

## Girl-Child Education and Sustainable National Development through Research and Innovation

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**Abstract.** The wide imbalance between the education of men and their women counterpart in various fields of learning has had out-cries from various quarters and has made the education of the girl-child a very serious issue in the education sector in Nigeria, Africa, and globally. Governments, non-governmental organizations, education planners, managers and other well-meaning citizens, are burdened on how to reduce this imbalance as they become aware of the enormous contributions women can make in nation building through research and innovation. There are obvious indications that Nigeria's quest for national development through research and innovation will not be realized until, as a nation, we recognize, appreciate and begin to involve women in national developmental projects. The paper is exploratory and has critically examined the factors militating against the education of the girl-child, proffered practical solutions that addressed this malaise and examined the role of women in sustainable nation building efforts through research and innovation. The paper noted ignorance on the part of parents, the girl-child and men, culture and tradition, insensitivity on the part of government and inadequate enlightenment as some of the problems militating against the girl-child education in Nigeria. Other factors include male dominance in positions of policy formulation and implementation and failure on the part of various governments in protecting the rights of women in matters dealing with the rights of women. The paper therefore recommended a

massive campaign by government, voluntary agencies and all for the education of the girl-child, government should, as a matter of urgency, enact policies or re-enforce the existing policies that will encourage the education of the girl-child in Nigeria. Through seminars and workshops at the grass-root parents should be encouraged to send their daughters to school and inform them of the dangers of early marriages and the benefits that will accrue to the family and the nation as a whole when these girls are educated. The culture of early marriage should be discouraged and disbanded.

**Keywords:** Sustainable national development, girl-child, education, research and innovation,

### 1. Introduction

In Nigeria, and indeed Africa, women are often seen to be relegated to the background. Some traced the anomaly to the creation and fall of man in Eden. When God made man he made the male and female (Genesis 1:27) and the duo were made to be equal - complementing the efforts of one another. The "fall" brought about a distortion in the relationship and supremacy and dominance of man over the woman (Genesis 3:16). Consequently, over the centuries, men have seen women as objects to be toyed with, objects of sexual gratification, slaves and people that are expected to be heard within the confines of their master's home but not to be seen. This tradition has gone unabated. It is sad that this

practice still goes on among the “elite” men of the society.

Recently however, there has been a clarion call on all, governments and the citizens, on the need to educate the girl-child so they too can contribute, through research and innovation, to the sustainable development of the country. This paper examined the education of the girl-child in the Nigerian context and the contributions women have and are still making, through research and innovation, in the sustainable development of the nation. The paper also examined the factors that have militated against girl-child education and proffered practical solutions to address this malaise. The effort of government in this regards were also looked into. The paper finally examined national sustainable development and the expected benefits that will accrue to the nation when the girl-child is given the right education and her potentials are unleashed to give research and development its rightful place in Nigeria.

## 2. The Concept of Girl-Child

The question is asked, who is the girl-child? The girl-child is “a young female child” (Merriam Dictionary);” a young 15-year-old female” (Girl Dictionary). The National Child Welfare Policy (1989) in Ada (2007) defined girl-child as a person below 14 years of age. Citing Offorma (2009) Omede (2016) defined girl-child as a biological female offspring from birth to eighteen (18) years of age. This period is made up of infancy, childhood, early and late adolescence stage of development. The girl-child is seen as a young female person, who would eventually grow into a woman and marry; she is conditioned to look after the young ones, the home and take care of the kitchen (Omede, 2016).

The UN did not actually provide a clear definition of the girl-child but gave a description: “they go to school, help with housework, work in factories, make friends, care for elderly and young family members and prepare themselves to take on the responsibilities of adulthood. They play multiple roles in the household, society and the

economy”. According to the UN report, even when the girl-child goes to school with her male counterpart they face major challenges that make it difficult for them to attend regularly, sometimes receiving an unequal share of the household tasks due to customary practices. Even in the 21<sup>st</sup> century many are still subjected to horrific practices, such as female genital mutilation, son preference – often resulting in female infanticide – as well as child marriage, sexual exploitation and abuse. Girls are more likely to experience discrimination in food allocation and healthcare, and are often outpaced and outranked by boys in all spheres of life (UN, 2018).

A girl-child is described as a female child between infancy and early childhood. During this period of the development of the girl child, she is under the custody and supervision of adults who may be her parents, guardian, or siblings who are older or more mature than she is. The girl child is easily influenced by her experience as she develops. She models her behavior during this development process through observation and imitations of those she depends on, and her physical, mental and emotional development start and reach their peak within this stage (Grossarchive 2018).

By putting all the definitions and descriptions together the girl-child is a young female within the age of 15 that is disadvantaged by the mere fact of being a female and thus is exposed to various forms of ill-treatment, abuse, harassment and in many cases does not have access to formal education.

At the 1995 Beijing Declaration one of nine resolutions reached dealt with holding governments accountable for the protection of girls’ rights (beijing20.unwomen.org). According to the UN Report, the resolution on guaranteeing freedom from all forms of discrimination against the girl-child remains only partly fulfilled in most African countries. Carla Koppell of the United States Agency for International Development (USAID) called female education a “silver bullet” for empowerment and progress. Sohoni (1955) noted that “the girl in every woman precedes and shapes the woman in her. And to the extent

to which girlhood is denied, liberated, and fostered, womanhood perishes or prospers”.

### 3. The Girl-Child Education

Stepp (2016) highlighted ten reasons why it is important to educate the girl-child:

Increased Literacy: Of the 163 million illiterate youth across the globe, nearly 63 percent are female. Offering all children education will prop up literacy rates, pushing forward development in struggling regions.

Human Trafficking: Women are most vulnerable to trafficking when they are undereducated and poor, according to the United Nations Inter-Agency Project on Human Trafficking. Through providing young girls with opportunities and fundamental skills, this billion-dollar industry can be significantly undermined.

Political Representation: Across the globe, women are underrepresented as voters and restricted from political involvement. The United Nations Women’s programs on leadership and participation suggest that civic education, training and all round empowerment will ease this gap.

Thriving Babies: According to the United Nations Girls’ Education Initiative, children of educated mothers are twice as likely to survive past the age of five. Foreign aid for schoolhouses and curriculum development could greatly benefit the African country where thousands of children die per year.

Safe Sex: A girl who completes primary school is three times less likely to contract HIV. With these statistics in mind, The World Bank calls education a “window of hope” in preventing the spread of HIV/AIDs among today’s children.

Later Marriage: As suggested by the United Nations Population Fund, in underdeveloped countries, one in every three girls is married before reaching the age of 18. In a region where a girl receives seven or more years of education, the wedding date is delayed by at least four years.

Smaller Families: Increased participation in school reduces fertility rates over time. For instance in some African countries, women with secondary education or higher have an average

of three children. Counterparts with no education have an average of seven children.

Income Potential: Education also empowers a woman’s wallet through boosting her earning capabilities. According to the United Nations Educational, Scientific and Cultural Organization, (UNESCO), a single year of primary education has shown to increase a girl’s wages later in life by 20 percent.

Thriving GDP: Gross domestic product also soars when both girls and boys are being offered educational opportunities. When 10 percent more women attend school, GDP increases by three percent on average (UN Report, 2016).

Poverty Reduction: When women are provided with equal rights and equal access to education, they go on to participate in business and economic activity. Increased earning power and income combat against current and future poverty through feeding, clothing and providing for entire families.

The sustainability and progress of Nigeria as a nation depend on the success of men and women in economic activities brought about by equal educational opportunity to both boys and girls. While addressing the United Nations General Assembly in 2012, President Obama observed: “The future must not belong to those who bully women. It must be shaped by girls who go to school and those who stand for a world where our daughters can live their dreams just like our sons” (Stepp, 2016). Women are to be recognized and given equal opportunity as the men in all aspects of life endeavors to enable them realize their full potentials.

As noted by Lawal (2016) education is a fundamental human right that should be availed to all citizens irrespective of age, sex and nationality. There are lots of human right instruments that provide for education as a fundamental right, including the Universal Declaration of Human Rights (1948) and the Child’s Rights Act of 2003 that prohibits child marriages and betrothals. In section 21 of the 1999 Constitution of the Federal Republic of Nigeria, any marriage contracted by anyone less than 18 years old is invalid. (Lawal 2016)

#### 4. Factors Affecting Girl-Child Education

In a study carried out by Kobani (2014) to determine the impact of girl-child education on community development, it was found among other things that the factors militating against Girl-Child Education were culture and poverty level of the people. The factors militating against educating the girl-child could be categorized into the following:

- (a) Political Factors: Failure of government to be sincere enough in honoring at the treaties and conventions it entered into with world organizations dealing with the protection of women and the girl-child, and provision of equal opportunity to education for men and women. Even when attempts are made by the political class to uphold some of these treaties there are no political will on the part of government to sustain such attempts.
- (b) Economic Factors: Often the economic realities of a household and the nation come down to making a decision of who should be sent to school first. The male child is always considered first. As observed by (UNICEF 2007) the female is either left at home to take care of younger siblings or sent off as house help to a distance relation or given out to an early marriage or sent out to hawk and make some money for the family.
- (c) Socio-cultural factors: In some cultures in Nigeria marrying young girls of school age is the norm. The girl-child is given out in marriage as a source of huge income earning avenue for the family. Other cultures have the belief that the woman place is in the kitchen. Parents of girls in such cultures find it difficult to send these young girls to school with the erroneous belief that the girls will ultimately get married and give birth to children and end their careers in the kitchen and all the investments made in training such females will be a waste of resources.

According to Omede (2016) certain cultural and traditional practices like female circumcision, early marriages lead not only to absenteeism and distraction, but also to eventual dropout of girls. Moreover he observed that ethnic and traditional values of some religions do not help matters, as they are often perceived with tremendous suspicions. Consequently gender discrepancy in education is sustained by these strong cultural factors.

Perceived Sexual Violence factors: most illiterate parents fear sending their female children to school with the perceived notion that their female children will be sexually harassed, molested and abused in the school by the male teachers and fellow male students. As noted by Obinaju (2014) in Omede (2016), curricular, textbooks and other materials are usually gender-biased. She opines that right from childhood, girls are channeled into stereotyped traditional carrier in form of textbooks illustrations and stories consequently leading to the development of poor self-image at a tender age.

Lawal (2016) noted that the enabling female education is crucial for national development; and the role of women cannot be underestimated. The general belief is that “when you educate a man, you educate one but when you educate a woman, you educate a nation.” This is so because the education of every child starts from the family and the mother is the first teacher. Educating the girl child produces mothers who are educated and who will in turn educate their children, care for their families and provide for their children. She concluded that educating the girl child translates to better health for the future generation, reduction in child morbidity and mortality thus triggering a snowball effect of achieving all other Sustainable Development Goals in a viable manner (Lawal, 2016).

#### 5. Concept of Research and Innovation

There is a growing awareness that research and innovation are central drivers of societal progress and change. Research therefore is to provide policy makers and society with independent research-based knowledge about funding, priorities and organization of research, development and innovation. Innovation is seen as the process of translating an idea or invention into good or service that creates a value or for which customers will pay. In business, innovation often results when ideas are applied by the company in order to further satisfy the needs and expectations of customers (Pettinger 2008).

According to OECD (2002) in Hommes & Mattes (2011) research and development activities comprise “creative work undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge of man, culture and society, and the use of this stock of knowledge to devise new applications.

The term research and development cover three activities:

**Basic Research** – which is experimental or theoretical work undertaken primarily to acquire new knowledge of underlying foundation of phenomena and observable facts, without any particular application or use in view.

**Applied Research** – this is also original investigation undertaken in order to acquire new knowledge. It is, however, directed primarily towards specific practical aim or objective.

**Experimental Development** – is systematic work, drawing on existing knowledge gained from research and/or practical experience that is directed to producing new materials, products or devices, to installing new processes, systems and services, or to improving substantially those already produced or installed.

As noted by OCED (2010) innovation goes beyond research and development. It is the implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organizational method in business practices, workplace organization or external relations. Innovation activities are all scientific, technological, organizational, financial and

commercial steps which lead to the implementation of innovations. Research and Development is the main requirement for innovations and the output of R&D is measured by patents and publications (Hommes & Mattes, 2011). The rate of innovation in any nation is determined by the “national innovation systems” (NIS) of the country. NIS provides a variety of resources to potential innovators and accordingly a country’s innovation capacity depends on the innovation system and on the nation’s social climate for innovation. Key areas of innovative capacity are Education, R&D, Networking, Financing, Implementation, Competition as well as Demand for innovation (DIW Berlin, 2009). The U.S. Agency for International Development (USAID) notes that Research and Innovation connect bright minds with in-country host organizations to collaboratively apply science, technology, and innovation to complex development challenges (USAID 2018).

Hekkert (2018) also noted that the mission of innovation studies is to understand and communicate the dynamics of emerging technologies and innovations that are relevant for societal problems such as climate change, non-sustainable energy provision, non-sustainable transport system or increasing cost of healthcare. Accordingly the basic starting point of every research is the acknowledgment that innovation is a collective act that involves a multitude of actors.

Nigeria has made attempts at establishing and formalizing an institute for industrial research - the Federal Institute of Industrial Research, Oshodi (FIIRO). However, as noted by Obuh, (2014) in Amanze, (2017) the Nigeria’s investment in Research and Development accounts for 0.01% of global expenditure. The Director of FIIRO lamented over the poor funding of research and development in the country. In a paper titled “Investment in research and Development: A panacea for Sustainable Job Creation in Nigeria” the Director stated that there are huge opportunities and possibilities for wealth and sustainable job creation if the government at every level will partner with the

private sector and universities in Research and Development/Innovation.

To make a meaningful impact in Science, technology, Engineering and Mathematics Otti (2017) suggested that government must create special education fund to support Research and innovation and make companies investments in Research and Innovation and Development tax deductible. Universities are encouraged to market their products – new inventions and discoveries - the way companies market their products. Universities are to market Research results and provide feasibility studies and run joint ventures with government and companies and engage government, analyze government policies, produce papers and host seminars, take position and challenge orthodoxy (Amanze, 2017).

Nigeria has produced vibrant and outstanding women, who against all odds, have excelled in their areas of endeavors and have contributed meaningfully to national development - Professor Alele Williams, Professor Rukaiyyatu Rufai, Mrs Farida Waziri, Chimamanda Ngozi Adichie, among many others (Lawal 2016). Unfortunately, the United Nations still report that the enabling environment for women to actually exhibit their potentials and contribute meaningfully to sustainable national development has been lacking despite widespread progress in improving the health, nutrition and education of children, the situation of girls continues to be disadvantaged compared to that of the boys in many parts of the world. The UN reports that parents still prefer to have a son to a daughter, girls are still being seen as less important to family and community life than boys; girls are not encouraged, as much as boys, to further their studies and develop their careers; many girls are still being raised in an environment of neglect, overwork and often abused simply because they are female; in some countries girls are fed less than their brothers, forced to work harder, provide less schooling, and denied equal access to medical care; girls are forced to marry early and face greater risk of dying in adolescence and early child hood because of early and closely spaced pregnancies (UN, 1995). In the light of the above listed

unfavorable conditions in which the girl-child finds herself, the UN Committee on the Rights of Women has therefore called on governments to pay special attention to laws, policies and programs for girls.

## 6. Sustainable Development

According to Brundtland (1987) sustainable development is the development that meets the needs of future generations to meet their own needs. Sustainability is also defined as meeting the needs of the present without compromising the ability of future generations to meet theirs. It has three main pillars: (1) economic, (2) environment and (3) social. These three pillars are informally referred to as - people, planet and profits (Beattie (2017).

Environment Pillar: deals with the impact of an organization on the environment. However it is not easy to capture all the impact an organization's operations have on the environment – the cost is not fully determined because of some “externalities” that are not being captured. Companies or organizations do not always concern themselves with calculating the impact of waste water, carbon-dioxide, land reclamation and waste in general on the environment. The impact of these factors is not actually calculated by companies because they are not the ones at the receiving end. Consequently, bench marking has become the norm to track and report the impact of these wastes on the environment (Beattie 2017).

The Social Pillar: Beattie (2017) also noted that the social pillar ties back into the concept of “social license”. A sustainable business must have the support and approval of its employees, stakeholders and the community it operates in. As much as there are many methods of achieving this, it all comes down to treating fairly and being a good neighbor and community member both locally and globally.

There are four means of fulfilling the social mandate – these include:

- Retention and engagement strategies of the organization

- Being more responsive to employees' benefits such as better maternity and paternity benefits
- Having flexible work schedules for employees
- Providing learning and development opportunities for workers

For community engagements the organization has to give back, including fund raising, sponsorship, scholarship and investment in local and public projects. On global social scale, an organization needs to be aware of how its supply chain is being filled for instance, is child labor going on into the end product? Are people being paid fairly? Is the work environment safe? (Beattie, 2017)

The Economic Pillar: of sustainability is where most organizations are doing well. To be sustainable, a business must be profitable. However, profit cannot negate the other two pillars. Activities that fit under the economic pillar include compliance, proper governance and risk management.

Organizations are provided with a larger purpose and some new deliverables for companies to strive for and help them renew their commitments to basic goals like efficiency, sustainable growth and shareholders' value, public goodwill and better reputation. Sustainability encompasses the entire supply chain of business, requiring accountability from primary level, through the suppliers all the way to the retailers.

Sustainable Development Goals (SDGs) – also known as the global goals are a universal call to action to end poverty, protect the planet and ensure that all people enjoy peace and posterity. The SDGs are an inclusive agenda (UNDP, 2016). There are 17 goals of Sustainable Development that are anchored on the success of the Millennium Development Goals. These are – (1) No poverty; (2) Zero hunger, (3) Good health and well-being; (4) Quality education, (5) Gender equality, (6) Clean water and sanitation, (7) Affordable and clean energy, (8) Decent work and economic growth, (9) Industry, innovation and infrastructure; (10) Reduced

inequality, (11) Sustainable cities and community; (12) Responsible consumption and production; (13) Climate Action, (14) Life below water, (15) Life on land; (16) Peace, justice and strong institution; and (17) Partnership for the goals.

According to the Earth Summit of 2002 in Melbourne Australia – called Melbourne Principles – four pillars of sustainability were developed: Cultural vibrancy, Economic prosperity, Environmental prosperity and Social justice: (Sustainableantigonish.ca, Four Pillars of Sustainability, 2002).

Quora (2016) provided 8 points on how to achieve SDGs –

- To eradicate extreme poverty and hunger
- To achieve universal primary education
- To promote gender equality
- To reduce child mortality
- To improve maternal health
- To combat HIV/AIDS, malaria and other diseases
- To ensure environmental sustainability
- To develop a global partnership for development

These are laudable programs for any nation to embark upon. The challenge has always been the sincerity and integrity of those charged with the responsibility of driving these projects. As noted by Omotola (2008), corruption and incompetence are the major factors that hinder the achievement of these SDGs in most African countries.

## **7. Girl-child and Sustainable National Development**

The education of the girl-child is very vital and cannot be over emphasized as it enables her to accomplish things that she cannot otherwise. Armed with the weapon of education, she learns and applies information, attitudes, values and skills previously unavailable to her. The education of the girl is, therefore, very necessary in view of the benefits that will accrue to her, her immediate family, her community and the larger society.

Women who attended school often have healthier families. These women are more likely to seek medical help from clinics or doctors because they can read. They can also read nutritional labels and provide their family meals that promote growth and lower health risks and hazards.

Education also teaches young ones the importance of keeping themselves and their households clean and safe, thereby look attractive to the occupants or the inhabitants. The United Nations Children's Emergency Fund (UNICEF) has helped and supported in revitalizing the education of girls in Nigeria through funding, raising awareness on girls' education via public awareness campaign, rallies and seminars, building schools' technical capacity to develop girl-friendly school environment and helping communities to sustain girls' education.

Girl-child education is a matter of concern for nations of the world. Annan (2001) noted that:

*"No development strategy is better than one that involves women as central players. It has immediate benefits for nutrition, health, savings and re-investment at the family, community and ultimately, country level. In order words, educating girls is a social development policy that works. It is a long-term investment that yields on exceptionally high return. Girl-children are discriminated against thereby making it difficult for them to exercise their rights; they are victims of various traditional/cultural practices, they suffer degradation, they are objects of poverty, their faces are only to be seen but their voices not to be heard, they are seen as being less valued than their male counterparts; they are the inferior set, their place is in the kitchen".*

The importance of educating the girl-child is further brought to the fore by Abacha (1997) when he stated his view to support the fact that development has to be participatory and sustainable.

He stated that: *"progress is only feasible if we create a Nigeria made up of a united people with a united purpose... our nation needs men and women who are bold, and imaginative, dedicated and committed, people who put honor, service and patriotism above everything else.*

*These men and women are not only needed in politics, they are also needed in business, in our traditional institutions, youth organizations, in academics and other professions".*

The indication from the above is that society should stop looking down on women. They are to be seen as first class citizens and not rated as second-class citizens. Educating the girl-child (who transforms later into a woman) will empower her to be strong and resourceful in such a way that she is able to contribute maximally to the sustenance and development of the society in which she lives. According to Alkali (2000), if all limiting barriers against women are removed, "women can lead, lead to the battle, if necessary, fight for her society and win for her people". Educating a girl child therefore will bring about self-awareness, increased self-assertiveness in the society, raising the consciousness of women to encourage their participation in national development (Awe, 1992). It is therefore important that particular and close attention be paid to the education of the girl-child. Finding the right solution to the issue of girl-child education will not only move the girl-child forward but pushes the nation to a greater height. The Instructional Manual on the Advancement of Nigerian Women and the Role of National and International Agencies (1996) states that to promote the advancement of Nigerian women, it is important that individuals, groups, community and government at all levels have a duty to take action in the following areas:

- Reducing the rate of poverty among women
- Making sure that girls and women have equal opportunities for training and education as boys and men
- Making sure that girls and women have adequate opportunities for proper health care.
- Preventing all kinds of violence against women and girls.

## 8. Conclusion

The contribution of the female child/woman to national development cannot be over-

emphasized. What is required is for the girl child to be educated in order to acquire knowledge and skills needed to advance her status for social interactions and self-improvement. Education will prepare her to face the realities in society and teach her to be a good wife and mother. When she is educated, she realizes the full potentials endowed in her; she discovers to be whoever and whatever she wants to be. With education, she would break the shell of ignorance and open that of self-discovery. It is only then that she can contribute meaningfully to national development. The strengthening of the Child's Rights Act and ensuring its implementation in all the states of the federation will help to checkmate the indiscriminate abuse of the girl child. When girls are not educated, they remain dependent on their parents before marriage, on their husbands after marriage, and on their children if eventually their husbands die. It is however expected that the situation with girls' education will improve, so that girls can feel like intelligent members of society and explore their potentials in contributing to their immediate society and the nation as a whole.

## 9. Recommendations

The following general recommendations are proposed as action plans to curb the imbalance between the male and female education in Nigeria, sub-African countries and communities so that women can discover their potentials and use them in bringing about sustainable national development:

- Re-enforcing the laws that protect the girl child: This includes laws that punish those who abuse girls, as well as laws that punish parents for not sending their daughters to school. Nigerian policy makers should seriously consider the issue of the girl child education in Nigeria in order to ensure a better future for the whole country.
- Encouraging parents to send their daughters to school: In addition to punitive measures, parents need to be encouraged to provide education for their girl children. It means providing

more affordable or even free education for those who struggle financially.

- Providing better healthcare for girls: Girls need to have better access to information about their health, especially their reproductive health. Additionally, they need better healthcare that focuses more on the specifics of the female human body. All of this will help to reduce teenage pregnancy rates, improve the girls' general health and, subsequently, encourage girls to seek education.
- Offering various opportunities for female school dropouts: Even if girls have to leave school prematurely, they should be offered alternative opportunities to finish their education. This might take form of evening schools, online courses or extramural education.
- Moving away from the traditional view on women's role towards gender equality: More women need to speak up on the importance of girl child education. Girls should not feel lesser because of their gender. Their achievements have to be celebrated as much as boys' are.
- Employing more female teachers: When girls have someone to look up to, they will be encouraged to work harder and achieve more. They will see a positive example of the transformation that education can make in their lives. It is expected that these recommendations will assist in fostering an environment that will encourage the education of the girl-child for sustainable national development.

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