

**IMPACT OF FOREIGN AID ON THE DEVELOPMENT OF NIGERIAN
POLYTECHNICS IN THE EDUCATIONAL SECTOR**

BY

**MOHAMMED MUSTAPHA
SPS/10/MMN/00015**

SEPTEMBER, 2015

Title Page

**IMPACT OF FOREIGN AID ON THE DEVELOPMENT OF NIGERIAN
POLYTECHNICS IN THE EDUCATIONAL SECTOR**

BY

**MOHAMMED MUSTAPHA
SPS/10/MMN/00015**

**BEING A RESEARCH DISSERTATION SUBMITTED TO THE DEPARTMENT OF
BUSINESS ADMINISTRATION AND ENTREPRENEURSHIP, BAYERO UNIVERSITY
KANO IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD
OF MASTER OF SCIENCE (M.Sc.) DEGREE IN MANAGEMENT**

SEPTEMBER, 2015

DECLARATION

I hereby declare that this work is the product of my own research efforts; undertaken under the supervision of Dr. Balarabe A. Jakada and has not been presented elsewhere for the award of any degree. All sources have been duly acknowledged.

Mohammed Mustapha
SPS/10/MMN/00015

Date

CERTIFICATION

This is to certify that this dissertation was adequately supervised and approved as having satisfied the requirements for the award of Master's degree (M.Sc.) in Management by the Department of Business Administration and Entrepreneurship, Bayero University Kano.

Dr. Balarabe A. Jakada
Supervisor

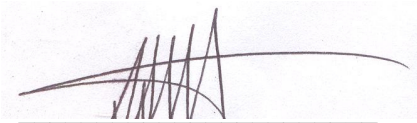
Date

Dr. Abdu Ja'afar Bambale
Head of Department

Date

APPROVAL

This dissertation entitled “Impact of Foreign Aid on the Development of Nigerian Polytechnic in the Educational Sector” by Mohammed Mustapha (SPS/10/MMN/00015), has been examined and approved for the award of Master of Science (M. Sc.) degree in Management.



Prof. Sebastian S. Maimako
External Examiner

Date

Dr. Abdu Ja’afar Bambale
Internal Examiner

Date

Dr. Balarabe A. Jakada
Supervisor

Date

Dr. Abdu Ja’afar Bambale
Head of Department

Date

DEDICATION

This dissertation is dedicated to the memory of my parents: Mustapha Margimabe and Zainab “Nasaram”. May Allah (SWA) forgive their shortcomings and reward them with Aljannah Firdaus. Amin

ACKNOWLEDGEMENTS

All praises and appreciation are due to Allah (SWA) for making it possible for me to undertake this work.

Let me at this point acknowledge the efforts of my indefatigable supervisor, Dr. Balarabe A. Jakada for painstakingly reading and continuously correcting my work as well as for his constructive criticisms and guidance throughout the duration of this research work. I am eternally grateful to him. In this connection, let me also acknowledge the contributions of the M.Sc. programme coordinator, Professor Garba Bala Bello as well as the Head of Department Dr. Abdu J. Bambale and indeed all lecturers in the Department of Business Administration and Entrepreneurship, Bayero University Kano.

My profound gratitude goes to my dear wives, Baana Muhammed and Jamila Jibrin for their support, patience and understanding. My children, brothers, sisters and relatives are also warmly acknowledged.

While struggling with the conduct of this study, a number of course mates, colleagues and friends have offered a helping hand. In particular the efforts of Abdulsalam Sulaiman, Sarkin Jamfalan, Muhammadu Aminu Bello and Abdu Isa Kofarmata are hereby acknowledged. I am grateful to all my course mates, friends and colleagues at NBTE Kaduna for their support and encouragement.

Thank you all.

TABLE OF CONTENTS

Title Page	i
Declaration	i
Certification	iii
Approval	iv
Dedication	v
Acknowledgements	vi
Table of Contents	vii
Abstract	ix

CHAPTER ONE: INTRODUCTION

1.1 Background to the Study	1
1.2 Statement of the Problem	4
1.3 Research Questions	8
1.4 Aim and Objectives of the Study	9
1.5 Significance of the Study	9
1.6 Scope and Limitation of the Study	10
1.7 Definitions of Key Terms	10

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction	12
2.2 Concept of Education	12
2.2.1 Post- Colonial Education	14
2.3 Nigeria's Education Sector	16
2.4 Educational Policy in Nigeria	17
2.5 Concept of Foreign Aid	18
2.6 Foreign Aid and Education Sector in Nigerian	21
2.7 Technical Assistance Schemes in Nigeria	22
2.8 STEP-B Project	25
2.9 Failure on Donors' Side	25
2.9.1 Bypassing of Absorptive Capacity Issues	25
2.9.2 Tied Aid	27
2.9.3 Volatility	28
2.9.4 Aid Allocation	29
2.9.5 Conditionality and Lack of Ownership	32
2.9.6 Aid Channels Proliferation and Donor Fragmentation	34
2.10 Empirical Study	36
2.11 Theoretical Framework	38
2.11.1 Poverty Trap and the "Big Push" Theory	38
2.11.2 Aid Dependency Approach	41
2.11.3 The Conditional Approach	45

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction	48
3.2 Research Design	48

3.3	Population of the Study.....	48
3.4	Sample Size and Sampling Technique.....	49
3.5	Sources of Data and Method of Data Collection	49
3.6	Method of Data Analysis	49

CHAPTER FOUR: DATA PRESENTATION AND ANALYSIS

4.1	Introduction.....	51
4.2	Capital Expenditure and Supply of Equipment in Nigeria Technical Education	51
4.2.1	Distribution of ODA to Nigerian Polytechnics.....	53
4.2.2	Coordinating Foreign Aid	54
4.3	STEP-B Project.....	56
4.3.1	Problems Associated with Science, Technology and Mathematics (STM) in Nigerian Polytechnics	56
4.3.2	Impact of STEP-B Project in Nigerian Polytechnics.....	57
4.3.3	STEP B and its Impact at Enhancing Web-Based Instruction in S&T	59
4.4	Discussion of Findings.....	60

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1	Summary.....	62
5.2	Conclusion	63
5.3	Recommendations.....	64
	References.....	65
	Appendices.....	71

ABSTRACT

The study assesses the impact of foreign aid on the Development of Nigerian Polytechnic in the Educational Sector. It aims to identify how ODA has improved the teaching and learning facilities in Nigerian polytechnics and to determine the contribution of STEP-B project in enhancing web-based instruction in science and technology (S&T) in Nigerian polytechnics. Research method used in this study was ex-post facto research design where documentary source of data collection was used and 6 federal polytechnics in Nigeria were selected from population of the study. The finding of this study shows that Nigeria polytechnics were able to upgrade laboratories and equipment and develop in-house research capacity. The equipment provided at the Centre of Excellence for Solid Minerals Research & Development has impacted positively on lecturers and students. It also found out that aid resources added to the revenue available to government and were used with some success to influence the education policies of different polytechnics across the country. Therefore, the study recommends that donors should provide information on future aid disbursements in order to reduce the uncertainty associated with aid flows and improved infrastructural development in Nigerian polytechnics. It also recommended that STEP-B project should improve the study of science and technology in Nigeria educational sector so that it can raise both the intake and quality of students studying science courses at all levels of the education system in Nigeria.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Developing countries face massive poverty, slow GDP growth, high mortality rates, and low levels of education. In the year 1999, 1.2 billion people lived on less than \$1 a day, and another 2.8 billion people lived on less than \$2 a day (World Bank, 2010). A sizable number of the people in the least developed countries cannot read or write. Over 854 million adults in the world are illiterate, and 543 million of them are women (World Bank Report, 2010). Similarly, many people in developing countries do not have access to health care. According to the United Nations Children's Fund (UNICEF), more than 10 million children under five years of age die each year from preventable diseases in these countries. At the end of the year 2000, 34 million people were living with HIV/AIDS (World Bank Report 2011). These statistics reflect the extent of low educational development in developing countries. A low level of educational development means miserable, sub-standard living for the country's poor (Akinkugbe, et.al, 2009).

One way intended to promote better living standards has been through development aid. In most scholarly and policy discussions, the terms aid, development aid and foreign aid refer to Official Development Assistance (ODA), data about which are collected and published by the Development Assistance Committee (DAC) of the Organization for Economic Cooperation and Development (OECD). According to the Committee's criteria, financial assistance is classified under ODA if it is disbursed by official agencies, has the promotion of economic development and welfare as its main objective, and involves grants or concessional loans with at least a 25 percent grant element (Ayodele,

et.al, 2005). Based on the identity of the immediate donor, ODA can be classified as bilateral or multilateral. Bilateral assistance is administered by agencies of donor governments, whereas multilateral aid is funded by wealthy countries and allocated by international financial institutions, such as the World Bank, the Regional Banks, or the United Nations Development Programme (Bhalotra, 2007).

In Nigeria, the decline in the quality of education at all levels has become a fact of national life. Indeed, the most significant event in the sector in the recent past has been the continuing crisis that besets the educational system (Appiah, et.al, 2009). This crisis is rooted in the deteriorating conditions within the institutions of learning, in respect of teaching facilities and other infrastructural facilities, the welfare of those engaged in the teaching profession and the ever increasing cost of education (Appiah, et.al, 2009). This has culminated in student strikes and industrial actions by teachers at all levels of the educational system. As observed in the Third National Development Plan, at the primary level the shared responsibility of states and local governments in managing the schools leaves neither of the tiers of government responsible for the upkeep of the system (Ram, 2003). The result is that infrastructural facilities are not maintained and teachers' salaries are not paid for months. The same is applicable at the secondary level even though state governments have the sole responsibility for that tier of the educational system. At the tertiary level, the facilities are also rapidly deteriorating (Igbuzor, 2010).

During the past three decades the importance attributed by governments and international agencies to invest in educational sector has changed profoundly. During the 1970s and 1980s, education system was given far less emphasis in national economic plans and aid

documents, that was accorded to the higher levels of education, which were judged to be the central means of producing the skilled ‘manpower’ needed to achieve rapid economic growth in the country. During the 1990s, however, evidence that the education system provided an important means of reducing poverty began to emerge (Brainard, 2006). This showed that education not only gave better access to formal sector employment for poor households, but that it provided skills which brought greater productivity in rural and informal work, and encouraged behavioural change (particularly in the areas of health, nutrition and fertility) which allowed a range of other development objectives to be achieved. This evidence became increasingly influential in investment allocation, leading to significant changes in the practice of aid policy, and in the extent to which developing country governments gave renewed emphasis to education sector in their own plans and programmes (Browne, 2006).

As a consequence of this changing balance of evidence, many aid agencies increased resources for educational system in Nigeria. Indeed, aid in education has increased substantially over the past decades. For example, over the period 2000-2005 to 2006-2012 the average annual aid inflow in education from the Development Assistance Committee (DAC) member countries increased from \$30.5 million to \$135.5 million — an increase of over 1,322 percent (World Bank Report, 2013). In addition, over the same period, aid in education as a share of total aid increased from about 19.1 percent to about 39.3 percent (World Bank Report, 2013).

Over the years, mitigating these problems has become a major priority for Nigerian successive governments and the polytechnic themselves. The Government’s National

Economic Empowerment and Development Strategy (2004) strongly emphasized the development of science and technology for contributing towards economic growth through skill development for job creation and poverty reduction, to enable Nigeria to grow and compete globally (Okpeodua, 2007). Nigeria's emphasized the twin pillars of science and technology and education as instrumental to Nigeria's economic growth. A National Science and Technology Coordinating Council chaired by the President provided leadership in the development of Science & Technology (S&T) in the country, and a national strategy was developed. In alignment with the Government's objectives, the Bank's 2005-2009 Country Partnership Strategy had one of its four priorities as support to national initiatives for human development and supporting the knowledge economy. The Bank had strong involvement in the sector and was selected under the Country Partnership Strategy to be the lead agency in education working closely with other development partners (World Bank, 2010). The Science and Technology Education Post-Basic Project (STEP-B) was also aligned to the Africa Action Plan (2005), which included objectives for accelerating growth and building skills for competitiveness. While some advances had been made, Nigeria was falling behind in terms of competitiveness globally. It was ranked as one of the least competitive countries, 93 out of 104, on the global competitiveness index in 2004/05 (Adamu, 2010).

1.2 Statement of the Problem

Given the rising cost of education, government took steps to improve the availability of resources to prosecute its education programme by enacting Education Tax Decree 7 of 1993. "The decree provided for 2% of the accessible profit of a company registered in Nigeria to be collected by the Federal Board of Inland Revenue and paid into a fund

known as the Education Fund. The fund, which was to be managed by the Education Trust Board of Trustees, was to be disbursed to Federal, State and Local governments education institutions, principally for work centres, staff development, conference attendance, library systems at different levels of education, research, equipment procurement, maintenance and purchase of higher education books” (Chiswick, 2007).

“Owing to the failure of the state and local governments to fund education appropriately, the federal government moved to take over the affairs of that tier of the system. Another major development in funding education in recent years was the establishment of the Education Bank. The bank is to take over the responsibilities of the defunct Student Loans Board in assisting Nigerians who might have limited access to education” (FGN, 2009; Dreher, et. al, 2006).

Despite these efforts by the governments, the crisis in the Nigerian educational system, particularly the tertiary level, universities, polytechnics and colleges of education, and their fundamental causes, that is, the gross under funding of the institutions, poor conditions of service of the academic staff among other issues, has continued unabated (Ayodele, et. al, 2005). It is clear that tremendous resources, both human and material, are required to redress the situation. Considering the enormous cost of running education in this country, it is generally advocated among policy makers that education funding should be the joint responsibility of the government, the private sector and the beneficiaries. The argument that beneficiaries of education, especially higher education, be made to pay at least a portion of the cost of educating themselves is anchored in the principle of moderate privatization or partial cost recovery or some kind of selective

pricing. According to Jimenez and Tan (2009), this policy recommendation centres on the belief that the higher the returns (private) to individuals of education, the higher the level of educational attainment.

Over the years, Nigeria, like most developing countries, has received a number of foreign aids across all sectors of the economy. These aids come from NGOs, official bilateral or multilateral development agencies, foundations, countries etc. These agencies and countries have together given Nigeria millions of dollar in aids for the development of Nigerian educational sector (Keller, 2006).

Although this study focuses on aid effectiveness, it will be enlightening to first, examine what motivates rich countries to provide assistance to a developing country like Nigeria. There are differences in donors' motivations. A large body of economic research indicates that bilateral aid is more likely to be influenced by the donors' self-interest considerations than multilateral assistance. Bilateral aid promotes exports from and employment in the donor country (Ruttan, 1999). Maizels, et.al, (2004) analyzed aid flows from DAC donors and found that the recipient need model in which aid is granted to compensate for a shortfall in the recipient's domestic resources, provides a reasonable explanation for the distribution of multilateral aid but fails to explain bilateral aid inflows. Bilateral aid allocation is, according to their study, better explained by the donor interest model, in which countries provide assistance to safeguard their trade, investment, political and security interests; following from related earlier studies (Alesina, et.al, 2008; Bashir, 2003; Barro 2001; Ridell, 1999; Wall, 2005 & Bandyopadhyay, et.al, 2006).

The polytechnic is a post-secondary technical institution of higher learning created mainly to provide a wide range of intermediate and higher level technology and technologists. Okpeodua (2007) opines that the decision of the Federal Government to set up polytechnic education was predicated in the decision to revolutionize the society technologically. This government's decision copiously spelt out the objectives of Technical and Vocational Education (TVE) in the National Policy on Education (NPE, 2004) (Okpeodua, 2007). Six analytical preparation studies undertaken in 2006 which led to the design of this project, provided evidence of an overwhelming demand for more and better quality education and training, especially for S&T related areas. Particular issues which needed to be addressed included: (i) apparent mismatch between supply and demand of S&T graduates, both in terms of numbers and relevant skills matched to industry; (ii) a serious decline in the quality of higher education institutions in the 1980s and 1990s and low levels of funding which also led to low levels of courses/graduates in the sciences and technology; (iii) poor coordination between federal post-basic education policies, strategies and funding priorities; (iv) overloaded, outdated and under-resourced S&T curricula and programs which did not produce the graduates demanded by the labor market; and (v) the lack of a National Vocational Qualifications Framework to cater for rapidly changing labor market demands and to allow the private training institutions and workers to capitalize on their practical knowledge and professional skills/experience. While the private sector and states were establishing some universities and/or polytechnics, the federal post-basic education system remained the most significant for supply in middle and higher level staff for S&T related growth areas (Adamu, 2010).

The STEP-B project was designed to address the above sector issues, especially to cater for non oil economic growth. There was particular support to increase production of more and better quality medium and higher-level skilled workers in Nigeria and to strengthen the capacity of post-basic S&T institutions to carry out the tasks. Through a merit-based competitive approach, the project sought to pilot a new demand-driven approach to finance S&T education and training to improve teaching and research substantially, and to also strengthen links with the demand side regarding research and skills (World Bank, 2013). In addressing these issues, the Government also sought to develop indigenous capacity in S&T which would in turn lead to locals addressing better various economic social, health and environmental needs; and develop Research and Development (R&D) that would become a resource for generating wealth, accelerate growth and reduce poverty (Appiah, et.al, 2011 & Odedokun 2012). Therefore, the study examines the impact of ODA and STEP-B on the development of Nigerian polytechnics in the educational sector.

1.3 Research Questions

This study is an attempt to assess the impact of foreign aid on the development of Nigerian polytechnics in the educational sector. Therefore, the following research questions are raised.

- i. How official development aid (ODA) improved the teaching and learning facilities in Nigerian polytechnics?
- ii. Is the contribution of STEP-B project enhanced web-based instruction in science and technology (S&T) in Nigerian polytechnics?

1.4 Aim and Objectives of the Study

The broad aim of this study is to assess the impact of foreign aid on the development of Nigerian polytechnics in the educational sector. Specifically, the following objectives have been identified;

- i. To identify the impact of ODA on teaching and learning facilities in Nigerian polytechnics.
- ii. To determine the contribution of STEP-B project in enhancing web-based instruction in science and technology (S&T) in Nigerian polytechnics.

1.5 Significance of the Study

This study is a contribution to the body of literature on impact of foreign aid on the development of Nigerian polytechnics in the educational sector. Mixed and tenuous findings have been made from previous studies all over the world especially those ones that were conducted in India, Malaysia, South Africa, Ghana and Nigeria on foreign aid to educational sector.

The study will enlighten management and stakeholders of the education sector on impact of foreign aid on development of Nigeria polytechnics. This study will hopefully contribute to the framework upon which the government could take appropriate policies on education system. Students and readers of this work may stand the chance to benefit a lot from this study as it shows the understanding and the impact of foreign aid as it exposes and serves as reference materials for future research. The study contributes to the body of relevant literature and reference materials in the field of foreign aid impact on educational development in Nigeria.

1.6 Scope and Limitation of the Study

The study assesses the impact of foreign aid on the development of Nigerian polytechnics in the educational sector. The choice of this sector is based on the fact that the education sector in Nigeria struggles to meet-up with the educational sector of other Africa countries. Despite different assistance, national and international, given to Nigeria, the education sector is still facing challenges such as frequent strikes, lack of infrastructural development, misappropriation etc. To this end, the study basically covers six (6) selected Federal Polytechnics out of the one hundred (100) polytechnics (Federal, State and Private) institutions in Nigeria. The study covers these federal polytechnics on foreign assistance during the period of six (6) years from 2007 to 2012. The choice of this period allows for a significant cover period for foreign aid to Nigeria and how foreign assistance has improved the polytechnic education system in Nigeria. However it was not possible to obtain the reports of 2013 since they are yet to be published at the time of this research since the STEP-B Project was formally closed on 24th June, 2013. The study therefore covers four key variables which are ODA, STEP-B, infrastructural development and Science and Technology (SciTech).

1.7 Definitions of Key Terms

This study used some related terms, which are briefly explained below:

Bilateral Assistance: Bilateral aid is assistance given by a government directly to the government of another country. This is usually the largest share of a country's aid. It is often directed according to strategic political considerations as well as humanitarian ones.

Development Assistance Committee (DAC): The Development Assistance Committee (DAC) is one of the key forums in which the major bilateral donors work together to increase the effectiveness of their common efforts to support sustainable development.

Foreign Aid: Foreign aid, the international transfer of capital, goods, or services from a country or international organization for the benefit of the recipient country or its population. Aid can be economic, military, or humanitarian (e.g., aid given following natural disasters)

GNI: Gross national income (GNI) is defined as the sum of value added by all producers who are residents in a nation, plus any product taxes (minus subsidies) not included in output, plus income received from abroad such as employee compensation and property income

Multilateral Aid: Aid provided by a group of countries, or an institution representing a group of countries such as the World Bank, to one or more recipient countries.

STEP-B: Science and Technology Education Post-Basic

ODA: Official Development Assistance

R&D: Research and Development

NGO: None Governmental Organization

GDP: Gross Domestic Product

OECD: Organization for Economic Cooperation and Development

SSA: Sub-Sahara Africa

SSAC: Sub-Sahara African Countries

SAP: Structural Adjustment Programme

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This section presents and reviews the concept of education, Nigeria's education sector, educational policy in Nigeria, concept of foreign aid, foreign aid and education sector in Nigerian, technical assistance schemes in Nigeria, impact of donors on education policy, the rationale for foreign assistance, failure on the donors' side and empirical study.

2.2 Concept of Education

It has become quite evident that the era of globalization is invariably the epoch of rapid internationalization of human affairs, and the impact of this process is not evenly spread. Only those who have the competitive capacity through education can bountifully reap from this process ((Fafunwa, 2001). Education becomes an essential parameter to measure the quantum of advantage accruing to any country. Education emerged from the Latin word, 'educare'. This literally means to bring up. Education, therefore, means the process of bringing up people to know their environment and how they can contribute in the development of their society. Education is the stimulus that can trigger man's innate potentials to their proper use. Hence it is 'the process of acquiring knowledge and understanding and an instrument of change in the society which involves a series of task or activities which cannot be accomplished in the short term' (Bashir, 2003).

According to the National Policy on Education of 1976 as amended, 'education is the vehicle for the promotion of socio-cultural and political change in the society' (Akabue & Enyi, 2001). Education humanizes the mind for ethical conduct, good governance,

liberty, life and rebirth of the society by subjecting medieval ideas to microscopic scrutiny. Education is an agent of change which empowers its recipients to be creative and become a change-agent (Peretomode, 2008). Education in whatever form is indispensable for the production and repositioning of a given community. It suggests that any community/state that neglects the socialization of its members will experience an opaque existence, and live within the bounds of state of nature.

Fafunwa (2001) noted that traditional education oriented Nigerians (Africans) to achieve and uphold the seven cardinal goals. Among them is to develop the child's latent physical skills, to develop character, develop intellectual skills and respect for elders and position of authority.

“Unfortunately, colonial education through the instrumentality of the colonial state doggedly and consistently suppressed indigenous education in preference to western education. From 1842 when the ‘Nursery of the infant’ was established in Badagry to the 1950s, colonial education became a viable channel to indoctrinate Nigerians nay Africans on the absolute need to trust and obey imperialist etiquette because there is no other way. A speech from Renkin, colonial Governor of Kinshasa in Congo DR in 1883 urged the missionaries to, ...interpret the Gospel in a way to protect and serve the interest of Belgium in that part of the world... you will see that our savages be not interested in the riches that their soil possesses in order that they will not want them. Thus they will not be involved in a murderous competition with us and dream to live a luxurious lifestyle” (Ali, 2006).

From the above, we can see that both the missionaries who pretend to be neutral of colonial exploitation were working hand in hand with the colonial state to uphold the ideals of imperialist exploitation. While the mission(s) emphasized on religion, reading, writing and arithmetic, the colonial administration encouraged the learning and teaching of English language. The choice of subject was informed by the fact that they needed interpreters, court clerks, policemen, commercial and financial clerks among others (Akubue & Enyi, 2001). By the time the country attained political independence on October 1, 1960, it became imperative to overhaul the imperialist oriented educational policy which was outwardly focused and shallow in content. It was this scenario that informed the myriad educational reforms which the country witnessed right from the regional education policies to the Lord Ashby commission in 1959.

2.2.1 Post- Colonial Education

At independence, the Nigerian ruling class was faced with the stark inadequacies and deficiencies of colonial education. It was also discovered that post colonial challenges of development and nation-building needed a novel philosophy of education that would assist in the production of quality human capital. All these necessitated the numerous educational policies such as the Universal Primary Education (UPE), 6.3.3.4 system, Universal Basic Education, establishment of more elementary, post-primary, tertiary institutions and creation of institutions such as the Joint Matriculation Examination Board (JAMB) and the National University Commission (NUC) (Education Development Report, 2000).

The building of ‘a brave new world’ would enhance the attainment of high socio-political and technological ideals, raise a crop of committed leadership and ensure that the vision of independence ‘would not be a sham’ (Peretomode, 2008).

Table 2.1: Educational Institutions, Enrolment and Number of Teachers 2004/2005

Educational Institution	No. of Schools	Enrollment	No. of Teachers
Primary	60,188	22,267,407	599,172
Secondary	10,93	6,397,581	153,154
Colleges of Education	85	351,255	23,876
Monotechnic	42	20,853	12,541
Polytechnic	52	331,581	21,982
Universities	93	780,001	27,484

Source: Peretomode, 2008

The need to expose Nigerians to world class education led to the establishment of numerous educational institutions. For instance, by the 2004/2005 academic session, Nigeria had more than 60,188 primary schools, with 599,172 teachers (see table 2.1).

From the table, we can see that the country’s primary institution has risen to 60,188, Secondary 10,913, University 93, Polytechnic 52, Monotechnic 42 and Colleges of Education 85, with thousands of students. By 2010, Nigerian Polytechnic had rise to 69 while Nigerian universities had increased to 117 Universities, (36 Federal, 36 State, 45 Private) with a total enrolment of one million students. This vividly demonstrates the surging desire by Nigerians to be educated (Peretomode, 2008).

By the time military handed over power to civilians in 1999, Nigerian education, especially polytechnics education, was a shadow of itself. There were consistent mass failures in the West African School Certificate Examination, and the National

Examination Council. Universities were noted for their production of substandard students infested with the virtue of consumer consciousness and moral depravity (Peretomode, 2008).

2.3 Nigeria's Education Sector

Nigeria's education system has suffered from years of under-investment, with renewed strategy and funding commitments made by the Government of Nigeria only recently. Legislation was passed in 2004 that mandated free universal primary education and stated that every child should receive at least nine years of education between the ages of 6 and 15. Nigeria remains off-track, however, on the education elements of the MDGs: that is, the goal of universal primary education and the target to eliminate gender disparity in access to education at all levels. Nigeria has 10% of the world's out-of-school population and, in 2007, about nine million children (37% of its primary school-age child population) were not attending school because of social and economic circumstances. A majority of these are girls, who are often prevented from advancing their formal education for cultural and economic reasons (such as assuming traditional female roles within the community). There are also stark regional inequalities in access to education; for example, 60% of girls aged 6-17 in northern Nigeria are out of school (Keller, 2006).

The Nigerian Government, however, has made a commitment to transform its education system. Its Nigeria Vision 20: 2020 plan places education at the heart of the country's future growth and success. The country is dedicated to achieving the Millennium Development Goals, aiming to deliver universal basic education for all children and to promote gender equity in education services, with specific targets to 'increase net

primary enrolment from 61.5 per cent to 75 per cent’ and attain ‘40 per cent gender parity’ by 2013. The Nigerian Government remains focused, therefore, on input targets, rather than targets related to attainment or learning (Jimenez and Tan, 2009).

2.4 Educational Policy in Nigeria

The history of Nigeria education system could be traced back to the colonial period when the educational policy then was geared toward serving the interest of the colonial masters in terms of supply of manpower for their effective administration of Nigerian colony and protectorates (Aladekomo, 2004).

However, in the 1981 National policy of education, attempt has been made by the government to link the policy with the issue of self employment and the industrial policy. Thus higher education policy as stipulated is expectedly to cater for production of scientist and technologist and absolutely none was directed for self employment but for the vacant positions in government or public offices (Aladekomo, 2004).

In an attempt to ascertain the way forward and in response to the current socio-economic problems of the country, questions were raised by various people as to what is the right technical and vocational institution designed largely to prepare technicians at occupational levels. Fakae (2005) asserted that “emphasis is on skill-acquisition and sound scientific knowledge, which gives ability to the use of hand and machine for the purpose of production that vocational education has not and cannot provide permanent solution to unemployment as some of us may believe. Onifade (2002) observed that “the threat of job scarcity and growing unemployment creates doubts and pessimism on the programmes of vocational technical schools and the education system in general”.

Adamu (2008) asserted that the Nigeria University education, patterned after the “gold standard” of British colonial universities remains the highway to white collar jobs and social security for millions of Nigerians. According to Onukaogu (2008) “There is absolutely nothing wrong with a very well set out plan by the government to encourage the Nigerian child to pursue science subjects.

In another development, Onifade (2002) pointed out that commonwealth Ministers of Education in August 1988 and the Commonwealth Association of Polytechnics in Africa Browne (2006) opined that students in tertiary institutions should be taught entrepreneurship education in their final sessions. It is believe that the current formal education is only aimed at making people to be the same in spite of the differences in them. This fact has been corroborated by Ingalla (2006); “It is becoming increasingly clear that formal schooling in our society generally aims at creating sameness and not difference. The members of class, for example, are graded on the basis of how well they each acquire the same information presented in same way to all.

2.5 Concept of Foreign Aid

International development assistance is mostly used in a holistic and multi-disciplinary context of human development — the development of greater quality of life for humans. It therefore encompasses foreign aid, governance, healthcare, education, poverty reduction, gender equality, disaster preparedness, infrastructure, economics, human rights, environment and issues associated with these. International development assistance is different from simple Development Aid in that it is specifically composed of institutions and policies that arose after the Second World War. These institutions focus

on alleviating poverty and improving living conditions in previously colonised countries (Maizels & Nissanke, 2004).

International development assistance is related to the concept of international aid, but is distinct from disaster relief and humanitarian aid. While these two forms of international support seek to alleviate some of the problems associated with a lack of development, they are most often short term fixes — they are not necessarily long-term solutions. International development assistance, on the other hand, seeks to implement long-term solutions to problems by helping developing countries create the necessary capacity needed to provide such sustainable solutions to their problems. A truly sustainable development project is one which will be able to carry on indefinitely with no further international involvement or support, whether it is financial or otherwise.

International development projects may consist of a single, transformative project to address a specific problem or a series of projects targeted at several aspects of society. Promoted projects are ones which involve problem solving that reflects the unique culture, politics, geography, and economy of a region. More recently, the focus in this field has been projects that aim towards empowering women, building local economies, and caring for the environment (Ram, 2003).

In a context which is not overly favourable to increased development assistance budgets, new financing mechanisms need to be developed and implemented to respond to the financial needs of developing countries and help them to deal with the impacts of climate change. Adaptation and mitigation measures will cost tens or even hundreds of billions. At the same time the economic crisis has exacerbated budgetary constraints facing donor

countries. Some commentators view market mechanisms as a way to palliate for the shortage of funds. Others, invoking the solidarity imperative, call for an increase in development assistance. It is now a foregone conclusion that the climate challenge will have a major impact on the future of the development assistance system. Development assistance may get a new lease of life thanks to global warming. Aid occupies a major place in multilateral negotiations and sometimes, by default, becomes the main outcome of negotiations, which stumble at real fundamental issues (Mishra and Newhouse, 2011).

Against this backdrop, it is vital to go beyond ideological debates about international cooperation if we are to better deal with its weaknesses and improve its performance. Ayyar (2007) propose taking a “political economy” view of the aid system, focusing on the diversity of interests of pressure groups and stakeholders in donor and recipient countries. This allows a refined analysis of the different motivations underlying the policies and practices of cooperation agencies. It highlights the fact that the ineffectiveness of aid is a result, among others, of the broken feedback loop between donors and beneficiaries. Browne (2006) and Michaelowa & Weber (2010) suggest organizing the aid system into a competitive market through which developing countries could acquire essential goods and services from a variety of donors. The poor would be able to voice their preferences and select the projects and programmes best suited to their priorities at the most favourable conditions.

Ever since the Cold War, recipient countries have been able to capitalize on the rivalries between the “great powers” in an attempt to secure the best deals, a situation facilitated by the fact that the aid market was strongly oligopolistic. Today the emergence of China

and other emerging economies as large donors has increased competition in the aid market. However, agreements signed between donors and recipients still lack transparency and are dogged by inherent principal-agent problems. A new initiative which guarantees greater transparency in public development aid would allow policy-makers, civil society and researchers to make a contribution towards reducing current dysfunctions in the “aid market” (Ayyar, 2003).

2.6 Foreign Aid and Education Sector in Nigerian

A full understanding of the problems of foreign aid in the context of education in Nigeria would require some knowledge of the geographical, historical, economic, political and social background of that country. Most of contemporary education in Nigeria started as a private effort, mainly of missionary societies, and the role of these institutions, called voluntary agencies, the integration of external assistance with educational planning in Nigeria remains preponderant even today. Of some 15,000 primary schools with 2.9 million pupils in 1963, over 10,000 with 2.25 million pupils were run by voluntary agencies; of the 212,000 secondary school pupils, 170,000 are enrolled in private schools (Ayodele, Cudjoe, Nolutshungu and Charles & Sunwabe, 2005).

Even though the educational system in Nigeria was implanted from outside the country, it cannot be said to have been a product, even in its first phase, of external aid in the present sense of the term. One of the basic principles of United Kingdom colonial policy was that expenditure on education as well as on other social services should be financed exclusively from local resources, at least as far as recurrent expenditure was concerned; and the initiators of the first schools in Nigeria were not only missionaries, but also

Nigerians themselves or other Africans, often liberated slaves who had been in prolonged contact with Europeans or Americans. The desire for education-and the habit of paying for it-is something that has been rooted in Nigerian tradition for well over a century. Understandably enough, the development of education was greatly influenced by the United Kingdom model (Chenery, et. al, 1996).

It should be noted also that private education in Nigeria, whether denominational or not, is supported mainly from local and national resources, of which the greatest part are public grants. It receives very little external aid, the amount of which is impossible to ascertain. Private education is, therefore, not included in this study.

2.7 Technical Assistance Schemes in Nigeria

Some of the major donors operating in Nigeria, in particular the United Kingdom Government supply most of their teachers, not for specific projects, but for general use. The teacher is naturally tied to a specific institution, but the link is an individual one, and the scheme covers a number of institutions. The most important of these arrangements is the United Kingdom 'Teachers for Nigeria' scheme, which was started in 1965. This scheme is, in fact, an extension of the so-called 'Key Post scheme', launched in 1961, and under which some ten teachers in key positions were receiving, by 1964, an annual inducement allowance of £500 from the United Kingdom Government. It is also a counterpart of the Overseas Service Aid scheme, inaugurated in 1961 for the benefit of United Kingdom colonies and newly independent Commonwealth countries, which Nigeria did not accept at that time. The major objective of the United Kingdom 'Teachers for Nigeria' scheme is to attract United Kingdom teachers to Nigeria and to persuade

those already on the spot to remain for a longer period by making the financial conditions of their service more attractive. Tax-free allowances of £300 to E800 a year are paid to all those who qualify for the posts, and the United Kingdom Government expects to provide in this way, at a total cost of £1 million during a five-year period, seventy-five new teachers a year and to top up the salaries of some 250 teachers already working in the country and willing to remain for three more years. All beneficiaries must be graduates or technical teachers, but in exceptional cases non-graduates can also be considered. Originally, only non-university teachers were eligible, but, late in 1965, a separate scheme was introduced by which all the 350 United Kingdom teachers in Nigerian universities receive in the United Kingdom a 20 per cent increment of their normal salary (Yakubu, 2003).

One of the fundamental reasons for introducing the 'Teachers for Nigeria' scheme was a net decrease in the attractiveness of teachers' salaries in Nigeria. More and more United Kingdom teachers were inclined not to renew their contracts. The problem was felt especially in the North where negotiations between the regional government and United Kingdom authorities have been taking place for quite a long time. In that region, besides the topping up of salaries, an arrangement has been concluded with the Greater London Council according to which United Kingdom teachers going to Northern Nigeria do not break their link with the United Kingdom school administration and have security with regard to their re-employment after they return home (Mohammed, 2005). For some reasons, the scheme was more difficult to introduce in the West than in the East where, in May 1965, only about forty United Kingdom teachers altogether were confirmed as beneficiaries, as against 119 in the North. The introduction of the 'Teachers for Nigeria'

scheme has prevented, in the North, a sudden departure of a large number of expatriate teachers which, undoubtedly, would have created a critical situation. Strictly speaking, the United Kingdom 'Teachers for Nigeria' scheme does not come within the ambit of technical assistance. The latter is usually of a more limited nature and consists in putting at the disposal of the recipient country experts and teachers paid entirely by the donor. Two of the most important technical assistance schemes in the educational field are the United Nations Expanded Programme of Technical Assistance (EPTA), and the programme of Canadian Technical Assistance (Onjewu, 2005).

Of the seventy-one experts who were working in Nigeria, in 1965, under EPTA, some twenty were teachers or experts directly involved in education. This is not a large proportion, but it should be remembered that some 75 per cent of those sent to Nigeria under different Special Fund projects work in education (all the UNESCO and ILO teachers). As for Canadian Technical Assistance, it provided, in 1964/65, forty-four secondary-school teachers, eighteen of them for teacher-training institutions, and five university teachers. In general, the Canadian teacher is lent by his institution to the Canadian Government (which puts him at the disposal of the recipient country) and keeps all the rights and advantages of his position. His salary, paid entirely by Canada, corresponds to his last salary at home, to which are added the increment of his next advancement, an overseas allowance representing about one-third of his basic salary, and, once a year, a travel allowance to Europe. This system is in many ways similar to that applying to teachers sent to Africa by France (Momoh, 2005).

2.8 STEP-B Project

The need for the STEP-B project and the proposed priority areas of intervention are based on a study conducted at the request of the Federal Government of Nigeria. This study was completed in the period of October 2005 to June 2006. The final STEP-B Synthesis report is based on 6 technical studies which were implemented by the main public and private Science and Technology (S&T) education stakeholders. The study was aimed at assisting the Federal Government in prioritizing and drawing up a strategy for strengthening Post-Basic S&T Education in the country. S&T has been identified in the National Economic Empowerment and Development Strategy (NEEDS) as a key driver for economic growth and social development (Abdulhamid, 2010).

2.9 Failure on Donors' Side

Another view about why aid does not deter growth is related to donor's motives. It says that most donors give aid for foreign policy reason others on poverty reduction. Aid will serve, in the first place, donor's political, commercial and strategic interests (Moss 2007). Consequently non-developmental ODA has been and continue to be important though varying among donors over time (Riddel, 2007). Index Mundi (2011) argued that ODA's primary objectives are not growth; it was used for everything except for poverty reduction. It is not surprising that five decades of ODA experiences did not lead to significant improvement to the livelihood of major recipient countries.

2.9.1 Bypassing of Absorptive Capacity Issues

Kwabena and Asiedu (2011) define absorptive capacity as "the ability of a country to use additional aid without pronounced inefficiency of public spending and without induced adverse effects; for instance the 'Dutch disease' or the crowding out of domestic saving".

According to this definition there is a threshold level of aid beyond which it produces more failures than success. This is also called "the saturation point" which may arrive sooner or later, depending on the prevailing conditions in recipient countries. According to the World Bank (2008) there are five major determinants of absorptive capacity, or more precisely, five major constraints that limit the ability of the recipient to absorb aid efficiently, namely: macroeconomic constraints limiting the supply side response to surge of demand provoked by aid inflows, physical capital and infrastructure, human capital in terms of skilled labor, institutional constraints (bad governance) and socio-cultural constraints. The absorptive capacity issues have two major implications. On the one hand, a relatively high level of aid inflows is more likely to lead into Dutch disease, weaker institutions, diminishing returns, low tax efforts, high level of consumption, low investment, large current account deficit, widening saving and foreign exchange gaps and high aid dependency. On the other hand, country-specific strategies are needed to address these constraints in the first place before increasing aid inflows, and Harrod-Domar model (dual gap model) is not sufficient to determine the amount of aid to be given to a particular country (World Bank Report, 2000).

Being strongly motivated in pursuing self-interests, donors often bypass the absorptive capacity issue and tended to give aid irrespective of recipient's absorptive capacity. Official Development Assistance (2010) gives evidences of donors supporting non-competent, corrupted and badly governed states during the cold war. Alesina and David (2008) shares this view and found that countries that share political position with western countries, as measured by their voting behavior in the United Nations, and former colonies tended to receive more aid. OECD (2008) demonstrates that pervasive

corruption in Mozambique did not make donors refrain from granting more aid than it requested in 2001. World Bank (2012), in defending the credibility of the IMF, attributed the failure of poor performance of IMF lending in the 1990s to donor countries intervention to prevent rigorous conditionality enforcement in favor of former colonies and countries sharing donors' position in international scene. Moreover, several empirical studies had stressed the need of setting a threshold level of aid in order to produce more success (Hansen and Tarp 2000, Lensink and White 2001, Bumside and Dollar 2000).

2.9.2 Tied Aid

"Tied aid" is defined as loans and grants which are laid to procurement of goods and services from donor country (OECD 2008). There are various ways of tying aid such as formal contract combined with trade promotion activities (subsidized export-credit schemes, aid to firms in bidding for tenders, sector targeting aid) and informal arrangements pressuring recipients to purchase goods and services from donor-based companies,

In the past, tied aid held a significant portion of ODA. It was about 70% in 1985-87 and stood at 51% for 2000-02 (World Bank Report, 2008). Even though untying status has improved, as a result of the 2001 DAC recommendations on untying ODA to LDCs (OECD 2008), about one fifth of ODA are still tied, 54.5% for the USA (World Bank Report, 2010), Nonetheless, some econometric studies assert that donors give more aid to those countries that import a higher share of donor's country goods (World Bank Report, 2007).

Tied aid is thus commonly used by donors to protect their commercial interests while recipient countries found them bearing the high costs of this type of aid that reduce the real value of resource transfer. The rise of costs of goods and services purchased by aid averages 15%-30% (OECD 2008) but can reach as high as 40% for food aid (ODA, 2010). Tied technical assistance (TA) has the highest costs that, in Uganda's case, range from 100% to 300% higher than that of the average cost of long term consultants at Commonwealth secretariat (Riddell 2007). At donor side, tied aid increased exports more than ten times the amount of aid. For example 1US\$ of aid generated US\$ 15 and US\$ 21 of exports, respectively, in the USA and Japan (World Bank Report, 2007).

Given the high level of aid dependency in many developing countries, especially in SSACs, high costs of imports stemming from tied aid deteriorate recipient's terms of trade, enlarging its trade deficit and leading to macroeconomic disequilibrium. Moreover, loans have the higher ratio of tied aid (51% in 2006), thus increasing the real costs of borrowing and debt burden, thereby further worsening macroeconomic disequilibrium. Tied aid has also the potential to distort international trade because ODA acts as subsidizes to donor's exports. In addition, indirect costs related to inadequate equipments and delay in the execution of the contract make the situation worse for the recipients.

2.9.3 Volatility

As is stated earlier on poor countries, especially SSACs are highly dependent on foreign aid in financing their development. They are also more vulnerable to exogenous shocks such as oil price hike, commodity price volatility leading to terms of trade losses since the mid-1970s (UNCTAD 2000 and 2004). For these reasons, poorly delivered aid, unpredictable and frequently pro-cyclical has important damaging effects on their

growth. Several studies have demonstrated that aid volatility cause volatility in foreign exchange rate, inflation and fiscal policy (poor budgeting and underestimation of revenue), making aid an important source of macroeconomic instability in developing countries that affects growth adversely (Neanidis and Varvangos 2009, Karas 2008).

Aid volatility is thus a serious issue for these countries and is thought to reduce significantly aid effectiveness. UNCTAD (2000) attributed the failure of SAP to several interruption of ESAF while Pallage and Robe (2001) estimated the average volatility of aid (standard deviation) to 25% for African countries for 1969-95, varying from 8.7% to 48.2%. Aid volatility tends to be quite high since the late 1990s with a coefficient of variation between 40% and 60% of mean aid flows (Hudson and Mosley 2008). Project aids, which are usually used to finance physical infrastructure and human capital, are thought to be relatively stable. But recent studies by Fielding and Mavrotas (2005) found that they are also more volatile.

Kharas (2008) argues that aid volatility is similar for recipients irrespective of income level, type of states, degree of aid dependency and geographical location; but it is different by donor, suggesting that donor's policies are the underlying factors to aid volatility. For example aid allocation biased toward MICs is one of the reasons why poor countries have high ratio of volatility.

2.9.4 Aid Allocation

Despite sophisticated arguments in support of basic human needs approach to foreign aid it appears that supply side bottleneck is a primary issue in SSA's growth and failure to address this issue makes aid ineffective in crowding private investment, thereby

generating Dutch disease. Consequently, donor's allocation bias in favor of social infrastructure at the expense of economic infrastructure explains why aid is ineffective in SSACs. It is widely recognized that economic infrastructures, including transportation, energy, telecommunication, water supply and irrigation, contributes to economic development and poverty alleviation through various channels (Ojima 2006, Salehi and Ramirez 2003, Wang 2002).

First, economic infrastructures lower business risk and reduce the transactions costs, thereby improving the productivity of all inputs, enhancing competitiveness, allowing the production of positive externalities among firms and sustaining long-run growth. Since services provided by economic infrastructure enter directly or indirectly the private production process, thereby raising the rate of return to private capital, they crowd in domestic as well as foreign private investment. In this way, infrastructure is a means to overcome the supply side bottleneck that characterized the economy of many poor countries and produces clear economic benefits. Second, poor countries exemplify the case of dual economy (Lewis 1954) but also the case of disarticulated economy where the mechanism of the classic two-sector model (agriculture and industry) is hampered by the lack of transportation facilities whose role is crucial to rural development.

A large number of empirical studies demonstrate the link between infrastructure and economic development. For example, regional disparities in China were best explained by difference in infrastructure endowment, with notable role attributed to transportation and telecommunication facilities (Demurger, 2001). This is consistent with other findings about the important role of roads and telecommunications in reducing rural poverty in

China (Fan et al. 2002). Using a dynamic two-sector model, Wang (2002) estimated the interrelation (spillover effects) between public infrastructure and private production and found that the responsiveness of the later to a 1% change in expected infrastructure output are positive and significantly different from zero, at 0.2% in seven East Asian countries, and very high at 1.5% in Singapore, In some case there is an increase one for one to GDP (World Bank, 2004), while other found even an increase of GDP exceeding the cost of service provided (Esfahani and Ramirez 2003). Poor infrastructure is considered as major obstacle to production and trade in SSACs as high transportation costs (Milner et al. 2000) and power outages (Ndulu 2006) affected adversely firms productivity and competitiveness.

Inefficient investment in infrastructure projects, often dubbed as "white elephants", in the past is cited as a reason why donors give less and less aid to this sector. They recommend deregulation and privatization across infrastructure sectors, such as water supply, telecommunications, transportation and energy (Ndulu 2006). However, it would be wrong to think that private sector is more efficient than public sector in providing economic infrastructure services, especially in poor countries, due to the nature of these public goods and to their huge positive externalities. Usually, they are associated with economies of scale and economies of scope such that it would be difficult for a single private investor to undertake it. Past failure of these public investments is not a sufficient reason to disqualify economic infrastructure in aid allocation because it worked in other countries. Attention should be paid to the lack of policy coherence in preparing and in implementing these projects. And recipients are not solely responsible for that failure. Donor's responsibility is also high.

2.9.5 Conditionality and Lack of Ownership

Leading international financial institutions (World Bank and IMF) questioned state intervention, proclaimed market supremacy and consequently recommended policy reforms in many developing countries in the early 1980s. Conditionality, known as the Washington consensus, has taken a central role in aid allocation and is thought to make aid more effective. Their reasoning is based on the neoclassical theory. However conditionality is pointed by many authors as inappropriate and explained the failure of SAP (Education Development Report, 2000), (Education Development Report, 1998), Barro, 2001) and Bashir & Ayyar, 2009). For example, foreign reserve requirement makes that less aid is used to alleviate supply side bottleneck while pro-cyclical recommended fiscal and monetary policies depressed growth and exacerbated cyclical events such as adverse terms of trade. Dreher (2006) analyzed the impact of IMF programmes and compliance with conditionality in 98 countries for the period 1970-2000. He found a negative relationship between IMF programmes and economic growth, whereas the effect of compliance with conditionality on growth is quantitatively small. He argued that either "wrong advice" (non-adapted to the real needs) from The IMF or moral hazard is likely to be the reason.

It would be wrong also to think that growth strategies should be based on standardized policy (conditionality) because development experiences across the globe demonstrate that there are so many ways to achieve these. Bhalotra (2007) called Universal Principles and the need for indigenous economic policies which are adapted to country's specific characteristics is mostly welcomed. In the same perspective, Ruttan (1999) identified six policy instruments to promote growth in poor countries, but four of them—*fiscal deficit*,

public investment, agriculture subsidies and tariff protection— are forbidden by the conditionality. Also, there is a conflict between two important policy instruments. Cutting fiscal deficit reduced government spending whereas devaluation increased it through various channels such as increased share of interest payments, stimulating capital flight, raising domestic interest rate (to stop capital flight), spreading insolvency and deepening fiscal deficit. Current account deficit would increase because of the high share of primary commodity (with low elasticity) in SSACs' exports (Mishra and Newhouse (2011)).

Moreover, the standardized policy required that reforms have to be completed within a short period of time (usually three years). It does not take into account the reality and needs of the recipients whose implementation capacity is usually very low. This kind of reforms is labeled by Kwabena and Asiedu (2011) as radical reforms, inflicting high costs to the population.

Standardized policy does not match the development needs of recipients but they have to accept it because their bargaining power is weak. This donor-driven policy exemplifies the lack of ownership by the recipients who have no voice in aid process and are forced to undertake the reforms without being fully convinced of its efficiency. In most cases, the lending institutions (IMF and World Bank) intervene directly in the formulation of recipient's budget plan but without any satisfactory results (Maizels & Nissanke, 2004).

Despite the increasing number of aid agencies, whose principal mission is to ensure full ownership by both donors and recipient through the mediation between donor's and recipient's interests, or preferences, ownership issue is still persistent. Donors have recognized this issue in the Paris Declaration.

2.9.6 Aid Channels Proliferation and Donor Fragmentation

Developing countries are faced with multitude of donors who are not fully ready to share a single objective. Even though aid community has generally agreed in recent years around the single overriding objective of poverty reduction, the multiplicity of aid agencies (even within one donor) reflects the seriousness of preference misalignment (donor fragmentation), between donors, and between interest groups in donor countries.

Michaelowa & Weber, 2010) argue that the mission of aid agencies is not only to deal with the preferences between donors and recipients but also to mediate between donor and interest groups at home (politicians, suppliers, citizens and other lobby groups). In this case it is unrealistic to assume that all these groups fully share the same objective of alleviating poverty in recipient countries. Aid agencies' primary concern is not to improve the welfare of recipient countries but to mediate these interests, and the outcome is the function of the political compromise in donor countries. Such compromise may not necessarily reflect the recipient's needs because it is not taking part in the decision making process.

Chiswick (2007) raised this issue and found that there are at least 230 international organizations, funds and programmes; and about half of bilateral contributions channeled to multilateral agencies went to sector or thematically targeted multilateral organizations. And this is likely to lead to priorities misalignment between donors and recipients, with less aid going to investments that would be important for growth and poverty alleviation.

There are also huge costs associated with aid channels proliferation and donor fragmentation that jeopardize aid effectiveness. They are the transactions costs related to

lying status, rules and procedures for managing projects and programmes, and some long lasting effects related to donor practices that would affect negatively the quality of governance. Donor fragmentation poses a huge challenge for recipient countries in terms of aid management because they have to comply with so many kinds of regulations and procedures in implementing and monitoring projects. This imposes enormous burden on their already weak implementation capacities as public officials spend most of their time dealing with donors rather than assuming their own works. In addition competition among donors is likely to lead to project overlapping and to offering more attractive fringe benefits, inciting government officials to neglect their core developmental function (Al-Samarrai, Bennell & Colclough, 2009).

Donor fragmentation reduces the overall potential impact of official aid via deteriorating quality of governance. On average one country has to deal with 30 donors and international organizations while one typical African country has to learn rules and regulations from 30 official donors and several dozens of NGOs, and bears the administrative costs of thousand projects (Chiswick, 2007).

Decade long poor result of ODA had been mostly put on recipient's account. But growing evidences had demonstrated that donors also had their part of responsibility in this failure. As a result, it is time to think about reforming aid apparatus and to increase its effectiveness as it is materialized by the Monterrey agreement in 2002, the Paris declaration in 2005 and Accra agenda in 2008. Donors and recipients have started working towards more recipient ownership, harmonization policies and procedures, alignment or convergence in objectives, and mutual accountability. But there is still a

long road to go because true ownership suggests that, not only, recipient is able to exercise discretion over policy choices but also to have the leadership in aid negotiation and in selecting among donors' recommendations those which are well suited to its needs. Alesina and David (2008) emphasis on ownership and mutual accountability seems to be in experimental phase, explaining donors' skepticism about its efficiency.

2.10 Empirical Study

The effectiveness of foreign aid is the subject of much debate in development economics. Some economists argue that aid does not significantly increase economic growth rates or improve human development indicators (e.g., Boone, 1996). Others, on the contrary, believe it does, especially when the recipient country implements appropriate policies (Burnside, 2000). Still others would argue, for example, that the effects of bilateral and multilateral aid are markedly different – while one type may promote growth and development, the other one may not (Ram, 2003; Cassen, 1994; Sender, 1999). In a study of ODA data from 1971 to 1990, Boone (1996) found that most foreign aid had no significant impact on basic development measures such as infant mortality or primary schooling ratios, although some particular programmes (immunization and research, for instance) could be effective. His results imply that most foreign aid is consumed rather than invested, and that aid receipts increase the size of government without influencing health indicators. These discouraging findings constitute, in Boone's opinion, strong evidence of government failure, whose incentives to improve human development indicators are insufficient, aid inflows notwithstanding.

In a widely cited study, Burnside (2009) find that aid has a positive impact on economic growth in developing countries with good fiscal, monetary and trade policies, but is rather ineffective when policies are poor. They interpret foreign aid as an income transfer, which can be invested to produce growth, or dissipated in unproductive government expenditure. Their findings indicate that one way to increase the effectiveness of aid would be to make it more systematically conditional on the quality of the recipient countries' policies.

Ram (2003) criticizes their methodology and argues against constraining the regression coefficients of bilateral and multilateral aid to be equal, as Burnside and Dollar have done. He finds that, if the coefficients for the effects of bilateral and multilateral aid on economic growth rates are separate and unconstrained, the estimated parameters change significantly. The bilateral aid parameters are estimated to be positive, whereas the estimated effect of an increase in multilateral aid is negative. Both parameters are sizeable, suggesting that there is a dramatic difference between the effects of the two aid components on growth rates.

These unequal effects of bilateral and multilateral development assistance could not have been picked up by Burnside (2009), as their regression equation assumed that the effects of aid did not differ across the two categories. Ram suggests that the positive effects of bilateral aid on growth derive from a better understanding by the donors of the recipients' needs. He refers to Cassen (2010) who argues that specific technical skill, linguistic and personal affinities, similar institutional structures, long-standing commercial interaction, and the ability to render.

2.11 Theoretical Framework

The rationale for foreign assistance was based on the popular big push view, aid dependency approach and the conditional approach.

2.11.1 Poverty Trap and the "Big Push" Theory

The big push theory was pioneered by Rosenstein-Rodan (1943, 1944), and developed by Nurkse (1962) were cited in Abdulhamid (2010). According to these theories, backwardness or underdevelopment is caused by insufficient investment across sectors of the economy and in infrastructure. Hence, they argued that developing countries, especially poor countries, are trapped in the vicious circles of poverty as their growth is constrained by low savings and lack of foreign exchanges. Indeed, for the majority of poor countries, ex-ante investment needs, determined by the Incremental Capital Output Ratio (ICOR), to generate long run growth cannot always find a source of finance due to insufficient savings. In addition, their exports are limited mainly to primary goods whose terms of trade deteriorate in the long term, exacerbating foreign exchange shortfalls thereby restricting imports of capital goods. This approach, known also as the dual gap model, is used to determine the financing requirements gap that must be closed in order to achieve the minimum required economic growth rate. Due to high risk of doing business and the imperfection of international capital market, poor countries find it difficult to attract private capital and to borrow on international markets. Consequently, foreign aid is considered as the appropriate means to ease these constraints by providing investible resources to supplement domestic efforts. In their basic model, Chenery and Stroul (1966) assume that domestic savings in poor countries are at their maximum level, foreign aid will act as additional resources and will ignite economic growth, and will

initiate virtuous circle of investment, growth and income. First, the level of investment will increase directly by the amount of aid; the developing countries can invest more than they can save. Second, aid will increase the rate of capital accumulation indirectly by raising the level of income and the rate of domestic savings. It is thus assumed that all aid is invested, thereby leading to higher rate of capital accumulation and a larger proportion of income being saved. In addition, economic growth is also said to be constrained by lack of technological knowledge that can be improved by foreign aid in form of technical assistance. Aid is thus expected to spur growth by increasing the recipient's stock of physical and human capital. Amid criticisms regarding aid effectiveness, this approach remains in practice in many developing countries and is supported by numerous empirical evidences.

Papanek (1973), in a cross-countries regression analysis found that savings and foreign capital inflows (aid, private capital and other inflows) explained for over a third of the growth rate, with the foreign aid having a more significant effect than savings and other sources of capital. The UNCTAD (1999) explained the insufficient amount of aid inflows as the main cause of Africa's poor economic performance. It says that these flows had been insufficient in volume to offset the saving and foreign exchange gaps, which have widened since the 1980s due to low growth, adverse Terms of Trade (TT), increased imports as a result of economic liberalization.

Recent empirical studies associated aid effectiveness to its primary purpose and to where it was allocated. Aid transfers which enter the budget of government, by financing productive investments, increase long-run growth and welfare of the recipient countries

(Chaterjee et al. 2003, Chaterjee and Tumovsky 2005). They suggested that aid allocation should be laid to public investments in order to foster growth. Similarly, Clemens et al. (2004), while stressing on the necessity of distinguishing between different types of aid before assessing its effectiveness, found a very strong, positive and robust relationship in which aids - such as balance of payment support, investments in infrastructure, and support for productive sectors such as agriculture and industry - cause growth- They qualified it as "short-impact" aid which stimulates growth in four years. The other categories of aid as defined by the authors are: (1) emergency and humanitarian aid which is likely to be correlated to growth according to them, and (2) aid allocated to the sectors - such as democracy, environment, health and education -and that affects growth only over a long period of time. Aid allocated to basic human needs is expected to affect growth on the long term while differential impact of aid among recipient countries could be asserted according to its sectoral allocation.

Nonetheless, the proponents of the dual gap approach are not likely to favor particularly "short-impact" aid because development is not only about physical capital. It is also about human capital which is more important than physical capital- Investment in human capital (education and health) increases labor productivity and will affect future growth (Chenery et al 1996). It is thought that serious limitations on human capital impede growth. This is the basic human needs approach to foreign aid which is strongly supported by the world leaders who set up the Millennium Development Goals (MDGs) under the guidance of the United Nations in 2000. Harvard's eminent economist, J. Sachs (in Sachs et al 2004, Sachs 2005), who leads the Millennium Project constructed a theoretical framework justifying the appropriateness of a "big push" to cope with the

ailing economies, in his "theory of Africa's poverty trap". Policy and governance reform, by itself, will not be sufficient since, in even well-governed countries in Africa, extreme poverty leads to low national saving rates, which in turn lead to low or negative economic growth rates. And given the low capability of these countries to attract market-based foreign capital inflows, due to poor infrastructure, weak human capital and other perceived risks, SSACs are not likely to escape from poverty. He stated that "...when an economy begins with very low capital, both the capital-labor ratio and output per capita tends to decline over time. The very poor indeed get poorer, pushed into more extreme poverty by the lack of capital accumulation coupled with population growth. Only when an economy has a capital-labor ratio above a minimum threshold does it tend to achieve economic growth and converge to the steady-state". A big push is thus needed, especially a large inflows of ODA to enable poor countries to achieve the MDGs, which he considered as useful intermediate targets (basic needs) for breaking poverty trap. Once poor households' basic needs are met, they may save quite a lot of income, thereby removing saving constraints, allowing higher level of capital accumulation and higher economic growth, and leading to development. The revival of big push theory results into strong commitment to double aid to poor countries in SSA in order to achieve the MDGs, on the belief that the achievement of these targets will propel SSACs into a self-sustaining growth.

2.11.2 Aid Dependency Approach

In the big push approach, aid is considered as a temporary assistance to encourage certain long term behavior such as tax collection, investment in physical and human capital, increasing savings and the establishment of good institutions. In other words, aid is

expected to only ignite the dynamics of economic growth and will be reduced or phase out after capital accumulation process is underway. In light of the success of Marshall Plan, this view is reflected in the Resolution on Common Aid Effort by DAC countries (need to help the less-developed countries help themselves) and has been supported by well argued theories to justify the large inflows of aid since the 1960s as well as the appropriateness of scaling-up aid to achieve the MDGS. The reality is however quite different for many recipient countries after more than four decades of aid inflows. Many countries in Sub-Sahara Africa, the poorest region in the world, continue to depend heavily on foreign aid for their economic survival. This situation calls in question the assumption about the temporary nature of foreign assistance. Moreover, several cross-countries studies, challenging the big push approach, found no robust relationship between aid inflows and economic growth. First among others is the study conducted by Griffin and Enos (1970), who found no close association between the amount of aid received by fifteen African and Asian countries and the rate of growth of GDP for 1962-1964. The reason is that foreign aid encourages higher consumption and does not act as an increment but rather as substitute to domestic savings. They found that 75% of incremental aid went to consumption and only 25% was used to increase investment, meaning that a large proportion of aid is not used to increase investment as it is expected to be. In addition, the capital intensive nature of this low proportion of investment resulted into raising capital-output ratio and reduced the rate of growth. Dollar and Easterly (1999), when testing the aid to investment link, found that no African country satisfied the prediction that investment would increase by the amount of aid. They argued that if all aid went to investment, Madagascar's ratio of investment to GDP would

increase and stood at around 19% in 1991 rather than actually stagnating around 2% over thirty years (Dollar and Easterly 1999).

Another persistent critic of foreign aid is Bauer (1966, 1974) who emphasizes that aid, especially grants, fosters moral hazard problems as it destroys incentives to adopt good policies leading to misallocation of scarce resources, thereby undermining growth. Referring to Marshall Plan as a potential value of foreign aid to poor countries is misleading. He said that "the economies of western Europe had to be restored while those of present recipients have to be developed", the formers being only constrained by shortage of physical capital and blessed with human capital and market opportunities (Bauer, 1966). His arguments were later discussed and developed through numerous empirical studies which concluded that foreign aid has no effect on growth or even deters growth. Indeed, there are evidences suggesting that aid lends to increase government consumption rather than to close the financing gap of productive investment (Easterly 1999). Consequently aid inflows increase demand and cause Dutch disease for many of the recipient countries (Harrigan, 2007). Given that aid recipient is supply-constrained; surge in demand will fuel inflation, leading to real exchange rate appreciation, thereby curtailing export competitiveness and making import cheaper in domestic currency. This situation will widen rather than narrow foreign exchange gap (Harrigan 2007). Saving gap will widen as well because of moral hazard problems, not only in discouraging efforts to reform inefficient policies and institutions, but in altering recipient behavior in adverse way and in weakening institutions, especially economic institutions. High level of aid softens budget constraint making budgeting more flexible, and is likely to lead to fiscal indiscipline or budget distortion (Moss et al. 2008). There are evidences that

recipient governments tend to reduce tax collection efforts along with aid inflows (Gupta et al, 2004, Brairtigam et Knack 2004). By type of aid, grants had significant negative effect on state revenue while loans had a significant positive impact (Gupta et al, 2004). Macroeconomic imbalances are the most likely outcome of excessive and unsustainable level of government consumption financed by foreign aid. In addition, Knack and Rahman (2004) found that aid can potentially harm the institutional quality because of the high probability of increased corruption, weak accountability and struggle for rent. Like natural resources, aid has a statistically significant negative effect on changes in political institutions, leading to weaker institutions (Djankov et al, 2008). This aid-institutions paradox is well developed by Moss et al. (2008) who argued that the harmful effect of aid on institutional development is one of the causes of economic performance dismal in Sub-Saharan Africa. Recipients are therefore lacking the structural and the institutional capacity to effectively absorb aid without these distortionary effects. As a consequence, incremental aid inflows will eventually be subject to diminishing marginal returns, further aggravating the negative impact of aid on growth and institutional quality. Many econometric studies have found negative returns to increasing aid beyond a threshold level of the aid to GDP ratio. Since weaker institutions are likely to result in significant negative relationship between aid inflows and state revenue, the disincentive effects of aid and the moral hazard of the government will push recipient countries in aid dependency trap in the long run. Recipients are increasingly relying on aid as substitute for local resources as the governments tend to underinvested in developmental capacity, further damaging their absorptive capacity.

Given aid's powerlessness to reverse economic dismal in SSA and given its damaging effects on structural and institutional capacity, and as evidences about the absence of links between foreign aid and growth are growing (Easterly et al. 2004, Easterly 2003, Hansen and Trap 2000 and 2001, Rajan and Subramanian 2007, Dalgaard et al. 2004), the proponents of aid dependency view suggest that ODA ought to be terminated or at least drastically curtailed (Bauer 2000, Moyo 2009). There are thus growing concerns about the capacity of SSA to absorb large new inflows of aid due to weak management and weak government institutions.

2.11.3 The Conditional Approach

Suggesting that aid is irrelevant or harmful to growth and development process and should be terminated would be wrong. The reason is that most of the evidences to support this view are based on cross-country studies which suffer from the failure to take into account country specificity and other limitations to be robust and conclusive in linking aid to economic growth. Indeed, there are evidences of some countries in Africa and outside Africa where aid had potentially made a difference and contributed to accelerating growth, development and poverty alleviation (Collier 1999, Maipose 2009, Carlsson et al. 1997, Potter 1996, Kohama 2003). Taking into account country's specificity in evaluating aid effectiveness implies that the recipient's socioeconomic context plays a determining role in to what extent aid can raise growth, in other words, aid effectiveness is conditioned by prevailing institutional and policy environment in recipient countries. The most influential paper supporting this view is written by Burnside and Dollar (2000). Based on econometric analysis from cross country regressions, using data from 51 countries and six four-year periods from 1970 to 1993,

their main argument is that aid, through its effect on the stock of capital, accelerates growth in the presence of sound economic policies that are measured by trade openness (trade policy), inflation rate (monetary policy) and budget surplus (fiscal policy, good governance). This is the case of countries such as Bolivia, Botswana, El Salvador, Ghana, Honduras and Mali.

Whereas their finding is consistent with other authors' view that, in average, aid is ineffective to boost growth and is subject to diminishing return, they assert that aid is not to be blamed for this failure. It is donor's ignorance in allocating more aid to countries with unsound economic policies that lowered the potential for aid to support growth. More importantly, it is bilateral donors (about two third of total aid) that do not favor good policy in their aid delivery and their aid tended to encourage government consumption (one of the reason of aid ineffectiveness evoked by aid skeptics). On the other hand, multilateral aid is always allocated in support of good policy.

Burnside and Dollar's (1977) findings provide important policy implications and got strong support from the donor communities, especially the international aid agencies, and resurrect the widely criticized conditionality, known also as the Washington consensus, but with little change. Henceforth, aid does promote growth and it should be allocated in countries that have adopted good policies. Instead of conditionality, aid agencies used the concept of selectivity, or ex post conditionality in which aid allocation is performance-based. Aid is thus to be allocated to those countries which have already good policies and which are poor. Since aid does not systematically affect the quality of policies, aid should

not be conditional on promises of reform. Large inflows of aid are only dispensable to poor countries after they have achieved significant progress with policy reform.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This section discusses the research methods used in the conduct of this study. The section is subdivided into the following heading; research design, population of the study, sample size and sampling technique, sources of data and methods of data collection and finally methods used in analyzing the data.

3.2 Research Design

Research design involves the gathering and analysis of data. This is determined by the nature of the research. It involves establishing the validity and reliability of the study. The purpose of the research design is to establish the connection that exists between the research questions, the data gathered and the conclusion to be established (Asika, 2004). In addition, it will greatly increase our knowledge about what happens in the study, strategy used and is comparatively easy to explain and understand (Saunders et al., 2007). This study used ex-post facto research design. It involves the collection and utilization of documented data.

3.3 Population of the Study

In social science research, a population can be described as the totality of events, persons, objects etc which will form the subject matter of the research observation or investigation (Ali, 2006). The research used all one hundred (100) polytechnic in Nigeria (see appendix I).

3.4 Sample Size and Sampling Technique

For the purpose of this study, the sample size is drawn from population of the study. This includes six (6) selected Federal Polytechnics, one each from the six geo-political zones of Nigeria (see appendix II).

The sampling technique used in drawing the sample is purposive sampling. This is because using a sample that is too large might result in a waste of resources and time consuming, while using too small means getting results that are likely to be lacking in validity. The purposive sampling used is to obtain an estimate about the characteristics or features of the population since the samples can only provide an estimate of the entire population.

3.5 Sources of Data and Method of Data Collection

Secondary sources of data were used in this study; where documentary sources were obtained from such publications as World Bank Digest of Statistics, Central Bank of Nigeria statistical bulletin and International Financial Statistics. Data were also obtained from printed and non printed materials such as journals and STEP-B project reports. The data include (ODA) which is the total annual gross disbursement of Official Development Assistance by all bilateral and multilateral sources, reported in a foreign development assistance publication of the Organization of Economic Co-operation and Development (OECD). The study used time-series data for the period of six (6) years (2007-2012).

3.6 Method of Data Analysis

Since the study focuses on foreign aid and educational development in Nigerian polytechnics, Time series secondary data spanning the period 2007 to 2012 were used

assess the impact of foreign on improvement of Nigerian polytechnics. The data include (ODA) which is the total annual gross disbursement of Official Development Assistance by all bilateral and multilateral sources, reported in a foreign development assistance publication of the Organization of Economic Co-operation and Development (OECD). The teaching and learning facilities are proxies by Education development. Web-based instruction in Science and Technology is used to capture the level of STEP-B project because it gives an indication on the proportion of science and technology in Nigeria polytechnic sector.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.1 Introduction

This chapter deals with data presentation and analysis. It presents the secondary data that was used to assess the impact of foreign on improvement of Nigerian polytechnics. The data utilized in this research were obtained from total annual gross disbursement of Official Development Assistance and STEP-B project reports.

4.2 Capital Expenditure and Supply of Equipment in Nigeria Technical Education

External aid for capital expenditure would seem at first sight to raise few complications. This is certainly not so. Firstly, all such grants and loans require a preliminary-often difficult-agreement between the donor and the Nigerian authorities with regard to the content and location of the project to be financed. Furthermore, donors will make the disbursements only on certain conditions, such as the approval of detailed construction plans and a participation of local funds in carrying out the project. The fact that more than four-fifths of the United Kingdom grant for technical education remained unspent between 2007 and 2009 clearly shows the difficulties that may arise even in the spending of external aid already granted (Igbuzor, 2010).

Another delicate problem arises when the aid agency stipulates that all the supplies for which the grant or loan is to be used must be bought from the donor country. The disadvantages of such tied aid, whether for education or any other purpose, are obvious. It has a particular impact on the final cost of external aid to the recipient, especially if aid has been provided under the form of a loan (because, possibly, much higher prices must

be paid for the supplied items in the country of the donor than in the local or in other foreign markets) and, to a certain extent even if it was a grant (because, possibly, maintenance cost for supplies imported from one country are higher than for those from others and because of high transport costs). Naturally, this is not always the case, but it is a possibility which must be taken into account. In Nigeria, this applies especially to equipment for science laboratories and for workshops in some technical schools. The psychological effect of tied aid may be even worse. The donor is criticized for helping his own industry rather than the recipient country-a criticism which is understandable. On the other hand, the donor country must take into account its public opinion as well as balance of payments considerations, which may often be the decisive factors in its tied aid policy. A reasonable compromise solution is the one adopted by an important official agency: all goods and services to be provided under a particular grant or loan as well as firms undertaking the necessary construction work should be either from the donating country or, if equivalent goods or services can be supplied, from Nigeria.

Aid in the form of educational equipment raises a host of other problems which cannot be discussed in detail here. With regard to all such equipment-language laboratories, science laboratories, educational television, etc.-two basic questions must always be answered. Firstly, even if they are gifts, can the country afford, in the long run, to maintain them both technically and financially? Secondly, can the equipment be used by the teachers available and can it be integrated into the accepted curricula and teaching methods? It may be asked whether external aid for capital projects should have top priority. There are at least two weighty arguments in favour of such a policy. Firstly, transfer of capital is much easier than transfer of men and of teaching methods. Secondly, aid for capital

projects can be particularly indispensable because of the scarcity of local resources in developing countries. In this connexion, one should consider not only the general lack of capital, but also the high foreign exchange component of educational projects. According World Bank (2010), this foreign-exchange component amounts to 45 per cent in technical and commercial education. Yet, an analysis of the whole problem of technical education finance and expenditure in Nigeria shows that the most difficult problem which the country faces is the financing of recurrent expenditure. In one way or another Nigerians always succeeded in attracting external funds to finance the construction of school buildings. These funds may have been smaller than expected but, finally, the selected institutions, especially in the field of technical education, have received funds indispensable for the setting up of buildings and for the basic equipment.

4.2.1 Distribution of ODA to Nigerian Polytechnics

The distribution of foreign aid in Nigerian polytechnic is shown in table 4.1. The data in the table were obtained from World Bank (2013) and are based on the cost to the ODA donor. It proved impossible to establish what the corresponding figures would be in terms of the 'value to Nigeria' concept. It is clear, however, that the difference between the cost to the donor and the value to Nigerian polytechnics will arise mainly with regard to expatriate teachers (Michaelowa and Weber, 2010).

Table 4.1: Estimated Cash Distribution of ODA to Nigerian Polytechnics

Level	USD Millions	Percentage
2007	180	11.13
2008	240	14.84
2009	262	16.20
2010	290	17.94
2011	305	18.86
2012	340	21.03
Total	1,617	100.00

Source: World Bank Report, 2013

Geographically, cash distribution of foreign aid almost equal among aid to Nigerian polytechnics, in spite of the considerable differences in size and population between these polytechnics; each of them receives 20 to 25 per cent of total assistance, with the remainder going to federal institutions (Mishra and Newhouse, 2011).

As far as the origin of external aid is concerned, 11.13% of cash disbursement for Nigerian polytechnics in 2007 but despite the cash allotted to Nigerian polytechnic at this period the level of learning facilities in Nigerian polytechnic was at alarming rate. In 2008, only a relatively 14.85% of foreign aid was used for both capital expenditure and recurrent expenditure. This was due largely to the fact that most of the large capital grants were made from 2009 to 2012 due to the mismanagement and misappropriation of aid distributed to Nigerian polytechnics, the institutions lack learning facilities.

4.2.2 Coordinating Foreign Aid

More than fifty foreign organizations provide educational assistance to Nigeria. There can be little doubt that the over-all effectiveness of this flow will depend largely on how their activities can best be coordinated and oriented. On the whole, the programmes of the

various donors have been complementary rather than competitive, mainly because Nigerian needs are so great that the danger of overlapping could easily be avoided, but also because a certain 'division of labour' came into being more or less spontaneously after independence, and has prevailed ever since. The finding of Kwabena & Asiedu (2011) stated that Unesco and the United Nations Development Programme concentrate on advanced teacher training and on certain special or strategic sectors, such as libraries and educational planning. United Kingdom aid, besides the teacher schemes mentioned earlier and the teaching of English, takes essentially the form of capital expenditure on technical and higher education. United States aid started with a strong emphasis on technical education and most of the smaller donors concentrate on scholarships, with the important exceptions of Canada, and of the Netherlands, which provides assistance to the engineering department of the in Nigerian technical education.

Although there is no institutional framework for consultation between the donors, in fact a great deal of mutual information exists on the basis of personal contacts among the representatives of the various agencies. This has often proved sufficient to avoid overlapping or even to secure complementarities. In some cases, however, a more institutionalized form of co-ordination would have ensured a better 'division of labour, particularly in the case where several donors support a single project. The study of Abdulhamid (2010) shown that, in such cases, there must be a very clear and precise definition of the responsibilities of each donor. The problem is relatively simple when each of them provides a different form of assistance, e.g. teachers, equipment, and capital for buildings, respectively; it is much more delicate when the same form of assistance, in particular teachers and advisers, is provided by two or several agencies.

4.3 STEP-B Project

The Federal Government of Nigeria, in pursuance of its desire to diversify sources of revenue, create more jobs and compete more favourably at the international market had invited the World Bank group in 2005 to conduct a study on the competitiveness of the Nigerian economy and the roles and contributions of science and technology to Nigeria's development particularly with respect to the non-oil sector (The World Bank, 2007). The study established several disconnects notably between graduate output from the post basic educational institutions and the needs of the Nigerian private sector. In the same vein, the research outputs from the educational and research sub-sectors were also adjudged to be largely non responsive to the needs of the Nigerian productive sector (The World Bank, 2010). The above conclusions set the pace for the negotiation of a USD180 million World Bank credit facility to implement a Science and Technology Education Post Basic (STEP-B) Project. The STEP-B project essentially aims at improving the quality, equitable access to, and relevance of science and technology education at the federal post-basic level so as to increase the country's competitiveness in a globalizing world and to promote improved responsiveness of the post basic institutions to the needs of the labour market (The World Bank, 2010b).

4.3.1 Problems Associated with Science, Technology and Mathematics (STM) in Nigerian Polytechnics

There have been several authors that have researched into the problems associated with students' performance in STM. Prominent are Ajewole and Owolabi (1995), Okebukola (2007), Obomanu and Adaramola (2011) but none have adopted the present intervention of STEP-B. The major challenges identified by STEP-B include: gender disparity,

inadequate exposure to practical and basic experiments. Poor method of teaching with too much emphasis on traditional method of teaching which does not provide competency based training to accommodate the new rapidly changing skills in a changing economy (Togonu-Bickersteth 2008). Similarly, Egwu (2009) also supporting this claim says, the inadequacy and obsolete equipment as well as poor library facilities have adverse consequences on the quality of teaching and learning. This seeming poor performance and poor quality of prospective entrants into tertiary institutions have no doubt affected student's enrolment into STM. Egwu (2009) further lamented the current rate of admission of 6% into tertiary institutions as against the accepted minimum of 16% for meaningful economic development. It is against this background that STEP-B project (Science and Technology Education at Post-Basic Institutions) in Nigeria was conceived.

4.3.2 Impact of STEP-B Project in Nigerian Polytechnics

Since the introduction of STEP-B in Nigerian polytechnics, the outcomes of the project has enhanced teaching of mathematics at the post basic level, improved staff capacities in the development and delivery of ICT-driven instruction. Improve teaching and learning methods by using modern approaches like activity based learning using ICT and educational Technology infrastructures (virtual laboratory, Science/Technology Museum, robotics, games and/simulations). Enhance students performance in STM with more students obtaining grade B. Apply the new emerging technologies in OAU and in teaching STM in all the partnering PBEIs and finally, establish new collaboration both nationally and internationally with other designated institutions and industries. This project has been in existence since 2008 perhaps, it is essential to assess its impact on the

participating PBEIs and how the exposure and collaboration with SITE have impacted the success or otherwise of the STEP-B project.

Table 4.2: List of STEP-B Project Funds

Years	Amount Awarded	Amount Disbursed
Kaduna Polytechnic, Kaduna, Kaduna State		
Improving capacity for teaching and learning in mining and metallurgical engineering	\$360,000	\$360,000
Center of excellence in solid mineral ICT	\$5,000,000	\$4,990,000
	₦27,106,000	₦27,106,000
Federal Polytechnic, Bauchi, Bauchi State		
Upgrading facilities and capacity building	\$250,000	\$250,000
Federal Polytechnic, Offa, Kwara State		
upgrading of institutional laboratory in science and technology development	\$250,000	\$250,000
Federal Polytechnic, Oko, Anambra State		
Construction of closed aquaculture systems	\$250,000	\$250,000
Computer analysis of (2-D) two dimension pin-joint truss	\$350,000	\$350,000
Akanu Ibiam Federal Polytechnic, Uwanna, Ebonyi State		
Upgrading ceramic analytic laboratory	\$250,000	\$250,000
ICT	₦11,159,200	₦11,159,200
Federal Polytechnic, Ilaro, Ogun State		
Upgrading the electrical and electronic laboratory	\$702,473	\$702,473

STEP-B Project Reports, 2013

Since STEP-B project was established in Nigerian polytechnic sector, \$360,000 of STEP-B fund was awarded to Kaduna Polytechnic to improving capacity for teaching and learning in mining and metallurgical engineering, \$5,000,000 for center of excellence in

solid mineral and ₦27,106,000 for ICT. Similarly, in Federal Polytechnic, Bauchi \$250,000 of STEP-B fund was awarded to upgrading facilities and capacity building for enhancement of teaching and research in Post Harvest Technology and upgrading of ICT facilities for skills perfection/certification centre within the polytechnic. In Federal Polytechnic, Offa \$250,000 of STEP-B fund was awarded to upgrading of institutional laboratory in science and technology development. \$250,000 of STEP-B fund was awarded to Federal Polytechnic, Oko, Anambra State for the construction of closed aquaculture systems and \$350,000 was for computer analysis of (2-D) two dimension pin-joint truss. Akanu Ibiam Federal Polytechnic, Uwana of Ebonyi State was awarded the sum of \$250,000 of STEP-B fund to provide support for the upgrading ceramic analytic laboratory and ₦11, 159,200 for ICT. Finally, Federal Polytechnic, Ilaro, Ogun State was awarded the sum of \$702,473 for upgrading the electrical and electronic laboratory, upgrading facilities in the food processing and engineering workshop, upgrading infrastructure at the ICT and computer centre and studio for video conferencing.

4.3.3 STEP B and its Impact at Enhancing Web-Based Instruction in S&T

One of the laudable objectives of STEP-B that is similar to the International Society for Technology in Education (ISTE) and Society for Information Technology and Teacher Education (SITE) is the motivational use of ICTs and modern technologies to enhance teaching and learning in the 21st Century. In order to do this, STEP-B introduced a more participatory, active and competency-based methodology that is flexible, robust and accommodate web-based instructions. To make this possible, The Carnegie Corporation Intervention fund was used to upgrade the ICT facilities by improving the Bandwidth

from 512/256kbps to 5.0 mbps. Staff Training/Faculty Development and ICT Competency According to Togomu-Bickersteth (2008) staff/students competency is pivotal to the success of the scheme, in this context a general sensitization career talk and workshops including study tours were organized for faculty staff, students and other people from all the PBEIs to see how they have successfully used ICT and modern technology in developing creativity in science and technology. Study tours to China, Massachusetts Institute of Technology (MIT) New York, African Virtual University Kenya and Israel were also organized for core staff that was also to retrain other staff in all the PBEIs. Others include exposure to SITE Conferences and workshops (2009 to date) this is with a view to building the ICT capacity of all the stakeholders. In order to assess the impact of all these on the sample, four general areas were assessed: (i) effort at building staff and end users capability at using WBLS, (ii) production and delivery of WBI, (iii) upgrading ICT and Educational Technology infrastructure for STM and, (iv) effect of all these efforts at reducing drop out/failure rates in STM among females.

4.4 Discussion of Findings

The study reveals that ODA has significant impact on infrastructural development in Nigerian polytechnics. The result indicates that support to ODA has help to boost school quality and innovation and that inclusive education was facilitated. The bilateral agencies providing direct support to Nigerian polytechnics made similar claims. The government has found aid to be useful in the context of educational system. This means that aid monies were kept in a non-lapsable fund and were expected to be spent more efficiently. Aid resources added to the revenue available to government and were used with some success to influence the educational system of different polytechnic across the states.

Because the resources were used by the centre to implement jointly-funded projects with the states, they proved to be a useful means of mobilizing additional state resources and for shifting state spending priorities in the desired directions. This result is supported by empirical evidence from Michaelowa & Weber (2010), Odedokun (2004), Keller (2006) and Abdulhamid (2010) that aid help put the global discussions on education at the centre of the domestic stage, and where relevant data could be used to provide advocacy for Nigerian polytechnics.

Similarly, the study observes that STEP-B project has improved science and technology in Nigerian polytechnics. This result supports the argument that the STEP project encouraged increased engagement between public post-basic S&T institutions and the private sector with a view to strengthening the relevance of teaching and learning within institutions to the needs of the Nigerian labour market. In-house Research and Development (R&D) capacity has support for the emergence of centers of excellence and has led to an increased interest in science and technology (S&T) research of direct relevance to the Nigerian economy and extensive partnership among institutions has led to greater R&D capacity in federal institutes. It was found that interconnectivity has increased use of ICT (including Internet interconnectivity, networking, e-learning and multimedia facilities) in Nigerian polytechnics through the helps of STEP project. This is in line with the previous studies of Akinkugbe & Yinusa (2009), Igbuzor (2010) and Kwabena & Asiedu (2011).

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

Over the past two decades, aid to education in Nigeria has played a formative role. The study has shown that it had little impact on the establishment or change of policy objectives, but that it had a significant direct impact upon management practice, financial reporting, accounting procedures and monitoring arrangements. These changes probably improved the efficiency, and certainly the accountability, of the educational process. Aid has provided additional resources for education in Nigeria as a supplement to a growing trend of domestic expenditure. Particularly during the early 1990s, aid provided resources for states to increase their non-salary spending on education, with consequent benefits for quality. Donors to Sub-Sahara Africa (SSA) required that government spending on the programme would increase annually at least at a certain minimum level. In fact, this was greatly exceeded, owing mainly to the success of the 'cess' tax in raising resources for education, which was not, itself, attributable to the presence of aid. Support, particularly from some of the 'smaller' agencies – UNICEF, USAID, ODA, STEP-B and some international NGOs - resulted in valuable innovative projects being supported at the pilot stage, lessons from which have been reflected in national programmes. Whilst aid to education in Nigeria did not serve to change the priorities of the government it did act to strengthen them. Some would argue that this may have brought some negative consequences for Nigeria, in that government was thereby less likely to consider technical education as priorities for reform and expansion. The STEP-B project on the other hand essentially aimed to improve the quality, equitable access to, and relevance of

science and technology education at the Federal post-basic level so as to increase the country's competitiveness in a globalizing world and to promote improved responsiveness of the post basic institutions to the needs of the labour market.

5.2 Conclusion

Nigerian polytechnics are not meeting customer's expectations. They are ill-equipped. Government policies are continuously inconsistent. There is no element of continuity "New government, new policies" is the technical order of the day in Nigeria. Bureaucratic bottlenecks, poor attitudes of students towards learning, low quality teaching due to lack of training and retraining of teachers, and among others are some of the problems facing polytechnics in Nigeria. It is against this back drop that this study made an attempt to examine a managerial style. TQM that would assist to "revoke" poor standard in Nigerian polytechnics to enable them meet challenges of the 21st century. The impact of ODA is not felt in Nigeria. Despite all the criticisms leveled at ODA, the international community keeps insisting on the necessity of maintaining or increasing the volume of development aid. They recognize that results fall short of expectations and that there is a very real need to improve the yield and effectiveness of aid.

STEP-B project is one of very few competitive demand-driven funding efforts in Nigerian polytechnics. The awards were driven by the needs of the beneficiary institutions as conceptualized in the individual proposals; this is highly innovative in the Nigeria education system. One can conveniently say that the STEP-B project that was sponsored and financed by the World Bank was very effective in encouraging the use of ICTs in improving the teaching and learning of STM. Not only this, the new approach

seems more flexible, robust, user friendly, participatory and active. This is reflected in the improved performance of the target group and reduction in the drop-out /failure rates. It can therefore be concluded that Nigerian has joined the Society for Information Technology and Teacher Education (SITE) and the International Society for Technology in Education (ISTE) in their universal vision at applying ICT/Technology in teaching and learning in the 21st Century.

5.3 Recommendations

As such, this study recommends that:

- i. Donors should improve aid predictability by using a multi-year framework for future aid commitments and providing information to Nigeria and other recipient countries on the future path of aid disbursements. Such transparency will reduce the uncertainty associated with aid flows and improve infrastructural development in Nigerian polytechnics.
- ii. Government should ensure that STEP-B project improve science and technology in Nigeria educational sector so that it can raise both the intake and quality of students studying science courses at all levels of the education ladder in Nigerian polytechnics.

REFERENCES

- Abdulhamid, Y. (2010). 'Nigeria Received N696 Billion Foreign Aid in 8 Years'. [Online] Available: <http://allafrica.com/stories/200809250385.html>
- Adamu, N. (2008). "Towards a Systems Approach to the Integration of the Nigerian Junior Secondary School Business Studies Curriculum," *Journal of Vocational Education and Training*, 49:2, pp.267-280.
- Ajewole, G., & Owolabi, T. (1999). *A Handbook on Science Education for Tertiary Students*, Lagos.
- Akinkugbe, O. & Yinusa, O. (2009). ODA and Education Development in Sub-Saharan Africa: Evidence from Panel Data, being paper prepared for presentation at the 14th *Annual Conference on Econometric Modelling for Africa* organized by African Econometrics Society, at the Sheraton Hotel, Abuja-Nigeria, 8-10 July.
- Akubue AU & Enyi, B. (2001). *Crisis and Challenges in Higher Education in Developing: Countries* Wisdom Publishers Limited, Ibadan.
- Aladekomo, K. (2004). Quality of Learning in Nigeria's Universal Primary Education Scheme: *The Urban Review*, 29:3, 1997, pp. 189-202.
- Alesina, A. and David, D. (2008). Who gives foreign aid to whom and why? NBER Working Paper 6612. Cambridge, MA: *National Bureau of Economic Research* (NBER).
- Ali, A. (2006). *Conducting Research in Education and Social Sciences*. Tashiwa Networks Limited, Enugu
- Al-Samarrai, S., Bennell, P. & Colclough, C. (2009). From Projects to SWAPs: An Evaluation of British Aid to Primary Schooling 1998-2008, *Evaluation Report* EV639, DFID, London, September.
- Appiah, E. N., and McMahon, W. W. (2009). The Social Outcomes of Education and Feedbacks on Growth in Africa. *Journal of Development Studies* 38 (4): 27-68.
- Ayodele, T., Cudjoe, F., Nolutshungu, T. and Charles, K. & Sunwabe, M. (2005). "African Perspectives on Aid: Foreign Assistance Will Not Pull Africa Out of Poverty." *Economic Development Bulletin*, September 14.
- Ayyar, R. V. V. (2007). Donor Harmonization and Alignment, Organizing to Take Leadership: The Experience of India. *2nd African Region Education Capacity Development Workshop* "Country Leadership and Implementation of Results in the EFA FTI Partnership", Tunis, Tunisia, December 3-6.

- Ayyar, R. V. V. (2008). Country agency relationship in Development Cooperation: An Indian Experience. *Background study for the 2009 Global Monitoring Report*.
- Ayyar, R. V. V., (2003). What Lessons can DPEP Offer? Research Seminar on “*The Impact of DPEP on Primary Education*”, Jamia Milia Islamia, New Delhi, June 5-7.
- Bandyopadhyay, S. & Wall, H. J. (2006). “Determinants of Aid in the Post-Cold War Era.” *Working Paper*, Reserve Bank of St. Louis.
- Barro, R. (2001). Economic Growth in a cross section of Countries. *Quarterly Journal of Economics*, Vol. 106, pp. 407-444.
- Bashir, S. & Ayyar, R. V. V. (2009). *District Primary Education Programme*, Encyclopaedia of Indian Education, NCERT, New Delhi,
- Bashir, S. (2003). Government Expenditure on Elementary Education, *DPE Programme*, European Commission, New Delhi.
- Bhalotra, S. (2007b). Income Volatility and Infant Death, Mimeo, University of Bristol, UK. Boone, P (1996). Politics and the Effectiveness of Foreign Aid, *European Economic Review*, 40 (2), pp. 289-329.
- Brainard, L. (2006), *Security by other means: Foreign assistance, global poverty and American leadership*. Washington: Brookings Institution Press.
- Browne, S. (2006). *Aid and influence: Do donors help or hinder?* London: Earthscan Publications.
- Chenery, H.B. & Strout, A. (1996). Foreign Assistance and Economic Development, *American Economic Review*, Vol. 66, pp. 679-733.
- Chiswick B. R. (2007). “Interpreting the Coefficient of Schooling in the Human Capital Earnings Function”. *World Bank Policy Research Working Paper, No. 179*. *Comparative Education*, 23(2): 173–90.
- Dreher, A., Nunnenkamp, P. and Thiele, R. (2006). Does Aid for Education Educate Children? Evidence from Panel Data. *Kiel Working Paper No. 1290*.
- Education Development Report (1998). Published for the *United Nations Development Programme (UNDP)*, New York, Oxford University Press.
- Education Development Report (2000). Published for the *United Nations Development Programme (UNDP)*, New York, Oxford University Press.
- Egwu, S.O. (2009). *Road Map to Education Sector Federal Ministry of Education Abuja*.

- Fafunwa B (1991). *History of Education in Nigeria*, Education Publishers, Limited, Ibadan
- Fakae, M. (2005). "Structural Adjustment and Gender Acces to Education in Nigeria," *Gender and Education*, 9:2, pp. 161 - 177.
- Federal Government of Nigeria (FGN) (2009). Various Years. National Development Plans 1, 2, 3 and 4. *Federal Ministry of Economic Development*.
- Gupta, S., Verhoeven, M. & Tiongson, E. (1999). Does Higher Government Spending Buy Better Results in Education and Health Care? *IMF Working Paper* WP/99/21.
- Igbuzor, O. (2010). *Review of Nigeria Millennium Development Goals - 2005 Report*. [Online] Available: <http://www.dawodu.com/igbuzor11.htm>.
- Index Mundi (2011). *Nigeria - Net ODA Received*. [Online] Available: <http://www.indexmundi.com/facts/nigeria/net-oda-received>.
- Ingalla, V. (2006). "*Higher Education and the Labor Market: A Study of University Access and Graduate Employment Opportunities in Nigeria*, Institute of International Education, Stockholm University
- Jimenez, E. and Tan. J.P. (2009). "*Decentralized and Private Education. The Case of Pakistan*".
- Keller, K.R.I. (2006). Investment in Primary, Secondary and Higher Education and the Effects on Economic Growth. *Contemporary Economic Policy* 24 (1): 18-34.
- Kwabena, G. B. and Asiedu, E., (2011). "Aid and Human Capital Formation: Some Evidence." Paper Presented at the African Development Bank/ UN Economic Commission for Africa. Conference on Globalization, Institutions and Economic Development in Africa.
- Maizels, A. & Nissanke, M. K. (2004). Motivation for Aid to Developing Countries. *World Development*, 12(9), pp. 879-900.
- Michaelowa, K. & Weber, A. (2010). Aid effectiveness Reconsidered: Panel Data Evidence from the Education Sector, *Hamburg Institute of International Development Working Paper* No. 264.
- Mishra, P. and Newhouse (2011). Health Aid and Infant Mortality, *IMF Working Paper* No. WP/07/100. Washington DC, April.
- Mohammed, A.R. (2005). The Role of the Private Sector in Revamping Technical Education in Nigeria: Building Bridges to the End Users. *A Paper Presented at a*

National Workshop on Revamping Technical Education In Nigeria to Face the Challenges of Technological Development. Abuja - Nigeria. 8th-9th.

- Momoh, O.A. (2005). Assessment of Quality of technical Education in Nigerian Polytechnics. *A paper presented at the International Association for Educational Assessment on Assessment and the Future of Schooling and Learning.* Abuja – Nigeria. 4th-9th.
- Obomanu, B.J., & Adaramola, M.O. (2011). Factors related to under achievement in Science, Technology and Mathematic Education in secondary schools in River States. *Journal of Education, 1*(1), 102-110.
- ODA (2010). *Aid to Education in 1993 and Beyond*, Education Policy Paper, Education Division, Overseas Development Administration, London.
- Odedokun, M. (2004). Multilateral and Bilateral Loans versus Grants: Issues and Evidence. *World Economy 27* (2): 239-263.
- OECD (2008). International Development Statistics: On-Line Data bases on Aid and Other Resource Flows, Paris, www.oecd.org/dat/stats/idsonline.
- Okebukola, P. (2007). Science Technology and Mathematics Education for sustainable development. *Keynote Address at Golden Jubilee Anniversary Conference Science Teachers Association of Nigeria (STAN) Sokoto.*
- Onifade, T. (2002). "Evaluation of Constraints on the Implementation of The Terminal Objective of the Junior Secondary School: A Case of Oyo State," *NISER Monograph No. 5*, p. 40 .
- Onjewu, M.A. (2005). Assessing Technical and Vocational Education in Nigeria: A Situation Analysis of Kaduna Polytechnic. *A paper presented at The International Association for Educational Assessment on Assessment and the Future of Schooling and Learning.* Abuja –Nigeria. 4th-9th.
- Onukaogu, A. (2008). "Barriers to Functional and Qualitative Technology Education in Developing Countries: Nigeria as a Case Study". *Paper Presented at the Jerusalem International Science and Technology Education Conference.*
- Peretomode, V.F. (2008). *What is 'Higher' in Higher Education'* 16th in the Series of Inaugural Lectures of the Delta University Abraka.
- Ram, R. (2003). "Roles of Bilateral and Multilateral Aid in Economic Growth of Developing Countries." *KYKLOS, 56*(1), pp. 95-110.
- Ridell, R. (1999). "The End of Foreign Aid to Africa? Concern about Donor Policies." *African Affairs, 98*(392), pp. 309-335.

- Ruttan, V. (1999). "Why Foreign Economic Assistance?" *Economic Development and Cultural Change*, 37(2), pp. 411-424.
- Teachers Registration Council of Nigeria (2012). *STEP- Report on "Development of Database of Science, Technology and Mathematics Teachers in Post-Basic Institutions in Nigeria*.
- The National Project Secretariat (2010). *Report on the STEP-B Project to the Stakeholders*
- The National Project Secretariat (2011). *Report on the STEP-B Project to the Stakeholders*
- The World Bank (2010a). *The Project Implementation Manual of the STEP-B Project*, Abuja,
- The World Bank (2010b). *The Procurement Manual of the STEP-B Project*, Washington, DC.
- Togonu-Bickersteth. (2008). *A proposal on Science and Technology Education in Post-Basic Education Institutions in Nigeria* submitted to the Federal Ministry of Education Abuja.
- Wall, H. J.(2005). "The Allocation of Official Development Assistance." *Journal of Policy Modeling*, 17(3), pp. 307-314.
- World Bank (2003). [Online] Available: <http://www.worldbank.org/poverty/mission/up2.htm>.
- World Bank (2008). A Review of the Costs and Financing of Public Education (In Two Volumes) Volume I: *Executive Summary*, AFTH3 Human Development Unit, Africa Region: Report No. 42418-NG, Nigeria.
- World Bank (2012). Implementation Completion and Results Report (IDA-42950) on a Loan/Credit in the amount of US\$ 65 Million (SDR 43.30 Million) *Credit to the Republic of Nigeria for State Education Sector Project*, AFTED, Africa Region.
- World Bank (2013). Science and Technology Education Post-Basic Project (STEP-B) - *Aides-memoires and Implementation Supervision and Results Reports*.
- World Bank Report (2000). Published for the *United Nations Development Programme* (UNDP), New York, Oxford University Press.
- World Bank Report (2007). Project Appraisal Document .on a proposed Credit in the amount of SDR 120 million (US\$180 million) to the Federal Republic of Nigeria for a Science and Technology Education Post-Basic Project, *Human Development III, Africa Regional Office*.

- World Bank Report (2008). Implementation Completion and Results Report (IDA-33450) on a Credit in the amount of SDR14.4 million (US\$ 20.0 million equivalent) to the Federal Republic of Nigeria for an Economic Management Capacity Building Project, *Poverty Reduction and Economic Management*, Africa Region.
- World Bank Report (2010). Restructuring Paper on a *Proposed Project Restructuring of Science & Technical Education Post-basic Project* (Credit No. 4304-Nig.) to the Federal Republic of Nigeria, Africa region.
- World Bank Report (2013). Published for the *United Nations Development Programme* (UNDP), New York, Oxford University Press.
- Yakubu, N.A. (2003). Technical and Vocational Education and Training (TVET) in Nigeria. *A paper Presented at the Sub-Regional Seminar on UNESCO's Recommendation on Technical Education and Vocational Training*. Kaduna – Nigeria. 8th-11th.

APPENDIX I

LIST OF NIGERIAN POLYTECHNICS

S/N	FEDERAL POLYTECHNICS
1	Akanu Ibiam Federal Polytechnic, Unwana
2	Auchi Polytechnic, Auchi
3	Federal Polytechnic, Ado-Ekiti
4	Federal Polytechnic, Bali
5	Federal Polytechnic, Bauchi
6	Federal Polytechnic, Bida
7	Federal Polytechnic, Damaturu
8	Federal Polytechnic, Ede
9	Federal Polytechnic, Ekowe
10	Federal Polytechnic, Idah
11	Federal Polytechnic, Ilaro
12	Federal Polytechnic, Kaura Namoda
13	Federal Polytechnic, Mubi
14	Federal Polytechnic, Nasarawa
15	Federal Polytechnic, Nekede-Owerri
16	Federal Polytechnic, Offa
17	Federal Polytechnic of Oil & Gas, Bonny
18	Federal Polytechnic, Oko
19	Federal Polytechnic Ondo
20	Federal Polytechnic, Ukana, Akwa Ibom State
21	Hussaini Adamu Federal Polytechnic, Kazaure
22	Kaduna Polytechnic, Kaduna
23	National Institute of Construction Technology Uromi
24	Waziri Umaru Federal Polytechnic, Birnin Kebbi
25	Yaba College of Technology, Yaba
26	Air Force Institute of Technology, (AFIT) Airforce Base, Kaduna
27	Nigerian Army Institute of Tech. and Environmental Studies, NAITES, Makurdi
28	Petroleum Training Institute, Effurun, Delta State

Source: National Board for Technical Education, 2015

S/N	STATE POLYTECHNICS
1	Abdu Gusau Polytechnic, Talata Mafara
2	Abia State Polytechnic, Aba
3	Abraham Adesanya Polytechnic, Ijebu-Igbo
4	Abubakar Tatari Ali Polytechnic, Bauchi
5	Adamawa State Polytechnic, Yola
6	Akwa Ibom State College of Art & Science, Nung Ukim
7	Akwa Ibom State Polytechnic, Ikot Osurua
8	Bayelsa State College Of Arts & Science, Yenogoa
9	Benue State Polytechnic, Ugbokolo
10	D.S. Adegbenro ICT Polytechnic, Itori-Ewekoro
11	Delta State Polytechnic, Ogwashi-Uku
12	Delta State Polytechnic, Otefe-Oghara
13	Delta State Polytechnic, Ozoro
14	Edo State Institute of Technology and Management, Usen
15	Gateway Polytechnic, Saapade
16	Hassan Usman Katsina Polytechnic, Katsina
17	Ibarapa Polytechnic, Eruwa (Formerly The Polytechnic Ibadan Eruwa Campus)
18	Imo State Polytechnic, Umuagwo-Ohaji
19	Institute of Management and Technology, Enugu
20	Jigawa State Polytechnic, Dutse
21	Kano State Polytechnic, Kano
22	Kogi State Polytechnic, Lokoja
23	Kwara State Polytechnic, Ilorin
24	Lagos State Polytechnic, Ikorodu
25	Mai-Idris Aloomo Polytechnic, Geidam
26	MoshoodAbiola Polytechnic, Abeokuta
27	Nasarawa State Polytechnic, Nasarawa
28	Niger State Polytechnic, Zungeru
29	Nuhu Bamalli Polytechnic, Zaria
30	Ogun State Institute of Technology, Igbesa
31	Oke-Ogun Polytechnic, Saki (Formerly the Polytechnic Ibadan Saki Campus)
32	Osun State College of Technology, Esa-Oke
33	Osun State Polytechnic, Iree
34	Plateau State Polytechnic, Barkin Ladi
35	Ramat Polytechnic, Maiduguri
36	Rivers State College of Art and Science, Port-Harcourt
37	Rivers State Polytechnic, Bori
38	Rufus Giwa Polytechnic, Owo
39	Sokoto State Polytechnic, Sokoto
40	The Polytechnic, Ibadan
41	Zamfara State College Of Arts and Science, Gusau

Source: National Board for Technical Education, 2015

S/N	PRIVATE POLYTECHNICS
1	Allover Central Polytechnic, Sango Ota
2	Bolmor Polytechnic, Ibadan
3	College of Technology Iresi, Osun State
4	Covenant Polytechnic, Aba
5	Crown Polytechnic, Ado-Ekiti
6	Dorben Polytechnic, Bwari
7	Eastern Polytechnic, Port- Harcourt
8	Fidei Polytechnic Gboko
9	Grace Polytechnic, Surulere
10	Heritage Polytechnic, Ikot-Udota, Eket
11	Ibadan City Polytechnic
12	Igbajo Polytechnic, Igbajo
13	Interlink Polytechnic, Ijebu-Jesa
14	Kalaq Christal Polytechnic
15	Kings Polytechnic, Ubiaja
16	Lagos City Polytechnic, Ikeja
17	Lighthouse Polytechnic, Evbuobanosa
18	Nacabs Polytechnic Akwanga, Nasarawa State
19	Nogak Polytechnic, Ikom, Cross River State
20	Our Saviour Institute of Science, Agriculture & Tech., Enugu
21	Ronik Polytechnic, Ejigbo, Lagos
22	Shaka Polytechnic Benin City
23	St. Mary Polytechnic, Kwamba, Suleja
24	Temple Gate Polytechnic, Aba
25	The Polytechnic Imesi-Ile, Osun State
26	The Polytechnic, Igbo-Owu
27	The Polytechnic, Ile-Ife
28	Tower Polytechnic, Ibadan
29	Uyo City Polytechnic, Uyo, AkwaIbom State
30	Valley View Polytechnic Ohafia, Abia State
31	Wolex Polytechnic, Iyanalpaja, Lagos

Source: National Board for Technical Education, 2015

NOTE:

Federal Polytechnics	28
State Polytechnics	41
Private Polytechnics	31
Total	100

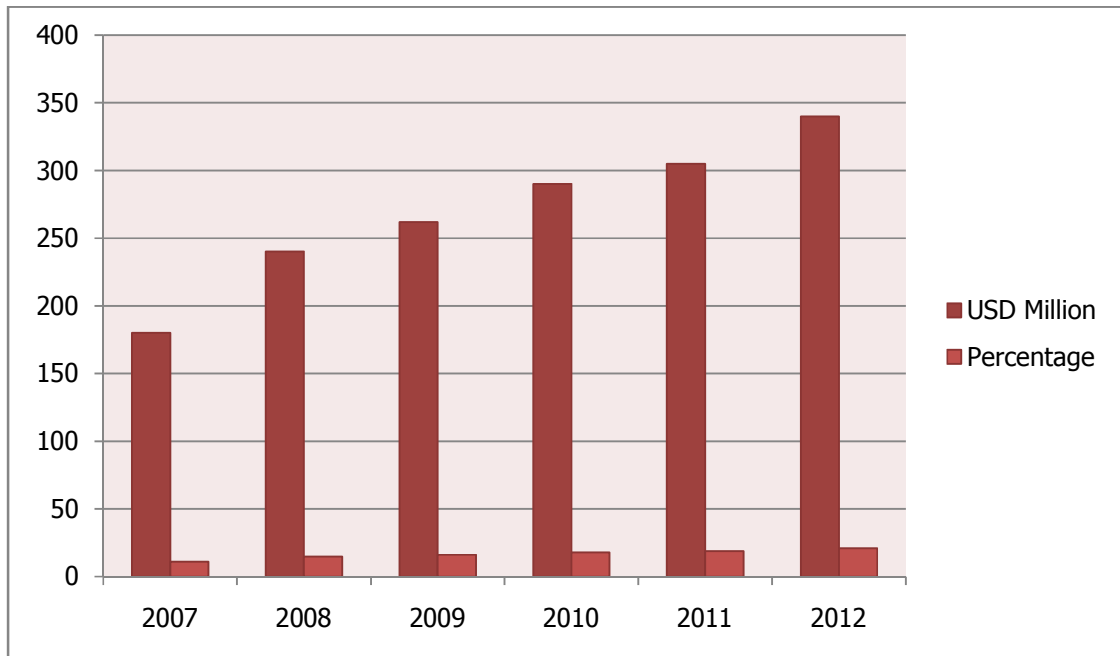
APPENDIX II

SAMPLE POLYTECHNICS

Name of Polytechnic	State
Kaduna Polytechnic, Kaduna	Kaduna State
Federal Polytechnic, Bauchi	Bauchi State
Federal Polytechnic, Offa	Kwara State
Federal Polytechnic, Oko	Anambra State
Akanu Ibiam Federal Polytechnic, Uwanna,	Ebonyi State
Federal Polytechnic, Ilaro	Ogun State

APPENDIX III

ODA Cash Disbursement



STEP-B Project

