

Influence of Physical Environmental Factors on The Rising Insecurity in Northwestern Nigeria

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Abstract: Northern part of Nigeria has witnessed a widespread security challenges in recent years, in most cases armed conflicts. Boko Haram's insurgency in the Northeast, herdsmen militancy in North-central, while in the Northwest, banditry has become the major security concern. Millions of people have been displaced, some were dead as a result. There are efforts by concerned entities, less attention was given to physical environmental. Environmental psychology has shown that the physical environment is responsible for behavior or crime; therefore, this study identifies the environmental factors that are influencing the increase of insecurity activities in the Northwestern states of Nigeria. Data was collected using focus group discussions, observations, interviews and review of related existing literature. System theory was used to show the interdependence of the factors by identifying and categorizing them into internal and external factors (artificial and natural). The internal factors include; Urbanization and Poor Environmental Design/Planning, Territorial encroachment, Urban poverty among others. While the external factors are; Climate, Topography and Vegetation, Natural resources and etc. The study discusses their effects on increasing insecurity in the region and concluded that both internal and external factors have significant effects on the increasing banditry in Northwestern part of the country and need to be viewed as a system and be treated holistically. Finally made some recommendation on the way forward.

Keywords: Banditry, Environmental factors, Insecurity, Northwestern Nigeria, System theory

INTRODUCTION

The major security challenge in Northwestern Nigeria is Armed Banditry ([Mungadi, et al., 2020](#)). Banditry is termed by [Chukwuma \(2019\)](#) as armed violence driven principally by the criminal intent to steal and plunder. It is motivated by the quest for economic accumulation and the victims are individuals and communities with material valuables. Banditry is on the increase in northern Nigeria and It constitutes a serious threat to Nigeria's public safety and, by extension, national security ([Chukwuma, 2019](#)).

Insecurity is the quality of not being safe, strong, or a state or feeling of anxiety, fear, or self-doubt as defined by ([Cambridge English Corpus, n.d.](#)) and ([Merriam-Webster, n.d.](#)). Insecurity does not affect only the victims and/or their loved ones, but also creates feelings of fear, anguish, insecurity and uncertainty, and thus affects the entire society ([Rozhan & Yunos, 2019](#)). According to the International Crisis Group (ICG), more than 8,000 people have been killed in the states of Kebbi, Sokoto, Niger and Zamfara in the last decade ([Orjinmo, 2020](#)). Several factors are responsible for creating the present insecurity in the region, such as the desire to acquire wealth, high levels of poverty, high levels of illiteracy, porous borders, presence of forest areas and others ([Ladan, 2019](#)). While Campbell reported that the attacks are driven by many factors, including cattle rustling, the proliferation of small arms and light weapons, illicit artisanal mining, youth unemployment, poverty, and inequality ([Campbell, 2020](#)). An environmental factor is any factor (abiotic or biotic) that

influences living organisms, this include Terrain and topography, climate, soil and vegetation (Li, et al., 2017). The governments at both the Federal and State levels have made efforts towards tackling the present insecurity, but the efforts come with limitations (Ladan, 2019).

This study is aimed at identifying and examining the environmental factors that are having influence on the increasing insecurity in the Northwestern states of Nigeria (Kano State, Kaduna State, Katsina State, Jigawa State, Zamfara State, Sokoto State, Kebbi State and Kwara State). Environment has been described as a surrounding or totality of all living and non-living elements and their effects that influence human life (Federal Ministry of Environment, 2016).

STUDY AREA

Nigeria is a country located at the extreme inner core of the Gulf of Guinea on the west coast of Africa, with 36 states which are divided into six (6) geopolitical zones; North Central (7 states), North East (6 states), North West (7 states), South East (5 states), South South (6 states), South West (6 states) while North-western Nigeria is an area almost the size of the UK, sharing borders to Niger Republic (Orjinmo, 2020). The study area (Northwest), is the geopolitical zone consisting Kano State, Kaduna State, Katsina State, Jigawa State, Zamfara State, Sokoto State and Kwara State as shown in Figure 1 below. The States are mainly populated by members of Hausa and Fulani ethnic groups who are largely Muslims base on religion (Ladan, 2019). Their major occupations include farming during the rainy season and irrigation farming during the dry seasons along the rivers and dams, cattle rearing on the grassland areas and trading activities which involved travelling for buying and selling at the weekly markets in towns and villages. Northwest Nigeria, which used to be full of security and stability, has been hit hard by rural banditry (Chukwuma & Francis, 2014). The region's poor level of literacy, unskilled labor force, ungoverned spaces, overstretched poverty indicators, expanse of porous border and intense competition over land and water between predominantly Fulani herders and Hausa farmers were termed as catalysts for insurgency, banditry, jihadist activities, kidnapping and other violent crimes (Mungadi, et al., 2020).

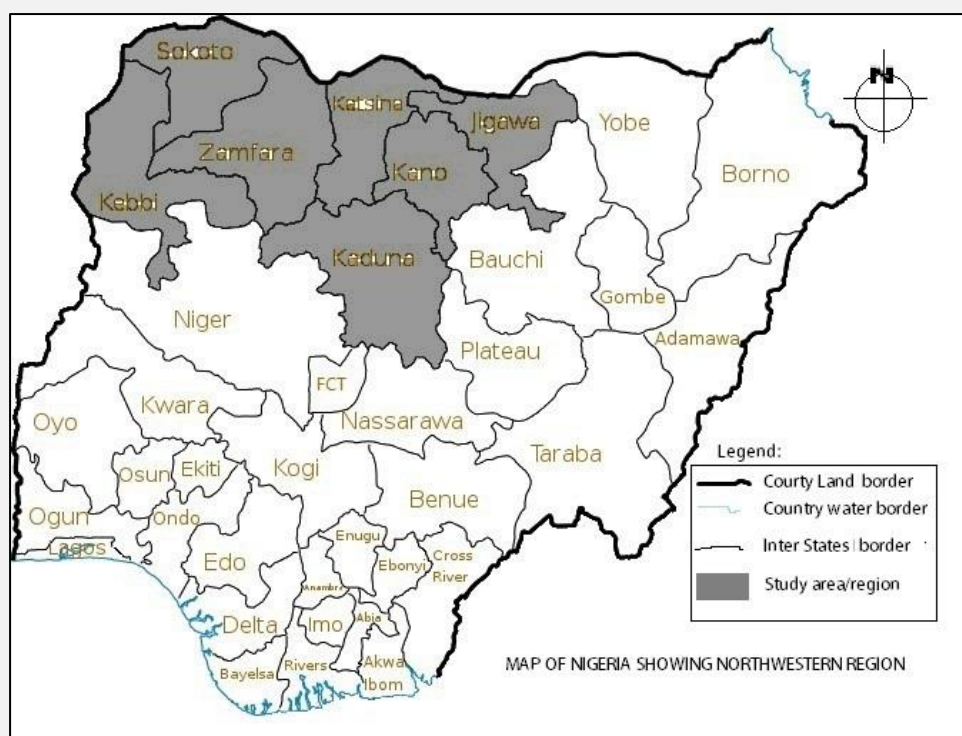


Figure 1. Nigeria showing the study area.

BACKGROUND/CONTEXT

It was hypothesized that the physical environment elicits an emotional response, which then influences subsequent behaviors (Russell & Mehrabian, 1976). In extracts of his PhD Thesis "Architecture, Urbanism, Design and Behavior", Lecton (2011) reported that in designing and constructing environments for work and living, professionals such as architects and planners must be involved in influencing human behavior in the environment. Zeisel's book on planning, programming, designing, and evaluating the effects of physical environments in use, discussed extensively on how designers and researchers employ a similar creative process that promotes collaboration and yields greater design creativity and research effectiveness to understand how buildings and spaces work. This is through observing behavior and the physical environment, interviews, surveys, and employing archival records that include many data and physical plans (Zeisel, 2006). In another paper authored by (Ikeke, 2020) it was urged that an important aspect of security is environmental security, stressing that without environmental security every other form of security is impeded.

Alumona & Onwuanabile (2019) concluded that for the need to ensure sustainable environment, factors such climate change, flooding, global warming, ozone layer depletion, air/water pollution and deforestation need to be considered. Ladan (2019) identified some elements even though not environmental but are factors responsible for insecurity in Katsina, further highlighted the efforts of the governments and their limitations toward the issue. While some researchers carried out works on forestland as threat to the national security, discussing the threats and suggesting ways to address the challenges (Okoli & Ochim, 2016) and (Ladan, 2014).

Examination of the historical, socioeconomic and governance contexts, as well as the conflict dynamics resulting from the interplay of farmer-herder relations pertaining to access to land resources is required in order to understand armed banditry in Nigeria's Northwest region. Furthermore, ecological changes and climate-induced pressures are also part of the factors that increased conflicts in the agro-pastoral sector, the phenomenon also has linkages to banditry and governance challenges (WANEP, 2020). Babanyara, Usman, & Saleh (2010) discussed the linkages between population growth and environmental problems in Nigeria, this consists of urban poverty, urbanization, deforestation, desertification, water pollution, solid waste management, flooding, erosion, sanitation and public health.

Researchers have carried out works on the issue of banditry in northern part of the country, but there seem to be very few on the environmental perspective. This paper will focus on the environmental factors influencing insecurity in Northwestern Nigerian states with the view of recommending ways to go about handling the problem.

METHOD

Data were collected using focus group discussions, observations, interviews and review of related literature, then system theory was used to explain the interdependence of the factors and their effects on increasing insecurity in the study area. The Conceptual and Theoretical discourse are explained below;

The Conceptual Discourse (Focus Group Discussion)

Qualitative research is a generic term for investigative methodologies described as ethnographic, naturalistic, anthropological, field, or participant observer research (Mishra, 2016). Focus group discussion (FGD) is qualitative approach of data collection frequently used to gain an in-depth understanding of social issues (Nyumba et al., 2018). The method aims to obtain data from a purposely selected group of individuals rather than from a statistically representative sample of a broader population. It involves multiple participants who share one or more common characteristics that are meaningful for the research study perspective (Eeuwijk & Angehrn). There are different types of Focus group discussion; Single focus group, Two-way focus group, dual moderator focus group, dueling moderator focus group, respondent moderator focus group, Mini focus group, online focus groups (Kamberelis & Dimitriadis, 2005). Online focus groups are not a different type

of focus group discussion per se but one borne out of the introduction of the Internet as an adaptation of traditional methods, it is applied within the online environment, using conference calling, chat rooms or other online means (Kamberelis & Dimitriadis, 2005). FGD can be used in obtaining an insight into how people think and behave in a given environment (Mishra, 2016). Focus group discussion is the suitable approach for this research, considering that the problem is social; dealing directly with humans and their environment. Also, the Covid-19 pandemic rules and guidelines does not allow for a congregation to meet up physically as at the time of this study, thereby making online focus group discussion as the only option, while the participants comprise 12 different people including victims randomly chosen from the hotspot areas within the study area (at least one or two people from each state) and a moderator.

Theoretical Discourse (System Theory)

Systems theory is an interdisciplinary theory about every system in nature, in society and in many scientific domains as well as a framework with which we can investigate phenomena from a holistic approach (Capra, 1997) reported by (Mele, Pels, & Polese, 2010). Scholars from different era and fields of study have discussed system theory, this ranges from studies on biological, environmental, pure sciences and behavioral sciences (Wilson, 2019). From the Historical point of view, system theory roots from the perspective of Aristotle on knowledge, where claimed that knowledge is derived from the understanding of the "whole" and not the "single parts" (Mele, Pels, & Polese, 2010). A system is viewed as an "entity/whole" like an organization with internal and external environment, which determines the input and output dynamics of the entity/whole (Wilson, 2019). Some researchers such as Bertalanffy view a system as a complex interaction of the elements that make up the whole. While as a theory, it is interdisciplinary in nature, and is used in the study of biological, environmental, and social dynamics of human relations in the society. The theory was popularized by Ludwig Von Bertalanffy in his study on "general system theory" in 1950 (Bertalanffy, 1950) reported by (Wilson, 2019). A system theory has been described as a theory that is concerned with the study of relationships, of structure, and of the interdependence of one unit on the other for smooth working (Katz & Kahn, 1966). The main point of emphasis of the theory is on interaction and interdependence of the units to ensure the effectiveness of the whole. This means that the system theory can be applied to both studies on pure sciences and social sciences.

System theory in this context is centered on human interactions, behavior and the influence of physical environment. The Northwest (Physical environment) is considered to be the system, and therefore, its proper functioning (Security wise) depends on the environmental factors both natural and artificial (external and internal factors) as they contribute to the behavior of human beings in that environment. Such factors include; Poor environmental design, Territorial encroachment, Vegetation, Topography, Socio-culture, economy and etc. The implication is that, each element in the environment is not independent, they jointly fuel the insecurity.

RESULT AND DISCUSSION

Society as system has a space which is the environment, it is being driven by various elements/forces described as environmental factors. The Artificial and Natural factors were categorized into Internal and External factors respectively;

Internal Factors

Internal factors are the artificial factors that contributes to the increase security challenge especially in Northwest region of Nigeria;

Urbanization and Poor Environmental Design and Planning

Environmental design has been defined by different scholars of different fields, it is defined as the process of addressing surrounding environmental parameters when devising plans, programs, policies, buildings, or products. It seeks to create spaces that will enhance the natural, social, cultural

and physical environment of particular areas (Zervas, 2020). Urbanization is a global development paradigm which is currently sweeping through developing countries like a wild fire and Nigeria as one of the emerging countries is now disturbed with the challenges of urbanization especially in the areas of security of lives and property. This has been motivated by the inadequacy in urban policy implementation in relation to security (Udeuhele, 2018). Poor Environmental design (neglecting the elements of crime prevention through environmental designed) while planning and construction has also been identified by many researchers as an influencing factor when it comes to national security (Mohammadigorji et al., 2020). The rapid growth of urban centers in Africa has seen significant failure of cities to sustain their populations who then face frustration in terms of service delivery and social inequity (Chirisa et al., 2016). According to a focus group member, some of the criminals interviewed during reconciliation session organized by Katsina State Government, mentioned infrastructural imbalances as the causes of their frustrations, which made them feel neglected or forgotten by the government. Another member recommended development of the areas by establishing amenities such as roads, schools and hospitals, so as to make the areas busy and establishment of surveillance to deter the criminals.

Urban Poverty

Even though poverty has no boundary, but has been discussed by many scholars. Jaiyeola & Choga (2020) described poverty as lack of purchasing power, exposure to risks, malnutrition, increase mortality rate, low life expectancy, few opportunities and lack of access to social and economic services. The rate of poverty in the Northern region of Nigeria is quite alarming despite the enormous resources endowed in the region. Figure 2 below extracted from the National Bureau of Statistics (NBS) report indicates the Northwestern states as top of country's states below the poverty line (NBS, 2019).

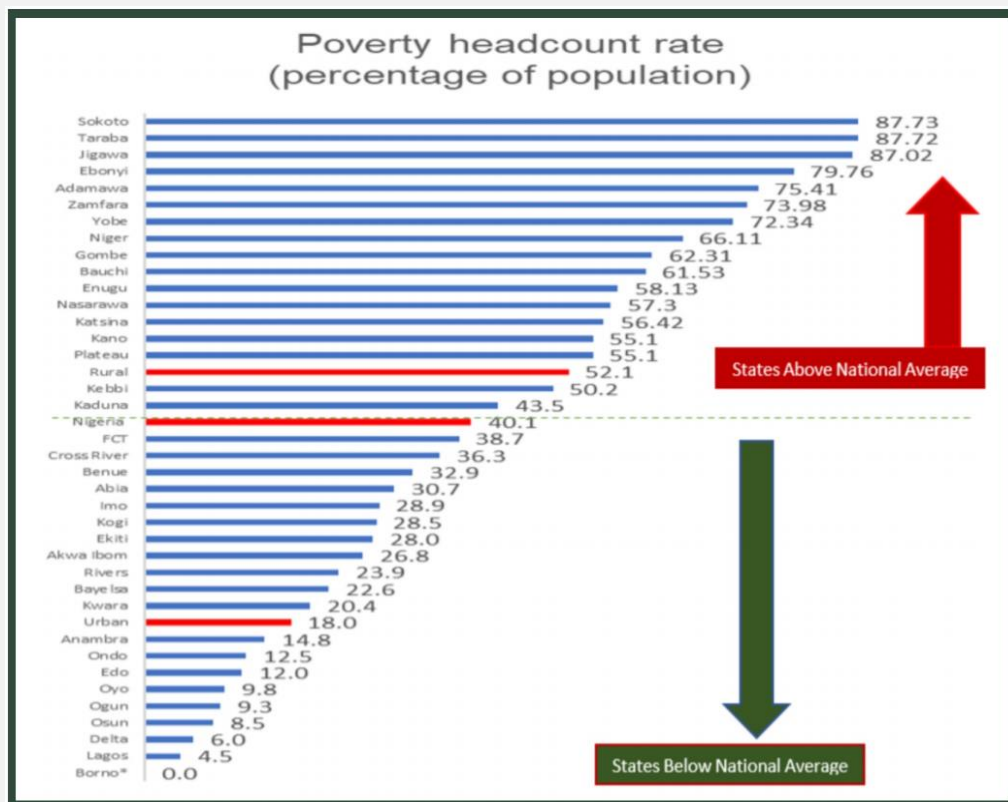


Figure 2. Poverty headcount rare (Percentage of population).
Source: National Bureau of Statistics (NBS), 2019.

According to Babanyara, Usman, & Saleh (2010), declining of economic fortunes that result in economic crises, poor economic policies and lack of transparency and accountability in governance are the major causes of urban poverty. Therefore, the desire of people to amass wealth within a short period of time as believed by Chukwuma (2019) and Ladan (2019) influences insecurity in the region. While farmers in the frontline areas and elsewhere are kept away from their farmlands due to fear of bandit attacks, the levels of poverty is rising among people (Ladan, 2019).

Territorial encroachment

Farmland is as important to the farmer as the animals are to the herders. Territorial encroachment is one of the factors with influence on insecurity as coined by some scholars.

"Nomadic grazers have been exposed to rural banditry while an increased number in violent attacks between farmers and herdsmen stemming from competition for increasingly scarce land and resources particularly grazing space and encroachment into farmlands are putting rural communities as well as pastoralists at high risk of violent attacks on a daily basis. The growing ecological and demographic pressures in the rural areas of Nigeria further intensify this posing a serious security concern not only for the lives of the people but also economic activities and the environment." (Mohammed, 2016)

The focus group member (a district head and a farmer) stated that, in some areas the animal routes known as "*Burtali*" in Hausa language, have been encroached by farmers. Herders are then left with no option but to pass through the farmlands, thereby destroying plants and farm produce, making farmers to retaliate by attacking them and their animals.

Ungoverned Territories

Forests: The Nigeria's forest are categorized into two; wild-wood and the protected forest (Federal Republic of Nigeria, 2010). It is the wild-wood forest which grows naturally that is prone to illegal exploitation thereby posing security threat to the nation. Poor management and poor security given to the Nigeria's forestland contributes a lot in making them vulnerable to criminal habitation and activities, this is in line with Okoli & Ochim (2016)'s argument. While the long stretch of forest has for a decade become the hideout and operating bases for bandits from where they come to the villages and along roads to attack as reported by Ladan, (2019). It was also mentioned by the focus group that the bandits have built camps in the forests and use to come in convoys on bikes, well-armed from the neighboring forests and pass through villages without being confronted.

Land borders: The porosity of the country's border and improper security around them are all part of the ungoverned or poorly governed spaces that influence the banditry especially in northern Nigeria. Land borders in the country are porous which makes it easy for criminal elements, arms and ammunition including drugs to be smuggled into the country (Ladan, 2019). The focus group members believed that most of the bandits came to the country as herders illegally through the porous borders.

EXTERNAL FACTORS

These are the natural environmental factors that have direct effect on the lingering insecurity in northwestern part of Nigeria;

Climate and Vegetation

The migration of herders from one place to another in the country according to Lenshie et al. (2020) is one of the genesis of insecurity in northern Nigeria, it is associated with climatic effect on the environment. Drought and desertification were identified as the major actors that degraded pastures, water bodies in the region, thereby making herders to migrate in search of grassland and water through farmlands. It was estimated that about 50-75 per cent of land area is becoming desert in Bauchi, Borno, Gombe, Jigawa, Kano, Katsina, Kebbi, Sokoto, Yobe and Zamfara states (Federal Republic of Nigeria, 2017). It is widely known that the bandit's attacks intensify during rainy seasons,

when trees are green perfect cover for hiding while the untarred roads are wet/muddy and not favorable for helpers and security agents.

Topography

Terrain or Topography is a vital factor when discussing security and insecurity of a space. In the effort to establish the link, a datasets were used, which included proximity to police station, population density, poverty levels, transport network and terrain to determine a relationship between environment and crimes, it was concluded that there exist a strong relationship between crime density and the factors above which includes terrain (Mwangangi & Odera, 2013). The focus group member (Geography student and resident of one of the frontline Local Governments Kankara LGA) mentioned that the criminals use mountains in the forests as surveillance towers to monitor activities and hide to strike behind them. The terrain used by the bandits in conducting the operation influence the crises, as many times when the bandits are conducting operations, when people tried to reach out for security agencies intervention, it is always negative due to complaint of non-accessible road to be use by the security in reaching out to the scene of the incident (Yahaya & Bello, 2021).

Natural resources

Natural resource-based conflicts continue to occur in different parts of Nigeria with negative implications (Ajodo-Adebanjoko, 2019). Ajodo further found that Nigeria is enmeshed in conflict over ownership, distribution, access to or competition over natural resources such as petroleum resources and agricultural land and these conflicts have undermined democracy, human rights, the economy and the nation's security. He suggested poor resource governance, environmental factors and poor political leadership as the causes and drivers of the related conflicts. Northern Nigeria has fertile land with varied agricultural products and other resources such as tin, barite, zinc, limestone, columbite, lead and gypsum. Despite these numerous resources, the region has the highest population of people in extreme poverty with violence and high crime rate (Jaiyeola & Choga, 2020).

Government Efforts on the Insecurity

The first step taken by the Governor of Katsina State together with the Governors of Zamfara, and the Sokoto States was negotiating with the armed bandits that have been operating the three States, but the bandits stated that negotiation was with a segment of the bandits not all and therefore refused to honor the agreement (Maigari, 2021). In September 2021, the Governors of Northwestern states jointly decided to shutdown telecommunication networks, so as to cut communications between the bandits in their hideouts and their informants in the city, other actions taken by the Governors include suspension of weekly markets, restriction on fuel supply and imposition of curfew (Maishanu, 2021). There are also various security operations, one of them named "Dirar Mikiya" (Eagle landing) was carried out by the Nigerian Air force it involved dropping bomb in the forest hideouts of the bandits at Zurmi forest of Zamfara state (Ladan, 2019). The rest of the operations include "Sharan Daji" (Forest clearance), "Hadrin Daji" (Forest Cloud), "Harbin Kunama" (Sting of the scorpion) and the recently launched Puff Adder (Newdawn, 2019). Despite all these efforts, the bandits continue to operate as on the 8th December 2021 it was reported that 23 people lost their lives during an attack by bandits at Gidan Bawa village in Isa local government area of Sokoto state on their way to kaduna State (The Cable, 2021).

CONCLUSION

Northwestern Nigeria as a region known for peace and stability is currently being disturbed by security challenges ranging from banditry, kidnappings, cattle rusting and other related security issues. Despite the government effort, the criminal activities are on the increase. It is pertinent to understand that environment plays enormous role when it comes to shaping human behavior in reaction to phenomena. From the results and discussion above it is clear that the environmental factors, both internal (artificial) and external (natural) contribute when it comes to instability in national security specifically in northwestern Nigeria. The issue has to be viewed as a system and be treated holistically in order to stop the lingering Insecurity.

RECOMMENDATIONS

1. Government should improvement standard of living of the people throughout by addressing social inequity, through expanding social and economic services to reach villages.
2. The Government effort through the use of security forces to secure the claimed territories by the bandits and other criminals should not be relaxed but be intensified.
3. More attention should be given to the international borders, especially Nigeria-Niger boarder. An effort should be made to checkmate the porosity and take full control.
4. The criminals should be dislodged by security personnel and well-designed security surveillance stations be built on the highest mountains in the forest.
5. Government at all level need to strengthen all the agencies responsible for environmental management and control within the region and the country at large.
6. A strategic environmental design framework should be devised using Crime Prevention through Environmental Design principles/concept to checkmate the environmental factors and convert the ungoverned spaces, crime hotspots and forest into important spaces for national development.

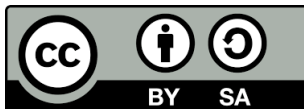
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