Environmental Planning: Assessing the Socio-Economic Consequences of Urban Violence in Tudun Wada Settlement, Kaduna

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ABSTRACT

The occurrence of violence is a global issue, which has left some countries in desolate state; Kaduna State in Nigeria has recorded several deadly and mindless violent which had direct and indirect bearing on the people and the environment. This has made this study worth undertaking, and the project has been organized to follow an orderly pattern towards achieving a remedial measure for the problem. The frequency, severity and diversity of crisis in the recent times deserve a drastic attention, bearing mind its usual heavy toll on lives and properties among others. This paper attempts to examine social, economic and environmental problems caused by urban violence with a view to be recommending physical planning measures to ameliorate the impact of urban violence thereby bringing life to normal in Tudun-Wada settlement of Kaduna Metropolis. The study reveals persistent urban violence, destruction of properties, destruction of life especially effective labour force, disruption of socio- economic and political activities of Tudun-wada, slow development etc. Recommendations made towards ameliorating the impact of urban violence include public participation, use of social capital, provision of emergency relief zones (multipurpose) and relief management agency, social disaster insurance scheme, the system technique and the environmental planning management techniques.

Keywords: violence; planning; urban; economic; social

INTRODUCTION

Violence can be said to be as old as man himself, which has left him with the feeling of fear, suspicion and insecurity in his dwelling unit due to the catastrophic consequences of these violence.

It is held as a matter of common sense and fact by Achi (2014) that the main cause of violence in societies is urban development and growth of huge cities and the cramming of their increasingly impoverished inhabitants into restricted areas and thus undermining sociability and increased the level of violence occurring in conflicts. Violence could thus, be said to emerge in settings of extreme economic and social inequalities where huge income gap exists. However, while violence and crime affect every social group, some groups suffer more from discrimination and violence than others, blacks, women, indigenous people and children.

This situation is grossly the same in most developing countries and Nigeria where about 70% of crimes and violence go unreported and unpunished due to poverty, ignorance, insecurity and discrimination. In developing countries, the government does not respect its own laws and equality of citizens before the law (Mary, 2016).

It becomes obvious that every human activity, every social relationship and interaction presupposes conflict, which has direct and indirect effect on the individual and general growth and development of our urban cities. To this end therefore, since the actions of every individual, public authorities and pertinent professional bodies affect the situation of everybody else, one need only consider infrastructure, housing and transportation design and policies, which has most likely been applied in some of the developed countries to curb the increasing rate of urban violence.

LITERATURE REVIEW
Urban violence trends

Its nature or characteristics as well as effect is universal but approaches to combating them statistics reveal that not only is the incidence of violence becoming frequent, but the nature of those crimes more heinous.

What was obtainable in the early age on violence were at minimal scale as crime and violence were strictly against social and religious ethnic and as such crimes like petty thefts in localities (theft of chickens, goats, yams in the barn etc), (Mary, 2016) fetish activities that can kill or hinder

other 'individuals' achievements (as far as the belief can go), quarrels etc. From this stage the rate of crime and violence kept rising with outright murder in hidden places, child stealing for rituals, burglary etc.

Sources of Violence in Africa

Africans can be said to have experienced two major kinds of urbanization, the pre-colonial and the colonial (Chris, 1999). The colonial urbanization is most parts of Africa is a twentieth century development. It is engendered by contact with European colonialism and Western preferment. The kinds of violence related to the twentieth century urbanization proceeds. The term here however excludes the historically over-worked issue of anti-colonial struggle, except for the South African case, which greatly threatened the security of some other independent African states.

Over Population

One of the major causes of urban violence in Africa is over population. As stated by the Federal Government of Nigeria (2011) that many urban centres in Africa are overpopulated. The rapid rate of urban agglomeration was caused by the superior employment, education, healthcare and other attraction of urban environment. Unlike the situation in Western Europe and North America, the African urbanization processes is not matched by industrialization, therefore, there is no enough industrial work for the ever-increasing number of rural-urban migrants.

Direct Monetary Cost of Violence

This includes monetary costs incurred by victims of crime and violence. In nationwide estimate carried out in 1983, Reynold (2016) included in his calculation such costs as:
  a. Personal loss: Homicide, rape, assault, robbery (i.e. cost of injury/medical expenses);
  b. Property loss: Burglary, theft, robbery, motor vehicle theft (i.e. cost of property damage /cash loss);
  c. Business loss: Arson shoplifting, employee theft and business fraud (cash loss).

Indirect Monetary Cost of Violence

This include all the monetary costs incurred by the potential victims to prevent the occurrence of crime; cost of engaging the services of police; the cost of legal services; the cost of security personnel; watchdogs; electronic surveillance apparatus; the cost of burglar proofing, fences, etc.

Direct Social Cost of Violence

These relate to the social effect of crime on victims. The primary social cost of crime is the fear of crimes that is generated in people. Hon. Ibrahim (2014) observed that in the social and behavioral impact, the fear of crime might be as potent as victimization itself.

The fear and insecurity of urban violence subjects' people to emotional stress, restricts their movements and zeal of investing in such violent areas, restricts their contribution to urban development and impose all manner of personal and even financial costs on them (Obateru 2010).

Indirect Social Cost of Crime and Violence

This cost of violence refers to the social (including environmental) effects of the security device put in place to combat social vices, either on the users themselves or in the neighborhood (Nonye and Onyekwere, 2016). Inclusive here is the isolation of occupants in walled gardens and building from their social environment, the restriction of their circulation were small windows are used, the difficulty of escaping from fire outbreaks in heavily burglar-proofed buildings etc.

STRATEGIES OF COMBATING URBAN VIOLENCE

Violence, a word that means murder, mugging, terrorism, gang crimes, death, pair, sorrow, widows and orphans (Rodrigo, 2017), has never been a public health, priority, probably because violence has been looked at with a somewhat fatalistic attitude promotion of a healthy family life (against domestic violence), teaching of values in the school system as well as education through the mass media to improve tolerance, rehabilitation of youth gangs, and comity participants in city issues.

The DESEPAZ program was tested on the country out of three comities that are violent in the city. The multiple interventions described were applied with specific emphasis; as a result, crime rates decreased significantly in the community. Other effects of the intervention are equally important: people learned that peace is not provided by the government instead they know it is the result of everyone's involvement and effort.

Crime Prevention Through Environmental Design (CPTED)

This is the proper design of effective use of built environment in order to lead to a reduction in the fearing and incidence of crime and an improving in the quality of life. It is based on the premises that a proper design and effective use of the physical pig can produce behavioral effect that will reduce the incidence of fear of crime thereby improving the quality of life of people in the technique; the physical environment is manipulated in such a way that the resulting form will deter crime and violence (Nonye and Onyekwere, 2016).

Development Control Mechanism

Essentially, this is where the role of playing in the building industry is affected. For other day-to-day controls, zoning plans, set-back specifications, height specifications, building by-laws, density should have its own guidelines within a framework of the whole city. Unfortunately, most of these bylaws and requirements and specifications are older than those who operate them. The general process of urban development in which development control plays a role contains three inter-related stages, (Nonye and Onyekwere, 2016):
  i. Design state
  ii. Construction stage
  iii. Management stage

Neighbourhood Planning

Neighbourhood is the minimum planning unit desirable for the development of residential areas. Is the area which is when residents share all the common physical and social infrastructure regard in the vicinity of dwellings? (Obateru, 2010).

Traditional Method of Conflict Resolution

Before the advent of colonialism and the introduction of the western model of conflict management, Africa had an efficient cultural mechanism by which conflicts between groups, communities or even States, and Kingdoms were settled instantly within the shortest possible time proximate to the occurrence of the event. Nonye and Onyekwere, (2016). Posited that such mechanism is part of the culture of the social formations in which it was practices. Traditional methods of conflict resolution are institutionalized social relationships.

Peaceful Resolution of Conflicts: Citizen Diplomacy

This is done through elders in the community. In most African societies where, elder age is the key principle of representation, the institutionalized elder's forum, which sometimes cuts across communities, provides a platform for their prompt mediation in disputes (Nonye and Onyekwere, 2016).

Avoidance Relationship

A conflict can be resolved through avoidance relationship. A variant of this relationship is one that expresses respect and at the same time emphasizes separateness. Sometimes it involves certain formal restrictions and prohibitions.

Symbol Diplomacy

Symbol has been defined as 'a representation of meaning or value, an external sign or gesture which by association conveys an idea or stimulates feeling. The importance of symbolism lies in the recognition of one thing, object or person as standing for or representing another, and capable of generating and receive effects received from the object it represents (Nonye and Onyekwere, 2016).

Violent Resolution of Conflicts

Raiding: as a means of settling disputes, raiding was practiced in pre-colonial Africa. Elders who recall the phenomenon say that, raid usually carried out especially in clan/ village settlements in retaliation of abduction of wives, and children and the running away of wives, et cetera.

Blood Feuding

This traditional method of conflict resolution means an institutionalized enduring relationship of violent hostility between two or more component groups in society. Blood feud has as its primary objective inflicting of reciprocal homicide on the offending group by members of the group whose member (s) been killed. It thus exemplifies the principles of self-help and group solidarity.

Warfare

The institutionalized provisions for settlement of blood feud, together with strict adherence to the principles of lextalions distinguish blood feud from war. However, they were also a means of settling disputes between conflicting parties. Thus, war has been appropriately defined as: 'a state between nations, in which all forms of power are used in order to achieve that which one of the parties at least, considers itself unable to attain in a state of peace.

AUSTRALIAN EXPERIENCE OF STRATEGIES IN DEVELOPED COUNTRY

The use of crime prevention through environmental design (CPTED) principles in Australia was applied to the new Brisbane Bus-way stations. With use of National surveillance, a design concept primarily aimed at maximizing the visibility of people and space through site location (use of glass walls and bright lighting).

On the issue of crime prevention, a significant role and responsibilities in the development, implementation, condition, management and evaluation of specialized state-wide strategic policy and project work is relation to domestic and indigenous family violence prevention is centre around the application of CPTED principles which has been key to urban and suburban planners in Australia since nineteenth century (Nonye and Onyekwere, 2016).

MEASURES USED IN CONTROLLING CRIME AND VIOLENCE IN KENYA

Obudho and Owuror (2017) reported that following the trend of crime in Kenya (i.e. random survey which was carried out in the Central Business District of the city of Nairobi, crime has been on the increase. In the year 1990, 24,906 cases of crime were recorded was 24,281 in 1991; 24,779 cases in 1992 and 24,972 cases in 1993) various measures have been taken to abate the high rate of crime in Kenya. The various measures were discussed thus;

    (a) Social/control mechanism
    (b) State prevention measure
    (c) Crime prevention and control institutions
    (d) State correctional measures
    (e) Community reactive strategies

THE STUDY AREA

Tudun Wada, Kaduna is situated on altitude 10⬚ 30' North and Longitude 7⬚ 28' East, where the Lagos, Kano railway line crosses the Kaduna river and where the eastern Railway line branches off south of the railway bridge.

RESEARCH METHODOLOGY

Population of the Study Area

National Population Commission (NPC, 2006) Population Projected Figure, 990,525 people projects to present year (2016) using NPC's growth rate of 3.8% present population is thus:

$Pn = po [1 + r/100] n$
$Pn = 990,525[1 + 3.8/100]13$
$Pn = 990,525[1 + 0.38]13$
$Pn = 990,525$
$Pn = 1,608,520$ people.

- Tudun Wada Population Provided by NPC (2006 Population Census) For Target Population [15-29 Years]: Project to 2016 using 3.8% growth rate = 13,847.

- Sample Size for Target Population: 3% sample size = 0.03 x 13,847 = 415

- Sample Size for Total Household Head Population

Total population in Tudun Wada   = 38,445
Average number of people per household   = 8
Procedure from Krejice and Morgan: 30,000 = 379
                         8,000 = 367
                         440 = 205
                           5 = 5
Sample size = 379 + 367 + 205 + 5 = 956
          956 ÷ 8 = 120 households
Obtaining the percentage = 120 / 4806 x 100 = 2.5%

Sampling Techniques

The systematic sampling techniques was employed, the technique is concerned with the selection of nth item until the sample size desired is selected.

With population of households   = 4806
And the sample size   = 120
The ratio would be   = 120:4806 = 1:40

DATA ANALYSIS

TABLE 1: Age/Sex Distribution

AGE	MALE		FEMALE	
	NO	%	NO	%
0 – 5	2421	6.3	2883	7.5
6 – 10	2153	5.6	2268	5.9
11 – 15	1615	4.2	1922	5.0
16 – 20	1884	4.9	1499	3.9
21 – 25	1100	5.5	1038	2.7
26 – 30	2114	4.1	1000	2.6
31 – 35	1768	4.6	1269	3.3
36 – 40	1615	4.2	1423	3.7
41 – 45	1268	3.3	1384	3.6
46 – 50	1076	2.8	1192	3.1
51 – 55	923	2.4	1038	2.7
56 – 60	165	1.6	615	1.6
61 – 65	577	1.5	538	1.4
66+	384	1.0	384	1.0
TOTAL	**19991**	**52**	**18454**	**48**

Source: Field Survey, 2022

The male population with 58% as against 42% for female indicates that there is high rate of violent group especially when the male active violent group of 15-39 years has 24.3% as against 14% for women.

TABLE 2: Marital Status

RESPONSE	NO	PERCENTAGE (%)
Married	48	40
Single	47	39
Divorced	1	1
Widow	12	10
TOTAL	**120**	**100**

Source: Field Survey, 2022

There is the impending situation of increase in population in the area if 39% are single and are potential population producers alongside the possible re-marrying of the divorced and widows who certainly are going to bear more children. The area which already have excessive population (38,445) for a neighborhood would be congested further and thus give rise to stress and friction that may precipitate violence.

TABLE 3: Family Structure

RESPONSE	NO	PERCENTAGE (%)
Polygamous	23	19
Monogamous	77	81
TOTAL	**120**	**100**

Source: Field Survey, 2022

The already large population would be compounded further with the existing family structure which has 19% representation for polygamous families in the area, has not only the problem of increasing population but has adverse effect on children especially the ones prone to violence.

TABLE 4: Religious Structure

RESPONSE	NO	PERCENTAGE (%)
Islam	25	21
Christianity	92	77
Others	3	2
TOTAL	**120**	**100**

Source: Field Survey, 2022

There is evidence of unbalanced religious group as only 21% dwellers are Muslims while 77% are Christians, indicating that the effect of violence must have contributed to such situation.

TABLE 5: Predominant Violence in the Area in the Past 10 Years

RESPONSE	NO	PERCENTAGE (%)
Ethno-religious	72	60
Political crisis	24	20
Others	24	20
TOTAL	**113**	**100**

Source: Field Survey, 2022

From the survey, ethno-religious violence has taken pre-eminence with 60% of the respondents attesting to that as against 20% for political violence and 20% for other forms of violence.

TABLE 6: Frequency / Mode of Occurrence

RESPONSE	NO	PERCENTAGE (%)
Spontaneity	96	80
Others	24	20
TOTAL	**120**	**100**

Source: Field Survey, 2022

This type of violence as obtained from the survey; occur spontaneously with 80% attesting to that and 20% of the respondents claim other mode of occurrence i.e. once a year, twice a year etc.

SUMMARY OF FINDINGS
Social Characteristics
The social characteristics of the people in Tudun-Wada has proven instrumental to the occurrence of violence as those social factors that help develop a better mental orientation of people are handicapped, factors such as literacy level where as much as 24% for illiterates and 30% with only primary education; marital status having 1% and 10% for divorced and widowed families respectively and such families with single parents have little to offer in child care and upbringing; family structure with 19% of polygamous families which have adverse effect on children; population congestion which is already excessive is further compounded with 39%, 19% of potential productive groups (single, divorced and widowed); and religion with as much as 92% of Muslims only indicating that it is quite instrumental since it rose to this much after the crisis.

Economic Characteristics
The saving capacity of the dwellers is low as greater percentage (47%) of respondents spends more as against 42% who earn lower than they spend. To aggravate the situation 27% are unemployed as much as 52% are self-employed engaging in one little venture or the other which provide avenues for cramming of idle and mindless people who end up forming gangs that scheme irresponsible activities. Such ventures include local drinking places, smoking joints e.t.c.

PROPOSAL, CONCLUSION AND RECOMMENDATIONS

Proposals
- The physical planning proposal adopted for Tudun-Wada based on the nature and character of urban violence in the area has taken cognizance of some applicable measures reviewed especially the CPTEPD concept.

- The application of CPTEPD, DESEPAZ, Obateru's mitigative measures and some case study application in some areas in all relation to traditional planning forms have been unified to derive a better physical development plan that will be responsive to urban violence in the area and can be applied elsewhere.

- Principally, the CPTEPD approach has been applied directly on Tudun-Wada considering existing situation, and, applied considering Tudun-Wada to be plain area.

Conclusion
The style of physical planning development in Nigeria, which has been referred to as alien in this project, I think it is about time Nigeria planners headed back to our roots before adopting these alien design forms introduced our colonialists, so that in so many ways, we will solve a lot of physical planning problems facing our urban areas.

Most importantly, dedication to the planning profession, its codes and conduct strictly practiced (i.e. execution of development control), will restore the dwindling glory of the profession, as well as securing our environments and the people within and as much, the aim of planning, which is to achieve a practicable degree of convenience, health beauty, 'order' and economically viable environment, would be not be farfetched.

Recommendations

(1) The execution of any of the proposed plan should be strictly adhered to without any alteration probably as a result of insufficient funds, or corrupt practices, so as to decisively bring solution(s) to this re-occurrence of violence in Tudun-wada in particular and Kaduna and Nigeria in general.

(2) In the proposal, public and semi-private zones when being constructed by individuals should be provided with physical security planning tools i.e. hardware's, lighting and surveillance equipment or security posts. This is why the concept encourages the mixture of various densities, so that the more financially buoyant ones within each defensible space can always help out in such needs.

(3) The introduction of strong community ties and efforts should be made in Tudun-Wada, in such fashion as may be agreed by the dweller:
   a. Women Wing Forum (W.W.F)
   b. Youths Consultative Forum (Y.C.F)
   c. Council of Mallam's and Elders Forum (C.M.E.F)
   d. Defensible Space Setting (D.S.S)

REFERENCES

[1] Achi L. B. (2014): *Urban Design in Nigeria*: published by Yambe enterprises, Federal Housing Estate, Gonin Gora kaduna, Pp. 109 – 141.

[2] (FGN) Federal Government of Nigeria (2003); *strategies conflict Assessment*: consolidated and Zonal reports (Nigeria) Institute for peace and conflict Resolution, the Presidency, Abuja published by Institute for Peace and Conflict Resolution (IPCR) plot 496 Abogo Largema street, Abuja Pp. 178 – 224.

[3] Ibrahim A. S. (July 2014): Lead comment; Ethno-religious Crisis in Nigeria. Imperatives of National Dialogue; Weekly Trust Newspaper. Page 31.

[4] Isaac O.A. (2019): *Urban management and Urban Violence in Africa;* Vol. 1 published by IFRA, university of Ibadan post office box 21540, ibadan Nigeria.

[5] Chris, G. (1999), *Capacity Building for Crisis Management in Africa*: published by Gabumo publishing company limited, 12A, Morris street, Yaba Lagos, Nigeria.

[6] Nonye F. Duruzoechi and Onyekwere N. Ezirim (2003); *Principles of Sustainable Urban Development:* published by Tropical publishers, Owerri, Nigeria.

[7] Obateru O.I., (2010): *Planning the city to Mitigate Urban Violence*: Pp. 29 - 37. Published by University of Ibadan, Press.

[8] Obudho R. A. and Owuror, S. O. (2001): *Urbanization and crime in Kenya*: Pp 47-49. In Placing Gender in the mainstream (2001): *IGAD policy seminar on peace Building and Conflict Resolution*; Khartoum, Sudan/

[9] Rodrigo G. (1993): The Urban Age, vol.1 (1993): Urban Violence Issues by Rodrigo Guerrero.

[10] The influence of Politics in Planning (A case study of Kudenda North, Kaduna) by Mary Nwagu.

[11] Urban Field Seminar; Application of CPTED principles in the physical planning of Neighborhoods (A Case Study of Down quarters, Kaduna), by Pentagna, P.F.A.