Afropolitan Journals

ISSN: 2617-3072X www.afropolitanjournals.com

Assessing the Physical Development of Bayan Dutse Neighbourhood, Kaduna Metropolis, Kaduna

Patricia Ekereoghene Ikpahwore, Abok Galadima and Mansur Bello

Department of Urban and Regional Planning, College of Environmental Studies, Kaduna Polytechnic, Kaduna.

Abstract

This paper examined the physical development of Bayan Dutse in terms of contravention attributes such as building setbacks, building lines, plot sizes and plot area coverage with a view to making planning recommendations for improvement. The survey research method was adopted for the study. Observation checklist, questionnaire and interview guide were used to collect relevant information. The Krejice and Morgan's Table of 1970 was used to determine the sample size of 335. The totals of 300 buildings were surveyed. The data collected was analyzed using frequencies, averages, percentages and textual. The data were presented in tabular and textual forms. The study found that there is high level of land use contravention leading to poor environmental condition and distortion of open spaces. The study recommended that effective development control should be carried out by the planning agency (KASUPDA) through monitoring of development and enforcement of contravention orders. Effective public awareness campaigns on planning activities were also recommended.

Keywords: Land Use, Contravention, Set-Back, Assessment, Building Lines.

Introduction

The thrust of effective physical development is development control. This is because the purpose of development control is to ensure the orderly and rational development of land and to create sustainable development of human settlements that accommodate various land uses for meeting human needs (Ibrahim and Mai, 2020). However, it is apparent that the purpose of development control and that of physical planning at large has not been attained in most urban areas of the developing countries. This phenomenon has been attributed by some scholars to land use contravention (Arku, Mensah Allotey & Frempong 2016; Ibrahim & Mai, 2020; Ibrahim, 2013 and Ibrahim, 2019, Menssah & Frempong, 2016; Okosun, 2000).

Although research abound on land use contravention globally, the issue is still relevant to researchers to date. This is because the nature of the contravention may differ from country to country or from city to city due to some peculiarities that may exist. Therefore, Kaduna metropolis just as other cities (particularly in the developing countries) is faced with the challenges of ineffective development control which usually manifest in land use contraventions. This research is therefore significant because it fills that gap. In view of this, the study provides an assessment of physical development of Bayan Dutse with a view to understanding the nature of land use contravention and to make recommendations for effective development control.

Statement of Problem

Okosun (2000) asserted that a common feature in Nigerian urban centers today is haphazard pattern of development. This phenomenon occurs due to land use contravention besides other factors. The contravention of land uses occurs as a result of building without approval from the planning authorities and consideration of building regulations especially setbacks, which tend to affect the functionality of a neighborhood. Non compliance to building or development permit's regulation has been described as a major urban planning challenge (Menssah & Frempong, 2016; Arku, Mensah Allotey & Frempong 2016). From observation, Bayan Dutse has high degree of land use contravention as a result of ineffective development control and high influx of people into the area. There are inadequate micro open spaces within the contravened buildings in the study area as a result of encroachment of buildings into right of ways and setbacks. This has led to non-alignment of building lines, non-adherence to plot coverage area in accordance with plot sizes.

This research attempted the understanding of peculiarities or similarities of the study area with other studies that have been conducted elsewhere on the subject being studied. In view of this, the study therefore aims at examining the physical development of Bayan Dutse in terms of building setbacks, building lines, plot sizes and plot area coverage with a view to making planning recommendations for improvement.

The Study Area

Bayan Dutse is situated in Chikun Local Government Area of Kaduna State. The study area lies within latitude 7° 27'15'' and 10° 28' 06'' and longitude 7° 27' 44'' and 10° 28' 35'', with a total area coverage of about 4,645 Square kilometer (km^2) and an area space of about 76km^2. It is bounded by Janruwa on the North, Ungwan Pama in the East, Narayi in the South and Angwan Maigero in the West.

Figure 1: **The Study Area in relation to Chikun LGA, Kaduna State, and Nigeria**

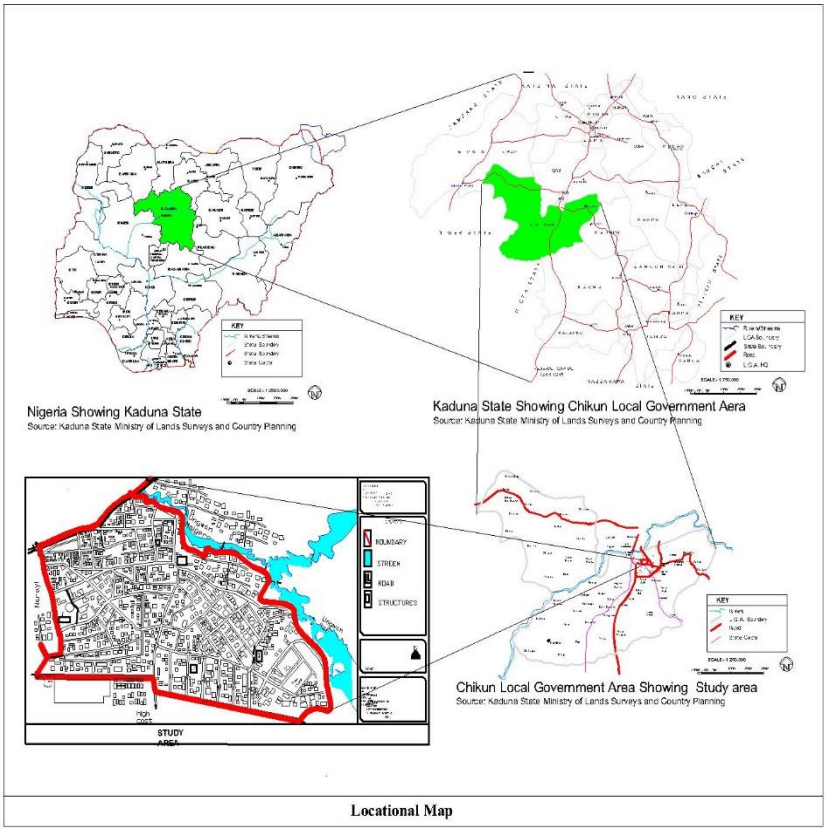
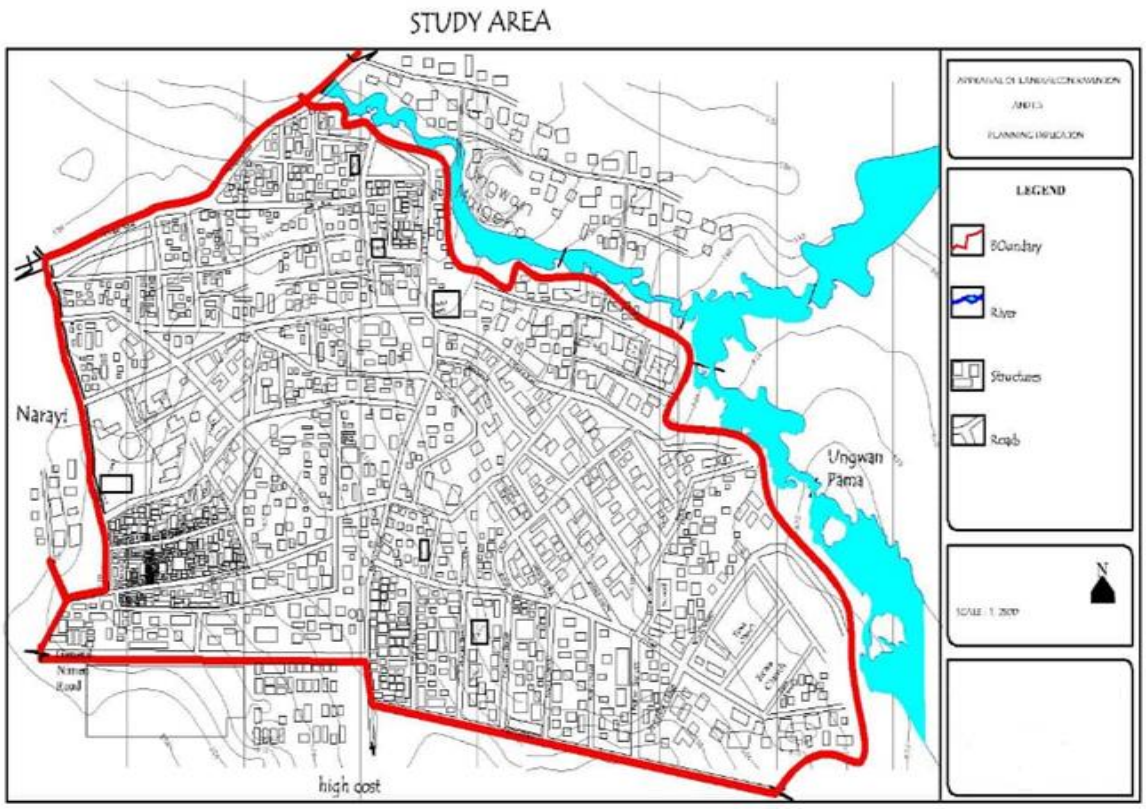


Figure 2: **Imagery of the Study Area**



Theoretical Underspinning

This section provides the overview of the concept of land use conversion, cause and effects of land use conversion as well as the historical perspective of land use control in Nigeria as follows.

Concept of Land Use Contravention

Land use contravention refers to a contravention of the land use scheme, a contravention of a condition of approval contained in a decision notice or a contravention of a provision of this any given bye-law (Law Insider, 2023). An example of land use contravention according to Sarkheyli, Sharifi, Rafieian and Benjamin (2012) is non compliance with floor area ratio. Other aspects of land use contravention include non conforming land use, improper set backs/building lines, insufficient open spaces and building heights (Adebayo, 2015; Ibrahim, 2013; Raji & Attah, 2017; Jimoh, Al-Hassan, Imimole & Ahmed 2017). The common feature in the Nigerian urban centres today according to Okosun (2000) is the haphazard pattern of development. This therefore can be attributed to mostly due to land use contravention as a result of ineffective development control.

It has been argued that an efficient management system must be established to tackle the issue of land use contravention. Therefore, identifying the causes and ways to mitigate such contraventions has been suggested to be an effective mean to deal with the phenomenon (Sarkheyli, Sharifi, Rafieian, Benjamin & Murayam, 2011). The purpose of development control is ensuring the orderly and rational development of land in order to accommodate a variety of land uses to meet the needs of the inhabitants of human settlements (Jimoh, Al-Hassan, Imimole and Ahmed 2017). Development control is also meant to ensure that developments conform to the development control regulations and bye-laws (Degaul 2023).

Causes of Land Use Contravention

Ibrahim and Mai (2019) noted that the causes of contraventions could be due to the process of architectural building plans, zoning regulations that did not consider the needs and requirements of the people, challenges in relation to building plan approval process, non-enforcement of penalties to offenders. Others include lack of awareness by the public on the negative consequences of contravention, sharp practices by the staff of planning authority and failure to comply with zoning regulations.

Effects of Land use contravention

Contravention of land uses negatively impact on the quality of life of residents as well as users of the affected facilities. Numerous effects of land use contravention on the quality of life and physical environment have been discovered by researchers. For instance, Ibrahim (2019) found that contravention affects sustainable development in Kano metropolis in terms of negative impact on the environment, building services, quality of habitability and

aesthetic. Also, Ibrahim and Mai (2020) stated that the cumulative effect of contraventions implies a sharp physical reduction in the available open space needed for effective cross ventilation, hence, reduced thermal comfort for the residents as well as reduction in out-doors activities.

Further, in terms of infrastructure, an over developed physical setting is said to be prone to poor electrical and water supply services due to over stretching of installations occasioned by haphazard connections. Again, the practice of constructing soak-away and septic tanks on the Public Right of Way (RoW) around the plot frontage further reduce the functional street width thereby affecting movement of goods, services and utilities along the road reservation.

The Historical Perspective of Land use Control in Nigeria

Successive governments in Nigeria (since colonial era) have committed high resources to development control to regulate the growth of cities. The history of land use regulation in Nigeria can be dated back to the pre-colonial era when land was allocated and controlled by the traditional rulers. Oduwaye (2006) stated that prior to the colonial era, before 1854, land use administration in Nigeria was vested on community rulers in different part of the community. These community rulers were the Obis in the East, Emirs in the North and Obas in the West. In the case of Bayan-Dutse, they are the Ward heads (Masu Anguwanni) and the Sarkis who had the legal status of trustee beneficiary on land, the power to allocate, re-allocate and supervise the use of land.

Research Methodology

The survey research method was adopted for the study. It was adopted because it primarily describes the nature and degree of the subject matter that exist at the moment dealing with the current practice, trends and processes used.To arrive at the sample size, the population of the study area which is 15,216 persons was divided according to the average household size which is six (6) persons per household to get 2,356 households. The number of households was further checked from the Krejice and Morgans' predetermined table of 1970 to determine the sample size, which is 335. Therefore, the sample size for this research is 335 being the number of households that were administered with questionnaire. A total of 300 buildings were surveyed based on personal observation. The sampling technique used for this research work includes Systematic random sampling method and Cluster sampling method as seen in Table 1.

Table 1: Number of Questionnaires administered in each cluster

Cluster	Number of households	Number of questionnaires to be administered
A	671	89
B	252	33

C	564	74
D	136	18
E	712	94
F	81	11
G	120	16
Total	**2536**	**335**

Source: Authors' Field Survey, 2022

Data collected from various sources were analyzed using the descriptive statistics viz frequencies, averages and percentages. The analysis and interpretation of data collected were presented using tables.

Results, Findings and Discussion

To achieve the purpose of the research, the study area was divided into seven (7) Clusters as Cluster A, B, C, D, E, F and G). A total of 300 buildings were surveyed.

Table 2: Plot Sizes of Buildings in the Seven (7) Clusters

S/No	*Clusters*	*No. of Buildings*	*Standard*	*Existing Plot Sizes in the Study Area*			*Shortfall /Excess*	*Remarks*
				Size	**Plots**	**%**		
1.	A	79	450m²	450m²	47	59.49		Adequate
				225m²	32	40.51	Shortfall 225m²	
2.	B	33	450m²	450m²	18	54.5	Shortfall	
				225m²	15	45.5	225m²	
3.	C	62	450m²	450m²	44	70.9		Adequate
				225m²	18	29.1	Shortfall 225m²	
4.	D	18	450m²	450m²	7	38.9	Shortfall	Inadequate
				225m²	11	61.1	Shortfall	
5.	E	81	450m²	450m²	52	52.9		
				225m²	29	37.1	Shortfall 225m²	
6.	F	11	450m²	450m²	7	63.6		
				225m²	4	36.4	Shortfall 225m²	
7.	G	16	450m²	450m²	12	75		Adequate
				225m²	5	25	Shortfall 225m²	
	Total	**300**						

Source: Authors' Field Survey, 2022

Table 2 shows that most of the plot sizes observed within all the clusters in the study area fall under the plot size for the high-density i.e., 450m². Although, there is a high shortfall of

plot sizes (225m^2) within the study area, especially in cluster D, E, B and A, this has not affected the density of the area.

The data in cluster A shows that there is 54.5% of standard plot sizes and 40.51% shortfall of plot sizes. It was observed that there is 45.5% shortfall of plot sizes and 70.9% for standard plot size in cluster B. It was also observed that Cluster C has 70.9% of high-density plot sizes and 29.1% shortfall of plot sizes. The data for cluster D shows that 38.9% of the plot sizes are up to standard while there is a shortfall of 61.1%. Therefore, this indicates that there is high shortfall of plot sizes within this area.

Under cluster E, the buildings with standard plot sizes constitute 62.9% while the shortfall of the plot size is 37.1%. The total standard plot size observed in cluster F is 54.5% with a shortfall of 45.5% plot size. Cluster G has 25% shortfall of plot sizes and 75% standard plot sizes. This shows that the plot sizes in this cluster are adequate.

Table 3: Plot Coverage of Buildings in the Seven (7) Clusters

S/ No	*Clusters*	*No. of Buildings*	*Standard (70%)*	*Existing Plot Sizes in the Study Area*			*Shortfall/ Excess*
			High Density	**Note of Coverage**	**No. of Plots**	**Percentage (%)**	
1.	A	79	70%	70%	23	29.1	
				Above 70%	55	69.6	Excess
				Below 70%	1	1.2	
2.	B	33	70%	70%	23	29.1	
				Above 70%	55	69.6	Excess
				Below 70%	1	1.2	
3.	C	62	70%	70%	23	37.1	
				Above 70%	55	61.3	Excess
				Below 70%	1	1.6	
4.	D	18	70%	70%	6	33.3	
				Above 70%	11	61.2	Excess
				Below 70%	1	5.5	
5.	E	81	70%	70%	26	32.2	
				Above 70%	52	64.1	Excess
				Below 70%	3	53.7	
6.	F	11	70%	70%	1	9.1	
				Above 70%	19	90.9	Excess
				Below 70%	-	-	
7.	G	16	70%	70%	3	18.75	
				Above 70%	13	81.25	Excess
				Below 70%	-	-	
	Total	**300**					

Source: Authors' Field Survey, 2022

The data on Table 3 shows that there is 69.6% excess plot coverage in cluster A, 69.6% in cluster B, 61.3% in cluster C, 61.2% in cluster D, 64.1% in cluster E, 90.1% in cluster F and 81.25% in cluster G respectively. These findings therefore indicate that the developers do

not adhere to building regulations as they exceeded the standard plot coverage which is 70%. Consequently, this has resulted to little or no outdoor spaces within the buildings in the study area.

Table 4: Building Line

S/No	*Clusters*	*No. of Buildings*	*Standard*	*Existing Plot Sizes in the Study Area*			*Shortfall /Excess*	*Remarks*
				Building Line	**No. of Plots**	**%**		
1.	A	79	4m	4m	3	3.9	Shortfall	Inadequate
				3m-2m	5	6.3		
				1.5m-1m	9	11.4		
				Below	25	31.6		
				1m	37	46.8		
				Non				
2.	B	33	4m	4m	-	-	Shortfall	Inadequate
				3m-2m	-	-		
				1.5m-1m	5	15.1		
				Below	16	48.5		
				1m	12	36.4		
				Non				
3.	C	62	4m	4m	8	12.9	Shortfall	Inadequate
				3m-2m	14	22.6		
				1.5m-1m	510	16.2		
				Below	11	17.7		
				1m	19	30.6		
				Non				
4.	D	18	4m	4m	2	11.1	Shortfall	Inadequate
				3m-2m	2	11.1		
				1.5m-1m	1	5.5		
				Below	4	22.2		
				1m	9	50		
				Non				
5.	E	81	4m	4m	8	9.8	Shortfall	Inadequate
				3m-2m	8	9.8		
				1.5m-1m	12	14.9		
				Below	25	30.9		
				1m	28	34.6		
				Non				
6.	F	11	4m	4m	-	-	Shortfall	Inadequate
				3m-2m	-	-		
				1.5m-1m	2	18.2		
				Below	4	36.3		
				1m	5	45.5		
				Non				
7.	G	16	4m	4m	-	-	Shortfall	Inadequate
				3m-2m	-	-		
				1.5m-1m	5	15.1		

		Below	16	48.5	
		1m	12	36.4	
		Non			
	Total	**300**			

Source: Authors' Field Survey, 2022

Table 4 indicates that there is a high shortfall of building line within all the clusters in the study area. This also shows that there is poor adherence to planning standards thereby leading to poor alignment of buildings, poor drainage system and lack of aesthetics in the environment.

Table 5: Availability of Building Setbacks in the Seven (7) Clusters (Back / Rear)

Standard for Rear Set back (2)	*Clusters (A)*		*Cluster B*		*Cluster C*		*Cluster D*		*Cluster E*		*Cluster F*		*Cluster G*	
	F	**%**	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**%**
2m	8	10.1	5	15.1	53	8.1	2	11.1	12	14.8	2	18.1	3	18.7
1.5m – 1m	35	44.3	14	42.4	34	54.8	9	50	44	54.3	3	27.3	8	50
Below 1m	23	29.1	8	24.3	10	16.1	5	27.8	14	12.3	4	36.3	2	12.6
Non	13	16.5	6	18.2	13	21	2	11.1	11	13.6	2	18.1	3	18.7
Total	**79**	**100**	**33**	**100**	**62**	**100**	**18**	**100**	**81**	**100**	**11**	**100**	**16**	**100**

Source: Authors' Field Survey, 2022

Table 6: Availability of Building Setbacks in the Seven (7) Clusters (Left / Right)

Standard for Left / Right Setback(2)	*Clusters (A)*		*Cluster B*		*Cluster C*		*Cluster D*		*Cluster E*		*Cluster F*		*Cluster G*	
	F	**%**	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**%**
2m	6	7.6	4	12.1	9	14.5	1	5.6	14	17.3	1	9.1	4	25
1.5m – 1m	29	36.7	16	48.5	30	48.4	8	44.4	32	39.5	1	9.1	6	37.5
Below 1m	25	31.6	8	24.3	20	32.3	5	27.8	25	30.8	5	45.5	5	31.3
Non	10	24.1	5	15.1	3	4.8	4	22.2	10	12.3	4	36.3	1	6.2
Total	**79**	**100**	**33**	**100**	**62**	**100**	**18**	**100**	**81**	**100**	**11**	**100**	**16**	**100**

Source: Authors' Field Survey, 2022

Table 7: Availability of Building Setbacks in the Seven (7) Clusters (Front)

Standard for Front Setback (4m)	*Clusters (A)*	*Cluster B*	*Cluster C*	*Cluster D*	*Cluster E*	*Cluster F*	*Cluster G*

	F	%	F	%	F	%	F	%	F	%	F	%	F	%
4m	3	3.8	3	15.1	7	11.3	-	-	5	16.2	-	-	2	12.5
3.5m – 3.0m	17	21.5	7	21.2	21	33.8	5	27.8	28	34.6	1	9.1	4	25
2.5m – 2.0m	20	25.3	8	24.4	18	29.1	6	33.3	20	24.7	1	9.1	1	6.2
Below 1m	-	26.7	1	3.0	1	1.6	-	-	-		5	45.5	5	31.3
Non	21		2	6.0	3	4.8	-	22.2	17	27	3	27.2	4	25
Total	**79**	**100**	**33**	**100**	**62**	**100**	**18**	**100**	**81**	**100**	**11**	**100**	**16**	**100**

Source: Authors' Field Survey, 2022

The data on Tables 5, 6 and 7 indicate that many residents in the study area have violated the building setback standards. The provision of setbacks along front, back/rear and sides of a building leaves an adequate outdoor space for sitting, parking and ventilation. The number of buildings observed in the seven (7) clusters shows the percentage developers that adhered to the standard and those that did not adhere. This shows that there is inadequate space for parking which can consequently lead to on-street parking, little or no space for sitting and other outdoor purposes.

Table 8: Land Use Type

Land Use	*Cluster*							*Frequency*	*Percentage (%)*
	A	**B**	**C**	**D**	**E**	**F**	**G**		
Residential	64	27	57	17	72	9	14	260	86.7
Commercial	10	4	3	1	8	2	2	27	9
Public	5	2	2	-	4	-	-	13	4.3
Total No. of Building	**79**	**33**	**62**	**18**	**84**	**11**	**16**	**300**	**100**

Source: Authors' Field Survey, 2022

The data on Table 8 indicates the land uses in study area constitute of 86.7% residential, 9% commercial and 4.3% for public uses respectively. This shows that the major land use in the study area is residential.

In view of the above findings, it can be asserted that there is ineffective development control in the study area since there is the occurrence of contravention. The high level of land use contravention in the study area has led to the physical disorder of open spaces, inefficiency of services which includes the delivery of pipe-borne water, electricity and sewage networks. It also affects the comfort of the residents, shade and accessibility of the buildings as well as the physical out look of the environment.

Conclusion

The growth and expansion of cities as a result of urbanization as well as increasing demand for residential and commercial uses, coupled with the inability of relevant Planning Authorities to effectively control development are contributing factors that gave rise to land use contraventions in Bayan Dutse. Quality living, environmental issues, basic facilities and service are negatively affected by land use contravention. Land use contravention has led to inadequate water supply which has led to drilling of boreholes, digging well some of these wells are wrongly located on low terrain and causes run-off water during raining season to drain into the wells which contaminate the water quality. Insufficient electricity supply has resulted to individuals relying on private generators which also causes noise and air pollution. There are insufficient parking spaces and narrow streets due to side street parking on both sides and also on sidewalks. High level of land use contravention in Bayan Dutse indicates a deficiency in developers and planning agencies level of awareness about building regulations/standards. This means that most of the developers in the study area are sufficiently not aware of the regulations and the importance of compliance. In some cases, the developers do not know that their actions violate the building regulations. The consequence will be haphazard pattern of urban growth which will make the provision of infrastructure difficult. Land lords and tenants now engage in development of commercial activities on residential land thereby reducing the stock of residential land use.

This paper further shows that the above mentioned can negatively affect the quality of life in Bayan Dutse, as well as negative impacts on future government plans and emergence of conflicting land uses which can lead to environmental degradation. The negative effects of these developments are illegal encroachment, over stretching of available facilities within the neighborhood and non-compliance to building regulations due to lack of development control by the Planning authorities and lack of awareness by the public.

Recommendations

Studies have shown that land use contravention negatively affects the lives of people living in the neighborhood. In view of this and based on the findings of this study, the following recommendations were made:

1. There should be planned effort by the planning agencies and the residents of Bayan Dutse to eliminate the practice of land use contravention through effective campaigns and training people to raise public awareness and enlightenment through advocacy programmes on the effects of land use contravention. The training is important for the officials of the agencies in order to achieve a better understanding of land use contraventions.
2. The major land use affected in Bayan Dutse is the residential land use, to this effect, appropriate policies (empowerment) should be taken to raise the socioeconomic status and quality of life of the residents. Developers must be required to perform their construction work under the supervision of experts.

3. Government should use relevant agencies to ensure the provision of social amenities or infrastructure in form of water quality, good drainage, health officers and supervisors to monitor the environment sanitary within the study area. Where individuals have dug wells, the wells should be rightly covered when not in use.
4. Specific programmes such as "right to quality environment through planning campaign" should be initiated to emphasize that quality environment through sustainable planning and development is a right along with access to basic facilities, utilities and services, education and employment which cannot be achieved through the practice of land use contravention. There should be public participation with their own decisions and consultations in implementing building regulations/ planning standards.
5. The development plan should be reviewed every ten years according to Urban and Regional Planning law of 1992 to meet development trend. Bayan Dutse should not be an exception in order to include new developments in the layout/planning schemes and provision of appropriate land uses that will reflect the requirements or interest of the public.
6. Government should enforce proper penalties against defaulters through its planning agencies; structures that violate setbacks should be demolished by the agency. Dedicated and qualified staffs are needed to be in the service of the planning agencies, with good character, honesty and difficult to be compromised during conduct of service.
7. The it is recommended that following measures be untaken by the Kaduna State Urban Planning and Development Authority (KASUPDA) in order to effectively Control Land Use Contravention in the state.
    i. Ensuring strict compliance given standards for setbacks, building lines, plot sizes and plot ratio
    ii. The Development Control Department should to be empowered in all ramifications to to effectively discharge its responsibilities
    iii. There should be effective supervision of development at regular intervals in order to ensure that all forms of developments are carried out as specified in the building approval.
    iv. There should be the adequate public awareness and sensitization on planning matters to ensure compliance with planning regulations
    v. There should be effective monitoring of developers who make alterations on their plots after acquiring C of O or who have already developed to avoid future contravention of setbacks, building lines, plot ratio or plot sizes.

References

Adeyeye, L. A. (2015). Development: A Very Smart Heart of Urban and Regional Planning. Ile-Ife, Nigeria. Timade.

Arku G.; Mensah K.O.; Allotey N.K. & Frempong E.A. 2016). Non-compliance with building permit regulations in Accra-Tema city-region, Ghana: exploring the reasons from the perspective of multiple stakeholders. https://doi.org/10.1080/14649357.2016.119221

Degaul J. (2023). *Effects of non compliance to building regulations (a case study of Aboabo, a suburb of Kumasi-Ashanti Region, Ghana*). Retrieved from: https://independent.academia.edu/JasonDegaul Dissertation.

Ibrahim S.K. and Mai M.M. (2020). Effect of contravention of building regulations on the quality of built environment in Nigeria's urban centres: Case study of Kano metropolis. *LAUTECH Journal of Civil and Environmental Studies*. 4(1). PP 143-151. DIO:10.36108/laujoces/0202/40(0151)

Ibrahim, S.K. (2019). The Impact of building regulation contravention on rapid urbanization: Case study of Kano metropolis. European Journal of Sustainable Development, 8(5), 350-357. Doi: 10.14207/ejsd.2019.v8n5p350

Ibrahim, S. K. (2013). Assessment of the Impact of Contraventions of Building Regulations on the Architecture of Mixed Land Use Areas of Kano Metropolis, Nigeria. Unpublished PhD

Jimoh, B.A.; Al-Hassan, A.Z; Imimole W.O. and Ahmed, M.B. (2017). Contravention of development control measures in Auchi, Nigeria. *Pearl Research Journal* of Physical Science and Environmental Studies. 4(6), pp. 1001-1009. ISSN: 2471-8782

Krejice, R. V and Morgan, D. W. (1970. Determining Sample Size for Research Activities. Educational and Psychological Measurement.

Law Insider (2023). *Contravention definition*. Retrieved from: https://www.lawinsider.com/dictionary/contravention

Menssah A.K. & Frempong E.A. (2016). *Non-compliance with building permit regulations in Accra-Tema City-Region, Ghana: Exploring the reasons from the perspective of multiple stakeholders*. Semantic Scholar. DOI:10.1080/14649357.2016.1192216

Oduwaye, L. (2006). Citizenship Participation in Environmental Planning and Management in Nigeria: Suggestions. *Journal for Human Ecology*.

Okosun A.E. (2000). *The contravention of development control: the case study of Benin City*. A dissertation submitted in partial fulfillment of the requirements of degree of Masters in Urban and regional Planning (MURP) of the University of Nigeria.

Raji, A. U. and Attah, U. A. (2017). *Enforcing Building Setbacks as a Viable Strategy for an Emerging City: A Case Study of Suleja*. Creative Common Attributes.

Sarkheyli, E.; Sharifi, A; Rafieian, M and Benjamin, M. R. (2012). *An Investigation of the Reasons for Non-Compliance with floor area ratio in Techran, Iran*: ISSN 0264-2751, E-ISSN 1873-6084, Vol. 29, no 4, p. 223-233

Sarkheyli, E.; Sharifi, A; Rafieian, M; Benjamin, M.R. and Murayam, A. (2011). An Investigation of the Reasons for Non-Compliance with Land Use Regulation in Techran, Iran.