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TERTIARY EDUCATION TRUST FUND (TETFund), RESEARCH AND DEVELOPMENT AND NIGERIA'S HIGHER EDUCATION

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Abstract:
This chapter focuses attention on the TETFund intervention in tertiary institutions. Research and development is strategic for the growth and development of a country, however, this requires funding; which was hitherto lacking in the Nigerian higher education system until the advent of TETFund. The chapter has focused adequate attention on research and development (Rand D) and argues that strategic position of TETFund in Nigeria's educational system has much to do with research, inventions, innovations and studies. This is because education at this level brings solutions to challenges nations face in their quest to self-reliance and sustainability. The chapter has identified challenges of TETFund to include funding to overcome the inadequacy of fiscal resources which threatens to erode the desired qualitative higher education output. In this regard, the chapter proffers solutions on how TETFund could be repositioned for optimum performance.

Keywords: TETfund, research, higher education, development, Nigeria

1. Introduction

Higher education remains strategic and pivotal to growth and development of any society. Through research, inventions, innovations and studies, education at this level brings solutions to challenges nations face on their path to sustainability. It is against this backdrop that the Nigerian higher educational system was designed. However, overtime, it began to face daunting challenges that threatened its very core. These challenges ranged from inadequate fiscal resources which threatened to erode the

desired qualitative higher education output. This is apart from the numerous social vices and corruption in the system.

There were attempts however by stakeholders in the education sector, especially the Academic Staff Union of Universities and Federal Government to curb and reposition the system for optimum output. One of such efforts is the establishment of Tertiary Education Trust Fund (TETFund) which was established as an intervention agency under the TETFund (Establishment) Act in 2011 with the responsibility for managing, disbursing and monitoring of the education tax to public tertiary institutions in Nigeria. To enable TETFund achieve its objectives, the Act establishing the Act imposes a 2% Education Tax on the assessable profit of all registered companies in Nigeria. The Federal Government empowered the Federal Inland Revenue Service (FIRS) through the Act, to assess and collect Education Tax.[i] The Fund administers the tax imposed by the Act and disburses the amount to tertiary educational institutions owned by the Federal and State governments. It also monitors the projects executed with the Funds allocated to the beneficiaries.

The mandate of the Fund as provided in Section 7 (1) (a) to (e) of the TETFund Act, 2011 is to administer and disburse the amount in the Fund to Federal and State tertiary educational institutions, specifically for the provision and maintenance of essential physical infrastructure for teaching and learning; instructional materials and equipment; research and publication; academic staff training and development; and other needs which, in the opinion of the Board of Trustees, is critical and essential for the improvement of quality and maintenance of standards in the higher educational institutions.[ii] However, attention in this chapter is focused on Research and Development (R&D). Against this background, this paper therefore, aims to examine the role of TETFund in repositioning the tertiary education sector in Nigeria since 2011 through funding/interventions, and the prospects and challenges of higher education sector.

2. The strategic importance of research and development at the tertiary education level

It is important to note the centrality of science and technology with the most critical inputs to development processes, particularly in the face of increasingly globalized, knowledge-driven economies. Therefore, deliberate investment in research and development becomes key to the generation of knowledge. However, in Nigeria, and until recently, research and development has been largely a government affair, with very little private sector participation. Developments in the education sector in Nigeria led to 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 demands of the academic community led by the university academic union, ASUU for increased private sector participation in the development process of Nigeria.

The conceptual framework for this paper is drawn from Bogoro's conceptualization. Using the National Systems of Innovation (NSI), Bogoro views research and development (R and D) system as important components and argues that research becomes related to development because its outputs are expected to have direct effect 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.[iii]

The National System of Innovation, (NSI), according to Lundvall, 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.[iv] 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 research and development system, the more innovative the national system becomes.[v] Some initiatives have been taken to adopt this approach in the African context.[vi] 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 product into the economic and social systems through scientific researches.[vii]

There are various conceptualizations of research and development (R&D) and scientific innovation. However, for the purpose of this paper, Innovation is conceptualized 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.[viii] 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.[ix] Also, scholars like Fawole and Alade, *et al* also define Experimental Development or Research and Development as a process primarily undertaken for

technological advancement to create new, or improve on existing materials, products or processes, including their incremental improvements.[x] At the policy level, what we are prescribing as the justification for expansion of research and development at 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 research and development to bring about innovations. It has been established without doubts that, what determines nations in development globally is the difference in the resource committed to research and development.

However, it is now recognized that innovation is a collective endeavor that is facilitated by interactive learning. Stakeholders other than the government now play new roles in development processes and in research and development 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 research and development 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.

3. Challenges of tertiary education system in Nigeria

A. Brain Drain

Brain drain is a very serious issue in Nigeria. The reasons why some Nigerian academics run overseas have a lot to do with inadequate incentives for research and other conditions of service. The research agenda of advanced countries dominate world research. Many scientists and scholars from the developing countries 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 Altibatch referred to as "imported knowledge".[xi] 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 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 demands 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 among others, professional opportunities, family ties, chances for high incomes, availability of scientific equipment and laboratories, political tensions and immigration rules. The relevance of the discussions on these factors as they affect research and development is that it is capable of generating both advantages and disadvantages, depending on the context of reasoning. The positive side is realized from those who still keep touch with their colleagues at home and giving them the benefits of being in touch with latest happenings in global R&D, and contributing articles to local journals.

B. Inadequacy of 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. 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. 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. Most of the high ranking researchers and administrators and policy makers in Asian countries are foreign trained. Although there are no empirical records to show that foreign trained professionals in science and technology in Nigeria perform better than their home trained counterparts, there are evidences however to show that they are exposed to better training facilities in foreign universities.[xii]

Nigeria among other developing 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 obtained 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 myriad 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.

C. Breeding of "Educated Unemployment"

"Educated unemployment" in this discussion refers to unemployment among the educated population. Bacchus noted that "relative to the working population as a whole, the unemployed as a group in some developing countries lend to be educated, especially where young and inexperienced unemployed are numerous."[xiii] Educated unemployment is a direct result of an increased graduate from educational institutions who largely lack the requisite skills to be self-reliant or get absorbed into the organized private sector. Higher education institutions produce, on annual basis, graduates in large numbers that do not have access to employment, principally because of the nature of education they receive.

D. Diploma Disease Syndrome

The 'Diploma Disease Syndrome' was coined by Dore[xiv] when she argued that schools in developing countries were dominated by the goals of certificates and qualifications as passports to the world of modern sector jobs. The consequence of this domination was an education of such low quality that even the successful products of the higher education institutions could not contribute effectively to economic productivity and innovation. Hence, Institutions remain essentially concerned with getting their students to pass examinations, which can lead to further education[xv] or to the 'right' modern sector jobs.[xvi]

A major result of this is the acquisition of certificates, which Dore[xvii] posits, becomes the principal goal of schooling and neither students nor the institutions are concerned with the practical usefulness of what is learnt. Relevance of the curriculum is judged in terms of its ability to help students pass the examinations, which gives the necessary 'papers' for job in the modern sector. It is striking that Dore's[xviii] position is still extant in Nigeria, despite various curriculum reforms. The struggle for certificates has contributed considerably to unemployment among the graduates. Thus, learning is reduced to acquisition of certificates. This syndrome, by and large, leaves many

students registering courses that may not have practical value, especially if it is easier for them to secure admission to study such courses. The result is the educational institutions producing more graduates in those fields than the job markets could absorb. This, in itself, is a serious existential treat to Higher Education Institutions.

E. The Question of Quality

With the large proliferation of students in the educational institutions occasioned by the Diploma Disease Syndrome, it becomes difficult to control the quality of the education system, especially given Nigeria's low-level income and daunting economic challenges. This is because fewer resources are being deployed for an unprecedented number of students. And that is why Lewin enunciates that quality is likely to be grossly affected if: few modern jobs are available each year for large quantities of school leavers; the rewards for access to these jobs (income, security, prestige) are very great; the modern-sector labour market is bureaucratized and depends heavily and incrementally on academic qualifications; the preceding generation of school-leavers at a particular level mostly succeeded in getting modern-sector jobs; the professional infrastructure of education (teacher training in-service education, advisory staff, etc) is poorly developed; and system of examination and assessment are heavily dependent on the recall of trivial information.[xix]

There is no gain-saying the fact that Lewin's list above is all prevalent in Nigeria: jobs are scarce, qualifications are used as a criterion for jobs, professional infrastructure decays, and the examination system is heavily biased towards the testing of cognition. The implication of this scenario is the reduction of the education system to produce graduates who are not prepared for a useful living. This system, besides producing graduates that await available public sector employment, may also be partly responsible for low carking of our higher education institutions internationally.[xx]

4. TETFund intervention in tertiary institutions through research and development

The provision of higher education in developing countries is a necessity when it comes to issues of development. National governments in developing countries make up the largest portion of funding to public universities and other higher institutions of learning. Scholars like Ziderman and Albretcht, Priest *et al* and Wield note that as higher education systems are expanding access, they should not depend entirely on public funds alone for their survival.[xxi] Wield (1997) also states that the problem of declining financial resources from the states to educational institutions in Africa, in particular, has been in the limelight for some time. Wield goes on to observe that the decline of financial resources to institutions of higher education has an adverse effect on

a number of operations for the institutions, including facilities that are supposed to make learning possible. He further observes that as a result of the decline in the financial resources for higher education, the educational institutions were now at a point where they have to look for ways to supplement the inadequate funds they receive from their governments.[xxii]

As a consequence, constrained by resources, developing countries paid scant attention to higher education and research. Public funding for research institutions has been seriously affected. The economic reform policies, which are largely market-friendly reform policies, inflicted deliberate cuts in public budgets for higher education and research not only in developing countries[xxiii], but also in the developed countries.[xxiv] The private sector is rarely found filling the vacuum. This can create serious problems in building and sustaining a strong knowledge-base and increasing a strong and vibrant knowledge society. National governments and private organizations will eventually pay a heavy price for short-term myopic policies that cause neglect of higher education and research systems in developing countries.

Traditionally, both teaching and research are important functions of tertiary institutions of learning. Research creates and rediscovers knowledge, while teaching helps in transmission of knowledge. Institutions of higher learning have to balance their teaching and research; focusing on one should not lead to ignoring the other altogether. All higher education institutions need to be developed into centers of excellence in teaching and research as well.

Nigeria as a country needs to make serious efforts at developing and strengthening her own research-base. The country can stimulate more critical, objective and socially relevant research, promoting scholarly research in universities and institutions of higher education, developing networks of universities and research institutions within countries and outside, and through sound and meaningful policies of funding research. It has to be noted that the universities and research institutions in the country have the greatest potential of institutionalizing knowledge for development.[xxv]

Since an effective education system is crucial to building a sound and sustainable knowledge-based society to create quality knowledge, to tap and absorb existing knowledge, and to widely disseminate knowledge, TETFund has an important responsibility of developing and strengthening our education and research institutions, with sound policies of planning and financing. Moreover, Nigeria cannot conveniently tap global knowledge and take advantage of the vast stock of global knowledge unless we develop own research organizations that can create knowledge, absorb knowledge and communicate knowledge. After all, the most important aspect of a 'knowledge

society' lies in its education system. Hence, TETFund has undertaken an important role of promoting research in the universities, research institutions and other institutions of higher education. The task becomes more important and tough at the same time, particularly during the periods of economic downturn. This is why concerted and deliberate effort must be made in order to source, on a sustainable basis, to fund research and development for knowledge-driven development. This, TETFund has undertaken in many ways since establishment in 2011. To expatiate on this, the following illustrations on TETFund funding of research and development is important. To do this, it is important to examine TETFund's scope of interventions.[xxvi]

5. The Scope of TETFund Interventions

TETFund as an interventionist agency with the mandate of providing funding to all public tertiary institutions in Nigeria since inception has provided funds to public universities, polytechnics and colleges of education. The number of the institutions benefitting from the Fund has increased over the years. For example, it rose from 164 in 2012 to 179 in 2014. The current number of beneficiary public tertiary institutions as at 2015 is as follows: Universities – 70; Polytechnics – 51; and Colleges of Education – 58.[xxvii]

As approved by the Board of Trustees, TETFund Interventions can be categorized as follows:

A. Normal Intervention

This comprises physical infrastructure and equipment, and library development. From 2008 to 2015, TETFund sponsored over 10,638 academic staff at both Masters' and PhD levels locally and internationally. There is also the National Book Development Programme which was introduced to encourage scholars through production of books, especially from thesis. The fund dedicated the sum of N2billion seed grant for this programme.[xxviii]

The National Research Fund was initiated as a result of the government recognition of the indispensable role of research in national development. The sum of N3billion was set aside as seed grant and domiciled at TETFund. The sum of N2billion seed grant was dedicated to Journal Publicationof quality learning materials. So far, over 200 PhD theses have been reviewed and over 75 manuscripts received. In terms of Staff Conference Attendance, TETFund has sponsored over 20,359 academic and non-academic staff to local conferences while 2,869 attended conferences outside the country. The Fund also intervened in 84 academic Journal publications and 22 manuscript development.[xxix]

In line with the directive of the Office of the President of Nigeria, to select outstanding members of the NYSC scheme with first class and second class degrees who could gain admission within six months of the pronouncement to be granted sponsorship for Masters' and PhD programmes, the Fund has sponsored sixteen (16) of the 2010/2011 awardees of the scheme for PhD programme totaling N583, 826,651.00. From 2012 to 2015, the Fund sponsored Eighty (80) awardees totaling N1, 288,000,438.83.[xxx]

Masters' and Doctoral theses rated as "outstanding" by the Nigerian Universities Commission were collected and assessed by the Editorial Sub-committee, and theses that were adjudged to be of good quality recommended by the Universities. Assessment of such theses is done by the Universities based on guidelines provided by TETFund. Shortlisted theses by Universities are then submitted to TETFund for consideration by the Technical Advisory Group (TAG).

In the area of publication of basic textbooks, the Editorial Sub-committee undertakes a Needs Assessment to determine areas that require urgent attention of the publication of basic textbooks and makes recommendations to TETFund to commission authors for basic textbooks. There is also publication of quality manuscript in specialised areas where TETFund places advertisement in national newspapers calling for submission of manuscripts. These advertisements contain procedures and guidelines for individuals wishing to participate in the project. The Editorial Sub-committee then evaluates applications and makes recommendations to TETFund for final selection of manuscripts to be published.

B. High Impact Intervention

The high impact intervention usually addresses peculiarities as specified in the Act, but allocations are zonal-based and are done equitably as decided by the Board of Trustees from time to time. The High Impact Intervention however seeks to massively inject funds into selected tertiary institutions across the six geo-political zones to achieve major turnaround through academic programmes upgrade and improvement in the teaching and learning environment. Beneficiaries are selected by the Board of Trustees based on set criteria for each phase of the intervention. The first generation institutions were the first beneficiaries of the High Impact Intervention programme which started in 2009. Below are the various phases.

In Phase One, N26.4Billion was allocated as High Impact Special Intervention fund to thirteen (13) public tertiary institutions in the six geopolitical zones. All the beneficiaries accessed their funds; under Phase Two, N24Billion was allocated to twelve (12) in the six geo-political zones; Phase Three, had a total of N108Billion allocated to six (6) institutions in the six geo-political zones. All beneficiaries accessed their funds; In

Phase Four,a total of N24Billion was allocated to twelve (12) institutions in this phase; while Phase Five had a total of N24Billion allocated to 12 institutions.[xxxi]

The details of the Institutes covered under the Five Phases are as follows:

PHASE 1		
Zone	**Institution**	**Amount**
North Central	University of Ilorin	N3 billion
	Federal College of Education	
	Kontagora, Niger State	N1.1 billion
North East	University of Maiduguri	N3 billion
	Federal College of Education	
	(Technical) Gombe	N1.1 billion
North West	Ahmadu Bello University	N3 billion
	Kaduna Polytechnic	N1.2 billion
	Nigerian Defence Academy (NDA)	N1.5 billion
South East	University of Nigeria, Nsukka	N3 billion
	AkanuIbiam Polytechnic,	
	Uwana, Afikpo	N1.2 billion
South South	University of Benin	N3 billion
	Federal College of Education	
	(Technical) Omoku, River State	N1.1 billion
South West	University of Ibadan	N3 billion
	Yaba College of Technology	
	Lagos	N1.2 billion
	Total	**N26.4 billion**

PHASE 2		
Zone	**Institution**	**Amount**
North Central	University of Jos	N3 billion
	Kogi State Polytechnic, Lokoja	N1.1 billion
North East	AbubakarTafawaBalewa	
	University, Bauchi	N3 billion
	Federal Polytechnic, Mubi	
	Adamawa State	N1.1 billion
North West	Bayero University, Kano	N3 billion
	Jigawa State College of Education,	
	Gumel	N1 billion
South East	Federal University of Technology	N3 billion
	Owerri	
	Institute of Management and Technology (IMT) Enugu	N1 billion

South South	University of Port Harcourt	N3 billion
	AkwaIbom State of Education, Afaha-Nsit	N1.1 billion
South West	ObafemiAwolowo University, (OAU), Ile-Ife	N3 billion
	Adeyemi College of Education, Ondo State	N1.2 billion
	Total	**N24 billion**

PHASE 3		
Zone	**Institution**	**Amount**
North Central	Benue State polytechnic, Ugbokolo	N3 Billion
North East	Umar Suleiman College of Education, Gashua, Yobe State	N1 Billion
North West	Usman Dan Fodio University, Sokoto	N3 Billion
South East	Abia State Polytechnic, Abia	N1 Billion
South South	Niger Delta University, Amassoma	N3 billion
South West	Federal College of Education, Abeokuta	N1 billion
	Total	**N10 billion**

PHASE 4		
Zone	**Institution**	**Amount**
North Central	Benue State University, Makurdi	N3 billion
	Federal Polytechnic, Nassarawa	N1 billion
North East	ModibboAdama University, Yola	N3 billion
	Bauchi State College of Education, Azar	N1 billion
North West	Kebbi State University of Science & Technology, Aliero	
	Federal Polytechnic, KauraNamoda	N3 billion
		N1 billion
South East	Anambra State University, Ali	N3 billion
	AlvanIkoku College of Education, Owerri	N1 billion
South South	University of Calabar	N3 billion
	College of Education, Agbor	N1 billion
South West	University of Lagos, Lagos	N3 billion
	Federal Polytechnic, Ibadan	N1 billion
	Total	**N24 billion**

PHASE 5		
Zone	**Institution**	**Amount**
North Central	Kwara State University, Kwara State	N3 billion
		N1 billion
	College of Education, Akwanga, Nassarawa State	
North East	Bauchi State University, Gadau, Bauchi State	N3 billion
	Adamawa State Polytechnic, Yola, Adamawa State	N1 billion
North West	Kano University of Science and Technology, Wudil, Kano State	
	Federal College of Education, (Techniocal) Gusau, Zamfara State	N3 billion
		N1 billion
South East	Enugu State University, Enugu, Enugu State	N3 billion
	Federal Polytechnic, Oko, Anambra State	N1 billion
South South	University of Uyo, AkwaIbom	N3 billion
	Auchi State Polytechnic, Edo State	N1 billion
South West	Ekiti State University, Ado Ekiti	N3 billion
	Michael Otedola College of Primary Education, Epe, Lagos	N1 billion
	Total	**N24 billion**

Source: TETFund's positive change in tertiary institutions: A compendium of TETFund interventions, 2015, p.5.

C. Special Intervention

These are interventions targeted at correcting imbalances or deficiencies in critical areas contemplated in the Act as identified by the Board of Trustees. Such interventions are delivered to institutions in the six geo-political zones to address special needs. Special Interventions carried out in this category includes the following:

a) Equipping TVE laboratories of 51 Federal and State Polytechnics;
b) Construction and expansion of multi-media micro-teaching laboratories in 59 Federal and State Colleges of Education;
c) Expansion and completion of Special Engineering and Technology Project (SET) in 73 Federal and State Universities;
d) Second phase of Nigeria Universities Electronic Teaching and Learning Platform in 79 Federal and State Universities.

D. National Research Fund (NRF) Intervention

This is basically a research fund intervention for higher institutions of learning. The breakdown is of intervention so far is as follows:

S/no	Name of Institution	Amount(N)	No. of Research Proposals
1	Enugu State University of Science and Technology	25,036,100.00	1
2	Ibrahim BadamasiBabangida University	21,735,000.00	1
3	Kwara State University, Malele	4,287,600.00	1
4	University of Ilorin	114,061,903.00	7
5	University of Jos	11,024,600.00	1
6	Kwara State Polytechnic, Ilorin	5,278,466.00	1
7	University of Maiduguri	53,367,912.00	2
8	Federal Polytechnic, Offa	16,927,504.00	1
9	Federal University of Technology, Minna	15,045,000.00	2
10	University of Lagos	78,579,281.00	3
11	ObafemiAwolowo University, Ile-Ife	93,975,655.00	4
12	University of Nigeria, Nsukka	29,351,700.00	1
13	University of Ibadan	78,036,750.00	4
14	University of Calabar	32,214,000.00	1
15	University of Benin	59,638,577.00	2
16	Federal University of Technology, Akure	55,671,420.00	2
17	Ahmadu Bello University, Zaira	78,000,000.00	2
18	UsmanDanfodiyo University, Sokoto	38,185,000.00	2
19	Nigerian Defence Academy	4,767,050.00	1
Total		**829,359,758.00**	

Source:TETFund's positive change in tertiary institutions: A compendium of TETFund interventions, 2015, p.5.

E. 2015 National Research Fund (NRF) Proposals

The Joint Committee of the NRF carried out the preliminary screening of the 876 proposals received by the Fund at the Chelsea Hotel, Abuja, May 19-21, 2015. A total of 129 proposals were recommended for further assessment by the entire membership of the NRF Screening and monitoring Committee. The 129 proposals comprised: 71 under Science Technology and Innovation (STI); 29 under Cross-Cutting (CC); and 29 under Humanities and Social Sciences thematic areas (HSS). The 129 proposals were sent to selected reviewers, drawn mainly from the members of the NRF Screening and Monitoring Committee, for a more detailed assessment based on the criteria presented in Appendix A. the reports of the reviewers served as input to the assessment exercise carried out by the Screening and Monitoring Committee held 11th and 12th August at the

Chelsea Hotel. Consequently, the three thematic sub-committees – STI, CC and HSS – separately carried out a further critical assessment of the proposal taking due cognisance of the reviewers' comments. At the end of the two-day meeting, a total of 33 proposals with a total budget of N1, 252,581,268, were recommended for further processing. The summary of the recommended proposal is presented below. Summary of the outcome of the proposal assessment.

Thematic Area	**No. of Proposal Assessed**	**No. of Proposal Recommended**	**Total Budget (Naira)**
Science Technology and Innovation (STI)	71	21	806,360,598
Cross Cutting	29	7	237,888,170
Humanities and Social Science (HSS)	29	5	208,332,500
Total	**129**	**33**	**1,252,581,268**

Source: TETFund's positive change in tertiary institutions: A compendium of TETFund interventions, 2015.

5.1 Overcoming challenges of TETFund intervention implementations

TETFund has adopted three main strategies for effective implementation of research and development interventions in higher institutions of learning in Nigeria. These include the establishment of research and development units in all public tertiary institutions; establishment of national and regional centers of excellence; and advocacy for the establishment of a national research and development foundation. However, these strategies have not led to the desired results.

6. Conclusion

This chapter has made attempt to examine the TETFund intervention in Nigeria's tertiary institutions. As shown in the narrative above, research and development is strategic for the growth and development of country. However, this requires funding; funding that was hitherto lacking in the Nigerian higher education system until the advent of TETFund. Even though TETFund has many departments, the focus of the chapter has been on Research and Development (Rand D). TETFund is strategic because, through research, inventions, innovations and studies, education at this level brings solutions to challenges nations face in their quest to self-reliance and sustainability. However, this requires funding to overcome the inadequacy of fiscal resources which threatened to erode the desired qualitative higher education output. In

this regard, the paper highlighted TETFund's interventions in research and development in Nigeria's tertiary institutions of learning. The paper also proffers solutions on how TETFund could be repositioned for optimum performance.

Notes

[1]TETFund's positive change in tertiary institutions: A compendium of TETFund interventions, 2015, p.5.
[2]Ibid.
[3]S.E. Bogoro, "Institutionalization of Research and Development (R & D) as the Launch Pad for Nigeria's Technological Revolution", Being invited paper presented as Guest Lecturer at the 62nd University of Ibadan Interdisciplinary Research Discourse held at the Main Hall Conference Centre, University of Ibadan, Nigeria. Tuesday, December 9, 2014.
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