



### ABSTRACT

*The insecurity challenge in Nigeria has assumed a formidable dimension that not only requires a multi-stakeholder approach, as it is being touted in various quarters, in quelling this conflagration threatening Nigeria's statehood, but also necessitates a*

# A CASE FOR SCIENCE EDUCATION IN MITIGATING INSECURITY IN NIGERIA

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### INTRODUCTION

Lately, Nigeria has been enmeshed in a firebox of insecurity leading to scores of deaths of innocent civilians, foreigners, some members of the nation's security personnel, elected officials and many government workers. The insecurity challenge has assumed formidable dimensions forcing the country's political and economic managers and, indeed the entire nation, to rue the loss of their loved ones, investments and absence of safety in most parts of the country. The number of violent crimes such as kidnappings, ritual, killings, carjacking, suicide bombings, religious killings,



*revival and reinforcement of Ethics of Science Education and virtues. In addition, the democratic system in place must begin to deliver the needed social goods so as to improve the standard of living of Nigerians and deliver many citizens from the state of absolute poverty to which they have been subjected for a long while. The thirst for blood and the preference for violence in expressing pent-up frustration and disenchantment with the state, its citizens and national totems may be a pointer to the need to inculcate science education as core in all human endeavor, particularly to revive the moral sanctity, values and virtues within the socioeconomic, political, religious and that science education should be entrenched in the school curriculum and made compulsory from the basic education level in Nigeria.*

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politically-motivated killing and violence, ethnic clashes, armed banditry and others has increasingly become the regular signature that characterizes life in Nigeria since 2009 (Imhonopi & Urim, 2012). Government has tried everything from “force-for-force” to carrot-and-stick approach to diplomacy but the problem seems to rise with greater monstrosity like the proverbial phoenix. There has also been strong advocacy for a multistake holder intervention to the insecurity question rather than lean on military options alone (Imhonopi & Urim, 2013; Open Society, 2012; Ujomu, 2001), but the problem has defied the present medication it is getting. This may not be unconnected with the increasing ethnic hate, religious bigotry, political rivalry and a growing population of disgruntled citizens in the country who feel that they have been short-changed and given very limited or no access to the



common patrimony. Egwu (2001) had made this observation when he argued that the primordial tendencies of various ethnic groups towards violence, the perennial eruption of various ethnic militias and the preponderant religious fundamentalism in place, given expression to by some sections of the dominant religious establishments in Nigeria, have inevitably aggravated the scale and propensity of insecurity and widened its scope in various ramifications. Not only has the continued state of insecurity threatened the very fabric of national integration in the country and created the ecology of fear, disquiet and anxiety, it has also meted a deadly blow or what Imhonopi & Urim (2012) call “spectral bite” to industrial development. The destruction of the badly needed infrastructure has taken the country many years backwards. The government has continued to trudge on in the face of this daring challenge and has continued to evolve strategies to contain or douse this conflagration. Meanwhile, academic writers, social researchers, scholars, security experts and consultants have also not rested in making diverse recommendations and probable solutions to address this national blight. In this paper, focus is on examining the contributions moral values and virtues can make in tackling insecurity in Nigeria. This study is helped by the groundbreaking scholarly work of Ujomu (2001) where he argued that examining the moral foundations of national security was all the more significant because the trend of events in the history of military and economic growth in Nigeria especially under the erstwhile military regimes of Babangida and Abacha, pointed to a familiar pattern of ethical degeneration and moral depravity which led to the systematic and institutionalized erosion of personal and collective peace, safety, stability and harmony within the Nigerian society. Close to this, the need for an examination of the ethical basis of the problematic social relations in Nigeria was accentuated by former President Obasanjo in his October 1999



National Day speech, where he drew the attention of an anxious nation to the need to regenerate the moral foundations of all actions and to continue to search for the conditions that would make Nigeria a just, free and wealthy society (Obasanjo, 1999). His statement revealed that Nigeria was yet to achieve the much desired ethical conduct requisite for sound social relations which could guarantee the maintenance of security, peace and order in the country (Ujomu, 2001). This paper therefore seeks to widen this conversation by investigating the role a reawakening of moral values and virtues in the country can play in subduing the monstrosity of insecurity in the country.

### **Insecurity Define**

To ably define insecurity, it is pertinent to have a brief discussion on what security is. The first duty of a government is to keep its citizens safe because like Hobbes observed, only the state has the wherewithal to guarantee security and save society from anarchy (and since government represents the state), the state through its government should provide adequate security to justify its *raison d'être* (Gaskin, 1996). In this wise, Omede (2012) sees security as a dynamic condition which involves the relative ability of a state to counter threats to its core values and interests. McGrew (1988) holds that the security of a nation hangs on two important pillars which are (1) the maintenance and protection of the socioeconomic order in the face of internal and external threat and (2) the promotion of a preferred international order, which minimizes the threat to core values and interests, as well as to the domestic order. For Nwolise (2006), security is an all-encompassing condition which suggests that a territory must be secured by a network of armed forces; that the sovereignty of the state must be guaranteed by a democratic and patriotic government,



which in turn must be protected by the military, police and the people themselves; that the people must not only be secured from external attacks but also from devastating consequences of internal upheavals such as unemployment, hunger, starvation, diseases, ignorance, homelessness, environmental degradation and pollution cum socio-economic injustices. Citing Rothschild, Nwagboso (2012) argues that in the long sweep of history, security has been about people and without reference to the security of the individual, security makes no sense at all (Mc Sweeney, 1999). Dike (2010) and Omede (2012) have taken this argument a step further by emphasizing that Nigeria's security should be based on a holistic view which sees the citizens as the primary beneficiaries of every security and developmental deliverable that the state can offer. Thus, Nigeria's security will involve efforts to strengthen the capacity of the Federal Republic of Nigeria so it can advance its interests and objectives to contain internal and external aggression, control crime, eliminate corruption, enhance genuine development, progress and growth and improve the welfare and quality of life of every citizen. As Omede (2012) pontificates further, the nation's security should include the preservation of the safety of Nigerians at home and abroad and the protection of the country's sovereignty. Conversely, insecurity is the antithesis of security and has attracted such common descriptors as want of safety, danger, hazard, uncertainty, want of confidence, state of doubt, inadequately guarded or protected, instability, trouble, lack of protection and being unsafe, and others (Achumba, Ighomereho & Akpor-Robaro, 2013). Achumba et al argue further that these common descriptors point to a condition where there exists a vulnerability to harm, loss of life, property or livelihood. Therefore, they consider insecurity to be a state of not knowing, a lack of control, and the inability to take defensive action against forces that portend harm or danger to an individual or group,



or that make them vulnerable. For Beland (2005), insecurity is “the state of fear or anxiety stemming from a concrete or alleged lack of protection.” It refers to lack or inadequate freedom from danger. This definition reflects physical insecurity which is the most visible form of insecurity, and it feeds into many other forms of insecurity such as economic security and social security. In this paper, insecurity is conceived as a situation where human and national security of a state is compromised by internal or external forces or interests exacerbated by the former’s weak or poor economic, military and/or human resource development conditions.

### **The Impact of Attacks on Education for Nigerian Women and Girl Child**

The Government of Nigeria has been embroiled since 2009 in an armed conflict with the Islamist insurgency group Jama’atu Ahlis Sunna Lidda’Awati Wal-Jihad, popularly known as Boko Haram. Boko Haram has committed serious acts of violence. It has killed an estimated 20,000 and displaced over 2.2 million in the wider Lake Chad region.

Thousands of girls and young women have been abducted, including from their schools. Boko Haram has also abducted boys and men and forced many to become fighters. Many have never returned from captivity. Those who have returned report suffering abuse. Although the security situation has gradually improved since the peak of the conflict in 2013-15, Boko Haram continues to carry out attacks causing serious loss of life, including increasingly by using child and female suicide bombers. The group reportedly caused 967 fatalities in 2017, a six percent increase over the previous year.

A key component of Boko Haram’s ideology is hostility toward secular education, and it has gained notoriety for its repeated



attacks on schools and universities, as well as teachers, administrators, and students, wreaking havoc on an already fragile education system. Boko Haram has killed an estimated 2,295 teachers, and over 19,000 teachers have been displaced by the conflict. The United Nations Children's Fund (UNICEF) estimates that more than 1,400 schools have been destroyed, damaged, or looted primarily in the northeast, and more than 600,000 children have lost access to education.

In addition to attacking education generally, Boko Haram has targeted female students. What is more, the impact of attacks on education on women and girls is often different from that on boys and men. For these reasons, this paper is examining the specific impact on females. Boko Haram gained international notoriety in 2014, when it abducted 276 girls from their school in the town of Chibok. Four years later, more than 100 of the "Chibok girls" remain in captivity. Chibok is, unfortunately, only one such case. GCPEA estimates that approximately 600 women and girls have been abducted from their schools. Some of these women and girls reported that Boko Haram had forced them to convert to Islam and subjected them to forced "marriage," and other forms of sexual and gender-based violence (SGBV). Others reported being held in prison-like conditions, where they were repeatedly raped. Some ultimately became pregnant as a result of rape. Some victims, especially those who refused to convert to Islam or "marry" a fighter, also reported being forced to work long hours for the wives and families of insurgents and being threatened and beaten when they were too exhausted to continue. Some girls and women were forced to participate in or aid Boko Haram attacks.

It also appears that Boko Haram has used abducted girls as suicide bombers. The United Nations (UN) reported that during 2017, "115



children – 38 boys and 77 girls – had been used as human bombs. That number was six times higher than in 2016.”

Although difficult to verify, those knowledgeable about the Boko Haram insurgency and Nigeria’s counterterrorism efforts believe that many of its child suicide bombers were abducted.

Although the security situation has improved significantly since the peak of the conflict, and the government has repeatedly claimed that it has defeated Boko Haram, the group continues to carry out attacks, including attacks on schools and abductions. As this report was being drafted, Boko Haram abducted 111 girls from the Government Girls Science and Technical College in Dapchi (Yobe state) on February 19, 2018, an attack reminiscent of the 2014 Chibok abductions. According to eyewitnesses interviewed by GCPEA, five girls were crushed to death during the abduction and transport to Boko Haram’s camp and were buried in a shallow grave along the way. Boko Haram returned all but one of the remaining Dapchi girls about a month later, on March 21, 2018, reportedly after negotiations with the Nigerian government. Girls who survived the abduction reported that one girl – Leah Sharibu – was not returned because she had refused to convert to Islam and Boko Haram was targeting non-Muslim girls.

In addition to the abuses committed against female students and teachers as an immediate result of an attack on schools and/or while held in captivity, the suffering and impact does not end once they are rescued or escape. Instead, girls and young women continue to experience a wide range of harmful repercussions long after the immediate attack. Attacks on education create a ripple effect, setting in motion a range of negative impacts such as loss of education, early marriage, early pregnancy, and stigma associated with sexual violence and children born from rape, all of which can



dramatically affect female students' futures. These harms often exacerbate and are exacerbated by pre-existing forms of gender discrimination and harmful practices that negatively affect girls and women.

Boko Haram's targeted attacks on schools and the abduction of school girls, has been harmful for female students' access to education. Many of the female students interviewed by GCPEA reported that they had been forced to suspend their education after their school was attacked or permanently dropped out of school because of the attacks. Poverty has been the single greatest obstacle to education in northeastern Nigeria, and parents' ability to pay for school expenses has been further impeded by the conflict. In addition to economic factors, many female students interviewed by GCPEA reported that they and/or their parents had been too afraid for them to return to school. Many schools were also closed for significant periods due to insecurity, or because the school had been destroyed or seriously damaged during the attacks.

At the peak of the conflict, Boko Haram also used schools for various military purposes, including to hold and execute captives, and as barracks for insurgents. This further contributed to parents' and students' fears about the safety of sending their children, and especially their daughters, back to school after the insurgents had departed.

Nigerian government forces and pro-government militia have also used schools for military purposes. As of May 2017, a UN agency reported that Nigerian government forces were using 17 schools for military purposes. While the government stated that the presence of security forces near schools was for the protection of the schools and students, the presence of armed forces in or near a school can make it a target of retaliatory attacks, increasing the risks to children



and teachers, as well as the likelihood that education will be disrupted. The presence of such forces also increases the risk of sexual violence against female students and teachers.

### **Definition and objective of Science Education**

Science education is the field of science that is concerned with sharing of science content, some social science, and the process of teaching science pedagogy in order to provide expectations for the development of understanding part of the scientific community. The subjects includes in the science education are physical, life, earth, and space sciences. It's also Field that study and apply teaching and learning process to create thinking citizens through science knowledge.

Science education is an indispensable tool for human development. It has been reorganized as the instrument per excellence for national building. Science education is amalgamation of science and education. Similarly, its the education received through the process of science. Adekunle (2003) defined aspects of science to include cognitive science which takes care of the ethics or regulatory principles of science. The emphasis is doing science in the 21<sup>st</sup> century to catapult Nigeria to joined the league of the foremost twenty industrialized nations of the world in year 2020. Inculcating scientific attitudes right from the basic education level serves as an interplay that can shap the attitude and the behavior of the populace to save our democracy from falling into comatose owing to conflict on unrest, kidnapping and insecurity in the country.(Emmina 1986, Maduabum 1989: Ango,1990). Ogunkunle 2007) mentioned some of the attitude of science to include curiosity, creativity, skepticism or critical mindedness, persistence, knowledge, ability and suspended judgment, aversion to superstition, humility and punctuality. On the other hands education according to



Ademu H, Umar, M., Audu, I and Musa, A.(20016) empowers, emboldens, refines, civilize, enlighten, enriches, and give confidence to man. On the other hand, science education according to Jegede (2002) can be seen as learning science by acquiring and development conceptual and theoretical knowledge through scientific inquiry and problem solving. In a similarly view Olarinoye (2007), sees science education as the identification, development and uses of talents, process skills for social progress.

Bajah in Ikonmwosa (1984) explain science education as an academic discipline in which people who study it get education to live adjusted life, it is behavior that science education play a vital role in the development of any nation. A synopsis of antisocial behaviors pervade in the country where hundred families are torn apart, hundreds of thousand lives are ruined and property worth million of naira destroyed throwing the country into a state of insecurity because nobody is sure what would happen in the next moment, science education is central to the building and stabilizing the country.

Science education seeks to achieve the following goals in Nigeria.

1. To cultivate inquiring, knowing and rational mind for the conduct of a good life and democracy.
2. To produce scientists for national development
3. To service, studies in technology and the cause of technology development, and
4. To provide knowledge and understanding of the complexity of the physical world, the forms and the conduct of life (FRN,2004).

From the forgoing science education can be seen as a solution to a given physical physical, biological or social problem, this implies a scientifically literate individual is a fast thinker who devise a solution even before the problem comes.



Submissively the goal of science education in Nigeria, if rigorously pursued, could assist to produce critically minded individuals who would help to maintain the security and conflict-free society. A scientifically literate individual utilize rational thinking to situation and shelf maiming, killing and destruction of property, government own structure and individual building. Scientific minds explore their environment to discover latent potential which could be used to improve the socio-economic situation of the country and harvest other people's opinion on how best to improve the polity which invariably prevent conflict and ensure national stability.

The ethical behaviours of science is such that will promote the fundamental unity of the country and harmonious relationship with one another inadvertently, scientific attitude could be employed in resolving differences and explore factors that forestall unity instead of what disintegrate the nation.

### **The Purposes of Science Education in Nigeria**

The purposes of science education in Nigeria are generally drawn from the national goals and philosophy of education as contained in the National Policy on Education (NPE). For instance, the goals of education in Nigeria include: Development of the individual into a morally sound, patriotic and effective citizen, and social abilities and competencies as equipment for the individual to live in and contribute to the development of the society (FRN 2013, p.2). According to the national policy text, the goals of science education shall be to:

- (i) Cultivate inquiring, knowing and rational mind for the conduct of a good life and democracy
- (ii) Produce scientist for national development
- (iii) Service studies in technology and the cause of technological development; and



- (iv) Provide knowledge and understanding of the complexity of the physical world, the forms and the conduct of life. (FRN 2004, p.29).

These goals appear very lofty, but vague. For instance, what defines moral soundness when morality is itself „indefinable“ (Skorupski 1993, p.121), and is subject to social and cultural interpretations? In addition, what criteria are set to identify an „effective citizen“? What is the parameter to measure one who has cultivated an „inquiring, knowing and rational mind“? In addition, what does - „for the conduct of a „good life“ and democracy“ mean? These are clearly subject to different interpretations by the end users of the policy. The science subject curricula also derived their specific objectives from the NPE national and science education goals. For instance, the objectives of the Basic Science and Technology (BST) curriculum for the first 9 years of school are to enable learners to:

- a) develop interest in science and technology;
- b) acquire basic knowledge and skills in science and technology;
- c) apply their scientific and technological knowledge and skills to meet societal needs;
- d) take advantage of the numerous career opportunities offered by science and technology;
- e) become prepared for further studies in science and technology;
- f) avoid drug abuse and related vices; and
- g) be safety and security conscious (FME 2012, p. vii).

Similarly, the objectives of the biology curriculum for senior secondary schools are to prepare students to acquire: Adequate laboratory and field skills in biology, meaningful and relevant knowledge in biology, ability to apply scientific knowledge to everyday life in matters of



personal and community health and agriculture, and reasonable and functional scientific attitude (FME 2009a, p.iii).

Some of the objectives of the chemistry curriculum are to enable students to: Develop interest in the subject of chemistry, in science, technology and mathematics, acquire basic theoretical and practical knowledge and skills, and develop reasonable level of competence in ICT applications that will engender entrepreneurial skills and apply skills to meet societal needs of creating employment and wealth (FME 2009b, p. iv).

While the general objectives of the physics curriculum is to: Provide basic literacy in physics for functional living in the society, (enable learners to) acquire basic concepts and principles of physics as a preparation for further studies, acquire essential scientific skills and attitudes as a preparation for technological application of physics, and (to) stimulate and enhance creativity (FME 2009c, p. ii).

Although the some of the specific science curricula objectives can be argued to be vague, just as the national goals of science education, it is nonetheless possible to align the subject curricula objectives with the national goals. These goals and objectives of science education demonstrate government's intention to equip young people with scientific knowledge and skills to participate productively and contribute to the growth of society and to occupy positions in science and technology related fields that drive the global economy.

To produce a scientifically literate society, the Basic Science and Technology curriculum (for ages 6-15), for instance, had four curriculum innovations infused to appropriate contents. These are environmental education, drug abuse education, population and family education and sexually transmitted infection, including HIV/AIDS education. The government's rationale for these infusions



was the desire of Nigeria to be identified with contemporary development worldwide (FME 2012, p.viii).

These infusions were designed to address some socio-scientific issues (SSIs), for example, climate change, sex and relationship education, drug use, interpersonal- relationships and abuse.

### **RECOMMENDATIONS AND CONCLUSIONS**

National security and stability is reliant on the individual working together in a coordinated and effective manner, this can only be achieved through science education. It is therefore recommended that science education should be made compulsory from the basic education levels in the country. As this will help them to have the opportunity to learn and inculcate scientific literacy and this will foster unity and stability, principally, be made compulsory and free for all (EFA).

The insecurity challenge in Nigeria has become a formidable challenge, so government at all levels should employ scientific approach such as developing new security paradigm and protocols in fighting violent conflicts and tackle insecurity in the country.

The governance challenges facing the polity have trickled into the society, resulting in the erosion of social psyche and or moral decadence. The growing dissatisfaction, discomfort and distress within the larger society coupled with the unbaiting official corruption, high unemployment rate, economic crisis, pauperization of the masses, decaying infrastructure and a futile national integration project have heated up the socio-political environment.

Consequently, armed conflicts, terrorism, ethno religious holocausts, kidnapping, banditry, human trafficking, political assassination and other violent crimes have become the leitmotif otherwise, recurring decimal of Nigerian social relations. Providing moral leadership that



eschews evil, corruption, vices, inequity, injustice and wickedness will compel the people to model the character of their leaders and vice versa.

In addition, the democratic system in place must begin to deliver the needed social goods so as to improve the standard of living of Nigerians and deliver many citizens from the state of absolute poverty to which they have been subjected for a long while.

Third, there is need to identify the moral values and ethical virtues that should guide the conduct and behaviour of Nigerians. These values should be built on the respect for human life, the regard for human dignity and the right to life, liberty and security of the people; the freedom of worship, religion, thought and conscience; and the freedom of opinion.

Fourth, there should be a codification of the moral values and virtues the government and Nigerian peoples subscribe to for the good of the larger society.

Fifth, government should plug all the holes through which scarce resources are being siphoned so as to free resources for national development and equipping of the military to fulfill its functions.

Lastly, there is need for a national conversation or dialogue where Nigerians can release their pent-up anger and frustration against the state and fashion out the blueprint for the engagement of all the component units that make up Nigeria. Paying lip-service to the matters of insecurity in Nigeria by government and its representatives is sitting on a time-bomb that may soon explode. Sustaining personal or regime security will not secure government or its representatives if this challenge is not nipped in the bud.

The governance process must be erected on the pillars of scientifically moral values and virtues and the Nigerian people must be led by scientifically literate leadership that will strive to secure the



commitment and support of all citizens to make the Nigerian project to succeed.

## REFERENCES

- Achumba, I. C., Ighomereho, O. S. & Akpor-Robaro, M. O. M. (2013). "Security Challenges in Nigeria and the Implications for Business Activities and Sustainable Development." *Journal of Economics and Sustainable Development*, Vol.4, No.2, pp. 79- 99
- Adagba, O., Ugwu, S. C. and Eme, O.I. (2012). Activities of Boko Haram and Insecurity Question in Nigeria, *Arabian Journal of Business and Management Review*, Vol. 1, No.9, 77-99.
- Adamu H., Umar M., Audu, I and Musa, A (2006). Impact of science education on Nigeria economy: the northern Nigeria forces. *International journal of research in education* 3 (1), 100-108
- Aderoju, o. (2008). "Oil and the probability of rebel participation among youths in Niger Delta of Nigeria". *Journal of Peace Research*, 45(4), 539-555.
- Adesoji, A. (2010). "The Boko Haram Uprising and Islamic Revivalism in Nigeria", *In Africa Spectrum*, 45, 2, 95-108.
- Agrawal, M. (1998). *Morals and the value of human life*. In: *African philosophy: An Anthology*, Emmanuel Eze (ed.). Massachusetts: Blackwell: 146-1546. BBC African News (June 17, 2010). Ongoing concern; Boko haram and Nigeria's war on terrorism.
- Ango , M.L.( 1990. *Basic science laboratory*. Ibadan: longman Nig Ltd.
- Beland, D. (2005). *The Political Construction of Collective Insecurity: From Moral Panic to Blame Avoidance and Organised Irresponsibility*. Center for European Studies Working Paper Series 126. 8. Borgman, D. (2000). *Ethics Overview*. US: CCYS
- <http://www.protectingeducation.org/>
- Federal Ministry of Education, FME (2009a). *National biology curriculum for senior secondary schools*: Abuja: Nigerian Educational Research and Development Council.
- Federal Ministry of Education, FME (2009b). *National chemistry curriculum for senior secondary schools*: Abuja: Nigerian Educational Research and Development Council.
- Federal Ministry of Education, FME (2009c). *National physics curriculum for senior secondary schools*: Abuja: Nigerian Educational Research and Development Council.
- Federal Ministry of Education, FME (2012). *The Basic Science and Technology Curriculum*: Abuja: Nigerian Educational Research and Development Council.



Federal Republic of Nigeria (FRN) (2013). National Policy on Education, 6th edition: Lagos: NERDC press.

Federal Republic of Nigeria 2004 national policy on education, Lagos, NERDS.

Sadler, T.D. (2011). Situating socio-scientific issues in classrooms as a means of achieving goals of science education. In T.D. Sadler (Ed) Socio-scientific issues in the classroom: Teaching, Learning and Research, Contemporary Trends and Issues in Science Education, 39. NY: Springer.