
THE EFFECTS OF ARMED CONFLICTS ON THE ENVIRONMENT IN THE NORTHEASTERN PART OF NIGERIA: A FOCUS ON BORNO AND YOBE STATES

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Abstract

This research examines the environmental consequences of armed conflict with a special focus on the northeastern region of Nigeria, where armed conflict has been perpetuated by the Boko Haram insurgents. Armed conflict today is a common phenomenon in all parts of the globe which is equally not new in the northeastern region of Nigeria, as a result of the dreadful activities of the Boko Haram insurgency since its manifestation into an armed group in 2009. The history of armed conflict goes back to the pre-modern period, while its environmental effects increase with the sophistication of the weapons used to fight the wars. Human livelihood is largely dependent on the environment while modern warfare is a major factor causing environmental and natural resource depletion. The United Nations stepped in by adopting some measures that will ensure the protection of the environment in the event of armed conflicts. However, even with such measures, the environment continues to suffer serious devastation. It is in line with this that the UN has to take tougher measures to ensure the safeguards of the environment by punishing those involved more than the damage caused. The researchers employed the use of cluster sampling to arrive at the number of respondents needed for this research. A total of 350 respondents were selected from Borno and Yobe. The data collected in the process of the research was subjected to analyses using frequencies, percentages, and tabulations with the aid of SPSS which also revealed the conclusion arrived at from the research hypotheses.

Keywords: Armed Conflict, Environment, Consequences, Devastation, Livelihood

1.0.1 INTRODUCTION

“Safeguarding the environment is one of the foundations of security and peace” said Kofi Anan former UN Secretary-General (UNHCR 2001).

Armed conflict is a serious global threat today, with a large number of countries facing one type or another type of armed conflict; some are envisaging an eminent armed conflict while others are recovering from armed conflict. These conflicts are largely the cause of human suffering today as they lead to the loss of human lives, endanger the economy, and cause devastating harm to the environment and natural resources. There is no doubt that in a situation of conflict human lives and property seems to be the most priority concern while environmental concern is relegated to the background. Although it cannot be disputed that human lives and properties should be placed above in terms of priority, it should be known that the living population largely depends on the environment, and therefore the destruction of the environment and the natural resources is almost the destruction of human means of existence. This, therefore, suggests that the environment needs to be jealously guarded if human existence should be protected. This is because the destruction of the environment is a clear indication of jeopardizing the future and which puts livelihood security at risk.

Derived effects of such destruction may in turn exacerbate the toll on the natural environment. In some situations, the environmental impacts of the armed conflict extend over large areas and continue for years or even decades after hostilities come to an end. Destruction or degradation of the natural environment during armed conflict may have serious humanitarian repercussions. It may threaten the well-being, health, and survival of entire

populations for extended periods (ICRC, 2011). During the 1991 Gulf War, 732 Kuwaiti oil wells (85%) were sabotaged by the retreating Iraqi forces. 25 of these, 613 wells were ignited, spewing out five million barrels of oil effuse every day (Mohammed, 1993). It is estimated that a total of one billion barrels of oil were burned by November 1991 when the last fires were brought under control (Kristine, 2005). As a result of the Boko Haram insurgency as well, so many buildings, vehicles, human lives, farms, bodies of water, and forests were destroyed, set ablaze, or polluted which significantly affects the environment and means of livelihood. Some areas remain impenetrable because landmines were buried in such areas making it dangerous for the living organisms in the area.

Armed conflict is indeed a serious global threat that affects human lives, property, and the environment. However environmental concerns are not heard in situations of armed conflicts, thus in event of a conflict, consideration is only given to human lives and property while environmental concerns are either not discussed at all or lauded after the conflict might have ended. It is therefore imperative to note that armed conflict can be short-term while the environmental impact can last longer than expected thereby having a long-term impact on the population living not only in that environment but far beyond.

1.0.2 Statement of the Problem

Armed conflict today is one of the most common global problems affecting virtually all regions and particularly the developing countries. This has seriously contributed to human, animal, and environmental suffering due to the nature of the tactics of the conflict. The environment is the major factor that supports humans, animals, wildlife, and the products of humans and nature. Before and after armed conflicts, humans and

wildlife still have to rely on the environment for their survival which needs to be jealously guarded and protected. The contemporary armed conflict which employs the use of heavy warfare certainly fails to ensure the protection of the environment during the conflict thereby destroying the environment and affecting survival and livelihood. Several laws exist which are designed to protect the environment in the event of a conflict, but such laws are either grossly inadequate or not capable of implementation due to the countries involved or the parties involved.

1.0.3 Aim and Objectives of the Research

The research aims to analyze the environmental consequences of armed conflict in the Northeastern Region of Nigeria and the objectives are:

1. Examine the tactics of armed conflicts employed by the insurgents as well as the security agencies in executing the war with special attention to the northeastern part of Nigeria
2. Examine the effects of armed conflict on environmental destruction and Livelihood in the area under study.

1.0.4 Research Questions

1. What are the tactics of armed conflicts employed by the insurgents as well as the security agencies in executing the war with special attention on the northeastern part of Nigeria?
2. What are the effects of armed conflict on environmental destruction and Livelihood in the study area?

1.0.5 Research Hypotheses

Based on the stated problems and the objectives that justify the purpose and focus of this research, the following hypotheses are fundamental:

Ho₁: There is no significant difference between armed conflict and environmental

destruction in the Northeastern Region of Nigeria.

Ha₁: There is significant difference between armed conflict and environmental destruction in the Northeastern Region of Nigeria.

1.0.6 Scope of the Research

The scope of this research is geographically the insurgency zones of Borno and Yobe states. It is also determined by the complexity of the problem at hand and the availability of resources needed to undertake the research.

2.0.0 LITERATURE REVIEW

2.0.1 Theoretical Framework (The New Ecological Paradigm NEP)

This paper adopted the NEP propounded by Dunlap and Catton in 1979 against preceding sociological theories that failed to see the relevance of the biophysical environment as a major factor in the survival of society. That Sociologists like Nisbet and Bell and some sectors of society have expressed skepticism about the issues of serious environmental problems. The problems continue to escalate throughout the 1970s and continue more or less unabated than ever before at present. Clear evidence of environmental threats which emanated from the air, water, ozone depletion, continued energy shortage, overpopulation, technology, and armed conflicts was considered by some sociologists as major anomalies. This is because human existence is generally dependent on the environment. Some sociologists were prompted to go further by not only trying to understand societal concerns towards environmental problems but fundamentally exploring the relationship between industrial societies and their environments (NEP) (Catton and Dunlap 1975a). They were exploring issues such as the causes of environmental

degradation, the societal impacts of pollution, and resource scarcity (e.g., Schnaiberg 1975). Technology has brought about technological tremendous advancement which is also associated with accompanying high risks the contemporary society such that the environment is not spared of its effects. This can be seen in places of industrial waste and sophistication of warfare in conflict zones among others, as it is in northeastern Nigeria and many areas where dangerous weapons have simplified the excursion of war and exert heavy destruction on the environment which is the basis of human livelihood. Studies of societal-environmental interactions involved the rejection of the sociological tradition of focusing only on "social facts" as explanations of social phenomena and at least tacit rejection of the assumption that modern, industrialized societies are exempt from ecological constraints. The NEP's recognition that the welfare of modern societies, even with their complex forms of social organization and sophisticated technologies, is intricately linked to the health of the ecosystems on which they depend for their existence represents a major departure from the HEP (Human Exceptionalism Paradigm) whose views claims that human-environment relationship was unimportant sociologically because humans are exempt from environmental forces via cultural change. At a minimum, the NEP sensitizes sociologists to the fact that environmental problems are socially and sociologically significant phenomena. More generally, it encourages recognition of the fact that the dynamics of modern industrial societies can only be understood by considering their growing ecological impacts and the resultant societal problems created by these impacts. However, it does not mean that technological development should be discontinued rather it should as well envisage the dangers posed to the

environment and come up with mitigation measures aimed at safeguarding the environment.

For instance, consider the notion of risk society (Beck 1992) which focuses on another facet of the conflict. That modern industrial society is supposed to be guided by the principles of rationality, scientific prediction, and control, but its political apparatus has followed irrational policies that have created an ecological, structural, and cultural crisis. As a result, industrial society has been transformed into a risk society.

2.0.2 Nature and Tactics of Contemporary Armed Conflicts

Armed conflicts generally differ in terms of their environmental impacts and derived humanitarian effects with the nature of the armed conflict. In a situation involving non-state actors then it means engaging in guerilla tactics. Such conflicts are often drawn out and fought with different types of means of warfare when compared to practices involving international armed conflicts between two or more states (Creveld, 2008). Most state actors continue to rely on so-called Blitzkrieg tactics (Lightning War) - involving mechanized machinery used at high speed in coordination with air support, while guerilla movements most often conduct their hostilities at a slower pace, taking shelter in remote mountainous or forested areas (Hammes, 2008). As is the case with the insurgency in the northeastern region of Nigeria where the insurgents are taking cover in the Sambisa forest and the Lake Chad areas where any attack launched in the area of their hideout has been surely destroying the environment. Farmlands, fishing facilities, water, forests, animals, fish, and birds are destroyed. These tactics

are likely to expose the environment to different types of damage and degradation.

2.0.3 Impacts and Consequences of Armed Conflicts

The human and animal population depends on the natural environment for their survival during and after the armed conflict. The natural environment has a crucial role in providing livelihood and prosperity once the conflict has ended, thus it should indeed be a precondition of post-conflict reconstruction. Destruction of the environment's natural resources such as water, soil, trees, and wildlife are the "wealth of the poor," their damage and destruction during armed conflict can undermine livelihoods, act as a driver of poverty and forced migration, and even trigger local conflict it is therefore thought to negatively impact the prospects for durable peace Clionadh, & Henrik, (2007). For instance, large and productive areas such as the area of Lake Chad where a large population depends on for food and income have been threatened by the Boko Haram insurgency as the means of livelihood have been destroyed while the population fled the area. Disturbances to ecosystems whether caused directly, indirectly, deliberately or incidentally - have the potential to cause problems far beyond the initial damage inflicted by conflict.

2.0.4 Armed Conflict and Environmental Pollution

Pollution is among the most serious environmental effects of armed conflict globally today. It can take different forms as both the military group and the armed groups can be responsible for the pollution of the environment. It can equally emanate from the human or economic crisis generated by armed conflict.

Conflicts in sub-Saharan Africa in contemporary days have resulted in serious pollution as it has been one of the major

issues during the humanitarian crisis. Refugees and internally displaced people often find themselves living in conditions so overcrowded that they become a significant source of potential pollution. This is similar to the situation obtained in the Internally Displaced Persons (IDPs) Camps in the northeastern region of Nigeria. In their desire to subsist, the displaced may pollute the surrounding environment and surface water, and in their plight, they may bring infectious diseases due to congestion and poor hygiene. The latter concern threatens not just the health of human populations but also that of indigenous wildlife (Kalpers 2001). Pollution of rivers and lakes also occurs when human bodies are deposited in them and decompose, as occurred during the Rwanda genocide. This is a similar situation that happened in many areas in the northeastern region as a result of the armed conflict, such as the mass killings and decomposition of bodies in Baga and Bama in Borno state and in Katarko in Yobe State where many were killed and thrown into a well apart from the mass killings that took place in various areas.

3.0.0 METHODOLOGY

The method used in this research represents the specific approach and procedure that the writers systematically utilized that is manifested in the collection, analysis, and interpretation of data. In the case of this paper, the writers adopted the scientific research method having chosen from an array of research methods for identifying, recording, understanding, making meaning, and transmitting information regarding this topic of interest. This is because conducting scientific research is also equivalent to researching as asserted by Onwuegbuzie, Leech, and Collins (2011), with the information that the writers collect representing the primary data. This work which stands as an independent work is

generally a complete research study that in the end it is embedded therein conceptualization, planning, implementation, and dissemination.

3.0.1 Types of data

The data collected comprised both primary and secondary data which enabled the use of data directly collected by the writers on the field through the administration of questionnaires and interviews. It equally includes the use of data collected by other

scholars, bodies, and agencies for purposes other than this research.

3.0.2 Population of the Study

The projected population of Borno state is 5,860,200 while Yobe has a projected population of 3,294,100 as per the 2016 population census projection. However, the selected areas in Borno have a population of 1221900 while Yobe has a population of 529700.

Table 1.0. 1: Population and sample of selected clusters in Borno state

S.N	LGA	Population	Initial Sample	Final Sample
1	Damaturu	124,500	125	25
2	Gujba	184,200	184	37
3	Geidam	221,000	221	44
Total		529,700	530	106

Table 1.0.2 : Population and sample of clusters from Yobe state

S.N	LGA	Population	Initial Sample	Final Sample
1	Bama	379,500	380	76
2	Dambo	327,600	328	66
3	Konduga	221,000	221	44
4	Jere	293,800	294	59
Total		1,221,900	1222	244

3.0.3 Sample and Sampling Method

A total of 244 from Borno, and 106 from Yobe based on an equal percentage as indicated in tables 1.0.1 and 1.0.2) respondents were selected through the cluster sampling technique where the whole population was divided into clusters. Subsequently, a random sample was used in selecting from those clusters, all of which are used in the final sample (Wilson, 2010). We chose clusters from which were mainly areas affected by the armed conflicts within the geographical area of the northeast. The clusters were numbered and seven (7) were chosen for selecting the sample. The clusters are included in Yobe

State (Gujba, Damaturu, and Geidam) while in Borno they include (Bama, Dambua, Konduga, and Jere). Selection of samples from the chosen clusters was done using a simple random sampling technique

3.0.4 Data Analyses

Collected data were analyzed using frequencies, percentages, and tabulations with the aid of SPSS which also revealed the conclusion drawn from the research hypotheses formulated.

4.0.1 RESULTS AND DISCUSSION

Based on the returned questionnaires (334), from table 4.0.2, as revealed by our

respondents on the contemporary and traditional tactics of armed conflicts, the majority of the respondents were of the view that they differ significantly. This view is accounted by 98.2% while those who have not seen the difference account for only 1.8% which is highly insignificant. This pointed to the fact that people are aware of the contemporary and traditional tactics of armed conflict more particularly that the people have previously enjoined peace and have been thrown into conflict as a result of contemporary tactics, where victory is not determined by numerical strength but by tactics and weaponry.

As indicated above on the same table, 98.8% of the respondents who participated in the study agreed that contemporary tactics of armed conflicts are more sophisticated than the traditional tactics. this may not be unconnected with the fact that majority have witnessed the activities of the insurgents in the region which many thought is as a result of the modern war method which is more sophisticated and highly dangerous. Due to the sophistication of the armed conflict, government has taken it seriously by investing highly in military equipments. The Nigerian government in July 2017 purchased equipment worth \$593 million from the U.S such as Super Tucano A-29 surveillance and attack planes in order to fight Boko Haram Geneva Academy (2021). The president has also approved the purchase of \$1 billion worth of weapons in 2018 for the purpose of fighting the

insurgents. The insurgents have been equally stoke pilling military equipment and weaponry such as AK47, improvise explosive devices (IED), grenades, Mortars, petrol bombs and rocket propelled grenades including the manufacture of weapons, Geneva Academy (2021). Only 1.2% was not sharing similar view.

Having been exposed to the effects of modern conflict in the area even as a result of the activities of the insurgents' group, the population has tested the effects of modern conflict, and thus 87.1 % of the respondents were of the view that the effects of modern conflict are more devastating than the traditional conflict. However, 12.9% did not subscribe to such view. This may be some of the respondents were either not in the area during the peak of the crises.

Total 79.9% of respondents as reflected on the same table 4.0.2, above, said that the insurgents in the area have been carrying and using. It may even be the reason they have been feared by the people since the ordinary man is not allowed to own such weapon. However, 20.1 % of the respondents did not see the weapons used by the insurgents as modern maybe since they consider the weapons as old and thus should be considered modern by standard.321 respondents were also of the opinion that the insurgents have the training to handle modern weapons which stood at 96.1% see table 4.0.2 below

Table 4.0.2: Examining the tactics of contemporary armed conflict

Table 4.0.2		Response	Frequency	Percentage	Valid percentage	Cumulative %
SN	Question					
1	Are contemporary tactics different from traditional tactics?	Yes	328	98.2	98.2	98.2
		No	6	1.8	1.8	100
2	Are contemporary tactics more sophisticated?	Yes	330	98.8	98.8	98.8
		No	4	1.2	1.2	100
3	Does contemporary conflict have more effects?	Yes	291	87.1	87.1	87.1
		No	43	12.9	12.9	100
4	Do insurgents in Nigeria use modern weapons?	Yes	267	79.9	79.9	79.9
		No	67	20.1	20.1	100
5	Do you think insurgent have the train to handle weapons?	Yes	321	96.1	96.4	96.4
		No	12	3.6	3.6	100

However, with regards to effects of armed conflicts, 290 respondents which represents 86.8% thought that armed conflict have effects on the environment. This was justified by 290 respondents that is 86.8% which said armed conflicts led to pollution of water in the area. Same number of respondents said it also led to the destruction of the forest in the area. This is similar to the views put forward by conflict and environment observatory (2020) that, the environmental impact of wars begins long before they do. Building and sustaining military forces consumes vast quantities of resources. These might be common metals or rare earth elements, water or hydrocarbons. Maintaining military readiness means training, and training consumes resources. Military vehicles, aircraft, vessels, buildings and infrastructure all require energy, and more often than not

that energy is oil, and energy efficiency is low. The CO₂ emissions of the largest militaries are greater than many of the world's countries combined. Equally it is believed that, Militaries also need large areas of land and sea, whether for bases and facilities, or for testing and training. Military lands are believed to cover between 1-6% of the global land surface. In many cases these are ecologically important areas. While excluding public development from these areas can benefit biodiversity, the question of whether they could be better managed as civil protected areas is rarely discussed. Military training creates emissions, disruption to landscapes, terrestrial, marine habitats, by creating chemical and noise pollution from the use of weapons, aircraft and vehicles. This can be clearly seen by way the military in the northeast has taken over some vast areas of land for trainings,

keeping military weapons and machineries. The conflict environmental observatory (2020) further confirmed that, Sustaining and renewing military equipment and materiel means ongoing disposal costs, with implications for the environment. It is not just the most hazardous nuclear and chemical weapons that create environmental problems throughout their lifecycle. The same is also true for conventional weapons, particularly where they are disposed of through open burning or detonation.

Historically, vast quantities of surplus munitions were also dumped at sea.

The respondents also attested that human inhabitation has been also affected by the pollution from the opinion of 327 respondents representing 97.9%. 288 respondents were also of the opinion that armed conflicts have generally affected the livelihood of the area stood at 86.2%. See table 4.0.3 below

Table 4.0.3: Examining the effects of armed conflicts on environmental pollution and livelihood

Table 4.0.3		Response	Frequency	Percentage	Valid %	Cumulative. %
S N	Question					
6	Do you think armed conflict has effects on the environs?	Yes	289	86.5	86.5	86.5
		No	45	13.5	100	
7	Has armed conflict led to pollution of water in the area?	Yes	290	86.8	86.8	86.8
		No	44	13.2	100	
8	Has the conflict led to destruction of forest in the area?	Yes	290	86.8	86.8	86.8
		No	44	13.2	100	
9	Has the human habitation been affected by pollution?	Yes	327	97.9	97.9	97.9
		No	7	2.1	100	
10	Has the armed conflict generally affected livelihood?	Yes	288	86.2	86.2	96.486.2
		No	45	13.5	100	

Table 4.0. 6: chi-square test

Chi-SquareTests

	Value	Df	Asymp.Sig.(2-sided)	Exact Sig.(2-sided)	Exact Sig.(1-sided)
Pearson Chi-Square	.156 ^a	1	.693	1.000	.865
Continuity Correction ^b	.000	1	1.000		
Likelihood Ratio	.290	1	.590		
Fisher's Exact Test					
Linear-by-Linear Association	.156	1	.693		
Not Valid Cases	334				

Ho₁: There is no significant difference between armed conflict and environmental destruction in the Northeastern Region of Nigeria.

Ha₁: There is significant difference between armed conflict and environmental destruction in the Northeastern Region of Nigeria.

When the data collected were subjected to SPSS, the χ^2 test shows the value of the Pearson chi-square is .693 which is $P > 0.05$. This means there is no significant difference between armed conflict and environmental destruction in the northeast, thus, we accept the null hypothesis (Ho) and reject the alternative hypothesis (Ha1) which says there is significant difference between armed conflict and environmental destruction in the northeast.

5.0.1 Conclusion

Indeed there is no certainty of bringing an end to armed conflicts completely at the global level; equally environmental consequences of armed conflict will continue to remain a global threat. This is true because internal and international conflict will continue to be fought as much as interests continue to differ. It is, however, important to note that, in as much as armed

conflict is inevitable, there is a need to try and explore sustainable means of protecting the effects of such on the environment at both local and international levels.

Armed conflicts in the northeast have become sophisticated as modern weapons were being used and handled by the insurgents as well as the security agencies. The natural resources particularly the forest and the water resources have been high on the receiving end with no concern by the warring parties regarding its effects on the livelihood of the inhabitants in the area. The destruction was done, even if fixed may not be restored to its original state which results in long-term effects on the livelihood of all and sundry in the area.

5.0.2 Recommendations

Based on the above presentation, it is pertinent to suggest some ways through which the environment should be protected in a situation of war, thus the following are recommended:

i. As has been confirmed by the respondents, the insurgents are using sophisticated weapons which certainly are smuggled into the country through the porous borders. There is a need to ensure that the international boundaries are

seriously manned to control the further proliferation of firearms.

ii. Having been exposed to the dangers occasioned by armed conflict, the respondents agreed overwhelmingly that it is highly dangerous to the environment. In this regard, there should be excessive control and monitoring of arms in society by the various security agencies and traditional leaders.

iii. There is a need for proper sensitization on the protection of the environment through radio, television, and other available means aimed at getting the message across. This will involve enlightening the people about the repercussions of destroying the environment on society.

iv. There should be a comprehensive plan worked out and agreed upon by all countries regarding the protection of the environment while prosecuting any type of armed conflict, locally or internationally.

v. The International Court of Justice should deal with any country or group that adopted a strategy of environmental destruction intentionally or unintentionally within the provisions of the international law.

vi. Any country or group supporting those involved in the destruction of the environment during armed conflicts should be sanctioned internationally in addition to being reported to the international court of justice for necessary measures.

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