



UNLOCKING THE DELIMMA OF ENVIRONMENTAL SUSTAINABILITY AND POVERTY IN NIGERIA: A CASE STUDY OF BAYELSA STATE

WARRI, TARE-EBI

Abstract

The Rio Declaration of 1992 and the subsequent adoption of the Sustainable Development Goals (SDGs) in 2015 by the global community brought to the fore the importance of preserving the environment for the sustenance of human and natural life. While appreciating the nexus between the environment and poverty, it is observed that the poor populace through their daily practices destroy the environment which further contributes to the perpetuation of poverty in the society. Unfortunately, the poor are unaware of the consequences of their activities. This paper therefore investigates the relationship between environmental sustainability and poverty eradication within the context of the lack of basic knowledge of environmental sustenance among the poor with a view to providing avenues to solve the problem. The paper adopts the focus group research design and data was generated from both primary and secondary sources, while causal analysis served as the technique for the examination of data in the research. The study further deploys problem solving as a complementary approach for data analysis in view of its interest in addressing the environment-poverty quagmire. The research uses the environmental citizenship theory in explaining the place of education in the relationship between the environment and poverty. It is recommended among others that education can serve as a key factor to resolving the dilemma of environmental sustainability and poverty in Nigeria.

Background to the Study

The world today is at crossroads in addressing the twin challenges of achieving a sustainable environment and concurrently eradicating poverty. This assertion is premised on the inescapable nexus between environmental sustainability and poverty in view of the primacy the global community places on the eradication of poverty as the number one goal of the Sustainable Development Goals (SDGs).

The alleviation of poverty and environmental sustainability are two basic issues that guarantee the achievement of sustainable development (Muhammad, 2020), as failure to resolve both problems adequately will hinder the realization of the SDGs. The dilemma of environmental sustainability and poverty eradication is hinged on the thinking that the two factors are mutually inclusive and

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reinforcing to the extent that the degradation of the environment causes and sustains poverty. On the other way around, poor people significantly depend on the environment for their daily survival and their activities contribute largely to environmental degradation.

It is important to state that while the environment serves as a means of livelihood for the poor, the untamed harnessing of the environment causes its degradation (Ryan, Berry & Joshi, 2014; Chidumaya & Gumbo, 2013; Hosunuma etal, 2012; Luoga, Witkowski & Kelvin, 2002;). It is in view of the interconnectivity between the environment and poverty that this research is focused on the need to unravel a practical key to unlock the delimma of achieving both sustainable environment and the eradication or at least a significant reduction of poverty in Nigeria, using Bayelsa State as a case study.

The eradication of poverty remains one of the major needs of the world which is an indispensable prerequisite for the attainment of the SDGs (Qamar, Jie, Xuan & Di Xioo, 2020). These global targets otherwise known as Agenda 2030, can only be meaningfully achieved if the environment is deliberately protected and sustained. The issues of environmental sustainability and poverty eradication must be addressed simultaneously to avoid the gains of solving one and the other being negatively affected by the associated problems of the other. There are no established analyses that provide fundamental trade-offs between poverty eradication and attaining environmental sustainability as the strong synergies and inter-linkages among both goals cannot be over-emphasized. Consequently, a comprehensive approach is necessary to manoeuvre the dilemma of environmental sustainability and poverty eradication in Nigeria, with particular emphasis on the behavior and practices of poor people in rural areas, who have been discovered to be highly uneducated and uninformed, thereby creating a more complicated scenario of the issue under review.

In the light of the above, the following research questions and hypotheses are formulated to guide this paper: Are poor people aware that their practices destroy the environment and sustain poverty? Is there a relationship between environmental sustainability and poverty eradication? Is education



a major key to resolving the dilemma of environmental sustainability and poverty eradication? It is hypothesized in this research that: poor people are not aware that their practices destroy the environment and increase poverty; there is a relationship between environmental sustainability and poverty eradication; education is a major key to unlocking the dilemma of environmental sustainability and poverty eradication.

The rate of poverty in Nigeria is alarming and poor people depend on the environment daily for survival. Unknown to them, their activities on the environment for the purpose of meeting the basic needs of life are causing severe environmental degradation, which further contributes to the sustenance of poverty (Edward & Jacob, 2016; Hammad & Tumeizi, 2010). The relationship between environmental sustainability and poverty has attracted enormous attention in the extant literature. However, providing practical solutions aimed at solving holistically the linked problem of both issues, especially in view of the high level of illiteracy and ignorance among poor people in Nigeria generally, and Bayelsa State in particular has not being adequately addressed in related literature.

Hence, this research is interested in filling the aforementioned gap. The major thrust of this paper is directed at creating awareness and instilling basic knowledge as well as skills in poor people for the protection of the environment through the instrumentality of education, such that, while the environment is exploited and harnessed by man to escape from poverty, it must be done in a way that the environment is replenished and sustained to avoid degradation which is a major factor that causes and promotes the poverty circle.

Arising from the above, the broad objective of this research is geared towards unlocking the dilemma of environmental sustainability and poverty in Nigeria, with a focus on Bayelsa state. The specific objectives of this paper are stated as follows: to create awareness among poor people that their practices degrade the environment and sustain poverty; to establish the nexus between environmental sustainability and poverty eradication; to expose education as a practical key to unlocking the dilemma of environmental sustainability and poverty eradication. It is submitted that





while the environment serves as a major source on which poor people depend to meet their basic needs in an attempt to avoid the excruciating effects of poverty, it is an indispensable factor to create awareness and built necessary knowledge of environmental preservation skills and practices in people so as to strike a balance between achieving a sustainable environment and the eradication of poverty (Sarah, Stamatios, Michael & Louis, 2017; UNDP-UNEP, 2009; Muhammad, 2020). Poverty is capable of forcing people to deplete environmental resources (Abu & Tumeizi, 2012), leading to the degradation of natural resources on which poor people largely depend on for meeting their daily needs (Hengsdijk et al, 2007). Reversely, the degradation of the environment is a major contributory factor to the sustenance of poverty (Xin Cheng et al, 2018).

It is asserted in existing studies that environmental degradation is a major cause of poverty and hunger globally (Dasgupta, Deichmann, Meisner & Wheeler, 2005; Daba, 2003). Consequently, the eradication of hunger and poverty attracted a primary attention of the international community in its drive towards the attainment of sustainable development (Wenjing et al, 2020). It is observed that many poor people are not aware of the negative effects of their regular activities on the sustainability of the environment, hence contributing to their unending poverty status. The mutual linkage between environmental sustainability and poverty reduction as a prerequisite for the realization of the SDGs reinforces the indispensability of devising a practical solution in addressing this state of confusion. It is imperative to emphasize that the attainment of environmental sustainability and poverty reduction concurrently is a puzzle the world is battling with. Therefore, the identification of a key in unlocking the dilemma of environmental sustainability and poverty becomes urgently and extremely necessary in the context of the high rate of poverty and the lack of Knowledge for the preservation of the environment among the poor population in Nigeria generally and Bayelsa State in particular.

This article adopts the focus group research design which provides avenues for selected individuals and groups representatives of a larger population to generate data and illicit information through interaction (Jennifer, 2015). The focus group research design enables a target population to express their perceptions, opinions, beliefs and attitudes about a particular topic of interest. The reliance



on focus group in this paper is justifiable on the ground that poor people who rely on the environment for survival are largely ignorant of the destructive effects of their practices on the sustainability of the environment and they form the base population of this study. It is a qualitative research where data are generated basically from secondary sources such as textbooks, journal articles, the internet, etc. Causal analysis is deployed which explains the relationship between variables in a research. The use of causal analysis for the interpretation of data in the paper is premised on the linkage between environmental sustainability and poverty as the research is interested in unlocking the dilemma of these inter-related problems in the society. The problem solving approach is also used in the analysis of data as the research is further directed at resolving the twin challenges of environmental sustainability and poverty eradication.

Theoretical Framework

Theories are formulated to predict, explain and promote the understanding of any phenomena, and they also contribute to the expansion of the frontiers of existing knowledge (Elijah, 2017). Theoretical framework is an essential attribute of social science research. Hence, the study adopts the environmental citizenship theory. It is a truism that the prosperity of the global economy and people are inextricably tied to the wellbeing and sustainability of the environment (Elijah, 2017). Having an environmentally responsible citizenry is a prerequisite for the eradication of poverty and the actualization of a sustainable environment, which is the main postulation of the environmental citizenship theory.

The environmental citizenship theory was initially propounded by Hungerford, H. and Volk, T. in 1990 (Elijah, 2017). The main postulation of the theory is centred around the creation of pro-environmental behaviours, skills, attitudes and knowledge among citizens who are personally committed to the preservation of the environment. The environmental citizenship approach provides learning opportunities that could lead to a more sustainable world and a society with the transformation of shared beliefs, values, attitudes, knowledge and behavior of individuals who consider themselves as integral part of a global community (Barry, 2006). Elijah (2017) noted that this theory is extremely vital because it has the potential of creating a citizenry that will feel the environment and be internally motivated to the extent of acquiring skills and attitudes, and



exhibiting same for the sustainability in the environment. The environmental citizenship theory is applied in this research because of its relevance in explaining the link between citizens behavior as it relates to environmental sustainability and poverty eradication and as a model that can be used to solve the poverty environment dilemma in Nigeria.

Environmental Sustainability in Perspective

The importance of deliberately preserving the environment for the purpose of achieving sustainable development cannot be over-emphasized. This imperative can be seen in the Rio Declaration of 1992, otherwise known as the Earth Summit and the primacy placed on the need to protect the environment by the global community through the adoption of the Sustainable Development Goals (SDGs) that were articulated in 2015. The steady decrease in the productive capacity of the environment as a result of loss of soil quality, loss of biodiversity and the depletion of water quality has been acknowledged (Donald, Martin & Christina, 2019). An assessment of the world land resources by the United Nations Food and Agriculture Organization indicated that about 33% of land has been degraded (Food and Agriculture Organization of the UN, 2011). The major contributors to this large-scale degradation of the environment are poor crop and soil management systems, deforestation and over-exploitation of the earth (Donald et al, 2019).

The practices of poor people to meet their basic needs of life contribute significantly to the degradation of the environment, which in turn sustains poverty. The 1987 Brundtland report re-echoed the importance of achieving sustainable development which is defined as the world's strategy to meet its present needs without compromising on the future generations to meet their own needs (Brett et al 2020;). The 2015 SDGs and the Paris Agreement of December 2015, further explain the imperative of pursuing sustainable development (UN, 2015).

The global drive towards the actualization of sustainable environment is a pointer to the reality that poverty is likely to be sustained and continue to re-circle if the world despises conscious efforts aimed at the proper replenishment of the earth, while it is being harnessed to meet the needs of man presently and in the future.





An Overview of Poverty in Nigeria

While this paper is interested in resolving the twin problems of achieving environmental sustainability and the eradication of poverty, it is imperative to present a summary of the poverty rate in Nigeria, as the country is being described as the world’s poverty capital, with 93.9 million people out of an estimated population of 200 million living below the poverty line (Peter, 2021). This points a gloomy picture of the alarming rate of poverty in Nigeria.

Very recent data (2021) released by the World Bank indicate that out of the over 7 billion total world population, global poverty rate increased slightly from 9.2% (689 people) to 9.3% (696 people) in 2020 and 2021 respectively (Andres, Tony, Christoph, Daniel, Minh, Marta & Martha, 2021). The steady reduction in the global poverty rate for over 20 years was adversely affected by the covid-19 pandemic, which pushed an estimated 71 million people into extreme poverty in 2020 (UN, 2020), with the total number estimated to increase to about 150 million by the end of 2021 (World Bank, 2021). The World Bank defined poor people (poverty) as those living on or less than \$1.90 a day.

Specifically, in Nigeria, the rate of poverty is paradoxically very high as close to half of the country’s population live below the official national poverty line, which is measured at N137,430 per annum. Prior to the covid-19 pandemic, the number of poor people in Nigeria increased by two million, which was attributed largely to population growth, and the covid-19 pandemic increased the number of poor Nigerians by seven million as the rate of poverty rose from 40.1% (82.9 million people) which is 4 out of 10 adults in 2019 to about 42.5% in 2020 (NBS, 2020; Oludayo, 2020), with the poverty rate increasing to 93.9 million in 2021 according to the most recent report of the World Bank as earlier stated.

It is imperative to note that, poor people which account for almost half of Nigeria’s total population depend on the environment daily for survival, and reversely, their lack basic knowledge for the preservation of the environment and the consequences of their activities on the present and future state of poverty in the country generally and their individual lives in particular cannot be overlooked.





The poverty-environment situation in Bayelsa State is not significantly different from what is obtainable in the Nigerian setting generally. According the NBS (2020), the rate of poverty in Bayelsa State is 22.61%, this figure indicates that poverty rate in Bayelsa State is lower than the national data. However, it is conspicuous that poverty is alarming in Bayelsa State, such as it is in Nigeria, the poor people in the state depend on the environment daily to meet their basic needs, carrying out activities that are highly destructive to environmental resources, with far reaching implications for the recycling of poverty in the society.

The Nexus between Environmental Sustainability and Poverty Eradication

Achieving a sustainable environment and the eradication of poverty are intrinsically interwoven to the extent of the mutual inclusivity of both variables. Sulan, Charlotte and Manasa (2020), rightly asserted that poverty and environmental issues are inseparable, rather, they are interconnected in a web that could be described as complex in the form of human and environment relationship. Using the environment recklessly causes and sustains poverty. Thus, the environment needs proper management, such that while the environment is being harnessed by man to meet the basic needs of life, it is extremely imperative to replenish it with a better approach for the eradication of poverty now and in the future. The degradation of the environment is a major factor responsible for the exacerbation of poverty as it negatively affects people's livelihoods, income and health (Kassa, Teferi & Delelegn, 2018).

Poor people are paradoxically affected most by an increasingly deteriorating environment (Uitto, 2016), making it very difficult for them to come out of the poverty circle. The poverty and environment relationship have taken a multi-dimensional perspective due to the complexity of inter-connectivity discovered in the two factors such that a sustainable environment is a pre-requisite for poverty eradication and vice-versa. The world today is facing very difficult challenges bordering on the eradication of poverty and closing the widening gap of inequality between and within countries, as environmental degradation and climate change are contending issues threatening the sustainability of the environment that human beings depend on to meet their livelihoods (Uitto, 2016).





The close linkage between environmental sustainability and poverty reduction significantly informed the United Nations Organization (UNO), under the mutual co-ordination of the United National Development Programme (UNDP)-United Nations Environment Programme (UNEP) to implement the Poverty – Environment Initiative (PEI) aimed at addressing the twin challenges in developing countries across the world. This particular initiative of the UNO largely reflects the Poverty-Environment Nexus (PEN). The quality of the environment, directly or indirectly determines the economic prosperity of the people, especially, the poor population (Sara, Stamatios, Michael & Louis, 2017). Poor people depend largely on environmental resources such as water, forest, land, biodiversity and energy as means of generating income, the production of food and meeting their security as well as health needs, yet conversely, the poor are mostly predisposed and are usually the first victims of a degraded environment (UNDP-UNEP, 2009). Poor people are exposed to the fragility of the environment, and in some instances, they lack the needed inputs and knowledge to manage the environment sustainably, yet, they are pushed to use environmental resources in an unsustainable manner (Sara et’al, 2017). The acquisition of basic knowledge about the environment and its proper management is a necessary condition for the eradication of poverty in the society.

Kassa, Teferi and Delelegn (2018), succinctly posited that “poverty worsens environmental degradation by leaving the poor with no alternatives rather than degrading their environment to meet their present needs at the expense of future benefits”. Conversely, the unsustainable use of the environment contributes greatly to the sustenance of poverty as it causes the depletion of peoples’ income, the diminishing of means of livelihood and poses serious health challenges for vulnerable groups. This scenario presents a dilemma of achieving environmental sustainability and the eradication of poverty simultaneously.

A Discourse on the Dilemma of Environmental Sustainability and Poverty Eradication

Existing literature has established a close relationship between environmental sustainability and poverty reduction as posited above. However, there is no unanimity among scholars on the possibility or otherwise of achieving a sustainable environment and the eradication of poverty at





the same time. Dan, Barney, Jo, Jon, Dilys, Bhaskar, William, Ros & William (2004), noted that, environmental degradation and increase in poverty are linked problems, but adopting an integrated approach to solve both challenges has been elusive. Environmental scientists, policy experts, political leaders and poor people alike face a real dilemma. Authors such as Terborgh(1999), Oates (1999), and Adam (2001), are skeptical about the possibility of concurrently achieving a sustainable environment and poverty reduction as the realization of one goal may lead to a loss for the other.

There is however, a strong body of arguments which maintains that the elimination of poverty and environmental protection can occur simultaneously (William et'al, 2004). Continuing the debate, it was further asserted that poverty and environmental conservation are separate policy realms; poverty is a critical constraint on environment preservation; conservation of the environment should not compromise poverty eradication; and poverty reduction depends on living resources conservation (William, et'al 2004). The above assertions are critical to the thinking that the world is at a cross-road in its quest to solve the challenges of environmental degradation and poverty eradication. The logicity of this submission is hinged on the fact that poor people are primarily concerned about meeting their basic needs of food, clothing and shelter which they manage to afford by exploring environmental resources without considering any damage caused to the environment.

WCED (1987), while popularizing the sustainable development notion, posited that poor people all over the world are pushed to use the environment without mitigating it for their daily survival, and the degradation of the environment further contributes and even worsens their state of impoverishment, making it difficult for them to come out of the poverty trap. The poverty eradication and environmental sustainability ideas have recorded a renewed vigour following the rise of the concept of sustainable development in the late 1980s (Lele, 1991). The Rio Declaration of 1992 and the adoption of the SDGs by the international community in 2015 promoted the necessity to concurrently pursue environmental sustainability and poverty eradication which has become a dilemma as the commitment to achieve one causes backward trend in the other, especially in places such as Bayelsa State in particular and Nigeria generally where the rate of





poverty is very high and basic knowledge of environmental management among the people very low. “Can education come to the rescue”? All round education, encompassing formal, informal and non-formal education of poor people is believed to be a major factor that is capable of unlocking the dilemma of environmental sustainability and poverty eradication in Nigeria.

Education as a Factor to Unlocking the Dilemma

Education in this context is considered from the general perspective of a process and activity of consciously instilling in people knowledge, values, skills, attitudes and behaviours necessary for the proper use of environmental resources geared toward the attainment of a sustainable environment and poverty eradication concurrently. In this regard, education is broadly conceived to include; formal education; informal education and non-formal education. It is about helping people, especially the impoverished populace to attain and utilize environmental friendly capabilities for solving the poverty-environment challenges. Abubaka (2013) ,considered education in its totality as an important tool for solving virtually all problems in the world.

The world recognizes education as an indispensable factor for resolving unsustainable practices that have caused environmental degradation, leading to overstressing the earth beyond planetary boundaries. Consequently, goal 13.3 of the 17 Sustainable Development Goals (SDGs) seeks to improve education towards climate change mitigation, adaptation, reduction of impact and early warning, while goal 4.7 is aimed at ensuring that all learners acquire knowledge and skills necessary for the attainment of sustainable development (UN, 2015). Education is urgently needed to foster deliberate and committed actions that people can adopt in finding solutions to the issue of environmental sustainability (seatter, 2011).

Education for Environmental Sustainability (EES) within the framework of citizenship education (Maria & Bassel, 2021) is considered as an approach that can address the dilemma of achieving sustainable environment and poverty eradication.

The imperative for people to support collective as well as individual commitments to the proper use of natural resources for the benefit of present and future generations has been posited in





ecological and environmental citizenship discourse (Dobson & Bell, 2006; Curtin, 2002; and Smith, 1998). The point to note here is the need for government to show the political will and deploy all machineries, agencies and appropriate personnel to carry out education and awareness programmes among poor people, with particular attention to rural dwellers, whose routine activities have been discovered to be inimical to environmental sustainability, hence, contribute to and sustain poverty.

Education is a major factor for the eradication of poverty (Fenggin & Wasim, 2021). Creating awareness and imparting appropriate knowledge, values, skills, competencies and attitudes in poor people will significantly equip them to adopt environmentally friendly practices for the actualization of a sustainable environment and the simultaneous reductions of poverty. The individual should be at the centre of this approach, with the involvement of community leadership structures as means of communication. The emphasis is on bottom-up approach, with the government playing a coordinating role. It is about encouraging grass-root participation, where the poor people are directly involved in trainings centred on the harmful effects of their activities on the environment and instilling in them the needed knowledge for them to use environmental resources sustainably, which will translate to the eradication of poverty. Government at all levels, non-governmental organizations, religious bodies, families, co-operative societies, international organizations, cooperate bodies and particularly the poor people must collaborate in this regard so that the dilemma of environmental sustainability and poverty eradication can be resolved at the same time.

Education for all Global Monitoring Report (EFA, 2013) states that education is not only a factor that helps people to move away from poverty by imparting appropriate knowledge and creating skills needed to improve livelihoods, it also enables them to generate productivity gains which propel and promote economic growth. Exposing people (including the poor) to environmental sustainability education is capable of contributing positively to economic growth and the eradication of poverty (Josephine, Enock & Eluid, 2020). It has been observed through focus group interviews that; most poor people are not aware of the huge environmental damages their practices contribute to bio-resources depletion. Daily activities such as tilling of soil, bush burning,





deforestation, mono-cultural production, usage of chemicals (pesticide, herbicides, fungicides and fertilizers in crop production) and fish farming highly degrade the environment and very destructive to human health.

Conclusion

Following the Brundland Commission Report of 1987, the Rio Declaration of 1992 and the global adoption of the millennium Development Goals (MDGs) in 2000 and the Sustainable Development Goals (SDGs) in 2015 respectively, the international quest to simultaneously achieve a sustainable environment and poverty eradication has been elusive (William eta'l, 2014), which is described in this paper as a dilemma. The literature argues both for and against the possibility of attaining environmental sustainability and poverty reduction together (WCED 1987, Lele, 1991; Terborgh, 1999; Oates, 1999; and Adam, 2001).

In Nigeria generally and Bayelsa State in particular, there is high rate of poverty (NBS, 2020) and a corresponding very low level of knowledge about education for sustainable development (ESD). Consequently, the lack of knowledge for the proper management of the environment and the continuous depletion of ecological resources cause and sustain environmental degradation and poverty. However, poor people must continue to struggle for survival and the environment serves as their major source of livelihood and income in meeting the basic needs of life. It therefore becomes imperative to create awareness and inculcate in poor people the necessary knowledge through education to harness the environment sustainably which can lead to the achievement of both environmental perseverance and the eradication or at least the reduction of poverty in the present and future generations.

It is important to re-emphasize that impoverished people are largely ignorant of the fact that their poverty status is partly caused and sustained by their own routine activities. Poor people are the closest to the environment and their agricultural practices contribute to the degradation of the environment. Thus, education is seen as a major factor, with the needed political will and commitment of all critical stakeholders, it is capable of unlocking the dilemma of environmental sustainability and poverty eradication in Nigeria.





Recommendations

In view of the discourse posited in this paper as it relates to the dilemma of environmental sustainability and poverty eradication in Nigeria, using Bayelsa State as a case study, the main objective is to expose and adopt education in practical terms in creating awareness among poor people and inculcating in them necessary knowledge to use the environment sustainably to solve the twin challenges of environmental sustainability and poverty eradication. Conclusively, the following recommendations are proffered arising from the findings in this research:

- i. Poor people should be adequately educated to adopt environment friendly practices while exploring natural resources to meet their basic needs of life.
- ii. Government at all levels should display the political will by engineering and deploying all necessary institutions, agencies and personnel in collaboration with other critical stakeholders to educate poor people about the indispensability of simultaneously achieving environmental sustainability and poverty eradication.
- iii. Having a established the dilemma of environmental sustainability and poverty eradication, education has been identified as a major factor in resolving the puzzle. Consequently, all round education should form the basis for tackling and addressing the interwoven challenges of attaining a sustainable environment and the eradication of poverty together with the thinking that the poor must survive, and neglecting them in the quest to achieve sustainable development will most likely make efforts in this direction elusive.

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Author's Profile

Mr. Warri Tare-Ebi was born on 25th June, 1985 in Isampou Town, Ekeremor Local Government Area of Bayelsa, Nigeria. He attended Community Primary School, Isampou (1990-1996) and Community Secondary School, Isampou (1996-2002), and obtained the First School Leaving Certificate and the Senior Secondary School Certificate respectfully. Studied Political Science and Public Administration in the University of Benin, Benin City (2005-2009) and obtained a Bachelor of Science (Education) Degree, with Second Class Honours (Upper Division). Participated in the mandatory NYSC service, in Imo State (2010-2011). He later proceeded to the University of Benin for a postgraduate study and possessed Masters of Science (M.Sc.) Degree in Comparative Politics and Development Studies (2012-2014). Currently studying for a Ph.D degree in the field of Development Studies in the Department of Political Science, Niger Delta University, Bayelsa State, Nigeria.

