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INVESTMENT IN HUMAN CAPITAL AS A MECHANISM FOR ENSURING SUSTAINABLE DEVELOPMENT IN NIGERIA

Abdulrahman Adamu
Department of Political Science,
Federal University Gusau-Nigeria
Email: abduladamu6@gmail.com
Mobile: +234 (0)8039190666

Jibrin Nuhu Shagari PhD
Department of Business Administration,
Federal University, Dutsin-Ma-Nigeria
Email: njibrin@fudutsinma.edu.ng
Mobile: +2348039708881
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Abstract
This study examines investment in human capital and its importance as a mechanism for ensuring sustainable development in Nigeria. Human capital is that intangible factor that brings human intellect, skills, and competencies in the production process and allows for the provision of goods and services. It is the human capability and productivity engendered through knowledge and skills acquired from vocational and technical education, training and experience and facilitated by a stimulating environment. Methodologically, the study used secondary sources of data such as text books, journal articles as well as internet sources and were analysed qualitatively. Theoretically, Human Capital Theory which emphasizes how education increases the productivity and efficiency of workers by increasing the level of their cognitive skills, was adopted considering its relevance to the topic of discussion. The study reveals that investing in human capital involves strengthening the weaknesses of public policies that promote common good of the society and at the same time, these efforts are expected not to harm or obstruct the ability of the future generations to achieve their developmental needs. It concludes that adequate investment in human capital is fundamental to any meaningful and sustainable development programme by any nation whether developed, developing and underdeveloped. It recommends among others, the need for collaboration between the public and private sectors to accommodate communities, non-governmental organizations and individuals so as to engender economic expansion that could address the rising demands of the growing population and relate it to environmental and resource capacity.
Keywords: Investment, Human Capital, Development, Sustainable Development

Introduction

Sustainable development came into limelight in 1987 by the World Commission onEnvironment and Development in its seminal report called “our common future”. Since then, sustainability has become a principal benchmark against which economic development policies are assessed by national governments, development agencies and NGOs. Although, the adoption of sustainability as a benchmark for development has been hampered by ambiguities in definition and interpretation, as there seems to be a consensus that sustainable development implies an active role of government in efficient and equitable management of natural and environmental resources (Pearson 2013:463). As early as 1932, Pigou cited in Krutilla (1967:10)stressed that it is the clear duty of government as the trustee for present and unborn generations to watch over and if need be, by legislative enactment, to defend the

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exhaustible natural resources from rash and reckless spoliation.However, the attainment of sustainable development cannot be realized at the expense of human beings, most especially the governed, no matter how the government at both national and international levels strive to.

At the European Union (EU) level, it is recognized, through the European 2020 Strategy (European Commission, 2010), that improving human capital and innovation can definitely contribute to a smart, sustainable and inclusive development. Human capital is a complex concept which "consist of the knowledge, skills, and health that people accumulate over their lives, enabling them to realize their potentials as productive members of society" (World Bank, 2019:50). In fact, many economists (neoclassical and endogenous growth theorists) later explained that human capital was the most important factor that created development. They agreed that with minimal physical capital, human capital could stimulate or cause substantial progress to happen. Human capital makes the difference in production. On this note, Ajibade (2013) stressed that "indeed, it is known that plants, offices, computers, automated equipment, intranets, internet systems, websites and all other facilities that any organization may install remain unproductive except for human efforts and direction.

Adam Smith included human capacities in his conception of capital stock in 1776, it was only in the late 1950s and 1960s that the importance of human capital began to feature prominently. Becker, Minzer and Schultz (1964) andLaroche & Merette (1999) argued that investment in education and training build up a stock of skills and abilities (capital) in the population that can benefit national economies and fuel economic growth.For example, China as the world leading populated country with over 1.4 billion residents were among the largest economy of the world, whose development has attained the rank of sustainability as a result of its relentless investment in human capital. Although, population is among some of the elements of national power aside the military power, but it is important to note that, population of any nation can be either detrimental or productive to its development.

Economist such as Frederick (1973:3) opine that investment in education and training enhance the skills and manpower that ultimately gives more production as new machines have more productive capacity. However, the point to drive home here is that, the concept of human capital can be applied not only to education and training, but to any activity that increases the quality and productivity of the labour force and thus raises the future income levels,(Theodore, 1961). On a general note, as the international system is composed of developed and developing counties of the world, the former takes the case of investment in human capital seriously than the later.

The discourse on sustainable development has received tremendous attention from policy makers and academics for four main reasons. First, sustainable development is considered to be the end-goal of the United Nation's development plan for the world, and many countries are working towards achieving sustainable development goals (Linner and Selin 2013; Baxell and Jonsson 2017). Secondly, sustainable development helps to promote a sustainable planet for every generation (Weiss 1992; Emina 2021}. Thirdly, sustainable development is considered to be all embracing development agenda as the goal and aspiration of development is to be sustainable. Lastly, sustainable development is expected to bring lasting socio-economic benefits to all people and the environment (Szymanska 2021).At the heart of sustainable development is natural resources management which has become inevitable dueto the existence of conflicts between the short-term need to alleviate poverty and the long-term objectives for environmental sustainability in the third world, pressures placed on natural resources to meet people's demands presents a dilemma for policy makers concerned to pursue sustainable development (Cahill and Fitzpatrick 2012:53).

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It is based on the above background that this study examines investment in human capital as a possible mechanism for ensuring sustainable development with particular reference to Nigeria. The work is sub-titled and discussed below.

Conceptual Clarification

This section deals with the clarification of the three key concepts used in this study for easy understanding of the readers. These concepts areSustainable Development, Human Capital, and Investment.

Sustainable Development

According to Sharpley (2000), development and sustainability could be in the juxtaposition, where both could have possible counterproductive effects, while neo-classical economists emphasize that there is no contradiction between sustainability and development (Lele, 1991). Meanwhile, Sachs (2010:28)noted that there is no development without sustainability or sustainability without development. The notion of development is related to the past western concept of imperialism and colonialism, and during that period, it implied infrastructural development, political development and economic policy, serving imperialist as an excellent tool for marginalization and diminishing the power of certain countries (Tangi, 2005). Based on these connotations, most developing countries are lagging behind in terms of sustainability of development especially in the area of agriculture as a result of the influence of the colonial administrator's exploitative actions, which form part of the reasons why their political environment (developing countries) face food insecurity and hike in prices as a result of inflation.

According to Al-Roubaie (2013), sustainable development is a situation that "requires meeting the basic needs of all and extending to all the opportunity to satisfy their aspiration for a better life". Similarly, Ajibade (2013) defined sustainable development as improving the quality of life while living within the carrying capacity of supporting ecosystems. Sustainable development is the ability of physical development and environmental impacts to sustain long term habitation on the planet earth by human and other indigenous species while providing: an opportunity for environmentally safe, ecologically appropriate physical development; efficient use of natural resources; a framework which allows improvement in the human condition and equal opportunity for current and future generations; and manageable human growth. (Roosa, 2008). This view is in line with the United Nations Sustainable Development Goals (SDGs), a universally intervention for sustainability.

According to (Tangi 2005), the fundamental purpose of this process is creation of stimulating environment whereby people will enjoy and have long, healthy and creative life. In this direction, Thomas (2004) argued that development involves the positive changes that society has experienced throughout history, and still experiencing, while (Jenkins, 2009:380) observed that the term sustainability literally means "a capacity to maintain some entity, outcome, or process over time" and carrying out activities that do not exhaust the resources on which that capacity depends. What the definitions imply is that sustainable development is targeted at human wellbeing (the health, wealth and quality of life of people) and linked to the diversity, productivity and quality of the ecosystem. Building requisite human capital i.e. people with the right skills, knowledge, competencies frame of mind, attitude, and motivation remain the most enduring strategies for the pursuit of sustainable development. This is the only way to provide people with the capacity, knowledge, skills, attitudes and motivation to reduce the harmful influence of society on the environment and to protect and preserve the globe for future generations.

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Human Capital

There exists a number of related studies conducted by different scholars on human capital formation. Some of these scholars include Ojukwu (2000), Agboola (2005) and Enyekit (2014). The related literature has differing views on the concept of human capital development, the knowledge of human capital organization and rationalizations concerning the contributions of labour and other factors of production that could bring about the stimulating environment for achieving the targets in any industrial setting Agboola (2005). Therefore, human capital development concerns all kinds of labour, coaching, training, internship and human capital management investments. Fundamentally, it is that intangible factor that brings human intellect, skills, and competencies in the production process and allows for the provision of goods and services. It is the human capability and productivity engendered through knowledge and skills acquired from vocational and technical education, training and experience and facilitated by a stimulating environment. Elements of human capital encompass knowledge, skills, attitudes, and motivation of an enterprise or society brought together to engage in the development of that enterprise or society and fulfil its objectives.

Different authorities have attempted to define human capital from different perspectives. For instance, the Oxford English Dictionary viewed human capital as the skills acquired by an individual in the course of vocational and technical education training, and the experience drawn from industrial work after training. Human capital is as well defined as human resources in vocational and technical education, an inevitable issue that calls for the attention of both the government and individuals (Enyekit, 2014). Human capital development presupposes investments, activities, and processes that produce vocational and technical education knowledge, skills, health or values that are embodied in people. It implies building an appropriate balance and large human resource base and providing an enabling environment for all individuals to be fully engaged and contribute to the organizational or national goals, (Ojukwu, 2000). Any effort to increase human knowledge, enhance skills, productivity and stimulate resourcefulness of individuals is an effort towards human capital development.

Studies by Peretomode (2003), Osuala (2005) and Ubulom, (2006) were unanimous that the process of human capital should be systematic to the extent that there should be a plan for which previous activities will provide support for upcoming activities while facilitating the attainment of set goals,the process should be sustainable since the product (human capital) must make desired and enduring impact on the organization or society, should be strategic to the extent that there are well-defined goals and targets whose attainments are time-bound. It should be dynamic, responsive and result-oriented; continually evolving and proactive when addressing emerging challenges. Corroborating the above positions, Enyekit, Amaehule&Teerah (2011) stated that there should, therefore, be an effective monitoring system to inform further necessary improvements in the process.

Ulinfu (1996) in Agboola (2015) defined Human Capital education as consisting of the total activity that is planned, organized and developed in form of the preparation of youths for responsible economic participation in the community. It is a subject of the entire vocational and technical education often referred to as technology or technical education.Going by the above, many countries of the world are far behind as they have not really invested in their available human capital for sustainable development. For quite some time now, the educational system of most countries of the world where this human capital is to be produced are being faced with a number of crises. This is evident in Nigeria where the Academic Staff Union of Universities (ASUU), were on an industrial strike for eight months, all in a bid to bring an end to the Nigerian government’s lack of commitment towards human capital

investment particularly in the area of education. In addition, the endogenous growth theories mostly emphasize the role of human capital (e.g., Mankiw, Romer, and Weil (1992) and Lucas (1988).While Igbami (2003) noted that the objectives of human capital formation have come to mean more than just grooming students for specific entry jobs, stressing that programs should help to prepare people for occupational changes occurring in recent years.

However, Soyede (2003) and Enyekit (2017) listed some of the objectives of human capital formation to include: Training of people for the specific occupation,providing schooling and imparting the necessary skills leading to the production of craftsmen, technicians, and other entrepreneurial and self-reliant skilled personnel, acquisition of practical and applied knowledge as well as basic scientific knowledge,providing basic intellectual information on science, arts, and commerce, forming the key industrial knowledge, preparing people for a business career; preparing the individual to earn a living or to be self-reliant.

Investment

Investment is an asset or item acquired with the goal of generating income or appreciation. Appreciation refers to an increase in the value of an asset over time. When an individual purchases a good as an investment, the intention is not just to consume the good but to also use it in the future to create wealth. The investment process has varying associations in economics and finance. An investment can be defined as an asset or an item purchased in the hope of generating future returns or appreciating in value (Myles, 2003). In the economic sense, an investment is the purchase of goods not consumed today but rather used in the future to create wealth (TD Direct investing, 2010). According to Power Management Institute (2011) in finance, an investment represents a monetary asset purchased with a view to providing a future income or a capital gain. Interestingly, all the aforementioned approaches underscore potential future gains and highlight the financial aspects of investment commitments. The decision of the investor to invest is subjective. His decision depends on the expected cost, his knowledge of the improved techniques and his perception, which is entirely a subjective factor. Businessmen want to know the investment project's pay off period to decide whether they actually will make the investment expenditure or not. Harcourt (1967) opine that, for a good investment, the investor needs to understand completely and correctly the possible opportunities, therefore investment should not be made in rush.

Nevertheless, investment implies intentional expenditure that is channelled towards raising or maintaining the stock of capital. In this respect, the stock of capital includes tangible assets or products, plants and machines and so on which support production (Dornbusch & Fischer, 1981). Human capital training and provision of infrastructure which are relevant factors needed for encouraging economic activity depend on investment. Hence, investment can be informed of domestic, foreign, private and public investment. This accounts for why Bakare (2011) points out that public investment consists of government, and public enterprises capital expenditure on social and economic assets. Some have argued and disagreed with the role allotted to investment in the economic growth process. Whatever view held about the impact of investment in development and growth of an economy, the effect of investment in machinery and equipment is considered the main determinant factor of growth (De Long and Summers, 1991 and 1993).

Theoretical Framework

For the purpose of this study, Human Capital Theory was adopted due to its relevance to the topic of discussion. Human Capital theory as propounded by Paul Romer (1986) emphasizes how education increases the productivity and efficiency of workers by increasing the level of their cognitive skills. Schultz (1961), came up with the notion that people who invest in education increase their stock of human capital. Examples of such investments include

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expenditure on education, on the job training, health, and nutrition. Such expenditures increase future productive capacity at the expense of current consumption. However, the stock of human capital increases only in a period when gross investment exceeds depreciation with a passage of time, with intense use or lack of use. The provision of education is seen as productive investment in human being, an investment which the proponents of human capital theory consider to be equally or even more worthwhile than that of physical capital.

However, Mincer (1984), Ranis et al. (2000) found a relationship in both directions between 'human development' and economic growth using cross-country regressions and argued that over time, countries favouring economic growth may go into a vicious cycle, whereas those emphasising human (capital) development are more likely to develop a virtuous cycle. In this regard, Barro (1991) found human capital to be one of the key determinants of per capital income in a cross-sectional country study, but used school enrolment rates as a proxy measure. Nehru et al. (1995), Johnson (2002) measure human capital by replacement cost, like machinery, and found a positive and significant, but small effect on GDP growth, using average educational attainment of the labour force as a human capital measure. Late Gary Becker often cited Marshall's assertion that 'the most valuable of all capital is that invested in human being, but Marshall is seldom quoted in full:

> *If we compare one country of the civilized world with another, or one part of England with another, or one trade in England with another, we found that the degradation of the working-classes varies almost uniformly with the amount of rough work done by women. The most valuable of all capital is that invested in human beings; and of that capital the most precious part is the result of the care and influence of the mother, so long as she retains her tender and unselfish instincts, and has not been hardened by the strain and stress of unfeminine work.* (Marshall, 1890:468).

Consequently, first the context reflects household division of labour and gender stereotypes of the nineteenth century England, but Marshall's key message is that human capital formation is intimately connected with, and affected by wider social issues and especially the capacity of the family unit to ensure the early development of children. It is important explicitly to acknowledge this two-way relationship between human capital and other aspects of human progress: education plays a key role in promoting health and eradicating poverty, whilst a healthy population is a prerequisite for developing a highly skilled workforce. Secondly, investment in human capital is not a task of a single body, it also requires the support and contribution of other social forces in order to attain sustainable development in social, political, and economic setting.

In the opinion of Suri et al. (2011), human development plays a key role in economic growth but noted that human development is also a 'final product' in its own right, contributing to a nation's well-being. Young adult mortality affects human capital investments, but human capital accumulation equally can lower mortality rates, inducing a demographic transition and an industrial revolution (Tamura, 2006). Thus, addressing how human capital theory has evolved within the wider human resource literature in respect of competencies, core competence and within the wider strategic resource-based configurations becomes pertinent.

In fact, contemporary knowledge in the United States acknowledges that investment in human capital is three times greater than that in physical capital. Human capital theorists have established that basic literacy enhances the productivity of workers in low skill occupations. They further stated that an instruction that requires logical or analytical reasoning or provides technical and specialized knowledge, increases the marginal

productivity of workers in high-skilled professional positions. It has been proven that the greater the provisions of schooling, the greater the stocks of human capital in the society, and consequently, the greater the increase in national productivity and economic growth.

Relationships between Investment in Human Capital and Sustainable Development

Development concerns itself with the ability of man to take control of his environment, to manipulate and manage progressively everything in that environment, to increase his production and productivity, to enhance a qualitatively better life. Therefore, in the quest to develop, the question that bothers the mind is that; can the development be sustained? Sustainable development on the other hand, is development that meets the needs of the present generation without compromising the needs of the future generation. Sustainable development according to Ascher and Healy (1990),Eriyekit., Silas-Dikbo&Vinazor (2011) emphasizes not the need to limit development, but the need to develop in order to be able to conserve.It also extends more than what the government of the day might think, but for continuous and concurrent ideologies that project and enhance the betterment of the entire society. Sustainable development therefore calls for adequate Human Capital development.

This involves investing in human capital to strengthen the weaknesses of public policies, so as to promote common good of the society and atthe same time, these efforts are expected not to harm or obstruct the ability of the future generations to achieve their developmental needs. Meanwhile, Morris (2002) asserted that most discussions (and actions) of sustainable development have to give due attention to meeting the needs of the present and indeed of the future generations through human capital development. The strides should be noticed in both education and health, therefore, sustainable development cut across and transcend to all spheres of life. Sustainable development strategies allow drawing natural resources assets, and utilization of environmental services through human knowledge and innovation which is the outcome of human capital formation.

Worthy of note is that sustainable development in human society is not a one-sided process rather, multi- sided issues; individuals perceive development as increase in the skill and ability, it is viewed as maximum freedom, the ability to create responsibility. Seer (1977) in Enyekit (2017) states that sustainable development involves capital accumulation and economic growth only but the condition in which people in a country have adequate food, job and income inequality among them is great. It is the process of bringing fundamental and sustainable changes in the society with high level of technical know-how. It encompasses growth and embraces the quality of life as social justice, equality of opportunity for all citizens, equitable distribution of income and the democratization of development processes. It is the capacity of members of the society to actualize them by participating actively in the social engineering of their destiny.

In addition, it entails the ability of individuals to influence and manipulate the forces of nature for their enhancement and that of humanity. Economic, political or social development implies more changes in the technical and institutional arrangement by which it is produced. Sustainable development is multi-dimensional and is basically about the process of changes around the spheres of societal life. However, human capital formation is the engine through which the development is carried out. This implies that labour development is the bedrock of any nation.

Investment in Human Capital and Sustainable Development

Human Capital and Economic Growth

Human capital theorists underline how education increases the productivity and efficiency of workers by augmenting the level of the cognitive stock of the economically productive human capability (Olaniyan and Okemakinde 2008). In other words, better educated people will have a higher level of productivity and creativity, fact that will stimulate the technological progress. Lall and Kramer-Mbula (2005) submitted that developing states cannot simply import technologies without investing in building 'capabilities' to learn how to master, acquire, adapt and improve the existing technologies. These capabilities involve acquiring new skills and knowledge. Salazar- Xirinachs, Nubler and Kozul- Wright (2014) argued that the productive capabilities lead to economic diversification and generate the competences necessary to take advantage of potential opportunities. The same idea has been previously debated by Strum (1993), who noted that highly skilled individual may better evaluate the new opportunities because they can easily distinguish between random and systematic elements of the economic changes. Therefore, a higher level of education leads to a better participation in the global economy. Suffice it to say that high skilled persons stand a better chance of earning higher wages, to have a lower unemployment rate, a higher mobility and a better employment opportunity during their active lives.

Apart from these direct effects on economic growth and development, the education may foster the welfare state through some direct externalities such as: improvements in health and nutrition level, offering opportunities for personal fulfilment and developing some individual abilities (Haveman and Wolfe, 1984). This consequently have indirect positive bearing on the economic growth as McMahon (1999) opined that the well-educated people will contribute to improvements in the democratic process, to enforcing the rule of law and to political stability. In an attempt to answer the question as to why the performance of poor countries are so weak?' the analyst added that another main factor, together with the low level of education, is the low level of health. Despite the fact that the life expectancy has increased dramatically in the developing countries over the past fifteen years, many people from poor countries still face difficult health conditions.

The health status of an adult may be directly linked to physical work capacity because the healthier an individual is, the higher his productive capacity and vice versa. When labour productivity is high, the income level is also high. The positive relationship between the level of health and the economic growth has also been statistically tested by Bloom, Canning and Sevilla (2004) who noted that starting from a production function model aggregate economic growth show that a good level of health has a positive, sizeable and statistically significant effect on growth aggregate output. They however, concluded that the life expectancy's effect in growth regressions is a real labour productivity effect and not the result of the life expectancy acting as a proxy for worker experience

Human Capital and Social Cohesion

Sianesi and Van Reenen (2000) observed that a higher level of education may be linearly correlated not only to a friendly environment, but also to a better political and community implication, a higher social cohesion and to a lower criminality rate. Regarding the lower criminality rate, the opinions are divided. Freeman (2000), in his research for example found that there is no clear direct relationship between the education level and the criminality rate. Meanwhile, Kelly (2000) argues that between the two variables are indirectly related: while different educational levels lead to income differences, this inequality will increase the criminality rate. The same idea has previously been discussed by Leigh (1998), who observed that a higher level of education is positive and directly correlated to the crime absence. This

direct relationship has also been statistically tested by Lochner (1999), who concluded that the state with higher school enrolment rate and with a strict legislation have the lowest criminality index.

Analysing the causes of income inequalities in societies, Wilkinson and Marmot (2003) believe that, in the advanced capitalist countries, a higher gap in the revenue levels leads to lowered social cohesion which in turn, produces poorer health status. According to Schuller (2001), the social cohesion is both a consequence of and a producer of the social capital. The presence or absence of the social capital depends on the level of education. This was argued by Dwinigrum (2013) who noted the fact that the elements involved in the social capital (social reds, trust and norms) can be acquired during the formal, non-formal and informal education. She supported this idea with the result of an empirical investigation conducted on teachers and principals from 17 elementary schools, 18 lower secondary schools and 16 high schools in Indonesia. The conclusion highlighted the fact that the family, the schools and the community have a very important role in shaping the individual character which will largely influence the social capital. Moreover, the social relations in the structure of a society have a role in developing the nation's cultural identity.

Clemente, Marcuello, Montanes and Pueyo (2004) have conducted an empirical study in the case of Spain. Their research indicated that there is a strong correlation between social and human capital and both of them have favoured the economic growth in Spain in the beginning of the 21st Century. The explanation for the close connection between social and human capital is simple: a higher level of education leads to higher revenues which will increase the individual satisfaction; the more fulfilled a person is, the higher the social cohesion will be. The strong correlation between the human capital and the social cohesion is also proven by the Cypriot Operational Program "Employment, Human Resources and Social Cohesion", 2014-2020, in which the direct objective is the improvement in the vocational and technical educational system, in order to increase the employment rate and the social cohesion (European Commission, 2015).

Conclusion and Recommendations

Adequate investment in human capital is fundamental to any meaningful and sustainable development programme by any nation be it developed, developing and underdeveloped. Using a comparative study of countries' peculiarities in human capital, it is pertinent to consider the process or strategy adopted by the advanced nations to achieve economic growth and the realization of sustainable development thereby applying such method in Nigeria to attain sustainable development. One of such models is the adoption and implementation in human capital development as propagated by the United Nations as part of Sustainable Development Goals (SDGs). From the findings of this study on the correlations between human capital and sustainable development, the study calls for a shift in thought and action to make development of human capacities and fostering of human welfare the centre-stage of sustainable development strategy. Based on the findings of this study, the following recommendations are hereby made.

There is the need for collaboration between the public and private sectors to accommodate communities, non-governmental organizations and individuals so as to engender economic expansion that could address the rising demands of the growing population and relate it to environmental and resource capacity.

Investment in science and technology as an integral part of sustainable development should be given utmost priority owing to the fact that it enhances human activities for effective utilization and management of natural resources.

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Attitudinal change by all stakeholders is paramount for investment in human capital so as to engender paradigm shift from the activities and processes not favourable to the environment, to alternatives that promote and facilitate innovation and best practices which are environmentally beneficial to sustainable development.

Increase in investment in education is also a major factor of human capital formation to be provided by government at all levels as well as cooperate bodies as it is a major form of investment in human capital that provides key inputs in human resource development.

There is high level of poverty and unemployment in Nigeria, lack of entrepreneurial skills and inadequate training facilities as a result of bad governance especially in the less developed countries as a whole and Nigeria in particular. Poverty can be reduced through investment in human capital as reduction in extreme poverty is portrayed as greatest symbol of economic progress.This can as well be achieved through proper educational planning and management.

There is the need for government to enact policy on social and economic sustainability that could enhance high level of productivity while improvement in the conditions of service for workers across all sectors of the economy particularly in education be promoted.

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