

AN EXAMINATION OF THE SPATIO-TEMPORAL DISTRIBUTION OF CEMETERIES IN URBAN SOKOTO, NIGERIA

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Abstract

Cemeteries are final resting place for humans and thus, a vital and indispensable social infrastructure which needs to be studied, understood and incorporated into the physical planning of towns and cities. This study analyzed the Spatio-Temporal distribution of cemeteries in urban Sokoto, Nigeria. Data were obtained through interview with cemetery attendants selected purposively from the entire cemeteries in the metropolis. Key Informant Interview was also conducted with officials of Sokoto Urban and Regional Planning Board to obtain information on the planning implication of cemetery locations and results were analyzed descriptively. Data was analyzed descriptively using tables, charts and figures. The major findings revealed that there are 44 cemeteries in the metropolis with 42 belonging to Muslims, One for Christians and one mixed. The pattern of the spatial distribution of the cemeteries revealed a dispersed pattern based on the nearest neighbour analysis conducted. The study also reveals that 10 of the 44 cemeteries are now dormant while 34 are still active. The study recommended among others, proper planning of cemeteries in the metropolis.

Keywords: Cemeteries, Spatio-Temporal, Urban, Sokoto

Background of the Study

One of the basic characteristics of urban areas is the land use variation. The continuous increase in urban population and the built environment necessitates the provision of facilities, utilities and infrastructure to allow for decent living and enhance serviceability and livability of urban areas. In urban areas the concern for sustainability is paramount, and therefore, the focus is to ensure proper physical planning of the landscape to avoid land use conflicts and haphazard development. Management of urban areas in form of good physical planning and development control is not only restricted to the living but also the dead. This makes the location of cemeteries a key component of the urban society which has of recent generated attention from scholars across the globe. Cemetery land is becoming an important issue in many localities all over the world (Lehrer, 1974): in East Asia (Dian, 2004; Lotfi, Habibi and Javad Kooshari, 2009; AlAnbari, Thameer, Al-Ansari and Knutsson, 2016; Doi, Chai, Xu, and Wang, 2021); in North America (Salisbury, 2002; Basmajian and Coutts, 2010; Larkin, 2011); in New Zealand (Judge, 2012) and Australia (Dent, 2002; Purdon, 2009); in South Africa (Croucamp and Richards, 2002; Dippenaar, 2014); and in Europe (Environment Agency, 2002; Cemetery Development Services, 2017).

It is important to note that cemeteries are critical social infrastructures, which are of equivalent status to infrastructure like schools and hospitals in our planning systems. A cemetery's primary function is to

provide a physical space for commemoration and a final resting place of the deceased (Rugg, 2000; Dian, 2004; Larkin, 2011).

Sokoto metropolis is undergoing massive urbanization due to population growth, redistribution of activities and expansion of the built environment accompanied by both positive and negative consequences. This growth could be attributed to primarily its status as the administrative headquarters of the Sokoto caliphate since the pre-colonial periods and the state capital of former Northwestern state and currently Sokoto state since 1976, and this had affected the built environment in one way or the other. The population of Sokoto metropolis is said to have increased from 47,643 in the 1950s to about 657,679.89 in the year 2020 (Shamaki, 2006). And with 3% annual growth rate the population is projected to reach 1,082,496 by the year 2035 (U.N; World Population Prospects, 2020). Similarly, Sokoto expands from 614 hectares in 1959 to 4,820 in the year 1997 (Benna Associates, 1982), and by the year 2020, the extent of the built-up area was projected to be 6,290 hectares (Eniolorunda and Dankani, 2012).

Sokoto metropolis has witnessed rapid urban growth, and this warrant building of cemeteries in newly developed areas of the metropolis. As population increases so does death; as such, there is need for adequate provision of cemeteries as a social infrastructure to cater for the death.

To the best knowledge of the researchers, there are no studies conducted on cemeteries in the study area. This is the gap in knowledge that this study is seeking to bridge as part of its contribution to field of Urban and Cultural Geography.

Conceptual Framework

The Concept of Social Infrastructure

Vaznomiene and Kianusiene (2018) defines social infrastructure as “the interdependent mix of facilities, places, spaces, programs, projects, services and networks that maintain and improve the standard of living and quality of life in a community”. A social infrastructure is a set of physical places and organizations that shape our interactions (Richards, 2018). As a social infrastructure, a cemetery is a resting place, a last home for friends, parents, spouses among others whose love was once shared in the community. For those who desire to keep memory of such beloved ones, the cemetery offers that opportunity and continuity and bring solace and closure to the affected.

As a place that fosters social interactions during interment of the dead, friends, relatives, acquaintances from diverse places of all works of life and caliber gain the opportunity to meet, associate and interact. The cemetery space enables social interaction, being development of new relationship or rekindling of the old one for the present and future. In some cemeteries, a multipurpose is built for funeral and memorial services where interactions take place. Also, during the process of interment in the cemetery, the clergy seizes the opportunity to comfort and support the bereaved, evangelize the masses and give some works of encouragement and upliftment. Other religious institutions carryout rituals that pertain to their religions in honor of their dead to bring solace. Cultural activities pertaining to the burial rituals that may enhance social interactions are sometimes carried out during the process of interment in the cemetery. Finally, the cemetery facility serves as the last home, a physical place to accommodate the remains of the deceased and bring closure the relatives.

This concept of social infrastructure is relevant to this study because a social infrastructure is necessary for the emotional and social development of people as well as a nation. One of the concerns of urban and regional planners is the social impact of any development on communities. Although cemeteries play important roles in enhancing the social and psychological wellbeing of society, proper attention has not been given to its development and maintenance to attain its maximum utility in Nigeria.

Material and Methods

Study Area

Geographical Location

Sokoto metropolis is located within Latitudes 12°46'N-13°08'N and Longitudes 5°14'E-5°30'E and at an average elevation of 272m above sea level (Figure 1). It comprises mainly two local governments (Sokoto South and North local government areas) and portions around the frontiers of four other local government areas (Kware, Wamakko, Dange Shuni and Bodinga). The Geographical extent of the metropolis is 16 kilometer radius from Kangiwa Memorial Stadium. The study area is bounded by Kware local Government to the North, Wamakko to the West, Dange-Shuni to the South and Rabah to the East.

Population

The study area has an estimated population of about 503,256 people as of 2015 with 96 persons per square kilometer and 3% growth rate annually (National Bureau of Statistics {NBS}, 2018). The inhabitants comprise mostly of Hausa/Fulani and other groups such as Gobirawa, Zabarmawa, Kabawa, Adarawa, Arawa, Nupe, Yoruba, Igbo and other people of the Nigerian ethnic groups. The predominant language is Hausa, majority of city's population are Muslims, the culture of the people is nothing different from that of any other Hausa/Fulani areas in the state which is basically Islam oriented.

Urban Development

Sokoto Metropolis has been the capital of Sokoto State since 1976. It is the administrative, socio-cultural, political and economic hub of the state. According to Mamman (1999) and Shamaki (2006), the importance of Sokoto in the northwestern region of Nigeria derives from its being the seat of the Caliphate, dating back to 1804 when Shehu Usmanu Danfodiyo fought the jihad war and subsequently established the throne for the Caliphate. Thenceforth, till early 1960s when it became the capital of the then northwestern region, the growth of the city started increasing although, at slow rate.

Between 1960s and the late 1990s, coinciding with the military era in Nigeria, not much was achieved in the area of city infrastructural development across the country such as could have warranted rapid urban expansion as obtainable in most cities of Nigeria today. Beginning from 1999 when democracy was reintroduced into Nigeria, rural-urban migration and proliferation of economic, political, social and cultural events in the city took dramatic turns. Consequently, the growth of Sokoto Metropolis became bolstered and today the master plan of the city is suspected to have grossly been altered and this will therefore pose serious challenges for government in allocating infrastructural facilities. Sokoto expands from 614 hectares in 1959 to 4,820 in the year 1997 (Benna Associate, 1982) and by the year 2019 the extent of the built up area of Sokoto metropolis was projected to be 6290 hectares (Eniolorunda and Dankani, 2012).

Urban Sokoto remain the most developed town in the state which has a concentration of virtually all tertiary institutions and other important facilities that provide essential services such as those related to education, health, housing and hotel services, banks etc.

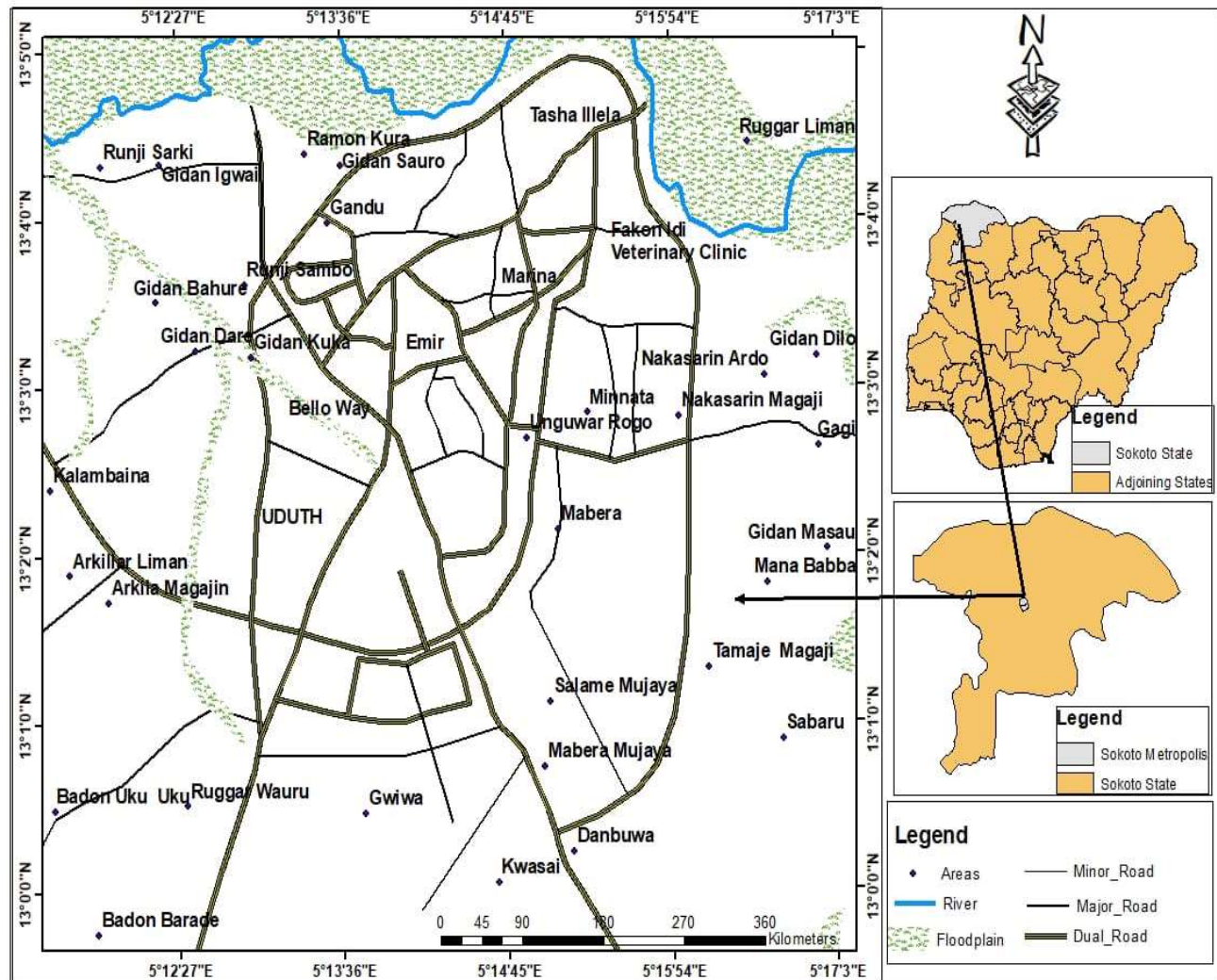


Figure 1.1: Sokoto Metropolis

Source: Adapted from the Administrative Map of Sokoto State, 1996

Methods

Reconnaissance

The researcher undertook a reconnaissance to all the cemeteries in the study area. The essence of this is to give the researcher a glimpse of the situation for the actual field data collection.

Research Design

The design for this study is a Mixed Method Design in which case both qualitative (Interview and KII) and quantitative (Interview and Ground Observation) data were be used. This helped to bring out the viewpoints of multiple participants in the study area.

Types and Sources of Data

The research used both primary and secondary sources of data. The primary data were collected through interview with cemetery attendants as well as Key Informant Interview with Government Officials

(Ministry of Religious Affairs, Ministry of Land, Housing and Survey and Sokoto Urban and Regional Planning Board). Spatial data (Coordinates) of cemetery locations were acquired using a hand-held Global Positioning System (GPS) receiver.

Here, information about the history, growth and development, facilities and challenges were obtained through Key Informant Interview (KII) with officials of Ministry of Religious Affairs, Ministry of Lands, Housing and Survey and the Sokoto Urban and Regional Planning Board. Similarly, the KII conducted with planners and urban managers focused around issues regarding cemetery location and their planning implications.

Global Positioning System was used to collect coordinates of all cemeteries in order to use such information to provide a map of all cemeteries in the metropolis and to determine their pattern of distribution.

Sampling Frame, Sample Size and Techniques

There are a total of 44 cemeteries in the study area comprising of Muslim, Christians and mixed cemeteries. All the cemeteries in the study area were selected for the study. Purposive sampling technique was adopted in the selection of cemeteries, cemeteries attendants and cemetery committees as well as the participants for the Key Informant Interview. A total of 44 respondents were purposively selected on the basis of one cemetery attendant per cemetery in the study area.

Data Analysis Techniques

To determine the spatial distribution of cemeteries in the study area, Coordinates captured were mapped within the ArcGIS 10.5 environment to display the locations of the cemeteries. Average Nearest Neighbor (ANN) statistic was used to test for the spatial pattern of the cemeteries. Equation 1 shows the formula for the ANN.

$$ANN = \frac{\bar{D}_0}{\bar{D}_E} \text{-----} (1)$$

Where $\bar{D}_0$ is the observed mean distance between each feature and its nearest neighbour

$$\bar{D}_0 = \frac{\sum_{i=1}^n d_i}{n} \text{-----} (2)$$

and $\bar{D}_E$ is the expected mean distance for the features given in a random pattern:

$$\bar{D}_E = \frac{0.5}{\sqrt{n/A}} \text{-----} (3)$$

In the above equations, d_i equals the distance between feature i and its nearest neighbouring feature. N corresponds to the total number of features, and A is the area of a minimum enclosing rectangle around all features, or it's a user-specified Area value.

The Average Nearest Neighbour z-score for the statistic is calculated as:

$$Z = \frac{\bar{D}_0 - \bar{D}_E}{SE} \text{-----} (4)$$

$$SE = \frac{0.26136}{\sqrt{n^2/A}} \text{-----} (5)$$

Results and Discussion

This section presents the results and analysis of data based on the objective of the study. The analysis was conducted in line with the already stated objectives; to determine the spatial distribution of cemeteries in the study area; assess changes or transformations they have undergone over the years..

Spatial-Temporal Distribution of Cemeteries in Sokoto metropolis

This section examines the quantity, location, year of establishment as well as the spatial pattern of cemeteries in the study area.

Table 1 and Figure 1 reveals the number of cemeteries in Sokoto Metropolis, their locations and year of establishment. There are 44 cemeteries currently (as at 2024) in the metropolis distributed within the local government areas that make up Sokoto Metropolis. Going by the Table 1, nine cemeteries fall in Sokoto North LGA, ten in Sokoto South, three in Kware, seven in Dange Shuni and fifteen in Wamakko Local Government Areas. The reason why Wamakko Local Government Area has the highest number of cemeteries could be attributed to the fact that it is the part of Sokoto metropolis with the highest level of growth and development of settlements of recent, and the wide expanse of relatively flat land could be the reason why most development and emergence of neighbourhoods occur in Wamakko, LGA.

In terms of age of the cemeteries, Hubbare (1817) and the Christian Cemeteries (1901) located off Koko Road are the oldest. Hubbare was established during the pre-colonial period while the Christian Cemetery was established during the conquest of Sokoto (colonial period) at a location not very far from the Giginya Memorial battle ground.

The third category of the cemeteries were those established after independence between 1961 and 1969. These cemeteries include, Giginoyoi (1961), Old Tudun Wada (1964), Helele and Salame Cemeteries in 1969. Three cemeteries were established between 1974 - 1977, these are Mana Babba (1974), More (1977) and Old Tsefe Cemeteries. Between 1981-1989, Eleven cemeteries emerged within the metropolis. Army Barrack cemetery was established in 1981, Budau and Jegawa cemeteries in 1982, Mainiyo Old Gwuiwa and Gidan Maigoro cemeteries in 1984. Gagi, Tsakarawa cemeteries were established in 1985 and 1988 respectively while New Tudun Wada and Girafshi cemeteries were established in 1989. Between 1990-1999 Ten more cemeteries came on board namely, Federal Science College (1990), Kwannawa and Runji Cemeteries in 1992, Tamaje/Dambuwa cemetery in 1992, Gidan Jariri and Dundaye cemeteries in 1995 and 1997 respectively. Furthermore, Gidan Ganau and Badon Barade cemeteries in 1998 while Kalambaina and UDUS Cemeteries were established in 1999.

Table 1 Location of Cemeteries and year of establishment in Sokoto Metropolis

S/N	NAME OF CEMET	ADDRESS	YEAR	LOCAL GOVT
1	Hubbare Cemetery	Hubbare Area	1817	Sokoto North
2	Christian Cemetery	Off Koko Road	1901	Sokoto South
3	Giginoyoi Cemetery	Kofar Kware	1961	Sokoto North
4	Old Tudun Wada Cemetery	Tudun Wada	1964	Sokoto South
5	Helele Cemetery	Helele	1969	Sokoto North
6	Salame Cemetery	Salame	1969	Sokoto South
7	Mana Babba Cemetery	Mana	1974	Sokoto South
8	More Cemetery	More	1977	Kware

9	Old Tsefe Cemetery	Tsefe	1977	Dange Shuni
10	Army Barrack Cemetery	Army Barrack	1981	Dange Shuni
11	Budau Cemetery	More	1982	Kware
12	Jegawa Cemetery	Jegawa	1982	Sokoto South
13	Mainiyo Cemetery	Kwannawa	1984	Dange Shuni
14	Old Guiwa Cemetery	Guiwa	1984	Wamakko
15	Gidan Maigoro Cemetery	G/ Igwai	1984	Sokoto North
16	Gagi Cemetery	Gagi	1985	Sokoto South
17	Tsakarawa Cemetery	Dambuwa	1988	Dange Shuni
18	New Tudun Wada Cemetery	Tudun Wada	1989	Sokoto South
19	Girafshi Cemetery	Girafshi	1989	Wamakko
20	Federal Science More Cemetery	More	1990	Kware
21	Kwannawa Cemetery	Gargawo	1991	Dange Shuni
22	Runji Cemetery	G/ Road	1991	Sokoto North
23	Tamaje/Dambuwa Cemetery	Tamaje	1992	Sokoto South
24	Gidan Jariri Cemetery	Gidan Jariri	1995	Sokoto North
25	Dundaye Cemetery	Dundaye	1997	Wamakko
26	Gidan Ganau Cemetery	Gidan Ganau	1998	Sokoto North
27	Badon Barade Cemetery	Bado Area	1998	Wamakko
28	Kalambaina Cemetery	Kalambaina	1999	Wamakko
29	UDUS Cemetery	UDUS	1999	Wamakko
30	Gidan Sanda 1 Cemetery	G/Sanda	2000	Wamakko
31	Tudun Faila Cemetery	G/Igwai	2001	Sokoto North
32	Gidan Bahure Cemetery	G/Bahure	2002	Sokoto North
33	Yar Abba Cemetery	Yar' abba	2002	Wamakko
34	Tsefe Cemetery	Tsefe	2003	Dange Shuni
35	Arkilla Cemetery	Arkilla	2003	Wamakko
36	Mana Karama Cemetery	Mana	2004	Sokoto South
37	Gidan Kadiri Cemetery	Kwannawa	2004	Dange Shuni
38	Badon Gabas Cemetery	Bado Area	2005	Wamakko
39	Gunburawa Cemetery	Gunburawa	2006	Wamakko
40	Ruggar Wuro Cemetery	R/Wuro	2008	Wamakko
41	Bakin Gulbi Cemetery	B/Gulbi	2009	Wamakko

42	Gidan Sanda 2 Cemetery	G/Sanda	2010	Wamakko
43	Gwuiwa Sabuwa Cemetery	Guiwa	2019	Wamakko
44	Sabuwar Kurfi Cemetery	Korfi Town	2020	Sokoto South

Source: Author's Fieldwork, 2024

Further analysis also reveals that between the year 2000-2020 fifteen additional cemeteries were established beginning with Gidan Sanda I cemetery in 2000 and terminating with Sabuwar Kurfi Cemetery which is the latest established in 2020 (Table 1).

It can be deduced from the findings of the study that there is a relationship between the growth and development of cemeteries in the Metropolis and the spatial growth of the built-up areas as well as population increase over the years. A cursory look at the population growth within the metropolis shows that the population of Sokoto Town as at 1950 stood at 43,900 and it increases to 68,000 in 1960, 108,000 in 1970, 169,000 in 1980, 354,000 in 2000 and 709,000 in 2023 (Macrotrends, 2023).

Furthermore, expansion of built-up areas also leads to corresponding increase and establishment of cemeteries particularly along or around the fringe settlements. The annexation of nearby villages due to the expansion of the built-up areas compelled the new communities to locate cemeteries very close to their settlements in order to bury their loved ones. Most of the cemeteries established from 1990 to date are those found around new neighborhoods (Table 1 and Figure 2). To buttress this finding, a study by Eniolorunda and Dankani (2012) reveals the growth of Sokoto Metropolis in terms of increase in developed land shows that as at 1986, the total developed land in the metropolis is 26.3 square kilometers, 32.2 km² in 2002, 40.9km² in 2005 and the growth is projected to be within the region of 80-82 square kilometers by the year 2020 (Eniolorunda and Dankani, 2012). This growth leads to the emergence of and development of new neighbourhoods and communities who in their own wisdom felt the need to have a cemetery located close them. Thus, increasing the number of cemeteries in the metropolis. This trend may continue in view of the projection (UN World Urbanization Prospect, 2020) that by the year 2035, the population of the metropolis will be around 1, 082,496 based on annual growth rate of 3.46%. This increase in population will equally result in creation of new fringe neighborhoods that may require cemetery as part of their social infrastructural requirements.

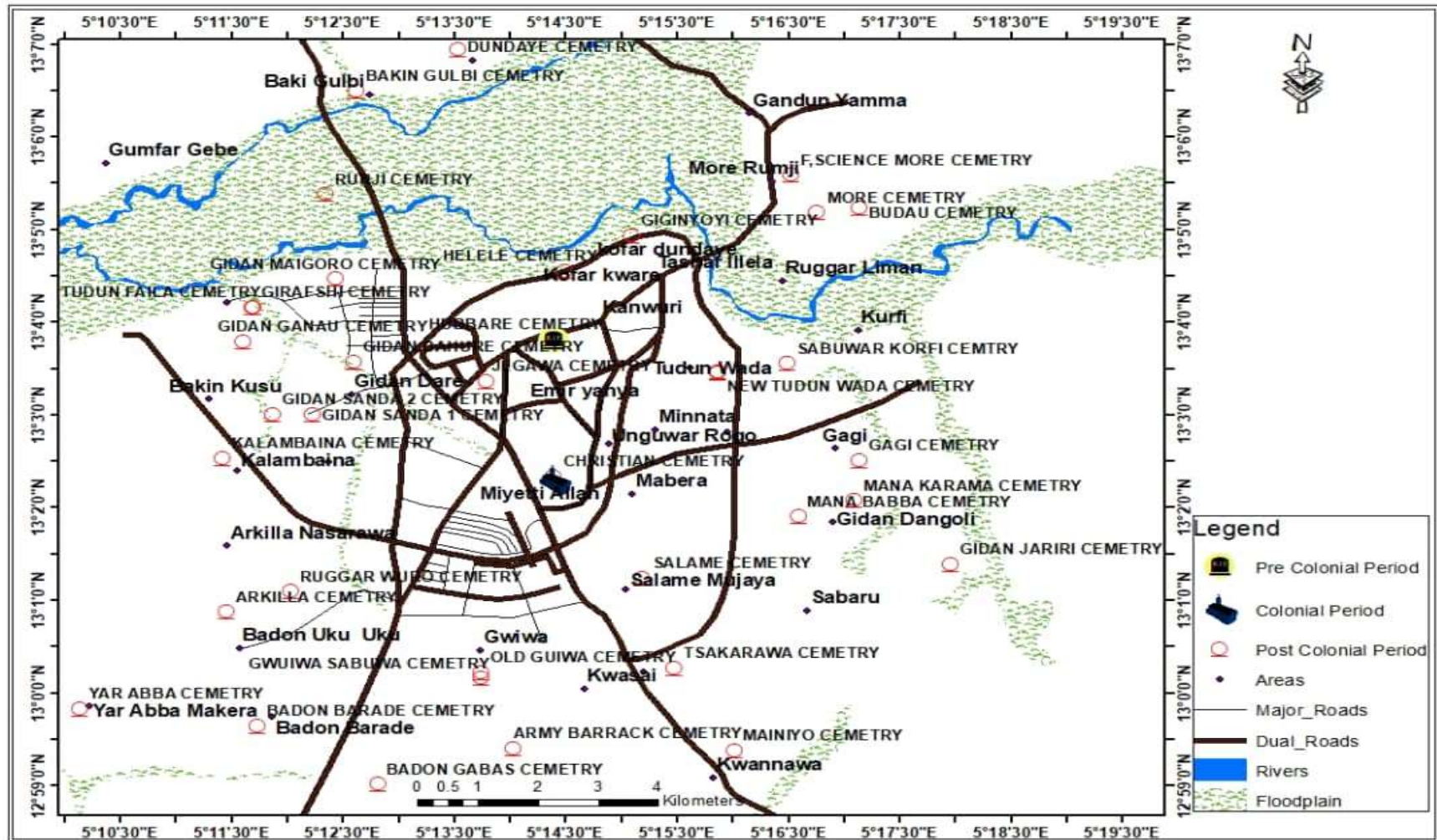


Figure 1 Cemeteries in Sokoto Metropolis

Source: Author's Fieldwork, 2024

In order to determine the pattern of spatial distribution of the cemeteries within the metropolis, Nearest Neighbour Analysis (NNA) was used. Based on the NNA results, the pattern of a distribution turns out to be dispersed with Z-score of 2.03 and p-value of 0.041(Figure 2). The hypothesis that cemeteries are randomly located (H_0) is rejected. This justifies the assertion that location of cemeteries just like other urban infrastructure follows the trend of urban growth (Dankani, 2021). As the urban area expands, cemeteries follow the pattern of the expansion.

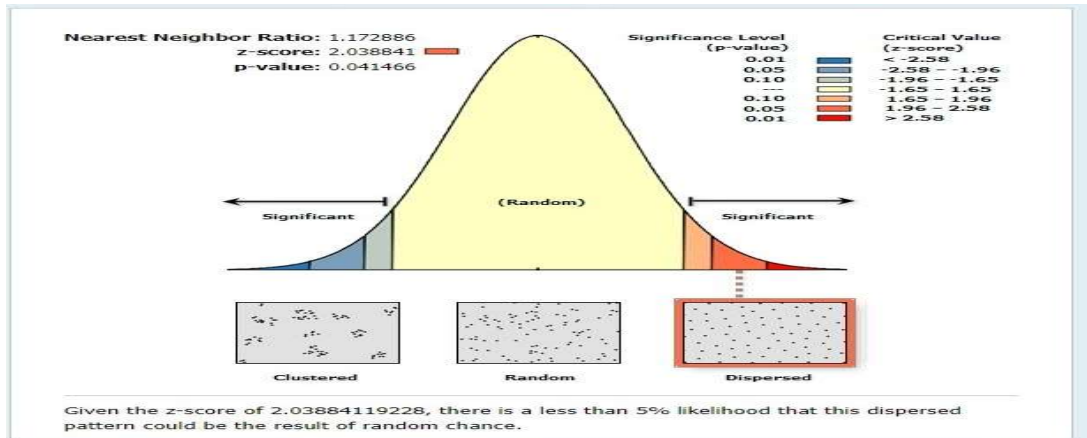


Figure 4.2 Nearest Neighbour Analysis of Cemeteries in Sokoto Metropolis

A similar finding was reported by Habila and Kevin (2017) in a study conducted in Kaduna state, Nigeria on characteristics and spatial locations of cemeteries in Kaduna metropolis. The research finds that Kaduna metropolis has a total of 27 cemeteries and they are unevenly distributed across the metropolis.

Categories of Cemeteries

Figure 3 shows the categories of cemeteries in the study area. Out of the 44 cemeteries identified, 42 representing 95% are for Muslims while only one is for Christians and the last one is a mixed cemetery for both Muslims and Christians, which is the Army cemetery (Plate 1, 2 and 3). One major factor attributable to having only one Christian cemetery is the practice by most Christians residing in study area of taking the corpses of their dead relatives to their ancestral homes in different parts of Nigeria for burial rather than burying it in Sokoto. The observed situation also speaks to the population pattern of the study area where majority are Muslims.

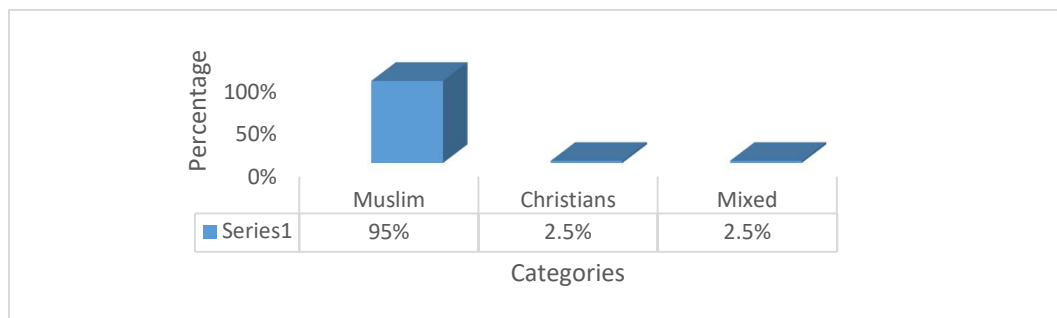


Figure 3 Categories of Cemeteries in the Metropolis

Source: Author's Fieldwork, 2024



Plate 1 Hubbare: The Oldest Muslim Cemetery in Sokoto Metropolis



Plate 2 Christian Cemetery in Off Koko Road Sokoto Metropolis



Plate 3 Muslim Cemetery at Tudun Wada, Sokoto

Expansion of Cemeteries

Attempt was made to examine whether cemeteries have undergone expansion since their inception and the analysis is presented in Table 2.

Table 2 Whether the Cemetery have Undergone Physical Expansion

Response	Frequency	Percentage
No	30	68
Yes	14	32
Total	44	100.0

Source: Author's Fieldwork, 2024

Table 2 shows that (14) 68% of the cemeteries in the study area have undergone expansion over the years, while (30) 32% did not undergo any expansion since their establishment.

Cemeteries that have Undergone Physical Expansion

Table 3 shows the cemeteries that have undergone expansion and those that have not. It also shows years it took between establishment and expansion.

Table 3 Cemeteries that have Undergone Physical Expansion

S/N	Name	Cemeteries that have Undergone Expansion		
		Year of Establishment	Year of Expansion	Difference in Years
1	Christian Cemetery	1901	1979	78
2	Mana Babba Cemetery	1974	1998	24
3	Salame Cemetery	1969	2002	33
4	More Cemetery	1977	2002	25
5	Kwannawa Cemetery	1991	2004	13
6	Hubbare Cemetery	1817	2004	187
7	Gidan Ganau Cemetery	1998	2005	07
8	Federal Science College More Cemetery	1990	2006	16
9	Old Tudun Wada Cemetery	1964	2009	45
10	Gagi Cemetery	1985	2014	29
11	Tamaje/Danbuwa Cemetery	1992	2014	22
12	Ruggar Wuro Cemetery	2008	2016	08
13	Gidan Bahure Cemetery	2002	2019	17
14	Gidan Sanda 2 Cemetery	2010	2019	09

Source: Author's Fieldwork, 2024

This finding may guide planners in understanding the average time it took for cemeteries in the metropolis to be expanded. It is important to note here that expansion of cemetery may be influence by its size, population it serves, and incident of epidemic or disease outbreak. This finding underscores the need for keeping records of dead bodies buried in cemeteries. The statistics will serve as a vital tool for planning and efficient management of cemeteries.

The genesis of expansion of the cemeteries could be attributed to the decline in available burial spaces based on the fact that a lot of people have been buried at the existing cemeteries and their

carrying capacities have been exceeded. Thus, necessitating the expansion. This scenario is more common around cemeteries with abundant vacant land around their vicinity. The expansion is to enable the cemetery accommodate more dead persons. Increase in urban population might equally demand for more space to bury the dead.

Status of Cemetery as Active or Dormant

In Table 4 attempt was made to determine the status of cemeteries with respect to whether they are active (still in use) or Dormant (no longer in use).

Table 4 Status of the Cemetery as Active or Dormant

Status	Frequency	Percentage
Active	34	77.3
Dormant	10	22.7
Total	44	100.0

Source: Author's Fieldwork, 2024

Table 4 shows that 77.3% of cemeteries in the study area are active, while 22.7% are dormant. This indicates that 10 out of 44 cemeteries in the study are no longer in use because they have been filled to capacity. The cemeteries that are classified as dormant are listed in Table 5. Among the dormant cemeteries, Giginyoyi is the oldest (63 years) as at 2024. This is followed by Old Tudunwada (60 years) and Helele (55 years). Overall, seven cemeteries identified in Table 5 are 40 years old and above, while the remaining three (Gidan Sanda I, Tudun Paila and Gidan Kadiri cemeteries) are 24, 23, and 20 years old respectively but are now dormant because they are adjudged to be filled to capacity, thus, necessitating the establishment of new cemeteries within the neighbourhoods. Hence, they are named New Guiwa, New Tsefe, Gidan Sanda I and Gidan Sanda II. Shortage of available spaces to accommodate the expansion of the cemetery necessitated abandoning the cemeteries and establishment of new ones.

Table 5 List of Dormant Cemeteries in Sokoto Metropolis

S/No	Cemetery	Years as at 2024	S/No	Cemetery	Years as at 2024
1	Old Tudun Wada	60	6	Gidan Kadiri	20
2	Old Guiwa	40	7	Gidan Maigoro	40
3	Old Tsefe	47	8	Tudun Faila	23
4	Giginyoyi	63	9	Gidan Sanda 1	24
5	Helele	55	10	Jegawa	42

Source: Author's Fieldwork, 2024

Conclusion

Cemetery as a vital social infrastructure requires all the attention and support given to other infrastructure provided for the living. This study has established that the spatial pattern of distribution of cemeteries is dispersed, signifying that as the study area expands, cemeteries follow the trend of the expansion. Therefore, future plan for neighbourhoods should capture cemetery as a vital social infrastructure. The study has demonstrated that the rate of increase in the number of cemeteries in the study area since independence is due to massive population increase and increase in death rates. Forty two out of the 44 cemeteries were developed after

independence. This underscores the need to take cognizance of cemeteries in physical planning of towns and cities.

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