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Investment in Human Capital for Inclusive and Green Growth Development Strategy

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Abstract:
Inclusive growth is a broad term that ensures that economic growth benefits all segments of the society including the poor, near poor with meager incomes, the middle class and even the rich. It ensures everyone participates in the growth process both in terms of decision making for organizing the growth progression as well as in participating in the economic growth itself. Green growthis the re-direction of the economy onto a more sustainable long run growth dimension. It offers real opportunities for more inclusive growth in developing countries while protecting the environment. However,an important source of green growth is the expansion of the knowledge economy which rests on four key pillars, one of which is human capital formation. Thispaper identifies the transmission mechanism through which investment in human capital enhances inclusive and green growth strategies ofeconomic growth and development. Thus, public investment in human capital via education emphasizes the acquisition of skills, technology and capacity building programmes which are crucial for the creation of a productive workforce and competitive economies within the inclusive green growth agenda. It proceeds to suggest policy options for better growth trajectory for the Nigerian economy based on lessons from some emerging nations.

Keywords: *Inclusive growth, green growth, human capital and transmission mechanism*

1. Introduction

The United Nation Economic Commission for Africa (UNECA) (1990) gave a broad definition of human capital as the "knowledge, skills, attitudes, physical and management effort in human beings required to manipulate capital, technology, and land among other things, to produce goods and services for human consumption". Therefore, human capital (investment in human resource) is the base and the end of any form of capital. Relevant literature over the years have vindicated the above assertion that humans are the most important and potential source of productivity and growth in any nation. Human capital is a fundamental source of economic growth. It is a source of both increased productivity and technological advancement. Innovations, equipment and technology are engineered by human beings, made realistic by creative thinking, which is a product of the human mind. Of all forms of capital, human capital remains the most relevant. Both economic theory and empirics recognize human capital as a core determinant of economic growth. Each of the integrals of human capital; education and health, has been proved to have a remarkable impact on economic growth. For instance, education has a strong impact on labour productivity, the rate of innovation, healthy living and technological improvements. Increase in stock of knowledge raises productivity in both market and nonmarket (household) sectors. This increased productivityis transmitted to increased wages, improved access to health products, which ultimately leads to higher growth and to a general improvement of the aggregate living standard. Education is the means through which the society passes on to future generations in an organized and condensed form the sum total and essence of knowledge/experience it has acquired over the millennia. Human development raises capacities and consequently creativity and productivity of economic agents who make critical contributions to economic growth. It leads to labour quality whose impact on economic growth is widely taken care of by investment in human capital (Behrman, 1987).

Permit me to introduce the concept of inclusive and green growth development strategy briefly here before linking it to human capital development and hence investment in human capital. Inclusive growth has been defined as output growth that is sustained over a long period of time. It is broad-based, across economic sectors, creates productive employment opportunities for a greater majority of the country's working age population and above all reduces poverty. It is basically about the pace and pattern of economic growth.Green Growth on the other hand, entails supporting growth that enhances human well-being, social equity and shared economic opportunities while significantly reducing environmental risks and ecological scarcities, minimizing inefficient use of natural resources and maintaining biodiversity among others(UNEP, 2011). It encompasses poverty alleviation, health improvement, job creation, social inclusiveness, improved economic opportunities that simultaneously reduce inequality. The framework for green growth strategies is based on the establishment of incentives or institutions that increase well-being by improving resource management and boosting productivity. It encourages economic activity to take place where it is best of advantage to the society over a long term; ensuring innovation and bringing together economic, environmental and social development.

Based on this analogy it can be clearly said that greener economies imply inclusive economies. Thus, the attainment of inclusive green growth implies long term investments, adequate capacities and innovation. The aim of inclusive Green Growth is more relevant to sub-Saharan Africa in general and Nigeria in particular, where economic growth has been unstable and even when stable for a while is regarded as a jobless growth. Economic growth has also been found unequal and narrowly concentrated in only few sectors of the economy. Furthermore, high levels of economic growth have not translated into sustainable poverty and hunger reduction. Human capital development has been described as one of the essential strategy that policy makers need to apply to increase capacity for inclusive Green Growth. Hence investment in human capital cannot be overemphasized as its development and evolution are the most critical determinants of sustainable development (AfDB, 2015). It impacts on sustainability by accelerating the process of technological innovations with the capacity to mitigate environmental damage. Research experiences have revealed that the implementation of inclusive Green Growth development strategy is knowledge-intensive and calls for skills across all sectors and management levels. This however buttresses and further confirms why at the United Nations Conference on Sustainable Development held in Rio de Janeiro, Brazil, in 2012, a common position was taken on African nations on the need to foster better understanding of the Green economy. A call was made for the need for comprehensive national capacity development strategies for sustainable development. It was recognized clearly that capacity-building, information exchange and experience sharing are critical for developing inclusive Green economic policies. Furthermore, it was emphasized that capacity-building is crucial to implementing sustainable development commitments in Africa. Capacity building efforts are therefore instrumental for laying the foundations of adaptive management and stakeholder's ability to implement an inclusive Green Growth development strategy where skills development and job creation are so essential(AfDB, 2015). Capacity building covers human development and the strengthening of managerial system, institutional development that involves community participation and creation of enabling environment. To Azikiwe (2008) it is the process by which an individual irrespective of sex is equipped with skills and advanced knowledge that are critical to a country's economic growth. From human capital dimension, capacity building implies peoples' possession of the needed knowledge and advanced skills in order to achieve productivity and sustainable development.

2. Statement of the Problem

Education and health are the basic components of human capital through which productivity and sustainable development could be achieved. Thus, public investments in human capital contribute to improving health and education of households. In Nigeria, available statistics makes it clear that recent allocations by the federal government to education and health have shown marginal yearly increases.All the shares out of total government expenditures are far below the United Nations Educational, Scientific and Cultural Organization (UNESCO) and World Health Organization (WHO) benchmark of 26 and 15 percent respectively, to education and health.Furthermore, despite the fact that the International Monetary Fund affirmed Nigeria's economy as the biggest on the African continent,yet Africa's largest economy faces a myriad of challenges, such as high prevalence of poverty, unemployment, underemployment, youth unemployment, huge infrastructure deficits, income and social inequalities. However, the Sustainable Development Goals (SDGs) has its goal 4 as "ensure inclusive and equitable quality education and promote lifelong learning opportunity for all" and goal 8 as "promoting sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all" by 2030. Hence, there is the the need to determine the transmission mechanism through which investment in human capital translates to inclusive green growth. An assessment of the trend ofgovernment's budgetary allocation to education and health between 1999 and 2017 will also be of great importance in determining the preparedness of the government for the transition from economic growth to inclusive green growth trajectory.

3. Research Questions

The research questions designed to pilot this research are:

- What is the transmission mechanism through which investment in human capital translates into inclusive green growth development strategy?
- What is the trend of budgetary allocation to education and health between 1999 and 2017.

4. Research Objectives

The broad objective of this research is to identify how investment in human capital translates to inclusive green growth development strategy. To this end, the specific objectives are:

- To determine the transmission mechanism through which investment in human capital translates to inclusive green growth.
- To trace the trend of budgetary allocation to education and health between 1999 and 2017

5. Research Methodology

For the purpose of this study, secondary data on budgetary allocation to education out of government's total expenditure, allocation to education as percentage of Gross National Product, adult literacy rates and government allocation to health as percentage of total government expenditure are collected and analyzed utilizing descriptive analytical tools. The paper proceeds to present the trend analysis of the available secondary data in order to achieve the objective of this paper.

6. Human Capital and Economic Growth

Theoretical and empirical literature is saddled with the debate on human capital being or not being the core determinant of growth in an economy. While the answer to this question remains an empirical issue, it would be needful to trace the historical background to this. The introduction of human skills and knowledge as a component of capital in the production system is traceable to the classical economist, Adam Smith (1776). To him, the talents and skills acquired by residents of a country is part of the country's capital stock because it increases the wealth of the nation and the citizenry. However, not linking his assertion in a coherent manner attributed the growth of an economy to division of labour rather than the level of human capital. Building on Smith's earlier work, Thomas Malthus in his dynamic growth model explains that each country converges toward a stationary per capita income. In this model, when incomes exceed the equilibrium level, death rates fall and fertility rises, and vice versa. In the nineteenth century, this hypothesis failed the empirical test; globally fertility rate fell rather than rose as incomes grew during the period. In response to the failure of the Malthus hypothesis, the neoclassical growth model explained the growth process avoiding Malthus linkage with population and the economy. To them, the growth process adjusts to the rate of investment in physical capital and not in population growth. Therefore, physical capital stock grows more slowly when per capita income exceeds its equilibrium level and more rapidly when per capita income is below equilibrium (Becker, 1975).

In an earlier attempt to explain inter-country growth differences, the Solow-Swan growth theory emphasized that the rate of growth of any economy is a function of technological accumulation. Solow however ignored the fact that technology is driven by human capital; on its own, it has no capacity to translate to economic growth. Technology is engineered, developed, and improved upon by human capital. Therefore, human capital remains the bedrock to sustainable development. However, with Solow's breakthrough on what could be called the modern growth theory, the search for a comprehensive growth theory began. According to him, there are five ways of developing human capital; the provision of health facilities which affect the life expectancy, strength, vigor and vitality of the people; the provision of on-the-job training which enhances the skill of labour force; improving education at the primary, secondary and higher levels; enhancing the study and extension programmes for the adults; and provision of adequate migration facilities to individuals adjusting to better job opportunities.

Becker (1975) provided an analytical framework for understanding investments in education, on-the-job training, vocational training and other forms of human capital.The subsequent emergence of the endogenous growth theory by the works of Mankiw, Romer Weil (1992) awakened the debate on the role of human capital as a determinant of economic growth. In some of these models, human capital induces growth by stimulating technological advancement and by enhancing labour productivity. Empirical evidence such as Lucas (1988) and the economic reality of the Asian Tigers corroborate the fact that human capital is a major driver of economic growth and macroeconomic performance of any nation. However, public expenditure on education and training is not an end in itself. The goal of investment in public education is to create the aggregate skills and attitudes needed for higher levels of productivity and growth. Whether or not such goals would be achieved will depend, not only on the amount of resources invested but also on the efficiency with which the inputs are managed. What then is human capital? Malhotra (2003) defines human capital as "the combined knowledge, skill, innovativeness, and ability of the nations' individuals to meet the tasks at hand, including values, culture and philosophy. This includes knowledge, wisdom, expertise, intuition, and the ability of individuals to carry out value creating tasks and goals".Adelakun (2011) defines human capital as "the abilities and skills of human resources". The United Nation Economics Commission for Africa (UNECA) (1990) gave a broad definition of human capital as the "knowledge, skills, attitudes, physical and management effort required to manipulate capital, technology, and land among other things, to produce goods and services for human consumption". Therefore, human capital (human resource) is the foundation and the end of any form of capital.If education is as important as such in the growth and development of any economy, then it is important to understand its channels of transmission. The basic transmission channel of education to economic growth is through participation of such educated individuals in the labour market and other sectors of the economy at large. Evidences from existing literature have shown that as people become healthier, better nourished and above all educated, they contribute more to economic growth through higher labour productivity in the various sectors of the economy.Adedeji and Campbell (2014) examine the linkage between higher education, human capital development and economic growth using a simple descriptive analysis for the time period 1981-2008. In their opinion, higher education is a prerequisite for the production of highly competent experts, which in turn, contributes to the development of organizations and the economy at large. Higher education in any nation is expected to play an important and increasing role in the development of human capital; therefore, the paper insists that higher education remains the foundation for human capital development and economic growth of any nation.

7. Conceptual Framework

The conceptual framework presented in figure 1 explains the clear linkage between education and economic growth. Education leads to economic growth through the following channels; private and public, and some indirect channels.The private benefits for individuals are well established in literature and these include; an enhancement in the health and quality of life. This will lead to a reduction in both the fertility and mortality rate, increase the average productivity rate resulting to higher wages and (thereby enhancing the tax revenue of the government), increasing the per capita income and ultimately leading to sustainable growth and development. Human capital investment through the public channel first translates into an improved literacy rate, leading to technological adoption, entrepreneurship and job creation. Strategic education and advanced schooling prepare the economy for technological changes, adoption, and changing patterns of demand leading tolower levels of structural employment.When jobs are created through

entrepreneurial activities, tax revenue is boosted and government revenue consequently increases, and when appropriated well, poverty is reduced leading to sustainable growth and development. The adequately educated/trained physicians and health workers help in improving the society's aggregate health, and indirectly lead to an increase in productivity at work. More skilled labour leads to higher wages, expected lifetime earnings, improved incentives to work, and a reduction in dependence on the welfare system. Stronger knowledge and skills will promoteinvention and innovation which are principal ingredients of long-term growth. An adequately educated economy also prepares the younger generation for taking up of leadership positions to preserve her institutions. And finally, if more people have the skills, qualifications and competencies to remain active in an ever-changing economy, it supports progress in combating high levels of poverty and social exclusion. Some of the indirect effects of investment in human resources that are not normally captured in measured national economic growth include, externalities which can either be economic (technological, environmental etc.) and non-economic; cultural and social development, compliance with global environmental standards, reduced crime rate, aggregate peace and ultimately leading to economic growth and development. Each of these indirect effects translates significantly to aggregate social gains. Others include; better healthy practices as a result of higher education.

At the micro level, an individual firm takes into account the impact of the training on its firm performance, given the current total stock of human capital in the economy. The more developed the human capital in her employment, the greater the firm's internal and external performance. Some of the external benefits are often not economic in nature but they help in sustaining the economic benefits. Therefore, overlooking it may reduce the direct economic benefits. For instance, an economy that overlooks such indirect effects as; environmental enhancement (compliance to global standards) and reduced crime rates will definitely spend more of the national income to control environmental related issues and curbing crime rates

8. Inclusive and Green Growth Development Strategy

The call for inclusive growth has been unanimously declared by policy makers across the world. It is a broad term that ensures that economic growth benefits all segments of the society including the poor, near poor with meager incomes, the middle class and even the rich. Conceptualized in this form, inclusive growth is growth that reduces the disadvantages of the vulnerable and most disadvantaged while benefitting everyone. It is an economic growth performance that encompasses equity, equality in both income and opportunities coupled with protection in market and employment. It is enhanced with rapid and sustained Gross Domestic Product (GDP) by a leading sector of the economy not necessarily all sectors of the economy. Inclusive growth ensures everyone participates in the growth process both in terms of decision making for organizing the growth progression as well as in participating in the growth itself. Rapid pace of growth is seen as unquestionably necessary for substantial poverty reduction. However, for growth to be sustainable in the long run, it has to be broad based across the sectors of the economy and involve a large part of the country's labor force. Inclusive growth entails achieving sustainable growth that will create and expand economic opportunities and ensure broader access to these opportunities so that members of the society can participate in and benefit from economic growth. The pursuit of inclusive growth agenda entails firstly, boosting and modernizing agriculture, which provides livelihood for majority of the populace. Secondly, improving the investment and business climate, and providing support for indigenous micro and small businesses. Thirdly, providing and facilitating access to better quality and relevant education and training. Finally, it broadens participation in the development process. Thus, for growth to be inclusive, it has to be pro-employment as it takes a long-term perspective and focuses on productive employment rather than income distribution. It is only a productive labour force that can contribute and benefit from the development process of the economy. Furthermore, for economic growth to be inclusive, it has to be pro-poor. This implies that the average man (Nigerian) is expected to live above the poverty line which is only possible if economic activity in the economy keep increasing and not otherwise. Inclusive growth also needs to ensure income equality. Researchers emphasize that to curb increasingly income inequality, government need to design policies to expand job opportunities and access to social services and infrastructure for the regions and population. The enhancement of human capabilities is another identified vital prerequisite for inclusive growth. This captures physical, mental and material wellbeing of the general populace, especially the working population. Empowerment for various categories of the composition of the country's population is not left out as they all enhance skillful performance at work. Here, the expectation is that due consideration is expected to be given to the working population as regards their acquisition of knowledge and skills which is necessary for productive employment. Access to health and education including other vital infrastructure such as safe drinking water and adequate sanitation decides the quality of human capital. Gender Equity has also been identified as vital for economic growth to be inclusive.

UN-ESCAP (2010) refers to Green Growth as economic progress that fosters environmentally sustainable, low carbon and socially inclusive development. Such a growth becomes inclusive when everyone is involved in ensuring environmental sustainability and benefits from the action. Hence, inclusive Green Growth is one that results in improved human wellbeing and social equity while significantly reducing environmental risks and ecological scarcities. It entails supporting growth that enhances human well-being, social equity and shared economic opportunities while still reducing environmental risks and ecological scarcities, minimizing inefficient use of natural resources and maintaining biodiversity among others(UNEP, 2011). It is needed because risks to development are rising as economic growth continues to erode natural capital. If these risks are left unchecked, this would mean increasing water scarcity, greater pollution, climate change and unrecoverable biodiversity loss. Thus, greener economies imply inclusive economies. Furthermore, inclusive green growth implies long-term investment, adequate capacities and innovation. It is more relevant to sub-Saharan Africa,

where growth has been extremely unequal and narrowly concentrated in only a few sectors and geographic areas; and high levels of economic growth have not translated into sustainable poverty and hunger reduction; where high levels of pollution and environmental degradation are common practices and climate change is demonstrating its most profound impacts.

The rationale for inclusive Green economy has to do with the need to arrive at a more robust indicator of economic performance which will not only include growth in Gross Domestic Product but be adjusted to account for increased economic opportunities by public and private investments that target the reduction of carbon emissions and pollution, augment energy as well as resource efficiency and prohibit the dilapidation of biodiversity and ecosystems.Such investments are catalyzed by national policy reforms, targeted public expenditure, regulatory alterations and the development of international policy and market infrastructure(UNEP,2011). In 2009 for instance, the entire carbon emissions for Africa was 928 million metric tons out of which 200 million metric tons was from Nigeria. This accounted for about 21 percent of the total emitted carbon dioxide for that year (International Energy Statistics, Monthly Update, 2017).

The framework for inclusive Green Growth development strategy is expected to establish incentives and institutions that increase wellbeing by improving resource management and boosting productivity, ensuring innovation and bringing together economic, environmental and social development. Inclusive Green Growth trajectory seeks to minimize the detrimental effects of climate change by promoting green practices that are more sustainable over the long run. The transition to an inclusive Green economy will depend on the specifics of the country's natural and human capital and on its relative level of development. Despite high levels of economic growth witnessed in several African countries over the past decade, growth has not been inclusive as the absolute number of poor and hungry people in Africa has increased considerably between 1990 and 2008. The total number of Africans surviving on less than 1.25 dollars per day has increased from 289 million in 1990 to 385 million in 2008. Also, the total number of hungry people in Africa has increased from 166 million in 1990-1992 to roughly 218 million in 2006-2008 which is about a 31 percent increase. Furthermore, agriculture is noted to play a crucial role in poverty and hunger reduction. About 70 percent of Africans rely on agriculture for their basic income, it is important to acknowledge that current agricultural practices are jeopardizing future productive processes, which could throw many more Africans into a state of poverty and food insecurity. Soil productivity is diminishing as a result of environmental disrepair caused by flawed land and water management practices, inappropriate utilization of fertilizers, a decrease in the application and duration of fallow cycles, excess grazing and logging as well as land grabbing that drive cultivations to utilize less favourable terrains. Today 65 per cent of Africa's cultivable land, 31 per cent of its pasture land and 19 per cent of its woodland are degraded, which can ultimately cost up to 18 per cent of Africa's GDP (UNCTAD,2012).

Africa's economic growth has been a jobless one in which women and youth are grossly affected. For growth to be inclusive high levels of employment must be sustained over a long period of time (World Bank, 2012). Thus, achieving inclusive Green Growth involves reducing emissions of pollutants and Greenhouse gases, minimizing waste and inefficient use of natural resources, preserving bio-diversity, improving investments in education and health (which is the focus of this paper).

9. Investment in Human Capital for Sustainable Economic Growth: Implications for Inclusive Green Growth

Sustainability focuses largely on the carrying capacity of the environment and the deleterious impact of human activity on the environment. Sustainable development is referred to as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs". At the operational level, the inclusive Green economy is seen as one whose growth in income and employment is driven by investments that reduce carbon emissions and pollution, enhance energy and resource efficiency and finally, prevent the loss of bio-diversity and ecosystem services. Principle 1 of the Rio Declaration on Environment and Development, at the United Nations Conference on Environment and Development (UNCED,1992) stresses that "Human beings are at the centre of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature." As part of the mandate and goals in the context of the inclusive Green economy, much emphasis has been placed on consideration of human well-being. To this end, human development, health and education come strikingly to the fore.

The UNDP Report (2010) defines human development as the expansion of people's freedoms to live long, healthy and creative lives; to advance other goals they have reason to value; and to engage actively in shaping development equitably and sustainably on a shared planet. The report further identifies the critical role investment in education and health, promoting gender equity and development cooperation have played in advancing human development even where economic growth has faltered. Education influences virtually every aspect of human existence, including fertility rates, infant mortality, health, life –expectancy, population growth, employability, income level and economic growth, patterns of consumption, technological / social innovation, entrepreneurship and public awareness among others. On the other hand, the advancement of health is integral to human development. Health as stated by the World Health Charter is a state of complete physical, mental and social well-being. It is central to sustainable development as it enhances quality of life and ensures a better future for the people. Health improves with advances in human development and furthermore, improved health promotes human development as a healthy population is more productive. The adoption of proper policies to improve water/sanitation, climate change, housing, food security and gender equality will exert positive impacts on the state of health of the population.Environmental degradation and ecosystem disruption take a toll on human health by contributing to the emergence of new diseases and resurgence of contagious diseases. Thus, transition to an inclusive Green economy reduces the burden of diseases overall and particularly among the poorest and the most vulnerable.

The development and evolution of human capital are the most critical determinants of sustainable development. This is because it impacts on sustainability by accelerating the process of technological innovations with the capacity to mitigate environmental damage. Human Capital development is therefore a process of capacity building and strategic mobilization of human capital which unlocks the door for modernization and increasedproductivity (Kazmi,2007).Capacity building is central to sustainable infrastructure (Low Carbon Energy, Construction, Water and Sanitation,Sustainable Cities and Transport) and natural resources (Agriculture, Forestry, Tourism and Mining) management. Public investment in human capital emphasizes the acquisition of skills and technology which are crucial for productive workforce and competitive economies within the inclusive green growth agenda. Investment in human capital via education enhances skills and capacity building programmes for Green Growth.Specifically, effective investment in education and health increases the quality of human resources through human capital, thereby increasing productivity when the employment landscape is conducive. Investment in education at all levels (with more emphasis on higher education) fosters the emergence of a more informed, socially conscious population, capable of understanding and responding to the challenge of sustainability. It creates conditions favorable to the evolution from a resource-intensive consumer culture to a more sustainable culture that gives greater importance to non-material needs and achievements. Furthermore, investing in human capital enhances the productive and creative capabilities of human beings which can be harnessed to achieve higher and more sustainable levels of human welfare and wellbeing.

To sustain a positive transition to inclusive green economy, young people need to be granted access to education, thus equipping them with the necessary skills and knowledge they need in a more interconnected and resource-constrained world. There will be the need to educate and train to meet new realities of inclusive Green growth. Investing in education is expected to ensure a scale up of skills in Science, Technology, Engineering and Mathematics (STEM). Human capital development is essential for transformation in Technical Vocational Education and Training (TVET) to promote innovative entrepreneurship and productivity. TVET comprises formal, non-formal and informal learning for the world of work. Young people, men and women learn knowledge and skills from basic to advanced levels across a wide range of institutional and work settings including diverse socio-economic context. It is an instrument for promoting environmentally sound sustainable economies.While TVET programs could reduce skills mismatch, they are less attractive. Africa in general lacks abundance of TVET centers that are well equipped and able to provide young workers with high –quality and in-demand skills. Innovative-driven skills require helping to create the relevant knowledge, expertise, skills and values by increasing public awareness and understanding. It involves transforming education and learning systems, including formal education, training, professional development, non-formal and informal learning, and placing allof these within the framework of lifelong learning. Such education systems must be inclusive such that the needs of different age groups as well as the disadvantaged and marginalized are met. This enables them to be active participants in the green economic activity and sustainable development processes.The increasing importance of TVET for sustainable national development has been stressed by multinational donor organizations for three reasons: First, the need to promote employability among secondary education graduates. Secondly, global environmental, social and economic development trends provide a rationale for TVET and human capital development, as a better skilled labour force is a required precondition for sustainable development in general and inclusive green economy in particular. This is based on coping with environmental issues using appropriate technologies and maintaining infrastructures that minimize pollution and reduce the greenhouse effect. TVET is considered by development experts and donors as a specific human capital development instrument. Investments in TVET is seen as an approach to increasing economic competitiveness, reducing poverty, increase productivity, employability and attainment of inclusive green economies(Wallenborn,2010).

More inclusive education and learning systems require educational institutions to improve access and affordability for excluded groups by lowering cost barriers and bringing schools closer to the marginalized communities. This should be complemented by initiatives put in place to improve the learning environment by deploying skilled teachers equitably, targeting financial and learning support for disadvantaged schools. Equal opportunities need to be ensured by enforcing laws against discrimination and developing disaggregated data collection systems to identify marginalized groups and monitor their progress in skills acquisition among other needs.The correlation between investment in human capital and inclusive Green Growth revolves round the issue of skills upgrading systems in form of education and training being put in place.Considering the preparedness of the Nigerian government for a smooth transition to an inclusive Green economy, the budgetary allocation of the federal government to education and health is yet to comply with the stipulated benchmark of UNESCO and WHO respectively.It is unfortunate that while efforts are being geared towards achieving the Sustainable Development Goals in the world, many children in Nigeria are not enrolled in schools. USAID report reveals that out of 30 million primary school age children in Nigeria, an estimated 10 million children are not enrolled in school. This report was corroborated by the National Literacy Survey, conducted in 2010 in Nigeria which indicates that close to 3 million children, aged 6-14 years i.e. 8.1 percent of the population of children in that age group had never attended school. Figure 2 presents the trend of budgetary allocations to education between 1999 and 2017. It was only in 2006,2008,2013-15, that Nigerian government allocated barely close to half of the budgetary allocation benchmark recommendation of 26 percent for all countries in the world. Furthermore, the World Education Forum, 2000, Dakar, recommended that governments should ensure that at least 7 percent of Gross Domestic Product (GDP) is allocated to education within 5 years and 9 percent within 10years. Nigerian government has also failed to fulfill this minimum benchmark requirement (See figure 2). The global organizations recommended the budgetary benchmarks to enable nations adequately cater for rising education demands. Nigeria ranked last among 20 countries selected by the World Bank to assess their percentage allocation to education from the country's Gross National Product (See figure 3) Adult Literacy Rate for Nigeria in 2013 was 61.3 percent (See figure 4). This ranked Nigeria last among some selected

countries from different regions in the world. This is an indication that the education sector has not been given the needed attention by Nigerian government.

As regards budgetary allocation to health in Nigeria, the World Health Organization recommended that 15 percent of government total expenditure is to be assigned to the health sector. This has not been achieved by the government considering the available data between1999 and 2010 (See figure 5). Recurrent expenditure dominates the expenditure pattern of government on health.

9. Conclusion and Policy Recommendations

This paper concludes that investing in human capital enhances the productive and creative capabilities of human beings which can be harnessed to achieve higher and more sustainable levels of human welfare and wellbeing. Public investment in human capital via education emphasizes the acquisition of skills, technology and capacity building programmes which are crucial for productive workforce and competitive economies within the inclusive green growth agenda.Considering the preparedness of Nigeria for the transition to an inclusive green growth agenda, this paper recommends an urgent increase/improvement in the government's budgetary and GDP allocation to education and health. This will enable the fulfillment of the needed mandate for the transition to an inclusive green economy. Furthermore, such a decision will enhance the re-direction of the economy onto a more sustainable long run growth dimension via increased investment in education and healthwhile protecting the environment. Based on the lessons learnt from three country case studies on Rwanda, Zambia and Burkina Faso, it becomes evident that there is the urgent need for government to invest more in TVET and STEM such that adequate technical support and skill upgrading will be given to Green initiatives in the inclusive green framework. Overall, eco-friendly consumption and production will definitely be enhanced.

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Appendix

HUMAN CAPITAL INVESTMENT

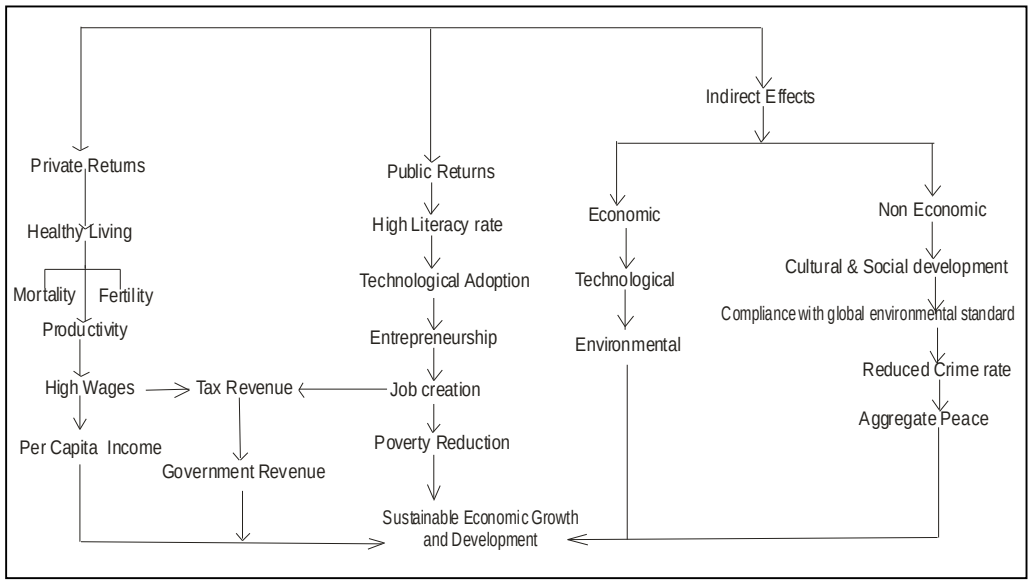

Figure 1
Source: Campbell and Agbiokoro, 2014

Year	TE	GDP
1999	4.46	0.04
2000	8.71	0.6
2001	7.13	0.91
2002	6.9	1.03
2003	7.75	0.96
2004	5.24	1.08
2005	8.21	1.6
2006	10.43	2.01
2007	9.75	2.13
2008	10.04	2.28
2009	8.79	2.15
2010	7.37	2.68
2011	9.32	2.89
2012	9.86	3.23
2013	10.21	3.36
2014	10.63	3.49
2015	10.61	3.46
2016	6.1	2.33
2017	5.4	1.93

Table 1: Education Budget as Percentage of Total Expenditure (TE) and GDP
Source: Nigeria Budget Office. https://www.Budget Office.Gov.Ng

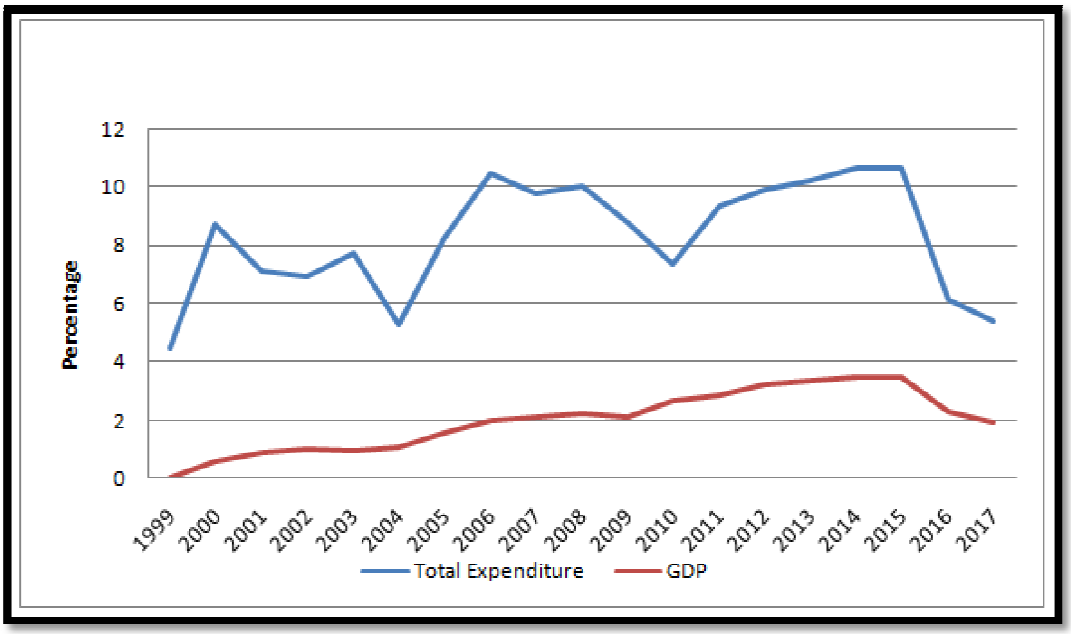

Figure 2: Education Budget as Percentage of Total Expenditure and GDP

Country	AE
Botswana	19
Burkina Faso	16.8
Colombia	15.6
Cote d'Ivoire	30
Ghana	31
India	12.7
Iran	17.7
Kenya	23
Lesotho	17
Mexico	24.3
Morocco	26.4
Nicaragua	15
Nigeria	9.86
Norway	16.2
South Africa	25.8
Swaziland	24.6
Tunisia	17. 0
Uganda	27 .0
UnitedArab Emirate	22.5
USA	17.1

Table 2: Allocation to Education (AE) as Percentage of GNP in 20 Selected Countries in the World Including Nigeria in 2012. Source: World Bank, 2012

World Bank: Selected 20 Countries Annual Budgetary Allocation to Education. The World Bank, Washington Dc

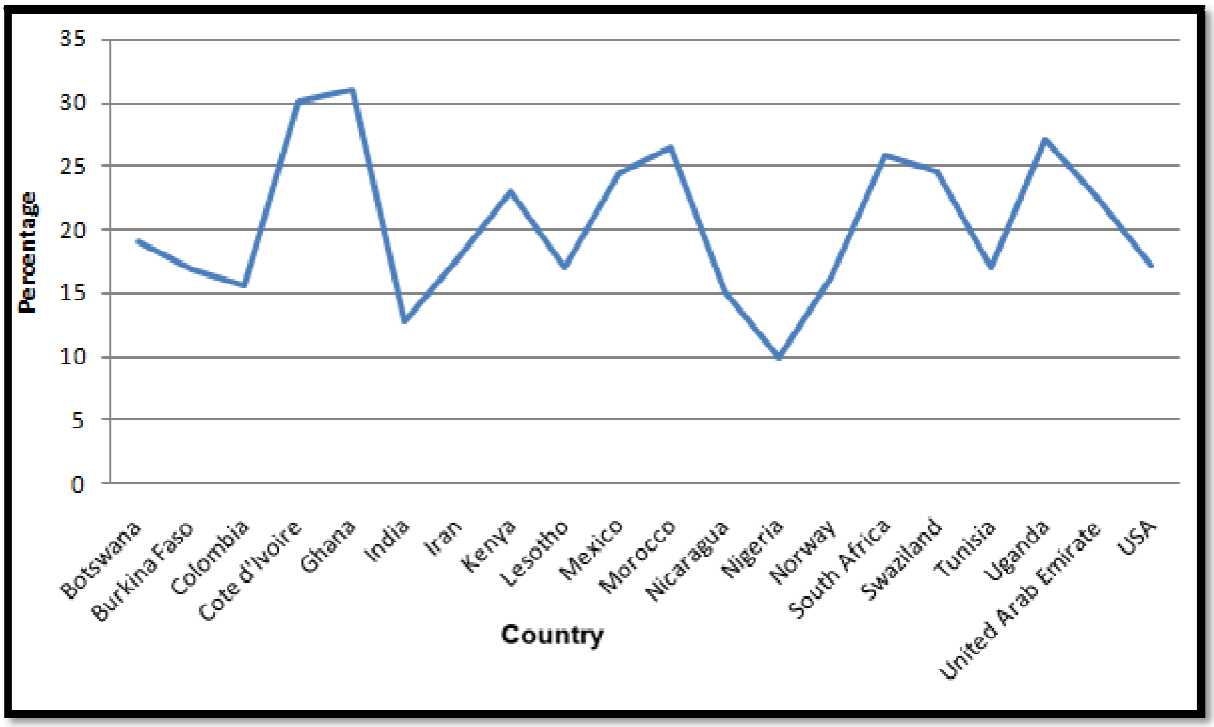

Figure 3: Allocation to Education as Percentage of GNP in 20 Selected Countries in the World Including Nigeria in 2012

Country	Adult Literacy
Bulgaria	98.4
Spain	97.7
Malaysia	93.1
Turkey	90.8
Ecuador	91.9
Algeria	72.6
Tunisia	77.6
Nigeria	61.3
Chile	98.6
Poland	99.5

Table 3: Adult Literacy Rates in Selected Countries in the World, Nigeria Inclusive as at 2013
Source: United Nations Development Programme 2013, Human Development Report

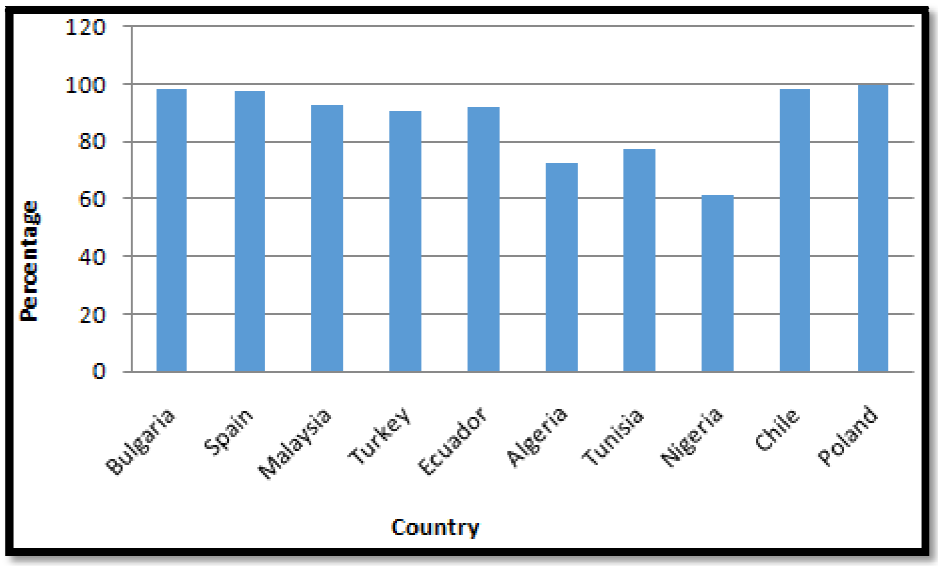

Figure 4: Adult Literacy Rates in Selected Countries in the World, Nigeria Inclusive as at 2013

YEAR	Health Allocation (Percentage)
1986	2.2
1987	1.1
1988	1.6
1989	1.1
1990	0.9
1991	1.1
1992	1.1
1993	1.4
1994	1.9
1995	2.0
1996	1.4
1997	1.4
1998	2.5
1999	1.7
2000	2.6
2001	4.4
2002	6.2
2003	3.2
2004	4.2
2005	3.9
2006	5.4
2007	4.8
2008	4.2
2009	3.8
2010	3.6

Table 4: Allocation to Health as Percentage of Total Government Expenditure.
Source: CBN Statistical Bulletin, 2010

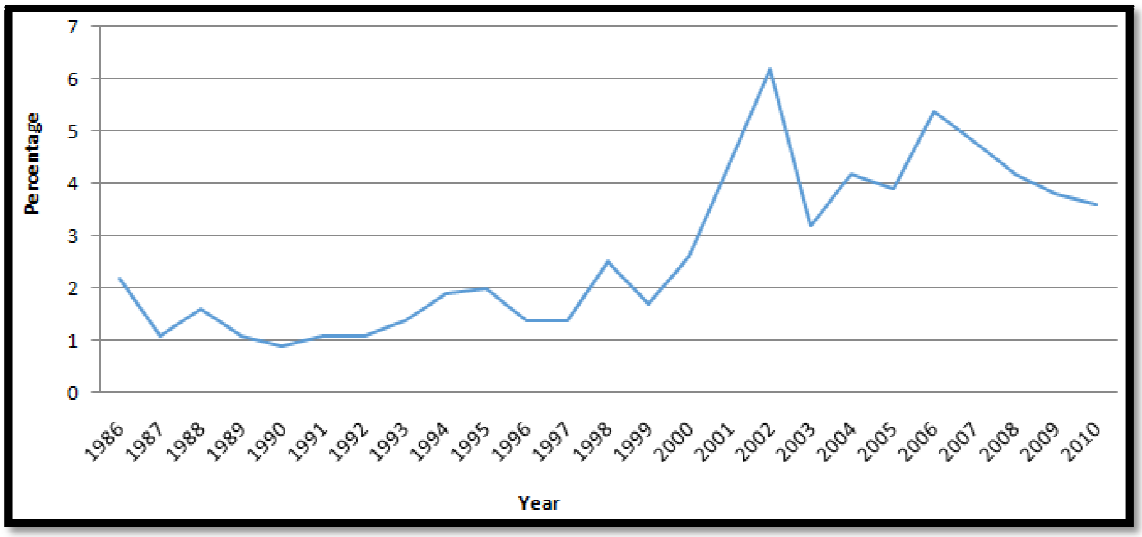

Figure 5: Allocation to Health as Percentage of Total Government Expenditure