HIGHER EDUCATION AND NATIONAL DEVELOPMENT

Edited by
Adeyinka A. Aderinto
Oyeduntan Adediran
Ademilokun A.A. Alarape

UNIVERSITY OF IBADAN
Postgraduate School Interdisciplinary Discourse Series
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Postgraduate School Interdisciplinary Discourse
Foreword

It is my pleasure to bring to your table a compilation of five interdisciplinary discourses that were held from August 1, 2014. Against the backdrop of the fact that education, particularly higher education, has been acknowledged to be the backbone of development, the Postgraduate School set “Higher Education and National Development” as the broad theme of this Postgraduate School Interdisciplinary Discourse Series. Through the lectures, it was thought that policy issues necessary to galvanize our education sector would emerge. Five lectures have been delivered so far under this theme. The first, was delivered by Lt. Gen. A.B. Dambazau, and it X-rayed the interconnections among education, security and national development. Professor S.E. Bogoro, the Executive Secretary of TETFund, gave the second, on the topical issue of research and development as the launch pad for Nigeria’s much-sought-after technological development. The third was delivered by another top stakeholder in Nigeria’s tertiary education, Dr. Nasir Fagge Isa, the President of the Academic Staff Union of Universities, where he chronicled the efforts of the Union at revitalizing the nation’s ailing education sector. In the fourth lecture, Dr. Joseph Shevel shared with the audience, the experience of Israel to highlight and buttress the important roles of higher education in national development. The fifth, also the 65th in the PG School Interdisciplinary Discourse Series, focuses on globalization and the political economy of higher education in Nigeria and rightly concludes that education is a more important weapon in a nation’s arsenal than any missile or mine.

All five presentations represent our efforts at the Postgraduate School at engaging with some of our country’s concerns. On behalf of the Board of the Postgraduate School, I wish to greatly appreciate all five eminent speakers for sharing their thoughts on these issues, and contributing to the intellectual life of our university. Lastly, we express our gratitude to the Executive Secretary of TETFund, Professor S.E. Bogoro, for supporting this publication.

Adeyinka Abideen ADERINTO
Dean, Postgraduate School, UI
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Education, Security and National Development: The Case of Nigeria

Abdulrahman B. Dambazau

Introduction
I will start by expressing my gratitude to the University community and, in particular, the Vice-Chancellor, Prof. Isaac Adewole, for the invitation extended to me once again to participate in the academic activities in this first-class premier institution, the University of Ibadan. It is equally important to note that this 61st Interdisciplinary Research Discourse (IRD) of the Postgraduate School coincides with my 61st year on earth. Equally important to me is the fact that, going through the list of persons invited to deliver IRD Series since it started on 27 February 1990, I noticed that I am the first from the military community to be so invited. Of course, even though I have been disengaged since September 2010, I still represent that community, especially as a former Army Chief. This shows the high regard this university has for me, in particular, and for the military, in general. With regard to education, which is the main issue of this discourse, the UI and the Nigerian military have had a very long and close relationship since 1964, when the NDA was established, with UI being the moderator of the NDA Certificate of Education programme until 1985, when we began the degree programme in the NDA. Still, this university has maintained a very close link with the NWC, now NDC, programme, leading to the award of professional MSc degree in Strategic Studies.

Although you have given me the leverage to modify the title you suggested to me, I decided to let it remain as was suggested, that is: Education, Security and National Development: The Case of Nigeria. Not only is the title very relevant to the broad theme of the Discourse, Higher Education and National Development, but it also depicts the contemporary challenges we are facing as a nation. The three concepts in the title are inextricably linked, that is, education is a source of security; security is a prerequisite for development; and development guarantees security. So, looking at these
concepts and how they should naturally exhibit very strong relationships, one could ask the following questions: What is the Nigerian Case regarding these relationships? To what extent has education, for example, impacted on Nigeria’s national development? Or to put it in another way, to what extent can we attribute the problems of insecurity or slow pace in development to education? Can we guarantee quality education without adequate security, and can we guarantee security without quality education? What is the educational future of the rapidly growing population in Nigeria?

Education itself is a major tool for human security: it provides the opportunity for creativity, research and innovation, making it possible to improve the quality of life. The vision and mission of this premier university (UI) say so much about the significance of education (specifically, higher education): while the vision is designed to make the university “a world-class institution for academic excellence geared towards meeting societal needs”; the mission focuses on “expanding the frontier of knowledge, transforming society through creativity and innovation, producing graduates that are worthy in character and learning, and serving as a vehicle for conveying societal values.”

Starting with education, please permit me to examine, or at least, define the three concepts we are dealing with here. The word education is originally derived from Latin, and it is defined as “any act or experience that has a formative effect on the mind, character or physical ability of an individual”. Likewise, it is seen as “the process by which society deliberately transmits its accumulated knowledge, skills, and values from one generation to another.”¹ This being the case, we can equate the history of education to the history of humanity, since, from the beginning, man has been preoccupied with the transmission of knowledge, skills and attitude from one generation to another, and this is what education is all about. There is no Nigerian, living or dead, that had a very clear vision

and understood the importance of education like the revered Chief Obafemi Awolowo, who, in the early 1950s, articulated his plans for giving the then Western Region free education. The result of that vision manifested in a way that continues to make the region the most educationally advantaged in Nigeria. More than half of the private universities in Nigeria, for example, are domiciled in the south west; and similarly, not less than 60% of Nigerian professors are from the same region. Furthermore, Awo’s vision did manifest in various professional fields, such as Law, Engineering, and Medicine, of which the south-west has become the pride of Nigeria.

Security, according to Wolfers, “can be viewed from both objective and subjective senses. In the former it measures the absence of threats to acquired values, while in the latter sense, the absence of fear that such values will be attacked.” International Encyclopedia of the Social Sciences defines security “as the ability of a nation to protect its internal values from external threats. Security of the state in the traditional sense meant the protection of the state, its boundaries, people, institutions, and values, from external attack.” According to Allan Casble, it may be enough to say that the maintenance of the core values of a society, and the freedom of the population from grave and existential threats, comprise the bulk of what is meant by security. The core values are the basic principles around which any society is ordered, socially, politically or economically, such as the rule of law and fundamental freedoms. Furthermore, a coordinated pattern of behaviour which places human lives or well-being at risk in sufficient numbers as to cause significant disruption in the ordinary functioning of a society will constitute “grave or existential threat.”

Within this context, national security interests to states traditionally had little to do with the human rights or the

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material conditions of the people living in those states. Security, in international relations, means “national security” or the protection of the state from external threats, a meaning which emerged from the practices of international politics after the First World War. Security is said to convey general meanings to include the safety of individuals from violence or crimes; religious peace of mind, and financial measures to maintain certain standard of living. National security is also seen in the context of state boundaries, in line with the state’s ability to preserve the core values of its society, its territorial integrity, and the physical security of its citizens.

The concept of security was redefined in the 1994 UNDP Human Development Report, which, for the first time, introduced the notion of human security as “safety from chronic threats such as hunger, disease and repression… and protection from sudden and hurtful disruptions in the patterns of daily life.” According to the Report, while human development is defined as “a process of widening the range of people’s choices”, human security means “that people can exercise these choices safely and freely, and that they can relatively be confident that the opportunities they have today are not lost tomorrow.”

The report also noted that, while there are two main aspects of human security, that is “freedom from fear” and “freedom from want,” the concept of security has always been linked only to the former. It maintained the necessity to adopt the all-encompassing change in definition from “an exclusive stress on territorial security to a much greater stress on people’s security” and “from security through armaments to security through sustainable human development.” Human security, therefore, covers economic, food, health, environmental, personal, community, and political security.

The concept of human security, according to the report, supplies “early warning indicators” to signal “the risk of national breakdown”, and such indicators include human rights violations, ethno-religious violence, high unemployment, food

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insecurity, etc.⁷ Accordingly therefore, the “…world can never be at peace unless people have security in their daily lives…. The search for security….lies in development, not arms.”⁸ Human security and sustainable development go together because:

…it will not be possible for the community of nations to achieve any of its major goals – not peace, not environmental protection, not human rights or democratization, not fertility reduction, not social integration, except in the context of sustainable development that leads to human security…. [Yet]…it is important that human security is not equated with human development. Human development is…a process of widening the range of people’s choice. Human security means that people can exercise these choices safely and freely – and that they can be relatively confident that the opportunities they have today are not totally lost tomorrow.⁹

The Commission on Human Security under Sadako Ogata states that human security is meant to “…protect the vital core of human lives in ways that enhance human freedoms and human fulfillment.” The Commission further notes thus:

Human security means protecting fundamental freedoms – freedoms that are the essence of life. It means protecting people from critical (severe) and pervasive (widespread) threats and situations. It means using processes that build on people’s strengths and aspirations. It means creating political, social, environmental, economic, military and cultural systems that together give people the building blocks of survival, livelihood and dignity.¹⁰

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⁷ Ibid., pp. 34-37.
⁸ Ibid., p. 24.
⁹ Ibid., p. 23.
National development, on the other hand, is not confined to macroeconomic forces of growth, but also focuses on the improvement of the individual and collective human condition, increasing choices and participation, equality, standards of living and well-being, the environment and sustainability, and on another level, development as a human and ways of being.\textsuperscript{11}

Accordingly, development is not a stage to be attained or a goal to aim at. Rather, it is a constant process of improvement in which education, research, and service play prominent roles in creating positive change in the self, the people, and the institutions and structures. Examining the concept from the perspective of human security, national development equals human development, the idea of expanding the choices of people and giving them a chance to lead full lives. It is in line with this idea that the UN Human Development Index (HDI) evolved as a composite of indicators on life expectancy, education, and command over the resources needed for a decent living. The UN classified the 187 countries in the world into four groups in accordance with the levels of human development: “very high”; “high”; “medium”; and “low”. In the 2012 UN HDI, Nigeria was ranked 153\textsuperscript{rd} out of the 187 countries assessed [life expectancy (52.3 years); inequality (adjusted HDI value 0.276); education (mean years of schooling – 5.2 years); poverty (multidimensional poverty index (percent) – 0.310 – with 54.1% of 2008 population living in multidimensional poverty); and income (GHI per capita in PPP terms – US$2,102].

Governance has a lot to do with the level of a nation’s development. The 2013 Mo Ibrahim Index of African Governance (IIAG) has rated Nigeria below average on governance. Established in 2007, it defines governance as “the provision of the political, social, and economic public goods and services that a citizen has the right to expect from his or her

state, and that a state has the responsibility to deliver to its citizens.” The IIAG governance framework comprises four categories: safety and rule of law; participation and human rights; sustainable economic opportunity; and human management. There are a total of 14 sub-categories, consisting of 94 indicators; and, in the 2013 assessment, covering the period 2000-2012, Nigeria scored 43.4%, ranking her 41st among the 52 African countries assessed. Even in West Africa, where Nigeria has more than half the population and she is the wealthiest in the region, the IIAG scores show that, in terms of governance, she is only better than three of the other 14 countries. An interesting observation in the scores is that Nigeria was scored very low (15.8) on personal safety, pitching her among the bottom four of the 52 countries. The indicators used for the assessment were the prevalence of torture and extrajudicial killings; prevalence of violent social unrest; level of criminality and the prevalence of violent crimes; incidence of human trafficking, sexual exploitation and forced labour; and the extent to which police services are relied upon to enforce law and order.

**Education and Development Nexus**

There are several levels and types of education: formal or informal; elementary/primary, secondary/high, tertiary/higher; vocational; adult; special or alternative; etc. Although primary and secondary education provide the foundation for quality education, this presentation focuses more on higher education and its relationship with national development in line with the theme of this year’s discourse. Higher education is also referred to as the third level of education, and it normally follows the completion of secondary or high school. Of course, countries differ on their range of higher education, but generally it involves teaching, research, practical application of knowledge, and social services.

Higher education plays a necessary and an increasingly important role in human, social and economic development. According to the World Bank, education in general, and higher

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education, in particular, is fundamental to the construction of a knowledge economy and society in all nations. It was the UN Under-Secretary General for Economic and Social Affairs, Sha Zukang, who observed that lack of education is a major obstacle to accessing tools that could improve peoples’ lives.\textsuperscript{13} He noted the relationship between lack of education, poverty and poor health, especially among adolescents, conditions that diminish their opportunities for social and economic advancement. This is a real problem for us in Nigeria, considering the youth (aged 12-24 years) population in the country, and since most of them are poor, rural dwellers, they are invariably excluded owing to lack of opportunities. As a private good, higher education is said to provide considerable value to individuals, to the economies where educated individuals live and work, and society, in general. Where investment in higher education is substantial, the expectation is that of higher economic growth and prosperity.

In an analysis of 47 World Education Indicators (WEI) in Europe by WEI Programme, UNESCO Institute of Statistics and the Organization for Economic Cooperation and Development, it was found that better educated people were more likely to be in work and, if economically active, less likely to be unemployed. Accordingly, access to and completion of higher education is a key determinant in the accumulation of human capital, a prerequisite for human rights and civil liberties, good health, clean environment, and personal safety. In all the WEI countries, it was discovered that the labour force participation rates increased with the level of education attained by individuals; and better qualifications also attracted higher wages for individuals.\textsuperscript{14} Similarly, data from 49 countries of the Asia Pacific region has been used to demonstrate the significant effect of higher education on the economic growth of nations. The result has shown that the larger the stock of population with higher education, the higher the prospects of economic growth.\textsuperscript{15} Likewise, a research conducted in the University of

\textsuperscript{13} Ibid, p.5
\textsuperscript{14} UNESCO, OECD, and WEI Programmed 2002 Edition.
Arizona in 2005 found that there are three major ways higher education influences the economic well-being of society:

- Direct expenditures by the institutions, their employees, and students, could impact on the local economy.
- Higher education provides financial and other benefits to the individual who pursues advanced education and to society, in general. The average earnings of individuals are closely related to their educational attainment. Furthermore, society benefits from an educated populace in a number of ways. The average wage, for example, is higher in communities with substantial proportion of highly educated workers.
- Institutions of higher education are increasingly focused on knowledge creation. Thus, universities are the sources of key research and development innovations that can also be beneficial to society and conducive to economic growth.  

Examining the impact of higher education on economic development, Larry Gigerich, the Managing Director of an Indiana-based economic development advisory services firm, also confirmed the critical role colleges and universities play in economic development efforts. According to him, higher education and economic development are inextricably linked to one another, and for any country to be successful in economic development, universities must be key partners throughout the process. There are many regional and international organizations that can partner Nigerian universities to achieve some strategic goals for national development. Already, evidence of the impact of higher education partnerships involving USAID/HED and thirteen (13) Higher Educational Institutions in Southeast Asia, for example, has been recorded. Of the thirteen (13) institutions involved in the partnership projects,

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five (5) focused on the environment; five (5) on education and information technology; two (2) on health/medical issues; and one (1) on community development. These partnerships not only provide opportunities for human capital building and institutional capacity strengthening, but they also provide numerous opportunities for “positive public diplomacy” in terms of culture and language studies, helping faculty find creative ways to implement research studies; explore international topics; and stimulate students to think about globalization issues in relation to Southeast Asia, in this case.¹⁸

In order to ensure this partnership, institutions must go beyond the traditional objective of merely running academic programmes driven by what the universities want to teach and what the students are interested in, because such traditional focus is usually not responsive to the needs of the private sector employers. It is mainly for this reason that many students would graduate in a degree or subject matter area that would not translate into a good job in a growing economic sector. The role of higher institutions, especially the universities, must support business and economic development initiatives. In the current knowledge-driven global economy, no country can achieve sustainable development without adequate investment in education, especially higher education.

Higher education is integral to all aspects of development, and, in fact, this is a popular view even within the UN. Therefore, development issues depicted in the Millennium Development Goals, such as poverty alleviation, human rights, and health care, are intrinsic to higher education. It is in higher educational institutions that we cultivate certain values and understanding of issues that facilitate both economic and social development. According to P. Taylor, higher educational institutions, especially universities, are considered to be the progenitors of social change through the generation and

dissemination of knowledge and new ideas, especially in the context of globalization.\textsuperscript{19}

There is absolutely no doubt, in my opinion, that education has a tremendous role to play in national development. Education is the seed for economic, political and social growth. In other words, it is the engine of societal growth. According to the UN Millennium Report:

\textit{Education is the key to the new global economy, from primary school on up to life-long learning. It is central to development, social progress and human freedom.}\textsuperscript{20}

Education is not only a public good, but it is also a human right that is essential for the exercise of all other human rights, especially in promoting individual freedom and empowerment.\textsuperscript{21} It is mainly for its developmental benefits that Article 13 of the UN International Covenant on Economic, Social and Cultural Rights of 1966 declares that “higher education shall be made equally accessible to all, on the basis of capacity, by every appropriate means, and in particular by the progressive introduction of free education.” Likewise, Article 2 of the First Protocol of the European Convention on Human Rights, adopted in 1950, obligates all signatory parties to guarantee the right to education. It is also important to note that section 18 of the Nigerian Constitution 1999 states that the government education policy shall be directed towards ensuring equal and adequate educational opportunities at all levels, including free education at all levels.

\textsuperscript{20}The Millennium Development Goals Report 2010.
\textsuperscript{21}See Art 26 of the Universal Declaration of Human Rights; Arts 13 and 14 of the International Covenant of Economic, Social and Cultural Rights; Arts 28, 29 and 40 of the Convention on the Rights of the Child; Arts 10 and 14 of Convention on the Elimination of All Forms of Discrimination Against Women; and Art 5 of Convention on the Elimination of All Forms of Racial Discrimination.
Education and Security Nexus

Education is a core ingredient of human security, while the latter is the backbone of national security. Human security (freedom from want) is distinct from the earlier concept of traditional security (freedom from fear) because, while the former places emphasis on the individual as the main object, the latter refers to the state as the object of security. How does investment in education or the lack of it impact on human security? From the individual point of view, as we noted earlier, better or more advanced education should translate into higher income for the well educated, which also means greater market consumption, thereby providing benefits for producers or manufacturers. In particular, higher education should produce better teachers who could enhance the quality of primary and secondary education; and by training doctors and other health workers through higher education, we are indirectly reinforcing one of the key areas of human security, meaning health care, because, through such education, we improve the society’s general health situation, thereby raising productivity. The skills that advanced education provides could be used to address environmental problems and improve security against a country’s internal and external security threats.

Traditional security relies on the military and the police. Every nation must defend its territorial integrity to survive and this is the major reason for maintaining the armed forces. To guarantee national security, nations require strong military, and part of the preparation for establishing a strong military platform is achieved through the knowledge acquired from military education. Nations establish various military training institutions such as Military Academies/Universities, War Colleges, and Defence Colleges, in order to learn the art and science of warfare, including military strategy. It was for this reason, for example, the Nigerian Defence Academy was upgraded to a degree awarding institution in 1985, and of course subsequent establishment of the National War College (now National Defence College) and the Armed Forces Command and Staff College. Through his career, the soldier is exposed to various trainings for professional education in order to have an
edge over the real or potential enemy. By the same token, there is convergence between internal security and law enforcement education. Nations cannot function properly without effective and efficient policing institutions to maintain law and order. Police academies are the vehicles for providing the necessary education in police science. The rudiments of criminal investigation or criminalistics, including lifting fingerprints, blood or hair samples, securing crime scenes, interrogation, arrests, framing of charges, criminal intelligence, and so on, are lessons that should be part of the education curriculum of police colleges.

In the military, we use education more at the strategic level to expand our horizon; to appreciate situations; to estimate the battlefield; to examine the courses of action; to interpret the international environment; to project future warfare and design the battlefield; to analyse security threats; etc. It is not enough, however, to rely on education alone in order to achieve supremacy over real or potential enemies. At the operational and tactical level, there must be deliberate efforts to ensure that the soldier is well equipped with the necessary weapons and equipment adequate to confront the threats confronting him/her; his/her general welfare must be a top priority for maintaining high morale; he/she must train hard in peacetime in order to bleed less in war; and there must good command and control.

Education in the military is not all about war-fighting; there are various ways for the military to contribute to national development and, at the same time, enhance national security. The military engineers, lawyers, medical doctors and other health professionals, public relations experts, logisticians, educationists, religious affairs experts, etc., not only support the combat units or formations during war, but also provide routine services to both the barracks community and civilian population during peacetime. For example, in addition to combat engineering, the Nigeria Army civil engineering resources are enormous, comprising qualified architects, building engineers, electrical and mechanical engineers, quantity surveyors, town planners, and a substantial number of tradesmen with various vocational skills, including carpenters, electricians, plumbers,
and bricklayers. In my two-year tour of duty as the Chief of Army Staff, we made use of the army engineers to carry out projects using direct labour, leveraging on the available resources to construct a barracks accommodation for officers and soldiers, including roads, bridge, drainage, electrification, and water supply. We also constructed the Central Medical Store in Yaba Military Hospital, Lagos; the Command Officers Mess in Abuja; the 44 Military Hospital in Kaduna (Level IV UN Hospital); to mention a few. We not only save the government substantial amounts of money running into billions of naira, but we also used the opportunity for capacity-building of our personnel. We registered a limited liability company through which we executed civil contracts for Lagos State, FCT, and various federal ministries.

Higher Education: The University

The word “university” is derived from Latin, meaning “community of teachers and scholars.”\(^22\) It was originally used to describe “associations of students and teachers with collective legal rights usually guaranteed by charters issued by princes, prelates, or the towns in which they were located.”\(^23\) One of the important characteristics of the university system is the idea of academic freedom, defined as the freedom of teachers and students to express their ideas in school without religious, political or institutional restrictions.\(^24\) It is the freedom of the faculty to research and teach according to their interests; and the freedom granted to academic institutions to determine their professional standards. The historical evidence of academic freedom could be found in one of the earliest universities’ academic charter, the University of Bologna, which guaranteed the right of a travelling scholar to unhindered passage in the interest of education.

The earliest universities were founded on moral and religious pursuits. Al-Azhar University in Cairo is generally considered to be the oldest university in the world. Founded

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23 Ibid.
around 969AD, it was originally intended to be a place of worship and religious instruction, although it also had robust secular curriculum, offering advanced degrees in engineering and medicine. In another claim, Qarawiyyn in Fez, Morocco is also said to be the oldest university.\textsuperscript{25} Nalanda University in India built on the Buddhist tradition was also disputed to be the oldest university. The Italian University of Bologna, founded in 1088, is considered the first university in medieval Europe.\textsuperscript{26} Of course, Oxford (1096) and Cambridge (1226) in England followed the Christian tradition traced to the Christian cathedral or monastic schools, like most of medieval universities.\textsuperscript{27} For us in Nigeria, the oldest is the University of Ibadan established in 1948 as an independent external college of the University of London, following the Elliot Commission of 1943; while the University of Nigeria, followed immediately after independence in 1960. And in 1962, Ahmadu Bello University, University of Ife (now Obafemi Awolowo University) and University of Lagos were established.

What is the purpose for establishing universities in the first instance? Very often, universities are referred to as centres of excellence; ivory towers; citadels of learning; community of scholars; centre for accumulation and transfer of knowledge; enterprises for production of public good and services; etc. In his introduction to the Strategic Plan of the University of Arkansas in Little Rock, United States, Joel Anderson, the Chancellor, observed that universities are extremely important, enduring, elevating and expensive institutions. Universities certainly make a difference because they confer a wide range of benefits relating to quality of life, health, employment and income, economic productivity, and civic participation. Beyond these benefits, according to Richard Florida, the faculty and other personnel of a university are part of what is termed “creative class” of a community, which is a key to economic

\textsuperscript{25} www.ask.yahoo.com/2003501.html May 1, 2003
\textsuperscript{26} Hunt Janin, The University of Medieval Life, 1179-1499, McFarland, 2008.
\textsuperscript{27} www.independent.co.uk/news/world/asia/ 4 August 2010.
growth, because economic growth is driven by the location choices of creative people or holders of creative capital.\textsuperscript{28}

From 1960 to date, over 100 public and private universities have been established in Nigeria, and still counting. The major reason for establishing such universities was, and I believe still is, for the universities to play a pioneering role in addressing the problems of poverty, unemployment, hunger, illiteracy, disease and, of course, other related problems of underdevelopment. However, we also know that our first-generation universities in Nigeria were meant to provide the manpower needed to replace the colonial administration after independence. In general, however, universities have a major responsibility in nation building through enriching science, engineering, technology, humanities, arts, etc., by providing value-based education to students in order to make them leaders of good character. The 2004 National Policy on Education\textsuperscript{29} gives the following objectives of university education in Nigeria:

- Providing universal access to basic education;
- Expanding the provision of publicly financed secondary and tertiary education;
- Outlining national language policy;
- Building national capacity in science and technology;
- Intensifying and diversifying its programmes for the development of high level manpower within the context of the needs of the nation;
- Making professional course contents to reflect our national requirements;
- Making all students, as part of a general programme of all-round improvement in university education, to offer general study courses, such as history of ideas, philosophy of knowledge and nationalism.

The core functions or the building blocks of the university have been identified as training, research, innovation, and community service, and these are fundamental to the existence of universities all over the world. In training, we create and produce human resources through the transmission and inculcation of information, knowledge, skills, values and attitudes, with the aim of empowering people to become producers of goods and services for the consumers both in the domestic and international markets; we also, by implication, expand and multiply knowledge and skills to produce goods and services that would solve our problems. Research involves the deliberate and continuous search for new or improved knowledge and skills. The benefits of research help to produce the wealth of advanced economies; but for most developing economies, including Nigeria, there appears to be insignificant investment in it. Although the humanities and social sciences are important components of education, especially at the tertiary level, science, mathematics and engineering have special relevance for the contemporary technology-driven economy in our globalized world. In Nigeria, we are yet to take cognizance of this contemporary challenge in order to articulate the strategy linking knowledge to economic growth. According to World Bank data, Nigeria, for example, has less than 20 scientists and engineers engaged in research and development per million persons, as against 158 in India; 168 in Brazil; 459 in China; and 4,103 in the US.\(^\text{30}\) The fact that there has been a dramatic world progress in bioscience, materials science, as well as information technology, shows that our educational system needs to produce significantly more scientists and engineers to meet contemporary global challenges.

A university’s core function of innovation becomes a reality when it becomes a centre for creating and testing ideas, methods, processes and even products in form of goods and services. Innovation, here, does not dwell on originality alone, but also includes borrowing ideas, copying products, and transferring technology from the more advanced nations.

Analysing the role of American universities in economic development, Sampson notes that:

…we believe that universities have a critical role in securing America’s future innovation, economic competitiveness and prosperity in global economy. Universities are the ideal location to connect knowledge creators with knowledge commercializers through technology incubators, entrepreneurial development curricula and nurturing relationships with community-based venture funds…

Community service involves activities of university staff and students engaging, interacting and working with the general population, particularly the industries, in nation building.

The Nigerian Case
We all know that, with an estimated population of about 170 million, Nigeria is the most populous country in Africa and the 6th in the world, and she contains more than half of the West African population of about 300 million people. By 2025, according to the New York Times, at the rate of the current population growth of about 2.8% annually, about 300 million people would live in Nigeria, a country roughly the size of Arizona, New Mexico and Nevada. What future educational plans do we have for this growing population, even in the face of the high percentage of the unemployed among graduates of tertiary institutions? Nigeria is Africa’s largest producer of oil, which accounts for a substantial percentage of her revenue. How much of this wealth has been invested in education since independence, and what is the result? But we know that, despite its abundance of wealth in carbon resources, solid minerals, agricultural potential, and people, Nigeria has remained a poor country, with more than 70% of the population living on less than $1.25 (about N200) a day, the universal status of extreme poverty. We also know that there is substantial inequality in

access to quality education between the rich and the poor, and between boys and girls.\textsuperscript{33} Nigeria’s education policy has suffered a lot of summersaults since independence in 1960. This is alongside under-investment over the same period.

This is not to say that Nigeria’s education sector has not progressed during this period: we have witnessed a tremendous growth in the number of educational institutions, both public and private; a number of acts and decrees\textsuperscript{34} have been enacted to ensure that every Nigerian child has the opportunity to acquire quality education in an environment conducive to learning. In addition to the various legislations, Vision 20:2020 places education at the heart of Nigeria’s future growth and success. Furthermore, there appears to be government commitment to achieve the Millennium Development Goals (MDGs) aiming to deliver universal basic education for all children, and promote gender equity in educational services.

The Free Universal Basic Education (UBE) Act No 66 of 2004 represents the most significant reform, and addresses comprehensively the lapses of the Universal Primary Education (UPE) and the issues of access, equality, equity, inclusiveness, affordability, and quality. Its main objectives are to eradicate illiteracy, ignorance, and poverty.\textsuperscript{35} In line with the UMB programme, the Federal Ministry of Education (FME) outlined a 4-year (2011-2015) strategic plan for the development of the education sector aimed at strengthening it by focusing on six areas: the institutional management of education; access and equity; standard and quality assurance; teacher education and development; technical and vocational education, and training; and funding, partnerships, and resource mobilization.\textsuperscript{36} The question is: How effective has been the implementation of these


\textsuperscript{34} National Policy on Education 1977; Decree No 16 of 1985 (on gifted and talented children); Decree No 17 of 1990 (on mass literacy, adult and non-formal education); Decree No 96 of 1993 (on Funding of primary education); Decree No 9 of 1993 (on minimum standards); Teachers Registration Council of Nigeria (TRCN) Act No 31 of 1993; Free Universal Basic Education Act No 66 of 2004.

\textsuperscript{35} UBEC 2012

\textsuperscript{36} FME 2012
policies, bearing in mind the challenges we are facing at every level of the educational sector, starting with the basic education?

There are a number of issues and problems related to the Nigerian education sector. Starting with the basic or foundation in primary and secondary education, we know the extent of decay of our public schools. While private schools are not only expensive and exploitative, they do not appear to maintain the standard required. Like many of our private universities in Nigeria that arbitrarily produce high numbers of first-class degrees in order to attract attention, many of our private elementary and secondary schools use all sorts of tricks to produce “excellent” WAEC results for the purpose of marketing their schools. Nigerian public schools suffer from lack of qualified teachers and educational facilities, including classrooms, with most students sitting on bare floors or under trees to learn. Does it surprise anyone that many students in our tertiary institutions find it difficult to cope with the demands at that level because they were not adequately prepared at the primary and secondary levels?

The future of our children is currently being threatened by terrorist activities, especially in the Northeast, and kidnappers in the Southeast. Recently, our children in various schools in the Northeast have been traumatized by terrorist activities and there is no doubt that children all over Nigeria have been feeling the effect of what has been happening to their brothers and sisters in that region. The massacre of students at the Federal Government College, Buni Yadi, the kidnap of the over 200 Chibok girls from their secondary school hostels, the abduction of other students; and vandalism of educational facilities should attract the concerns of well-meaning Nigerians. There is no doubt the activities of these terrorists are affecting not only the northeast education system, but also the whole of Nigerian education sector. What is our response to ensuring that our children are not denied access to education under any circumstance, including the threat of terrorism? What is the fate and educational future of thousands of our children trapped in IDP camps spread in the Northeast and the neighbouring countries other than adding to the population of out-of-school
children in Nigeria? What are we doing as preparation of peace-building efforts in relation to education in a post-conflict Northeast, especially protecting and rehabilitating the traumatized children in that region? We have children, especially in the Southeast, who are being victimized and denied access or deprived education based on accusation of child witchcraft; and elsewhere in northern Nigeria, we have children who are sent out to beg in the streets, thereby deprived of the opportunity of free and compulsory education in line with the MDGs; and all over the country, we have children engaged as street hawkers, house-helpers, and child labourers, who not only are deprived of education, but are also sexually molested by adults.

With the above experience, does it surprise anyone that, despite all the decrees and acts enacted in pursuit of education policies, 10% of the world’s out-of-school population is harboured in Nigeria, and, as at 2007, about 10.5 million, representing 42% of her primary school-age population, were out of school, with the majority being girls prevented from advancing their formal education for cultural and economic reasons?37 The net enrolment worsened in the last ten years, dropping from 61.3% in 1999 to 57.6% in 2010.38 Of course, there are regional inequalities in access to education with about 60% of girls aged 6-17 years in northern Nigeria out of school.39 Again, recent study showed that Nigeria is among the seven African countries in which more than 40% of the children did not reach the minimum standard, the same study which indicated half of Africa’s total primary school population (61 million) will reach adolescence without the basic skills needed to lead productive lives.40 What are the factors responsible for

38 USI estimate 2010.
39 Ibid.
the high rate of out-of-school children in Nigeria? The issues involved range from poverty and economic constraints, making it hard for parents to afford the necessary fees (or purchase of books and uniforms even where the tuition is free);\textsuperscript{41} street hawking for family survival; cultural or religious influence, particularly affecting the girl-child; seeming unemployment of graduates at all levels; inadequate school infrastructure, teaching materials, and poorly qualified teachers; and poor government policies on education; to mention a few. The importance of children education to security has been argued by Hayes and Sands thus:

One, final and perhaps surprising, security area is education. Opening schools and getting children (particularly teenagers) off the streets reduces one source of potential instability, and frees their parents to go to work. School attendance also gives children hope for the future and provides them an alternative to joining factional militias.\textsuperscript{42}

At the level of higher education, there is no doubt that the university system in Nigeria has been in series of crises for quite some time now. Most of Nigerian universities are no longer the ivory towers, or centres of excellence, or citadels of learning, or even community of scholars. According to O. Arikewuyo:

The university system in Nigeria has witnessed a lot of turbulent experiences. The crisis has been characterized by a combination of chronic under-

\textsuperscript{41} Econometric analysis using the 2004 Nigeria EdData Survey and Demographic Health Survey found poverty to have a large and statistically significant negative effect on children’s school attendance, even after accounting for child, family characteristics, and distance from school. See Jane A. Lincore, “Determinants of schooling for boys and girls in Nigeria under a policy of free primary education,” \textit{Economics of Education Review}, 28, pp247-484.

funding, rapidly increasing student enrolment, inadequacy of facilities, deterioration of physical infrastructures, a growing culture of arbitrariness and suppression in managing the institutions, demoralization of staff and students, incessant students riots, and periodic staff strikes…

Likewise, analysing the brain drain problem in Nigeria, E.H. Timilehin noted that, although universities are supposed to increase the productive capacity of the labour force through linkages with the productive sector of the economy, Nigerian universities are failing to do so because:

…The system is in travail, riddled with crises of various dimensions and magnitude. A number of multi-faceted problems have inhibited goal attainment and are raising questions, doubts and fears, all of which combine to suggest that the system is at a cross road.

There appears to be a missing link between Nigerian universities, the communities they serve and the private sector of the economy. For the activities of our universities to be meaningful, there must be a strong link between the universities and society. One of the most important avenues for this link is through research, because research is central to a university’s mission. Our universities must go beyond issuing degrees to young graduates, otherwise they would not have the opportunity to make meaningful contributions to the growth and development of the nation. Of course, research attracts funding from both the government and private sector.

Universities are the leaders of research. They contain some of the best brains, therefore are national assets. It is important

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for universities to maintain the leadership role, because research by universities remains a prime source of knowledge and innovation. According to Gibbs, “Knowledge generated by research is the basis of sustainable development, which requires that knowledge be placed at the service of development, be converted into applications, and be shared to ensure widespread benefits.” It is easy to note the significance of research to the development of nations when one examines the role research universities play in the development of the most powerful nation in the world today, the United States of America. Of the 25 top-level research universities in the world, the US has 22 and, of course, the universities contribute the vast proportion of the research efforts and, by implications the technological advancement of the US.

There are so many wrongs with the issue of research in Nigerian universities. While B.U. Igwe observes that only limited amount of university research reaches a commercial state, S. Musa notes that research in Nigerian universities is mainly conceived in terms of publications and career development, and tends to have little social relevance. I very much agree with both Igwe and Musa, basing this on my experience as the Registrar of six years in Nigeria’s premier military university, the Nigerian Defence Academy. During this period, I observed that most of the lecturers hardly engaged themselves in serious research, other than for the satisfaction of academic promotion requirements. A lot of research opportunities with the Defence Industries Corporation (DICON), Military Hospital, the Peugeot Assembly Plant, and many other economically viable organizations, were missed. Although part of the problem was government funding, there was docility on the part of the potential researchers and their inability to provide

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45 Adrian Gibbs, “The importance of ‘research on research’” University World News (Special Edition), 23 May 2011.
47 S. Musa, “Ibadan University and the Welfare of Nigeria,” Ibadan University, 40th Anniversary Lecture, Ibadan.
convincing research proposals that would attract the attention of the private or business sector.

Universities should be drivers of societal growth, and this has been demonstrated through university-industry linkages in other nations. For example, research was conducted in 22 locations in six countries, namely USA, UK, Finland, Norway, Japan and Taiwan, focusing on particular industries or lines of business for a period of 20-30 years. The main thrust was on the contribution of local innovation processes to the evolution of products, services, and production processes, and findings revealed industrial transformation processes through the contributions of local higher educational institutions. 48

If we examine further, how many Nigerian universities have taken interest, even if in partnership with other research institutes at home or abroad, to conduct research, for example, that would produce results to wipe out the malaria killing millions of people annually? Even though malaria is a tropical disease, we rather have all kinds of drugs coming from China to treat malaria. Similarly, I am yet to know of any of the research institutes or higher educational institutions that have shown interest in carrying out research on HIV/AIDS and the current Ebola virus threats to West Africa. Energy and specifically electricity generation is a major problem in Nigeria; how do we solve the energy problem in terms of alternative sources, such as bio-fuel, and how many universities are into such research ventures? Is it not a major problem in our environment that inhibits our national development? Again, how do we enhance our agricultural output with the vast fertile land available in Nigeria? The Agricultural Institute of Ahmadu Bello University, Zaria was making some headway in the 70s and 80s in agricultural development, but, all of a sudden, everything collapsed. These are just examples of issues and problems that bedevilled our nation which are worth spending time, money and efforts to deal with through research and innovations. As a

matter of fact, most of our university lecturers are engaged in the recycling of old notes, copied from textbooks and sold to students as handouts. Very few university lecturers create time for research and writing books in order to update knowledge and provide the challenges for national development. While it is true, as I noted earlier, that the original intention for establishing the early Nigerian universities between 1948 and 1962 was to produce the manpower that would eventually take over the administrative responsibilities of Nigeria when we eventually got independence, part of the major challenge has been funding of universities and, of course, it is a major one, since less than 1% of our GDP and less than 10% of the national budget are committed to the education sector.

Talking about funding of education, the important question is: Who should pay for higher education? Is it the government, in line with the Nigerian constitution? What about the private sector? And is the 2% ETF contribution from the private sector adequate? To what extent should students/parents contribute? Very often, attempts to increase tuition fees in the public universities are always greeted by protests from the students, yet there appears to be very limited sources of funding available to the universities. What about the private universities and the high fees they charge, making it almost impossible for indigent students to have access? Who are the stakeholders, and how should they share the management and financing of educational institutions? What should be the funding strategy? Funding of education in Nigeria has been mainly from the government, and since the 1980s, the dwindling resources of the government has put much strain on the financing of education. Inadequate funding of our universities has not only made meaningful research difficult, it has also led to the deterioration of education in all its ramifications.

What we notice in most of our public universities is inadequate or even lack of classrooms or lecture halls, laboratories, libraries and books, workshops, and other necessary physical facilities. For universities that were fully residential with adequate residence halls in the 70s and even 80s, the situation is now different. In those universities that still
have such residence halls they are overcrowded with as many as
ten students occupying a room originally designed for two.
Likewise, a similar problem applies to the classrooms and
lecture theatres, where you find students hanging on the
windows, while others stand throughout a lecture due to
overcrowding. What this shows is that there has been
tremendous increase in the admissions without corresponding
expansion of the facilities in the universities.

A fundamental problem in Nigerian universities is what I
refer to here as leadership character development, which is
equivalent to what the military refers to as officer-like qualities
in the making of the gentleman-officer. No matter how educated
or intelligent the individual is, he/she cannot add value to
national development, if he/she does not possess the right
character, and this is a fundamental issue of students’ cultism in
Nigerian universities. Cultism in our higher institutions of
learning, especially the universities, has assumed a very
dangerous dimension, which, no doubt, has a tremendous
negative effect on the overall education system and even
national development. Not only that students’ cultism is a major
social problem because it involves the abuse of hard drugs,
prostitution, exam malpractice, violent crimes (including armed
robbery), but it also negatively affects the specific contribution
of higher education to national development. First, it creates
leadership problem for the future, since it destroys the values of
integrity, honesty, selfless service and loyalty, which provide
the foundation of good leadership. It creates monsters of those
involved due to the sadistic behaviour associated with cult
activities. Second, the quality of university products is grossly
affected for their involvement in all kinds of exam malpractices;
inability to attend lectures; threats to even the lecturers, who, in
some cases, give in to blackmail; destruction of infrastructures
meant to support quality teaching as a result of cultist violence;
etc.

University management problem sometimes leading to
violent demonstrations or very long strikes is a major area of
concern among the problems facing Nigerian universities.
Sometimes, these conflicts emanate due to what university staff
perceive as undue government interference in university
activities, which curtails university autonomy, hence academic freedom. The Non-Academic Staff Union (NASU); the Senior Staff Association of Nigerian Universities (SSANU); and in particular, Academic Staff Union of Universities (ASUU) have always been at loggerheads with various governments and university authorities, not only because of external interference, but also due to the perception of poor funding, issues of autonomy, and conditions of service. The implications of these conflicts include brain drain, whereby there is widespread migration of academic staff from the universities in Nigeria to similar institutions overseas for better reward. As a result of brain drain, it becomes difficult to produce the calibre of manpower necessary for national development because staff-student ratio would become disproportionate, the strength of well-qualified lecturers would diminish.

Conclusion
Education is only one factor in national development, and in terms of human security, it is part of the necessary building blocks for human development. What this means is that although education can support the strengthening of public institutions, it cannot stand alone in building society. The value of education is in its utility to the society: educated population that is unemployable, for example, serves no purpose for society; likewise, educational programmes that do not meet the needs of society are not likely to contribute to national development.

There is no doubt that investment in education, particularly higher education, is expensive (not as expensive as ignorance), but the returns are of immense benefits for nation building in the long run. Every nation requires competent and experienced people for its development, and the products of higher education form the tools for such development. Higher education provides the necessary manpower with the required skills and competencies essential for the social, economic and political advancement of a nation. For us in Nigeria, although there has been increase in the number of universities; although there is high demand for admissions into our universities, and
student population is higher than say about two decades ago; although there are many private universities established to fill the gap in higher education; and although many of our top politicians and the best senior executives in both the public and private sectors, are products of our first generation universities, education as a tool for national development has not been given the attention it deserves.
Institutionalization of Research and Development (R&D) as the Launch Pad for Nigeria’s Technological Revolution

Suleiman Elias Bogoro

Introduction
I am delighted to be here this evening to be part of the effort of University of Ibadan to advance the frontiers of knowledge through its Postgraduate School. I am here at the invitation of the Dean of the Postgraduate School, UI, Prof. A.A. Aderinto, endorsed and supported by the Vice-Chancellor, Prof. Isaac Adewole. We at TETFund recognize that we must forge and maintain strategic partnerships with our public tertiary institutions, and so starting with Nigeria’s premier University, the University of Ibadan, could not have been by accident, granted the leading credentials of UI as a centre of excellence in postgraduate training in Africa. This is consistent with the established tradition that Ivory towers are the bastion of intellectualism and the breeding ground for creativity, original thinking and innovations which shape and define civilizations and also drive economies and development. Nigeria at 55 can only remain afloat if we as a people refocus on the tendencies and mechanisms that promote more of renewable resources, like human capital, rather than exhaustible resources. Therefore, the focus of my entire lecture will be the place of Nigeria in the international knowledge movement. Nigeria, like many developing countries is faced with myriads of problems of under-development requiring urgent attention. Successive governments in more than five decades have made concerted efforts to address these problems, but the results have been mixed.

Over the same period, government has taken many initiatives to provide a framework for the development of Science and Technology (S&T) and its integration into the mainstream of development strategies. However, the impact of these initiatives in changing the socio-economic impact of these efforts still begs for more probing in view of the subsisting underdevelopment and poverty indices at all levels. There is,
therefore, a need to revisit the role and relevance of science and technology in national development and to explore prospects for filling knowledge gaps in the generation and use of research results. Although development issues are general for developing nations, the consensus is that the required processes are not linear; rather, they are influenced by specific country conditions with the pace being dictated by the developed countries. It is important to note that the driving forces of development have changed over time; science and technology (S&T) has become an important driver of development in contemporary societies, a reality this country must address its mind to.

The level of investment by governments in innovative research and development and education determine the global competitiveness of their nations. Massive and qualitative human capital development with emphasis on technology and product development are factors responsible for the sustainable economic development of the more advanced nations of the world, with Israel and the so-called Asian Tiger Nations as easily the best references in progressive transformation in the last half century. There is no doubting the fact that the catching-up process for a country like Nigeria in the globalized economies can only be enhanced by the development of a solid framework for the development and integration of science and technology into national development strategies. To achieve this, therefore, a deliberate investment in research and development (R&D) remains the most potent strategy to join the train of knowledge-intensive development agenda. This suggests that the development processes, and associated catching-up processes, can be better understood by analysing technology and processes of technological learning. Institutions of higher learning, which are expected to solve many of these problems through research and community service, in the past, complained of poor funding, hence their inabilities to deliver on these mandates. With the advantage of both human and natural resources, Nigeria has the potential to effect policy corrections to pace up its competitiveness. My decision to deliver this lecture is a testimony to the fact that TETFund has elected to promote and support the institutionalization of R&D through
innovative best practices in our tertiary institutions, thereby creating the platform for the researcher to patent and develop their findings as a transformative imperative and sustainable driver of the economy.

Why Research and Development?
There is no doubt that science and technology has been, and will remain, the most critical inputs to development processes, particularly in the face of increasingly globalized, knowledge-driven economies. Therefore, deliberate investment in research and development (R&D) is key to the generation of knowledge. However, in Nigeria, and until recently, R&D has been largely a government affair, with very little private sector participation. The transformation agenda recently introduced in Nigeria has witnessed a gradual shift of the national economy from a largely public sector-led and administratively controlled economy to a private sector-led and market-oriented economy. The emergence of TETFund in Nigeria is a response to the voice of the academic community led by the university academic union, ASUU, for increased private-sector participation in the development process of Nigeria.

For me, my motivation to contribute to the need to prioritize and indeed institutionalize R&D as the indispensable development phase of innovative research in Nigeria dates back to my days as a budding university researcher. In fact, a key objective of my Ph.D thesis was the research and development imperative of applying the stoichiometric, metabolic and physiological implications of the production methane (CH4) gas and other metabolites in the process of feeding ruminant animals. This led to the “Innovation and application of a rumen fermentation model for the stoichiometric evaluation and nutritive value prediction of ruminant animal feeds” (Bogoro 1997). Some of the highlights of the work include the potential application of the fermentation model with statistical modelling which could go a long way in simulating not only the nutritive value of other ruminant farm animal feeds, but more importantly, the stoichiometric value prediction of the massive forages and protein-energy supplements available to a state or nation, at
large. In respect of current concern about implications of livestock production activities as it affects the environment, the fact that methane constitutes 22% of greenhouse gases elicited interest from me and my research team.

**Conceptual Framework**

The conceptual framework for this paper is drawn from the National Systems of Innovation (NSI), which has the R&D system as an important component. Research becomes related to development because its outputs are expected to have direct effects on humanity. Science was believed to be an ‘endless frontier’ of new knowledge, products, and processes. The policy implication was to allocate sufficient resources to scientific research to generate knowledge that would percolate into the economy in the form of products and processes.

The National System of Innovation, NSI is a system of elements and relationships (organizations, policies, rules, and regulations) in which the production, diffusion, and use of economically useful knowledge takes place (Lundvall 1992). NSI has gained currency and wide acceptability in the developed world, and has just started to gain popularity in developing countries. Its main thrust is the fact that the more resources that enter the R&D system, the more innovative the national system becomes (Nelson 1993). Some initiatives have been taken to adopt this approach in the African context (Muchie et al. 2003; Wangwe 2003). The process of developing necessary capabilities for research and development, especially the building of required infrastructure, and institutions in the Third World countries is, undoubtedly, a very complex one. Yet, it has been proved that science and technology remains the key to the necessary transformations required for nation-building. Basically, R&D is a major component of any meaningful innovation, if such innovation is a product of scientific research. Innovations are processes of introducing new processes and products into the economic and social systems through scientific researches (Graham and Woo 2009).

There are various conceptions of what R&D and scientific innovation connote. However, in this paper, I have chosen to
view Innovation as both the process of introducing something new and the new thing itself. In economic terms, innovation refers to the marketing of new or improved products, the successful application of new or improved techniques, or the introduction of new ways of working that improve the efficiency of an individual or organization (Archibugi et al. 1994). Technological Innovation is defined as the creation of new products or processes, or the improvement of existing product or processes, with the aim of gaining commercial advantage (Ballard et al. 1989). Also, some define experimental development or R&D as a process primarily undertaken for technological advancement to create new, or improve on existing materials, products or processes, including their incremental improvements (Fawole et al. 2005; Alade et al. 2014). At the policy level, what we are prescribing as the justification for expansion of R&D at the national level is to make government and other stakeholders respond to core issues of advancing innovative activities in the national economy; and the best approach to organize and nurture R&D to bring about innovations. It has been established without doubt that what determines nations in development globally is the difference in the resource committed to R&D.

However, it is now recognized that innovation is a collective endeavour that is facilitated by interactive learning. Stakeholders other than the government now play new roles in development processes and in R&D activities, in particular, especially in most developing countries, including Nigeria. In most African countries, including Nigeria, which is the largest economy in Africa, the role of the private sector in driving the economy is very inadequate. This implies that, it can be assumed that public funding (government and donor funding) is likely to continue to be the predominant source of funds for research and development in these countries. At present, only about 0.2% of R&D funds come from the industries. However, as private funding of research grows, TETFund is putting up concerted efforts aimed at identifying more innovative ways of using government and donor funding in research programmes and projects.
In the subsequent part of this paper, I have taken the liberty to provide an analysis of some factors that influence the effectiveness of research and development activities, drawing lessons from four countries in Asia with good records of investment in R&D. Answers will also be sought to the following questions:

- How can R&D system be organized with a view to engendering the production of new products and processes?
- How can tertiary institutions serve as pivots for the expansion of R&D?
- What policy factors influence public and private sector support to research and development with a view to enhancing its relevance to socio-economic development?
- What incentives and other policy regimes can facilitate innovative activities?
- What is the role of the public and private sectors in supporting R&D systems?

Traditionally, nations that desire development have to adopt deliberate policies of allocating sufficient funding to R&D to generate relevant knowledge that will in turn influence livelihoods through the introduction of new products and processes. My concern in this paper is to draw a nexus of factors in the process of scientific developments with particular emphasis on the role of higher education in the entire process. My emphasis on the role of higher education here is borne out of the fact that, for Third World countries, universities and other tertiary institutions host virtually all the scientific infrastructure and personnel (Ben-David 1968; Altibach 2009). Since the University of Ibadan is a frontline institution in the training of postgraduate academics needed for R&D, there is no better place to start this crusade than here.

In the Third World countries, Malaysia, Singapore, south-Korea, and Taiwan are among the most successful countries where education and technology have played significant roles in
the national development policies. These countries have potential to become powerful global competitors in sustainable development because of their efficient and increasingly well-educated labour forces and export-oriented industries. They are potential sources of motivation for the growth of R&D in other Third World countries. The countries are intentionally selected as reference points in this paper because I am convinced that we have a lot to learn from their experiences. Third World countries are part of the international knowledge system, but they definitely operate at a disadvantage. The distribution of global R&D presented in figure 1 show that developed nations dominate the knowledge economy system, and this is reflected in their levels of civilization. The approaches in the four Asian countries will be discussed as references from where Nigeria can draw relevant lessons for the expansion of R&D activities, which will, in the long run, engender growth and development in the country.
Fig. 1: Distribution of global R&D.
The Scientific Diaspora

Brain drain is a very serious issue in Nigeria. The reasons why some Nigerian researchers run overseas have a lot to do with inadequate incentives for research and other conditions of service. All the four countries of reference from Asia in this paper also have strong ties to the metropolitan scientific communities in several ways. The research agenda of these advanced countries dominate world research. Many scientists and scholars from the Third World are educated in the advanced industrialized nations and maintain ties with their metropolitan centers. These factors necessarily tie Third World nations into the international knowledge system and make them dependent, to a significant extent, on what Altıbach (1989) refers to as “imported knowledge.” Research and development is useful only to the extent that the product has sufficient local contents that make it beneficial to the immediate society. For R&D to flourish, human resource is a very fundamental requirement.

Many researchers who have left the country usually adduce two reasons for migrating. The first is the availability of more incentives for research in the advanced countries and the second being better conditions of service in their countries of abode. Many researchers in the diaspora sometimes serve as consultants in their home countries, since they constantly visit their homes. Therefore, plans on R&D must consider the interest of the scientists in the diaspora. Industrialized countries are in the habit of relaxing their immigration rules for the diaspora scientists, especially those that possess skills and qualifications that are in high demand in the countries where they have chosen to reside. These peripatetic professionals are an increasingly important part of the international flow of knowledge. Factors that determine the decisions of scientists to remain abroad include professional opportunities, family ties, chances for high incomes, availability of scientific equipment and laboratories, political tensions and immigration rules. The relevance of the discussion on these factors as they affect research and development is that the discussion is capable of generating both advantages and disadvantages, depending on the context of reasoning. The positive side is realized from
those who still keep in touch with their colleagues at home, giving them the benefits of being in touch with latest happenings in global R&D, and contributing articles to local journals.

**Foreign Training**

Foreign training is a necessary element for the creation of a pool of scientific personnel required for the sustenance of research and development activities in the Third World and will remain so for the foreseeable future. These countries have the infrastructure, the human resources and the capacity to train personnel to the highest international levels.

Asia is, by far, the largest exporter of foreign students to the industrialized nations and all four of the countries discussed here contribute significant numbers of foreign students. Indeed, Taiwan, Korea, and Malaysia are all among the top ten countries sending students to the United States and the numbers are still increasing. The impact of foreign training on the development of R&D is quite significant and has been discussed in the previous section. As noted earlier, as much as foreign training is desirable for production of high-skilled manpower needed for scientific research, it is also capable of bringing along with it some undesirable consequences. On the positive side, it is an established fact that in almost all academic fields, the most advanced training facilities, the best libraries, and the most distinguished scholars are located in the major Western nations. In the four countries of reference from Asia, foreign-trained academics and scientists constitute a significant proportion of the total numbers of available researchers. Most of the high ranking researchers and administrators and policy makers in Asian countries are foreign trained. There are no empirical records to show that foreign-trained professionals in science and technology in Nigeria perform better than their home-trained counterparts, but there are evidences to show that they are exposed to better training facilities in foreign universities.

Third World countries have to look overseas for students and training of their professionals because of the unavailability
of such training opportunities at home and the kind of value that
societies and the trainees themselves attach to overseas training.
Foreign degree holders generally obtain the needed expertise
and those who return home secure places in industry or in the
tertiary institutions. Foreign training ties degree holders to an
international scientific community, with both the positive and
negative implications of those ties. Foreign-trained scientists
and academics sometimes have problems of readjustment to the
norms and values of their societies and their home institutions.
They come down with myriads of problems. They are likely
going to find some academic culture or industrial policy strange
to them. Some of the research topics they are made to carry out
at home may not satisfy their aspirations. Some of the
researches may not be at the cutting edge of international
science and may not be publishable in reputable international
journals. The training that they receive abroad may not be
entirely relevant to domestic concerns and may be partly
dysfunctional in some ways. As the four newly industrializing
nations considered here move quickly to the international
mainstream, readjustment problems become less serious. For
most scientists, there seem to be a reasonable fit between an
international scientific orientation and local issues and needs.
Arising from this, patrons of R&D in Nigeria must take the
issue of this training as important as the programme itself. A
substantial amount of funds is being expended by TETFund on
Human resource development. Many doctoral students have
been trained through TETFund intervention funds.

The Traditional Universities
Universities in developing countries have been largely criticized
as being substandard, lacking relevance to contemporary needs,
highly elitist, and generally costly. Notwithstanding these
impressions, which, in most cases, are due to lack of inform-
ation, the universities are the main institutions for training
scientific personnel and, in most countries, for conducting
research. It is, therefore, of special importance to understand
how academic institutions work. The contemporary university is
a Western institution wherever it exists. The only university in
the Third World with a bourgeois academic model is the Al-Azhar in Egypt. One of the conditions that have the potential of supporting the growth of R&D, and making it maximally beneficial is the readiness of universities and governments to synergize their efforts. A situation where both governments and universities work at cross purposes is not going to be beneficial in the long run. The two partners have to agree informally on unified goals of development and the appropriate role of higher educational institutions in development. While academic institutions prefer and may elect to work as independent institutions, arrangements have to be made to provide opportunities for them to contribute to development. There must be a healthy relationship between the town and the gown, and the universities must also admit and recognize their responsibilities to the society. The issue of university autonomy, in terms of scope and terms still remains unresolved in Nigeria, and this is held as strong value by academics. Governments have to accept the need for universities to operate with autonomy in words and action. This often means toleration of a variety of opinions and sometimes dissent on campuses. The universities still grapple with the problem of preserving the autonomy, and issues surrounding accountability to funding agencies for overall goals, and how the very substantial funds that government provides to universities are spent. The present arrangement of university funding and governance is not conducive to the growth of the universities. The best universities are those that enjoy a great deal of autonomy and academic freedom. Governments seek to have academic institutions conform to their wishes and this, many times, creates tension. Tensions in the universities lead to so many things, including long-drawn strike, which also force some researchers to migrate.

Universities, particularly in the Third World, operate under pressures created by their environments. Politicization of universities in a country like ours has the potential of diverting their focus from their main objectives. It is important to note that only very few universities in the world are exclusively research institutions. The very few most distinguished academic institutions even have a major responsibility for teaching as well as research. Third World universities were established as
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Teaching institutions primarily by colonial authorities interested in training a loyal civil service and staffing an educational system. Research was a secondary matter and was, in general, not encouraged. Further, Third World universities were not mainly focused on technology. In a bid to address the issues of access and politics, universities of technology are forced to introduce courses like the traditional arts and sciences, law, medicine and other unrelated courses, thereby losing focus on their founding objectives. Thus, the environment of the Third World countries, like Nigeria, makes it difficult to create research institutions like Harvard or Oxford. Rather, what is possible and available are public comprehensive universities with teaching as their main focus.

The Research Infrastructure
TETFund realizes the need to develop research facilities in the tertiary institutions and substantial effort is being put into this. The National Research Fund of ₦3 billion was introduced as a complement to address the paucity of funds to conduct tertiary education research activities. These funds are central and competitive. The funds are expected to facilitate research at cutting-edge level on activities that will impact positively on the competitiveness of the country on the global scientific milieu, and build up the research capacity of Nigerian researchers to contribute to the national development efforts as well as tackle global challenges.

Considerable progress has been made in developing research facilities in the four Asian countries of reference. Governments of those countries have devoted substantial resources to building up research capacities. Although substantial resources for research are concentrated in the tertiary institutions, especially in the universities in Nigeria, the government, through some other relevant agencies has also devoted funds to non-university research. We are also planning to set up a standing committee on R&D in the next few weeks that will properly coordinate research and identify areas that require special attention for the purposes of funding. In the newly industrializing countries in Asia, much of the university-
based research is not specifically funded by government or other sources; it is part of the regular responsibilities of the academics. In Singapore, emphasis is placed on areas such as biotechnology, electrical engineering, and computer science.

In 1984, the government of Singapore established a science park to attract high-tech companies and to encourage R&D. Thirty-four R&D-related organizations have settled in the park, 29 of which are from the private sector, while several are multinational corporations. The technologies in the park are mainly biotechnology and biomedical sciences, computer software and hardware, and chemical-related products. With its 1300 academic staff and advanced scientific facilities, the National University is the largest scientific agency in the country. The National University works closely with industries in many aspects, including collaborative researches and manpower training. The academic staff of the university work as consultants in many industries and this has helped to strengthen the relationship. The university authority provides the enabling environment by allowing some flexibility for the academic staff routine. This symbiotic relationship has been very beneficial to the government of Singapore. Singapore has devoted considerable attention as well as resources to the development of scientific capability because the country sees itself dependent on technology and commerce for its survival. Singapore has proved its commitment, and has demonstrated this through the devotion of enormous resources to the university, the science park, the university-related research facilities and specific programmes to encourage R&D efforts.

There has been recognition that a small country must access its scientific priorities carefully and invest only in areas that fit its perceived needs. Malaysia is also making strides in science and technology but not as much as Singapore has done. It may be of interest to us that Malaysia has specialized research institutions developing their major export products, particularly palm oil. The importance of R&D cannot be better demonstrated to Nigeria than the experience of Malaysia in palm oil production. Science and technology has traditionally been less of a priority for Malaysia than for Singapore although Malaysia
has recently placed considerable emphasis on scientific development. Further, Malaysia has long had specialized research institutions related to the country’s major agricultural products—especially rubber and palm oil. Well-funded, government-sponsored laboratories have operated for several decades, focusing on these products. Malaysia has recently promulgated a science plan that stresses fostering high-tech industries as well as taking advantage of the country’s rich natural resources as a base for further industrialization.

While there has been recognition that university staff constitutes the largest number of scientific personnel in the country, there has been less emphasis placed on utilizing the university for applied scientific research. Universities have been busy expanding and changing the language of instruction and dealing with the problems relating to that change, and in general, working out the problems of rapid development. The situation is now changing, however, and there are signs of increased concern with the use of higher education institutions for research and development. The growth of the Science University in Penang has been important in this regard as has been the establishment of an Institute for Advanced Study at the University of Malaya, the nation’s premier academic institution. As Malaysia has built up a technological base, the country has become a major producer of relatively low-tech computer chips and related products and has developed a significant manufacturing sector. Korea and Taiwan are both larger countries which have developed impressive export-based industrial sectors in the past two decades. The base of their industrial strength has not been in high technology but rather in the language of instruction, with Japanese as the sole medium.

The Language Factor in Global R&D
English is the main international language of science. The language of science, instruction, and scholarship is a key issue for Third World universities and is directly related to the international knowledge system. Many developing nations, especially in Africa and the Asian Tigers, have issues with the language of science and this constitutes some form of
disadvantage, especially in the communication of research findings through international journals and books. The four countries of reference from Asia reflect different approaches to the language policy and higher education, but they have all adopted different practical approaches based on individual needs, to surmount the problems that English as the general language of science would have caused them. A large proportion of the international scientific literature (both formal and informal) and most of the informal scientific networks function in English.

Singapore, on its part, adopted English as the language of instruction in all schools from the primary school to post-secondary school levels. The students, therefore, have no problem with research communications in the universities. All scientific journals in Singapore are published in English. As a direct policy, Singapore has integrated effectively into global knowledge and economic movements. This is why the government found it expedient to pay attention to English language proficiency as the only medium of research and development activities. The situations differ in South Korea, Malaysia and Taiwan. The approach to language issues in education and science in these places appear to be a little more complex. In all the three, an indigenous language is the medium of instruction in education, including higher education. Among the countries considered here, Korea has the most successful indigenous language publication system, although graduate students and even undergraduates in some fields must rely on texts and other materials in English. Korean professors, particularly in the sciences, publish some of their work in English for international journals, but a significant amount also appears in Korea.

In Nigeria, English remains the main language of instruction and administration. In fact, most universities, including UI, make a credit pass in English a condition for admission. Use of English is also a compulsory course in the universities and other tertiary institutions. This makes it easy for international participation in research and development.
The Role of the University

Universities inevitably have a key role in scientific research in any country and the reasons for this are obvious. With the advent of new technologies and the recent growth of industries globally, there is a corresponding need for well-trained personnel to catch up with the emerging sophistication. These skilled personnel will have to be produced by the universities. They are also educating small numbers of research workers who have a higher level of skills who may remain within the universities as teachers and researchers. The tertiary institutions and in particular, the universities are the existing institutions with libraries, laboratories, and highly skilled personnel. They have a research tradition and orientation. In Nigeria, and in the four countries from Asia, the universities have moved to stress not only research and publication as a means of recognition and promotion through the academic ranks, but have also developed foci in key areas of science and technology. The slogan in the universities now is “Publish or Perish”.

Particularly in the elite sectors, universities in these four countries are more oriented toward the science and technology than universities in Western countries. In Nigeria, some universities are established with technical orientations, but in practice, different things happen. The universities in the four countries of reference have some colonial orientations at birth but these institutions have become very much oriented toward technological development, due to patterns of resource allocation in the past two decades. Universities in these countries are the key source of training for technologically skilled manpower. New specializations in such fields as management, computer technology, economics, and others, have contributed the skills needed for development.

The universities are, therefore, providing the rank—and—file personnel for sophisticated economic development. The emphasis of universities in Nigeria and other developing countries is more on teaching than research and, often times, heavy teaching loads of academic staff may negatively affect their concentration on research. The emphasis on teaching and the academic structures may inhibit interdisciplinary arrangements, or directly working with private sector firms or even
government agencies. Academic freedom and institutional autonomy are strongly held values in the universities and they often have running battles with governments to enforce these. This affects the governments’ or industries’ ability to influence research directions in the universities. Despite these drawbacks, universities are the most important sources of scientific research and they are likely to remain so.

In Korea, Singapore, Malaysia, and Taiwan, there are increasingly close links to government and industry in terms of research. The incentives provided by government to ensure the cooperation of the universities have generally been successful. A number of initiatives which ensure flexibilities that enable academic personnel to vary their responsibilities among teaching and research functions have been put in place. Postgraduate students are also engaged as research assistants on economic stipends. Many of these initiatives are also available in some Nigerian universities and the results have been rewarding. University academics also have to maintain international contacts so that they can keep in touch with scientific developments in the larger learning centres. Korea has influenced its research activities in these ways and they have been largely rewarding except for the problems created by language.

According to Philip G. Altbach (1989), Korean higher education has had long science and engineering orientation, and currently more than 40 percent of the enrolments at the undergraduate level are in these areas. At the higher levels of the academic system, there is a considerable emphasis on research and publication, but for the majority of the academic system and particularly in the low-status private universities and colleges, the system is very much oriented to teaching. In this respect, the hierarchy of the Korean academic system is somewhat similar to that of the United States. Korea has the largest academic system of the countries considered here—it enrols about 31 percent of the relevant age cohort, compared to 54 percent for the United States, around 20 percent for Japan and West Germany, 12 percent for Singapore and 21 percent for Taiwan. It has moved from an “elite” system to a “mass” orientation to higher education. As part of Korea’s efforts at
promoting research and development, the Korea Advanced Institute of Science and Technology (KAIST) was established as a high-level training and research institution in 1971. The institution has been able to provide high quality training for many Koreans in science and technology. Although I am starting the campaign for the institutionalization of R&D in a university, our plans at TETFund are to support the institutionalization of R&D in all tertiary institutions under our mandate, which means we shall be establishing the R&D units in all the three categories of our benefitting institutions.

The Global Knowledge System

The world is increasingly tending towards globalized knowledge intensive economies. In this age, science and technology have become the key factors in development. The international knowledge system is at present being controlled by the industrialized nations. Nations from the Third World countries that desire development have to join the race, if they are to attain economic independence. Major elitist universities, research centres and laboratories are located in such key countries as the United States, Britain, West Germany, France, the Soviet Union, and a few others. These nations are the home of most scientific books and journals. They spend the bulk of the world’s R&D funds. They produce the largest number of patents and their discoveries and innovations dominate the world of science and technology. The research agendas of these countries dominate world research. Many scientists and scholars from the Third World are educated in the advanced industrialized nations and maintain ties with their metropolitan centers.

These factors necessarily tie Third World nations into the international knowledge system and make them dependent, to a significant extent, on “imported knowledge”. The implications of an international knowledge system for all countries at the periphery of the system, including many of the smaller industrialized nations (but especially for the Third World) are considerable. The small scientific communities of these newly industrializing nations do not have the personnel, equipment, or funding to maintain a world-class scientific infrastructure.
Advanced training in most fields inevitably has to take place in the metropolitan nations. There is pressure on scientists to publish their findings in international journals, which are seen to be more important—and more prestigious than local journals. Local scientists also desire access to a wider international audience for their work. Key research findings are almost always imported and the major basic work is done elsewhere. Scientists look abroad for insights. There is a sense that the most important scientific research is being done elsewhere and as a result there is often seen the position among both scientists and those in universities and government who set standards and make judgments on career advancement that local work is less important.

Despite these structural disadvantages, Nigeria, through TETFund, and some other relevant agencies are making impressive strides towards promoting R&D in our tertiary institutions by committing huge resources to innovative scientific researches. My team and I are convinced that research and development will not only contribute to the development of a mature and productive academic system in Nigeria, but also to scientific innovations that will be useful to domestic industries and technology. In the long run, it will serve as catalyst to the realization of the much desired national industrial growth, employment generation and poverty alleviation. We also understand that the development of an effective R&D system is multispectral, as it normally involves several groups, individuals and sectors.

**Knowledge as a Key Factor in Economic Development**

Innovation in national systems is a direct reflection of the nation’s investment in research and development (Nelson 1993). In Korea, for example, research and development is part of the international knowledge system, but has sufficient local roots strengthened by well-articulated policies (Altibatch 1989) (fig. 2).

Part of the disadvantages that developing countries face is that most of the global fund for R&D is being utilized by developed countries.
Most patents are produced by these industrialized nations and, as such, developing nations, like Nigeria, have to depend on imported knowledge for development.

The implication of this skewed distribution of global R&D is very grave, especially if we consider the fact of internationalization of knowledge. The cost of procurement of equipment and training of necessary personnel needed for world class innovative researches is high, if we consider the fact that what constitutes global wealth creation now places emphasis on intangible assets. The following figures show that growths of nations are now more than ever before dependent on innovative Knowledge. If we compare Korea growth especially when measured on GDP with that of Ghana for the same period, the result is highly instructive. The conclusion on the implication for deliberate efforts by nations to develop R&D potential can be clearly seen.

**Fig. 2: Economic development – Rep. of Korea and Ghana.**
Fig. 3: R&D sectors – Africa, Asia, Oceania.
Fig. 4:

Fig. 5: US vs EP number of inventions at universities.
Ghana and Malaysia: 1957
This was the position at independence

Ghana and Malaysia: 1957

Fig. 6: Ghana and Malaysia: 2009 GDP per capita terms.

Per Capita Comparative Analysis: 1960
Per Capita Comparative Analysis: 2009
What is the Catalytic Effect of R&D in Modern Economies?
While tangible assets could sustain governments for some years, intangible assets, like human capital, innovation and nationalism, as in the cases of Israel and Japan, constitute the real development guarantees for generations.

- Knowledge is a key factor in economic development - the Ghana vs Korean example (Shevel 2014).
- The most competitive nations have the best educational systems, with a bias for science and technology, and wealth creation—increasing value of intangible assets.

![Intangible Asset Value vs Tangible Asset Value over time](image)

**Fig. 7:** Asset valuation trends.

The Motivation for TETFund’s Interest in Promoting R&D
On assumption of duty as the Executive Secretary of TETFund, I set out to understand how I could use the opportunity to crystallize my dream of making higher educational Institutions lead the vanguard of making Nigeria become an active part of the global knowledge movement. In that process, I found out the following as important factors that will make the dream achievable.
(i) There is inadequacy of incentives for research and innovations in tertiary institutions. As pointed out earlier in this presentation, universities in developing countries are under so much pressure from governments and the society at large. The need to provide access to a large number of applicants in humanities and other fields diminish the incentives for research and innovations. Industry participation in universities research efforts is also limited.

(ii) Research and development is an international business. Therefore, our universities are required to join the global knowledge train. There is, the need to comply with global trend in making R&D the launch pad of Nigeria’s quest for an enduring knowledge-driven technological and economic development.

(iii) The need to support not only access but also quality as the twin pillars of the regulatory agencies in our tertiary institutions—being NUC for universities, NBTE for polytechnics, and NCCE for colleges of education.

(iv) Institutional arrangement in tertiary educational institutions and research institutes.

(v) Sustained stakeholder advocacy by civil society and profit-motivated industries. For instance, the Nigerian public draws inspiration from the transformation of a country like Singapore from Third World to its present position, a stride which was achieved by the country’s devotion of considerable attention to the development of scientific capabilities.

**Galvanizing the Universities for R&D: Our Plans in TETFund**

Nations all over the world have recognized that national growth and competitiveness (in the context of a globalized economy) depends very much on continuous technological improvement and innovation, driven by a well-organized vibrant research and development system which integrates the research and training
capacities of higher education with the needs of industry and the larger society. Tertiary institutions all over the world are usually the key drivers of research and development activities. In Nigeria, basically due to the declining quality of our research infrastructure, i.e. the absence of modern scientific laboratories where cutting-edge research can be conducted, declining quality of academia, the lack of incentive for publications, and dearth of funding, research activities have been at a very low level. The realization of this gap was actually the motivation for the establishment of TETFund in Nigeria. Universities are very important to the development of any nation since they are expected to produce well trained personnel that will drive innovations for economic growth. However, for universities to be able to play these roles, they need to possess good laboratories, libraries, and other facilities. When all these are provided for through public-private collaboration, they will be motivated to develop innovations necessary for nation building. Nations that fund universities adequately benefit immensely from their intellectual products.

As parts of efforts to transform the higher educational system in Nigeria, various reforms were carried out by the national government. One of the most significant was the establishment of TETFund. The Tertiary Education Trust Fund (TETFund) was originally established as Education Trust Fund (ETF) by the Education Tax Act No. 7 of 1993 as amended by Act No. 40 of 1998 (now repealed and replaced with Tertiary Education Trust Act 2011). It is an intervention agency set up to provide supplementary support to all levels of public tertiary institutions with the main objective of using funding alongside project management for the rehabilitation, restoration and consolidation of tertiary education in Nigeria, in order to fulfill its mandates as established by law. TETFund gets its funds from the two percent education tax paid from the assessable profit of companies registered in Nigeria. TETFund uses its funds mainly for the general improvement of education in federal and state tertiary educational institutions specifically for the provision or maintenance of:
essential physical infrastructure for teaching and learning;
- instructional material and equipment;
- research and publication;
- academic staff training and development; and
- any other need which, in the opinion of the Board of Trustees, is critical and essential for the improvement and maintenance of standards in the higher educational institutions.

In pursuance of its mandate, the Board of Trustees of the fund decided to introduce innovations intended to transform the educational sector and facilitate the emergence of Centres of excellence. Some special initiatives were then introduced to actualize the vision on the TETFund leadership. These initiatives include:

- The National Research Fund;
- National Book Development Fund;
- Zonal Central Teaching and Research Laboratories;
- Special High Impact Project;
- Academic Publishing Centres;
- Academic Staff Training and Development.

The National Research Fund was specifically introduced to deliberately promote the evolution of a knowledge-based, globally competitive R&D driven socio-economic development process in Nigeria. The fund, which is a reflection of priority accorded R&D by TETFund, was introduced to achieve the following specific objectives:

- Support and promote problem solving research activities in priority areas of national development.
- Create research leadership and competence in institutions of higher learning by deploying the tools of science, technology and innovation in a socially responsible manner.
- Promote sustainable integrated capacity building (human, infrastructural, and institutional) activities in order to
encourage public-private, domestic-international partnership.

- Aggressively promote collaborative R&D activities (partnerships) across the tripod of technology (government-academia-industry) to enhance commercialization of R&D outputs and thus ensure sustainable job creation and wealth generation as well as increased local content in industrial production activities.
- Encourage basic research geared towards strengthening the applied science milieu of interest to our nation’s economy.
- Promote multi-disciplinary research and multi-stakeholder collaboration in the national interest.

Institutionalization of R&D in Nigerian Tertiary Institutions: The Role of TETFund

As a university professor, I have, for long, identified the absence of a robust R&D as the missing link between innovations and creative thinking by researchers and the mechanism or even enabling environment to transform them into products or technology that drive economies and define civilization. So, upon assumption of duty as the Executive Secretary of TETFund in April 2014, I presented my vision for the organization to the Board of Trustees (BOT), and it included a five-year (2015-2019) strategic plan, with proposed establishment of a new department to innovate and drive R&D along with centres of excellence (CE) in our public tertiary institutions initially, but ultimately to partner research institutes or centres, private tertiary institutions and the industry.

The premise for the new drive is that, although there are existing government policies in respect of R&D which the main tertiary institution regulatory agencies, NUC (National Universities Commission), NBTE (National Board for Technology Education) and NCCE (National Commission for Colleges of Education) for universities, polytechnics and colleges of education, respectively, they have not been implemented as indispensable components that lead to research product patenting, incubation and appropriate technology,
among other things. Essentially, incoherent policy implementation, inadequate political will and poor funding support from both government and the private sector, mainly the industry, have constituted the impediments to the realization of Nigeria’s desire to forge an effective triangular partnership in the country that will ensure the country’s competitiveness through R&D as is the contemporary global trend.

Thus, when the TETFund BOT approved the creation of the Department of R&D/CE, as part of the new six-point vision of the organization, it conveyed the strong resolve of the BOT to pair centres of excellence along with R&D as an indispensable component of the latter. Since centres of excellence in any country invariably define research and innovation priorities of any nation for local, regional and national needs, TETFund has elected to support the institutionalization of R&D discretely along with the promotion and funding of centres of excellence. This new thinking by TETFund seeks to deepen our interventions more in the core academic components of our interventions rather than just physical infrastructure development which have been our main focus, granted the demands of unions and stakeholders in the sector. Thus, while TETFund has set aside billions of naira for research, book/ manuscript development, library development and academic staff development, it has become imperative to provide support to our tertiary institutions to analyse, harvest, patent and market to industry innovative research outputs that will elicit their buy-in, hopefully with instrumentation of the law as a backup.

The recently approved framework for the operations of the two-unit TETFund Department for R&D/CE (the two units being R&D and centres of excellence) articulates its objectives and functions as follows:

**Objectives**

(a) To promote R&D as a national imperative towards technological revolution and sustainable economic competitiveness;

(b) To institutionalize R&D through research and innovative partnership between tertiary institutions/research institutes, industry and government;
(c) To provide funding support for the public tertiary institutions, to establish and sustain R&D units towards uptake, patenting or commercialization of innovative research outputs;

(d) To promote and support the establishment or emergence of centres of excellence (CE) in tertiary institutions and research centres or institutes with mandates to address local and national development challenges;

(e) To collaborate with research committees of TETFund and tertiary institutions as well as R&D units in industry and public agencies for synergy and uptake of innovative research findings; and

(f) To advocate the establishment of a national R&D fund as a policy of government.

**Functions**

The new department will, among other things, carry out the following:

(a) Promote and support the institutionalization of R&D units in tertiary institutions through the soon to be constituted TETFund standing R&D committee whose membership shall include Nigerian experts in the diaspora;

(b) Interface with industries for support and uptake of innovative and relevant research findings;

(c) Create the platform to patronize research works by relevant agencies and industry;

(d) Promote and support the emergence and development of national, regional and continental centres of excellence in the Nigerian tertiary educational institutions;

(e) Carry out various activities in the centres of excellence to serve as regional and international reference points;

(f) Promote the creation of enabling environment for uptake of research findings;

(g) Monitor and evaluate the adoption and development of research findings by relevant agencies;
(h) Constitute and support a TETFund Standing Committee in charge of R&D/CE made up of the best researchers and innovators, which shall be responsible for driving the implementation of the key functions of the department.

The Need for the Establishment of a National R&D Foundation

Nothing clearly depicts the weakness in driving R&D in Nigeria as the absence of a national platform for the regulation and strengthening of R&D. I believe that the establishment of a national Foundation for R&D has been overdue. My call for coordinated efforts can be easily achieved if a national R&D foundation is established in Nigeria. This will ensure a coordinated national framework for the sustenance and implementation of R&D. The national R&D foundation shall be responsible for the promotion and implementation of R&D policy on a regulatory, rather than executionary basis. Such a foundation, when established by law, shall promote an effective interface between research centres or tertiary institutions, government and the private sector, especially the industrial subsector of the economy. The national R&D foundation should be tasked, among other things to, promote, monitor and regulate the mandatory commitment of say 0.5% of the total turnover from all registered entities (both profit and non-profit) for the purpose of R&D, and a law must define its channelling, utilization and enforcement to the mutual benefit of the researchers and the private sector.

The tasks ahead in driving a sustainable R&D through quality needs-based research, technology-driven innovations and private sector-led funding and incentives involve:

(i) Identification and promotion of key partners in the promotion, advocacy and implementation of R&D in Nigeria. These are –
    • Government;
    • The private sector;
    • Tertiary educational institutions, Research institutes and centres of excellence;
    • ASUU, ASUP, COEASU, etc.
(ii) Establishment and sustenance of the departmental structures to drive the promotion of R&D in TETFund, including the appointment of a standing committee and provision of funds to service its oversight activities.

(iii) Evolution and sustainability of a robust and competitive economy through the pedestals of R&D, relevant innovations and endogenous technology.

The university and research institutes have been and remains the apex of knowledge generation worldwide. With knowledge, jobs and wealth are created, poverty is mitigated and global competitiveness enhanced. Rapid advances in economic development and Human Development Index (HDI) have become knowledge-based, private sector-led, S&T-driven and mainly government-facilitated via appropriate policy instruments.

Recent PISA (Prog Int Stud Assmt) study of 65 countries by the Organization for Economic Cooperation and Development (OECD) shows a –ve correlation between education performance of students in a country and the total earnings (% GDP) the same country derives from natural resources such as oil, gold, diamond, etc. The study gives an insight into extant issues: countries blessed with natural resources are jinxed with what has been termed the natural curses or “Dutch Disease”. This is because countries caught in the lamentable vortex of burgeoning natural resources, almost, never go into manufacturing or innovative technology.

Nigeria can reverse all paradoxical indices of development through institutionalization and support for R&D. TETFund has decided to play its role in this regard through partnership with tertiary institutions, research centers, regulatory agencies and the private sector. If all key stakeholders join us, this may just be the beginning of a more promising future for this country.

**Conclusion**

Nigeria, no doubt, has to learn from the most advanced countries and economies as well as emergent economic powers, like Taiwan, South Korea, Singapore, and Malaysia, who are at
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a crucial turning point in their development. They are good reference points for assessing the benefits of R&D on development. They have also built up impressive academic infrastructures that are poised to engage in research. It is an undeniable fact that the future economic growth of Nigeria will depend largely on R&D and on the harnessing of technology. TETFund is poised to play its own part in the realization of the important role of R&D in Nigeria’s economy, which is a global trend. The question is not whether R&D will be an important part of the economic future of Nigeria but how it should be deployed and what precise direction it will take.

The aim of TETFund is to continue to take steps that will ensure that R&D is fostered. This will definitely be a daunting task, but not insurmountable. Nigeria will have to grapple with the questions of how to, in the face of dwindling economic resources and instability in academic calendar, build up the necessary expertise and the appropriate critical mass. What are the appropriate institutional arrangements? How can the current links with metropolitan R&D and academic communities be effectively used? Does the brain drain constitute an unmitigated disadvantage or are there positive considerations? What are the best policies for building up the needed infrastructures and orientation toward applied research? How can the traditionally autonomous academic institutions be constructively involved? With the commitment of the stakeholders and political will of government, the journey towards economic development based on R&D might have started. I am convinced that if our universities, polytechnics and colleges of education rise to the occasion and enhance their capacities for competitive and innovative research, Nigeria may soon recapture lost grounds and consolidate its status as Africa’s economic leader.

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Bibliography


ASUU Struggles and the Revitalization of Public University Education in Nigeria

Nasir F. Isa

Background
Let us begin this discourse by attempting some terminological clarifications in relation to the title. Two terms “struggles” and “revitalization” need a brief deconstruction. The term “struggle” is a labour lingo loaded with symbolisms and it raises diverse sentiments depending on one’s agreement with the agenda of labour. Even though one does not need to be apologetic about labour inclinations of the Academic Staff Union of Universities (ASUU), for the purpose of this discourse, we wish to focus more on the intellectual dimensions of ASUU’s struggles. The reason is that we have an opportunity to engage the issues of university education at a time when there is ostensible industrial harmony in the system. People should be able to listen with some measure of objectivity and give a critical analysis of ASUU’s contributions unencumbered by politics or special interests. ASUU is a labour union but also a union of intellectuals.

It is necessary to make a clear point of this: that there is a fundamental philosophical, ideological and nationalistic motivation behind ASUU struggles. As intellectuals and educationists, we are better informed by training, practice and experience than most groups in Nigeria. As professionals, and employees in the sector, we have a greater stake in education than most other groups. By our intellectual training, we are, perhaps better equipped to understand the issues of national development and articulate the critical factors of nation building in a dynamic global world. The pivotal intellectual leverage of ASUU in a society that is all but a knowledge or learning one limits its threshold of tolerance for ignorance, mediocrity, manipulation and failure; if not constrains its methods of engagement of leadership who are everything but informed and patriotic.
The term ‘struggle’ is a labour term, which describes sustained and committed determination to achieve a vision of society based on justice and equity in the distribution of resources, opportunities and commonwealth. In order to understand the nature of ASUU struggles, it is necessary first to disaggregate the nature and vision of society underlying the ideology of the dominant class, the historical context of the Nigerian nation, and match this against the philosophy and ideological leanings of the ASUU collective. A linear conception of the struggles as events in time, as causes and effect, and actions and reactions, will conceal the fundamental fact that they are not chance events, coincidences in statistics of random occurrences or even deviations from a normal course of social transactions. The struggles are systematic precipitation occasioned by a clash of ideologies, perception and philosophy between the dominant elite that is steeped in colonial mindset, pursuing a selfish neoliberal agenda, and an ASUU collective seeking to liberate and empower the mass society through a liberating educational agenda.

The term “revitalize” assumes a certain level of vitality in the public education system at a point in the past that ASUU is trying to restore. Is ASUU’s struggle, therefore, designed to restore an old glory? If it were, then, it would be logical to ask, what did we do right in the past and what are we now doing wrong? A return to a past order would suggest that the world has remained static contrary to the global and local realities in our experience. One would like to observe and, to some extent, accommodate the sentiments shared by many of the illustrious histories and phenomenal contributions of Nigeria’s first generation universities to the development of the country. Those who wish to negate the assertion that is taken for granted as true, would soon discover that it is very difficult to quantify the contributions of a university to national development. Even if we harbour hidden dissents, we still refer, with reverie to an era defined by clarity of purpose, operational effectiveness, culture and traditions of excellence that enabled Nigerian universities to maintain reasonable parity with their counterparts worldwide.
Nevertheless, it is a truism that the failures of a future time are sowed in the sands of a past era. The glorious era and wonderful institutions were, in all intents and purposes, colonial. They were and are still largely replications of a colonial mindset. They are labour infrastructure designed to service a colonial and neo-colonial economy. While we are often involved in self-adulation at convocation and university events, the realities that stare us in the face suggest a system designed to fail and that has, in fact, failed in all evaluation matrixes except in literature reviews, quantity of products, colonial architectural monuments and hundreds of thousands of wonderful imitators of foreign ways.

We do not intend to evaluate, much less denigrate, the past. Nevertheless, we can agree on two critical parameters for effectiveness of a system. These are fitness of and for purpose. The literature on the products of the university system is not at all encouraging. Ayandele (1974) describes the educated elite in Nigeria as “mental slaves, deluded and disconnected hybrids and transmogrified individuals and products of a numbing colonial and neo-colonial educational system.” Contemporary assessment of products of the system characterized them as unemployable and lacking in basic social, emotional and literacy skills. The educational curricula, programmes and pedagogy today are as irrelevant and unrealistic as they were in colonial times. However, we must agree that the system is effective in producing imitators, poor leaders and culturally disconnected individuals. Are we then justified from the foregoing to conclude that we inherited and have propagated a failed system?

If there is still some basis for divergence on the answer to the above, let us then examine the issue of quality of leadership by products of the system. The leadership quality since independence evinces the negative outcomes of the university system. The human misery summarized by the Human Development Index (HDI), the socio-political crises, governance challenges and insidious individualism shows a scorecard of embarrassing failure. The University of Ibadan, for instance, prides itself as “First and Best”, cites its illustrious
history and humongous contribution to national development. Nevertheless, it must also take responsibility for the national crisis, failure of leadership at all levels, endemic human crisis and growing frustration and despair by the mass society. Similarly, Ahmadu Bello University ABU must take part of the blame for the crises in northern Nigeria, as much as University of Nigeria, Nsukka cannot be absolved of blame for the challenges in eastern Nigeria. This is not a suggestion at the level that the institutions have failed in delivering their mandates, but one that suggests that the mandates are themselves defective and cannot bring about the desired outcomes. In our opinion, the philosophical foundation of the education system in Nigeria is steeped in colonial and neoliberal ideology, and an agenda which incorporates socialization and control mechanisms that leave no latitude for self-discovery, creativity, innovation and empathy; much less provide an opportunity for development.

ASUU’s struggles take off from the belief that the university system is deformed, its driving philosophy is mortally damaged and its established purpose is stillborn. Consequently, to seek to “reform”, “restore”, or revitalize the system would amount to an exercise in buffoonery. We, instead, are attempting to “reinvent” university education in Nigeria.

The Purpose of University Education
There is nothing inherently good or bad about the philosophy of education of any nation. We only need to emphasize that the ultimate value is determined by the underlying vision of the society which it conceptualizes and the interpretation of national and individual needs which it frames. Any philosophy of education represents the vision of the social class in power, which seeks to fashion a society in accordance with its own vision. Thus, the philosophy of education cannot be divorced from ideological premises that are imperceptibly lodged in the psyche, often taken for granted and undefended by its proponents (Fashina 2005). If we accept the above proposition, it follows, therefore, that the philosophy would necessarily be aligned with the political values, economic system and world
view of the dominant class. This is why it is so important that we do not accept the philosophy of education as gospel truth or sacred but subject it to critical assessment to see if the spirit and operation align with the principles of state, natural justice and cultural and spiritual integrity of the individual within the collective. The particular vision of society and the philosophy that it frames drive the various parameters of education from funding to structure, governance, pedagogy, reforms, practice and curricula, among other things.

**The National Philosophy of Education**

Nigeria’s philosophy of education is based on

- (a) the development of the individual into a sound and effective citizen;
- (b) the full integration of the individual into the community; and
- (c) the provision of equal access to education, the opportunities for all citizens of the country at the primary, secondary and tertiary levels, both inside and outside the formal school system (Federal Republic of Nigeria 2004:2).

Deriving from the above, the goals of the educational process is to promote national consciousness and integration, inculcation of values and attitudes that would sustain the Nigerian society, the development of the mind and acquisition of skills, competencies and abilities that will enable the individual function effectively, contribute to national development and be globally relevant.

The goal of higher education is defined within this broad framework as the contribution of high-level relevant manpower training requisite for national development. Various reform agenda of the Federal Government and World Bank/IMF—sponsored frameworks support a market-model of university education and a capital theory definition of education in general: “Education makes for a better skilled labour force and a more developed entrepreneurial ability” (Fashina 2005:2). It seems obvious to us that the operation of the philosophy is incongruent with the realities of the Nigerian society, which is
characterized by mass poverty, mass illiteracy, loss of and endangerment of indigenous culture/knowledge systems, imperialism and its challenges, among other things. It is clear also that there are contradictions that severely undermine the goals of integration due to the perpetuation of inequities, deepening of socioeconomic cleavages, which a market-model prescribes.

It, therefore, implies that the directions of university education presently can only lead to loss of identity, national disintegration, sustenance of dependency economy and a political ideology of dominance and exploitation. In deviating from the above, ASUU proposes a philosophy of liberating education conceived as a framework of theories and the ultimate practice of the progressive development of the individual and the collective mind of the human society. Education for liberation equips the learners with principles, concepts, precepts and other ingredients of the developmental process for becoming agents of radical transformation for their community. The ultimate purpose of education for liberation is the achievement of freedom, upturning a conservative and undeveloped social system for a life-enhancing and liberated social order (ASUU 2014).

**The Nature and Role of Universities**

According to Perkins (1973), in the foreword to the book “The Universities as an organization”, by understanding how universities are different from other enterprises—by understanding what they are not—we sharpen our comprehension of what they actually are” (xv). He states further:

It is easy to be misled by superficial similarities and shared characteristics. Because Universities like many other kinds of institutions require prudent management to conserve limited resources, it might be concluded that they should be operated according to business models. Because Universities must respond to large and different constituencies, one might suppose that governmental bureaus might be trustworthy models. Because they promote
investigation and scholarship, they share missions of foundations (xv).

However,

“while some of the strategies and methods of business might be employed by universities, with some benefit the two enterprises respond to different motivations and reward systems. Although both universities and government bureaus desire autonomy—and run similar risks in its abuse—they are accountable to different kinds of authority and constituencies for the use of that autonomy. Although universities can borrow techniques and devices from other types of organization, they can rarely do so without significant alterations” (xvi).

Central to the university idea are the principles of the institutional autonomy and academic freedom. Notwithstanding, the diversity in university organizational structures, missions and interpretations of mandate, there is a convergence in terms of the inviolability and centrality of the two principles as defining and guiding the nature and purpose of a university. We may summarize the principle as encapsulating:

(i) organizational uniqueness driven by a collective wisdom vested in a committee system in environment of decentralized authority; and
(ii) freedom of external control and interference from teaching—learning process and decision-making process, which is vested in the representative Boards/Councils.

Osundare (2005) sums up the hallmark of the university as “its inclusiveness, its diversity, its wholeness and comprehensiveness, as well as the interconnectedness of its curricula and the branches of knowledge that constitute the centre of its focus.” He notes further that “its mission is the pursuit and practice of freedom; genuine freedom, the liberty to think and feel, dream and dare, roam and range, lose and find, walk and
stumble and walk again. It is a perpetual process of experiment-
tation and discovery of proposition and inter-rogation”. (p. 9)

Part of the basis of conflict between ASUU and government
in Nigeria has been different visions of society, divergent views
on the purpose or role of education especially university
education, opposing mentalities on the nature and organization
of universities and, of course, deriving from there, the issue of
how education should be funded. While recognizing the fact
that the 21st century is a knowledge society and that knowledge
is the basis of economic growth, successful economies and
individuals’ achievements, ASUU believes that simply narrow-
ing university education to the production of knowledge and
accumulation of capital and supporting set of values has led to
severe inequalities in global development.

In conceptualizing education within a worldview of labour
or capital and defining human value in terms of capital form-
ation and knowledge production and material accumulation,
humanity is dehumanized and stripped of all that it means to be
human. University education should not just equip humans to
compete but more than that provide them with opportunities to
be human, propagate selflessness, possess a sense of
community, preserve human identity and dignity, respect life
and nature, among other things. University education is
primarily to develop men and women of wisdom and
understanding with necessary capacity to mobilize resources in
such a way that will serve the common good.

Evolution of ASUU as a Trade Union
A trade union has been defined as “combination of workers or
employers, whether temporary or permanent, the purpose of
which is to regulate the terms and conditions of employment of
workers, whether the combination would or could not be an
unlawful combination (Trade Union Act 1993). However, a
trade union is not just an instrument with which workers
improve their economic and working conditions; it is also a
political school for workers as all trade unions’ agitations are, at
once, struggles against the state (Fashina 2014). It is for this
reason that the Academic Staff Union of Nigerian Universities
(ASUU) can be described as a trade union seeking the socio-
political and economic/welfare interest of its members within
the framework of promoting the cause of university education in Nigeria. The Academic Staff Union of Nigerian Universities, as its name suggests, is a Nigerian union of university staff transformed into its present structure and ideological nature under a new name in 1978. The history of the union is intricately linked with its, sometimes militant, struggles. In fact, the history of ASUU is the history of struggle against the government and its establishments. This, in itself, is a product of having a virile intellectual union in a prebendal society. A lot will be understood if we take a brief look at the colonial roots of trade unionism in Nigeria; for without a good understanding of the colonial root it will be difficult to understand how ASUU became a renegade group from the expectation of the nation’s leadership who expected the union to work hand in hand with it in exploiting the commonwealth.

The first attempt by university teachers to unionise was in 1955 when the Association of University Teachers (AUT) was formed at the University College, Ibadan. The union was essentially local, dealing mainly in local affairs of its members. Following the creation of more universities in Nigeria between 1955 and 1965, AUT transformed into National Union of University Teachers (NAUT) in 1965 to accommodate the academic staff in the new universities, including the existing members of AUT. Thus, NAUT covered academic staff in the University of Ibadan, University of Nigeria, Nsukka, Ahmadu Bello University, Zaria, University of Ife, Ile-Ife and University of Lagos, Lagos.

Apart from its change of name and the expansion of its reach, the NAUT’s orientation did not change much. Its central goal remained securing improvement in the condition of service of its members, and the socioeconomic and political well-being of the country. In terms of ideology, the NAUT seemed to be a middle-class fraternity with a viewpoint not too divergent from those of the postcolonial state; it hardly took any noteworthy position on national issues and, on few occasions when it did, the positions tended to be conservative and sympathetic to the regime. Any wonder therefore why Professor Ben Nwabueze, a former Federal Education Secretary, seemed to have found NAUT better suitable for the university than its successor,
ASUU, on whom he blamed the crisis in the Nigerian university sector? (see Nwabueze 1995: 51-52).

The biggest test for NAUT as a union came in 1973. That year, trade dispute between the Governing Councils of Nigerian universities and the local branches of the National Association of University Teachers led to a strike by the university teachers. The dispute was about the review of conditions of service. In spite of the efforts of the university councils to secure improved pay and conditions centrally, the Federal Ministry of Education under Chief A.Y. Eke, prevaricated. Even after the councils and individual local teachers’ associations had agreed on specific increases in 1973, the ministry refused to accept the outcome of this collective bargaining. The violation of the power of the council to negotiate and determine the conditions of employment at the local level became the point of contention in the strike of April 1973. Ade-Ajayi (2000: 34) captures what happened subsequently thus:

The Minister of Education was an experienced university man, a university Registrar, who knew the Achilles’ heel of the universities and advised the government to use troops if necessary to eject striking staff from their government-provided university accommodation. The strike became a rout as the university staff rushed to dissociate themselves from the strike so as to beat the deadline of the Government ultimatum and secure their families from the threat of forced ejection from their houses.

With government success at cutting the NAUT strike in 1973, more drastic steps were taken in subsequent years which went unchallenged by NAUT; the first being the implementation of 1974 Udoji Commission Report on the Review of the Public Service which brought the university teachers’ conditions of service under the civil service structure (Adesina 1998).
As part of the review, the government extended the public sector pensions to the university employees in place of the Autonomous University Superannuation Scheme responsible to the university staff themselves. Ade-Ajayi (2001:3) underlines the implication of this step:

In accepting Government pension without so much as even a debate, university staff ceased to be employees of different autonomous University Councils, and became in effect, second-class civil servants. The universities ceased to be autonomous self-regulating corporations, and became Government parastatals monitored by Government Ministries, with conditions of service that thenceforth had to be negotiated with the government.

It will be good to look at the financial implication of this direction on the university teacher:

At Nigeria’s independence in 1960, an Assistant Lecturer was paid more than both a Sub-Lieutenant and Lieutenant; a Lecturer II more than captain; a Lecturer I more than a Major, a Senior Lecturer more than a Lieutenant Colonel, a Reader/Associate Professor more than a Colonel and Brigadier. The Major General’s salary placed him a few incremental steps on top of the University Professor, but certainly lower than the University’s Chief Executive, the Vice-Chancellor (Adekanye 1993:18).

In the post-Udoji period,

An Army Captain was now being paid more than the university Lecturer I, a Lieutenant-Colonel more than Senior Lecturer, a Colonel more than a Reader/Associate Professor; an army Brigadier, whose salary in 1966 had been lower than that of a Reader/Associate Professor, now earned more than even a full Professor. The salaries of both the Lieutenant General and full General outdistanced that of a Vice-Chancellor (Adekanye 1993:19).
The above did not go unnoticed among the university lecturers, though they accepted their fate in fear of the worse. A layer eroding university autonomy was added to this with the takeover of regional universities in 1975. Following the takeover, the NUC was reconstituted, through Decree No. 1 of 1974, as a statutory body with the added responsibility of receiving block grants from the Government for disbursement to the universities and inter-university organs.

Segun Osoba (1996: 11) captures the NUC and its boss’ misdeeds thus:

From his vantage position, first as Executive Secretary of the National Universities Commission, 1974-79…Jubril Aminu waged a relentless war on the universities and inflicted several devastating blows on the much cherished principle of University autonomy… (he) treated their VCs as his subalterns who could be summoned to his office in Lagos at his pleasure and kept waiting for as long as he wished. In pursuit of his pet idea of a quota system, he caused the Obasanjo government to set up JAMB, which has usurped on a discriminatory basis the traditional rights of university to conduct their own autonomous admission exercise.

Add these to the dwindling financial allocation to the university at this time and one will see that it was only a matter of time before a counter force emerged in Nigerian universities that will agitate for the restoration of all that had gradually been taken away from the university system.

In 1978, the counter force came under the new name - Academic Staff Union of Universities, ASUU. It was an offshoot of NAUT, but it had almost nothing of the calmness of the latter. The majority of its members at this time were young academics with a lot of energy. Its creation coincided with the period of the beginning of the decline in the oil boom, when the country faced the consequences of the failure of its rulers to use the country’s oil wealth to generate production and social welfare.
Born therefore into a society that had all the trappings of how a university should not be run, ASUU instantly became a revolutionary force calling for the return of all that is right in university standard. Against the colonial expectation of an academic trade union which continued even after independence, ASUU’s orientation was radical; more concerned with broad national issues. It consistently took firm stand against oppressive, undemocratic policies of the government, and was never hesitant to call out its members for strike no matter how long it took or what threat the government was issuing. The union thus became not just a trade union, but the people’s tribune. All that is left of ASUU’s history is the history of its struggle, of failed negotiations and breached agreement, of repeated strikes and victimization and of sack and blackmail.

ASUU’s Struggles in Perspective

In the 1980s, the middle class to which academics belonged was wiped out through the Structural Adjustment Programme. The Second-tier Foreign Exchange Market was introduced—leading to hyper-inflation and massive devaluation of the naira. ASUU members also felt the brunt of the harsh policy and it formed part of the trade dispute which the union had with the Shagari administration between 1980 and 1981. ASUU’s main points were that adequate funding, improved salary package, autonomy and academic freedom must be restored to the universities in order to curb brain drain and ensure the survival of the university system.

The military regime that succeeded the Shagari administration had many brushes with ASUU. Essentially, throughout the military era, ASUU’s struggle revolved around:

(i) The survival of the university system—with three components: the condition of service (salary and non-salary), funding and university autonomy/academic freedom; the defence of the right to education;

(ii) Broad national issues, such as the struggle against military rule, privatization, the Structural Adjustment Programme (SAP) and the World Bank’s attempt to take over the university (for example, the World Bank...
By the close of 1980, the failure of the government to implement the Elongated University Salary Scale, EUSS, repeated breach of university autonomy and the need for the Federal Government to negotiate with University Staff Union led to ASUU strike in 1988. This strike made government to consider ASUU as too overbearing and it subsequently proscribed the union on August 7, 1988. ASUU leaders—Dr. Attahiru Jega, President; Dr. Festus Iyayi (now late); Dr. Frank Dimowo; and Mr. E. Amade were detained, while all ASUU’s property was seized. Sequel to these, the military government made announcements directing all universities to immediately pay the EUSS backdated to January 1988. Although ASUU responded by forming a new body, the University Lecturers Association, ULA, the proscription of the union succeeded in breaking the strike and forcing lecturers back to work.

In 1990, ASUU was de-proscribed. At this time, the decadence in the universities had become very visible. “Academic standards had plummeted to the point that employers of labour were beginning to sound alarm, while the marginalization of the intellectual class and the growing irrelevance of the educated elites in the scheme of things had become pronounced.” That year, ASUU called attention to the state of the universities and submitted a set of demands for negotiations. The union was ignored following a botched negotiation with Federal Government (FG) team under Mr. Senas Ukpanah. Government subsequently announced a unilateral package for the universities. By 1992, the failure of government to seriously negotiate with ASUU led to another strike. Again, on August 23, 1992 government responded by proscribing the union, and its members were terrorized. Hunger was deployed by the government to break the resolve of the striking teachers through the stoppage of salaries. The measure
failed because of the massive support from the Nigerian public who saw the strike as the first real opportunity to defy an unpopular, fraudulent and wicked regime.

This forced government to eventually negotiate with representatives of Academic Staff of Nigerian Universities, ASNU. The negotiation produced the September 3, 1992 Agreement. The new agreement had new package of condition of service and an agreement on funding and university autonomy. Unfortunately, the agreement emanating from the strike of 1992 led to what has come to be known as ‘parity strike’ by sister unions and unions of polytechnic and colleges of education. The breach of sections of the 1992 agreement led to ASUU strike in 1993 and 1994, while another strike was declared in 1996 (which lasted for over six months during which the salaries of teachers were stopped). ASUU demanded a re-negotiation of the earlier agreement and the reinstatement of about eighty members in UNIABUJA whose appointment were terminated by the Vice-Chancellor, Professor Isa Mohammed.

Reprieve came ASUU’s way on May 25, 1999 when the General Abdusalami administration signed an interim agreement of a sort with ASUU. However, the failure of the Obasanjo’s administration to accept the agreement led to another strike in August 1999. A new agreement, not so different from the one signed on May 25, 1999 was later signed between ASUU and the Obasanjo regime on October 26, 1999. The rest of the story is not much different. The latest resolutions between FG and ASUU in 2013 also resulted from failure by the FG to implement the provisions of agreement reached with ASUU in 2009. We shall return to this presently.

**Crises, Conflicts and the Challenge of Revitalization**

A set of questions are necessary in this section in order to foreground our discussions. Why does ASUU have to engage in struggles for revitalization of public universities? What are the issues in dispute? Are there other methods that recommend themselves outside of strikes? Has ASUU extended itself beyond the realms of unionism? We shall not tackle the
questions above explicitly or in any particular sequence because of limitations of space. We would rather present a conceptual basis for independent conclusions. You would recall that imbedded in our background discussions are the suggestions that philosophical and ideological divergences between government and ASUU provide ready ingredient for conflicts. Yet, crises need not arise if the environment incorporates some degree of organized thinking and patriotism by the agents of state. As we shall see from the proceeding sections, the crises in public universities are inevitable concomitants of a clash of mentalities, lack of philosophical and ideological convergence, a poverty of planning and a misinterpretation of the role of the university. According to Egbokhare (2001:93-4),

the university exists in a sociological, historical and cultural milieu. It is a collection of individuals with interpretations of the university mission and philosophy. The university is not isolated from the forces that shape society or the mentalities, ideological and psychological dispositions of society and those who constitute its pivot. It follows therefore that the performance of the university is inextricably tied to forces within, around and (outside) it. Situating these forces within the context of Nigeria, one is tempted to conclude that the performance of the university… is a mirror image of the development in the larger society.

While Fashina (2005) points to divergent vision of society, Jega (1992) underlines diametrically opposed views of the role of universities as providing the ingredients for conflict. Adding to the fuel is ASUU’s definition as part of its constitutional role as “the people’s tribune, a critical watchdog for the society striving to contain the excess of the ruling class” (Jega 1994:6). According to Egbokhare (2001), ASUU unwittingly became “an opposition force” and was perceived and treated as an “opposition party” by successive military and civilian regimes. It may, therefore, not be out of place to surmise that the problems of the university system were orchestrated by the state
at some point to neutralize or contain ASUU. The careless way in which successive governments handled the declaration of trade dispute by ASUU, government’s readiness to break agreements freely entered into, its failure to implement its own reports as well as the repetitive nature of the grounds for strike, corroborate the view that the crisis in the university was a systematic, if not a carefully designed, agenda to paralyze public university education in order to make way for a market-based privatization of university education.

**Grounds and Issues in Conflict**
The issues in conflict are recurring decimals, which have subsisted, in their essential nature since the 1992 strike. There is no need in this discourse to rehash all the items of demand because they are explicitly documented and in public space. Over the period between 1992 and 2014, the issues have been debated and copiously presented in numerous publications; through strike bulletins, academic publications, ASUU magazines and in newspapers worldwide. The validity of the demand at some points was contested. But over time, these demands have come to be validated as genuine and incontrovertible and ASUU’s perspectives justified even by government reports, assessment of international bodies and independent researchers, among others. For instance, the problem of infrastructural decay is no longer a matter of contention, as the Needs Assessment Report by government into public universities revealed a state of decay beyond even the wildest imagination of Nigeria. According to the report,

...realizing that the revitalization of the Nigerian university system has been at the core of all previous disputes with ASUU, government decided, for the first time to be proactive in addressing challenges in our institutions before they become issues of contention, believing that Nigerian universities need to be turned around to meet the challenges of national development and international competitiveness (Federal Ministry of Education 2012: 1).
Furthermore, in justifying the objectives of the Needs Assessment exercise, the report states that:

> these objectives are situated within the general context that the universities in Nigeria are not well equipped and not properly managed to produce the right calibre of graduates (as well as quality research outputs) that will drive the country’s development. *This concern is legitimate* (Federal Ministry of Education 2012: 2-3, emphasis is mine).

The fact of underfunding has never really been a matter of contention but the argument has always been the approach and the quantum of funds needed to revitalize the system. ASUU has been vindicated by the Needs Assessment reports. For the records, let us quickly outline the issues of contention that have fuelled nineteen strikes that have lasted over a total of four years between 1992 and 2013. They are *poor funding, inadequate remuneration, inadequate capacity, brain drain, poor infrastructure, violation of university autonomy and academic freedom, failure of government to implement recommendations of its own review panels, violations of agreements freely entered into by governments, inconsistent policies and poor planning, corruption and poor management of funds by university administrators*. For problem of space, we shall refer you to the series of agreement documents, “State of the Nation” publications by ASUU; Fashina (2005); “Reforms in Nigerian university system – What Direction”, paper presented to the ASUU/CODESRIA Conference on Reforming Higher Education in Nigeria; *The Scholar*, June 2001, Anikpo (2011); and *The Scholar*, Volume 9, no. 3, 2014; among several other individual and ASUU publications. The above notwithstanding, we shall briefly present a discussion of salient points that are not often touched upon in the analysis of the subjects.

**Funding**

As we have already indicated, the problem between ASUU and government has never been that universities are well funded.
The problem has always been the amount and methods of funding of public universities. As illustrated in table 1, before the Needs Assessment Intervention regime, the Federal Government budgetary allocation was abysmally low; ranging from 13.2% in 2008 to 6.1% in 2010. The situation at the level of State Governments, particularly with respect to funding of their universities during the same period, was just indescribable. For both federal and state universities, however, much of the funds earmarked in the budgets were hardly, if ever, released to the institutions concerned.

Table 1: Federal Government Allocation to Education (2007-2010)

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Government Expenditure (N)</th>
<th>Federal Allocation to Education (N)</th>
<th>Allocation to Education as % of Total Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>1,880,923,949,983</td>
<td>189,199,774,929</td>
<td>10.1</td>
</tr>
<tr>
<td>2008</td>
<td>1,591,472,933,019</td>
<td>210,444,818,578</td>
<td>13.2</td>
</tr>
<tr>
<td>2009</td>
<td>2,121,034,928,765</td>
<td>224,676,889,661</td>
<td>10.1</td>
</tr>
<tr>
<td>2010</td>
<td>4,427,239,782,584</td>
<td>271,251,288,165</td>
<td>6.1</td>
</tr>
</tbody>
</table>


In a nutshell, the problem of funding is simply a matter of poor budgetary allocation, non-release of full budgetary provision and mismanagement of the little funds provided for the system. While ASUU argues for full funding of public universities taking into cognizance the nature of the Nigerian society, the critical role of universities, issues of equity and constitutional provision, government has always insisted on a market-based approach encouraged by the World Bank/IMF couched in form of the so-called cost-sharing but which, in actual fact, is a proposal for the introduction of tuition, appropriate pricing of facilities and services, privatization of university education and abdication of its constitutional role of funding education by government. Propelled by a World Bank’s belief that Africa does not need universities but only basic education, successive governments tenaciously pursued the agenda by underfunding public universities in order to divert traffic to private ones, which they and their collaborators established for their own
commercial ends. The facts today bear out ASUU’s opposition on commercialization and privatization of university education.

The World Bank appears to have abandoned its earlier creed that Africa does not need universities owing to stiff resistance by ASUU and other African progressive forces. It now openly advocates the development of the sector but, characteristically, not as public good; rather, as private investment opportunity for Europeans and American entrepreneurs and as a way of preventing immigration by the mass of qualified youth, who use higher education as a ticket for fleeing the harsh economic realities of the continent. If the World Bank retains any form of humane disposition, it is because the realities of the global environment show clearly a shift to knowledge as the critical factor for growth and development. However, in acknowledging this fact, it completely ignores the fact that Africa needs to invest heavily in university education if it must break away from the cycle of poverty and underdevelopment and provide a sustainable basis for ensuring stability. There are far too many correlations between higher education provision and sustainable development as to leave it to the dictates of market forces and shylock entrepreneurs. Fashina (2005) summarizes the rationale underlying government’s funding proposal for universities in terms of eleven misconceptions. These are as follows:

1. *The key to the solution to the problem of universities is the re-introduction of fees, as a reflector of cost-sharing.* If current realities are anything to go by, given over 80% of Nigerians living below poverty level, this will introduce severe inequalities, socioeconomic imbalance and exclude the vast majority of Nigerians. In addition, private Universities have largely failed to address the problem of access to education. Over seventy private universities still account for less than 3% of the total enrolment and annual intakes into universities, while the majority struggle for limited spaces in public ones. The quality of education offered by them is very much below par and they engage in all kinds of unwholesome practices to attract and retain students.

2. *University education curricula should be demand market-driven. Education should become like business.* This will
solve the problem of funding. In response to this, many universities engaged in the deceptive practices to changing the names of departments without substantial change in curricula or improvement in quality. New programmes were developed for the “market” without proper research and due cognizance of available capacity. In spite of the excessive fees charged in some of them, the funding situation of such universities has not improved. In fact, the little financial gain has been lost to inefficiency and ineffectiveness of overworked staff, subversion of quality by moonlighting and a mercantile attitude by staff, overcrowding of facilities and loss of research capacity, among other things.

(3) Universities can successfully generate much of their funds from internally generated sources. IGR (or now fondly called Internally Generated Rascality by a colleague) has meant a shift of focus to production of bread, pure water, fish sale and sale of meat. Universities are now competing with the same peasant traders they are supposed to serve; with some closing their campuses to goods from outside and running a closed economy while our Departments of Economics teach about competition and free market. Professors are appointed as butchers, hawkers and supervisors of enterprises that are at the best a waste of time and energy. A clear thinking and a proper business analysis, where the services of the numerous professors, directors and appointed committees are costed will show clearly that these are failed enterprises and a shame to universities. More important is the fact that scarce human resources are diverted from the classrooms and laboratories in the pursuit of enterprises that are incongruent with university mission. The mentality of IGR now drives the numerous awards given by universities at convocations; lecture-for-hire practice by departments who provide intellectual laundry for politicians to present lectures for donations and unending distinguished personality lectures by individuals who ought to be in jail.

(4) To save space, we will simply list the remaining misconceptions as follows as items for public debate.
The External research grants can and should become a major source of funding.

University Governing Councils are charged with the duty of making money for their universities. The funding problems will be resolved when councils discharge this duty as they should.

There is willingness on the part of parents to pay for higher education in the universities. The evidence for this is that an increasing number of parents pay the ever-increasing costs in primary and secondary schools.

The private sector is in the best position to provide quality university education.

Foreign experience provides an overwhelming case for the financial autonomy of Nigerian universities.

The whole of the educational sector is in decay and in need of attention. It is a matter of priority, rebuilding should start from below.

Since there is a problem of unemployment of graduates, market forces should be allowed to kick in by reducing graduate output of universities.

Private universities should be encouraged in order to provide alternative models of funding. They will drastically reduce the burden of funding from government.

It is stating the obvious to argue that the above grounds are self-contradictory and empirically fallacious.

Violation of Autonomy and Academic Freedom
Serial violations of academic freedom and university autonomy have provided fuel for the 2001, 2002 and 2003 strikes, among other demands. The violations themselves may have been instigated by several reasons, among which are the misconception of government as regards the role of universities, the involvement of ASUU in pro-democracy struggles as well as the union’s relationship with civil society organizations and the perception of ASUU as the only impediment against an agenda of privatization of university education. According to an ASUU document, History and Struggles of ASUU (2011), “ASUU chose the path of struggle and principle. ASUU NEC decided to
join the democratic, antimilitary movement to end military rule, setting aside, at that time its struggle for the university system through the defence of the 1992 agreement.” This was, notwithstanding, the understanding that if the union compromised its antimilitary stance, Abacha’s regime, as others before and after it, were ready to grant it considerable concessions. In affirmation of its principles, it condemned the murder of Ken Saro-Wiwa and earned a reprimand from the Minister of Education, who informed Dr. Asobie, then ASUU President, that ASUU was “jeopardizing its relationship with government.”

In the 1970s, government violation of autonomy took the form of imposition of Vice-Chancellors, interference with functions of senate in the form of selection of students, interference with student and staff discipline through judicial panels, such as Abisoye Panel of 1986, Akanbi Judicial Commission of Inquiry, and Uthman Mohammed Commission. The rights of university to select its students and function of university senate to regulate academic matters were compromised with the establishment of the Joint Admission and Matriculation Board (in 1971) and conduct of University Matriculation Examinations in 1978. The National Universities Commission (NUC) was established and empowered by Decrees 44 of 1985 and 49 of 1988 to establish minimum academic standards and close down academic programmes in violation of university acts and functions of senate. Universities were forced to adopt NUC programmes and curricula, which were inferior in many cases.

In fact, the NUC has since broadened its realm of influence by assuming several university functions, including, but not limited to, the establishment and hosting of the national digital library, virtual Institute for Higher Education Pedagogy, and running of E-learning degree programmes in collaboration with some Nigerian universities. The conceptualization and practice of accreditation have totally emasculated senate in meaningfully addressing quality since ultimate power now resides with NUC in determining parameters, quality, relevance and methodologies for delivery. The NUC is notorious for its centralized control of the system, summoning of Vice-
Chancellors at will to Abuja over matters that are sometimes flimsy. A particularly worrisome manifestation of this notoriety in recent times is that the NUC has remained the “Supra Governing Council” for the new 12 federal universities, appointing vice-chancellors, approving contracts and regulating senate, among others, for upward of three years in many of these institutions. Indeed, it appears that ASUU’s consistent demand that the Federal Government should enact the enabling laws for the universities and set up their governing councils has fallen on deaf ears.

It would be recalled that the aberrant appointment of Sole Administrators in place of Vice-Chancellors in Ahmadu Bello University, University of Nigeria and Ambrose Alli University were especially dark moments in the era of impunity. Routine censoring of ideas was promoted through Decrees 16 and 49 and provided legal basis to dismiss academics who were critical of the establishment. They were accused of “teaching what they were not paid to teach.” Teaching, etc. (Essential services) Decree of 1993 placed teaching and provision of educational services as essential services. The decree empowered government to sack striking teachers who are deemed to have “resigned” after more than one week of a strike. In 1993, after a few weeks of strike, all teachers were “deemed to have resigned”.

There was a long list of sack, dismissals, gagging and repression which landmarks government erosion of university autonomy and academic freedom in Nigeria. President Shehu Shagari directed the Council of University of Lagos to remove six senior members of academic staff from their jobs in 1980, following Justice Belonwu’s Visitation Panel report. Uthman Mohammed Commission of Enquiry into the “Ali Must go” student protests led to the unlawful dismissal of many students, twelve academics and two Vice-Chancellors. Sequel to the ABU students’ massacre by the Nigerian police in May 1986, the National Union of Nigerian Students (NUNŠ) was proscribed. This would mark the beginning of the decline of student unionism and ascendancy of cults that moved in to fill the void.
In 1987, the University of Benin sacked Dr. Festus Iyayi, ASUU President, and Dr. Barnabas Agbonifoh, Branch Treasurer, based on the recommendations of government-directed visitation for breaching the code of conduct of public officers. Similarly, Professor Ìtse Sagay, Dean of Law, was sacked in the same university, while the Provost of the College of Medicine, Professor Omene, was banned from holding public office for life. In October 1990, on the directive of President Babangida, Omotoye Olorode, Idowu Awopetu and Obaro Ikime of the University of Ife and University of Ibadan were retired compulsorily “in the public interest.” At the University of Nigeria, University of Ilorin and University of Abuja, academic staff members were brutalized by Vice-Chancellors with the active support of the agents of state. In Ilorin, 49 members of staff were victimized and 44 of them were summarily sacked for participating in a 2001 strike. The case of Isa Mohammed of the University of Abuja was particularly brutish and dehumanizing. Under his watch, over 80 lecturers had their appointments terminated; some of them were forcefully ejected from their accommodation with the aid of security operatives, their belongings were thrown outside and the roof to their houses removed.

This story of deprivations and repressions would not be complete if we do not pay tribute to the memory of Professor Festus Iyayi who was killed on November 12, 2013 by the convoy of the Governor of Kogi State, Captain Idris Wada, during the course of a struggle to make Nigerian Government do the needful to reposition our universities for global reckoning.

Taken together, the foregoing represents a slice of the price that ASUU members have had to pay in the defence of principles, in the fight for justice, fairness, equity and good governance. It is impossible to quantify the trauma suffered by members whose salaries were stopped on countless occasions, homes that were broken due to salary stoppage and manipulations of spouses by authorities, the dehumanization that occurred in the face of threats of eviction, the agony of family members who lost their loved ones in the circumstances of severe economic deprivation and emotional assault. We can
only salute the gallantry of academics for daring to stand up against repression when all opposition collapsed, by providing the leadership and framework for the mobilization of civil society, for providing intellectual leadership to labour in times of great fear and perfidy. We salute your courage and commitment.

ASUU was proscribed in 1988 for embarking on a national strike over EUSS salary scale and it changed its name to University Lecturers Association (ULA). Prior to this, it was barred from membership of Nigerian Labour Congress. It was de-proscribed in 1990, but banned again on August 23, 1992 for engaging in a strike action. It once again changed its nomenclature to Academic Staff Union of Nigerian Universities (ASNU) as a survival tactic. The banning of ASUU was to undermine collective bargaining, as branches were recognized and requested to negotiate with their respective councils. All that is history today. What cannot be denied is that the union has survived all forms of tyranny and dictatorship, whether civilian or military, and it continues to execute its mandate on behalf of the Nigerian people.

Disregard for Agreements
As earlier hinted, the most visible flashpoint in ASUU’s disputes with successive administrations since 1992 has been non-implementation of the agreements reached with the government. This was epitomized in the events and circumstances surrounding the 2009 agreement. The 2009 FGN/ASUU agreement contains central points that have motivated previous agreements. The agreement, like those before it, was etched on the need to:

(a) Reverse the rot and decay in the public universities;
(b) Reverse brain drain, by enhancing remuneration and disengaging academic staff from the encumbrances of a unified civil service wage structure;
(c) Restore Nigerian universities through the immediate massive and sustained financial interventions; and
(d) Ensure genuine university autonomy and academic freedom.
Negotiations leading to that agreement lasted eight years (23 January 2001-October 2009), with the government team led by Deacon Gamaliel O. Onosode (OFR). Highlights of the agreement include the following:

(i) New salary structure for academics in Nigerian Universities;
(ii) A set of earned allowances;
(iii) Some non-salary conditions of service;
(iv) Pension for University Academic Staff and compulsory retirement age of 70 years for those in the professorial cadre;
(v) Formation of the Nigerian University Pension Fund Administrator (the Nigerian Universities pension Management company – NUPEMCO) and modalities for the operation of the National Health Insurance Scheme in the Universities;
(vi) Funding that would inject a total of N1,518,331,545,304.00 for the period 2009-2011;
(vii) Possible sources of funding and the need for a minimum of 26% of the annual budget of state and Federal Governments being allocated to education of which 50% shall be allocated to universities and the need to place education on the “First Charge” by the Revenue Mobilization, Allocation and Fiscal Commission;
(viii) Federal Government’s assistance to states for higher education;
(ix) The restructuring of the governance and leadership structure in the Universities;
(x) The need to amend the National Universities Commission Act 2004, the Education (National Minimum Standards and Establishment of Institution) Act 2004, and the Joint Admissions and Matriculations Board (JAMB) Act 2004; and
(xi) Some priority areas of implementation, the machinery for monitoring the implementation of the agreement, the agreement’s effective date and the date for review.
Indeed, both sides were confident that the Agreement, if taken seriously and honoured faithfully, would bring a new hope of “making a leap forward and give hope to a country whose people are yearning for quality education and a progressive, just and democratic society.” Apparently, a conscientious implementation of 2009 and previous agreements aimed at repositioning the university system would have given public university education in the country a great boost. However, as characteristic of successive governments, Government-ASUU agreements were observed more in their breaches. In fact, it took fifty (50) letters, a series of warning strikes, and a total and indefinite strike and over 200 meetings to get Government to renegotiate the 2001 Agreement.

Non-implementation of agreements, victimization of staff as a result of strikes and breaches of the principles of academic freedom, autonomy and collective bargaining stand out as recurring factors in the instability of university system. ASUU believes that the defence of agreements is a defence of industrial democracy; the right to education and for national development. For instance, the 2003 strike was motivated primarily by failure to implement the 2001 agreement and even that became necessary because of non-compliance with statutory period set aside for renegotiation. Repudiation of agreements by Ministers of Education was typical, as was the case with Dr. Borishade, who prevented the government team from signing the negotiated agreement of 2001, thus forcing ASUU to resume the suspended strike. Similarly, Professor Ben Nwabueze justified the non-implementation of FGN/ASUU agreement under his watch as “an agreement of imperfect obligation.” The active collaboration of vice-chancellors, who are the primary beneficiaries of the outcomes of better funding, and lame university councils only helped government to feel justified in violating their own agreements.

Let us imagine all possible grounds for which they can claim lack of capacity to deliver on their good intention signified by the respective agreements. However, how can one justify the non-implementation of the recommendations of various reform panels set up by government to advise it on the problems of university education? Below, we provide
information on the various panels whose reports were not implemented. We, however, cannot discuss their recommendations for lack of space.

Failed Attempts at Reform

Although we do not agree with a substantial portion of reform proposals, because they are defective in their ideologies in trying to create technicians and entrepreneurs, rather than knowledge creators and innovators, we believe that the non-implementation of their recommendations reveals the character of government and political leadership in Nigeria as unserious, rapacious and unnationalistic.

The following are some of the panels set up by government to address aspects of the problems of Education:

(i) The Ogundeko Committee (1978)
(ii) The Cookey Panel on Salary and Conditions of Service of University staff (1981)
(iii) The Onabamiro Panel (1982)
(iv) The Eke Panel (1983)

If government cannot implement the recommendations of its own panels, how can it ever respect agreements? Fundamentally, the problem can be ascribed to the failure of integrity in governance.

In evaluating ASUU’s struggles, it is helpful to separate labour and condition of service issues from matters of responsibilities of the state to its people. Looking at the issues in dispute over the years, it is clear that the greater percentage of matters in dispute are routine matters that responsible governments deal with in the course of governance—funding, provision of infrastructure, adjustment of salaries for inflation, etc. If ASUU were to limit its agitations to conditions of service, as it was repeatedly requested to do by agents of the
state, it would easily find accommodation with government to the peril of the educational system and Nigerian masses. But ASUU had learnt useful lessons from the collapse of the Nigerian Railways, Nigerian Airways, NEPA and NITEL where staff focused narrowly on conditions of service in their agitations.

**ASUU and Revitalization of the University System**

Criticism of ASUU has often been premised on the frequency of strikes and those who do so have advocated alternative methodologies. But what needs to be made clear is that the internal dynamics of ASUU makes the strike option laborious and unattractive. The union does not lack patience, neither is it shy of alternatives. On the average, the time lag between the declaration of trade disputes and the actual commencement of a strike comes to about two years. As mentioned earlier, it took fifty letters, a series of warning strikes and over 200 meetings to get government to renegotiate the 2009 Agreement. Meanwhile, experience points to government’s deliberate repudiation of agreements and the fact that no meaningful engagement by government ever happens before actual commencement of a strike. Indeed, the union had to innovate with the practice of staggering a strike, engaging in a warning strike, the practice of using respected traditional rulers and eminent Nigerians to access government, etc. These are done to buy time and provide opportunities for dialogue. If the above is not persuasive, the price that the union and its members have paid should convince all that the issues are very serious. What value can one put on commitment, sacrifice and patriotism? If one can quantify all of this, then the contributions of ASUU will be easy to assess.

**The Needs Assessment Report**

The Needs Assessment Report of July 2012 represents a watershed in ASUU’s struggles for the revitalization of university education in Nigeria. The introduction to the report is very instructive in vindicating ASUU and clearly underlining government’s complicity in the decline of the academy.
According to the report, “...realizing that the revitalization of the Nigerian university system has been at the core of all previous disputes with ASUU, government decided, for the first time, to be proactive in addressing challenges in our institutions before they become issues of contention, believing that Nigerian universities need to be turned around to meet the challenges of national development and international competitiveness” (p. 1) (emphasis is mine). Clearly, the above is an admittance of guilt and absolves ASUU of claims to extremism by the undiscerning public.

The objectives of the Needs Assessment process were:

1. To determine the actual status of Nigerian public universities in terms of infrastructural facilities, services and resources, staffing and enrolment, environment and utilities as well as quality of delivery of teaching and learning.
2. To determine the gap between existing status, skills, abilities and capacities of the universities and those that are needed for the universities to function at optimal level.
3. To make right prioritization and therefore optimize resource-allocation which could lead to proper deployment of resources to get value for money, save cost while making maximum impact, as well as improve efficiency and institutional effectiveness” (P. 2).

Further vindicating the position of ASUU since the 1992 struggle, the report asserts that “these objectives are situated within the general context that the universities in Nigeria are not well equipped and not properly managed to produce the right calibre of graduates (as well as quality research outputs) that will drive the country’s development.” This concern is legitimate (P. 2-3, emphasis is mine).

The findings of the report were embarrassing to government and traumatizing to the Nigerian public. We shall simply summarize a few below.
Hostel accommodation is reported to be an eyesore.
Public universities are grossly mismanaged and are boggled down by corruption of various kinds.
Universities engage in activities at variance with the national policy on education.
Lacking in human and material resources, they are incapable of supplying the nation’s manpower.
A majority of the universities are grossly understaffed and rely heavily on part-time and visiting lecturers; have under-qualified academics.
There are 37,504 academics (83% of whom are female).
Only 43% of Nigerian universities teaching staff have doctorate degrees instead of the stipulated 75%.
Only seven universities have up to 60% of their teaching staff with Ph.Ds.
There is no effective staff development programme outside the Education Trust Fund intervention and presidential first-class scholarship programme.
The ratio of teaching staff to students in many Nigerian universities is 1:100; NOUN is – 1: 363; UNIABUJA is – 1 : 122; LASU is – 1 : 144 ; In contrast, Harvard is – 1 : 4; MIT is – 1 : 9; Cambridge is – 1 : 3.
Laboratory and workshop equipment as well as consumables are either absent, inadequate or out-dated. Kerosene stoves are being used as bunsen burners in some! Some engineering workshops operate under zinc sheds and trees. Other science faculties run “dry labs” due to lack of reagents!
701 physical uncompleted projects with 163 abandoned! (obviously due to poor planning).
There is evident erosion of values.
Plagiarism has assumed an epidemic proportion and award of honorary degrees to raise funds shows collapse of values.

The Needs Assessment Report constitutes a clear indictment of the National Universities Commission. Clearly, it revealed that
the accreditation process of the commission was fraudulent and the portrayal of ASUU by the Executive Secretary of the NUC as an extremist group lacks any rational basis. Given the record of sterling performance of many universities in accreditation process, the extent of rot and decay portrayed in the Needs Assessment Report was beyond calibration. The report is a clear indictment of council, senate and management of Nigerian universities for abdicating their responsibility to the Nigerian people and superintending institutions that would hardly pass for universities in all but their names. As our union observed, external members of most Governing Councils preoccupy themselves with pursuing contracts and obtaining fat allowances while internal ones aligned with their managements in chasing after patronage. Also, many vice-chancellors were more interested in awarding contracts and collecting kickbacks than in giving academic leadership, thereby compromising the mandate of their universities.

From the report, it became clear that Senate of Nigerian universities had become vegetative and complicit in despoiling the integrity of the university system. In the Needs Assessment Report, the well-kept secret of over twenty years came into the open and ASUU was finally exorcised of dehumanization by agents of state (and their collaborators in the World Bank), as agitators and a group of old school Marxists.

December 2013 FG/ASUU Resolutions on the Implementation of 2009 Agreement
As part of efforts to resolve the July-November 2013 nationwide strike action of ASUU, over the non-implementation of the 2009 Agreement, a meeting was held on 4th-5th November, 2013 at the instance of the President of the Federal Republic, Dr. Goodluck Jonathan. At the meeting were the leaderships of the Nigerian Labour Congress and the Trade Union Congress. Parties at the meeting recognized that:

(a) Nigerian universities must be revitalized for effective service delivery.
(b) All the provisions in the extant agreement/MOU for the revitalization of the university system shall be fully
implemented as captured in the 2012 Needs Assessment Report.
(c) Federal Government shall mobilize resources towards this goal.

More specifically, it was resolved that Federal Government shall provide funds for the revitalization of the university system in the manner, as presented in table 2.

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<tr>
<th>S/No</th>
<th>Year</th>
<th>Amount (billion) Naira</th>
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<tr>
<td>1.</td>
<td>2013</td>
<td>200</td>
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<tr>
<td>2.</td>
<td>2014</td>
<td>220</td>
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<td>3.</td>
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<td>4.</td>
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<td>5.</td>
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<td>6.</td>
<td>2018</td>
<td>220</td>
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<tr>
<td>Total</td>
<td>6 years</td>
<td>1.3 trillion</td>
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Other key resolutions at the meeting were:

- That a central monitoring committee shall be established in addition to monitor the implementation of the revitalization of the universities and shall submit quarterly report to the Minister of Education.
- That Government shall pay the outstanding balance of the Earned Academic Allowances “after the verification report for the period 2009 to 2012”.
- That “Government is willing to engage the services of the universities in special consultancy services such as geological/solid minerals survey, biotechnology, environmental impact assessment, shelter belt and mineral mapping amongst others to boost the IGR base of the Universities”.

In its Press Release to announce the suspension of the six-month strike action on 17th December, 2013, the Union raised
some critical observations, which include those highlighted below:

- ASUU expects the Government to implement faithfully the Resolutions reached and signed with ASUU ...we expect that Implementation Monitoring Committee, which has already been constituted to the satisfaction of Government and ASUU, will work assiduously so that the process of revitalization of Nigerian Universities will receive a much needed boost, and our students and their parents will begin to see the fruits of the ASUU struggles.

- Our members expect the immediate beginning of the revitalization process, given, the letter FME/PS/398/C.I/ Vol 1.I/110, of 12th December 2013, titled “Opening of a Dedicated Account for the Revitalization of Nigerian Universities.” (b) Furthermore, ASUU expects that the revitalization funds for subsequent five years will be provided as agreed in the Resolutions.

- We expect the Implementation Monitoring Committee to ensure that the funds released will be used to meet genuine revitalization needs of Nigerian public Universities, with strict and disciplined supervision of the implementation processes by the universities themselves.

- ASUU expects the Implementation Monitoring Committee to conclude, within a short time, the verification of the level of implementation of the Earned Academic Allowances, and the Government to, as agreed, provide fund for the payment of the outstanding balance.

- ASUU expects Government to act quickly to engage the services of the Universities in special Consulting Services as in the Resolutions. This is one of the challenges that the universities have been asking the Government to throw to Nigerian universities. We are more than ready to meet the challenge.

- Although ASUU would have preferred to undertake the renegotiation of the 2009 Agreement in the second (2nd)
quarter of 2014, our Union was persuaded to shift the
date to the third (3rd) quarter, and we agreed, as a gesture
of goodwill.

- It is our hope that Government will honour these
  Resolutions as signed. ASUU hopes that the common
  position between Government and ASUU that “Nobody
  shall be victimized in any way whatsoever for his/her
  role in the process leading to these resolutions and
  agreements,” will be implemented (Isa 2013).

By and large, the expectations of ASUU as highlighted in the
foregoing have not been fully met. Almost one-and-half years
after the resolutions with the Federal Government, the Needs
Assessment Report, which currently serves as the barometer on
the state of Nigerian public universities, has been haphazardly
implemented. In the same vein, some government officials are
either deliberately distorting the procedure leading to the
payment of the balance of the Earned Academic Allowances or
planning to scuttle it. In addition, owing to some inexplicable
reasons, it has not been possible to commence the renegotiation
of the FGN/ASUU Agreement of 2009.

**National Education Summit**
The concern of ASUU for revitalization of education has not
been limited to the university level and the methodology has
been diverse. The union believes that products of the lower
levels are those that find their way to the tertiary level and,
unless something drastic is done about the foundations of the
educational rung, efforts at the upper echelon might amount to
naught. At the base of this contention, of course, is the
educational ideology which informs the goals, contents, process
and certifications within the system. It was against the
background of this conviction that ASUU went into
collaboration with other university staff unions – NASU,
SSANU and NAAT – to convey a National Education Summit
on Education from 27th to 31st November, 2014 in Abuja.
Other participants at the summit were students, representatives
of Federal and State Ministries of Education, Civil Society
Organizations, Committee of Vice-Chancellors (CVC), Committee of Pro-Chancellors (CPC), Community-based Organizations, Nigeria Labour Congress (NLC), academics, university administrators, and teachers and technologists across all levels of education.

The Summit acknowledged that “fifty-four years after political independence, Nigeria continues to grapple with the challenges of transformation and development”. It went further that “Whereas other countries in its league have overcome the initial problems of transforming their socio-economic and political environment for sustainable development, the Nigerian state appears to be failing by each day.” More specifically, the summit called for a state of emergency in the education sector as a way of urgently and radically addressing the rot and decay. This call was informed by major issues raised at the summit which indicated that:

- The Nigerian education sector must be re-conceptualized in a manner that would make it capable of performing its transformative functions for the individuals, groups, and the nation at large. Indeed, the social, economic, political, ethical, scientific and technological transformation of Nigeria must be driven by a revolution in the education sector.

- The most fundamental problem bedevilling the educational system in Nigeria is its location within a philosophical and political economic system which emphasises personal self-enrichment and individual aggrandisement instead of emphasising knowledge acquisition geared toward public good and national development. The current philosophy on education does not address the realities, identities, values, customs, and aspirations of the Nigerian people.

- The current educational system is characterised by chronic underfunding, bad leadership, infrastructural decay, poor conditions of learning and service, promotion of mediocrity, shortage of personnel (academic, technical, and administrative), and entrenchment of orthodoxy, parochialism and chauvinism.
The collaborating unions are currently working on an alternative policy of education based on the philosophy of liberating education. This policy is being offered as a patriotic and better-reasoned alternative outside the framework of the doctrinaire World Bank and IMF failed prescriptive paradigms popular with Nigeria’s lazy and selfish political leadership and indolent elite.

**Some Gains of ASUU Struggles**

This discourse would be incomplete without clearly underlining the major gains of ASUU struggles, particularly in the last two decades or so. It is difficult to accurately determine these but, for the purpose of illustration, we may broadly categorize them into the intangible and the tangible gains. Part of the former relates to the deepening and sustenance of democracy through principled resistance of impunity, violations of autonomy and academic freedom and mobilization of civil society against dictatorship. In the era of military rule, especially during the Abacha era, ASUU demystified the regime and thereby laid the foundations for popular resistance by a society that had been conquered. Apart from the underground press, no organization could muster the will and resources to challenge the regime and open it up for critical appraisal.

ASUU has consistently utilized opportunities provided by NEC meetings and “state of the nation publications” to apprise the public of issues of national import. Through this, ASUU has prevented the complete takeover of the country by the World Bank and IMF by revealing the lies in the various agenda couched in economic programmes, loan regimes and development frameworks with beautiful acronyms (SAP, NUSIP, Policy Support Instrument, etc. designed to conceal the real motives of exploitation and enslavement. ASUU’s resistance of the NUSIP programme of intervention for Higher Education by the World Bank and the Structural Adjustment Programme are fresh in memory.

As they relate to funding of education, the union has successfully prevented the commercialization of public universities through cunning and crafty terminologies like appropriate pricing and cost-sharing which, in fact, are indirect
ways of introducing tuition. ASUU’s opposition to tuition is a principled one guided by its constitution, the need to ensure equity in access and participation as well as to ensure the emergence of a well-informed and integrated society. Other intangible contributions are the ASUU/CORDESRIA conference on reforms in higher education, held in March 21-22 2005 in Abuja and the Education Summit jointly organized with other unions in the university system from 27th to 31st October, 2014 at Abuja as earlier outlined.

The tangible gains are too numerous to recount. We must, however, begin with the substantial minimization of impunity, interference and subversion of academic freedom and autonomy particularly in federal universities. The case with state universities is still far from the mark, judging from acts of impunity evident in the recent suspension of the Vice-Chancellor of Osun State University, among many others. The reversal of the dissolution of councils of federal universities in 2012 was because of ASUU’s insistence that councils must be allowed to serve out their terms instead of the subsisting practice where their tenure was at the pleasure of the Visitor. The new autonomy bill has arisen from 2009 FGN/ASUU Agreement. We are also aware of the fact that the selection of vice-chancellors is now largely the business of council. We are, however, disturbed by the failure of integrity that has greeted the process in many campuses due to brazen incursion of ethnicity, religion, influence of cartels and politicians disguised in various garbs. This is one of the greatest challenges confronting the system today and it clearly defines the new frontiers of our struggle to protect the university idea.

**Conclusion**
The history and pedigree of ASUU dictate that it continually agitates for improvement in university education as a springboard for transforming the lives and living conditions of the Nigerian people who have been victims of misgovernance and maladministration since the country got independence in 1960. The union has articulated this position elsewhere and it deserves being quoted at some length:
ASUU’s Constitution compels our Union to establish and maintain just and proper conditions of service for all our members. In addition, but not less important, flowing from the Union’s ideals, ASUU’s Constitution imposes on the Union, at all times, to protect and advance the socio-economic and cultural interests of the Nigerian people. Our Union is therefore bound by its Constitution to make “positive contributions to the economic and social progress of Nigeria, her associations and interests.” Our struggles reinforce, and are, in turn, reinforced by these ideals. For pursuing these ideals in practice, ASUU was hounded by military regimes and has been vilified by virtually all civilian regimes in Nigeria. Our organization is animated by a vision of a country united by the people themselves, not by ethnic, religious and regional champions, not by clubs of the rich bearing the name of political parties. We may be misrepresented, maligned or vilified. But we stand by the vision and the principles just outlined (Isa 2013).

Contrary to official propaganda that ASUU is intransigent, the union recognizes that scholarship is about contestation of ideas and that genuine transformation or change would only occur in the honest pursuit of “Truth, Knowledge and Service”. As declared while suspending the 2013 strike action,

..we (ASUU) shall accept fair and honest criticisms made in the interest of the University system and the people of Nigeria. We have no illusion that the Resolutions signed with Government will resolve all the important problems in the system. What we believe is that if the Federal Government faithfully implements the Resolutions, with ASUU, students and parents playing their essential roles, further crises would be avoided, to the benefit of our education system and our country (Isa 2013).
In summary, it is no longer a matter of debate that ASUU’s struggles have done much to provide the rally point and platform for revitalization of public universities in Nigeria. The modest activities and processes in the area of TETFund projects and grants for research as well as the Needs Assessment Intervention Fund allocations are there for all to see. However, in view of the enormous challenges that ASUU as a Union of workers and intellectuals have had to contend with over the years, it can be safely concluded that the only sustainable path to revitalizing Nigerian public universities is eternal vigilance and action by university teachers and workers, students and their parents as well as other critical interest groups and individuals who believe in restoring the lost glory of the Nigerian University System and, indeed, public education in Nigeria.

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Higher Education and National Development: Lessons for Nigeria

Joseph Shevel

The lecture focuses on 4 major themes:

1. Present and future trends in Nigeria—economy and social structure
2. Threat of climate change and its impact on Nigeria
3. Israeli experience in promoting economic development through higher education and scientific centers
4. Lessons for Nigeria: Plans for University of Ibadan

Present and Future Trends in Nigeria—Economy and Social Structure

During the past 15 years (2000 – 2015) Africa, in general, and Nigeria, in particular, showed high rates of economic development, compared with other parts of the world: 8.9% per year between 2000-2010; and a slower pace of 6.8% in the last 4 years. Africa as a whole became a global destination for investment. In 2014, investments in Africa were only second to North America.

However, the sharp decrease in oil prices might change this trend. Prices of crude oil declined to $60 per barrel, whereas the price of barrel, in order to balance the national budget of Nigeria, is estimated at $123. This will present severe difficulties in continuing the pace of economic development that was experienced in recent years. A first indication of this important change is the sharp devaluation of the naira versus the US dollar. On the other hand, the potential of growth in Africa based on the national resources is enormous. For example, the GDP of African economies could rise 6 fold in the next 30 years and income per capita could rise to $10,000. However, power generation capacity must increase 6 fold by 2040 and transport volumes 8 times.

The agricultural sector accounts for around 60% of Africa’s total employment and around 25% of its GDP. At the same time, it accounts for 40% of Africa’s foreign currency earnings.
In general, the poverty rate in Africa decreased between 1990 and 2005 and is projected to continue in this direction (see chart).

However, the general trend in Africa is not equally distributed among all countries. Unemployment in Nigeria is mounting and was about 20% in the year 2010. Moreover, it is estimated that the youth in Nigeria is with an unemployment rate that is over 50%. As a result, the segment of extremely poor in the Nigerian society grew from 5% to 30% between 1980 and 2010. At the same time, 4 million young people are entering the workforce every year. Potential of Nigerian agriculture:

At present, agriculture contributes about 20% to the Nigerian GDP. However, the potential is enormous. There are 279 billion cubic metres of surface water and untapped irrigation potential for 3 of the 8 major river systems in Africa. There are 84 million hectares of arable land and only 40% is utilized.

On the other hand, Nigeria is importing agricultural products. Food import dependency is hurting Nigeria’s economy. Yearly, Nigeria imports over US$11 billion of wheat,
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rice, sugar and fish. In fact, Nigeria is the largest importer of wheat in the world and 2nd largest importer of rice.

More importantly, the yield per hectare grew during the last 50 years at a lower rate compared to other agricultural countries in the world. This is a main driver of agricultural competitiveness. For example, Malaysia’s yield of crops grew by about 3% per year, whereas Nigerian crops grew only by 1.2% during this period.

Climate Change in Africa and the Impact on Political Stability

As climate change in Africa will often cause droughts, floods, higher temperatures and rising of sea level, agricultural output will decrease and, therefore, will drive people to move out of their farms. Furthermore, the explosion of population will drive more and more of the population to the major cities, searching for jobs. Water shortages, as forecasted by the UN (see table 2), will push populations out of the rural areas to the already populous cities with high unemployment rate.

Thus, the combination of nationalist, religious and tribal political trends jointly, with the damage caused by climate change and increasing poverty and unemployment, might cause political unrest on a local, national and regional level.

It seems that the main effort should be in the direction of education, training and capacity building in order to enable farmers to cope with the climate change implications. In addition, based on capacity building, farmers will be able to cultivate in more cost-effective methods. Advanced water management techniques will enable the population to utilize the water efficiently and effectively and overcome the anticipated shortage.

Climate Change and its Impact

The purpose of this article was to analyze the climate changes forecasted in coming years and their possible impact on the level of security in Africa. It appears that estimated changes in the regional climate together with the anticipated explosion of the region’s population might contribute to violent disputes and
probably to local wars (fig. 2). Furthermore, it might contribute to the demands for independence of certain regions and sub-regions in Africa.

![Projected change in African civil war by 2030 as a result of climate change](image)

**Fig. 2:** Projected change in African civil war by 2030 as a result of climate change.

An additional major impact of future climate change will be the rural-urban immigration in most African countries. Major cities will be over populated and will be impossible to manage.

**Characteristics of Climate Change**

Burton suggests the following urgent actions:

- Climate changes cannot be avoided.
- Anticipatory and precautionary adaptation is more effective and less costly than last-minute emergency.
• Climate changes may be more rapid than current estimates suggest
• Unexpected events are possible.
• Immediate benefits can be gained from better adaptation to climate variability and extremes.
• Immediate benefits can be gained by removing maladaptive policies and practices.
• Climate change brings opportunities as well as threats.
• Future benefits can result from climate change.

USAID Study in East Africa – Implications of Climate Change
In November 2011, USAID conducted a study in the East African Region on the economic implications of climate changes. The Region was divided into 3 sub-regions.

The study identified climatic changes in the Horn of Africa over the past few decades:

• Higher night-time temperatures;
• An increase in rainfall in the northern areas;
• A decrease in southern areas;
• An increase in wet extremes, often causing flooding;
• A rise in temperatures;
• More frequent extreme weather events;
• Rising sea levels;
• Intensification of storms.

Based on these findings and estimates, the study drew a map of the African regions at most risk (fig. 3).
Fig. 3: African regions at most risk from climatic changes.
Fig. 4: Other regions and climatic changes.
Deforestation in East Africa

Another example of man-made changes is deforestation. The table published by the World Bank (2012) indicates the deforestation level in African countries. For example, the area covered by forests in Kenya went down to about only 6% of the area. In Ethiopia, one-third of the county was covered by forests in the 1950’s. In 2012, only 13% was covered.
The extent to which each African country will be affected by the shortage of water is shown in table 2. Djibouti, for example will not have water at all in 2015.

Table 2: Water Availability in Africa

**Israeli experience in promoting Economic Development through Higher Education and Scientific Centers**

Nelson Mandela said that: “Education is the most powerful weapon which you can use to change the world”, and he was right. Not only was he right, if we look at Israel, we see that 7.3% of the Israeli economy is devoted to education. The USA only invests 7.2% of GDP, a lower percentage than Israel. In fact, Israel is the number two investor in education in the world, after Iceland, which is number one, with 7.9%. Number three is the United States, and then Denmark, Belgium and Sweden. Even the UK only invests around 5.7% (fig. 6). Unfortunately when we look at Nigeria, we are talking about 1% investment only. Dakar’s recommendation to all of Africa is to invest about 4% to 5% of GDP, of the total economy, in the field of education.

![Educational expenditure from public and private sources for educational institutions as a percentage of GDP 2010.](image)

**Fig. 6:** Educational expenditure from public and private sources for educational institutions as a percentage of GDP 2010.

In Israel, we were lucky that our first Prime Minister, David Ben Gurion, made a decision, the first decision as an independent country, to invest in education. Today, 67 years later, Israel enjoys the benefits of that investment. Ben Gurion
said that every child must go to school, and if he does not go to school, his father will be sent to jail.

If we look at the agricultural sector in Israel, it is known that, in the Middle East, we have been growing date palms for centuries. The average tree is about 18 to 20 feet tall and the output of dates is about 38 pounds a year. The output of Israeli dates is now 400 pounds a year, more than 10 times the average, and they are short enough to be harvested from the ground or from a short ladder. We can see the same trend in dairy. Israeli cows provide 50 litres of milk per day—number one in the world. In Nigeria and other West African countries, we know that 10 litres a day is considered to be high.

The cell phone was also invented in Israel. It was invented by young Israelis working in the Israeli branch of Motorola, the largest development centre in Israel. In addition, most of the Windows NT and XP operating systems were developed by Microsoft in Israel.

![Qualified Engineers Index](image)

**Fig. 7:** Qualified Engineers Index.

Israel is number three in the world now in terms of the Qualified Engineers Index, as can be seen from figure 7, which was developed by the World Competitive Yearbook, 2012. 24% of Israelis now work in engineering, ranking third in the industrial world, after the United States and The Netherlands.
12% of Israelis hold advanced degrees. Israel has the highest ratio of university degrees to the population in the world, and this is again a result of the decision made, 67 years ago, by the first Prime Minister, Ben Gurion.

Owing to the fact that Israel is such an advanced country when it comes to education, both Microsoft and Sisco built their only research and development facilities outside of the United States, in Israel. Google and Intel also established research centres in Israel. Israel now has an economy of approximately 350 billion US dollars and is larger than all of its immediate neighbours combined, notwithstanding their oil resources. In fact, we can say that Israel is the only country in the Middle East with no oil, and for many years Israelis complained to God “what kind of Promised Land is this?” Now we understand that, most probably, God wanted us to work hard and to think, and this is why he did not bless us with oil, nor with any other natural resources. Not only that, we don’t have any water. Nevertheless, we invested in education and this is how Israel became such a super power when it comes to high-tech.

On research and development (R&D) in Israel, Israel allocates 4.5% of its GDP to R&D; number one in the world ahead of Sweden, Finland, Japan, Korea and the UK, which only invest 1.7%. This is the secret to Israel becoming a high-tech centre. Not only this, the table of the CBS of Israel indicates that much of the R&D is carried out by the business sector and only a minimum is performed by the government, higher education and private, not-for-profit institutions. This is a unique phenomenon in Israel, that the business sector invests in R&D. If we look at the table of the world in the World Intellectual Property Organization, we see that Israel is the number one in the world when it comes to patents. Once more we have to understand that this is due to investment in education, engineering and high-tech study programmes. Nowadays, Japan is number two in investment in R&D, with 3.2% of their GDP. Overall, Israel, today, with a GDP of 350 billion US dollars and per capita income of over 38,000 US dollars in 2014, exceeds most of the EU countries.

Another indication of the Israeli situation is that we already have 12 Nobel Prize Laureates; the last one was Professor Arieh
Warshel in Chemistry in 2013; just before that, Dan Shechtman, also in Chemistry; and before that Ada Yonath, again in Chemistry. The first Laureate was for Literature, Shmuel Agnon in 1967. We are one of the leading nations in the world when it comes to Nobel Laureates, ahead of Belgium, Spain, India, Ireland and others. We don’t have natural resources and we don’t have enough water. In fact, Israel is considered a desert and a semi desert, and this led to R&D activities in water. One of the innovations we developed was the drip irrigation system. The company which produces this, owned by a Kibbutz, now sells this system to 110 countries in the world. The number of researchers in the business sector is 2.1%; number one in the world.

On the subject of the lack of fresh water, Israel developed recycling and desalination facilities and the government encouraged R&D in the water sector. There is a high scale of water technology and, of course, technology exports. Israel is number one in the world in its reuse of water. Over 76% of the water in Israel is recycled. With recycled water we can undertake agriculture in the desert. On Kibbutz in the desert in Israel, we grow watermelons and melons as part of our Aquaculture industry. Of course there is no soil so the watermelons and melons grow in the air. Not only that, they grow all year round, not only in the summer. Because we don’t have water, we sometimes use brackish water, and these watermelons and melons become sweeter, as do other produce that we grow this way.

Universities in Israel also invest in research and development, and each of the universities has formed its own private company and sells know-how and patents; the new ideas and inventions by their faculties. For example, the Hebrew University’s head company, called Yesum, sells over 5,500 patents and 1,600 inventions all around the world, and, of course they get royalties. All seven universities and research institutions have set up their own private companies. Another example: the Hebrew University campus in Rehovot sold patents for long shelf life tomatoes and cherry tomatoes and earned 73 million US dollars for these ideas in 2011 alone. In 2012, the Hebrew University sold 417 million US dollars,
developed by Professor Yehezkel Berenholt of the Department of Biochemistry, Faculty of Medicine. In a further example, Hebrew University’s Professor Martha Weinstock Rosen sold patents from the Department of Medicine and Pharmacology for 632 million US dollars.

In addition, the Central Bank of Israel defined Israel as the most efficient in competitiveness. Israel ranks number one in the availability of qualified scientists and engineers, and number one in the quality of research being conducted by domestic scientific institutes. Israel ranks third in the number of venture capitalists per capita and the second highest, after the United States, in the number of companies listed in NASDAQ. Lastly, Israel ranks number two amongst the OECD nations, the organization of industrialized states, in the quality of higher education.

In terms of the reuse of water, as I mentioned, Israel is number one in the world in the reuse of water. If we look at the table of water availability, we see that, in Africa, most of the countries will not have water by 2025. Djibouti doesn’t have any water currently, but even though Nigeria has water today, the table indicates that by the year 2025, the country will have 50% less water than is available today, as will Ghana. In fact, all the countries will have less fresh water. Desert countries, like Niger will have only a quarter of the water available today, and the same for Senegal—about 50% less.

Another feature of Africa is deforestation, with trees being cut all over Africa. For example, in Ethiopia in the 1950s, 33% of the country was covered by trees and today the equivalent is only 3%. The same situation is the case for most East African countries. In fact, Israel is the only country in the world that entered the 21st century with net gain in its number of trees.

Desalination is also an issue in Africa. Back to Nigeria and Dakar’s recommendation, of a 4% to 5% investment in education, unfortunately in Nigeria, the investment is only 0.9%.

We can now compare some African countries, for example, Ghana with Malaysia. In 1957, both countries were at the same socioeconomic and GDP per capita level.
Fig. 8: Ghana and Malaysia: GDP per capita terms.

Unfortunately, Ghana did not invest in education, whereas Malaysia did; and as figure 9 indicates, today, Malaysia is one of the highest in terms of GDP per capita, whilst Ghana is at the bottom.

Fig. 9: Ghana and Malaysia: 2009 GDP per capita terms.
It is a similar story with the comparative GDP per capita of Zimbabwe, Zambia, China, India and Kenya, when looking at the 1960s versus today, today, China is far ahead, and India follows behind it, whereas Zimbabwe, Zambia and Kenya are at the lower level.

Fig. 10: Zimbabwe, Zambia, China, India and Kenya: GDP per capita (1960 and 2009).
The World Bank issued a study which showed that 85% of new jobs in Africa in the period 2000 to 2010 were created by small—and medium-sized enterprises. In Israel, we have developed “incubators” for young entrepreneurs. We have business incubators, industrial incubators, technological incubators and also agribusiness, or agriculture, incubators. In the past, the Israeli Government used to give financial assistance, but they found out that, once you give entrepreneurs financial assistance, a few months later, they return and ask for more. And so, today the government is giving ‘know-how’; know-how to market, know-how to export, know-how to compete in the world, know-how to develop and to upgrade the product. This is what has made the Israeli exports so successful. So again, and as Nelson Mandela once said, “Education is the most powerful weapon which you can use to change the world”.

Fig. 12: Education and sustained economic growth and poverty reduction.
Lessons for Nigeria

Based on the Israeli example of universities being the leading force in creating innovations and economic development (mainly in high tech and also in agriculture), the following is a proposed plan for the University of Ibadan, jointly with the Government of Oyo State and in cooperation with Galilee Institute.

The objective is to multiply the agricultural output of the state in two (2) years through capacity building, in the following fields:

- Agricultural crops
- Dairy
- Aquaculture

The training will include three months at Galilee Institute in Israel, for faculty members of University of Ibadan. They will be the core faculty of the programme (TOT) and will train the farmers throughout the state. Israeli professors and experts, and faculty of Galilee Institute will travel to Oyo State every month (12 times a year) for 5 days in order to evaluate the work of the Nigerian experts, to update them of new developments and upgrade their work. This cooperation of the University of Ibadan and the Government of Oyo State, together with Galilee Institute, will serve as a model for other universities and polytechnics in other states in Nigeria, and perhaps to all African countries.
Globalization and the Political Economy of Higher Education in Nigeria

Mojúbàolú Olúfúnké Okome

Introduction
We live in a rapidly changing, global world where the local and global are inextricably linked. Owing to innovations in communications technology and consequent extraordinary increases in trade, financial flows, and the ideas that shape what we think and how we think, we live in both a totally interconnected world and a radically disconnected world—a process I have described as full of “antinomies”. Thus, Nigeria’s higher educational institutions are enmeshed in vibrant and ever-changing relations with their peers all over the world, and they may, at the very same time, be disconnected from them in spite of globalization’s presumed homogenizing force. This is because some individuals or fractions of the Nigerian academy may be totally connected, while others have not been able to connect. Also, many scholars are engaged in cutting-edge, world-class research, and many more are not. Many have published and are recognized worldwide. The majority have published only locally, and are not yet recognized outside Nigeria. This is not unusual if understood within the framework of “antinomies”.

In this paper I contend that globalization has a profound effect on the political economy of higher education in Nigeria. Globalization as a phenomenon is hardly new, although more people are conscious of living in a global world today than was the case in past eras of history. Historically then, I see higher

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education as shaped by both local and global political, economic and social forces. Higher education, in turn, profoundly shapes the process of globalization since it is the arena within which ideas are produced, debated, deconstructed and reconstructed. Ideas themselves have epistemic power, and the production of knowledge is inextricably linked with the manner in which humans understand and give meaning to their lived realities.

My quest in this paper is informed by the mission and vision expressed by the founders of the University College, Ibadan, for whom its primary role was to be Nigeria’s premier university “which would have a national outlook and which would bear unflinching allegiance to research, training, and service” (Raji-Oyelade et al. 2010, 13). The founders of the university were committed to academic excellence, and also wanted learning and teaching to occur in a serene and organized environment (Raji-Oyelade et al. 2010). As an alumna of UI, I benefitted from these sentiments because I had an education that prepared me to engage the world and compete with colleagues in some of the world’s best universities as student and teacher. I was also equipped with tremendous confidence and top-notch work ethic. I expect a lot first from myself, and then from the people and institutions that I engage. Let us consider whether UI is living up to these ideals and fulfilling its mission in such a way as to impact our world, beginning with its own community and terrain, and then, our country, which, at the current time, is once again facing the predicament of budget and leadership crises and rampant disillusionment.

Although the unending quest for knowledge is worthy of being the primary goal of education, because knowledge, in and of itself, is of such singular importance to humanity that we don’t need to concoct reasons for its centrality to the mission of educational institutions, and one can also claim that to be truly meaningful, higher education has to be connected with human and national development priorities. Thus, as Nigerians who are concerned about our country’s realization of its full potential, at this watershed moment in our country’s history, it is appropriate to consider what Nigeria’s national development priorities are and whether there is a coincidence between them and the purpose of education. If there is no connection or if the
connection is poor, we should want to know why, and it is necessary to give some thought to the remedies that may be appropriate and effective. As well, higher education should be connected with human development that goes beyond preparing people to engage the economy as factors of production. It should help people to develop the capacity to think more deeply, strive for more knowledge, think outside the box, and strive for excellence in the production of knowledge and its application to solve human problems. Thus, the paper also takes the position that education is inextricably connected with both human development and national development. The paper concludes that matters of higher education, being defined as a critical aspect of national interest, must reflect the collective vision of advances that Nigeria wants to make in the 21st century and how it aims to get there.

If education is deeply connected with human and national development, we should see education as a matter of national security. Nothing expresses that sentiment better than the way in which the budget allocates resources. If education is considered important in Nigeria, the percentage in federal, state and local government budgets devoted to education should be substantial and significant. However, the national budget in Nigeria does not reflect that the country cares in any kind of significant way, about education. Approximately, 10.7% of the 2014 budget was devoted to education. However, Professor Okebukola, former Executive Secretary of the National Universities Commission, considered government funding on education as closer to 25% when one factors in spending by state and local governments, but he also recommended a 30% spending level for the next 20 years to correct the problems in the educational system. It is hard to synchronize the 25% figure with the state of Nigeria’s educational institutions, a factor that Okebukola attributed to “leakages” (Atueyi 2015).

The main issues engaged in the paper include:

- The purpose of higher education, broadly described.
- Purpose of Nigerian Higher Education, including University of Ibadan.
- What ought to be done?
What is the purpose of Higher Education?
Conceptually, much ink has been spilled and many more words scattered to the wind over the course of human history about the purpose of higher education. It is also important, given the embrace of the corporate model in higher education and the valorization of entrepreneurship, to realize that education is central to national interest, and cannot be solely determined by market forces. Thus, the role of the state in making education policy, and funding education, cannot be overemphasized. Also, educational institutions and personnel cannot be bystanders in this discussion. They ought to participate in conceptualization, framing and providing the scaffolding that enables us to understand the purpose of education, its potential contributions to human and national development, and how best to connect education (the means) to national development (the end). To do this successfully, higher educational institutions must be well-resourced as well as autonomous. Some of these resources would necessarily be derived from the state. Higher educational institutions must also be nimble and creative, bold and tenacious, committed to excellence and dedicated to the pursuit of truth, regardless of where it leads. To what extent do our Nigerian higher educational institutions fit this bill? To what extent is UI a leading light in this effort?

The purpose of higher education has been considered by scholars for time immemorial. Conventionally, its purpose includes the creation, progression, absorption and dissemination of knowledge. But higher education has both abstract and practical implications. In the abstract, the creation of knowledge itself is an invisible process but it is expected to generate practical results. For example, it may not be far-fetched to believe that higher education ought to contribute to the rapid industrialization in a country that direly needs it such as Nigeria. Fundamentally, it also ought to contribute to the development of higher order cognitive and communication skills, where it trains people to develop logical thinking capacity that enables them to challenge received knowledge and the status quo. It should engender the desire to harness and deploy sophisticated values and is also expected (particularly
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for late developing nations, and using neoliberal principles) to deliver training for professional and vocational skills acquisition. This indicates that there is a central tension between education as a public good and education as private benefit.

There is also a tension between education for character development and education for career development. These goals are not necessarily mutually exclusive. The former means that we are able to train and motivate bright, imaginative, creative and productive people who are able to think outside the box, empathize with their fellow human beings, contribute to the production of knowledge and enhance the human capital at the disposal of the world at large. In terms of the latter, it delivers competitive skills that enable its consumers to acquire good jobs. Using the word ‘consumers’ raises the spectre of higher education as a business, and brings up critiques of neoliberal models of higher education as too focused on the cold, calculated exchange of cash for knowledge, the intrusion of the profit model into what ought to be a singular dedication to the pursuit of knowledge, and consequent deflection from the primary purpose of education.

Should the university not be concerned about its survival in a world where resources are finite, even scarce, and where there are salaries to pay, infrastructure to maintain and research to be funded? Who should bear the cost? To my mind, while it is acceptable and even desirable to have private educational institutions, the state has primary responsibility for ensuring the provision of access to education. It also has the responsibility of ensuring quality control. The effort should be to maintain the highest possible standards, and the task is even more urgent in a developing country like Nigeria, given the significance of ensuring both the production of knowledge for its own sake, and also of producing the people who would lead the efforts of making, administering and managing policies.

If there is anything to understand about globalization, it is that the world is increasingly competitive and Nigeria must be able to not only cope with the challenges, but also excel. These objectives cannot be achieved without privileging education and embracing the assumption that education is as important as
national security. It is also foolish for a country like Nigeria to allow itself to be hoodwinked into thinking that higher education is a luxury and basic education is sufficient. Has any country been known to become a world power by taking such a position?

Fortino defines as the central purpose of education, “the creation of prepared minds” (Fortino 2013),” and conceives of education as offering a “smart start” to its consumers. Education is also widely considered as the avenue to opening doors of opportunity that lead to success, achievement, upward mobility, and fulfilment. As well, education could contribute to the promotion of civic engagement and citizenship. It is widely considered to have the capacity to prepare people to become good human beings.

Essentially, with access to higher education, people should be able to truly know themselves, understand their place in the world, and also be given the confidence to challenge existing orthodoxies in the interest of humanity. They should be given the capacity to better understand the world they live in, identify the problems therein and use their intellectual capacity to envision a better world, and inspire others to share this vision and work towards its accomplishment.

What is the purpose of Nigerian Higher Education?
Nigeria currently has over ninety universities, although the NUC only lists forty-five. These universities are both public and private. Some are established by religious organizations and others secular. I look upon the growing terrain of Nigerian higher education with trepidation at the dismal state of many of our institutions of higher learning, most obviously in terms of the physical infrastructure, and more subliminally in terms of the disconnect between most of our universities and their core mission. Given the devastation that befell our institutions of learning in the locust years described by the World Bank as “the lost decade” from the mid-1980s to the 1990s, most analyses of higher education in Nigeria explain the history, causes of decline and strategies for revival by focusing upon the inadequacy of government funding, the abandonment of the
Globalization and the Political Economy of Higher Education in Nigeria

universities and even Nigeria by the intelligentsia and by the students that are most financially able to do so, the obvious infrastructural decay, falling academic standards, and the politicization of education.

In an effort to stem the haemorrhage, early in the millennium, the Federal Government of Nigeria and the World Bank negotiated a loan to revitalize Nigerian higher education, paradoxically after the very same World Bank contributed to the defunding of higher education via its recommendation in the Berg Report that African countries should concentrate on primary education because tertiary education is a luxury. The Carnegie, Ford, Rockefeller and MacArthur Foundations also collaboratively decided to support African higher education to contribute to turning around the malevolent effects of “the lost decade”/“the locust years”—the reversals experienced by the continent due to the combined effects of the debt crisis and failed Structural Adjustment Programme. These efforts contributed somewhat to providing funding for the initiatives favoured by the foundations but such funding was not available to all higher educational institutions. It was also not meant to fill the budgetary gaps in the recipient institutions.

In the case of Nigerian higher education, analysts have attributed the disjuncture between higher education and national development to the country’s history, including the manifold challenges of mal-development, particularly the challenges thrown up by the country’s colonial history, as well as the legacies of failed policies of the post-colonial state, particularly the combined effects of unsustainable national debt and the Structural Adjustment Programme imposed by the World Bank and IMF that failed to produce the promised solutions. There is a connection between the other identified causes, including the underfunding of higher education by the government and consequent decrepitude of the physical plant and instructional facilities; the brain drain, the loss of autonomy by the tertiary institutions, lecturers’ strikes, and constant closure of the universities. The dismal consequences for students and the universities can be traced to Nigeria’s inability to properly articulate autonomous strategies that are directed toward
proactive and comprehensive national planning that understands that education is one of the major linchpins in social, economic and political well-being.

Without the appropriate planning and the budgetary commitment plus single-minded implementation of policies geared at making our educational institutions competitive with the best in the world, none of the strategies for reviving the Nigerian higher education system will succeed. I speak about revival because, as a product of Nigerian higher education, I cannot help but note that we have had considerable decay in infrastructure, in esprit de corps, collegiality and morale, and most worrisome, in commitment to the core mission of higher education.

There is renewed interest in educational partnerships, as is obvious from efforts by the international development agencies such as USAID and DFID. The foundations are also engaged. I am here today as a Carnegie African Diaspora Fellow, to contribute to fostering linkages between us in the diaspora and our colleagues at home, for the betterment of higher education in the continent. As well-intentioned as the efforts are that are similar to that which brought me here, they will not make the expected high impact without harnessing Nigerian energies to envision the future we want and mobilize all hands on deck to create the improvements we need in higher education. In addition, these issues must be viewed in the context not only of lost autonomy today, but also times as another phase in the intrusion of the phenomenon of globalization in the political economy of higher education in Nigeria.

I trace the origins of funding problems in the past, and in contemporary, to the intensification of pressures from Nigeria’s integration into the global political economy. The country’s confident embrace of the possibilities of such integration faltered in the 1970s, and its attempts to muddle through were stymied in the mid-1980s. Nigeria’s universities and their academic and administrative staff were casualties of this disconnect between the country and its nationalist drive to create life more abundant for all.

The founding of the University of Ibadan and many others that emerged in the same era was framed by Nigeria’s
colonization by Britain, an enterprise that drove the logic of educating colonized people, initially to serve the colonial machine in a subaltern capacity. The struggle for independence and the nationalism that informed it meant that the colonized demanded and secured the sort of education that compared with what was available in the metropole. University College, Ibadan, came into being to train Nigerians to administer and manage their country. Part of its mission was to groom people for leadership. As a B.Sc Political Science graduate from UI in 1979, I consider myself a beneficiary of this intent. The tragedy of the locust years is that such hopes were not fulfilled. Many who were able went to far flung corners of the world for further education, academic, technical and professional jobs. Despite claims that this brain drain would be ameliorated by either brain gain or brain re-circulation, Nigeria has lost much of the storehouse of skills, knowledge and know-how that could have been harnessed to serve our country. Remittances, although considerable, cannot possibly compensate for these outflows. Thus, it is not out of place to ask whether UI’s mission is still being fulfilled.

Even in the mid-to-late 1970s, we were dissatisfied with the quality of our education and were discontented with the governance of Nigeria from the First Republic’s crashing of the dream that an independent Nigeria would bring life more abundant to all in a mere six years, to the long years of military rule, the brief period of the Second Republic—a riotous and disorganized period that ended, once again, with military intervention. Were these years good for higher education? Not, in my opinion. Nigeria was left financially broke and almost broken in spirit. The consequent decay in higher education could be seen in graphic relief—in the infrastructure and physical plant. The damage to confidence and imagination were more profound but less visible. There was tremendous brain drain from the professoriate due to better opportunities to engage academic inquiry and teaching in other parts of the world. These were the locust years. Economic crisis meant that Nigeria was unable to service its huge, unsustainable debt. The Structural Adjustment Programme as well as ‘third wave’
democratization were both pushed by the World Bank as inextricably linked solutions.

Many of the problems being experienced in the higher institutions of learning today may not have started in the era of Structural Adjustment, but they did intensify. In particular, the World Bank in the 1980s recommended that countries that had high debt and serious balance of payments deficit, as did Nigeria, ought to direct their attention more to funding primary and technical education rather than tertiary education, which is elitist. The recommendations were made in an atmosphere of economic crisis, where the universities were the most visible sites of anti-Structural Adjustment critiques and protests. The embattled state responded in ways that generated many of today’s problems.

These problems generated profound and seemingly intractable reverberations that have stymied both scholarship and learning in Nigerian universities. World Bank involvement did not only impede university autonomy, but it also negatively impacted Nigeria’s political and economic development. While there are other alternative sources of funding Nigeria’s higher education, as indicated by the blossoming of private universities in the country, the total privatization of higher education is not an acceptable option. In order to recover the ground lost during the locust years, the public universities must be restored to fulfill the vision and mission that drove the founding of UI. In addition, private universities must contend with a rigorous certification system geared to ensure that Nigerian higher educational institutions have a pride of place in our rapidly changing and competitive world. For both public and private institutions, the creation of endowment funds that support higher education by Nigerians must be encouraged.

Globalization and Higher Education in Nigeria and Africa

We cannot date the emergence of tertiary institutions in the African continent to the relatively late emergence of the contemporary crop of higher institutions of learning. Anyone who knows African history knows of the existence of fine higher institutions of learning in ancient Mali and Egypt.
Nonetheless, this paper restricts its comments to the tertiary institutions that were established first in the final days of colonialism, and more during the nationalist era of anti-colonial campaigns, the former to train personnel to man colonial posts, and the latter to prepare Africans to take charge of the production of knowledge, to equip them with the wherewithal to lead their various countries in different capacities, to enable them to become the vanguard in implementing the nationalist liberatory agenda.

Considered from the glorious and forward-thinking optimism of those heady times, it is clear that today’s tertiary institutions have come to a bad pass. All over the African continent, tertiary institutions suffer from what we see so graphically in Nigeria (although to a lesser extent today than in the locust years, but still significant enough to be troubling)—massive underfunding, infrastructural decay, and the brain drain. As previously stated, most analyses of higher education in Nigeria explain the history, causes of decline, and strategies for revival by focusing on the inadequacy of government funding, the abandonment of the country and universities by those scholars and students that are able to do so, the falling of academic standards, and the politicization of the universities. These analyses are both right and wrong. They are right because one would have to be blind and/or senseless not to see that today’s universities are but pale imitations, or even carcasses of yesterday’s shining beacons. They are wrong because these phenomena are themselves caused by globalization. The phenomena in turn shape our understanding and experience of globalization.

According to Article 26 of the Universal Declaration of Human Rights (UDHR),

(1) Everyone has the right to education. Education shall be free, at least in the elementary and fundamental stages. Elementary education shall be compulsory. Technical and professional education shall be made generally available and higher education shall be equally accessible to all on the basis of merit (italics mine).
(2) *Education shall be directed to the full development of the human personality and to the strengthening of respect for human rights and fundamental freedoms.* It shall promote understanding, tolerance and friendship among all nations, racial or religious groups, and shall further the activities of the United Nations for the maintenance of peace.

(3) Parents have a prior right to choose the kind of education that shall be given to their children (United Nations Organization 1948).

Globalization has a homogenizing effect and international organizations are an avenue through which international regimes are developed. The conventional definition of regimes in the international system is that they are norms, rules, organized procedures and common expectations that guide behaviour (Keohane and Nye 1977). Taking the UDHR as a reference point shows the relevance of globalization as a force that drives national processes. It is front and centre in discussions of the rationale for education, its purpose, its relevance to human rights, peace and freedom. It also reflects the integral assumption that the state should bear primary responsibility for the provision of education. Although it wasn’t independent when the UDHR originally came into being, when Nigeria became a member nation of the UN at independence, by not expressing an objection to them, it took on the obligation of living up to these international agreements. Doing so is also for Nigeria’s benefit because living up to these obligations will contribute to its capacity to meet its development goals. There is also a responsibility for parents, whose right to choose the kind of education could be said to confer on them, the capacity to participate in discussions and debates on education, but this interesting phenomenon is beyond the scope of this paper.

Kofi Annan, Secretary General of the United Nations, also shed some light on the connection between globalization and education in Africa, as well as on the centrality of education to human life when his representative, Nitin Desai, said on his behalf, at a meeting of the United Nations Educational,
Scientific and Cultural Organization (UNESCO) on the Development of Science and Technology in Africa, in New York on February 9, 1999 that:

Today, globalization is affecting all aspects of our lives, from the political, to the social, to the cultural. Only knowledge, it would seem, is not being globalized. In an age where the acquisition and advancement of knowledge is a more powerful weapon in a nation’s arsenal than any missile or mine, the knowledge gap between the north and the south is widening. This trend must be reversed. (Annan, “Promotion of Science, Technology; Cornerstone for African Economic Progress,” says Secretary-General in Address at Headquarters. Press Release SG/SM/6891 SAG/21, 1999).

It is clear that Nigerian universities have not only lost their autonomy today; but we are observing another manifestation of the deep and profound engagement of the African continent with the global forces of production, of governance, and of social relations.

I have argued that the crisis in Nigerian higher education is caused by the manner in which Nigeria, like the rest of Africa, is experiencing globalization. Nigeria and the overwhelming majority of African countries are in the wake of deep-seated economic crisis. Even when one wants to affirm the positive message of “Africa rising”, it is important to acknowledge that we are not out of the woods yet. For most African countries, this crisis began in the 1970s. Nigeria was shielded from experiencing the worst of the crisis in the 1970s because of an oil boom that itself was the outcome of the operation of global political and economic forces. The Arab-Israeli war of the 1970s made it possible for Nigeria to exponentially increase the gains from the exploitation and purveyance of what increasingly became the most important earner of foreign exchange, crude petroleum.

The irrational exuberance of Nigeria’s oil boom years of the 1970s led to expanded capacity to fund many more universities
in a system that practised unabashed ivory-towerism. Students were clearly being groomed by this system to take up cushy jobs as leaders in their fields and in the nation at large. The number of institutions increased with each increase that the Nigerian government made of the number of states. More recently, as Nigeria became drunken under another boom in the international petroleum market, there was a renewed wave of irrational exuberance that has now led us to a 7 trillion naira debt, but with many more universities established by government fiat, often with inadequate thinking about how to fund these universities, whether there is enough seasoned faculty and administrators to undertake developing them into centers of excellence, and scant attention to whether or not the students produced will be employable. It may sound paradoxical, but I must hasten to say that, despite these increases, Nigeria has not, by any stretch of the imagination, met the need and demand for higher education. More shocking and troublesome is the fact that the country is yet to connect higher education with national development.

Let me reiterate and extend my argument: Education is central to national interest, and is too important to be left to pure market forces. Thus, the role of the state in making education policy, and in funding education cannot be over-emphasized. Without the prior articulation of autonomous and coordinated strategies that are directed toward proactive and comprehensive economic planning that understands that education is one of the major linchpins to economic, political and social well-being, higher education will not thrive in Nigeria. Without a clear understanding of the history of our country and the vision and mission that drove the establishment of higher educational institutions, we cannot understand the causes of the declines we witness, or properly apprehend and execute strategies for reviving the Nigerian higher education system.

To say that globalization is important is also to trace the origins of funding problems in the universities to the intensification of the pressures from Nigeria’s integration into the global political economy. In the heyday of the neoliberal Washington consensus, the Structural Adjustment Programme
as well as “third wave” democratization were both pushed by
the International Monetary Fund and the World Bank. As stated
earlier, many of the problems being experienced in the higher
institutions of learning today may not have started in the era of
Structural Adjustment, but they did intensify. In particular, the
World Bank, in its Berg Plan (1979), did recommend that
countries that fit the profile of Nigeria ought to direct their
attention more to funding primary and technical education,
rather than elitist tertiary education.

The recommendations were made in an atmosphere of
economic crisis, where the universities were the most visible
sites of anti-Structural Adjustment critiques and protests. The
embattled state escalated its classic tradition of repressive
responses to those who opposed its policies, methods and style
of administration by unleashing the military, police, and
security forces on the universities. Demonstrators were shot at
by security forces, as they were during the more ‘benevolent’
1970s, critics were detained, interrogated, and forced into exile.
The universities became increasingly infiltrated by undercover
security agents who laid the groundwork for today’s cults. The
Association of Senior Staff of the Universities was proscribed
time and again under the Babangida administration and the
more brutal Abacha dictatorship, as was the National Students’
Union. These punitive and repressive measures were accom-
panied by further centralization of the tertiary education system
in a manner that followed the administrative norm during the
various phases of military rule. The power of the purse was also
used to humiliate, silence, and marginalize the intelligentsia.

Profound underfunding of the universities, neglect of their
infrastructure, and the marginalization of the intellectuals as a
crucial part of the process of state building fell right in line with
the IMF’s advice that there was an imperative need for
rationalization through retrenchment, removal of subsidies,
attrition, imposing market values on all aspects of life by
“getting the prices right,” and the World Bank’s advice that the
focus on tertiary education breeds an elitism that could scarcely
be afforded. Like most social services, education became a
privilege rather than a right, but the conditions under which it
was produced and acquired simultaneously became Darwinian. Books, journals, equipment and teaching aids became unattainable luxuries for the overwhelming majority of students and professors, many of whom were pushed by the state into the burgeoning class of the dispossessed.

Remarkably, the intellectuals did not withdraw with their “tail between their legs”. They produced alternatives to Structural Adjustment, maintained their critiques of irrational government policies, and argued for academic freedom, university autonomy, as well as for a rethinking of the inevitability of SAP and the unviability of alternatives. Given the state’s intransigence, this was a dialogue with the deaf. Direct repression, the escalation of a reign of terror, the compulsion of necessity to utilize multiple survival strategies, such as for the “lucky” few, doing intellectual piecework for more affluent Western colleagues, and for the majority, becoming a part of the hustling and trading culture that pervaded every aspect of Nigeria’s socioeconomic life, could not but create what today seems to be the seemingly intractable problems in higher education. Scholarship and learning were stymied. There was an exodus to greener pastures in Africa and the West, again, by those who were able.

African and Nigerian higher education was deeply assaulted by the forces of Structural Adjustment, as well as by the illiberal democratization that took place in many countries. Earlier in the millennium, in a dramatic turnaround, rather than advocate that higher education should be open only to the highest bidders, all of a sudden, everyone became newly concerned with the dismal state of higher education in Africa. The United Nations Educational, Scientific and Cultural Organization (UNESCO), the World Bank, Carnegie Corporation, the Social Science Research Council, the Ford Foundation, MacArthur Foundation, Rockefeller Foundation, the US State Department, and most of the major universities in the United States jumped on the bandwagon of strengthening higher education in Africa. The World Bank, in a shameless, a historical manner, erased its role in creating the educational morass in which we find ourselves in Africa. The Federal
Government of Nigeria declared a commitment to the revamping of the educational system. International philanthropic organizations declared that education was a priority, UNESCO and many multilateral organizations made important interventions. One wonders, though, where all this help was when African intellectuals were the proverbial voices in the wilderness. It is impossible to reverse the tide of history, but Karl Marx’s observation, in the 18th Brumaire of Louis Bonaparte, is relevant to this situation. I will quote an entire paragraph.

Men make their own history, but they do not make it as they please; they do not make it under self-selected circumstances, but under circumstances existing already, given and transmitted from the past. The tradition of all dead generations weighs like an Alp on the brains of the living. And just as they seem to be occupied with revolutionizing themselves and things, creating something that did not exist before, precisely in such epochs of revolutionary crisis they anxiously conjure up the spirits of the past to their service, borrowing from them names, battle slogans, and costumes in order to present this new scene in world history in time-honored disguise and borrowed language. Thus Luther put on the mask of the Apostle Paul, the Revolution of 1789-1814 draped itself alternately in the guise of the Roman Republic and the Roman Empire, and the Revolution of 1848 knew nothing better to do than to parody, now 1789, now the revolutionary tradition of 1793-95. In like manner, the beginner who has learned a new language always translates it back into his mother tongue, but he assimilates the spirit of the new language and expresses himself freely in it only when he moves in it without recalling the old and when he forgets his native tongue (Marx 1852).
All Nigerians participate in the making of history, albeit not under conditions of their making. The question they must all ask is the following: How can they staunch the flow of the lifeblood out of the tertiary institutions? How can the heady optimism of the past and the vibrant production of knowledge that it generated be revived? Given that Nigeria is in dire developmental straits, how do we make the educational system meaningful for the agenda of national development?

**What is to be done? One Perspective**

One imperative that flows from my argument that education is as important as national security is that a country that neglects to take heed of this imperative does so at its peril. It stands to reason then that the education budget should be substantial and sufficient. Given that only 8% of the federal budget was allocated to education until 2014, Nigeria does not appear to be aware of the need to sufficiently fund education. Even in 2014, the education budget was woefully inadequate. To be sure, additional funding was made available through Tertiary Education Trust Fund (TETFund) and other initiatives, but tertiary institutions have to compete for access. Also, even combined with education spending by states and possibly local governments, these measures do not fill the shortfall in funding and they cannot address the considerable infrastructural decay and inadequacy that bedevil Nigeria’s tertiary institutions. There is also the problem of mismanagement and misappropriation as a ubiquitous factor in the Nigerian public sector and a need to end the leakages caused by such kleptocracy.

To underscore the importance of the subject of higher education in Nigeria, and to properly contextualize the problem of higher education, as not only a Nigerian issue but an African, and ultimately, a global problem, I consider the implications of a lengthy quote from a speech made by United Nations Secretary General, Kofi Annan at the launching of an earlier initiative to strengthen African Universities.

> Universities provide the logical extension to basic education for all. The university is equally a development tool for Africa . . . . It holds the key to
something we all want and need: African answers to African problems; the capacity to address the most pressing issues both at the theoretical and practical levels. (Annan, Secretary-General, at Launch of Initiative to Strengthen African Universities, says “Education Surest Investment in Current ‘Globalizing’ Age”. Press Release SG/SM/7365 AFR/220. 2000).

It is hard to disagree with Kofi Annan about the importance of universities as a tool for development that enables us to traverse the divide between theory and praxis, to grasp the capacity to devise our own home grown solutions for our peculiar problems in the continent. Do Nigerian universities serve these purposes? Does UI? If they do, should they complacently rest on their oars and contemplate their greatness based on old achievements? Are there still challenges to address and problems to solve? Kofi Annan goes on to say:

We look to universities to develop African expertise; to enhance the analysis of African problems; to strengthen domestic institutions; to serve as a model environment for the practice of good governance, conflict resolution and respect for human rights; and to enable African academics to play an active role in the global community of scholars. (Annan, Secretary-General, at Launch of Initiative to Strengthen African Universities, says “Education Surest Investment in Current ‘Globalizing’ Age”. Press Release SG/SM/7365 AFR/220. 2000).

Are our universities contributing to developing expertise that contributes to the ability to better analyse African problems? Are we strengthening domestic institutions, are we a zone of excellence that provides a model of good governance, conflict resolution, respect for human rights, and do we nurture the capacity for our academics to participate actively among the world’s intellectual communities? Kofi Annan further says:
Key to this is bridging the digital divide. At present, less than half a per cent of all Africans have used the Internet. This lack of access to new technology leads to exclusion from the global economy as well. The digital revolution has created new opportunities for growth in every field and industry. Since the most valued resource in this revolution is intellectual capital, it is possible for developing world countries to overcome the constraint of lacking finance capital and to leapfrog long and painful stages of the road to development that others had to go through. (Annan, Secretary-General, at Launch of Initiative to Strengthen African Universities, says “Education Surest Investment in Current ‘Globalizing’ Age”. Press Release SG/SM/ 7365 AFR/220. 2000).

None of us need be convinced of the importance of information communication technologies and their role in creating an interconnected world that affects economic, political, social and cultural arena. While access to technology is of crucial importance, the development and nurture of the intellectual capacity to create technology—something that universities are potentially able to do—are even more important. To what extent are Nigerian universities creating the intellectual capital that would enable the country do the sort of leapfrogging that Kofi Annan talks about? To further delve into Kofi Annan’s thinking:

In the academic world, information technology must be more than a vehicle for long-distance learning and degrees. At its best, information technology will support, not supplant, Africa’s own research and academic development. It should be a tool that: provides access to materials and enhances libraries; makes affordable periodicals and journals that would otherwise be prohibitively expensive; facilitates links within Africa and among African institutions as well as with the rest of the world; and
finally, enables African scholars to contribute their research to the global bank of knowledge.

In other words, we should replace the digital divide with digital bridges. (Annan, Secretary-General, at Launch of Initiative to Strengthen African Universities, says “Education Surest Investment in Current ‘Globalizing’ Age”. Press Release SG/SM/7365 AFR/220. 2000).

UI has a distance learning programme Information technology has touched virtually every aspect of academic teaching, learning, research, and even publication. However, it is still important to ask: To what extent have Nigerian universities and UI built digital bridges that invalidate the digital divide? Are our libraries providing adequate access to electronic journals and books? Are we using information technology adequately to connect Nigerian, African and other universities around the world? Are we doing this easily, sufficiently and affordably? Are we pleased with the extent to which we are contributing to the global pool of knowledge?

But in the end, there is no substitute for good teachers, a good curriculum and good teaching materials, developed by, for and with the African communities they are intended to serve.

We must strive to renew the faculty of African universities. This is a real problem, as my friends from African universities will attest. The old generation is retiring, and many of the young generation are opting to go into business where they get the big bucks or remain abroad after their studies. We must devise strategies to attract young faculty, and build up exchange programmes with universities outside Africa, particularly those with Africans on their faculties. (Annan, Secretary-General, at Launch of Initiative to Strengthen African Universities, says “Education Surest Investment in Current ‘Globalizing’ Age”. Press Release SG/SM/7365 AFR/220. 2000).
Basically, we lecturers and professors are teachers. Good teaching is an art that can be crafted into a masterpiece of influences directed at shaping minds and consciousness such that the thirst for knowledge is gratified and nurtured to be insatiable, recognizing that there is no end to knowledge. Are our curricula rich, varied, imaginatively designed and comprehensive enough to respond to the challenges of the present? Do they provide bases through which we can engage the future? To what extent is there communication and collaboration between our universities and the communities where they are situated? To what extent do these communities contribute to curriculum development? Are we aware that they can? Are we open to influences from them? Where is our pipeline that contributes to the renewal of the faculty? Do we embrace young scholars and nurture them, encouraging them to consider careers in teaching? Are our exchange programmes robust and thriving? As a Nigerian in the diaspora, I have to categorically say our efforts in this regard are minuscule, disparate, unfocused and reactive rather than proactive. Further, Kofi Annan says:

As we assist Africa to develop its own bank of knowledge, we must also draw on it. African universities already play a direct role in poverty reduction programmes. Experts in economics, sociology and anthropology are training those who manage districts and projects on the ground. Others are assisting in the expansion of small- and medium-scale enterprises. The international community must make use of this valuable store of local expertise and experience. (Annan, Secretary-General, at Launch of Initiative to Strengthen African Universities, says “Education Surest Investment in Current ‘Globalizing’ Age”. Press Release SG/SM/7365 AFR/220. 2000).

To what extent do Nigerian and African governments see universities as a source of useful knowledge, theories, analyses that would contribute to solving Nigerian and African
problems? To what extent is the knowledge that the universities are producing influencing the international community? What is UI doing about this? What are Nigerian universities doing, beyond individual efforts by the few lonely personalities who have developed connections that benefit their individual interests?

This is a moment in history that we should seize. By working together, we can succeed. (Annan, Secretary-General, at Launch of Initiative to Strengthen African Universities, says “Education Surest Investment in Current ‘Globalizing’ Age”. Press Release SG/SM/7365 AFR/220. 2000).

Are we ready to seize the moment? Are we ready to cooperate and collaborate to make positive change? Are we ready to forego short-term individual gains for long term collective benefits? As a visitor to UI who was produced by this institution, and who has been away, and is newly returned, I don’t see us as prepared to engage the struggle. The university, from my perspective, is resting on its laurels. It is basking in the reflected glory of the past, content to keep muddling through, content to engage in self-congratulatory lauding of its contributions to the production of knowledge, without sufficient consciousness that it lives in a competitive world where its status as Nigeria’s premier institution is challenged, and its capacity to compete with the world’s best institutions on an even footing is questionable.

Conclusion
Here is my humble submission: I want Nigerian universities to become world-class institutions. I want UI to be the leader of the pack. However, if we are to do so, we Nigerians and Africans must envision what we want and figure out how to actualize our vision. I am as scared of all the help that is being offered in the various partnership proposals as of the wanton disregard of the plight of the African academy. World Bank and other multilateral involvements will only impose a certain vision that is informed by an externally defined agenda for
tertiary education, again, because African intellectuals may not be treated as the experts that can help us find our way out of the woods. This will negatively impact on Africa’s and by implication, Nigeria’s political and economic development. It will create irresoluble problems for the social system.

The state is no longer the only game in town. There are other alternative sources of funding for strengthening higher education today, and in a way, that is a good thing. The Rockefeller, Ford, Carnegie and MacArthur Foundations are to be applauded for the higher education initiative at the beginning of this millennium. They should, however, proceed cautiously so as not to succumb to the pitfalls of developmentalism—a disdain for the local experts and the elevation of the foreign variety to the status of demi-Gods. There are also private universities springing up very rapidly in Nigeria and other African countries. This too is a desirable development but there must be a rigorous system of certification and institutional review. These universities must also resist the allure of totally playing to the market and the tendency to exclusively train personnel for service sector jobs.

It is necessary that endowment funds that are completely indigenous be created to fund the universities and to create the agenda for the renaissance of scholarship and the serious pursuit of the production of knowledge. It is necessary that intellectuals, professionals, and businesspeople in Nigeria and its diaspora participate actively in these efforts.

The use of virtual technologies can also facilitate solid academic and scholarly collaborations among Nigerians in the diaspora and at home. We all should explore and develop these linkages in order to turn the brain drain to our advantage. If the emphasis today is on strengthening African universities, and donors are hell-bent on using foreign experts, we ought to subvert the natural desire to locate such expertise outside Africa by building the requisite social capital that puts us in the pool of candidates that engender the strengthening of the universities. I say this because many of us are familiar with the terrain of tertiary education in Africa and Nigeria, particularly those whose careers in African and Nigerian universities were cut short by the advent and intensification of Structural Adjustment. Many African and Nigerian professors in Europe, America, and
even South Africa have headed departments, and some, entire universities. Their combined experience would stand any reform initiative in good stead. Their intervention, I submit may be more desirable than those from the outside who want to remake African and Nigerian higher education in the image of Western ideals that are ill-suited to the demands and challenges faced by the African continent today. In my view, African intellectuals in the diaspora have much to learn from our colleagues at home. I submit that the ideal situation is where there is a spirit of collegiate partnership between intellectuals at home and in the diaspora to collaboratively take the lead in designing an agenda for strengthening the universities and in the implementation of such an agenda.

Finally, matters of higher education are a critical aspect of national interest, and of necessity, we cannot divorce higher education from primary and secondary education, which feed into the higher institutions, because “garbage in, garbage out.” If education is a crucial aspect of national interest, it must reflect the collective vision of the advances that Nigeria wants to make in the 21st century and beyond. The agenda must also incorporate a well-thought up strategy for how we aim to accomplish these goals.

No doubt, the Nigerian higher educational system has been thoroughly politicized. This is inevitable. We cannot address politicization by withdrawing from politics, but we can practice a different kind of politics. The politics must of necessity be focused not just on the domestic matters that constantly create dissension and factionalism among students and intellectuals. In Nigeria, there are problems with university autonomy from the government. Most universities are unable to sustain themselves financially, and depend overwhelmingly on the funds that are doled out by the federal and state governments. Yet, this should not be taken as unqualified endorsement of the neoliberal model of education, where the profit motive drives all. If education is seen as a vital aspect of national security, it is clear that the state must take proprietary interest in it and fund it adequately.

Without financial independence, any plans for autonomy would be baseless and useless. How do these universities cut themselves from the state’s apron strings? Although fees may
have to be charged, they cannot be totally determined by market forces because the state still has an interest in ensuring that higher education is given priority ranking. In charging fees, provisions must be made for indigent students to be able to access higher education through grants, scholarships, and possibly loans. Before autonomy, the universities have to be made whole again. Infrastructural repairs and augmentation of inadequate facilities must be undertaken. Libraries must be stocked with books and journals, attempts must be made to modernize instructional technologies. Again, the role of the state is crucial. External assistance may be sought and taken, but not at the expense of the independence that is required to build a meaningful educational system that engenders the realization of Nigeria’s development goals.

The universities are also a crucial part of building expertise in various areas of need. If they are mandated to do so, and they are given the wherewithal to accomplish this goal, the dearth of expertise in the African continent would not be a perpetual matter. Also, the universities are needed to teach those who would take up the mantle of scholarship and leadership in the future. An investment in their ability to do so is an investment in the future viability of Africa. The ability to do the jobs that the universities must undertake in today’s world means that they must use contemporary tools and methods. Information technology has revolutionized teaching and learning. African and Nigerian universities must be given the tools and the requisite training to make use of these technologies.

In sum, I agree with Kofi Annan. Education is a more important weapon in a nation’s arsenal than any missile or mine. It ought not to be left to pure market forces, and should not be handed over to even good friends who want to strengthen it. If African and Nigerian tertiary institutions and educational systems are to be strengthened to meet the demands of the present and future, the efforts to re-focus them must be spearheaded by indigenes at home and in the diaspora. Among these indigenes, intellectuals are particularly able to understand the terrain and propose solutions.
References


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