers in Nigeria

7.3.3 Nigerian telecommunications industry statistics data

Statistical data showing Nigerian telecommunications industry data as gathered from regular studies, surveys and reports, conducted and collected by NCC. Monthly telephone subscribed data in Nigeria[76]



Figure 7.5: Subscriber/Tele density data April 2015 – March 2016



Figure 7.6: Annual Subscriber data 2002 – 2015

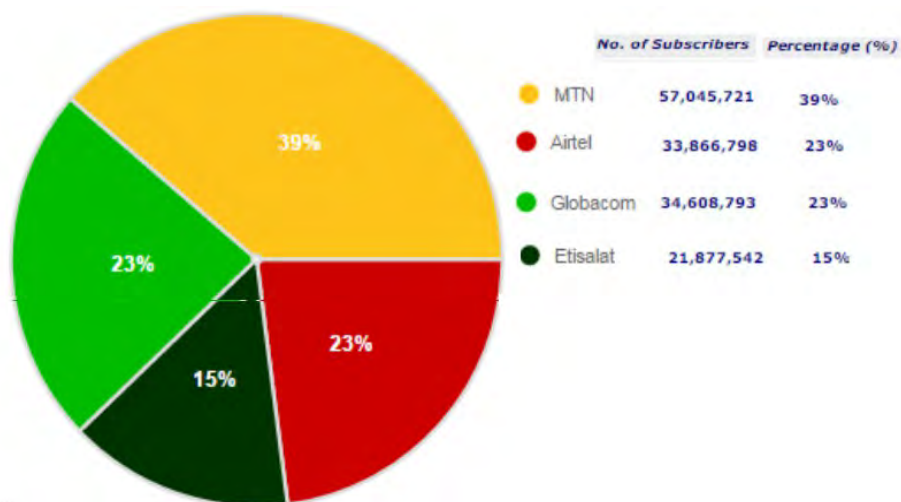


Figure 7.7: Percent market share mobile operators march 2016

Table 7.10: Annual Subscriber Years: 2008 - 2015

	Operator	2008	2009	2010	2011	2012	2013	2014	2015
Connected Lines	mobilGSM	N/A	N/A	96 684 272	109 822 964	135 253 599	159 758 538	184 782 512	N/A
	mobCDMA	N/A	N/A	12 132 584	12 687 645	14 041 464	7 684 026	3 743 811	N/A
	Fixed-line	N/A	N/A	2 736 373	2 290 409	2,419,587	2 233 981	365 871	N/A
	Total	N/A	N/A	111517229	124,801,018	151,714,650	169 676 545	188 892 194	N/A
Active Lines	MobilGSM	56 935 985	65 533 875	81 195 68	90 566 238	109 829 223	124 841 315	136 772 475	N/A
	mobCDMA	6 052 507	7 565 435	6 102 105	4 601 070	2 948 562	2 404 777	2 187 845	N/A
	Fixed-line	1 307 625	1 418 954	1 050 237	719 406	418 166	360 537	183 290	N/A
	Total	64 296 117	74 518 264	88 348 026	95 886 714	113 195 951	127 606 629	139 143 610	151017 244
Installed capacity		95 291 096	121 785 526	131 319 542	147 004 674	182 065 415	218 522 048	N/A	N/A
		10 611 867	14 829 931	17 172 670	17 232 725	18 400 000	18 400 000	N/A	N/A
		6 830 245	9 388 145	9 347 771	9 394 042	113 426 77	11 342 677	N/A	N/A
		112 733 208	146 003 602	157 839 983	173 631 441	211 808 092	248 353 725	N/A	N/A
	Teledensity	45.93	53.23	63.11	68.49	80.85	91.15	99.39	107.87

Tele density was based on active subscribers on a population estimate of 140 million from Dec.

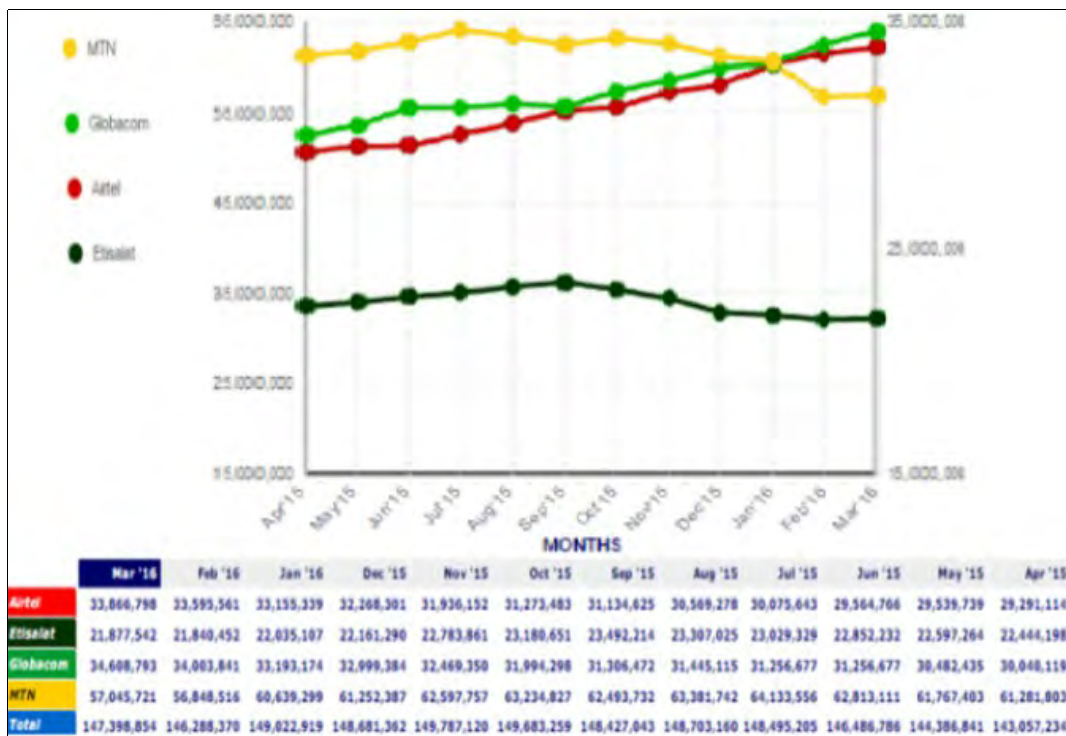


Figure 7.8: Subscriber by operator (GSM) April 2015 – March 2016



Figure 7.9: Subscriber by operator (CDMA) April 2015 – March 2016



Figure 7.10: Subscriber by operator (Fixed Wireless) April 2015 – March 2016

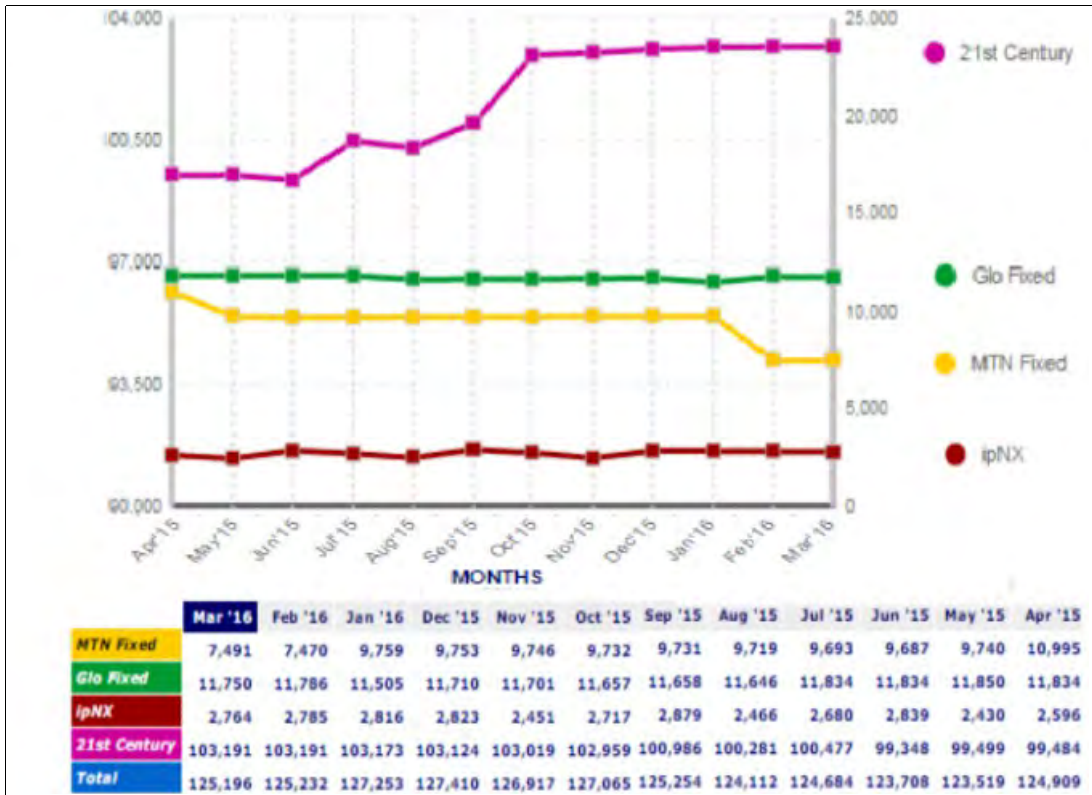


Figure 7.11: Subscriber by operator (Fixed – Wired) April 2015 – March 2016

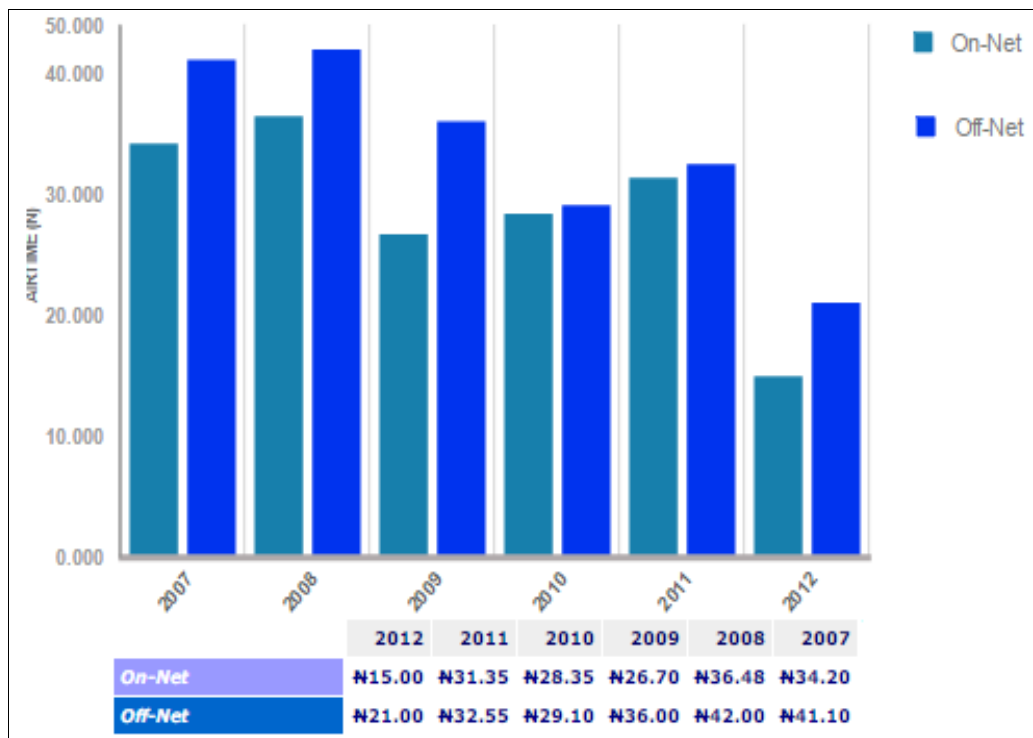


Figure 7.12: Mobile Peak Period Tariff 2007 – 2012

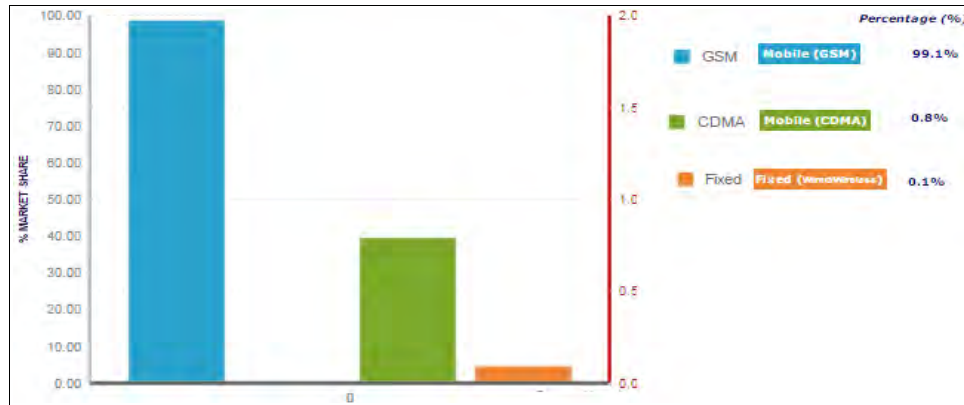


Figure 7.13: Percentage market share by technology March 2016

7.3.4 The Top mobile markets: The 100 million club

Table 7.11: The 100 million club: Top 14 mobile markets by number of subscriptions 2013

No	Country	Mobile subscript in millions	Pop in million source: World bank	% of population	3G/4G subs in millions	% of population	Source: subs; 3G subs via: Mobil Thinking
	World	6,587.4m	7,046m	93.5%	1,876.6m	26.6%	Informa
1	China	1,246.3m	1,351m	92.3%	448.3m	33.2%	China Mobile, Unicom, Telecom
2	India	Active:772.6m total: 893.3m	1,237m	62.50%	41.95m	3.4%	TRAI
3	USA	345.2m	313.9m	110.00%	287.4m	91.6%	Informa
4	Indonesia	285.0m	246.9m	115.40%	45.5m	18.4%	Informa
5	Brazil	272.6m	198.7m	137.2%	110.2m	55.5%	Anatel/Teleco
6	Russia	237.1m	143.5m	165.2%	41.2m	28.70%	Informa
7	Japan	137.9m	127.6m	108.0%	108.8m	85.3%	TCA
8	Vietnam	127.7m	88.8m	143.80%	18.0m	20.30%	Informa
9	Pakistan	126.1m	179.2m	70.40%	N/A	N/A	Informa
10	Nigeria	Active:128.6m total: 175.0m	168.8m	76.2%	12.7m	7.5%	NCC Informa
11	Germany	113.6m	81.9m	138.7%	46.0m	56.2%	
12	Banglade	116.0m	154.7m	113.2%	75.0%	22.3%*	116.0m
13	Philippin	109.5m	96.7m	113.2%	16.6m	17.1%	Informa
14	Mexico	102.7m	120.8m	117.6%	19.8m	16.4%	Informa

Source: Paul Lambert, Informa (Q2 2013); national telecoms regulators

* Bangladesh: mobile Web subscribers (not necessarily 3G)

As of November 26, 2013, there are 14 countries in the world with over 100 million mobile subscriptions, from China with 1.2 billion to Mexico with 102.7 million. Nigeria is the only African country with number 10 having 175.0m subscribers with 128.6m active users. The newest comers are Vietnam, Bangladesh, Philippines and Mexico. The top 14 countries account for more than 61 percent of the world's total mobile subscriptions. 29% of the world's mobile users live in India and China.[77]

7.3.5 Internet

Though the majority of Nigerians has limited access to computers, meanwhile the majority of Nigeria make use of the internets through their mobile applications.

I) Internet censorship

Open Net Initiative listed Nigeria as no evidence of Internet filtering in political, conflict/security, social, and Internet tools in October 2009.[78] However, there are some government restrictions on access to the Internet or reports of government monitoring of e-mails or internet chat rooms. It is also common for journalists to practice self-censorship as militant groups such as Boko Haram always threaten to attack and kill journalists linked with reporting of their sect's activities.[79] Example is a civil servant Abbas Ahmed Faggo from Bauchi State who was arraigned before a court on 24 October 2012 for allegedly defaming the character of Governor Isa Yuguda after he had posted messages on his Facebook account accusing the governor of spending public funds on his son's wedding. Though on 4th November, the court discharged Faggo, but media reported that the state government fired him later that month. In 2008, another report stated that two journalists were arrested for publishing online articles and photos critical of the government in 2008.[80]

II) Internet statistical data

Top – level domain: .ng

Table 7.12: Internet statistical data

Year of research and comparison	2015	2009	2012	2015
Total subscriptions	97 mil	44 mil	55.9 mil	97 mil
Percent subscriptions per inhabitants			32.90%	53.40%
World comparison (ranking) out of 216 countries	38	8	126	9

Table 7.13: Internet broadband statistical data

Broadband type	Fixed broadband	Wireless broadband
Year of research and comparison	2012	2012
Total subscriptions	15 311	17.3 million
Percent subscriptions per inhabitants	Less than 0,05%	10.20%
World comparison (ranking) out of 216 countries	135	17

Table 7.14: Internet hosts statistical data[81]

Year of research and comparison	2006[82]	2012
Total hosts	1 549	1 234
World comparison (ranking) out of 216 countries	133	168

Ipv4[83]

Year of research and comparison: 2016
 Total address allocated: 2, 514, 040
 Country comparison to the world(ranking): 75th out of 216 countries

Internet service providers [84]

Approximately 100 ISPs (2013)
 Approximately 400 ISPs (2010)
 Approximately 11 ISPs (2000)

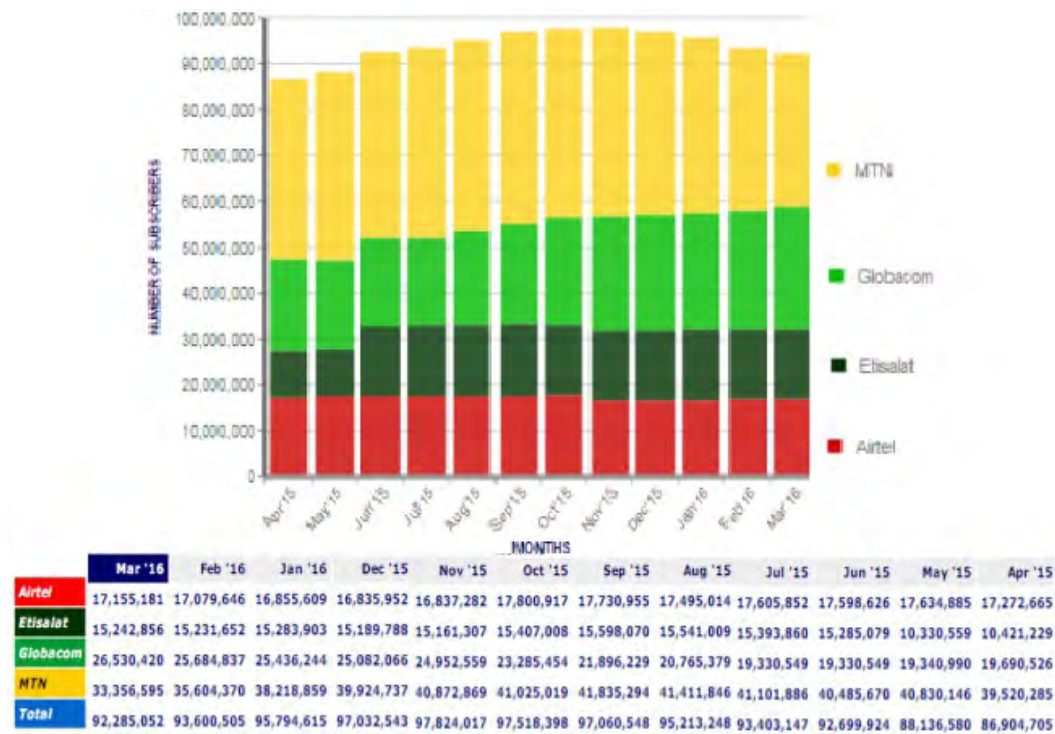


Figure 7.14: Internet subscriber Data GSM (April 2015 – March 2016)

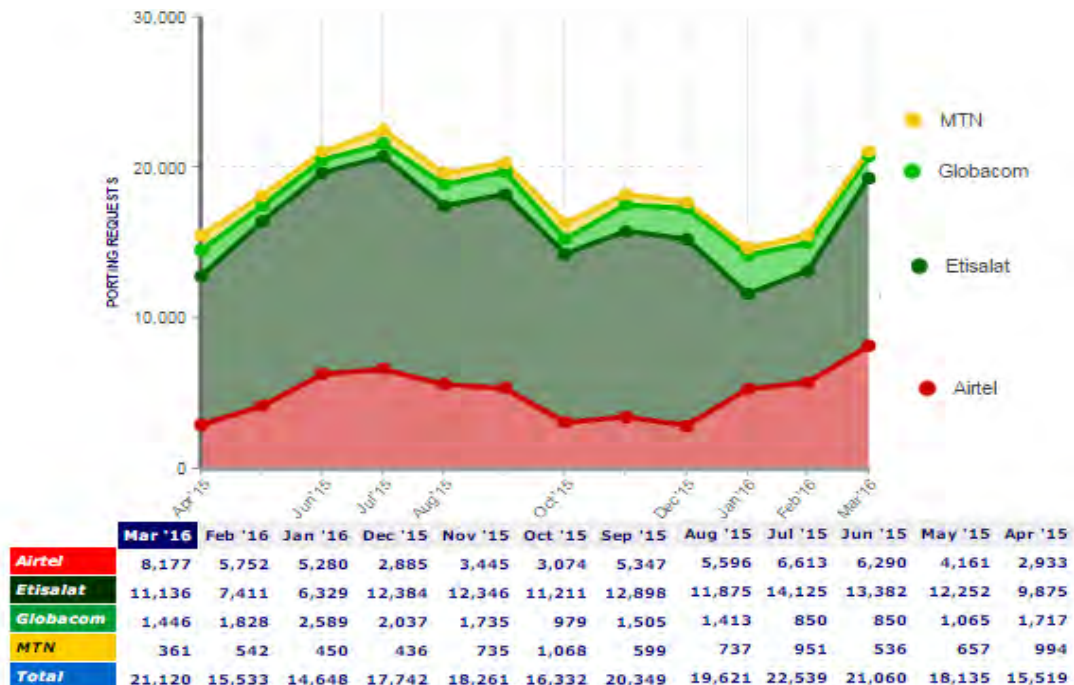


Figure 7.15: Porting Data incoming (April 2015 – March 2016)

7.3.6 Radio and Television stations

The Nigerian radio network system is controlled by three organizations namely: National, regional and state radio stations. Nigeria have about 40 state government radio stations that dictates their own programs except for news broadcasts. About 20 radio stations are private radio stations that involves themselves in the transmissions of international broadcasting.[85]

Television stations consists of governmental and private owned stations. The governmental stations are managed by NTA 1 and NTA 2. NITEL owns majority of the broadcasting services that are being carried out by the NTA and the FRCN organizations.

The private television stations, satellite televisions and cable television include STV, AIT, Super screen Television, Galaxy TV, TV continental, DSTV, HITV, Infinity television, etc. AIT is a Nigerian private own globally broadcasting television.[86]

8 Education and training

8.1 Education, the pacesetter

There is a great need to restructure the Nigerian school system and lay a new foundation which will be based on merit. Education is the foundation for knowledge and skill, therefore any country that lays its foundation with good educational system is bound to have a progressive future. Nigerian educational system has suffered many years of neglect, compounded by inadequate attention to policy frameworks within the sector. The national literacy rate is currently estimated to be 57 percent, 49 percent of the teaching force is unqualified, lack of infrastructure and facilities everywhere, access to basic education is inhibited in some places, the system emphasizes theoretical knowledge at the expense of technical, vocational and entrepreneurial education (National Planning Commission, 2004). [87] Provision of quality technical education to the nation is important to enable its citizenry become self-sufficient through self-employment schemes to develop the economy of the nation. This chapter presents the Nigerian school system.

8.2 School system

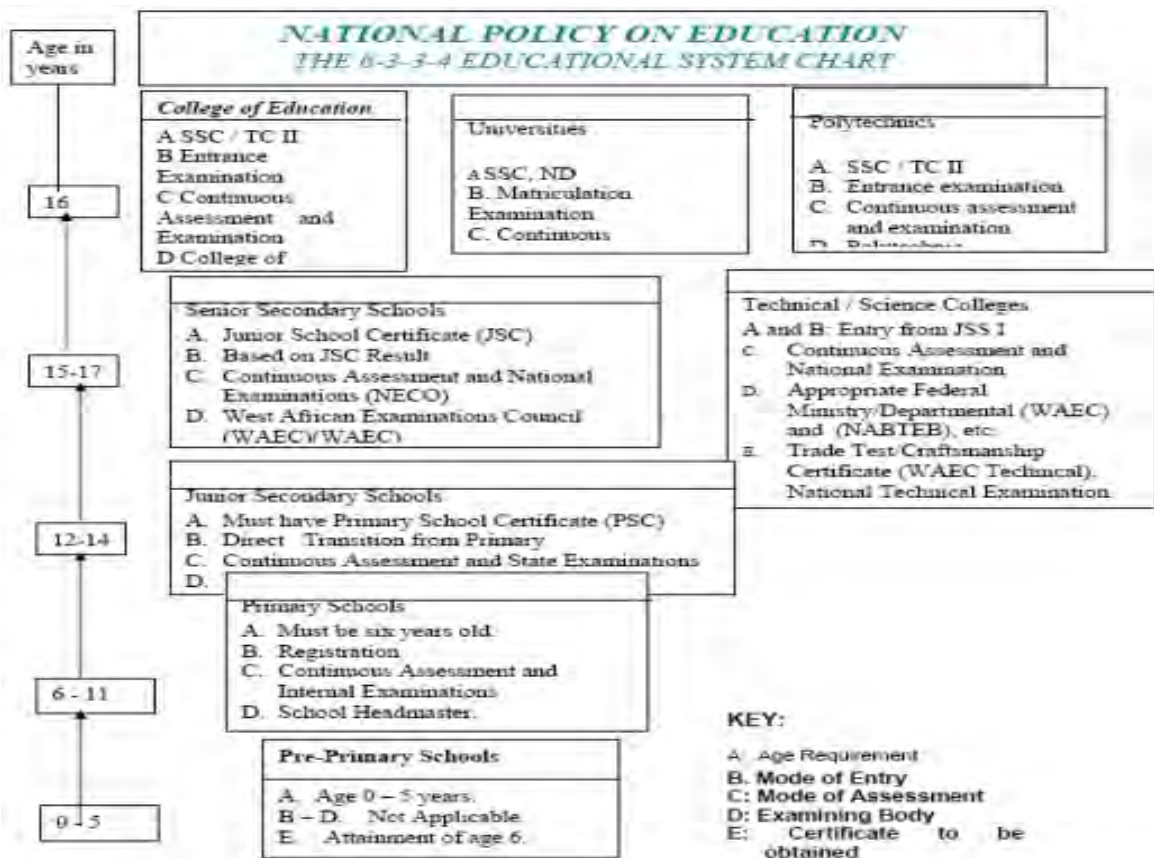
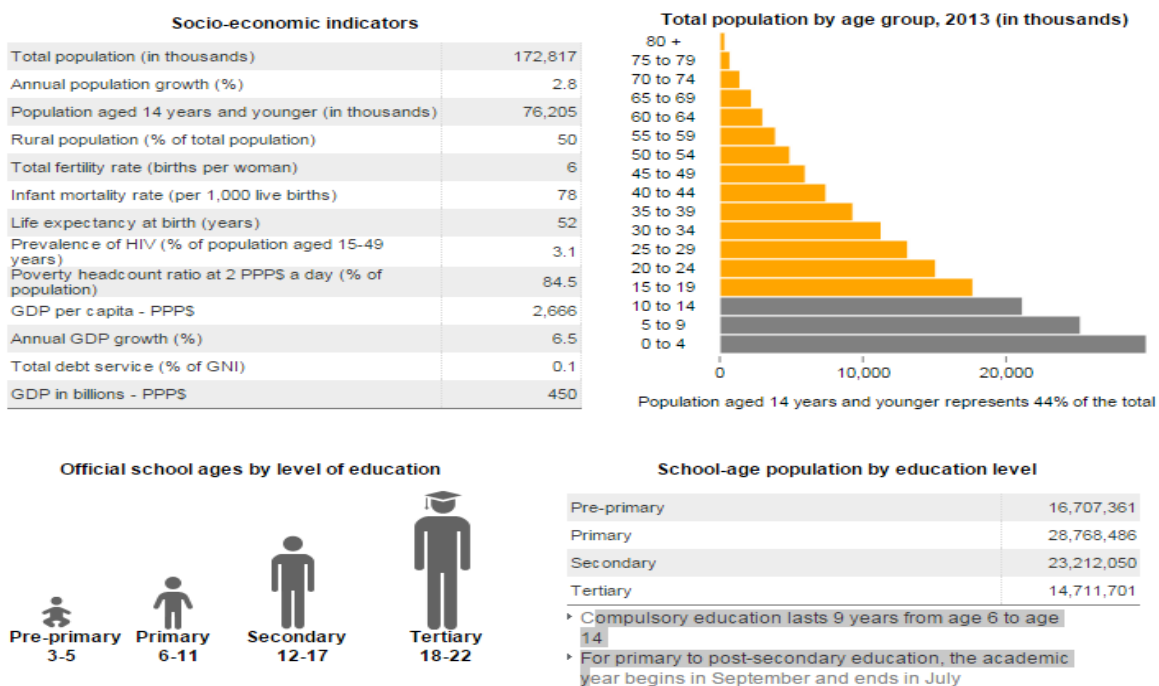


Figure 8.1: Structure of Nigerian educational system

The British colony created imbalance in the representation of the numerous ethnic groups in federal institutions, as the northern region was highly favored. The introduction of quota system in 1958 by the British colonies mandated the northerners to have 50% of the quota system, while the eastern region was given 25% and the western part were allotted 25%. This is actually the genesis of Nigerian problems. The major of the natural resources comes from the east combined with the fact that the eastern and the western part are the most intellectuals. Nigeria is a country blessed with many intellectuals, but the state of corruption in the educational system hinders the country from utilizing these intellectuals at their highest potentials. Before 2004, the Nigerian school institution operates on a 6 – 6 – 4 system and is made up of primary, secondary and tertiary institutions. Currently, the 6 – 6 – 4 system of education has been changed to 9 – 3 – 4 system by the Universal Basic Education, (UBE). This is to say that the first three years in the secondary school have been added to the 6 years in primary school making the number of basic studies 9 years, though the last three years of the nine basic education still remains in secondary school. Thus the educational institution is made up of three sub-sectors: basic (nine years), post-basic (three years), and tertiary (four years for the bachelor degrees and up to seven years for the master degrees, depending on the course of study). The Ministry of Education is the governmental body responsible of regulating procedures and maintaining standards.



Source: UNESCO statistics

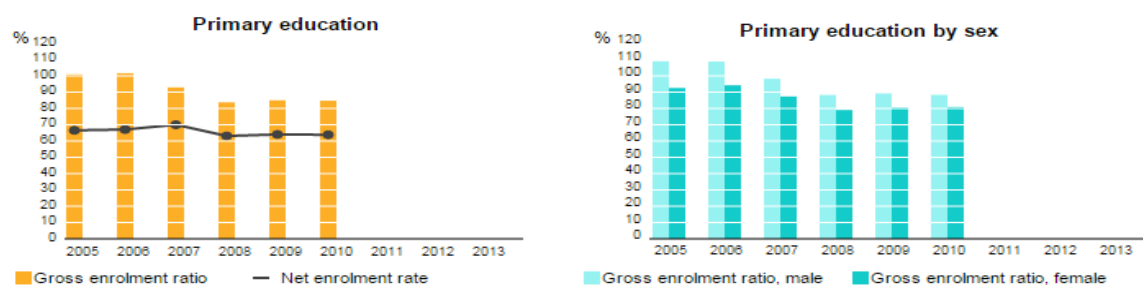
Figure 8.2: The statistical data of Nigerian educational system in 2013

Nigerian school institutions consist of private and public institutions. The institutions responsibility is divided into three arms of the government: the federal government which is responsible for the tertiary institutions, the state governments which is responsible for the secondary institutions, and the local governments which is responsible for the primary

institutions. Though these three bodies are autonomous bodies, the federal government directs the affairs of all these institutions by regulating the activities of every educational sector through policy formation and quality control. The Private institutions which consists of individuals, community groups, religious bodies, and other organizations usually establish the three types of institutions in Nigeria. All private schools offer the same curriculum just as the public schools but most private schools include the Cambridge International Examination curriculum, which allows students to take the International General Certificate of Secondary Education (IGCSE) and General Certificate of Education (GCE A-levels) examinations during their final year in high school. In all the educational institutions in Nigeria, English language is mandatory as it is an acknowledged international language. English is therefore used in schools for reading, writing and speaking. English and mathematics are mandatory in primary and secondary schools

8.2.1 The primary institution

The normal duration for primary school is 6 years and it is compulsory for every child in Nigeria. Before entering primary school, children attend pre-school, also Nursery school or kindergarten from age three to five, when they are six years, they can be enrolled into primary school. However, some children with exceptional brains can be enrolled to primary schools when they are four or five. The curriculum for the primary institution is to ensure that high demand for permanent literacy is provided. This is done through scientific learnings, critical and reflective thinking, and instilling children with the desired life skills to function effectively in the society. To proceed to Junior secondary school, every pupil must take Common Entrance Examination at the end of primary six and this is combined with First Leaving Certificate Examination which is compulsory for any child that attends the primary school. The primary school subjects include mathematics, English language, bible knowledge, general science and one of the three main native languages (Ibo, Hausa or Yoruba). Some private schools add computer science, French and art.



Primary education	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Gross enrolment ratio (%)										
Total	100.93	101.67	92.9	83.76	84.99	84.72	...	...	...	...
Female	92.56	94.24	87.34	79.03	80.6	80.92	...	...	...	...
Male	108.96	108.79	98.23	88.28	89.19	88.35	...	...	...	...
Net enrolment rate (%)										
Total	66.57	67.06	70	63.11	64.04	63.84	...	...	...	...
Female	62.11	63.24	62.68	56.72	57.84	58.07	...	...	...	...
Male	70.84	70.72	77.02	69.23	69.97	69.34	...	...	...	...

Source: UNESCO statistics

Figure 8.3: The statistical data of Nigerian primary institution 2005 – 2010

8.2.2 The secondary institutions

The normal duration for normal secondary school is 6 years. The secondary school consists of 3 years in Junior Secondary School (JSS) and 3 years in Senior Secondary School (SSS). After the fusion of the first three years in JSS together with six years of primary school as basic school, there is no need for common entrance examination as entry now becomes automatic entry. The fundamental subjects in JSS includes English, mathematics, integrated science, French, social studies, introductory technology and one of three major Nigerian languages (Ibo, Hausa or Yoruba). Apart from these seven subjects, students can add any subject of their choice like agriculture, physical education, business studies, etc. on the stipulated subjects. To proceed to the SSS level, every JSS student must pass the Junior Secondary Certificate Examination (JSCE) with at least six credits in all the subjects that the student has taken. The fundamental curriculum subjects at the SSS level consists of 6 core subjects combined with 3 elective subjects. Core subject includes English language, mathematics, Economics, one major Nigerian language, one science subject of any choice (biology, chemistry or physics), one social science subject of any choice (English literature, history, geography or social studies), agricultural science or any other vocational subject (commerce, food and nutrition, technical drawing or fine arts) and three elective subjects of any choice. [88]

Table 8.1: The grading system for the WAEC or NECO examinations

GRADE	PERCENTAGE	POINTS	DESCRIPTOR
A1	75 -100%	5.00	Excellent
B2	70-74%	4.00	Very Good
B3	65-69%	3.00	Good
C4	60-64%	2.75	Credit
C5	55-59%	2.50	Credit
C6	50-54%	2.00	Credit
D7	45-49%	1.50	Pass
E8	40-44%	1.00	Pass
F9	0-39%	<1.00	Fall

Source: WAEC/NECO

The SSS system have a final year exam called the Senior Secondary Certificate Examination (SSCE) that is a standardized test in West Africa. SSCE is administered by the West African Examinations Council (WAEC) or the National Examination council (NECO). To gain admission into the university, a combination of SSC and Unified Tertiary and Matriculation Examination (UTME) examinations must be passed before students can be enrolled into the university of their choice. Each courses have its accredited JAMB cut off marks. However, those cut of marks are mainly applicable to mainly the eastern and the southern regions, while many of the students from the northern region can be enrolled without the stipulated cut off marks due to the quota system. For the WAEC or NECO examinations, each subject is allotted a maximum of nine points. Minimum C in English and four other courses relevant to the students course to qualify as a UTME candidate is mandatory for every student who want to be enrolled into any university. Minimum C in both English and mathematics is also compulsory for students who wish to study medicine, computer science or accounting for UTME qualification, student applying for history programs do not require C in mathematics. In public universities, an average grade of “credit” level (C6) or higher is mandatory for the enrolment into the universities. [89]



Source: UNESCO statistics

Figure 8.4: The statistical data of Nigerian secondary institution 2005 – 2010

Federal secondary schools and private secondary schools also exist in each state. WAEC can cancel or withhold Official transcripts of individuals or Institutions due to exam malpractice. Sometimes students are forced to retake their SSCE if they are suspected to have had pre-knowledge of the exams.

I) Federal Government Schools

Each Nigerian state has about two Federal Government Colleges in each state. The schools and their management are funded by the Federal Government through the Ministry of Education. All the teachers and staff are Federal Government employees and must possess a Bachelor's degree in Education or the subject of their field. The admission is supposed to be based on merit, but the quota system and corruption still play significant roles in student selection, thereby paving the way for unqualified students attending the schools. The National Common Entrance Examination taken by all final year elementary school pupils is the determining examination for the entry into the federal government college. Tuition and fees are very low, approximately one hundred dollars (\$100.00), because funding comes from the Federal Government.

II) State Owned Schools

The State owned schools are less attractive than the federal government schools because they are understaffed due to low state budgets, lack of incentives and irregularities in payment of staff salaries. [89] The state schools and their management are supposed to be funded by each state government. Though the majority of the state owned institutions are supposed to be free, but in reality many of the state owned schools collect tuition fees from the students and mandate the students to purchase books and uniforms which can be very costly for the students. The teachers in State owned institutions usually have a National Certificate of Education or a Bachelor's Degree. [90]

III) Private Secondary Schools

The private secondary schools in Nigeria tend to be very expensive with an average annual fees ranging from One to Two thousand dollars (\$1000.00 - \$2000.00). The private schools have smaller classes (approximately ten to fifteen students per class), modern equipment and a better environment. The teachers in the private institutions all possess a minimum Bachelors in their specialized courses they teach and are sent for workshops or short term programs on a regular basis. [89]

IV) Technical and vocational education

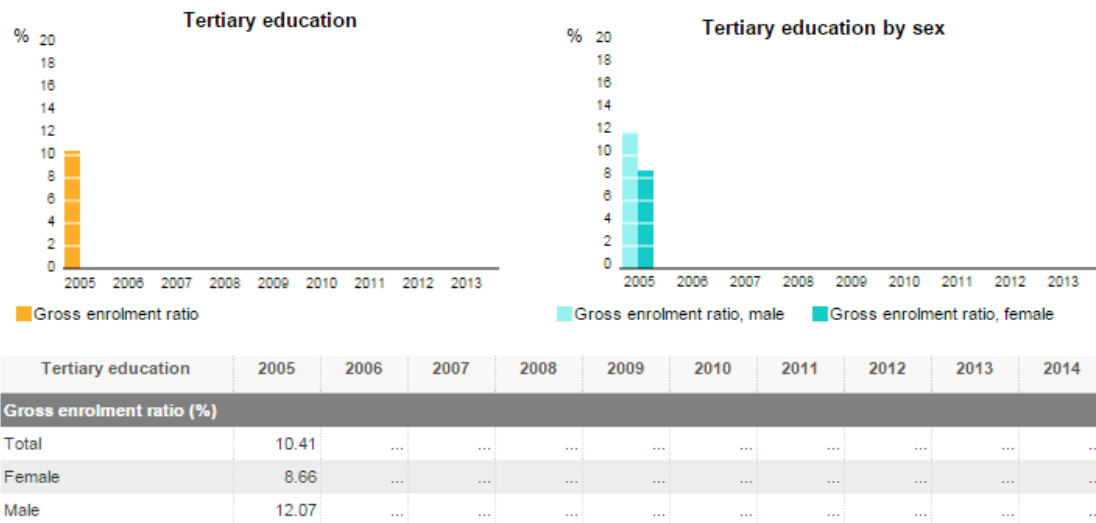
This school is for the students that passed the JSCE. It is a nationally certified programs organized in two-tier system by science technical schools. Students fulfilling the studies gets National Technical/Commercial Certificates (NTC/NCC) and Advanced National Technical/Business Certificates awarded by the National Business and Technical Examinations Board (NABTEB). The lower level program lasts for three years after JSS and is acceptable by the JAMB as equivalent to the SSCE. The Advanced program demands two years of pre-entry industrial work experience and one year of fulltime study in addition to the NTC/NCC. The advanced degrees are equivalent to an undergraduate degree.

8.2.3 Tertiary institutions

Tertiary institutions consist of monotechnics, polytechnics, college of education and the university. The tertiary institutions offer opportunities for undergraduates, graduates, technical and vocational educations. The tertiary institutions academic year usually runs from September to July. While Most of the universities practice semester system of 18 – 20 weeks, others run from January to December, divided into 3 terms of 10 -12 weeks. The minimum duration of University's First Degree (Bachelor's degree) is 4 years. Others may take as long as 7 years. The duration for the bachelor's degrees for Social Sciences/Humanity related courses are 4 Years, Engineering/Technology related courses are 5 Years, Pharmacy courses are 5 Years, and Law courses are 5 Years, each with two semester sessions per year. Medicine (Vet/Human) degrees are 6 Years with longer sessions during the year. [93]

8.2.4 The universities

The National Universities Commission (NUC) is the body responsible for the administration of all the higher educations in Nigeria. As of 2015, there are 129 universities registered by NUC. For the increase in the population of qualified students who needs a place to study, 9 new private universities got their licenses from the federal government to fully operate in May 2015 totaling the number of universities in Nigeria 138. The universities in Nigeria consists of 40 federal, 39 state and 58 private universities.



Source: UNESCO statistics

Figure 8.5: The statistical data of Nigerian tertiary institution 2005

I) Grouping of the Nigerian universities

Nigerian universities are grouped into five categories. [94]

- **First Generation Universities**

The Nigerian's first generation universities consist of the first five universities that were established between 1948 and 1965 as a result of the recommendation of Ashby Commission which was set up by the British Colonial Government to study the needs for Nigerian university education. The universities are fully funded by the Federal Government. The primary aim of the establishment is to meet the manpower needs of Nigeria and set basic standards for university education in the country. [93]

- **Second Generation Universities**

The second generation universities consist of 12 additional universities that were established between 1970 – 1985 as a result of the increasing demand of the population of qualified students for university education and the growing needs for scientific and technological developments in Nigeria. [93]

- **Third Generation Universities**

The third generation universities consists of 10 additional universities that were established between 1985 and 1999 as a result of the increasing demand to address special areas of Technology and Agriculture. [93]

- **State Universities:**

Increasing demand of the population of qualified students for university education from each state who could not be guaranteed admissions to any of the Federal Universities prompted each State Governments to establish own Universities to address these problems [93]

- **Private Universities:**

The quest for more development and the recognition of the need to encourage private participation in the provision of university education prompted the Federal Government to establish a law in 1993, thereby allowing private sectors to establish own universities according

to the guidelines prescribed by the Federal Government.[93]

II) Admissions into the universities

JAMB is the body responsible for the admission of students to the bachelor degree programs at all the Nigerian universities. Every student is required to take UTME for any tertiary institution's entry. Each university applicant is required to choose a maximum of six institutions that includes two universities, two polytechnics and two colleges of education at examination registration point. UTME demands that the cut off mark for entry into any university is a minimum mark of 200 (out of 400). The most popular universities with high demand programs demands higher cut off marks for entry. Getting accredited cut off marks does not guarantee automatic entry as an additional screening is conducted to determine the final students for admission. For all UTME, English language and mathematics are compulsory plus three other subjects that are relevant to the applicant's proposed major, making it four subjects in all. [93]

III) University Programs

Every undergraduate programs in the Nigerian universities have its durations depending on the nature of the program. Below are some of the programs with its durations. [93]

1. Social Sciences /Humanitarian related courses 4 Years (two semester sessions per year)
2. Law 5 Years (two semester sessions per year)
3. Engineering/Technology related courses 5 Years (two semester sessions per year)
4. Pharmacy 5 Years (two semester sessions per year)
5. Medicine (Vet/ Human) and architecture 6 Years (Have longer sessions)

There are options of a single-subject or combined honors degree. Single honor program demand students to study three subjects in the first year, two in the second year, one subject in the third and fourth year each, while combined honors demands students to study three subjects in the first year, two subjects in the second and third year each and at least two subjects in the fourth year.

IV) University Degrees

Postgraduate degrees: The degrees are generally given to the education and public administration who usually completes a one year of full-time study after the bachelor degree.

Master degrees: The degrees are generally given to the First or Second Class bachelor degree holders who usually completes a one year of full-time study or two years where a research thesis is required.

Doctoral degrees: The degrees are generally given to the holders of a master degree in a related field and usually require two to three additional years of study after the master studies.

V) University Transcripts

Nigerian university transcript should have the student's name, registration number, year of entry, year of graduation, GPAs, and CGPA, semester-by-semester entry of all the completed courses and scores. Transcripts also includes the Registrar's or Deputy Registrar's signature and an official stamp (some universities may attach university seal and student photographs to strengthen

the document). Students do not get copies of their transcripts. Universities send all transcripts directly to requesting institutions.

Table 8.2: Nigerian University Grading System

LEVEL	GRADE POINTS
First Class	4.50-5.00
Second Class Upper Division	3.50-4.49
Second Class Lower Division	2.40-3.49
Third Class	1.50-2.39
Pass	1.00-1.49

Source: NUC

8.2.5 Technical and Vocational Higher Education

The polytechnics, technical colleges and colleges of education are responsible for Nigerian higher technical educations. Combination of JAMB and results from secondary and vocational schools are the criteria for the entry to the polytechnics, technical colleges and colleges of education. Students with two-year program gets the National Diploma (ND) awards and can proceed to Higher National Diploma (HND) programs. The HND is a two-year program that demands a one year of work experience after the National Diploma. The HND is not classified as a university degree. HND holders who wishes to further their studies to the university level are demanded to take a one-year postgraduate diploma certificate before applying for a master’s degree in any Nigerian university. Colleges and specialized training institutes offer various certificates and diplomas and may be obtained after one, two or three years. While the Nursing and Midwifery Council of Nigeria awards Diploma of the Registered Nurse Certificate after three years of postsecondary studies, the Midwifery is awarded after one year of theoretic and clinical postsecondary studies. The Institute of Medical Laboratory Technology awards the Associate Diploma of Medical Laboratory Technology and the Fellowship Diploma on a 4+1 basis of postsecondary education.

Table 8.3: Technical and Vocational Higher Education Grading scale

GRADE	PERCENTAGE	U.S. GRADE EQUIVALENTS
A/AB	70 -100%	A
B/BC	60-69%	B+
C/CD	50-59%	B
D	45-49%	C
E	40-44%**	C
F	0-39%	F

Source: WENR

9. Policy and decision making

Policies are the determining force towards the execution of the activities that promotes or inhibits nation's progressive state of technology transfer. It also determines the effectiveness of human actions in every activity. This can be national policy, foreign policy or international policy. It will be good that leaders surround themselves with intellectuals who have the country's interest at heart and not unintelligent and corruptible politicians who gives advices based on selfish interests. This chapter breaks down the decisive policies as a reckoning force to technology transfer, as any change in policies can have a tremendous effect in any human undertakings.

9.1 National Policy issues

The Nigerian government and its leaders need to make policies that will attract investors. These policies should be on mutual benefits to the two parties and not based on selfish interests or hatred and phobia for a certain people, tribe, region, society, country, religion, etc. Nigerian government are known to be very controversial when it comes to policy making. The problem can be attributed to unqualified and incompetent policy makers. This problem is already in manifest as early as secondary schools where students are not selected by merits, but by quota system. The division of Nigeria into two regions by the British colony is the genesis of the bad policies. Nigeria have three major tribes, the Hausas, the Yoruba and the Igbos and these three major tribes lives in their own separate regions. Instead of dividing Nigeria into three regions, Hausa became one region while the rest became the other region. Amongst all the tribes in Nigeria, the Hausas are the most illiterate, they have education and civilization phobia, yet they have the biggest appetite for leadership and power in Nigeria due to the foundation laid by British colony. The worst problem is that these illiterates always surrounds themselves with illiterates as advisers. The current Nigerian president is fond of appointing his fellow northerners and friends as aids and advisers, his answers for appointing unqualified and incompetent aids and advisers is that they are the people he knew, but he always forgets that the people that voted him inn as president were people who he does not know. It again shows that he is practicing nepotism.

During 1970s, the influence of the foreign companies in Nigeria inhibited technology transfer as they were in charge of all the technological activates in Nigeria, hindering the local people from gaining any knowledge and skills in the development of the technology they were exhibiting in Nigeria. In a bid to promote technology transfer, a body called National Office for Technology Acquisition and Promotion (NOTAP) was established by the Nigerian government in 1979. This was necessary due to the fact that Nigeria's technology industry was largely dominated by foreign companies. The function of the organization is regulating the inflow of foreign technology into Nigeria, through putting in place new policies which promote the establishment and growth of local software and innovation firms. A NOTAP study found a gap between Nigeria's research sector and industries in 2006 "We realized that Nigerians were not converting research outputs into intellectual property, patents, trademarks, industrial designs and knowledge at the highest level,"^[91]says Umar Bindir

Nigerian general requirements for Registration of Technology Transfer Agreements includes:[92]

1. Technology contracts should include a provision whereby the recipient enterprises in Nigeria acquires explicit rights for the use and exploitation of the technology in question, and the period covering these rights should be clearly specified in the contract.
2. In cases where the Nigerian enterprise is acquiring the right to practice a process, the concept of know-how should be clearly expressed and defined in the contract. In this connection, concepts such as “technical information” or “technical services” should only be treated as complementary to the know-how.
3. Provision for capacity building must be part of all Agreements signed, and details on the Nigerians understudying the experts should be readily available/submitted, to ensure that skill is domesticated.
4. All contracts should make provision for deduction of appropriate local taxes, such as withholding tax, etc.
5. All agreements should incorporate research activities carried out in-house and also in collaboration with the Nigerian National Innovation System such as Universities, Research Institutes, private laboratories, Polytechnics, etc.
6. Companies which sell imported products should separate the net sales of the imported products from the net sales of the locally manufactured products and this should be reflected in their Audited Accounts. Payment of technology fees should be based only on the locally manufactured products.
7. All Nigeria Government Projects must be governed by Nigerian Laws of Arbitration and the seat of arbitration should be in Nigeria.
8. There would be no approval for agreement based on assembling of Completely Knocked Down (CKD) parts brought into the country except payment for short term technical services relating to such project.
9. The scope of services in technology transfer agreements should clearly state the services to be rendered by the transferor/licensor.
10. The technology content of the agreement should state the methods for the domestication of technology, local raw material development, skills acquisition, etc.
11. A detailed plan for the local development and production of raw materials used in manufacture, as substitute for imported raw materials.
12. Companies sourcing over 75% of its raw materials from abroad will not enjoy enhanced technology transfer fees, in particular, if it has been in operation in Nigeria for more than 5years without making efforts to source its raw materials locally. Companies in this category should render Technical Support Service and encourage indigenous entrepreneurs in that sector to produce raw materials or intermediary products that will meet the required standard.
13. Evidence of registration of intellectual property e.g. trademark, patent, know-how
14. Technology transfer agreements relating to food items such as bread, noodles, sausage, etc. will no longer be approved because there is no technology content. Payment will only be approved where the agreement is for short technical services for installation, commissioning of plants, training, etc. to enable the recipient company commence operation. However, 1-2% of net sales may be approved for a start-up company involved in this type of business to enhance its smooth take off.
15. All fees for technology transfer agreements relating to packaging using state of the art

- technology should be tied to profit before tax. However where the company's equity is wholly foreign owned, evidence of capital importation should be provided to enable transferors repatriate their earnings through Personal Home Remittance (PHR).
16. Details of expatriates including entry visas and other immigration documents should be submitted along with evidence of non – availability of skills in Nigeria.
 17. Submission of Shareholders agreement that the Management of Company can enter into a Management or any other Technology Transfer Agreement with foreign technical partner on its behalf.
 18. Trade Marks that are not generating exports cannot be approved.
 19. Original copies of Annual Accounts should be submitted to the Office (not photocopies).
 20. In the telecom sector, no Trademark License Agreement is allowed as the reputation of the service provider has been considered by the Nigerian Communications Commission (NCC) before License is granted for provision of such services. However, for purposes of ownership and also to prevent infringement, Trademarks can be registered at the Patent and Trademark Registry, Federal Ministry of Commerce & Industry.[93]

Today, the Nigerian present administration seems to misunderstand the whole scenario again as the president of the country surrounded himself with the same people who have looted the nation dry. Buhari is secluded with hate for some region and some people whom he believes might have inhibited his quest for power on his many trials as a democratic president. His recent deaf ear from the cry of Nigerians to change some of the policies he is embarking on shows that he is still behaving like a military officer and not as a man who is ready to embrace democracy. Some of the policies of the current administration includes

1. Restriction on maximum use of Bank Cards Abroad: The students are the most people affected as they can no longer have the possibility of withdrawing enough money for their studies when they study abroad.
2. Forex restriction order on some 41 key commodities: The Norwegian fish industry may be feeling the heat as Nigeria is one of the biggest importers of stock fish from Norway.

The list of the 40 commodities include[94]

- 1.Rice
- 2.Cement
- 3.Margarine
- 4.Palm kernel/Palm oil products/vegetables oils
- 5.Meat and processed meat products
- 6.Vegetables and processed vegetable products
- 7.Poultry chicken, eggs, turkey
- 8.Private airplanes/jets
- 9.Indian incense
- 10.Tinned fish in sauce(Geisha)/sardines
- 11.Cold rolled steel sheets
- 12.Galvanized steel sheets
- 13.Roofing sheets
- 14.Wheelbarrows
- 15.Head pans
- 16.Metal boxes and containers

17. Enamelware
18. Steel drums
19. Steel pipes
20. Wire rods (deformed and not deformed)
21. Iron rods and reinforcing bars
22. Wire mesh
23. Steel nails
24. Security and razor wire
25. Wood particle boards and panels
26. Wood Fiber Boards and Panels
27. Plywood boards and panels
28. Wooden doors
29. Toothpicks
30. Glass and Glassware
31. Kitchen utensils
32. Tableware
33. Tiles-vitrified and ceramic
34. Textiles
35. Woven fabrics
36. Clothes
37. Plastic and rubber products, polypropylene granules, cellophane wrappers
38. Soap and cosmetics
39. Tomatoes/tomato pastes
40. Eurobond/foreign currency bond/ share purchases

9.1.1 Employment quota in the federal and government sectors

After the studies, it is mandated that 50% government works are allotted to the northern region with 2 and 3 minimum entries into federal unity school whether they were able to finish or not, while the other 50% of lesser jobs are allotted to the rest from the eastern and the western region with high school qualifications. This is practiced in the government where 50% of the affairs of the country are run by less educated people from the northern part which supposed to be 33,3% of the national region, while the other 50% are left to be run by the highly educated 66.7% from the other national region.

Quota system in the school system

The quota system is extended to the federal unity school system where the issues of admission, recruitment, promotion and appointment are based on these principles.

9.1.2 Quota system in the school system for tertiary institutions

The tertiary institutions in Nigeria are Universities, Polytechnics and college of educations. The educationally less developed states are: Kaduna, Adamawa, Bauchi, Bayelsa, Benue, Borno, Cross River, Ebonyi, Gombe, Jigawa, Kano, Katsina, Kebbi, Kogi, Kwara, Nasarawa, Niger, Plateau, Rivers Sokoto, Taraba, Yobe and Zamfara.

Table 9.1: The tertiary admission categories

Group	Percentage quota out of 100
Merit	45
Local	35
ELD (Educationally less developed)	20

From table 9.1, it can be observed that only 45% of the students in the tertiary institutions are based on merits, while the other 55% are based on other criteria. In the real admission process, it means that a student with 80% score mark from the south may not gain admission while a person with 2% score mark from the North can be admitted into the tertiary institutions.

9.1.3 Quota system in the school system for secondary school's entrance

The quota system highly promotes corruption where the 55% of the unmerited criteria can give way for people that does not sit for exam to gain admission into the tertiary institutions. This explains why some students admitted without proper qualification procedures end up as cultists that terrorize other students in the institutions. It can be seen that all the northern states made the list. This is also another reason for less development of skills and knowledge which hinders technological advancement and leads to the less development in the national growth of the economy and technology. The secondary schools are the school stages before attending tertiary institutions. It is the stage after primary school. The quota system clearly shows the marginalized region and the favored region. If the school system and the public institutions that supposed to train up the future leaders and drive development are based on biased practices instead of merit and competence, how could the country advance forward. Not only does this suppress intellectual advancement, but it makes the favorable region lazy people since they can gain admission with no efforts at all. While pupils from Anambra and Imo must have 139 and 138 minimums out of 200 respectively to be admitted into the federal schools, a pupil from Yobe and zamfara states from the northern region are to have just 2 and 3 minimums out of 200 respectively to attend the same school and sit in the same class. How could same pupils and students with so much intellectual difference be admitted into the same federal schools and public services based on their ethnic and regional identities and not by their qualifications? While the eastern and western region have no variation between the male and the female, variation exists in the northern region showing the northern discrimination and determination to frustrate their women.

Table 9.2: Common entrance exam quota system cut off marks for the federal unity schools

National region	States	cut off marks of 200	
		Male	Female
Eastern region	Anambra	139	139
	Imo	138	138
	Enugu	134	134
	Abia	130	130
	Ebonyi	112	112
	Delta	131	131
	Rivers	118	118
	Akwa ibom	123	123
	Cross River	97	97
	Bayelsa	72	72
Western region	Edo	127	127
	Lagos	133	133
	Ogun	131	131
	Oyo	127	127
	Ondo	127	127
	Osun	126	126
	Ekiti	119	119
Northern region	Benue	111	111
	Kogi	119	119
	Kwara	123	123
	Nasarawa	75	75
	Niger	93	93
	Plateau	90	90
	Adamawa	62	62
	Bauchi	35	35
	Gombe	58	58
	Borno	45	45
	Taraba	3	11
	Yobe	2	27
	Sokoto	9	13
	Zamfara	4	2
	Kebbi	9	20
	Kaduna	91	91
Jigawa	44	44	
Kastina	60	60	

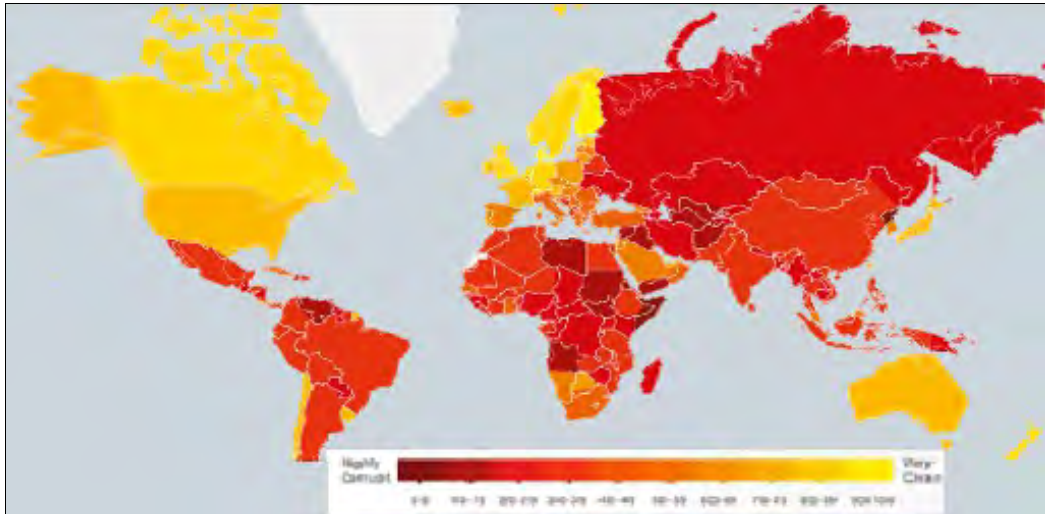
By surveying the table 9.2, it will be observed that while male candidates from Yobe, Taraba and Kebbi States are mandated to score 2, 3 and 9 points out of 200 possible marks respectively, their female counterparts are mandated to score 27, 11 and 20 points out of 200 possible marks respectively to qualify for admission into the same federal unity schools.

9.1.4 Corruptive policies

The study of the causes and consequences of corruption is not a recent phenomenon it has a long history in economics, dating back at least to the seminal contributions of the rent seeking literature by Krueger (1974),^[95] Rose-Ackerman (1978)^[96] and Bhagwati (1982)^[97] The history of corruption is as old as the world (Lipset and Lenz, 2000). According to Tanzi (1998) corruption is the intentional noncompliance with arm's length relationship aimed at deriving some advantage from this behavior for oneself or for related individuals. Corruption has no uniform definition, however, not all acts of corruption result in the payment of bribes. This is so because what is regarded as a corruption depends on the actors, the profiteers, initiators, how and where it takes place. For example, a public employee who claims to be sick but goes on vacation is abusing his public position for personal use. Thus, he or she is engaging in an act of corruption even though no bribe is paid. The president of a country who has an airport built in his small hometown or appoints a family member or friend in a government when there are better qualified applicants is also engaging in an act of corruption. quota system created to favor a certain group of people is also corruption. Manager who uses the companies budget on personal benefits like travelling, personal spending is also corrupt. A manager that charges others to pay for lunch provided by the job but does not pay himself is also corrupt. A manager who increases his salaries without increasing the salary of his coworkers is also corrupt. Hiring or promoting a family member, political member or staff member to a role they are not qualified for is corruption. A manager creating an unnecessary position for a family member or friend in the place he is managing and tasking others to work extra hard to cover the gap is corruption. Government officials making constitutions that allows them to still get paid for life for serving in government offices after their tenure is over is corruption. Ordinary workers do not get life payments by their employers when they leave or lose their jobs. All depends on the existing laws and regulations guiding certain actions. Some countries define corruption in the broadest form while others legislate the narrow definition of the term. Irrespective of how a nation perceives the definition of corruption in its economy, corruption is a deterrent to the economic growth of a nation hence a stumbling block to its progress.

I) Definition and methods of corruption

Many African, LDCs and DCs leaders are really corrupt and are openly corrupt everywhere. The difference between the LDCs, the DCs and the developed countries is the medium in which corruption takes place. While the developed countries exercise their own corruption through human resources, the LDCs and DCs exercise their corruption through national resources. The reason for capitalizing only on natural resources is that they lack the knowledge and skills to exploit human resources. They have no advanced technology that can be able to gather the money they need through human resources. Many of these countries don't even know how much revenue they can make through human resources. This is why they do not care about creating jobs that will enable them exploit this opportunity. Many of them are not educated enough to make policies that will enable them get as much as they want through law without the masses complaining just as the developed countries are doing. Many of Nigerian past and present leaders never went to secondary school. Some of them that went did it under quota system. That is why they all resort to corruptive policies to loot the economy they are supposed to preserve.



Source TI

Figure 9.6: The global map showing the territories and countries' corruption conditions.

The major factor that contributes to the persistence of low living standards, high unemployment and income inequality in LDCs and DCs is the quest for power, wealth and dominance by their rulers which increases their desires to have all to themselves as they loot all within their reach and save in western banks, thereby creating the highly unequal distribution of national resources, economy and political power between the rich and the poor. These inequalities are not only manifested in the LDCs and DCs, the hunger for dominance and power by the developed countries, leads them to continue controlling the pattern of international trade and also dictate the terms in which technology, foreign aid, and private capital are transferred through policies they make themselves and force the rest of the world to follow. This can be done either by enacting laws and exercising it through bodies like “Veto powers, G8” etc. This policy gives them clear advantages and preferences over others as they become dictators in all.

In the developed countries for normal tax collection, every single salary goes through banking system and for the VAT, every shops in the developed country makes use of paying machines where every tax imposed on the masses are deducted automatically. Many of the LDCs and DCs do not have a tax system at all, some of them that have, the tax system is not effective because they lack the advanced technology that can enable them monitor everyone that receives salaries or spends money in their countries. In developed countries, the salaries of the leaders may not be exorbitant, but what they lack in salaries, they enact constitutional laws that makes them still get them as allowances and bonuses which they can call travelling allowances, house allowances, security allowances, etc. Nigeria should have occupied the 167th position because Nigeria is a country where corruption is legalized. Infect, The Nigerian government and the masses are so corrupt that corruption has become an ethic and the order of the day. Nigeria is a country where one has to give bribe to get what one wants. Infect, government officials have individuals and organizations that are used purposely to go around and collect bribes for them. The police commissioners and high military personnel send their juniors purposely to go on the roads and mount road blocks and collect bribe openly for them. The tendency of corruption is one of the

major reasons that keeps Nigeria in the dark today. This corruptive system makes it so difficult for the development of the country. If not for the fact that some regions in Nigeria are very intelligent, talented, well exposed and well educated people, Nigeria would have been the worst developed country in the world today.

Table 9.3 below is a TI table showing 168 countries and territories' corruption score which indicates the perceived level of public sector corruption on a scale of 0 (highly corrupt) to 100 (very clean). A country's rank indicates its position relative to the other countries in the index.

Table 9.3: TI global corruption perception index statistical data between 2012 – 2015

Rank	Country/territory	2015 Score	2014 Score	2013 Score	2012 Score
1	Denmark	91	92	91	90
2	Finland	90	89	89	90
3	Sweden	89	87	89	88
4	New Zealand	88	91	91	90
5	Netherlands	87	83	83	84
6	Norway	87	86	86	85
7	Switzerland	86	86	85	86
36	Spain	66	60	59	65
81	Italy	44	43	43	42
78	Burkina Faso	38	38	38	38
78	India	38	38	36	36
136	Comoros	26	26	26	26
136	Nigeria	26	27	25	27
166	Afghanistan	11	12	8	8
167	Korea (North)	6	8	8	6
167	Somalia	6	8	8	8

(Source TI)

II) Nigeria as a corrupt country

The name Nigeria is synonymous with the term corruption according to the statistical data from the developed countries, but just as I noted in the limitations of the researches, even though the statistical data puts Nigeria as one of the worst corrupt nations, Nigeria inherited corruption from its colonial master Britain who amalgamated people who have nothing in common as a nation and laid the foundation of the countries with corruption through quota system for selfish interests.

III) Mediums of corruption in Nigeria

Three major events that gave birth to corrupt practices in Nigeria are colonialism, the rise to public administration and discovery of oil and natural gas.

The ways of engaging in corruption in Nigeria includes:

1. Bribery,
2. embezzlement
3. Cash commissions
4. Routine governmental actions
5. Undocumented extra payments
6. Sub payments, extortion
7. Betrayal of trust,
8. Unfair advantages
9. Financial malpractices
10. Bogus budgets
11. Gratification,
12. Brown envelopes
13. Tips
14. Greasing
15. Softening the ground
16. Inducements
17. Sub-payments
18. Side payments
19. Irregular payments
20. Payment under the table,
21. Facilitation payments
22. Mobilization fees,
23. Padded contracts
24. Over invoicing,
25. Under invoicing
26. Kickbacks
27. Abuse of positions and privileges
28. Inflation of contracts
29. Misappropriation or diversion of funds
30. False declarations,
31. Advance fee fraud, “419”
32. Collection of illegal tolls
33. Commodity hoarding
34. Illicit smuggling of drugs and arm
35. Human trafficking
36. Child labor
37. Illegal oil bunkering
38. Illegal mining
39. Tax evasion

40. Foreign exchange malpractices including counterfeiting of currency
41. Theft of intellectual property and piracy
42. Open market abuse
43. Dumping of toxic wastes, and prohibited goods”
44. Payoffs
45. Shady deals
46. Cover-ups
47. Collusion,
48. “10% rule” (bribe surcharge)
49. “50% rule” (sharing bribe within the hierarchy)
50. Customary gift-giving
51. Tribute culture
52. Nepotism

In Nigeria, corruption is a legalized way of life as its ugly head is manifested already as early as in primary institutions. In terms of corruption, no area or sector is spared. All are corrupt. Infact, the government is the pioneer of corruption. There is corruption in school system, employment system, judiciary, military, police force and government offices. Nigeria have never had an incorruptible government since its independence. A country that is facing serious problem with fall in prize of its national revenues, instead of adjusting to the situation by cuts in spending, the current administration is increasing spending in every field knowing fully well that there is no source of revenue for such spending. Talking of corruption, the only action the current administrative president is undertaking is using the little revenue left from the oil in travelling all over the world thereby inflating travelling expenses and pocketing the little revenue left for himself and his family while the masses suffer. When asked, he says that he is trying to attract investors, while in reality, he is scaring investors away with his administration system. Another reason he gives is that he is trying to borrow money from these countries. Why should he be borrowing money when Nigerian have so much unutilized natural and human resources at its disposal. Instead of creating jobs for the masses, he is using every means to milk the masses dry by making policies that are destabilizing the progress of the nation. The Nigerian CBN had directed banks to charge 5 percent stamp duties on all money deposits and transfers on all the banks in the country.[98] To make the matter worse, electricity bills have been hiked, This would have been reasonable if people really enjoy electricity in Nigeria, but the government is stealing from its masses through high tariffs as there is no functioning electricity for Nigerian households. Electricity bills are distributed every month whether there is electricity or not, and in Nigerian's case, households do not have steady electricity. While developing countries are creating job opportunities for their masses and thereby reaping the benefits of the human resources they have, the Nigerian leaders and its administrations are busy exploiting the masses through bad policies and high taxes for the little they struggle to get on their own. This is why there is high rate of crimes in the country. Many of Nigerians are dependent on their relations abroad who work and send them money to them at home for survival.

IV) Corruption through colonialism

Nigerian corruptive problem can be traced back to the creation of the nation by the corruptive

British government. The present Nigerian leaders learned from their births colonial masters that the only way to acquire wealth is by grabbing what one sees without working for it, just as the colonial masters did when they were in Nigeria. The generations that will bring revolution and change system are the generation who are still learning that there are other mediums to generate wealth apart from corruption. As a nation, the corruption started when the British government built the national leadership based on corruption as the leadership was not based on merit by the British government, but totally on quota system and selfish desires. The mantle of leadership was given to the northern part of Nigeria and this makes them believe that they are born to rule and uses it as a slogan to identify themselves from other regions in Nigeria. Though northerners have been in the leadership of the nation for long, they are still the least developed region in Nigeria.

V) Corruption through the rise of the public and democratic administration

The Nigerian democratic system is full of corruption. In fact, Nigeria is today practicing nepotism system of government. Nepotism is a system where a person patronizes members of his family and friends by showing favoritism on them and employs them to work where he manages. Nepotism is not limited to the government alone; this nepotism can be found in every activity in Nigeria. If there are no vacant place for friends and family, a vacancy is then created for them. By doing so, the government or any organization becomes trusted friends and family organization. When they occupy the place, they loot whatever that are at the place till it becomes dry and bankrupt. During the first and second democratic government, officials were in the habit of collecting 10 per cent from contract funds. The era gave birth to unprecedented level of misappropriation of public funds by high- ranking politicians. The electoral process became so corrupt that the electoral officials were manipulated to rig elections, the judiciaries were politicized and corrupt while false accusation charges and intimidations to political opponents became the order of the day. Thus, pervading culture of corruption was one of the reasons given by the armed forces when they sacked elected governments in January 1966 and December 1983. However, all the successive military regimes were even more corrupt than their predecessors. While corruption in Nigeria was legitimized during Mohammed Ibrahim Badamasi Babangida regime Sani Abacha took it to the greater height during his regime (1985-1998) while Obasanjo perfected it.

While UNICD (United Nations Industrial Development) after Sani Abacha's death claimed that his loot from the national treasury was estimated to \$107 billion, which were kept in private accounts in Europe and the United States, no figure was yet released on Babangida's and Obasanjo's loots probably because they are still alive. These three Nigerian former head of states completely emptied the national treasury. The civilian administration of former president Olusegun Obasanjo was worse of them all because it was during his eight years of civilian rule that the crude oil was at its peak. Obasanjo was so corrupt that he even tried to change the constitution to enable him have a third term tenure.

The Nigerian democratic system is so corrupt that sometimes the opposing party is even worse than the ruling party. All parties are the same as the political parties are made up of the same corrupt politicians and officials who defects from one party to the other to continue their looting and thereby protect themselves from the wrath of any ruling party that tries to probe former ruling party on its pasts menaces to the nation. The new government in Nigeria is now using the

court to make the country a one party system. The ruling party APC which was an opposition party before is using every means especially court to render the former ruling party PDP useless. The card reader that was used for the election was a well perfected plan to bring the now ruling party to power. This was made manifest during the election when the card reader did not recognize the people from the opposition party PDP, while the card recognizes the voters of APC, now the ruling party. Now, many of the governorship and the legislative assemblies the now ruling party APC lost are being taken to court one after the other, thereby using the corrupt judiciary to offset the opposing party PDP that won on oil states. The war on corruption is one sided, as many of the pioneers and sponsors of the ruling party APC are the same people that defected from the opposition party PDP to the now ruling party APC after looting the economy of the nation when they were in PDP. While the Nigerian president is busy going after the corrupt members of the opposition party PDP, none of his party members from APC is being touched. The very people that sponsored him to become the president are all corrupt. The call of the masses to probe Buhari sponsors Ahmed bola Tinubu, his party chief, former governor of Lagos state, and a man who was accused of drug trafficking and money laundering by the USA court fall to deaf ears.[99] Another call to probe another of his sponsor Rotimi Amechi, the former governor of River state under PDP who defected to APC falls also under deaf ears. The call for him to probe Fashiola, another of his kingpin falls also to deaf ears. All these people looted the country dry when they were the governors of one of the rich states in Nigeria. There is also call on him to probe the former rulers, Olusegun Obasanjo former civilian president and father of corruption, and Abubakar Atiku another of his party chief, who was the former vice president to Olusegun Obasanjo, but nothing is done. What Buhari is doing is going only after the corrupt politicians from the opposition party PDP while he sits and dines with the worst criminals in Nigerian history country. The call for him to probe Olusegun Obasanjo who is the father of corruption and the main problem of Nigeria's underdevelopment also falls to deaf ears.

9.1.5 Regional, tribal and discriminative decisions

In a modern world, diversity helps to bring out the best in a country, but in Nigeria, opposite is the case. Tribal and regional decisions is another problem facing Nigeria's technological advancement. The current Nigerian government is using every possible means to destabilize the progress of other regions who contributes most through importation of foreign goods to the country. They make policies that restricts dollar circulation and forbids the importation of certain goods from the eastern region to make sure that the progress of this region is inhibited through forex restrictions. Forex restrictions is one of the method to frustrate the region. While there is no forex restriction for the importation of grass for the feeding of cattle in the north, forex is restricted to Nigerian students studying abroad and for import of many necessary goods for human consumption. Actually, the government is encouraging grass importation while there are lots of nutritious grasses for the cattle in the eastern and western region. This is clearly tribal problem as the current president is bias especially when he suppresses and hinders the progress of the eastern and western region while he largely encourages the progress of the northern region thereby suppressing the economic growth, national development and technological advancement of the entire country.

9.1.6 Technology transfer inhibited by media censor & control by Nigerian government

The government controls and censors the electronic media through an organization called NBC. The government uses Libel practice to inhibit freedom of speech in mass media in Nigeria. Though in theory, the constitution initiates freedom of speech for all, but practically, the opposite is the case as the government usually restricts these rights and mandates two years imprisonment and possible fines as penalties for Libel. Libel is a civil offense whereby a penalty of two years with possible fine is given to any defame defendants who is not able to prove the truth of any published or broadcasted opinion or value judgment contained in news reports or commentaries by the Nigerian government.[100] The law demands that the local television stations must limit programming from other countries to 40 percent with the restriction of the foreign content of satellite broadcasting to 20 percent. In 2004, The NBC launched the prohibition of live broadcasts of foreign news and programs which remains in force till present date. This law is applicable to only the government and the indigenous private owned stations and does not apply to international cable or satellite services. The Voice of America is however prohibited broadcasting of programs through local affiliate stations. The federal government also meddles into the affairs of private stations as private stations risks the possibility of extinction if they broadcast something negative about the leaders or the government.

Recently, Nnamdi Kanu, a leader of a secession group for the independent of Biafra is still in detention for many months for no reason by the federal government because he voiced his opinion through a radio station. In the developed countries, things like this is no longer in existence. The worst problem is that the leaders who supposed to respect the law are the ones making mockery of the laws. The judiciary had acquitted the man for lack of no evidence on many occasions and had granted him bail, but the federal government continues holding him in detention for no cause. Even the journalists are not spared. In Nigeria, it is very common to see government Security forces, policemen, and the military men harass, beat and detain journalists that criticizes the government or comments negatively on politicians. Political corruption and security issues are very sensitive matters. Local, state and presidential elections are always marked with intimidation and attacks on the journalists for covering certain election-related events.

9.1.7 Environmental preservation regulations in Nigeria

As a member of international committee of environmental treaties and laws, Nigeria created National Environmental Standard and Regulation Enforcement Agency (NESREA) act of 2007 which coordinates ministries, agencies, laws and regulations on environmental issues. The responsibility of NESREA is to handle the environmental management, protect and enforce environmental laws, regulations and standards in discouraging people, industries, and organizations from pollution and degrading the Environment. The federal government of Nigeria further directed regulatory acts to ensure adherence to environmental sustainability through the establishment of the Ministry of Environment and State Environmental Protection Agency.

The laws and regulations of NESREA are

1. National Environmental (Protection Abatement in Mining and Processing of Coal Ores

- and Industrial Minerals) Regulation 2009.
2. National Environmental (Sanitation and Waste Control) Regulation 2009.
 3. National Environmental (Pollution Abatement in Chemical, Pharmaceuticals, Soap and detergent Manufacturing) Regulation 2009.
 4. National Environmental (Pollution Abatement in Food, Beverages and Tobacco Sector) Regulation 2008.
 5. National Environmental (Pollution Abatement in Textiles, Wearing, Apparel, Leather and Footwear industry) Regulation 2009.
 6. National Environmental (Wetland, River Bank and Lakes, shore protection) Regulation 2009.
 7. National Environmental (Watershed, Hills, Mountains and Catchment Areas) Regulation 2009.
 8. National Environmental (Ozone Layer Protection) Regulation 2009.
 9. National Environmental (Noise Standard and Control) Regulation 2009.
 10. National Environmental (Access to Genetic Research and Benefit Sharing) Regulation 2009.
 11. National Environmental (Permitting and Licensing System) Regulation 2009

9.1.8 Environmental Impact Assessment Act

The Act retained as CAP B12 (LFN) 2004 (set out the general principles, procedures and methods of environmental impact Assessment in various sectors). The section 2 of the environmental Impact Assessment Act of 1992 (EIA Act) provides that the public or private sectors of the economy shall not undertake, embark or authorize projects or activities without prior consideration of the effect on the environment.

I) Harmful Waste Act

This Act retained as CAP H1 LFN, 2004 (prohibits the carrying, depositing and dumping of harmful waste on lands and territorial Nigerian water).

II) The Park Service Act

This retained as CAPN65 LFN 2004 (Conservation and protection of natural resources (wildlife and plant) in national parks).

III) Endangered species Act (Control of Internationals trade and traffic)

This Act retained as CAPE9 LFN 2004 (Conservation of Wildlife and Protection of threatened and endangered species).

IV) Associated Gas Re-Injected Act

This is retained as CAPA28 LFN 2004. This Act is necessary because more gases are flared than before. In fact, Nigeria flares more gas than any other country in the world, flaring about 2.5 bcf/d (Cidgaz.org)

V) The National Oil Spill Detection and Response Agency (NOSDRA), Act 2007

The National Oil Spill Contingency plan itself is mandatory for all parties of the international

convention and Oil Pollution Preparedness and Response cooperation (OPRC 90) to which Nigeria is a signatory. Nigeria like many other countries has done and laid very good foundation on how to tackle environmental problem and to sustain the available resources for the future generation. However, paper work and laws are not enough to combat and change people way of life as the government is not punishing the perpetrators.

9.2 Foreign policies and decision makings

9.2.1 Inhibition of technology transfer through immigration policies

Suppression of economic growth, developments and technology inhibition from the developed countries is widely achieved through the exploitation of human resources of the LDCs and DCs by the selective measures of professional and skilled personnel, who are often educated in the developing countries. The most highly selected professionals are doctors, nurses, engineers and economists. [101] Immigration is one of the problems the developed countries are combating especially in late 19th century and 20th century. Migration is necessary for the LDCs and DCs to move over to the developed countries to acquire more knowledge and improve their standard of living. This is natural. As long as one part of the world is highly developed, the other side that is not developed will do everything possible to cross over to the other side. The Europeans were free to migrate to the LDCs and DCs and became their masters in their own areas and had free access to their natural resources, but for the LDCs and DCs to migrate to the developed countries to acquire knowledge and skills, they become illegal immigrants. Really, the Europeans started it and exposed the other parts of the world to it. Restrictions of movement became necessary for the developed countries to combat the movements of the LDCs and DCs from crossing over to the developed countries. The immigration policies give rise to human trafficking in the highest order as the countries that strictly prohibit the LDCs and DCs from travelling to their countries are the most areas where human traffics occurs. The stricter the policy, the more the human traffickers gain advantage in utilizing the opportunity to indulge in their nefarious acts. Today we see developed countries form human right organizations that “fights to eliminate human right abuses and human trafficking” but in reality, the polices made by the same developed countries promotes these atrocities. While colonialism legalized human trafficking in the past, today visa policies legalize human trafficking in reality, though the developed countries portray themselves as fighters of human abuse. As far as restrictions of free movements exists, human traffickers will always prosper.

During the colonial human trafficking (slave trade) era when the developed countries had the need for the LDCs and DCs natural resources, there was no restrictions of movement called immigration laws, but when the need for the LDCs and DCs to move to the developed countries, the developed countries created immigration laws that made their fellow human beings illegal. In recent time, visa policies have been made to stop the LDCs and DCs from moving freely to places of their choices. Some of the developed countries even made policies that requires some of the countries from the LDCs and DCs to present a travelling ticket when they are applying for visa, even though that there are chances of rejecting their application after they have paid for the tickets. At least, they can help the LDCs and DCs through technology transfer so that the need for

migration to developed countries will be minimized. Human beings are termed illegal just as some drugs are illegal. Do the developed countries actually think that they can succeed in secluding these people after exposing them to the better lives of the developed countries? Do the developed countries think that they can enhance the development of their countries by tapping the resources of the LDCs and DCs and then enjoy their wealth leaving the LDCs and DCs to wallow in misery? How possible do they think that after taking the resources of the LDCs and DCs and selecting their best human resources that these selected people will forget their roots and families just like that? If the developed countries help in developing the LDCs and DCs, which they are capable of doing if they want, then there is no need for permanent migration from the LDCs and DCs to the developed countries. History and nature have made us to understand that living creatures always migrate to a better place for better survival and establish themselves there. As long as there is this gap between the developed countries, LDCs and DCs, there will always be the problem of migration from one area to the other. Example, people migrate to Oslo and other developed cities in Norway from their remote villages in Norway for one reason, because these cities are more developed than the remote villages where they are emigrating from.

9.2.2 The Western perception and definition of the LDCs and DCs

The media coverage about Nigeria and all the LDCs and DCs are mainly the negative sides of the countries. Though what many of these LDCs and DCs may lack in development, they have them in abundant natural resources. Whenever the media wants to cover these places, they go to the remote undeveloped places where people lives in abject poverty and show the world. The reason for using these remote areas, victimizing and portraying the people as poor is to instigate pity on its donors and get as much monetary contributions from their targets as possible through these portraits.



Figure 9: Advertisement picture from some of the charity and aids organizations

This is a business and a means of livelihood for the people working with these organizations as

they use the money collected to run their daily lives, pay for their offices, homes, feed themselves and in some cases live extravagant lives. It is also common to see that embezzlement of funds is often in the news about these organizations. It is very common to see the advertisements from these organizations with pictures of children with houseflies covering their faces. It is absurd to see that even when these children are alive, they are so poor and useless that they cannot even chase away houseflies that tries to enter their eyes and mouths.

The fact is that the NGOs and the charitable organizations are using these mediums to create revenues for themselves. They portray themselves as the ones fixing things to get their own incomes by creating and compounding problems for these societies as they portray them as a starving society. The only potentials they see on these people are means of income by portraying them as starved and wretched paupers, and with my experience, no developed country will like to waste their reasonable resources on starving societies or paupers who cannot afford to feed themselves or their children. Considering these portraits, developed countries will be reluctant in considering investing in these countries through technology transfer because they may feel that the individuals who may be used for the technologies are not fit enough for the task. Portraits of rampant starved masses kills the zeal of the developed countries and diminished the will to transfer technologies to any portrayed starvation area. If the organizations really want to help, they should start from providing means of livelihood for the parents of these children, not monetary aids. NGOs and the charity organizations can contribute smartly by being involved through education and providing job opportunities for these people. They should learn from the more effective ways of the voluntary health organizations and Engineers without borders.

10 Economy

10.1 Commerce

During the era of human trafficking called “slave trade” and the occupation of Nigerian called “British colony”, the major legitimate trade was palm oil and palm kernel which was essential in Europe for the production of soaps and the production of lubricants for machines. By 1840, it was estimated that the revenue generated from the export of palm oil alone was worth £1 billion British pounds.



Figure 10.1: The palm tree

Palm trees products are planted in clusters and grow like canopies all over the eastern region.

Products from palm trees and its uses



Figure 10.2: The palm fruit



Figure 10.3: The palm oil

Uses of palm oil includes;

Cooking, production of lubricants, production of soaps, production of body creams, etc.

The palm kernel has its own oil that is medicinal and is used for the production of poultry foods. As the exportation of palm oil multiplied, the oil merchants from the eastern Nigeria became very wealthy. This wealth was short lived as they tried to secede from the amalgamation of the entity called Nigeria. The British government joined troops with the Northerners and the westerners to defeat them during the civil war.

As the quest for palm oil grew, British people diverted their attention from slave trade as they realized that new natural resources from Nigeria were more lucrative than human resource. While they engaged themselves in the exploitation of the natural resources, the Portuguese and other European countries continued their atrocious slave dealings in other African countries.[102]

Between 1815–1840, palm oil exports increased by a factor of 25, from 800 to 20,000 tons per year. British merchants led the trade in palm oil, as much of this oil was sold elsewhere in the British Empire.[103] Meeting the demands of this oil prompted the economy of the eastern region to cross over from being subsistence farmers to the production of palm oil as cash crop.[104]

As the exportation of the palm oil became more popular, Niger Delta and Calabar that used to be export centers for slaves once again regained its position as the center for the exportation of the palm oil and the other palm products and the Delta streams now became "oil rivers". Nigeria known to have very well organized families that lives with extended families created economic house units as each member of the house unit became loyal to the house head. The house heads served as the directors of the palm trade for each house and taxed other members of the house and mandated them to report all activities going on in the trade directly to him or his trusted representatives. This house head can maintain a war vessel, that comprised of a large dugout canoe that could hold several tons of cargo and dozens of crew for the defense of the harbor. Whenever a trader had become successful enough to keep a war canoe, he was expected to form his own house. Economic competition among these houses sometimes became so fierce that trade often erupted into armed battle between the crews of the large canoes.

At first ships were used as trading stations and warehouses outside the harbors, but as demands for the oil products progressed, onshore depots were built inside places like Onitsha for direct bargaining and more profits. Due to the encounter of hazardous climate and tropical diseases for Europeans, the European merchants moored their ships outside the delta harbors, and used the

ships as trading stations and warehouses. Consequently, John Beecroft, a British representative to Fernando Po, where the prevention squadron of the British Royal Navy was stationed was authorized as a consul for the bight of Benin and Biafra in 1849, a jurisdiction stretching from Dahomey to Cameroon. Two courts were established by British colonies, first one was established at Bonny for settling trade disputes and was headed by Beecroft in 1850 and was called the "Court of Equity". The second one was established in 1856 at Calabar, based on an agreement with local Efik traders to prohibited them from interfering with British merchants. These courts have British members as majorities and represented a new level of presumptive British sovereignty and dominance in the Bight of Biafra.[105]. Other commercial products from Nigeria to the British colony was the exportation of about 30 – 40% cotton that was used for the industrial revolution between 1750–1790.[106]

The palm is also used to make palm wine



Figure 10.4: Palm wine

The palm tree itself is used as a timber for building houses and furniture. The palm frond is used as building material and for agricultural production and can be extracted and use to make baskets and other household equipment.



Figure 10.5: Palm wood furniture



Figure 10.6: Basket made of palm fronds

10.2 Finance

The “southern protectorate” (western and eastern region) financed their budgets.[107] while the “northern protectorate” (northern region) was financed as grants of £250 000 by the British treasury each year.[108]. Not only did the British colony take the natural resources, but they also taxed the “southern protectorates”. Much of the colony's budget went to the payments of its military, the Royal West African Frontier Force (RWAFF),[109] without the British colonies paying any tax to the Nigerian entity. In 1936 alone, out of the £6 259 547 revenue from the “southern protectorate”, £1 156 000 (18,5%) of the country's total revenue went to England as home pay for British officials in the Nigerian civil service. The taxes are not included.[110]. This is just a tip of the iceberg. To compare the aids from the developed counties to the money unlawfully taken from some of the LDCs and DCs countries by the developed countries: If this money was deposited in a bank with 5% percentage fixed rent, the present value today is Present Value = $1\ 156\ 000 * 1.05^{80} = £57\ 293\ 023$

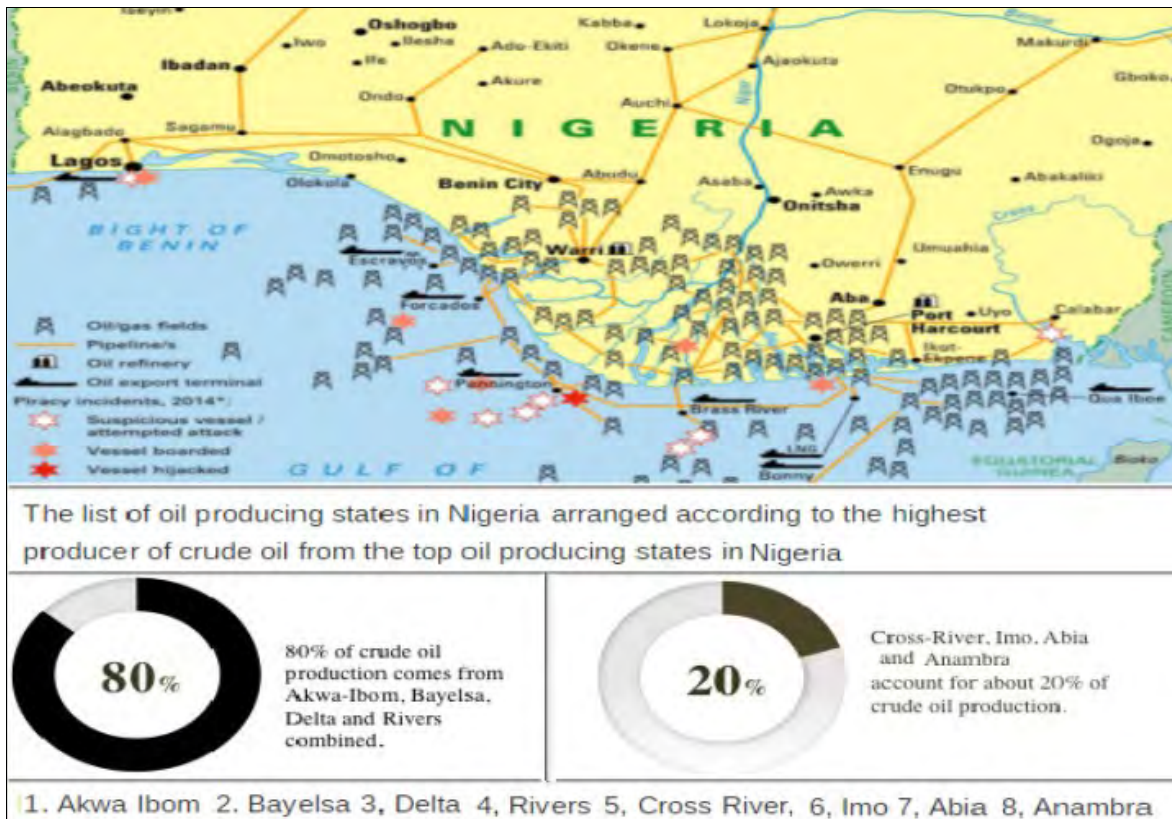
This is for 1936 only, Other years of British occupation were not included . This is not trying to equate or balance the system, but the developed countries especially the colonial countries should not blow their trumpets on the aids they have given or whine whenever they hear the amounts given to the LDCs and DCs because they have also taken much from these recipients. The better way to do this is to help the LDCs and DCs to eradicate corruption and device a better way of improving their standard of living especially through genuine technology transfer.

10.2.1 Oil, the giant of Nigeria's economy revenue

Nigeria's most utilized natural resource is oil and natural gas. The quest for oil in Nigeria started as early as 1908, while Shell D’Arcy found oil in Oloibiri, in present day Bayelsa State in 1956, the exportation of the black gold was in full swing in 1958. The story of the prospect already began 20 years earlier in 1936 when Shell D’Arcy was granted sole rights to utilize the hydrocarbons all over Nigeria. Oil Prospect began in 1937 but the company’s activities were interrupted by World War II. After Nigerian independent, other companies from the developed countries had the opportunity to explore the oil as Nigeria being an independent country could then decide on its own who can explore or not without the British government meddling and

dictating things for them.

Before oil was found in Nigeria, Nigeria's major export was agricultural products. In 1958 when Nigeria started the exportation of oil, the share of oil in total export value was less than 1 per cent but in 1984 the share of oil in total export value rose to a peak of 97 per cent and has remained between 90 and 97 per cent since then. In the first half of 1990, oil exportation accounted for over 95 per cent of total exports. In recent years, the oil exportation share of GDP is between 25 and 30 per cent. Nigeria produced more than 1.8 million barrels per day in 1990, and was the sixth largest oil producing country in the world.



Source: naijaquest.com

Figure 10.7: Map showing the location of oil blocks in Nigeria

Oil and Gas: located at the eastern region (Anambra, Bayelsa, Rivers, Akwa Ibom. Cross River, Delta, Abia and Imo)[111]

10.2.2 Nigerian oil managements

The Nigerian National Petroleum Corporation (NNPC) was created in 1977 to oversee the regulation of the oil and natural gas industry, with secondary responsibilities for upstream and downstream developments. In 1988, the NNPC was divided into 12 subsidiary companies to regulate the subsectors within the industry.[112] The Department of Petroleum Resources, within the Ministry of Petroleum Resources, is another key regulator, focused on general compliance, leases and permits, and environmental standards..[152]

Nigeria's most major oil and natural gas projects are funded through joint ventures (JV) between IOCs and NNPC, where NNPC is the majority shareholder, while the rest of the projects are managed through production-sharing contracts (PSCs) with IOCs. PSCs are often the fiscal regime governing deep water projects and contain more attractive terms than those in JV arrangements, which is the fiscal regime governing onshore/shallow water projects. PSC terms on deep water projects tend to be more favorable to incentivize the development of deep water projects. The Petroleum Industry Bill (PIB), was initially proposed in 2008 to change the organizational structure and fiscal terms governing the oil and natural gas industry if it becomes law. IOCs are concerned that proposed changes to fiscal terms may make some projects commercially unviable, particularly deep water projects that involve greater capital spending. PIB responsibilities includes the potential renegotiation of contracts with IOCs, changes in tax and royalty structures, deregulation of the downstream sector, restructuring of NNPC, concentration of oversight authority in the Minister of Petroleum Resources, and mandatory contribution by IOCs of 10% of monthly net profits to the Petroleum Host Communities Fund.

10.2.3 Production and consumption

Nigeria proved crude oil reserves was estimated to 37 billion barrels as of January 2015, according to the Oil & Gas Journal (OGJ), making it the second-largest amount in Africa after Libya. Nigeria produces mostly light, sweet (low sulfur) crude oil of which the majority is exported globally. While the Nigerian crude oil production reached its peak of 2.44 million bbl/d in 2005, it produced 2.4 million bbl/d of petroleum and other liquids, of which 2.0 million bbl/d was crude oil and the rest was condensate, natural gas plant liquids, and refinery processing gains in 2014. Nigeria's 2014 production was slightly higher than in 2013 because of fewer supply disruptions but still lower than previous years. No major oil fields have started production since the 125,000-bbl/d Usan deep water field came online in February 2012. The 40,000-bbl/d Bonga North West field came online in 2014, helping to offset production declines.

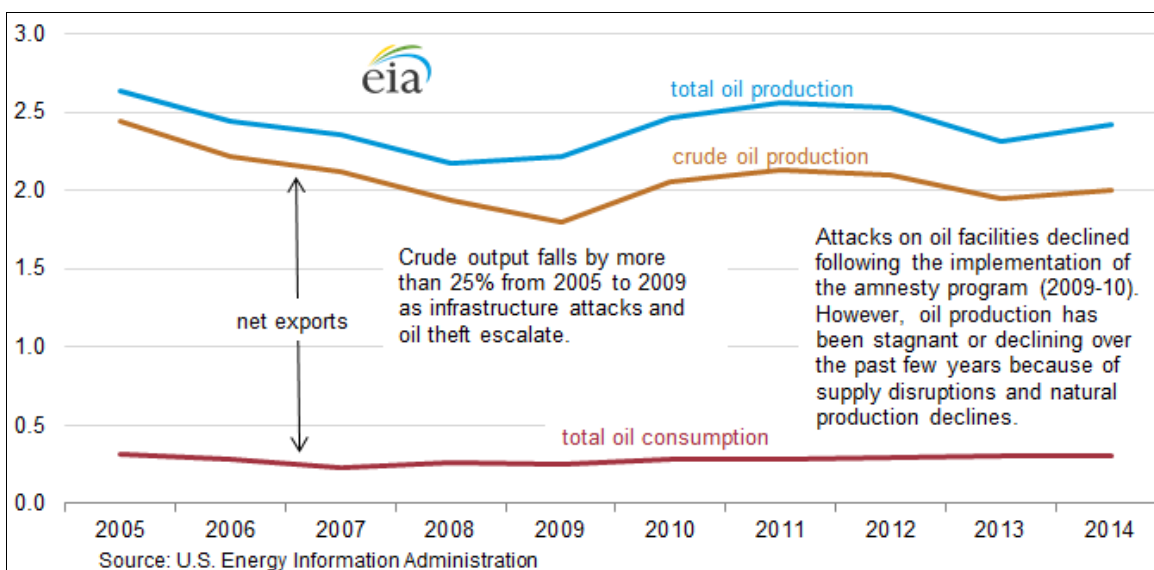


Figure 10.8: Petroleum and other liquids production in Nigeria (million barrels per day)

Table 10.1: Planned liquid fuels projects in Nigeria

Project name	Operator	Type	Plateau liquids production (000 bbl/d)	Final investment decision?	Est. start
Dibi Long-Term Project	Chevron	onshore oil	70	yes	2016
Sonam Field Development	Chevron	natural gas project	30	yes	2016
Gbaran-Ubie Phase Two Project	Shell	natural gas project	20	yes	2017
Erha North Phase 2	ExxonMobil	deepwater oil	60	yes	2018+
Egina	Total	deepwater oil	200	yes	2019+
Bonga Southwest and Aparo	Shell	deepwater oil	225	no	2020+
Bonga North	Shell	deepwater oil	100	no	2020+
Zabazaba-Etan	Eni	deepwater oil	120	no	2020+
Bosi	ExxonMobil	deepwater oil	140	no	2020+
Satellite Field Development Phase 2	ExxonMobil	deepwater oil	80	no	2020+
Uge	ExxonMobil	deepwater oil	110	no	2020+
Nsiko	Chevron	deepwater oil	100	no	2020+

Source: U.S. Energy Information Administration based on reports from Chevron Corporation, ExxonMobil, Royal Dutch Shell, Total, and Oil & Gas Journal

10.2.4 Problems of oil spills in Nigeria

The oil spills from the pipelines is a situation that affects not only the inhabitants of the areas of the oil spills, but it is a serious problem that pollutes the land, the air, and the water through toxic dumping thereby affecting the surrounding villages by decreasing fish stocks and contaminating water supplies and arable land. The United Nations Environment Program released a study on Ogoniland and the extent of environmental damage from more than 50 years of oil production in the region. The study confirmed community concerns regarding oil contamination across land and water resources, stating that the damage is ongoing and estimating that it could take 25 to 30 years to repair.^[153] Nigerian government is the cause of these problems as they take the resources without creating other ways of livelihoods for these people thereby making them resort to pipeline vandalism for livelihood.

10.2.5 Oil dependency

The fall of the oil price and the devaluation of the monetary values of the oil dependent nations are an eye opener and has also shown the importance of technological advancements in determining of the development and the economical states of every country. While some of the oil dependent countries became adamant to IMF call and some of the developed countries pressures for the devaluation of their currencies, some of the oil dependent countries heeded to the interest of IMF and allowed the fall of the oil prize to be used to devalue their currency. This

shows that the proportionality of the currency values does not depend on free fall of the oil price. However, the market should determine the value of currencies, not organizations imposing their interests on independent countries. In comparison between Norway and Nigeria as oil producing countries, Nigeria has been hit hard with the oil price fall. While Norwegian government created oil fund where they deposited lots of money while the oil boom lasted, Nigerian government and its corruptive leaders allotted oil wells to themselves, their friends and family members for selfish reasons and lived luxury lives and deposited the looted funds in western banks.

Oil dependency began in 1970's after the Nigerian civil war. Before that, Nigerian government lacked the expertise to fully explore the oil. The companies with sole rights were the ones reaping all the benefits of the oil as the Nigerian government didn't fully realize the value of the oil by then. Before 1970, the only revenues from the oil are dues from the oil companies to the royalties as a pacification for the continuation of the exploration of the black gold in Nigeria. Nigeria really suffered in terms of knowledge and skills and they are still suffering today due to the lack of technological advancements while Nigerian government and its leaders are busy promoting corruption in the country. The reason for the dependency of oil is because of the rise in oil prices after 1970's and the insatiable need for the commodity all over the world. Another reason for the oil dependency is for the fact that there are no regulatory measures that inhibit the exploration of the oil from the government. After the civil war in 1970, Nigeria established the Nigerian National Oil Corporation (NNOC) whose responsibility was the anchoring of the up and downstream activities in the oil sector. NNOC was a governmental organization that represented government's interest in the affairs and the activities of the oil companies. NNOC and the Ministry of Petroleum Resources (MPR) worked together as separate individual organizations till 1977 when they merged together as one to form the Nigerian National Petroleum Corporation (NNPC). The NNPC main function was the exploration, production, transportation, processing, refining and marketing of crude oil and its refined products. NNPC became an international well known organization in March 1988, when it was declared a commercial, integrated international oil company whose functions includes the exploration, development, production, processing and marketing of crude and refined petroleum, and deciding the price of the oil products both in Nigeria and abroad. A new MPR was created and renamed a directorate as the petroleum inspectorate was included in the new body. This directorate had a Department of Petroleum Resources which is further divided into four independent bodies: The Resources Management Division, the Inspections Division, The Technical Control Division and the Service Division. The Service Division is further divided into three branches: Economics, Planning and Statistics.

Crude oil and condensate imports and exports

The largest-regional importer of Nigerian crude oil is Europe. While Europe imported over 900,000 bbl/d of crude oil and condensate from Nigeria, accounting for 45% of exports in 2014, India being now the largest importer of Nigeria's oil, bought about 370,000 bbl/d or 18% of Nigeria's total crude exports in 2014 as Nigeria exported a total of 2.05 million bbl/d of crude oil and condensate, according to an analysis of data from Lloyd's List Intelligence (APEX tanker data) in 2014. United States used to be the largest importer of Nigerian oil until recent years but United States changed from being the biggest importer of Nigerian oil in 2012 to the 10th largest importer in 2014.

The petroleum products Imports statistical data from 2010 – 2015

The Petroleum products consists of the Premium Motor Spirit (PMS), the Automotive Gas and Oil (AGO), and the House Hold Kerosene (HHK)

The data source is obtained by the National Bureau of Statistics and Petroleum Products Pricing Regulatory Agency of Nigeria (PPPRA)

1. Volume of products discharged within a month is based on actual quantities discharged during the month
2. Average landing cost per month is the average landing cost (SVH) of the product during the period of discharge
3. The value of the product is estimated value based on the average landing cost of the product as at the month of discharge
4. Discharge Date -The date the product was received is the reference period for this report.
5. Report is as at 2nd Dec 2015. Further version may vary to late submission/delayed processing.
6. 2010 &2011 HHK Quantities are still being reconciled

Table 10.2: Petroleum product import in Nigeria – volume and values 2010

MONTH	PMS			AGO			HHK		
	VOLUME (LTRS)	AVERAGE MONTHLY LANDING COST (N/LTR)	VALUE (NGN)	VOLUME (LTRS)	AVERAGE MONTHLY LANDING COST (N/LTR)	VALUE (NGN)	VOLUME (LTRS)	AVERAGE MONTHLY LANDING COST (N/LTR)	VALUE (NGN)
JAN	998,037,897.60	99.31	99,116,748,666.60	227,533,949.00	98.87	22,496,263,209.23			
FEB	1,093,212,665.06	98.23	107,386,498,494.08	446,691,600.00	95.99	42,877,604,195.72			
MAR	1,637,106,353.93	101.76	166,589,982,626.91	240,581,672.00	100.85	24,263,294,818.78			
APR	1,126,479,366.64	104.04	117,199,212,602.87	250,814,928.00	106.74	26,773,147,796.12			
MAY	1,402,161,108.71	94.75	132,858,646,448.93	304,189,793.40	98.69	30,020,198,921.75			
JUN	1,260,316,251.57	93.34	117,642,810,412.15	312,384,134.00	98.18	30,670,535,798.00			
JUL	805,393,823.48	92.83	74,761,293,627.27	189,538,170.00	97.30	18,442,698,067.62			
AUG	1,218,937,865.54	91.81	111,906,885,367.30	193,830,618.00	98.6	19,112,249,944.10			
SEP	1,209,074,753.23	92.94	112,371,966,575.03	199,945,105.39	101.34	20,263,033,838.32			
OCT	1,263,735,830.87	100.97	127,594,413,708.46	134,107,131.00	106.84	14,328,107,161.00			
NOV	1,342,423,378.40	100.1	134,380,604,542.86	246,742,231.00	95.73	23,621,290,479.76			
DEC	1,853,889,843.76	111.89	207,440,046,074.52	153,988,362.00	114.43	17,621,275,761.46			
TOTAL	15,210,769,138.79		1,509,249,109,146.98	2,900,347,693.79		290,489,699,991.84			

Source NBS

Table 10.3: Petroleum product import in Nigeria – volume and values 2011

MONTH	PMS			AGO			HHK		
	VOLUME (LTRS)	AVERAGE MONTHLY LANDING COST (N/LTR)	VALUE (NGN)	VOLUME (LTRS)	AVERAGE MONTHLY LANDING COST (N/LTR)	VALUE (NGN)	VOLUME (LTRS)	AVERAGE MONTHLY LANDING COST (N/LTR)	VALUE (NGN)
JAN	1,619,577,624.78	115.20	186,574,309,761.88	241,372,804.00	120.15	29,001,961,189.23			
FEB	1,512,585,094.87	120.24	181,878,779,462.28	346,746,527.00	129.56	44,923,906,264.67			
MAR	1,547,134,169.70	130.26	201,533,553,177.35	379,919,168.00	151.73	57,645,207,032.32			
APR	1,566,429,658.38	145.56	228,011,301,266.92	268,222,577.00	141.30	37,899,811,907.05			
MAY	1,819,129,458.67	141.64	257,665,234,377.88	443,463,702.00	140.99	62,526,162,087.28			
JUN	2,017,729,052.00	132.90	268,153,845,891.95	279,162,937.00	140.99	39,360,576,680.58			
JUL	1,790,607,024.04	136.63	244,645,627,119.11	282,527,908.00	142.21	40,177,495,035.25			
AUG	1,730,878,157.41	131.72	227,996,602,460.66	321,572,279.00	144.56	46,487,747,170.87			
SEP	1,678,172,327.67	133.71	224,381,331,091.00	288,787,023.00	139.85	40,386,833,232.16			
OCT	1,806,876,230.60	126.64	228,820,188,009.99	208,490,130.00	139.64	29,113,281,364.11			
NOV	1,596,799,894.63	123.32	196,913,956,069.16	126,480,522.00	146.53	18,533,477,280.03			
DEC	2,083,218,236.48	125.65	261,757,545,391.98	203,975,505.00	143.01	29,170,555,712.95			
TOTAL	20,769,136,929.23		2,708,332,274,080.16	3,101,934,059.00		475,227,014,956.50			

Source NBS

Table 10.4: Petroleum product import in Nigeria – volume and values 2012

MONTH	PMS			AGO			HHK		
	VOLUME (LTRS)	AVERAGE MONTHLY LANDING COST (N/LTR)	VALUE (NGN)	VOLUME (LTR)	AVERAGE MONTHLY LANDING COST (N/LTR)	VALUE (NGN)	VOLUME (LTRS)	AVERAGE MONTHLY LANDING COST (N/LTR)	VALUE (NGN)
JAN	1,366,959,827.20	137.09	187,397,489,507.70	161,170,672.00	147.08	23,704,912,032.58	152,434,513.00	149.27	22,753,846,924.10
FEB	1,490,482,307.56	146.36	218,152,119,899.69	128,662,688.00	152.49	19,619,381,994.11	203,768,517.00	154.93	31,570,609,064.20
MAR	1,637,079,666.44	134.08	219,505,457,329.59	113,887,441.00	140.29	15,977,672,461.66	158,231,040.00	142.57	22,559,133,119.66
APR	1,468,579,780.42	128.03	188,018,399,978.75	263,007,921.00	133.18	35,027,629,591.74	234,876,786.00	134.16	31,510,507,441.71
MAY	1,639,190,758.73	133.44	218,727,348,271.83	183,930,017.00	133.44	24,542,918,309.99	271,346,622.00	133.48	36,220,285,807.24
JUN	1,443,873,524.49	128.84	186,023,398,344.42	143,905,933.00	134.66	19,377,853,040.75	105,115,139.00	135.2	14,211,226,680.66
JUL	1,451,497,827.32	134.88	195,779,643,758.73	213,238,958.00	139.62	29,773,300,559.90	194,672,778.00	140.01	27,255,471,975.56
AUG	1,545,142,155.11	136.42	210,792,204,272.30	225,207,438.00	142.31	32,049,897,422.56	204,212,433.00	142.87	29,175,608,532.41
SEP	1,452,441,483.78	130.33	189,298,999,144.07	145,525,572.00	142.58	20,748,436,353.42	359,458,525.00	142.57	51,248,308,313.45
OCT	1,188,424,010.01	124.84	148,361,585,898.08	303,570,014.00	141.02	42,810,568,944.32	293,629,522.00	141.47	41,540,852,602.82
NOV	1,215,321,534.59	124.62	151,447,905,738.37	232,231,589.00	139.54	32,405,962,323.37	164,847,745.00	140.38	23,141,700,104.98
DEC	1,660,852,818.05	128.34	213,152,642,552.87	227,241,040.00	143.67	32,648,602,271.31	307,858,280.00	145.21	44,704,813,195.58
TOTAL	17,539,845,693.70		2,326,657,194,696.40	2,341,679,283.00		338,687,135,308.71	2,450,451,900.00		375,892,363,742.37

Source NBS

Table 10.5: Petroleum product import in Nigeria – volume and values 2013

MONTH	PMS			AGO			HHK		
	VOLUME (LTRS)	AVERAGE MONTHLY LANDING COST (N/LTR)	VALUE (NGN)	VOLUME (LTR)	AVERAGE MONTHLY LANDING COST (N/LTR)	VALUE (NGN)	VOLUME (LTRS)	AVERAGE MONTHLY LANDING COST (N/LTR)	VALUE (NGN)
JAN	1,366,959,827.20	137.09	187,397,489,507.70	161,170,672.00	147.08	23,704,912,032.58	152,434,513.00	149.27	22,753,846,924.10
FEB	1,490,482,307.56	146.36	218,152,119,899.69	128,662,688.00	152.49	19,619,381,994.11	203,768,517.00	154.93	31,570,609,064.20
MAR	1,637,079,666.44	134.08	219,505,457,329.59	113,887,441.00	140.29	15,977,672,461.66	158,231,040.00	142.57	22,559,133,119.66
APR	1,468,579,780.42	128.03	188,018,399,978.75	263,007,921.00	133.18	35,027,629,591.74	234,876,786.00	134.16	31,510,507,441.71
MAY	1,639,190,758.73	133.44	218,727,348,271.83	183,930,017.00	133.44	24,542,918,309.99	271,346,622.00	133.48	36,220,285,807.24
JUN	1,443,873,524.49	128.84	186,023,398,344.42	143,905,933.00	134.66	19,377,853,040.75	105,115,139.00	135.2	14,211,226,680.66
JUL	1,451,497,827.32	134.88	195,779,643,758.73	213,238,958.00	139.62	29,773,300,559.90	194,672,778.00	140.01	27,255,471,975.56
AUG	1,545,142,155.11	136.42	210,792,204,272.30	225,207,438.00	142.31	32,049,897,422.56	204,212,433.00	142.87	29,175,608,532.41
SEP	1,452,441,483.78	130.33	189,298,999,144.07	145,525,572.00	142.58	20,748,436,353.42	359,458,525.00	142.57	51,248,308,313.45
OCT	1,188,424,010.01	124.84	148,361,585,898.08	303,570,014.00	141.02	42,810,568,944.32	293,629,522.00	141.47	41,540,852,602.82
NOV	1,215,321,534.59	124.62	151,447,905,738.37	232,231,589.00	139.54	32,405,962,323.37	164,847,745.00	140.38	23,141,700,104.98
DEC	1,660,852,818.05	128.34	213,152,642,552.87	227,241,040.00	143.67	32,648,602,271.31	307,858,280.00	145.21	44,704,813,195.58
TOTAL	17,539,845,693.70		2,326,657,194,696.40	2,341,679,283.00		338,687,135,308.71	2,450,451,900.00		375,892,363,742.37

Source NBS

Table 10.6: Petroleum product import in Nigeria – volume and values 2014

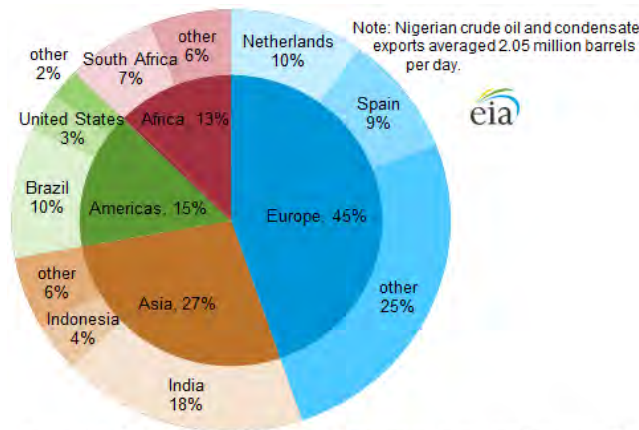
MONTH	PMS			AGO			HHK		
	VOLUME (LTRS)	AVERAGE MONTHLY LANDING COST (N/LTR)	VALUE (NGN)	VOLUME (LTRS)	AVERAGE MONTHLY LANDING COST (N/LTR)	VALUE (NGN)	VOLUME (LTRS)	AVERAGE MONTHLY LANDING COST (N/LTR)	VALUE (NGN)
JAN	1,458,745,667.74	126.42	184,408,101,812.21	200,384,332.00	140.41	28,136,605,871.40	424,142,487.00	141.07	59,831,927,137.21
FEB	965,799,672.53	129.50	125,073,675,597.42	302,935,720.00	140.86	42,671,735,900.67	170,754,386.00	140.87	24,054,215,158.41
MAR	1,615,886,736.17	129.44	209,156,469,727.40	281,100,525.00	138.68	38,983,784,530.95	258,834,312.00	137.98	35,715,219,633.73
APR	1,525,426,943.12	135.23	206,283,847,629.38	303,491,876.00	138.31	41,976,999,027.76	307,705,277.00	137.84	42,414,855,829.80
MAY	2,230,167,284.29	133.16	296,975,051,489.35	205,737,018.00	138.16	28,425,020,679.82	93,654,294.00	138.18	12,940,972,545.32
JUN	1,791,229,964.44	137.40	246,111,937,338.32	290,878,346.00	138.23	40,209,357,050.31	212,979,470.00	138.86	29,573,588,990.14
JUL	1,345,452,474.91	134.63	181,134,093,306.39	361,674,424.00	135.78	49,109,857,786.35	267,645,506.00	137.24	36,732,877,807.75
AUG	1,810,742,218.68	126.65	229,338,965,734.18	351,042,040.00	132.88	46,646,733,248.09	134,946,747.00	135.14	18,236,765,380.81
SEP	1,355,104,283.56	126.73	171,734,386,209.98	322,880,473.00	128.42	41,465,634,633.04	275,840,387.00	130.11	35,889,007,073.62
OCT	1,545,177,104.84	113.37	175,182,130,054.96	172,315,685.00	118.1	20,350,071,411.61	214,089,175.00	121.37	25,984,248,265.33
NOV	1,547,794,624.32	106.92	165,497,517,762.92	33,860,129.00	114.38	38,187,848,374.79	426,699,127.00	117.21	50,012,945,841.30
DEC	1,799,867,260.75	88.05	158,474,920,448.49	357,365,271.00	102.06	36,472,308,210.31	271,725,532.00	105.48	28,661,094,904.43
TOTAL	18,991,394,235.35		2,349,371,097,111.00	3,183,665,839.00		452,635,956,725.10	3,059,016,700.00		400,047,718,567.85

Source NBS

Table 10.7: Petroleum product import in Nigeria – volume and values 2015

MONTH	PMS			AGO			HHK		
	VOLUME (LTRS)	AVERAGE MONTHLY LANDING COST (N/LTR)	VALUE (NGN)	VOLUME (LTRS)	AVERAGE MONTHLY LANDING COST (N/LTR)	VALUE (NGN)	VOLUME (LTRS)	AVERAGE MONTHLY LANDING COST (N/LTR)	VALUE (NGN)
JAN	1,464,427,239.46	74.54	109,153,315,739.36	351,743,447.00	84.74	29,805,008,551.89	202,965,295.28	88.00	17,861,438,755.77
FEB	1,274,650,768.88	91.11	116,129,163,826.97	412,300,287.00	101.73	41,944,520,327.44	110,867,904.88	103.02	11,421,755,911.49
MAR	1,985,341,426.22	105.31	209,083,791,426.51	198,752,466.00	106.76	21,218,305,390.30	104,678,372.30	107.48	11,251,295,390.52
APR	1,640,742,549.27	108.91	178,696,390,661.80	238,642,648.00	109.67	26,171,951,512.79	200,860,861.38	108.94	21,885,212,128.54
MAY	1,625,166,165.21	116.16	188,771,737,143.75	312,105,823.00	117.92	36,804,503,538.88	226,046,903.59	115.56	26,121,754,465.36
JUN	1,225,197,480.80	120.2	147,267,506,265.81	400,513,171.00	114.61	45,904,232,217.94	42,578,360.80	113.69	4,840,912,840.15
JUL	1,545,699,694.04	118.21	182,722,462,473.40	480,494,445.00	104.81	50,362,396,317.41	29,408,150.00	91.60	2,693,666,021.07
AUG	1,826,956,247.02	101.31	185,080,428,004.60	327,479,378.00	93.11	30,493,100,763.11	73,358,952.00	91.60	6,719,379,367.41
SEP	1,470,156,712.51	91.15	133,998,421,111.17	240,232,907.00	94.03	22,589,549,506.66	171,586,938.00	92.95	15,949,150,712.44
OCT									
NOV									
DEC									
TOTAL	14,058,338,283.41		1,450,903,216,453.37	2,942,244,673.80		305,293,848,134.42	1,142,351,738.23		118,744,545,592.75

Source NBS



Source: U.S. Energy Information Administration based on Lloyd's List Intelligence (APEX tanker data)

Figure 10.9: Nigerian Crude oil and condensate exports by destination 2014

10.2.6 Natural gas

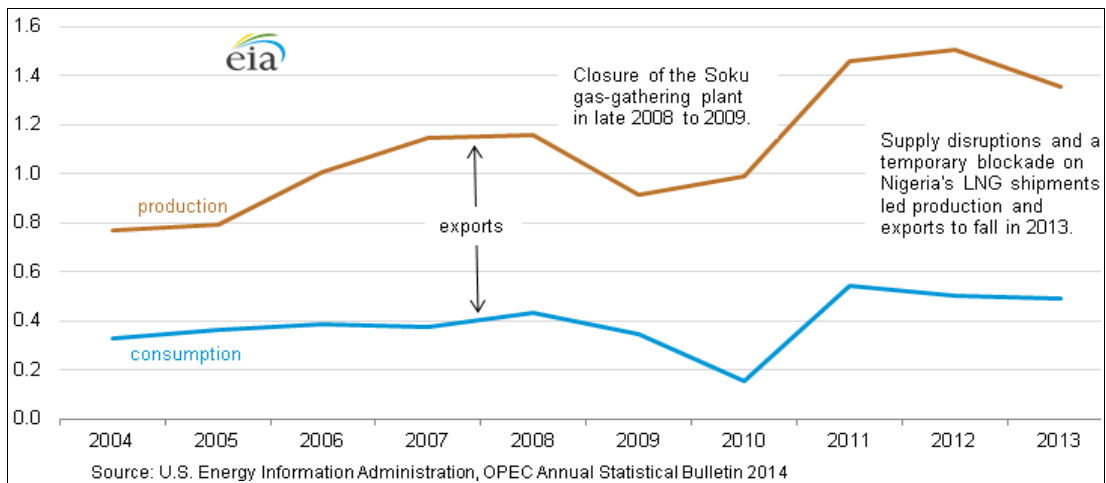


Figure 10.10: Nigerian natural gas production and consumption (million barrels per day)

Nigeria has an estimated 180 trillion cubic feet (Tcf) of proved natural gas reserves as of January 2015 and is the ninth-largest holder in the world and the largest holder of proved natural gas reserves in Africa, [154] according to OGI. Despite this, Nigeria produced 1.35 Tcf of dry natural gas in 2013, becoming the world's top 30 largest natural gas producers.

10.2.7 Natural gas flaring

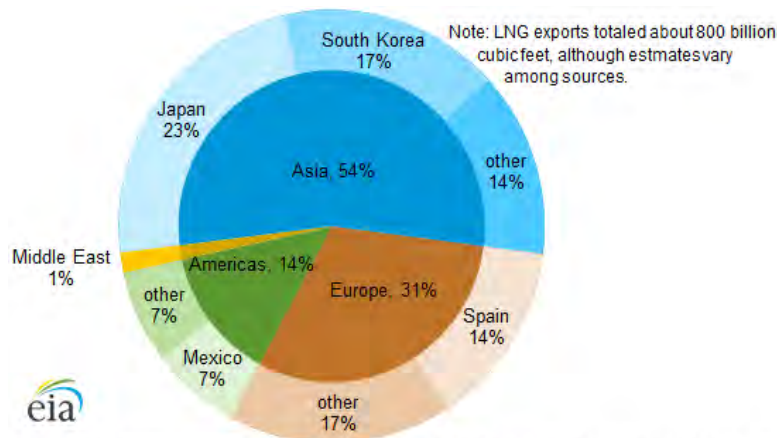
Nigerian inability to maximize gas production is due to the lack of adequate infrastructure to finance natural gas and this causes the gas to be flared. Most natural gas reserves are located in the Niger Delta. While Natural gas production rose after 2009, and reached its peak of 1.5 Tcf in 2012, it fell down 10% to 1.35 Tcf in 2013. Nigeria consumed 490 billion cubic feet (Bcf) of dry natural gas in 2013, about 36% of its production. In 2011, Natural gas flared in Nigeria was estimated to 10% of the total amount flared globally but has in recent years decreased from 540 Bcf in 2010 to 428 Bcf in 2013. Recently, a number of upcoming natural gas projects that are focused on exploiting the natural gas that is currently flared is developed.

Nigeria's gross natural gas production is flared due to the lack of the needed infrastructure on Nigeria's oil fields to capture the associated gas from oil production. In 2013, Nigeria flared 428 Bcf of its associated gas production, or 15% of its gross production. [155] According to the U.S. National Oceanic and Atmospheric Administration (NOAA), natural gas flared in Nigeria accounted for 10% of the total amount flared globally in 2011. [156]

Table 10.8: Planned natural gas projects in Nigeria

Project name	Operator	Plateau natural gas production (MMcf/d) ¹	Final investment decision?	Est. start
Sonam Field Development	Chevron	215	yes	2016
Forcados Yokri Integrated Project ²	Shell	65	yes	2017
Southern Swamp Associated Gas ²	Shell	45	yes	2017
Gbaran-Ubie Phase Two Project	Shell	800	yes	2017
Bonga Southwest and Aparo	Shell	15	no	2020+
Bonga North	Shell	60	no	2020+
Bosi	ExxonMobil	260	no	2020+
Uge	ExxonMobil	20	no	2020+

10.2.8 Liquefied Natural Gas (LNG) and pipeline exports



Source: U.S. Energy Information Administration based on BP Statistical Review of World Energy, 2014

Figure 10.11: Nigeria's export of liquefied gas by destination 2013

Nigeria exported about 800 Bcf of LNG in 2013, accounting for about 7% of globally traded LNG and ranking Nigeria among the world's top five LNG exporters. Japan is the largest importer of Nigerian LNG and received 23% of the total in 2013.

10.3 The effect of oil falls to the Nigerian GDP

The fall of the oil price leads to the weakening of Nigerian currency and as the currency weakens, it is expected that Nigeria will generally experience an increase in the value of the imported goods while the value of the exported goods will decrease. Devaluation of currency will lead to increase in the value of imports and decrease in the value of exports.

Table 10.9: Nigerian past, present and future projected historical real GDP & trade (mil naira)

Year	2011	2012	2013	2014	2015	2016e	2017f	2018f	2019f
Real GDP	57,511,041.77	59,929,893.04	63,218,721.73	67,152,785.84	69,144,885.84	71,758,121.29	75,369,068.74	79,596,971.23	84,064,363.50
Nominal GDP	62,980,397.22	71,713,935.06	80,092,563.38	89,043,615.26	94,268,428.58	104,203,951.07	114,054,967.67	124,332,323.63	134,950,445.87
Trade	29,333,001.12	28,071,190.67	21,261,086.29	23,459,656.50	17,759,239.59	18,186,765.55	23,844,677.11	27,973,242.33	31,228,982.25

Source NBS

10.4 The Nigeria's Gross Domestic Product (GDP)

Nigeria's National Bureau of Statistics released a report on the country's economy, comparing the status quo from 2014 and 2015 with likely projections in 2016 and beyond.

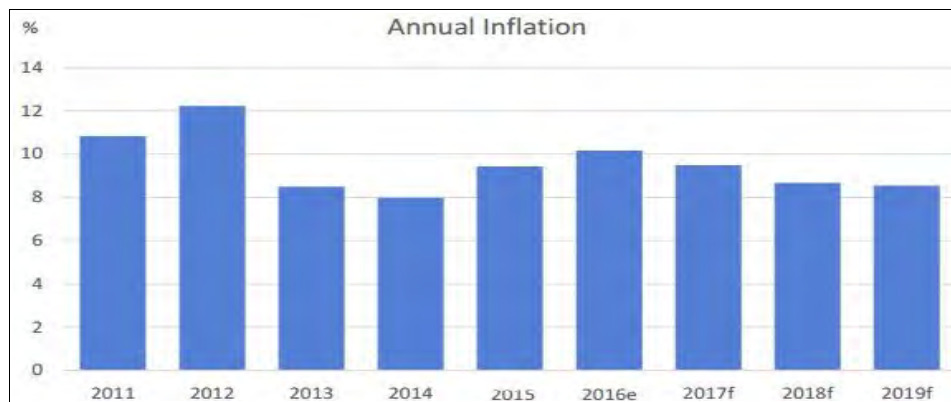
The report titled: Nigerian Economy: Past (2011 – 2015), Present (2016) and Future (2016 –

2019), stated that Nigeria’s Gross Domestic Product (GDP) growth will be 5.61 percent in 2019 unlike when it was 6.22 percent in 2014. With the current oil prize, one wonders if the prediction will ever come true.

Table 10.10: Nigerian % annual historical & projected growth rates for GDP, inflation & trade

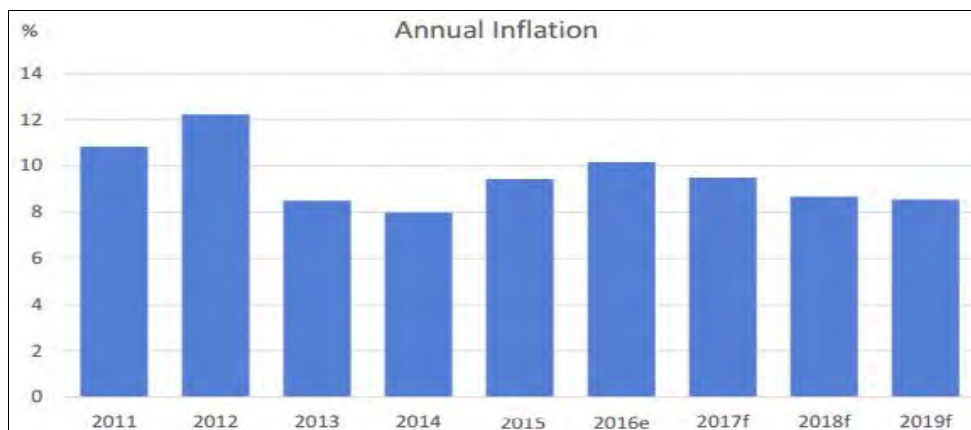
Year	2011	2012	2013	2014	2015	2016e	2017f	2018f	2019f
Real GDP growth	5.31	4.21	5.49	6.22	2.97	3.78	5.03	5.61	5.61
Inflation	10.83	12.22	8.5	7.98	9.55	10.16	9.49	8.67	8.54
Total Trade	48.75	-4.30	-24.26	10.34	-24.30	2.41	31.11	17.31	11.64

Source NBS



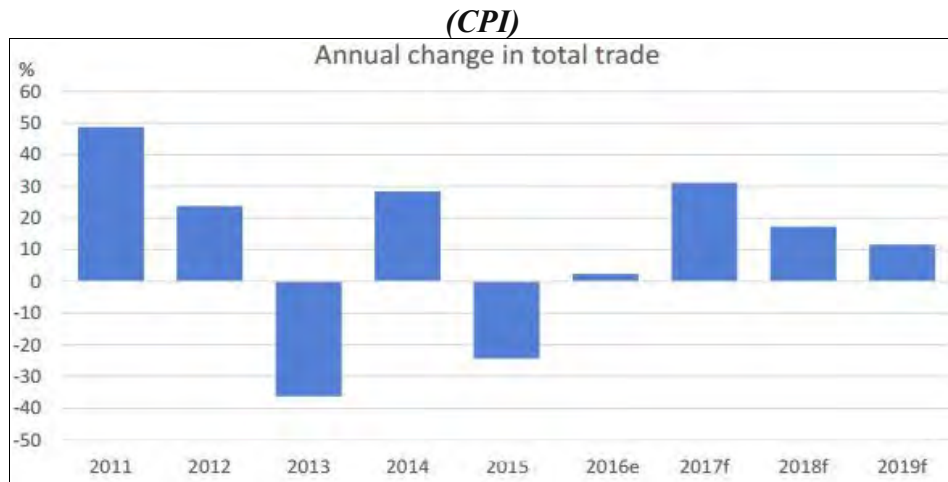
Source NBS

Figure 10.12: Nigerian past, present and future projected percentage annual historical & the projected GDP



Source NBS

Figure 10.13: Nigerian past, present and future projected percentage annual inflation rate



Source NBS

Figure 10.14: Past, present & future projected % annual change Nigerian total trade value

10.5 The Nigerian infrastructural GDP

Table 10.11 shows not encouraging contribution of road transport in the national GDP. As at 1981, the total contribution of road transportations to GDP was 2,328.7 out of the total 47,619.7 GDP and accounted for just 4.89% of the total GDP. A decrease to 1,860.9 was recorded in 1983 accounting for 3.50% of the total of 53,107.4 GDP with a 2.3% growth rate of road transportation

Table 10.11: Road transport contribution to the national GDP between 1981 – 2013

Year	Total GDP (N _M)	Contribution of road transport	Growth rate of road transport
1981	47,619.7	2,328.7	-
1982	49,089.3	1,905.1	18.2
1983	53,107.4	1,860.9	2.3
1984	59,622.5	2,089.8	12.3
1985	67,908.6	3,030.5	45.0
1986	69,147.0	3,171.1	4.6
1987	105,222.8	3,430.0	8.2
1988	139,035.3	3,710.0	8.2
1989	216,797.5	4,019.6	8.3
1990	267,550.0	4,886.6	21.6
1991	312,139.7	5,293.8	8.3
1992	532,613.8	8,050.8	52.1
1993	683,869.8	13,548.2	68.3
1994	899,863.2	29,826.6	120.2
1995	1,933,211.6	46,687.5	156.5
1996	2,702,719.1	66,621.7	29.8
1997	2,801,972.6	69,876.1	15.3
1998	2,708,430.9	90,067.6	28.9
1999	3,194,015.0	106,212.1	17.9
2000	4,582,127.3	116,336.7	19.5
2001	4,725,086.0	129,967.8	11.7
2002	6,912,381.3	160,679.9	23.6
2003	8,487,031.6	205,936.7	28.2
2004	11,411,066.9	344,913.0	67.5
2005	14,572,239.1	362,605.3	5.1
2006	18,564,594.7	416,240.3	14.8
2007	20,657,317.7	444,990.0	6.9
2008	23,842,170.7	472,495.3	6.1
2009	718,977.33	17534.51	6.8
2010	776,332.21	18727.95	6.9
2011	834,000.83	20017.89	6.9
2012	888,893.00	21394.38	5.85
2013	9,29,1515.40	23073.84	7.85

Source: Various issues of CBN Statistical bulletin and other periodicals

Meanwhile, the total contribution of road transportations to GDP increased to 46687.5 in 1995 accounting to 2.42% of the total GDP of 1,933,211.6 and with the highest growth rate of road transportation of 156.5. Further, in year 2000, the total contribution of road transportations to GDP was 46,687.5 out of the total 1,933,211.6 GDP with the growth rate of 19.5%, this rate was not sustained again, as the growth rate of road transportation fell further to 5.1% in 2005 as the total contribution of road transportations to GDP was 362,605.3 out of the total of 14,572,239.1, then the growth rate rose slowly a little bit to 6.9% in 2010 as the total contribution of road transportations to GDP was 18727.95 4 out of the total 776,332.21 GDP and rose further more in 2013 to 7.85% when the total contribution of road transportations to GDP was 23073.84 out of the total of 9,29,1515.40 GDP.

Table 10.12 shows that rail transport and pipeline transportation contributed only 110.6 out of the total GDP of 47,619.7 in 1981, this just accounted to only 0.23% of the total GDP. While in 1994 the rail transport and pipeline transportation contributed only 2.9 out of the total GDP of 899,863.2 and accounted to a negative growth rate of 95.1 and in 1995, rail transport and pipeline contributed only 2.4 out of the total GDP of 1,933,211.6 accounting to a negative growth rate of 17.2. However, in 2008, rail and pipeline transportation contributed 11.8 out of the total GDP of 23,842,170.7 with a growth rate of 22.9%. In 2009, the total GDP declined to 718,977.33, while the rail transport and pipeline transportation contributed only 2.12 for same year accounting to only to 5.7% growth rate in that year. The sector gained a slightly increase in the total GDP 2011 as it rose to only 834,000.83 with the rail transport and pipeline transportation contributed only 2.37 accounting for only 5.9% growth rate.

Table 10.12: The Rail transport % pipeline contribution to national GDP btwn 1981 – 2013

Year	Total GDP (NA\$)	Contribution of road transport	Growth rate of road transport
1981	47,619.7	110.6	—
1982	49,089.3	128.3	16.0
1983	53,107.4	110.5	-13.9
1984	59,622.5	109.3	-1.1
1985	67,908.6	131.5	20.3
1986	69,147.0	138.3	5.2
1987	105,222.8	93.7	-32.3
1988	139,035.3	79.8	-14.8
1989	216,797.5	58.7	-26.4
1990	267,550.0	50.9	-13.3
1991	312,139.7	59.3	-16.5
1992	532,613.8	42.7	-28.0
1993	683,869.8	58.7	-37.5
1994	899,863.2	2.9	-95.1
1995	1,933,211.6	2.4	-17.2
1996	2,702,719.1	2.9	20.8
1997	2,801,972.6	3.7	27.5
1998	2,708,430.9	3.9	5.4
1999	3,194,015.0	4.2	7.7
2000	4,582,127.3	4.5	7.1
2001	4,725,086.0	4.9	8.9
2002	6,912,381.3	5.4	10.2
2003	8,487,031.6	5.9	9.3
2004	11,411,066.9	6.4	8.5
2005	14,572,239.1	6.9	7.8
2006	18,564,594.7	7.5	8.7
2007	20,657,317.7	9.6	2.8
2008	23,842,170.7	11.8	22.9
2009	718,977.33	2.12	5.7
2010	776,332.21	2.24	5.8
2011	834,000.83	2.37	5.9
2012	888,893.00	2.51	5.9
2013	9,29,1515.40	2.67	6.47

Source: Various issues of CBN Statistical bulletin and other periodicals

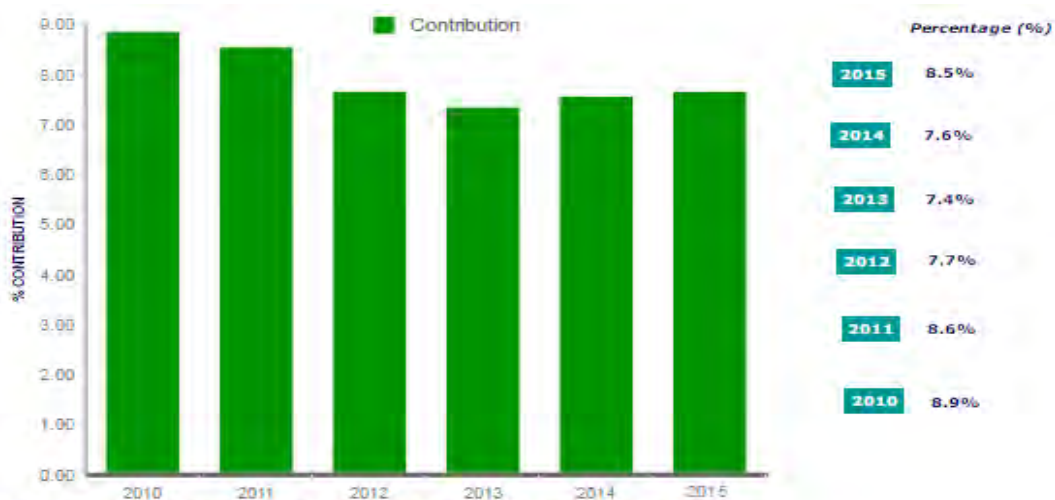
The year 2012 recorded 888,893.00 total GDP growth with the contribution of only 2.51 in the rail transport and pipeline transportation which also accounted for 5.9% growth rate. In 2013, out of the total GDP of 9,29,1515.40, the rail transport and pipeline transportation contributed only 2.67 and accounted to a just marginal growth rate to 6.47%.

Table 10.13 reveals that the contribution of the communication industry to GDP has actually not been encouraging at all. For example, in 1981, communication contributed 159.9 to total GDP of 47,619.7 representing 0.33% of the total GDP. However, in 2001, communication contributed 6,891.2 to total GDP of 4,725,086.0 representing 0.12% of the total GDP and growth rate of 583.0% which indeed was amazing. This sector witnessed the highest growth rate in 2006 with an increase to 318.9% from 82.9% in 2005. In 2008, the sector witnesses to shape fall in growth rate, but this was reversed in 2011 from 7.5% in 2008 to 31.8%, and in 2013, it dropped marginally to 24.75%.

Table 10.13: The Communication contribution to the national GDP btwn 1981 – 2013

Year	Total GDP (NAM)	Contribution of communication	Growth rate of communication
1981	47,619.7	157.9	—
1982	49,089.3	179.7	11.9
1983	53,107.4	145.5	-19.0
1984	59,622.5	151.1	3.8
1985	67,908.6	186.0	23.1
1986	69,147.0	191.8	3.1
1987	105,222.8	201.7	5.2
1988	139,035.3	215.7	6.9
1989	216,797.5	219.5	1.8
1990	267,550.0	247.9	12.9
1991	312,139.7	252.3	1.8
1992	532,613.8	323.3	28.1
1993	683,869.8	446.2	38.0
1994	899,863.2	452.2	1.3
1995	1,933,211.6	525.7	16.3
1996	2,702,719.1	605.7	15.2
1997	2,801,972.6	684.5	13.0
1998	2,708,430.9	743.3	8.6
1999	3,194,015.0	814.0	9.5
2000	4,582,127.3	1,009.1	24.0
2001	4,725,086.0	6,891.2	583.0
2002	6,912,381.3	9,816.5	42.5
2003	8,487,031.6	13,206.7	34.5
2004	11,411,066.9	21,609.5	63.6
2005	14,572,239.1	39,513.2	82.9
2006	18,564,594.7	65,524.1	318.9
2007	20,657,317.7	243,551.0	47.1
2008	23,842,170.7	261,868.8	7.5
2009	718,977.33	26,298.88	34.4
2010	776,332.21	35,339.34	34.6
2011	834,000.83	47,561.07	31.8
2012	888,893.00	62,697.40	31.8
2013	9,29,1515.40	78,215.01	24.75

Source: Various issues of CBN Statistical bulletin and other periodicals



New time series/set of data generated as a result of Nation's GDP Rebasing in 2014. Conducted by the National Bureau of Statistics (NBS).

Figure 10.15: Percentage contribution of telecoms industry to GDP (2010 – 2015)

11 The role of foreign aid and collaborations

Technology transfer should not be based only on the plantation of machineries or the importation and exportation of goods and services, but it should be equipped with knowledge and skills that can be used to produce the goods and the services. Thus, in addition to the tangible assets such as machinery, hardware and software, the means of transferring knowledge can be discussed.[113]. This chapter deals on the analysis, literature and statistical data of technology transfer.

11.1 Multinational Corporations and International Technology Transfer

Multinational corporation (MNCs) is an organization that owns or controls production of goods or services in one or more countries other than their originated country. It can also be referred as an international corporation, a “transnational corporation”, or a stateless corporation. Another body that largely remains a recognized force is the FD1 (Foreign Direct Investment).[114, 115 and 116] The factors that can determine the nature of the technology transfer within any recipient countries includes the governmental roles and its political philosophy, which is combined with the international political situation. Without good efforts and good policies from the government, the availability of the MNCs impact on any recipient country will be as good as dead on arrival. This is because instead of the existence of the MNC as a mutual beneficial organization, the body being a profitable organization becomes solely an exploitation organization if they find the opportunity.[117]

MNCs are responsible for a large part of the global trade, both in commodities and technology. The influence of MNCs and FDI cannot be undermined in our modern world economy. Actually their decision making is one of the most important phenomena characterizing the modern world economy. It is estimated that the globally economical dependency on these organizations amounts to about 40,000 Transnational Corporations (TNCs) and their 250,000 foreign affiliates. On the other hand, an estimation of about \$2.6 trillion total outward stock was made by FDI in 1995 with a global sale of \$5.2 trillion in 1992 by its associated foreign affiliates. TNC is highly rated by the developed countries as a decisive force in global economy where their activities involves policy-making, transparency, investment, technology, innovation and employment, fostering the upgrading of labor, management skills and enabling a better integration into the world economy.[118]

11.2 Technology transfer through MNCs

MNCs system within member developed countries is very different from that of the systematic approach towards the LDCs and DCs. The clear visible difference of the fundamental qualitative nature in the principal ways in which MNCs engage in transactions in the world economy is in part a response to a number of structural shifts and policy changes in the international environment in which these enterprises operate. The wave of nationalization in the petroleum and extractive industries in the early 1970s, paved ways for many of the newly created state-owned enterprises to negotiate contracts for the provision of management, marketing, and technical services with their former MNC owners, so as not to disrupt production and marketing flows and

to maintain access to foreign technology.[119]

Foreign subsidiaries operating in the LDCs and DCs tend to be divided sharply into three categories.

1. The exporters of natural resources and resource-based products.
2. The exporters of manufactured goods or components.
3. Producers who engage in the exploitation of the LDC's and DC's domestic market.

An important point of fact is the distinction between the second and the third categories. The theory of MNCs' locational choices shows that, given scale of economies and the very small domestic markets of most LDCs and DC's, a foreign subsidiary will locate there either to exploit the market or to export extensively.[120]

11.3 Foreign Direct Investment (FDI)

Foreign Direct Investments (FDIs) are investments initiated outside the home country of any possible investor, but inside the investing company. The national income accounts, where all flows, whether direct or through affiliates, is extended to the reinvested earnings and net borrowings, as well as equity capital from the investor. The control over the use of resources transferred remains with the investor, giving the investor an effective voice and dominance in the management of the foreign firms. Dunning viewed FDI as packages of assets and intermediate products, like capital, technology, management skills, access to markets and entrepreneurship.[121] UNCTAD (1997), view it as organizations with a range of co-operative agreements that undertakes joint ventures, subcontracting, franchising, marketing and manufacturing as complements to traditional FDI.[122] Lall meant that the link between FDI and technology transfer has weakened due to the multiplicity of new forms of investment.[123] While the aggregate flow of FDI to all DCs exceeded 42 billion in 1992, and 80 billion in 1993, a visible increase of 100% over the previous two years and a 400% increase since the mid-1980 was observed. As a source of external capital for developing countries, FDI makes up more than 75% of the total. While global FDI flow declined slightly in the beginning of the 90s, the flow to DCs has increased in absolute amounts and in its share from less than 12% of the total in 1987 to over 22% by the end of 1991.[124] The majority of FDI flow within the DCs went to Asia and it covered over 60% of the total of the FDI flows.[125] Contrary, Latin American DCs got less than 5% of the world's FDI flow. The reasons can be attributed to the fact that while the international debt crisis was on the rise, the impact of the growth of the Asian economies to FDI, and the better macroeconomic prospects of Asian economies was also on the rise. Again it shows that the most beneficiaries of FDI are the developed countries and DCs while LDCs benefit almost nothing from the FDI.

11.3.1 The statistical data of FDI

Table 11.1 shows both the rapid recent growth of FDI and its concentration among six recipient nations. Out of the six listed countries, no African country or any LDCs and DCs is located on the list. Meanwhile, out of the total of the 94% of all investment flows, Africa received less than 5%, while the LDCs received under 2%. It can be observed that the growth of private FDI in the Third World skyrocketed during the recent decades. It rose from an annual rate of \$2.4 billion in 1962 to \$17 billion in 1980, to \$31 billion in 1990 and to over \$80 billion in 1993. Out of the six listed

countries, about 66,7% of this total went to Asia.

Table 11.1: DCs Net FDI (1970-1993) & 6 Major Recipients of FDI (1988-1992), (bill US\$)

Year	Net FDI	Major Recipients of FDI	FDI Received (1988-1992)
1970	3.1	China	25.6
1980	10.9	Singapore	21.7
1990	31	Mexico	18.4
1991	38.7	Malaysia	13.2
1992	42.5	Argentina	10.6
1993	80	Thailand	9.5

Sources: 1) UN Development Program, Human Development Report, 1994
2) Economist, Oct. 1994, Fig. 4.1, p-23

It can be observed that the aggregate flow of FDI to developing countries has increased about twice as fast as the rate of growth of their GDP during the latter half of 1980s and early 1990s. While Japan emerged for the first time as the world's largest investor in 1989, the decline of the global FDI outflow after 1990, was largely caused by a drop in Japanese FDI outflow from \$48 billion in 1990 to \$31 billion in 1991. Meanwhile, Japan's contribution of the global FDI outflow rose from 10% for the period 1980-1985 to 20% for 1986-1990, thereby surpassing the contributes of UK (17%) and the USA (14%) respectively. MNCs from Japan became the world's most dominant medium of international capital and the world's most dominant source of technology transfer. Between 1950-1990, the Japanese MNCs had the tendency to concentrate their investment in North America and the European Countries, which together accounted for more than half of Japan's total manufacturing investment outflow.[126]

Table 11.2: Top five Annual Flow of FDI to UD and DC countries. (\$ billions)

Recipients	1970 – 1980	Recipients	1981 – 1990	Recipients	1988 – 1992
FDI total to DCs	20.6	FDI total to DCs	18.7	FDI total to DCs	164.5 (estimated)
Brazil	11.3	Singapore	2.3	China	22.5
Mexico	0.6	Mexico	1.9	Singapore	21.7
Egypt	0.3	Brazil	1.8	Mexico	18.4
Malaysia	0.3	China	1.7	Malaysia	13.2
Nigeria	0.3	Malaysia	1.1	Argentina	10
Top share flow 10%	66	Top share flow 10%	68	Top share flow 10%	75

Sources: Columns 1-4, 1992, World Investment Report, United Nations
Columns 5-6, Oct. 1994, The Economist, p. 29

Table 11.2 shows the changing pattern of the top-five FDI recipients in the developing countries

since 1970. As it is shown in the Table, during the 1970 – 1980, While Asia had only one recipients (20% of the total), Africa had two recipients (40% of the total) in the top 5 of the FDI flow. Between 1981 – 1990, great changes were visible as Asia became more conspicuous as it was increased to three Asian recipients (60% of the total), meanwhile Africa disappeared on the list. Between 1988 – 1992, Asia maintained the same number of recipients in the top 5 of the FDI flow. While Singapore and China that were not located between 1970 – 1980 in the top 5 of the FDI flow, surprisingly emerged on the first and second slot respectively displacing Brazil to the third slot between 1981 – 1990. Coincidentally China and Singapore interchanged positions on the first and second slots respectively between 1988 – 1992 and by this time, Brazil disappeared just as the countries from African. One can also see that the average share of Asia in the top-five increased from 20% between 1970 – 1980 to 60% between 1970 – 1980 and 1988 – 1992. The reason may be the attractiveness of Asian economies to FDI, and the better macroeconomic prospects of Asian economies. The pattern continues till the present moment.

11.4 Statistical data of monetary aid with no economic growth and technological advancements to the recipients

Norwegians are very compassionate people and are one of the developing countries who have really done much to alleviate poverty in many of the LDCs and DCs. If money could have eliminated the poverty problems in many of the LDCs and DCs, the poverty problems would have been a thing of the past in all the countries Norwegian government have sent “bilateral assistance”. Norwegian monetary aids began with allocations to the UN's development in 1948-1949. The inception of State bilateral development cooperation was initiated with the support for a fishery project in Kerala, India as early as in 1953. This was initially operated under the auspices of the Fund for assistance to LDCs and DCs, also known as "The Norwegian India Help." The fund was established by Parliamentary Resolution in 1952. Subsequently, a fund was also granted to a teaching hospital in South Korea, after the Korean War, from 1956. In the 1960s, development assistance significantly extended, both geographically and economically. While the Norwegian Peace corps was founded in 1963, the Peace Corps worked as a volunteer organization the same year, and travelled to Uganda. Norway's first state agreement with an African country was signed with Tanganyika (present Tanzania) in 1963, and it was also established extensive cooperation with Ghana, Kenya, Zambia, Botswana and Mozambique. In 1980, agreements were made with Zimbabwe and these agreements was further extended to Namibia in 1990. As a result of the security situations in Uganda in 1973, the cooperation was stopped. Norway contributed to the political support for the liberation movements in the Portuguese colonies and in Namibia, Rhodesia and South Africa, followed up with humanitarian aid, especially for the refugees. Further efforts were expanded to Asian continent, and by this time, Pakistan was prioritized as the country for Norwegian development aid in 1969, followed by Bangladesh in 1973, and then Sri Lanka in 1977. In terms of the humanitarian aids towards the refugees, Vietnam received support after the reunification in 1975.

In North America, Nicaragua got support for regime change. Simultaneously, Norwegian Peace corps aids also favored Costa to balance support for the radicalism of the Nicaraguan people in the process. In the middle east, the Norwegian's role as peace actor was also largely felt

especially as the consequence of the Palestinian fight for independence created the necessity for them to become an essential Norwegian aids recipients. Norway was also much involved in Iraq with bilateral assistance. In Europe, the largest recipients of Norwegian aid were in Balkans, in the middle of 1990s when the former Yugoslavia existed, that was when the Norwegian's diplomatic and military engagement became much necessary for the stability of the Yugoslavian entity.

The Norwegian government have done much, even more than enough to help these countries but the problem of not achieving that needed results lies on the method of approach and the ways of the executions of these aids. Probably, the recipient's countries would had much technological and economical advancements if not for the corruptive leaders they have. Apart from Botswana that is experiencing growing economy at the moment due to less corruptive measures by their leaders, not by any bilateral assistance or aids from any developed country, the other recipients' countries may seem to be the same as or even worse than they were before the inception of the bilateral assistance to them. None of these recipient countries can state any tangible thing that was established for the development of their country with all the wasted "monetary aids". While the overall Norwegian aids in 2013 was 32.8 billion Norwegian crowns (1.07% of Norwegian Gross National Income GNI), the total aids from Norway in 2014 was 31.7 billion. (0.99% GNI) was distributed in all 116 countries (Here I wonder if bilateral and multilateral institutions including UN and other voluntary organizations are included as countries).

11.4.1 Norwegian monetary aids recipients

It is not only the LDCs that receives aids from the Norwegian governments, many organizations also receive aids independently as Non-Governmental Organizations. The geographical distribution of Norwegian assistance in 2014 were; Africa 29%, Asia 15%, Latin America 8%, Middle East 7%, Europe 3%, Oceania 0.5%, and unspecified 38%.

Table 11.3: 6 largest Norwegian recipients of aid budget in 2010 – 2014 billions of Nok

Organizations	2010	2011	2012	2013	2014
Asylum help	0.552	0.456	0.587	0.736	0.644
Norwegian Red Cross	0.473	0.525	0.501	0.715	0.726
Norwegian Church Aid	0.469	0.408	0.407	0.441	0.606
Norwegian People's Aid	0.344	0.365	0.354	0.347	0.361
Save the Children, Norway	0.200	0.183	0.175	0.220	0.277
Digni affiliated to Norwegian missionary organizations	0.145	0.151	0.164	0.181	0.181
Other organizations	1.436	1.430	1.521	1.613	1.657
Total	3.620	3.518	3.710	4.252	4.452

Source: Norad

In 2014 alone, Half of Norwegian aid, approximately 16 billion crowns, was channeled through multilateral institutions. This was an increase of 1.5 billion Norwegian crowns from 2013. Of the increase, 1 billion was allocated to the World Bank, which in 2014 received a total of 3.9 billion crowns from Norway. Various UN organizations received a total of almost 7.5 billion crowns of which the United Nations Development Program (UNDP) received the largest sum which was 1.9 billion crowns, followed by the United Nations Children's Fund (UNICEF) which received 1.2 billion crowns. One thing should be very clear here, any money given to UN is not given to only the LDCs, the money is given to UNITED NATIONS, and as Norway is a part of united Nations, then the money is given to all the members of UN including Norway, so this cannot be regarded as an aid to the LDCs and DCs.

Table 11.4: 5 largest individual Norwegian monetary aid recipients btw 1960-2014 (bill.Kr)

Country	1 000 Kr
Tanzania	16 913 402
Mozambique	11 980 520
Palestine	9 495 476
Zambia	9 171 378
Afghanistan	9 053 521

Source: Norad

Table 11.5: The five largest recipients of Norwegian aids in 2010 – 2014 in millions Nok

2010	Sum	2012	Sum	2013	Sum	2014	Sum
Brazil	1483	Brazil	1248	Brazil	3989	Afghanistan	758
Tanzania	749.2	Afghanistan	735	Afghanistan	744	Palestine	741
Afghanistan	726.4	Palestine	623	Palestine	632	Brazil	706
Sudan	705.3	Tanzania	539	Malawi	631	Sudan	607
Palestine	661.9	Mozambique	501	Tanzania	585	Laos	586

Source: Norad

While Brazil, Afghanistan, Palestine, and Tanzania dominated the lists, Mozambique, Malawi and Laos appeared only once on the table 11.5 in 2012, 2013, and 2014 respectively. Norway's assistance for 2014 in all is 31, 663 billion spread into sectoral distributions which includes multi-action 24%, Environment and Energy 17%, good governance 13%, costs in Norway/unspecified 13%, Economic Development and Trade 10%, relief 9%, health and social sector 8% and education 6%. The other part of the total Norwegian aid is channeled through voluntary organizations and through bilateral and multilateral channels. Until the end of 2014, Norway has spent approximately 460.4 billion Norwegian crowns as “aid assistance / development cooperation”, of which nearly half is divided into a total of 158 countries.

Table 11.6: 5 African countries that received Norwegian aids in 2014 in mil Norwegian crowns

Country	amount
Tanzania	825
Mozambique	535
Zambia	384.4
Malawi	190
Uganda	59.9

Source: Norad

Norwegian aids by region

Table 11.7: The total Norwegian aid 1960-2014, broken down by region. Figures in NOK mill.

Region	Kr
Africa	119 737.7
Asia	57 116.0
Europe	16 504.3
America	25 216.5
Middle east	16 489.7
Oceania	168.1
Not geographically distributed	225 192.7
Total	460420.1

Source: Norad

Table 11.8: Total Norwegian development aid in Norwegian crowns from 1960 – 2015

Year	Amount
1960	8.4 million
1970	262.6 million
1980	2.4 billion
1990	7.55 billion
2000	11.12 billion
2008	22.6 billion
2010	27.4 billion
2012	27.644 billion
2013	2.8 billion
2014	31.7 billion
2015	29.5 billion

Source: Norad

11.5 The effects of MNC to the LDCs and DCs

1. Dependency on the importation of the MNC products, thereby making it impossible for the recipients to develop their own resources.
2. MNC may be one of the major facilitators of technology transfer through the involvement of its corporations augmented capital investment, associated development industries, and the provision of foreign exchange.
3. MNC may also inflict damage to indigenous industries and mount pressure on the availability of local capital, labor, and raw materials.
4. As a profitable organization, the profit motive of the multinationals may transform the recipient country into a dependent state.
5. Regulations and restrictions inhibiting the expansion of knowledge and skills through patent policies can hinder development and technology transfer.
6. Constant pressures from MNC to the recipients to devalue their currencies so that MNCs can benefit more in the exportation of their products to the recipient countries
7. Negligence of the exploration of natural resources by the recipient countries
8. Suppressing of technological advancements due to the fact that technology transfer is not done through the transfer of knowledge and skills, only finished products are exchanged.
9. FDI that includes packages of assets and intermediate products, like capital, technology, management skills, access to markets and entrepreneurship promotes technology transfer.
10. Organizations like UNCTAD that includes a range of co-operative agreements that undertakes joint ventures, subcontracting, franchising, marketing inhibits technology transfer.
11. The complete package of only marketing skills aids no technology transfer as it only paves ways for a progressive development and economic growth of MNCs, private sectors and individuals and inhibits the technological advancements and the economic growth of the public sector of many of the recipient countries.

12 Nigeria's gateway to development

Development is the act of bringing out capabilities or possibilities in whatever we do. It is an advancement in human activities. As far as this definition stands no country is “developed, underdeveloped or undeveloped” as it is very clear that human society, like any other living organisms, is always growing or evolving into different forms.

12.1 Development concepts associated with technology transfer

When we associate development in relation to human societies, with the value of positive growth as the implication, then, all societies, all the countries inclusive can be classified as developing societies. The fact is that every country is experiencing development means that every country is a developing country. No country is static as it never achieves static equilibrium. Each society faces different constraints that limits the extent to which development is achieved. But nevertheless, the term “developed and undeveloped” is barbaric and it makes no sense as no country is fully developed or undeveloped. Every country has experienced positive changes in their society, therefore the right term should be less developing and developing countries. If the “developed countries” are developed as they portray themselves, then the only changes they can experience again is less developing themselves. The only fact is that the “developed countries” are ahead of the “undeveloped countries” in advanced development.

12.1.1 Development in terms of countries

Tyre meant that the degree of changes in the technology is affected by the attributes and business environments of the units involved in the transfer.[127] The self-acclaimed management philosopher Churchman, accredits undeveloped countries as a country in which thousands of people, including babies, are starving.[128]Madu, Christian N., 1992, gave his own definition of undeveloped country, as a country that believes that it must keep a large arsenal of weapons, both nuclear and non-nuclear in fear of military power of another country.[31]

From both definitions above regarding undeveloped countries, it shows that no country is developed as Churchman from wealth angle limited his definition to starvation as the only reason that can be attributed to underdevelopment, a typical thinking from a self-acclaimed philosopher from “the developed countries”, meanwhile development does not limit itself to food as some countries have food in abundance, yet they lack other necessities of life. On the other hand, Madu, Christian N is using psychological means to give his own explanation. He is basically trying to explain that the “developed countries” are underdeveloped because they are all psychologically deranged as they all live in fear of people attacking them, while the so called “underdeveloped countries” are psychologically developed because they don't live in fear of attacks from any other country. While some people argues that “developed countries” have wealth they tend to defend, “the underdeveloped countries” have nothing to defend. The anticipation of war is the beginning of fear and many wars are normally initiated by countries who creates weapons and wants to sell them for wealth. In other words, a country who keeps a large arsenal of weapons, both nuclear and non-nuclear in fear of military power of another

country is suffering the sickness called paranoia (a mental disorder that is characterized by systematized delusions and the projections of personal conflicts that are ascribed to the hostility of others, often progressing to disturbances of consciousness and aggressive acts believed to be performed in self-defense).

One way of transferring technology for the development of a country is through industrialization. Todaro, M. P., 1997 defines industrialization as the process of building up a country's capacity to process raw materials and to manufacture goods for consumption or further production. [101]

One of the major benefits of technology transfer is the developing and the progression of the economic growth. Arndt specified the evidence of development as higher living standards, rising per capita income, increase in productive capacity, mastery over nature, freedom through control of man's environment, economic growth with equity, elimination of poverty, basic needs satisfaction. Also, catching up with the developed countries in technology, wealth, power, status, economic independence, self-reliance and liberation satisfies the objectives of development.

[129] Economic development can therefore be achieved by the improvement of productivity.

12.1.2 Benefits and ways of achieving developments

Some of the economic benefits that can be gained from the successful transfer of technology are:

1. Job opportunities
2. Increased GNP as a result of improved productivity
3. Direct foreign investments
4. Balanced budgets,

Economical advancements cannot be totally attributed to the technological transfer. For a better implementation and utilization of the availability of every resources at one's disposal, the LDCs and DCs should learn to develop, modify, and enhance the transferred technology in order to achieve a long-term economic growth in their country. [31]

Development can be achieved in three major ways

Todaro, Michael, P. defines development as the process of improving the quality of all human lives. [101] He further categorized three aspects of developments which are:

1. Raising people's living levels, example, their incomes and consumption levels of food, medical services, and education through relevant economic growth processes.
2. Creating conditions conducive to the growth of people's self-esteem through the establishment of social, political, economic systems and institutions that promotes human dignity and respect.
3. Increasing people's freedom to choose by enlarging the range of their choice variables, for example, increasing varieties of consumer goods and services.

12.2 Resource diversification, Nigeria's gateway to development through technology updates

The dependency on oil alone have led Nigeria into loss of huge revenues they can get through these natural resources. The need to invest in agriculture for economic growth needs to be addressed. Before oil, Nigeria had a well-balanced economy based mainly from the agricultural

products. When Nigeria found oil, they forgot how the agricultural products contributed immensely to the economic growth of the nation. Today, almost all the agricultural products that can be easily produced in Nigeria are imported from other foreign countries. Investment in agriculture will go a long way in the utilization of the huge human resources available at Nigerian's disposal. Nigeria used to be well known country that exports agricultural products, today, Nigeria is among the most countries that imports agricultural products from foreign countries. Oil dependency is the reason for this diversion. There is a great need to invest in human resources through agriculture and the exploitation of other natural resources.

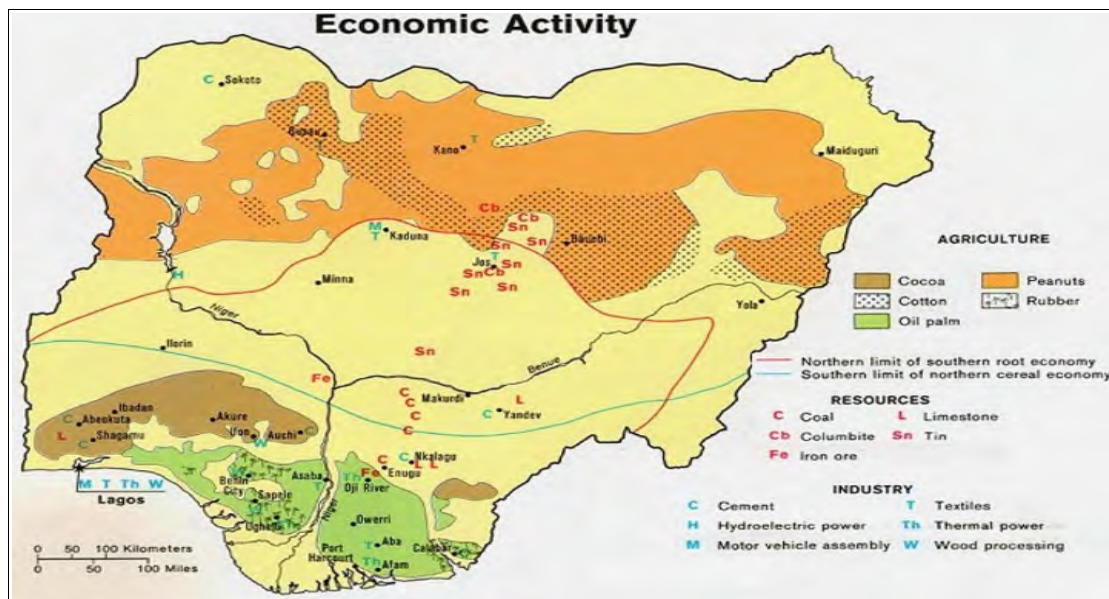


Figure 12.1: Other major resources, agricultural products & industries' locations in Nigeria

Nigeria have no reason to be poor, they have all. Since countries like India, China and Brazil realized the great potentials they have in utilizing the enormous human resources they have, today, all these countries have improved their economies to greater heights. The only country with enormous human resources who is lacking behind is Nigeria. The only country who could have surpassed Nigeria with similar resources is the Democratic Republic of Congo, though they don't have as much human resources as Nigeria, but the human resources they lacked, they gained it in other natural resources. Actually, no country in the world today have the amount of natural resources Democratic Republic of Congo have, but yet, the masses are living in abject poverty due to corruptive leadership. Nigeria need to use the diversification of the other natural resources and the agricultural products. It is very important.

12.3 Maximization of the utilization of human resources

The urgent need for the exploration of capabilities and utilization of local competencies is very essential to the foreign and local firms that increase their involvement in Nigeria. It is very important to note that one of the ways to get best and most effective results from Nigerian human resources is by learning and understanding the local values, customs, and mostly, the external

cultural environment. Harbison and Myers (1964) found a significant Statistical relationship between levels of human capital development and the levels of GNP.[130] Human resources of a nation refer to the totality of population of a country, which determines the potential labor force of a nation. Investment in the human resource determines the type, quality, availability and productivity of the nation's manpower.

12.3.1 Unemployment issues and Statistical data on unemployment rate in Nigeria

The problem with Nigerian government is the lack of knowledge and insight in the enormous benefits the nation can derive from better utilization of human resources. In comparison with Nigeria and Norway with abundance crude oil, while Norway with a population of approximately 5.25 million just 2,89 percent of Nigerian population is developing its nation through taxes they generate from human resources, Nigeria generates almost no revenue from its human resources. If Norway can generate so much revenue from so little population through taxes, imagine how much Nigeria can generate through the same procedure. In other to maximize the exploitation of human resources, there must be availability of jobs and well-functioning infrastructures.

Statistical data on unemployment rate in Nigeria

In Nigeria, the unemployment rate measures the number of people actively looking for a job as a percentage of the labor force. This data provides the latest reported value for - Nigeria Unemployment Rate - plus previous releases, historical high and low, short-term forecast and long-term predictions, economic calendar, survey consensus and news.

Nigerian Unemployment Rate - actual data, historical chart and calendar of releases - was last updated on February of 2016.

Nigerian Unemployment Rate increased to 9.9 percent in the third quarter of 2015 from 8.2 percent in the second quarter of 2015.

Nigerian Unemployment Rate averaged 11.45 percent from 2006 – 2015, reaching an all-time high of 23.9 percent in the fourth quarter of 2011 and a record low of 5.3 percent in the fourth quarter of 2006.

Source: National Bureau of Statistics, Nigeria.



Source: National Bureau of Statistics, Nigeria.

Figure 12.2: Nigeria Unemployment Rate 2006-2016

12.3.2 Factors hindering the progressive utilization of the human resources

- **Brain drain**

The lack of the awareness of the importance of human resources, corruptive practices, quota system, tribalism, cultural heritages, language barriers, religious beliefs, norms, gender selection and nepotism. This means that the opportunity for an average Nigerian to get employed is a factor of the above mentioned variables.

- **Non-governmental supports**

The fact that most organizations in Nigeria lacks the funding for resource mobilization, utilization and human resource management research and development. This is compounded with lack of the availability of accurate data and the mismanagement of funds and resources by the government officials, combined with the inability of the government to adhere to the UNESCO'S prescription for funding education (26% of the annual budget) which aggravates the problems in financing education. Lack of sustainability plan and institutional support and the absence of inter-agency as well as governmental collaboration with the needed investors.

- **Qualitative and functional educational system**

Lack of technical and vocational educational training in all the subsectors of education with inadequate human resources and unemployment of the products. This leads to the lack of knowledge, skills and proper training of the masses, access to schools which is composed of physical access, quality access and economical access. Good educational training will give

- **Human development programs**

Lack of standard and quality assurance. This embodies the issues of valid curriculum contents and relevance, quality teacher development, good functioning infrastructures, motivation and retention, learner support services, and information and communications technologies (ICT).

- **Investing in indigenous products.**

Investing in agriculture to enhance food security and supplementing the indigenous industries to facilitate labor force and hinder the negligence of the patronization of the indigenous products as Nigerians imports almost everything

- **Lack of the internal trained manpower to complete all necessary tasks**

This will go a long way in wealth creation and employment by enabling infrastructure through mass transport, power sectors and good communication system

- **Feeble parameters for monitoring and impact assessment.**

Nigerian have no solid organs that monitor projects that are awarded, even the operated organ like EFCC is just an organ created to fight opponents and oppositions. Nigerian Labor Congress (NLC) does not fight for the rights of all employees as there is no existence of policies in terms of the rights of the employees which leads to bad employer-employee relations and constant exploitation of the employees by their employers that is a natural phenomenon in Nigeria

- **Policy issues**

The enhancement of Nigeria's democratic lackluster in determining the quota of merited school admission process and skilled personnel it permits for HRM practices.

- **Organization control entirely in the hands of management**

This is to say that the management of the organization strictly decides the number of employees that matches closely with desired goals and objectives even though that the management and the Nigerian government seems to strive to make coherent HR policies that fit closely with overall business strategy. For example, in the oil industry, the government of Nigeria has made concerted

efforts over the last 50 years to promote the participation of indigenous workers in the oil industry. Regulation 26 of the 1969 Petroleum and Drilling Act represents one of government's early efforts to increase Nigerian national oil workers' participation in the industry. But for the fact that most of the oil companies are multinationals, with parent companies in well-developed and advanced countries, the recruitment is selectively done in Nigeria, with the employees limited trainings and skills to perform certain required tasks. However, due to the complexities involved in the activities of the oil industries, there is still demand for lots of skilled personnel in the oil fields today.

- **Inability to cope and adapt with the pace of the current technological advancements**

Lack of continuity and land reforms due to the complexity of present business climate as a result of deregulation, globalization, and technology advancements that has outpaced many companies' levels and for companies to get special projects done without adding employees to payroll.[131]

- **Awareness creation**

Non-involvement of communities in projects conception that aggravates security issues

Table 12.1: Comparison between Nigeria and Norway

Theme	Norway	Nigeria
Population	Approximately 5.25 million	Approximately 180 million
Natural resources	Rich in Crude oil and gas	Rich in Crude oil and gas
System of government	Well-functioning democratic system of government, transparent	Corruptible rigged democratic system of government, secluded
Technology	Well advanced technology	Low advanced technology
Transportation system	Good transportation network	Unreliable transport system
Energy and power	Well distributed power system	Unreliable power system
Communication system	Well reliable high quality communication system	Unreliable low quality communication system
Media	Uncensored media	Highly censored media
Security	Well secured country, peaceful over the whole country	Northern part highly insecure with Boko Haram attacks
Education	Highly functional educational system	Corruptive and unreliable educational system
Organization	Well organized society	Not well organized society
Main source of revenue	Oil and human taxation	Oil only
Unemployment rate	4.50%	9.90%
Health sector	Advanced reliable health sector	Non reliable health sector
Welfare system	Solid government welfare system	No welfare system
Mass Transport	Organized mass transport system	Unorganized mass transport system

According to Fajana (2009), Nigeria is one of the African countries troubled by abundant labor and scarce talent. Attracting, developing, deploying and retaining best talents had become a challenge.[132] Fajana and Ige (2007) argued that the desire for top performance has driven the need for effective management.[133] The misconception of the term human resources as a 'resource' along with other resources such as gold, oil, iron, tin, zinc which can be tagged priced on by many people, the past slave traders and today's human traffickers, organizations, and of course the colonial masters who were involved in many atrocious acts against human beings is a wrong way of viewing human resources. The effectivity of the human resources can be optimized through Human Resource Management (HRM) and Human Resource Development (HRD).

12.3.3 Human Resource Management (HRM)

Storey, 2001 defines HRM as a distinctive approach to employment management that seeks to achieve competitive advantage through the strategic development of a highly committed and capable workforce using an integrated array of cultural, structural and personnel techniques.[134] Beer et al, (1984) views HRM as a strategic approach to the management of human resources that involves all management decisions and actions that affect the relationship between the organization and employees.[135] According to Budhwar and Sparrow (2004:7), the HRM can be operative through three levels[136]

1. The national level which involves the external labor market, national culture, social-cultural environment and the legislations
2. The contingent variables include the type and the nature of business, ownership, age etc.
3. The organizational strategies that relates to the HRM functions and the internal labor market.

Walton, 1985 views 'human' aspect of HRM as a relationship between employer and employee that is associated with human relations movement and the concept of high commitment work practices.[137]

The American Management Association, 2000 views HRM as a philosophy of people management based on the belief that human resources are uniquely important to sustain business success and as an organization that gains competitive advantage by using its people effectively, drawing on the expertise to meet clearly defined objectives.[138]

12.3.4 Improving the utilization of human resources in Nigeria

Human resources utilization can be improved through the extension of HRM policies and practices through an economic, social, political and legal environment. Though Nigeria's economy allows the importation of new technologies to the country in order to enhance HRM, many of the Nigerian masses lack the training, knowledge and skills for the imported technologies. Moreover, importation of technologies without knowledgeable skills does not improve the utilization of the human resources, rather it suppresses technological advancements. As a result of this, there is an urgent need to train skilled workers to handle and manage the imported technologies to minimize the reliance and dependency on the importation of the finished made technologies. Hofstede, 1980 meant that as a multicultural society, there is a great need for considerable historical and cultural insight into the local conditions to understand the

processes, philosophies and problems of national models of HRM.[139]

In Nigeria, HRM is regarded to be 'still in Infancy' and therefore needs lot of academic research in this area. One of the major challenges of HRM practices in Nigeria is the lack of comprehensive and indigenous HRM models, this explains the reasons for adopting majority of principles and practices in workplaces in Nigeria. The diversity of the multicultural heritages combined with the institutional influences converges the western-inspired approaches in association with the HRM practices in Nigerian. Azolukwam and Perkins (2009) noted that the sensitivity to individuals' socialization as well as economic, historical, political, and social contexts may enable organizations to capitalize on the potential to transplant forms of HRM from parent country cultures to developing countries like Nigeria.

12.3.5 Human Resource Development (HRD)

HRD is the framework for helping employees in developing their personal and organizational abilities, knowledge and skills. HRD is a processes, mechanisms and techniques of doing things. Mechanisms and techniques determines the performance of every individual through proper estimation, evaluation, counselling, training, so that organization development interventions can be used to initiate, facilitate, sale, assess, tax and promote these processes in a continuous way. Because of the unlimited processes, there may be needs for periodic examination of the mechanisms to see whether they are promoting or hindering the processes. For good results, organizations can therefore facilitate these processes through development and plans, through purposeful allocation of the organizational resources, and by introducing HRD philosophy that values human beings and promotes their development as a model.

According to Leonard Nadler "HRD is a series of organized activities, conducted within a specialized time and designed to produce behavioral changes."

Prof. T.V. Rao says that "HRD is a process by which the employees of an organization are helped in a continuous and planned way to

1. acquire or sharpen capabilities required to perform various functions associated with their present or expected future roles
2. develop their journal capabilities as individual, discover and exploit their own inner potential for their own and /or organizational development purposes;
3. develop an organizational culture in which superior-subordinate relationship, team work and collaboration among sub-units are strong and contribute to the professional well-being, motivation and pride of employees."

12.3.6 Human resource development through Educational contribution

National Human resource planning is a process where a nation prioritizes the availability of educational knowledge and skills for everybody and massive job creation for the right people at the right place and at the right time. The key to effective HRD can be achieved through educational training and can be properly utilized through adequate employment schemes. The potential performance of the Nigerian human resources can be determined through consideration, assessment and evaluation of the population working force, both the present and the future demands of these human resources (manpower) can be addressed through the development of specific skills, from the ideals of Nigeria as a country (macro), sectoral (meso) and enterprise

(micro) levels. The problem that can arise after acquiring knowledge and skills is the lack of labor market and lack of capital for investment. With enough skills acquired by the people, then the government should also create jobs or create programs that can help the masses to occupy the labor market where they can practice what they have learnt. The skills learned by the enormous population can go a long way in helping them to be self-reliable by creating jobs for themselves even when there are not enough job creations by the government. Another problem is the marketing procedures and marketing centers whenever the people are able to create and produce things without any aids. Nigerians had this tendency of preferring foreign made goods to indigenous goods. Imagine people importing tooth picks when people can easily produce them from the abundance woods the country have at its disposals. Imagine the Nigerians buying imported canned tomatoes, when there are cheaper fresh tomatoes everywhere. The major problem facing Nigeria today is the creation of the awareness of how important these things are. If a customer knows the importance and how healthy a fresh tomato is, then the need for fresh tomatoes will be on the rise. Many of the can products contain excess sugar and preservative products which are not very healthy for human consumptions. These knowledges can only be expressed through proper education.

Human resource planning is derived to enable a nation discover per time, the critical skills in the labor force where shortages are most likely to develop or where there is inefficient use of labor (Miachi, 2006). [140] National HRD requires the improvement of the economy through the use of educational programs, the in-service training of workers and the provision of incentives that will attract and ginger people into critical or productive economic sectors and occupations that will make Nigeria realize the achievement of the utilization of human labor. Nigeria have lots to gain if they invest in human resources, but the government officials and leaders prefer exploiting the masses. Now that the era of oil boom is gone, they have devised new strategies of exploiting its masses through hiking the prizes on unreliable electricity which by the way is not functioning, percentage demand in bank deposits and other gullible means of exploits. In developed countries, the governments actually create well-functioning infrastructures and job opportunities for the masses and then exploits them through taxation from the well-functioning infrastructures at the masses disposal and the jobs they created. In a way, it is give and take. In Nigeria, the case is totally different, there are no good roads, no electricity, and no job creations, no investment of the enormous oil revenue into agriculture or industry for job creation by the government, but yet the government sends enormous bills to the masses. This explains the high rate of crimes in Nigeria. How can a government mandate its people who have no earnings to pay for all the bills? For an example, a family who no one in the family have no means of earning 1000 naira in a month will receive an electricity bill of 30 000 in a month for an electricity which they did not use. Then for the families to survive and pay these bills, there must be a member of the family who is being involved in crimes like drug dealing, prostitution, scams, stealing, kidnapping or other corruptible means of getting money, etc. Nigerian government is simply promoting crimes in the country. In developed countries, they actually create mediums that helps them to exploit human resources, while in Nigeria, they promote crimes to exploit human resources.

12.3.7 Contrasts between HRD and HRM

Table 12.2: The contrasts between HRD and HRM

HRM	HRD
Focuses mainly on maintenance	Focuses on development
Independent of the organization structure	Creates a structure that is inter-dependent and inter-related
Focuses mainly on the improvement of the efficiency of the employees	Focuses on both the development of the employees and the organization as a whole
Personnel/HRM department specifically the personnel manager is responsible for HRD	Responsibility is given to all managers at various levels of the organization.
Motivates the employees by giving them monetary incentives or rewards	Stresses on motivating people by satisfying higher-order needs

12.4 Health system

The Ebola outbreak was an eye opener. One of the problems the LDCs and DCs are facing in health system is that it is not functioning well, why not offer health courses like bioengineers, medicine, nursing, health researches etc. to the bright students. Instead of sending this monetary aids to the unaccountable people, the developed countries can negotiate with the recipients and acquire land from them and use the monetary aids to establish hospitals and other technological facilities that will benefit the recipient countries. Then the money given as aid should be used to transfer technology by establishing hospitals and the facilities in the various recipients, the sponsored students and other qualified students should be having internship in this hospitals. After their internship, they should be employed to work in this hospitals. Furthermore, extensions should be made in order to accommodate the rising need of development. The management of the hospital will be made up of the benefactors for better accountability and the management of the aids.

Technology can be transferred in health sector by investing in health research in Nigeria, building more hospitals and training more health personnel who will contribute more in Nigerian health sector. The reason for the migration of qualified health workers to the developed countries is because Nigeria does not have advanced medical infrastructures needed for them to practice what they have learnt. Nigerian government does not value or give the health workers the needed aids and supports as the developed countries do. Many of the trained health workers migrates to the developed countries where the governments value them more. In Nigeria, the government does not care about human lives as they are the one who order military personnel and policemen to shoot harmless innocent demonstrators on sight.

13 Recommendations for improvement

13.1 External recommendations

13.1.1 Transforming monetary aids into genuine technology transfer and leadership roles

Instead of giving monetary aids to the LDCs and DCs, the money should be transformed into genuine technology distribution, and be invested in the recipient countries not as cash but as knowledge, skills and infrastructures that promotes technological advancement. Due to the corruption among the rulers of the LDCs and DCs, the incorruptible donors should manage and supervise the technology transfer so that there will be job creation where the sponsored and non-sponsored students can have the opportunity to work and contribute to the growth of their economy. When the technological advancement is realized through genuine technology transfer, the mass exodus of the LDCs and DCs to the developed countries will be greatly reduced. This will further reduce the opportunities of human trafficking because there will be no need for the LDCs and DCs to travel to the developed countries by all means. The developed countries should also be a leading example before telling the corrupt rulers of the LDCs and DCs to change. A blind man cannot lead a blind man, if they do, they will end up in destruction. This is exactly what the developed and the industrialized countries are doing today.

13.1.2 Policy changes of immigration and organization formation motives

Policy changes in attitude that inhibit the LDCs and DCs from technological advancement. If they can successful make policies that hinder development and technological advancement in the LDCs and DCs, they can as well make policies that forbid money laundering by the leaders of the LDCs and DCs while they are in power, and not after they have lost the power. It is a fact that one of the major reasons for the immigration polices is to hinder the influx of unwanted people and thereby select the best of the professionals and skilled personnel from the LDCs and DCs to help in developing the developed countries and the western world. Change in these policies will help to improve technology transfer and abate human trafficking and other immigration problems which these immigration policies creates. Change of the real motives behind organizations formed by the developed countries. The Veto powers should be redefined and rebuild to have representatives from all continents. Today's veto powers and G8 members consists of countries from three continents and does not represent the entire world as only three continents dictate the affairs of the world alone making them dictators. Unions can be formed to promote common interests, but cannot be used to suppress others by enacting policies that gives a particular group or country autonomous power to dictate the affairs of the other countries.

13.1.3 Change of the LDCs and DCs inferiority perception by the developed countries

While the developed and the western world perceive all even the resources from the LDCs and DCs as inferior, these products becomes the most desired and superior resources immediately the

developed countries acquire them. If this is not changed, the advancement of the technological transfer will continue to be a sham. While the Africans that were under Europeans were called European colonies, Fellow European countries who had the same experience were called unions. When Norway was colonized by Denmark, it was called union, although, exactly what transpired between Nigeria and Britain also transpired between Denmark and Norway. This shows how far the developed countries can go to downgrade and make the Africa and the rest of the LDCs feel inferior. While British governor ruled Nigeria as a representative, Danish king ruled Norway as a representative. While Northern part of Nigeria was allowed to use Hausa language as a general language by their Britain, although the British masters could not understand the language, Denmark imposed Danish language on Norwegians and forced them to adapt it as their general language. While taxes were paid to the Britain by Nigerian workers in Nigeria under British colony, Norwegians paid taxes to the Denmark when they were under Denmark. While there were agreements signed by the Norwegian elites and the Danish government, the same agreements were signed by the Nigerian elites, royal families and the British government, even to some an extent that some of local leaders, refused to sign treaties that they do not clearly understand the meanings. [6] The fact is that if Norway had been in Africa, it would have been called colonialism. A union is defined as a two or more persons, states, etc., joined together for some common purpose. "Common" means mutual. Union is not when two bodies come together and then one of the body imposes and forces its interest on the other. Union is mutual, it is not one sided. Reading the history of the events that transpired when Norway was under Denmark, the only thing that happened was the clear dominance and exploitations of Norwegians by the Danish government, yet they try to upgrade fellow country from Europe and degrade countries from LDCs and DCs with the same experience.

13.2 Internal recommendations.

13.2.1 Genuine way of fighting corruption and not only witch hunting oppositions

Changes must start from Nigerian leadership as many are the root cause of Nigerian problems. Many past presidents camouflaged themselves as good leaders to improve the national economy by creating many organizations, while some of them end up looting the economy dry. It is quite ironic as in practice, many of them contradicted the aims of the organizations they created and became the perpetrators of their own visions. Murtala/Obasanjo administration launched all-out War Against Corruption and Operation Feed the Nation, but alas, Obasanjo is the worst corrupt democratic president Nigeria have ever had. Better strategies towards war on corruption should be created, not a selective method just as the current administration are currently doing without any feasible results. There should be balanced application of equal employment opportunities.

13.2.2 Investing more in Education

Nigerian Government should develop and improve the quality of educational system to match the training of human resources to labor market by reviewing essential educational curricula and ensure relevance in order to produce knowledgeable and skillful manpower that will fit into the labor market that can aid technological advancements and economic growth in Nigeria. It must be

a modern and vibrant educational system that provides all Nigerians the opportunity and facility to achieve their maximum potential and provides the country with adequate and competent manpower. This can be done through increasing the carrying capacities in existing tertiary institutions and pay good salaries to the teachers thereby making teaching lucrative.

13.2.3 Job creation through the diversification of other natural resources

The Nigerian government should diversify the exploration of other natural resources and not solely dependent on crude oil for national revenues. Nigeria must invest more in a modern technologically enabled agricultural sector that fully exploits the vast agricultural resources of the country. This will ensure national food security and contributes significantly to foreign exchange earnings. The Nigerian infrastructures should be developed to match that of the advanced developing countries as Nigeria have no functional infrastructure at the present time. This is observed in mostly areas like non-functional electricity, communication system, transportation system, etc. Adequate functional infrastructure service that supports the full mobilization of all economic sectors, will enhance job creation and revenue acquisition through the investments just as the developed countries are doing. Poverty reduction will depend upon government efforts to raise the standard of living of its citizenry. Hence, the need to regenerate efforts made in wealth creation and to ensure the healthy living of citizens through strategic development of staffs for optimal utilization of human resources as job creation is the only affirmative action in ensuring employment opportunity for everybody. Establishing functional health sector that supports and sustains a life expectancy of not less than 70 years and reduces to the barest minimum the burden of infectious diseases such as malaria, and other debilitating diseases and ensuring flexibility in pay system especially to all the workers to boost development. Developing a vibrant and globally competitive manufacturing sector that contributes significantly to Gross Domestic Product (GDP) with a manufacturing value added through a sound, stable and globally competitive economic developments.[141]

13.2.4 Better policies that improves technology transfer and attracts investors

The government need to strengthen partnerships/collaboration among the various quality assurance management agencies and relevant stakeholders from the public and private sectors. They should strengthen due process in policy implementation and link utilization of resources to strategic plans. There should be good policy making especially by changing the quota system in schools to give way for school admissions by merit and indulging in openness and objectivity of the recruitment process based on merits and not by quota system.

13.2.5 Dealing with the security issues

The Nigerian government urgently need to address the security issues which has been bogging Nigeria for many years now. They should also address the problem in Niger Delta and clean the mess in oil spills from the national and foreign oil companies to abate agitations from the area due to governmental negligence of the community in general. This will go a long way in creating serenity that can enhance peace, harmony, cooperation, good decision-making and a stable democracy for all Nigerians.

14 Process discussion

This chapter presents the process discussion of the development process and the uncertainty of data through critics and argument and finally the strength and weakness using SWOT analyses.

14.1 The history behind aids

The past events have shown that the distribution of aids from the developed countries had always been politically motivated. Modern development aid started actually from the 1960s, but the policy of distributing these aids still has a historical background just as the foreign policy used during the Cold War. The Cold War experience showed that, development assistance and cooperation was meted out to the recipients just to secure allies. The major reason for meting out these aids was to stamp benefactors' dominance and ensure that their interests were covered. In other words, the modernized system of aid that emerged after World War II still have the trails and the origins of the colonial era. While the Southern Protectorate in Nigeria financed itself from the onset during the colonial era, with revenue increasing from £361,815 to £1,933,235 in 1910.[142], the British treasury supported the landlocked Northern Protectorate with aids totaling £250,000 or more each year just as the developed countries are doing today, thereby hindering them from developing and welcoming new technologies.[143] As a result, the Northern region became dependent region as the monetary aids from the British government during colonial era in Nigeria made them lazy people. It is very clear to note that both colonialism and monetary aids have the same motives, which is to ensure political and economic interests and to exercise influence and dominance over the globe. While colonialism used civilization as the reason for the cruelty and the atrocities on the various countries they preyed on, today's developed countries are using development to do the same through aids and policy makings. Other motives include development stunts from the developed countries towards the LDCs and DCs, economic acquisition through promotion of a liberal, market-oriented policies, securing of export markets and obtaining jurisdiction over commodities. Meanwhile, it is the same people with the same aim but different tactics but only names have been changed. It was colonial countries in the past using civilization as tactics, today, it is developed countries using development through monetary aids to achieve the same goal.

The monetary aids make the leaders of every recipient country to lose focus on laying the foundations that will promote technological advancements. In the colonial times, it was gifts to the rulers and then the colonial countries took natural resources from the LDCs and DCs, today, its aids to the leaders to allow the develop countries continue their stunts on the LDCs and the DCs. With these monetary aids always available to the recipients, why will they desire to attain technological advancements when they can easily get the money they needed from their donor countries? The aids they get makes them corrupt and dependent on their benefactors. The implications of monetary aid are very clear, it increases inflation, makes the recipients lazy and dependent on their benefactors or donors. Technological advancements cannot be achieved through monetary aids. A popular saying goes that “knowledge is power” If money can solve people's problems, then the LDCs and DCs would have attained tremendous economic growth by

printing money from their own central banks and dole out the money to their respective citizens. There is nothing good about monetary aids. If the developing countries transform this monetary aids as a genuine technology transfer, then the fight for corruption among the recipient leaders of the LDCs and DCs can be curtailed.

14.2 International aids to the LDCs and DCs

Monetary aid is one of the devices of the international transfer process that is used to inhibit the development of the LDCs and DCs. The aim here is to visualize the implications of the aids in reality based on researches and results of the past events and try to proffer my opinion on better disposal of the aids and improving the implementations of the aids for better results. I believe also that the benefactors know better ways to distribute the aids in other to achieve better goals, but due to selfish interests, they may not want the situation to be changed. Monetary aids have practically made all the recipients dependent on their benefactors and this is why every ruler of the recipients runs to the western world or developed countries for money each time they come to power. Technological transfer has been mixed up with monetary aids that the benefactors contributes to the LDCs and DCs. This definition is totally wrong and contrary to the same motive when only the developed countries are involved, especially when the method of the assistance is basically monetary aids. Though not stated directly, the monetary aids contributed to the recipients are like loans that the benefactors get back in many ways with rents. The recipients pay back to the benefactors in one way or the other. If no one is benefitting from the “aids”, why will they continue to be giving these “aids” when in reality, the “aids” are not serving its purpose. The “aids” have rendered the recipients so useless that they virtually think that without this “aids” that they cannot exist. This “aids” normally end up in the hands of the corrupt leaders who later return this money by depositing them in western banks as loots they tend to secure. For the LDCs and DCs, international aids (Monetary aids) are created to keep the recipients from technological advancements thereby creating conflicts within themselves in order to divert their attention from developing their countries. This further helps to make the recipients dependent on their benefactors. This monetary aids given to the corrupt rulers are shared within the rulers and this paves way for the tapping the natural resources of the recipients by the benefactors whereby the donor countries gets easy access to the recipient’s natural resources through “promoting a liberal, market-oriented policies” within the two countries that paves way to securing markets for export and obtaining possession of the natural resources of the recipients (LDCs and DCs).

14.3 Why monetary aids to the LDCs and DCs are not working

- Observations has shown that distributing money does not in any way alleviate poverty, rather it accelerates inflation.
- The recipients of the “assistance” becomes lazy and dependent on their benefactors
- Monetary aids promote corruption
- Monetary aids do not improve technology advancements rather it suppresses it
- Monetary aids increases conflicts in the areas of the recipient countries
- Monetary aids are politicized for selfish reasons from the donors to gain access to recipients' natural resources.

14.4 International aids within developed countries

The reason for operating international aids is to fight poverty, improve development and economic growth of the recipients. This is the term used in creating a cankerworm that is feeding on all the recipients of “monetary aids” up till today. It is obvious that the “monetary aids” has not improved the economic development of the recipients since its inception and its widely seen that dependency and corruption are the only achievement from the “monetary aids”.

A good definition of the international aids practiced today by the developed countries goes like this: International aids is created to strengthen the economic growth, fight poverty and promote lasting social and economic development within all the developed countries. It is indicated that the assistance will contribute to social and economic cohesion within the developed countries, and further promote living conditions and rights of the member countries. While policies are made to encourage free movement within the developed countries whenever and wherever they want, the same policies are made to make life miserable for those from the LDCs and DCs that strives to gain entry into the developed countries. Another reason is to control the migration of unwanted people from the LDCs and DCs into the developed countries. Why so much hatred? While developed countries enjoy free visa and easy access to working permits within themselves to make things easy for them, visa restrictions and strict access to working permits becomes necessary to curb the LDCs and DCs from free movement and access to works in the developed countries. The visa policies are nothing but a creative and a selective procedure in which the developed countries selects the best desired strong and capable people from the LDCs and DCs for work force through educational sponsorships for the brightest students, and employment to the best qualified professional people, leaving the fate of poor and the weaker ones in the hands of the human traffickers to perish. Policies are made to improve equalities, free movement and free trade within the developed countries all the time, but restrictions is the case when it comes to the LDCs and DCs. Within developed countries monetary aids is called bail out, while to the LDCs and DCs, monetary aids is called international assistance. This is why it is important for genuine technology transfer to LDCs and DCs to abate these sudden rush to developed countries.

14.5 The debate on the statistical data used on the project research

There are lots of question marks on the reliability of some of the statistical data that are used for the research of this project. While some of them lacked credibility, others are just assumptions from the sources, others are just one sided, filled with partiality, bias and prejudice. While some of the data tends to promote the interest and reputation of a particular group of people, others tend to tarnish the image of another set of people.

14.5.1 The unreliable statistical corruption data from the developed countries

Corruption is a global issue which is applicable to all the governments all over the world. It is a disease that affects every democratic and non-democratic government in the world. It is a subversive force that can topple the most entrenched regimes, it corrodes currencies, markets and investments. Some governments may seem less corrupt than each other while others are rooted on corruption to govern their people. Any government that is in alliance with another corrupt

government in fear of standing alone is also corrupt. This is because, that self-acclaimed uncorrupt government have things it is sharing together that comes from the corruptive government it is an allied to because birds of the same feathers flocks together. All governments make policies that involves corruption in one way or the other, the only difference is the magnitude of the practices. Systematic and legalized corruptive constitutional policies like bogus budgets, rents and bonuses to the politicians, and favorable restrictions and monopolies to the political affiliates and friends in business areas are also corruptive policies used by all governments officials in the world. In developed countries, while corruptions are legalized through policy making, the LDCs and DCs engage in corruption without making smart policies. While the developed countries make policies that seems to fight corruption and eliminate the cabals within their government, corruption still exists as a legalized law that everybody obeys. The developed countries are much corrupt because they force their citizens to pay high taxes for the financing of their monarchs. Imagine using millions of dollars to run kings and queen's luxurious lives. LDCs and DCs lives at the mercy of their corruptible leaders who are also the same people that portray themselves as fighters of corruption. The British monarch is the wealthiest family in the world today, yet they do not work. Monarchs in LDCs and DCs do not tax their subjects, they loot their resources, while in developed countries, they loot through human resources by the use of taxes and other smart methods. Many of the developed countries do not have the type of resources these LDCs and DCs have. So the only medium they can excel is through the advanced technology that maneuver things without leaving traces. Some of the developed countries seems to be less corrupt in their own countries due to the advanced technologies that shields them as less corrupt at home, but the lack of the same advanced technologies in the foreign countries especially the LDCs and DCs where the developed countries have dealings exposes how gruesome their mode of corruptions can be. These particular countries may even be portrayed by their fellow developed countries as less corrupt because of common shared interests, but some of these highly ranked less corrupt countries are the power engines behind corruption in the so called worst corrupt LDCs and DCs. The worst corruption method by the developed countries is the currency devaluation policy. No matter what the LDCs and DCs do to make their money valuable, the developed countries always creates policies that devalue the LDCs and DCs currency values through technology, markets, industries or organizations that promotes developed countries interests. Why will dollar or pounds determine the value of other currencies in the world? What is the different between dollar and naira, are they not just printed papers? Yet LDCs are always the worst corrupt in the world.

In other to standardize corruption, dictatorship is rebranded to "veto power". We are now going from democracy to veto power. The developed countries create organizations that allows them to dictate the affairs of the world and named it "veto power". If they feel that any decision is benefits them, to hell with what other nations think, after all they have the "veto power". Any other government that opposes it gets sanctioned and remarkably, all of these veto powers have never been sanctioned, even though that some of them have done worse than the LDCs and DCs they sanction all the time. The similarity between LDCs and DCs rulers that are called "dictators" and "veto powers" is that they both impose their interests on their subjects, the only difference being that the rulers of LDCs and DCs are extreme in their actions in the eyes of developed countries who call them dictators when they oppose their interests. Even the talks about Russia sanctions is just a form of flexing powers, nothing more. Now every president of all the

democratic countries are using the word “veto power” to dictate the affairs of their nations. If Idi Amin is in power today, he would have called his actions use of “veto power”. Adolf Hitler would have also used the word “veto power” to justify his own atrocities as USA used the same “veto power” to invade Iraq and they never get sanctioned. The power mongers and the leaders of the LDCs and DCs will always argue that they are not corrupt, rather that they are using their “veto powers” to take things that belongs to the masses.

The corruption data does not reflect the true ranking positions of the corrupt countries as the criteria used by the organization TI, contradicts their index rankings. The TI data index is also therefore absurd. TI is creating the impression that the criteria they used to come up with the rankings in their data is that a country or territory’s score indicates the perceived level of public sector corruption on a scale of 0 (highly corrupt) to 100 (very clean) and that a country's rank indicates its position relative to the other countries in the index. The rankings clearly show that no developed country is worst corrupt and no LDC or DC is most less corrupt. While all the most less corrupt countries are developed countries, all the worst corrupt countries are LDCs. Criteria of how countries became developed or less developed is not a point considering the fact that many developed countries became so rich at the expense of the LDCs and DCs. While It cannot be disputed that the worst ranked countries are corrupt indeed, yet many of the most less corrupt ranked countries are as corrupt as the worst corrupt countries. If countries can be considered in the ranking because they have good welfare system, the poverty stricken states of the LDCs and DCs could have also been considered when ranking them as corrupt. The fact is that the index placed developed countries with good welfare system as the most less corrupt countries, while the poverty stricken and war devastated LDCs and DCs are ranked as the worst corrupt countries. The index therefore never thinks about how the welfare system is financed, neither does it matter if only the president is corrupt or not. Once a country is poor, engaged in war, its leader corrupts or against the world powers or developed countries, then the country is corrupt. It is ridiculous.

Table 9.3 shows that Nigeria occupies 136th position in 2015 together with Comoros and Tajikistan. The lowest position a developed country occupied was 61st position. While countries like Nigeria, Spain, Italy, and India are very corrupt countries, Nigeria was ranked 136th, Spain ranked 36th position, Italy ranked 61st and India occupied 76th position. Of course Spain and Italy are in European territory and that shields them from being corrupt, though a country like Italy is almost as corrupt as Nigeria, but being situated in European zone and a member of European Union makes them rated as less corrupt. If Italy is located in Africa, TI would have ranked Italy as one of the worst corrupt countries in the world. The criteria used to rank these countries are biased. Just as I wrote in my limitations that the reliability and the accuracy of these data cannot determine the true position of corrupt nations based on the criteria used by IT. Again, it shows how biased the organization presenting data can be. How can Switzerland that receives and makes use of the looted money gotten from corruption be ranked eighth in the world? We know that money kept in banks are used by the banks to generate more money. A person that harbors a criminal is a criminal. Sweden and Norway that occupies the 3rd and 5th positions in the index are known for shady deals with some of the worst corrupt countries especially in Uzbekistan. Some of the corruption scandals involved Statoil and Telenor (which are partly owned by the Norwegian government) in many of the LDCs and DCs they operate. The question here is, does

the dealings meted out to Uzbekistan as a country have nothing to do with public sector? This shows how unreliable, bias minded, and inaccurate the stakeholders and the organizations making this data can be. The fact remains that many of the richest people and the richest countries became what they are today because of what transpired between them and the poor countries in the past. Some of their wealth and riches can be traced back to a form of corruptive deals. While Norwegian Statoil was involved in an extensive corruption deal in Iran in 2002/2003, Telenor was involved in a heavy corruption scandal in Uzbekistan with ties to President Karimov's daughter in 2014. [144] Another of Telenor's nefarious corruptible act was in India in 2010. This Telenor's corruption's involvement was the India's worst corruption ever. [145]

Yet while India is ranked 76th, Uzbekistan ranked 153rd, their accomplice Norway is ranked 5th. What a contradiction! While Sweden and Norway, the two developed countries that promoted corruption in Uzbekistan were ranked as the 4th and 5th respectively less corrupt countries globally in 2014, Uzbekistan was ranked 153rd, the criteria for the ranking being that they are developed or that they dwell in the developed zone. Actually, many of these countries that are ranked as the most less corrupt countries promotes corruption than some of the worst ranked countries who were based on poverty and war. No LDC or DC can do such a thing in a developed country. Others are ranked just because only their leader or leaders are corrupt, while some of these countries are ranked as worst corrupt countries just because their leader oppose the developed countries and the world powers. An example is North Korea who their leader is corrupt, but the masses have nothing to do with what their leader is doing, in fact these masses can be the most incorruptible people in the world today for many restrictions from their leader and the fear of their leader who gives death sentence to any corrupt individual in the country except himself and his family. Just as many developed countries are not very corrupt for the fear of going to prison, so are the North Korean masses not very corrupt for the fear of losing their lives. But TI ranked the country as the worst corrupt country in the world based on only one man out of the whole people living in North Korea. When did a leader become a whole country? While the Criteria for ranking the richest countries are based on the masses and not the leaders, the criteria for ranking the most corrupt countries are based on the leaders and not the masses. The fact being that the richest leaders in the world today are from the most corrupt LDCs and DCs. The data is just absurd.

14.5.2 MNCs statistical data and literature

There are lots of researches and statistical records of the international assistances from the developed countries to the LDCs and DCs, but there are no statistics of damages from the developed countries to the LDCs and DCs. It is sad to go through this statistic and see how much the developed countries have wasted through monetary aids and MNCs. One thing is very clear, MNCs priorities are profit maximization of their invested capital, development may be a circumstance that follows the investment. This is why over 90% of global FDI goes to the industrial countries and the fastest growing DCs. Some of the MNCs major task is to seek out the best profit opportunities, their priorities are sometimes not related with issues such as climatic changes, friendly environmentally products, poverty alleviation, equality, and the eradication of unemployment.

14.5.3 Statistical motives of the “technology transfer” through FDI

From the statistical data from Table 11.1 and Table 11.2, it can be seen that FDI is for the developed countries and DCs only and not for the LDCs because no LDC is represented on the table based also on the fact that FDI can be seen as MNCs' predominant direct investment and a prime source of technology transfer to DCs through the 1960s, as they engaged on the establishment of a wholly owned foreign subsidiary or a majority-owned foreign affiliates.[146] While the effect of the proposition of some of the DCs restrictive policies towards MNCs particularly their whole ownership, as they wished to strengthen their indigenous industrial and technological capability, this therefore enabled the recipient countries to adapt and assimilate foreign technologies more efficiently. Based on the classifications of technology transfer through design transfer, capacity transfer and material transfer, it can be argued that the FDI may improve marketing skills and knowledge, but this is actually applicable within the developed countries as experiences has shown that this has little or no effect in technology transfer to the LDCs, though it is much better than monetary aids which tends to suppress more technological advancements. While FDI is more effective in using design and capacity technology transfer within the developed countries, mainly material transfer is used in DCs with the practice of exporting of finished products just for business purposes while little or none of the three is used in LDCS except may be the exploitation of their natural resources and best human resources.

Looking at table 11.2, it will be easy to observe the changes between 1970 – 1980 and 1981 – 1990 for the five top ranked FDI flow. One significant thing in this list is the absence of the LDCs on the list. With monetary aids on the other hand, the list will be filled with only the LDCs. The reason is that there is little or nothing to gain from the LDCs for FDI in terms of business. The changes clearly show the motive behind the FDI. It is simple, FDI flow is aimed at maximizing invested returns, it is not aimed at transferring technology, though development may be achieved in the process. The diversion of FDI from countries with sinking economy to that of countries with rising economy became very visible. But how far has this FDI helped in promoting the economy of the recipient countries? To show that the FDI is strictly created for business and not technologically aid motivated, the only two African countries that made the top 5 FDI flow list was Nigeria and Egypt, and in Africa, Nigeria and Egypt were was the most developed and promising countries in Africa as of that time. Nigeria made this list only between 1970 – 1980 when the Nigerian economy was booming. As both the Nigerian and Egyptian economy deteriorated, they became no longer conspicuous on the list. While the other countries that made the list between 1970 – 1980 still have strong economies, Nigeria has gone from good to bad and from bad to worse. Nigerian corruptible eldership dependent on oil and lack of infrastructures caused the fall of the great nation. It is also easy to observe the countries of interest in other continents. In Asia, Singapore, China, and Malaysia are FDI priorities. The countries were on top of the five FDI flow ranking. Today, it is all about China, all attention is moved to China because their economy is very good at the moment.

14.5.4 Problem with Norwegian data on monetary aids recipients

One significant thing about the list on the Norwegian statistic tables is that only one DC country is on the list, and this country is very notorious with corruption practices, the rest countries on the

table are just LDCs who have nothing to give to the MNCs. It is like monetary aids are only given to LDCs to make them dependent on this aids, while MNCs goes only to the DCs and developing countries where they have the opportunity of making profits. In conclusion, Monetary aids and MNCs have no motive of technology transfer, but are only in existence for exploitation of their beneficiaries.

Chapter 11.4 and Table 11.3 shows clearly that it is only a small fraction of budgeted monetary aids that goes to the LDCs and DCs from the Norwegian governments, while the media always imply that the whole monetary aids goes to the LDCs and DCS, meanwhile only a small fraction of the budgeted monetary aids actually goes to the LDCs and DCs as in reality, biggest fraction of the budgeted monetary aids is circulated within Norway and other developed countries through many organizations who receives aids independently under the disguise as Non-governmental Organizations. Half of 460.4 billion crowns given as “aid assistance / development cooperation” and the other half to “NGOs including voluntary organizations, bilateral and multilateral channels”. So how does all this contribute to the assistance or development of the LDCs? It is also these money they get from the state that they use to run their organizations.[147]

It is quite absurd how the money given to these organizations that depends on the aids for their daily income are included as aids to the LDCs and DCs. Is it really possible for one to give what one does not have? While NGOs use these aids to live their normal lives, it is accounted as aids given to the LDCs. Norwegian NGOs have also been recipients of state aids since 1963. In 2010 alone a total of 5.6 billion of the total aid budget of about 28 billion was allotted to NGOs alone. That was 20% of the total budget. While international organizations received 1.2 billion (21.4% of the aids), 800 million Crowns (14.3% of the aids) were awarded local organizations in DCs, 260 Norwegian NGOs received a total of 3.6 billion (64.3% of the aids) from the aid budget. This shows that most aids that are attributed to LDCs and DCs are actually being distributed to Norwegians or people living in Norway and international organizations. How does this contribute to the welfare of the LDCs and DCs?

While Afghanistan is a war torn country, Palestine is a conflict country, Tanzania is a poor country, what baffles me most is why Norwegian government is sending so much money to Brazil, a nation that have every resources to be richer than Norway. The criteria here is not clear as in terms of assistance in the real definition, Brazil is one of the least countries that needs assistance in the world today. But one thing all these recipient countries have in common is that their leaders are all corrupt. What a waste!

The data and figures are just numbers and the money distributed are just printed papers and does not reflect any visible progress in alleviating the problems of the recipient countries since 1960 till present date. Look at all the countries mentioned above, apart from Brazil who used to have a better economy due to their technological advancements, the other countries are even worse than they were before the inception of this aids. What actually have these monetary aids done for the recipients, Is there any better technological advancement through this monetary aids? Have their means of livelihood been made better through this monetary aids?

Table 11.4 shows Tanzania as the highest recipient of Norwegian monetary aid since 1960, so how great is the Tanzanian economy today or is there something they are not telling us? Alas, Tanzania that is the highest recipient of more than 25 billion crowns from Norway since 1960, is still one of the worst developed and poorest country in the world today. Kudos Norway, great job.

Even Brazil that used to be a developing country is going from DC to LDC, another great achievement by Norway. Can this be as a result of so much aids they have gotten from Norway? If monetary aids could have alleviated poverty, Tanzania would have been better country than Brazil according to the amount given, but they are not because Tanzania have no technological advancement in their country. Even in Norway, Norwegian government do not dole out money to its poor citizens to get them out of poverty, rather they use the money to create jobs, programs, strategies and mediums that helps the poor people to work and make something good for themselves and be useful to the society. It is quite ironic that Norwegian government will continue giving aids to these countries since 1960 till date even though that no progress has been made in achieving good results for the purpose of these aids, yet none of these countries is even near to be called developing countries.

It took Japan between 10 to 20 years to change the face of Malaysia, but here is the statistical data of monetary aids from 1960 to 2015 (55 years) which have not made any significant difference to the recipients or does it mean that Norway have no technology or cannot transfer this money into technologies to these recipient countries. While Japan almost single handedly eliminated poverty in Malaysia within a short period through genuine technology transfer, Norwegians are busy doling out money to its recipients for over 55 years without anything to show for it in these recipient countries. Look at countries like Tanzania, Bangladesh, Zambia, Sudan, Mozambique, Palestine, Afghanistan, Uganda and Ethiopia. Is there any of these countries that have had any economic growth through monetary aids? What is the probability of these countries becoming developed through aids after its practice since 1960? So why continue doing it after 55 years without any significant result?

If other countries can emulate Japan, perhaps things would have been different.

The worst is the agreements between the two countries to allow the benefactor to deport and dump “illegal immigrants” from donor countries to some of the recipient countries. Does this “illegal immigrants” transfer any technology to the places of their repatriation or are the aims of sending them to a foreign land a way of creating problem for the recipient countries? The benefactors will always parade themselves and show that they are at the helm of the “fight” for human right while in reality they are the human right abusers. If all these money has been used in genuine technology transfer as Japan did in Malaysia, perhaps all these countries will be economically advanced today.

14.6 The prejudice of the developed countries

Human degradation and undeserved pity is the mechanism the developed countries use to make the LDCs and the DCs feel inferior. A black person that is called black in the public is an abuse, while a white person that is called white in the public is an honor. This is a way of setting inferiority complex on others. The worst is using pity to downgrade the people. First the perpetrators make the victims feel that they are having pity on them and by doing accomplishes their satisfaction and the motives of making their victims look inferior. What is wrong in being black and what is good being white? It is just color, after all, no human being has its color as really white or black, colors do not truly define any human being, actions do. No human being living under the sun is either black or white. We all know how white and black colors looks like. When one makes a victim believe that one haves pity on the victim, the victim feels inferior

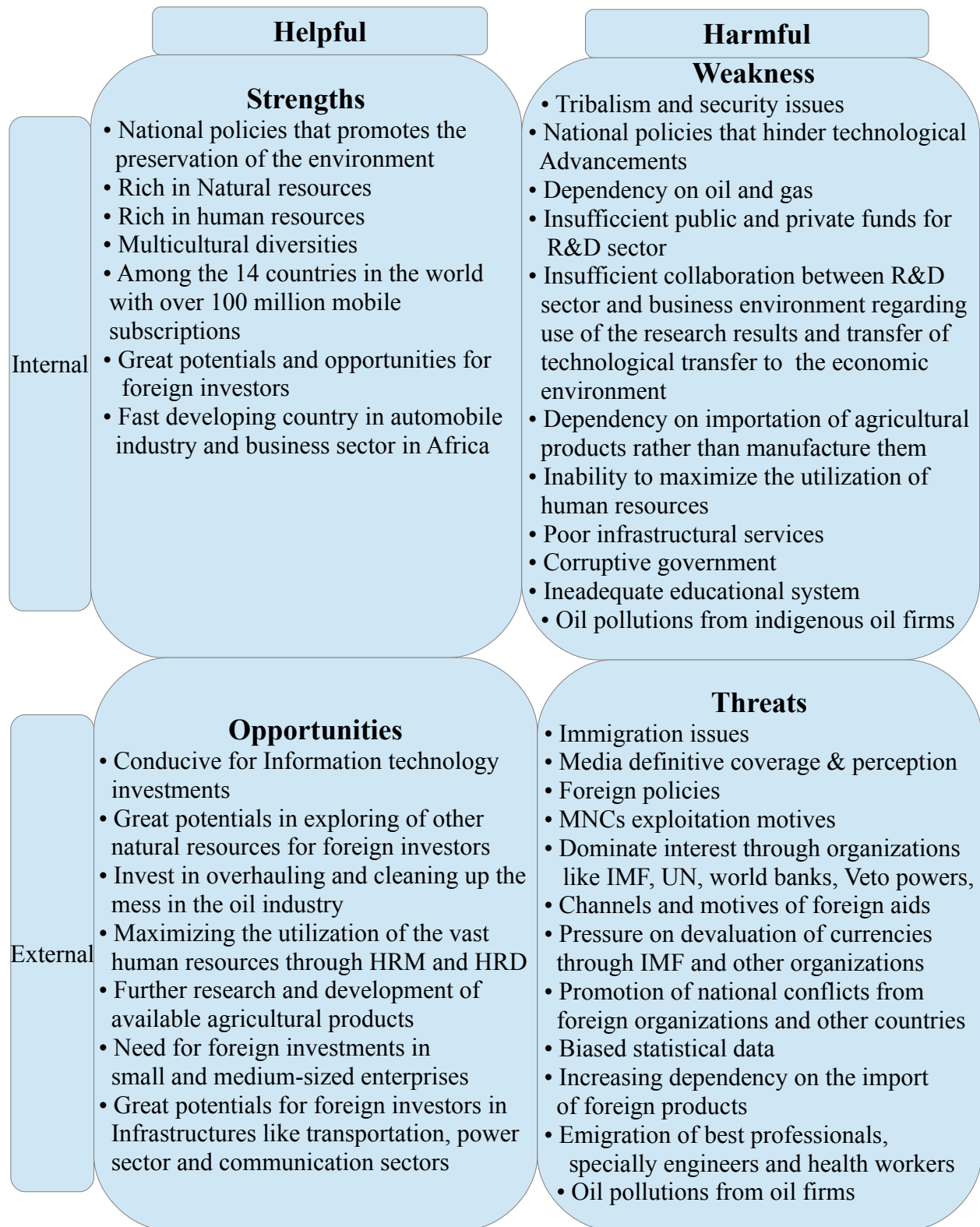
while the other gets an edge over the victim. In reality, who should be pitied, one with abundant valuables (natural resources) or one with abundant printed papers (money)? The problem is that the LDCs and DCs are so ignorant and naive that they believe all that are imposed on them even the pity acts. LDCs and DCs are perceived as starving countries, while in the reality, they have enough to feed the world. While the media (developed countries) portrays themselves and their allies as people that do not lack things, but in reality, they are the vulnerable ones who feels that people emigrating to their countries will make them lose all they have, while they are continuously exploiting LDCs and DCs of what they have through policy makings and the use of friendly organizations which they created themselves. From slave trade to colonialism and monetary aids, the intentions are still the same. They created human trafficking as slave trade, are always after other people's resources pretending to fight for human rights while they criminalize human beings from LDCs and DCs as illegal in their western countries.



Figure 14: The western perception of all parts of the world

They portray themselves as contented people when in reality they are all superficial human beings living on an illusion. They pretend that they are world power, but in reality, they are the most scared, terrified, frightened and insecure people in the world today, always afraid that someone will invade their country at any moment, while they are busy causing problems all over the world. Africans are portrayed as people dying of hunger and incurable sickness, while in reality, majority of the world resources comes from Africa, making them the richest continent in the world. They portray Arabs as people who do not care about other people's opinions, while Asians are perceived themselves to be the pacesetters. Generally, the media don't show the developed areas of the LDCs and DCs and the exaggerate too much on the negative sides of them. The documentaries of the LDCs and DCs are always exaggerated. When they want to make documentaries, they go to an extremely poor area not minding that some of the people making the documentaries passed through developed areas in the countries before reaching the extremely poor areas. The majority of the masses have homes and have the capability of feeding themselves, what they lack are the technological skills to improve their way of livelihoods.

14.7 SWOT analysis



15 Conclusion

Though many of the LDCs and DCs think that they are “independent countries”, they are still much under the influence of the developed countries who dictate the progressive pace of their developments and the economic activities thereby making them still dependent on the developing countries in reality. This chapter presents the results and recommendations of the whole research.

15.1 Results

1. It can be seen that the driving force behind the aids distribution shows that the MNCs interests are not technology transfer motivated, rather they are purely a form of business organizations that are mostly based on maximizing of profits and investment returns and making the recipients dependent on them.
2. It is observed that developed countries never solicit for natural resources which they lack from the LDCs and DCs, rather they create policies that helps them get them. These are smart plans of getting what they need without making it look like they depend on them.
3. The research shows the bad National policies made to inhibit foreign investments and hindering of the progression of technology transfer through quota system
4. The research explained the menace of corruption that keeps Nigeria and all LDCs and DCs in the dark.
5. Through the research, it is easy to find out the effects of the dependency on monetary aids as a means of survival.
6. The research shows that media's perception of LDCs and DCs plays important roles on how others interact with the recipient countries as the degrading tactics use by medias on Nigeria and all other African countries affects the willingness of the developed countries to invest in the countries and even affects the decision makings of the African leaders.
7. Dependency on only one medium of revenue accumulation instead of diversity is like carrying a water melon with only one finger when the five fingers would have given the best support.
8. Pipeline vandalism as a result of neglect from the government in creating mediums of income for the Niger Delta Inhabitants

15.2 Recommendations

1. Nigeria, LDCs and DCs should engage MNCs that promotes technological advancements through technology transfer. Example, Nigerians and other Africans are presently being exploited by China through the establishment of infrastructures. The Chinese companies that usually work in the various countries travels with their own workers, carrying every technical equipment from their own countries, even living in containers to make sure that no assets are left behind when their mission is done. By doing this, they create no jobs for the recipients and never recruit local workers to gain knowledge and skills for technology transfer that will improve the national development.
2. Nigeria, LDCs and DCs should devise plans and policies to exchange the enormous

natural resources at their disposals for the technologies they lack. Instead of requesting for the “monetary aids” which they don't even use in their countries from the developed countries, the LDCs and DCs should request for technology transfer. Monetary aids are valueless papers the brainwashed recipients accept. Skills and knowledge are everlasting values, while money (printed papers) given to LDCs and DCs by the developed countries are brainwashed values which they can print on their own and distribute to their citizens. The disadvantage is rise in inflation. While the developed countries have the technologies, the LDCs and DCs have the resources for the technology to be facilitated. These technologies can be transferred through infrastructures, health cares and educational system

3. It is time for LDCs and DCs to forge forward and stop blaming others countries for their woes. As it can be seen that the major problems of technology transfer include the internal initiatives like bad policies, corruptive government, bad managements, lack of technological visions, knowledge and skills, external initiatives of transferring technologies as in MNCs, foreign interests, aids, influences and foreign policies. They should eliminate the internal problems within themselves before embarking on the external problems. If they really want changes, they should initiate it themselves because the developed countries never request for assistance from the LDCs and DCs though they still get whatever they want through manipulative ways. The major problem is not the developed countries, the colonial masters or the western world as they can stop these external problems if they eradicate the internal problems first.
4. Fighting corruption should be on Nigerian and every LDCs and DCs priorities
5. The LDCs and DCs are all “independent” countries who must in all ways resist any foreign bodies that wants to manipulate, impose or force their interests on them for selfish gains. They should learn and not depend on the developed countries. There is no need to wait for the developed countries to fix the LDCs and DCs as its obvious that many developed countries have lots to gain by the distractions, disorganizations, conflicts and backwardness of LDCs and DCs, so running to the developed countries for help should be out of recommendations.
6. Nigeria, LDCs and DCs must stand their ground and let no other countries make decisions for them or define who they are. All the statistics and media craps on what and who the LDCs and DCs are always devices created to make them feel inferior thereby making the groups that use these organizations feel superior over the others.
7. Diversification of natural resources will be the needed answer to revenue accumulation as the fall in oil price has shown that dependency in only oil for national revenue is putting all eggs in one basket. It is time to say goodbye to the oil dependency and welcome to the diversification of the other natural resources especially agriculture and human resources
8. Nigerian government must create jobs and develop Niger Delta. They cannot to take the natural resources from Niger Delta and be developing the North leaving the inhabitants to suffer. They should clean the area affected and provide jobs for the people not basically not giving selected supporters little money as they usually do.

15.3 Further work

- **Research and Development (R&D)**

Nigeria need to invest more in research and development as there are lots of resources that needs to be exploited in Nigeria. The developed countries became highly advanced in technology through huge investments in research and developments. Nigeria have lots of herbs, medicinal leaves, crops, other agricultural products like palm wine, etc. and other natural resources that can yield good dividends to the national economy and human health if the governments invests in the research and development of these agricultural products. This will go a long way if the government creates more schools and better educational backgrounds.

- **Attracting investors**

The fast rising automobile development in Nigeria is of great concern as Nigeria need to go green with its new found technological development. A Nigerian industrialist Mr. Innosen Chukwuma, an indigene of Nnewi, in Anambra state is changing the face of African automobile industry with the production of Nigerian made cars.[148] 70 percent of the car parts are produced locally in Nigeria[149] while the rest is being imported from Germany, Japan and China. Among the models of IVM are the five-seaters Fox (1,5 liter engine) and Umu (2 liter engine) as well as the mini-bus Uzo.[150]

- **Expansion of the investments in agricultural production**

It can be done by the acquisition of landed property and developing it through agricultural investments. This will further create employment for massive Nigerian population.

- **Investing in infrastructures especially the power sector through Solar energy**

Nigeria have enough resources to make the utilization of solar energy a great success. The diversion of power system into solar energy will help to solve the unending power problems in Nigeria today. There are lots of works to be done in finding other areas that can enhance good infrastructure developments in the country. Alternative energy is one area to work further on. Another area is the creation of awareness in mass transportation. If the government takes charge of the mass transportation, then they will be forced to create good roads to safeguard their mass transportation system. Since the mass transportation system is being carried out by individuals, the government do not care about the roads because they do not have any means of revenues from these roads.

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17 Attachments of the pages of tables and figures

17.1 List of tables

<i>Table 2: Work plan and milestones</i>	30
<i>Table 7.1: Operating stations (cost in million US dollars)</i>	59
<i>Table 7.2: Under construction</i>	59
<i>Table 7.3: The fossil power stations in Nigeria generated by natural gas</i>	60
<i>Table 7.4: The various fossil power stations in Nigeria generated by coal</i>	62
<i>Table 7.5: Statistical data on paved and unpaved airports</i>	66
<i>Table 7.6: Internet broadband statistical data</i>	67
<i>Table 7.7: Monthly Subscriber Month: Month: August 2015 – Mars 2016</i>	68
<i>Table 7.8: Statistical data of MTN subscribing countries</i>	69
<i>Table 7.9: Statistical data of Airtel subscribing countries</i>	70
<i>Table 7.10: Annual Subscriber Years: 2008 - 2015</i>	72
<i>Table 7.11: The 100 million club: Top 14 mobile markets by number of subscriptions 2013</i>	75
<i>Table 7.12: Internet statistical data</i>	76
<i>Table 7.13: Internet broadband statistical data</i>	76
<i>Table 7.14: Internet hosts statistical data</i>	77
<i>Table 8.1: The grading system for the WAEC or NECO examinations</i>	82
<i>Table 8.2: Nigerian University Grading System</i>	87
<i>Table 8.3: Technical and Vocational Higher Education Grading scale</i>	87
<i>Table 9.1: The tertiary admission categories</i>	92
<i>Table 9.2: Common entrance exam quota system cut off marks for federal unity schools</i>	93
<i>Table 9.3: TI global corruption perception index statistical data between 2012 – 2015</i>	96
<i>Table 10.1: Planned liquid fuels projects in Nigeria</i>	112
<i>Table 10.2: Petroleum product import in Nigeria – volume and values 2010</i>	114
<i>Table 10.3: Petroleum product import in Nigeria – volume and values 2011</i>	114
<i>Table 10.4: Petroleum product import in Nigeria – volume and values 2012</i>	115
<i>Table 10.5: Petroleum product import in Nigeria – volume and values 2013</i>	115
<i>Table 10.6: Petroleum product import in Nigeria – volume and values 2014</i>	115
<i>Table 10.7: Petroleum product import in Nigeria – volume and values 2015</i>	116
<i>Table 10.8: Planned natural gas projects in Nigeria</i>	117
<i>Table 10.9: Nigerian past, present & future projected historical real GDP and trade (mill naira)</i>	118
<i>Table 10.10: Nigerian percent annual historical & projected growth rates for GDP, inflation and trade</i>	119
<i>Table 10.11: Road transport contribution to the national GDP between 1981 – 2013</i>	120
<i>Table 10.12: Rail transport % pipeline contribution to national GDP between 1981 – 2013</i>	121
<i>Table 10.13: Communication contribution to the national GDP between 1981 – 2013</i>	122
<i>Table 11.1: DCs Net FDI (1970-1993) & 6 Major Recipients of FDI (1988-1992), (bill US\$)</i>	125
<i>Table 11.2: Top five Annual Flow of FDI to UD and DC countries. (\$ billions)</i>	125
<i>Table 11.3: 6 largest Norwegian recipients of aid budget in 2010 – 2014 billions of Nok</i>	127
<i>Table 11.4: largest individual Norwegian monetary & recipients btw 1960-2014 (bill.Kr)</i>	128

<i>Table 11.5: The five largest recipients of Norwegian aids in 2010 – 2014 in millions Nok</i>	128
<i>Table 11.6: 5 African countries that received Norwegian aids in 2014 in mill Nok</i>	129
<i>Table 11.7: Total Norwegian aid 1960-2014, broken down by region. Figures in Nok mill</i>	129
<i>Table 11.8: Total Norwegian development aid in Norwegian crowns from 1960 – 2015</i>	129
<i>Table 12.1: Comparison between Nigeria and Norway</i>	136
<i>Table 12.2: The contrasts between HRD and HRM</i>	140

17.2 List of figures

<i>Figure 1.1: Showing African impression towards the developed countries before and now</i>	14
<i>Figure 1.2: Showing the map of the African continent with its countries and their capitals</i>	16
<i>Figure 1.3: Nigerian map showing the locations of some Nigerian tribes and languages</i>	17
<i>Figure 1.4: Map showing northern and southern protectorate during the British colony</i>	18
<i>Figure 1.5: Nigerian map showing the two religious areas in Nigeria at present</i>	18
<i>Figure 1.6 and 1.7: Map showing the eastern region (Biafra Republic) that tried to secede from Nigeria</i>	25
<i>Figure 1.8: Map showing The two political & religion areas in Nigeria at the present</i>	25
<i>Figure 7.1: Total primary energy consumption in 2012</i>	57
<i>Figure 7.2: The Peak Generation Details (PGD) 14.08.2015</i>	60
<i>Figure 7.3: Nigerian Railway tracks</i>	63
<i>Figure 7.4: Submarine cables in Africa</i>	68
<i>Figure 7.5: Subscriber/Tele density data April 2015 – March 2016</i>	71
<i>Figure 7.6: Annual Subscriber data 2002 – 2015</i>	71
<i>Figure 7.7: Percent market share mobile operators march 2016</i>	71
<i>Figure 7.8: Subscriber by operator (GSM) April 2015 – March 2016</i>	72
<i>Figure 7.9: Subscriber by operator (CDMA) April 2015 – March 2016</i>	73
<i>Figure 7.10: Subscriber by operator (Fixed Wireless) April 2015 – March 2016</i>	73
<i>Figure 7.11: Subscriber by operator (Fixed – Wired) April 2015 – March 2016</i>	74
<i>Figure 7.12: Mobile Peak Period Tariff 2007 – 2012</i>	74
<i>Figure 7.13: Percentage market share by technology March 2016</i>	75
<i>Figure 7.14: Internet subscriber Data (April 2015 – March 2016)</i>	77
<i>Figure 7.15: Porting Data incoming (April 2015 – March 2016)</i>	78
<i>Figure 8.1: Structure of Nigerian educational system</i>	79
<i>Figure 8.2: The statistical data of Nigerian educational system in 2013</i>	80
<i>Figure 8.3: The statistical data of Nigerian primary institution 2005 – 2010</i>	81
<i>Figure 8.4: The statistical data of Nigerian secondary institution 2005 – 2010</i>	83
<i>Figure 8.5: The statistical data of Nigerian tertiary institution 2005</i>	85
<i>Figure 9.1: The global map showing the territories and countries' corruption conditions</i>	95
<i>Figure 9.2: Advertisement picture from some of the charity and aids organizations</i>	104
<i>Figure 10.1: The palm tree</i>	106
<i>Figure 10.2: The palm fruit</i>	106
<i>Figure 10.3: The palm oil</i>	107
<i>Figure 10.4: Palm wine</i>	108
<i>Figure 10.5: Palm wood furniture</i>	108
<i>Figure 10.6: Basket made of palm fronds</i>	109

<i>Figure 10.7: Map showing the location of oil blocks in Nigeria</i>	110
<i>Figure 10.8: Petroleum and other liquids production in Nigeria (million barrels per day)</i>	111
<i>Figure 10.9: Nigerian Crude oil and condensate exports by destination 2014</i>	116
<i>Figure 10.10: Nigerian natural gas production and consumption (million barrels per day)</i>	116
<i>Figure 10.11: Nigeria's export of liquefied gas by destination 2013</i>	118
<i>Figure 10.12: Nigerian past, present and future projected % annual historical and projected GDP</i>	119
<i>Figure 10.13: Nigerian past, present and future projected & annual inflation rate (CPI)</i>	119
<i>Figure 10.14: Past, present & future projected % annual change Nigerian total trade value</i>	120
<i>Figure 10.15: Percentage contribution of telecoms industry to GDP (2010 – 2015)</i>	122
<i>Figure 12.1: Map showing other major resources, agricultural products & industries' locations in Nigeria</i>	133
<i>Figure 12.2: Nigeria Unemployment Rate 2006-2016</i>	134
<i>Figure 14: The western perception of all parts of the world</i>	153

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