



Characterization Of Peri-Urban Areas of Makurdi Town, Benue State, Nigeria

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ABSTRACT

This study attempts characterization of peri-urban areas of Makurdi, a city in North-central Nigeria with the view to understanding the nature and character of its peri-urban areas as they affect the changing livelihood strategies of peri-urban households whose land has been taken over by development, and the challenges associated with the peri-urban areas of Makurdi town. Using survey research design, the data were collected from peri-urban household heads through the use of questionnaire and observations, and analysed using descriptive statistics. The result of the study revealed the character of peri-urban areas of Makurdi as follows: demographically they are dominated by male accounting for 59.4%; dominant age group is 40 years below accounts for 70%; literacy level accounts for 74.8%, while married people accounts for 65.8%. Economically, majority of the peri-urban residents earn on average ₦30,000 and above monthly and their socio-economic status has strong linkages with the city proper through their work places and market patronages. Majority of these residents go to work/city proper by motorcycles (Okada) 38% and Buses 31%. The result also shows the changing livelihood patterns with 36.4% of residents that were engaged in farming five years ago has now been reduced to 21.4% as at 2024, while residents in civil service five years ago that accounted for 20.0% , has currently increased to 34.5%. The major problems that characterized the peri-urban areas of Makurdi town include lack of public water supply, high level of land-related crisis, poor access roads and high level of crime. Based on the findings, the study recommends effective planning, investment in social infrastructure, management and urban governance structure for sustainable development

Keywords: Peri-urban, Characterization, Makurdi town, Benue State, Nigeria

I. INTRODUCTION

The integration of rural areas surrounding cities into urban regions represents a common spatial development over the years. Physical conversion of rural land for urban purpose and social-cultural transitions in rural areas through adoption of urban lifestyle or in-migration of urban dwellers leads to the recognition of a unique area or settlement known as peri-urban (Hersperger, Gradinaru, Sieddentop, 2020). Peri-urban areas generally refer to areas between cities and their rural hinterland (countryside). These areas refer to a transitional zone from agricultural and other rural land uses to urban land use. Over time the land use pattern of peri-urban changes from largely rural to largely urban (Ortserga & Dam 2019). According to Varkey & Manasi (2019), Peri-urban areas represent the interface between rural and urban areas that are subject to rapid profound changes in their built environment, population and socio economic activities. It is often not a discrete area, but rather a diffused territory identified by a combination of features and phenomena generated or influenced largely by activities within the urban zone proper. Thus the development of peri-urban areas is an inevitable consequence of urbanizations. As cities in developing countries continue to grow, the peri-urban areas move outward in waves. The mixed rural-urban landscape around cities, typically called the peri-urban zone, also termed as urban fringe, rural-urban, or semi-urban is denoted by multiple rural-to-urban transformations that create a mosaic-like landscape of urban and rural land-uses, livelihoods, and lifestyles induced by rural-urban migration and centrifugal processes of urban expansion, which pushes people, businesses, and most natural resource extraction to the city's peripheral areas (Sahana, Ravetz, Patel, Dudashpoor, & Follmann, 2023).

A review of literature shows that there are number of concepts used to describe peri-urban areas. These include: urban fringe, edge cities, urban shadow, urban periphery, rural-urban interface,



commuter zone, post-suburb landscape, outer cities, and perimeter cities. Studies have also shown that character of peri-urban areas vary from city to city and country to country especially between developed and developing countries (Ortserga & Dam 2019; Iorliam, Kwaghssende, Mngutyo, Anule, Adaaku, Dam, Ujoh, Alaci, & Gyuse, 2019; Beauregard, 1995; Soja, 1992; Garreau, 1991).

The growth of individual cities across developing countries seems to be more rapid in the peri-urban areas. Cities in Nigeria including Makurdi are experiencing physical growth encroaching on the surrounding rural areas presenting a unique environment which is neither completely urban nor rural with a set of challenges. Management of these areas have become a major challenge for government institutions as well as traditional (community) leadership structures hence most of the peri-urban areas cut across many administrative boundaries encroaching into the surrounding local government areas. Preliminary observation indicates that there is conflict between government and communities in peri-urban areas of Makurdi town which extends into Guma, Gwer-East and Gwer-West Local government areas, on who controls and manages them. This is shown by the selling of land by both government and community members but at the same time neglecting the responsibility of provision of public infrastructure such as roads, electricity, water supply, solid waste collection and disposal by both government and the respective communities. This study therefore, analysed peri-urban areas of Makurdi town in Nigeria with the view to understanding their character; and explore ways of managing them in a manner that ensures a sustainable development. The specific objectives were to:

- i. Examine the socio-demographic and economic character of the households in peri-urban areas of Makurdi town
- ii. Analyse the spatial linkages between the peri-urban areas and the city proper
- iii. Examine the changing livelihood sustenance of the peri-urban households whose land is

engulfed by development using before and after approach

- iv. Determine the problems/challenges associated with peri-urban areas of Makurdi town

II. STUDY AREA AND METHODOLOGY

Makurdi is one of the cities in central Nigeria and is located between latitude $7^{\circ}44'N$ and $7^{\circ}55'N$ and longitude $8^{\circ}20'E$ and $8^{\circ}40'E$ (figure 1). The town statutorily covers 16km^2 radius, situated along the banks of the River Benue. The town falls within the tropical humid and mega thermal climate with wet and dry seasons (Aw) according to Koppen's classification. The climatic condition is influenced by two air masses: the warm, moist south westerly air mass, and the dry northeasterly air mass. The southwesterly air mass is a rain-bearing wind that brings about rainfall from the months of March/April to October. The dry north-easterly air mass blows over the region from November to April, thereby bringing about seasonal dryness. The annual rainfall in Makurdi is between 1,200-1,500mm (Adamgbe and Ujoh, 2012). The temperature condition is however, generally high throughout the year with a daily mean of 23°C - 28°C and maximum of 37°C (Tyubee, 2005). Due to the general low relief of the town which rises from 65-66m (210-220ft) in the river valley northwards and southwards to 154m (500ft), sizeable portions of the town is waterlogged and flooded during heavy rainstorm (Dam, Yaro, Kwanga, & Nyajo, 2021; Dam & Adamgbe, 2018; FMWRRD, 1998).

The town is the largest city in Benue state with a projected population of 472,000 people as at 2024 (www.macrotrends, 2025). The town is the administrative capital of Benue state and Makurdi local government council. Major socio-economic activities in the town include government establishments, urban daily markets, banks, industries, two universities among other educational institutions, hotels, filling stations. These activities attract people from different places into the town thereby increasing the quest for accommodation and physical expansion of the town into peri-urban areas.

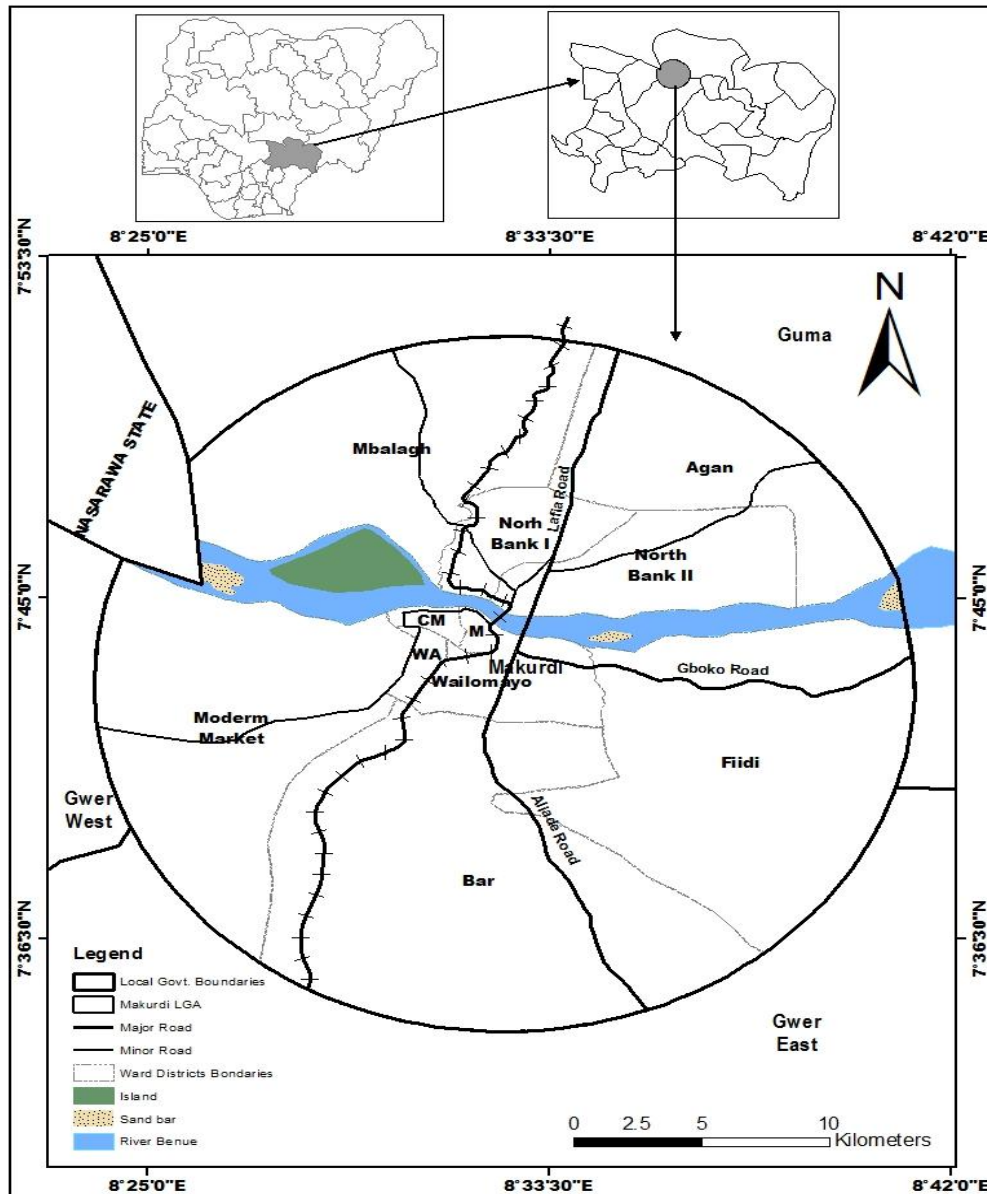


Figure 1: Map of Makurdi Town showing the Peri-urban areas
Source: Benue State Ministry of Lands and Survey, 2023

Methods

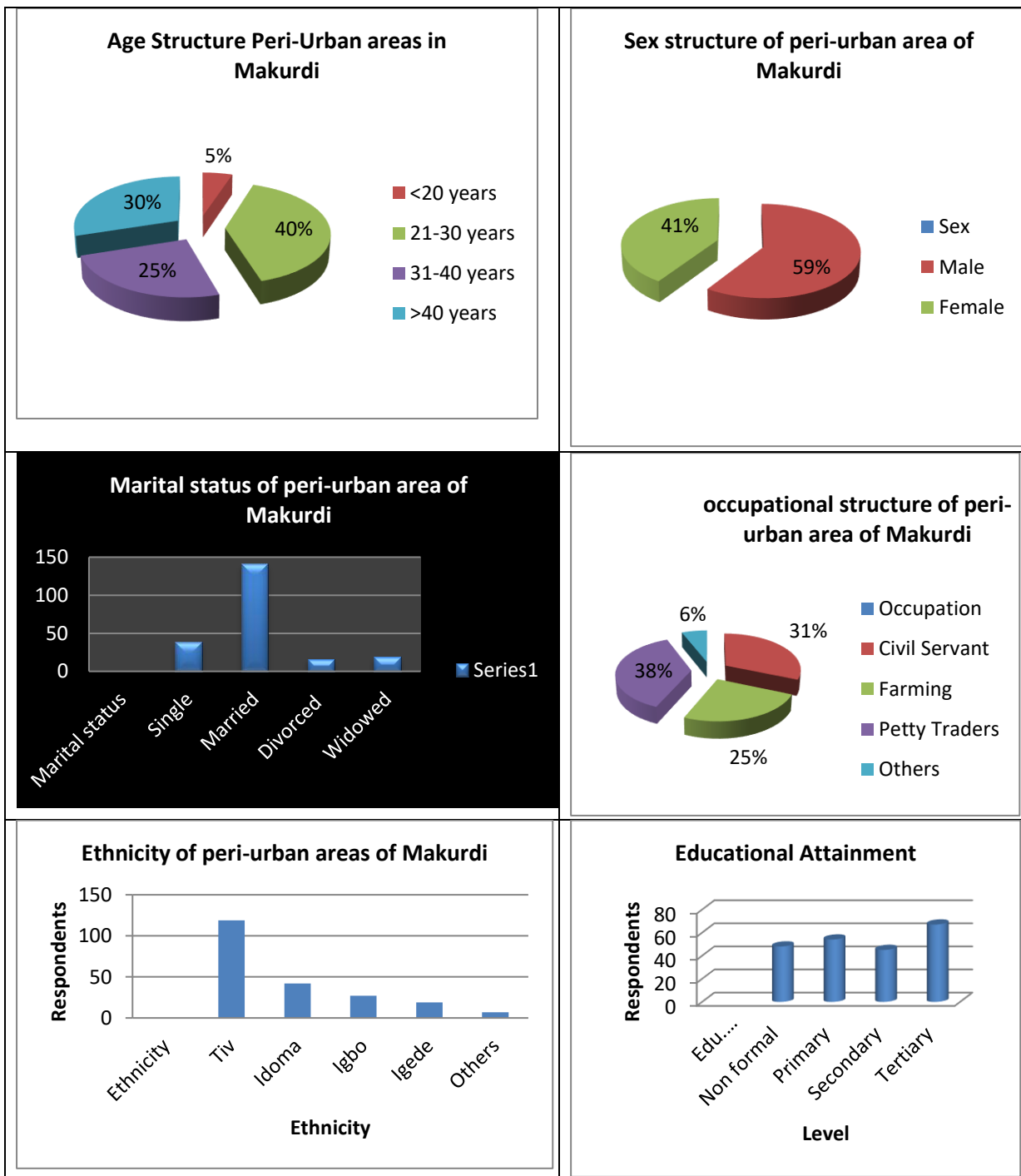
The study adopted survey research design, and data were collected from heads of household in peri-urban areas of Makurdi using questionnaire and observation. Peri-urban areas including Agan, Fiidi, Tyomu, Agboghul (behind Modern market), Apir, Tse-poor, Adaka formed unit of data collection. The specific data collected include socio-demographic and economic characteristics of peri urban households heads, existing land use types, linkages between peri urban areas and the city proper, changing livelihoods sources amongst others. The

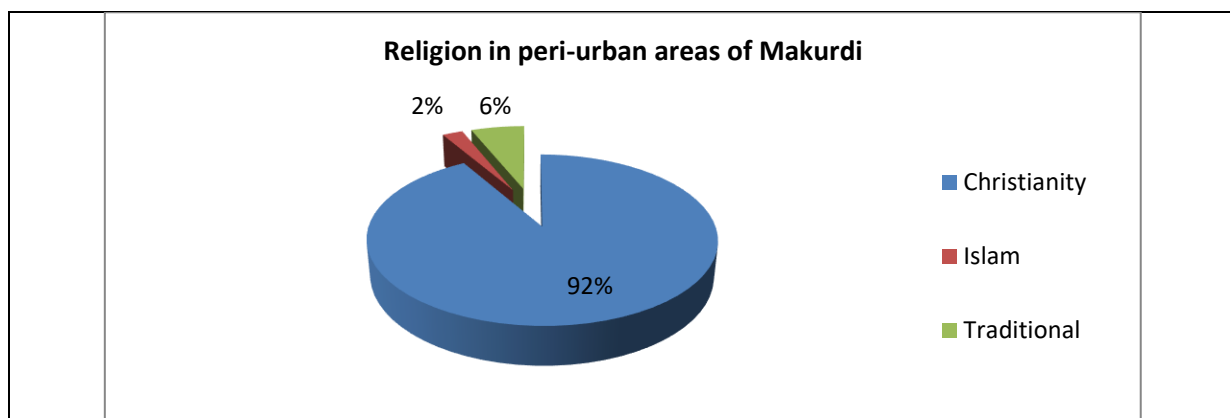
data was analysed using descriptive statistics and presented in tables, charts and graphs.

III. RESULT AND DISCUSSION

Socio-demographic and economic Characteristics of Residents in Peri-urban Areas of Makurdi Town

The demographic characteristics of peri-urban residents including age, sex, marital status, occupation, ethnicity, educational achievement and religion were captured during the field survey, analysed and presented in figure 2.





The information in figure 2 reveals that majority of peri-urban residents accounting for 40% fall within the age bracket of 21-30 years. This means that majority (70%) of the peri-urban residents in Makurdi are within the age range of 40 years below which is an indication of a young population with growth potentials. Thus, a young population constitutes an important characteristic of the peri-urban areas of Makurdi town that is capable of exhibiting youthful exorbitant behaviours.

The result also shows the gender divide in peri-urban area of Makurdi with male constituting 59.4%, while 40.6% are female. This implies that the peri-urban areas of Makurdi town are dominated by male residents. The result of marital status of the respondents indicates that married people dominates with 65.8% while singles accounts for 17.6%. This means that peri-urban areas of Makurdi town are majorly occupied by married people which are a social group that is adjudged to be more stable and responsible and strived for house ownership, and therefore, looks for cheaper lands at the peri-urban areas to settle.

Based on respondents' occupation, the information in figure 2 shows that 31.3% are civil servants, 25.2% are into farming, and 37.3% are traders. Thus, majority of the respondents are farmers. This is not surprising since most of the peri-urban areas of Makurdi town like Agboughul, Apir, Fiidi, Adaka and Agan have a vast fertile land that is being used to farm varieties of crops. Also, a

good proportion of the respondents are civil servants. This information is also consistent with the study since some civil servants now rent or build houses in the peri-urban areas given the persistent hike in the costs of house rent and land/building in Makurdi town proper. Furthermore, the result shows the cosmopolitan feature of peri-urban areas of Makurdi ethnically with Tiv constituting 55.6%, Idoma 19.6%, Ibo 12.6%, Igede 8.9% amongst others. This implies an emerging cosmopolitan feature in peri-urban areas with the presence of many other tribes.

The educational attainment of the respondents shows that 22.2% respondents have no formal education, 25.2% respondents attained primary education, 21% respondents attained secondary education while 31.3% respondents attained tertiary education as their highest level of educational achievement. This shows that majority of residents of the peri-urban areas of Makurdi town are literates and can read and write. According to the result presented, 91.5% of the respondents are Christians, while the remaining 8.5% constitutes other religion.

The study also sought to determine the other economic characteristics of the peri-urban areas of Makurdi town –specifically average monthly income, household size and house ownership status of peri-urban residents in Makurdi. The result of the field survey is presented in figure 3 and table 1

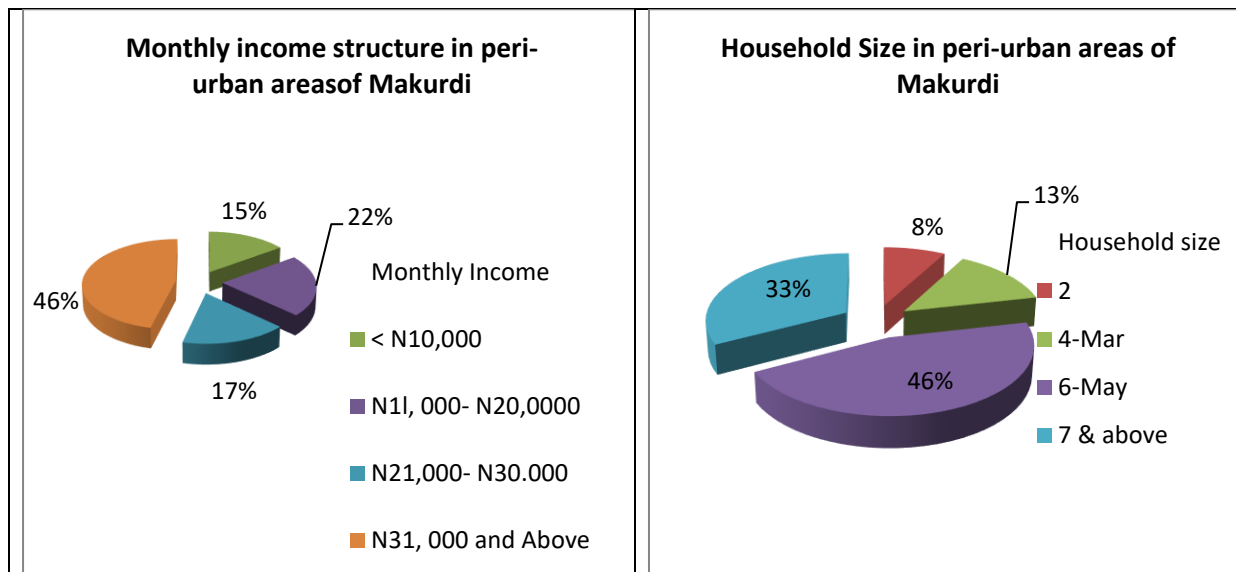


Figure 3: Monthly income and household sizes in peri-urban areas of Makurdi
 Source: Field Survey, 2024.

The result of the study shows that majority of the residents of peri-urban areas accounting for 46% earns above ₦30,000, whereas, only 15% respondents earn an average monthly income of below N10,000. It can be deduced from the findings that the income level of peri-urban areas in the study area is generally low since more than 50% of the respondents earn below ₦30,000 per month. This is not surprising since from the researcher's personal observation of the study area indicates that the level of income is generally low. This finding agrees with Browder et al. (1995) whose study on the socio-economic composition and structure of settlements on the metropolitan fringe in some cities in developing countries arrived at the result that the vast majority of residents in the metropolitan fringe

are low-middle and middle income long-term urban dwellers that had relocated from other areas of the metropolitan centre. This variation in findings could be due to the fact that peri-urban areas of Makurdi town are still dominated by mostly indigenous farmers and traders who are low income earners.

Furthermore as shown in figure 3, the household size range of 5-6 persons dominates the study area accounting for 45%, while the least household size of 2 persons accounts for only 7.9%. Based on this result, it is clear that peri-urban areas of Makurdi town are dominated by large household sizes which suggest a high dependency ratio. Furthermore, the study sought to determine percentage of house ownership and the result of the field survey is presented in Table 1

TABLE 1: House Ownership Status of Respondents.

Responses	Frequency	Percentage
Yes	47	21.9
No	167	79.1
Total	214	100

Source: Field Survey, 2024.

The information in Table 1 shows that only 21.9% of the respondents own the houses they were staying in, while the remaining 79.1% of them do not own those houses. This shows that majority of the residents of peri-urban areas in Makurdi do not own the houses in which they live. Since many of the residents are low income earners, these categories of residents are likely to live in rented apartments in the fringes of the town since their

incomes may not be sufficient to afford house of their own or pay exorbitant rent in the city proper. Thus households with varying levels of assets and income experience different livelihood outcomes, with some benefiting more from urban growth than others.



Spatial Linkages between the Pre-urban Areas and the City Proper

The study examined the spatial linkages between the peri-urban areas of Makurdi and the

town proper using residents' place of work, means of transportation, markets patronized, and frequency of visits/interaction of peri-urban residents with the main city proper. The result is presented in figure 4

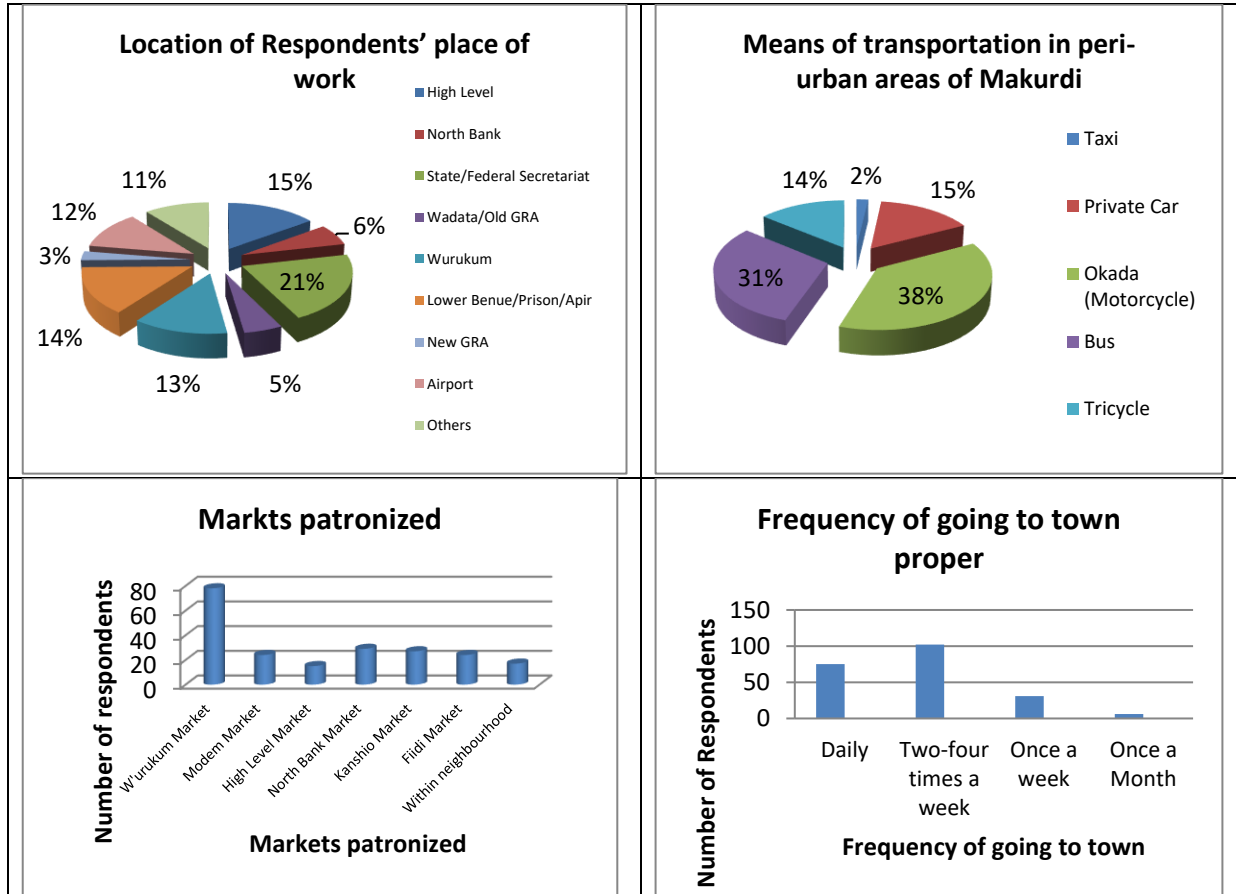


Figure 4: Linkages between peri-urban areas and the city proper

The result shows that majority of the respondents accounting for 21% works at Federal/State Secretariats while 15% and 14% workplace location is at High-Level and Lower-Benue/Prison/Apir respectively. This means that peri-urban residents of Makurdi have strong links with the city proper, through their work places. Majority of these respondents go to work by motorcycles (Okada) accounting for 38% while those who goes to work by Buses (Town service Buses) accounts for 31%. Taxi was the least patronized mean of transportation with only 2% in the study area. Thus the major shuttle means in the peri-urban areas of Makurdi town are motorcycles and Town Service Buses. This agrees with Dam et al (2024) in their study on transport modal choice in the Benue basin which empirically reported motorcycles as the major transport means in the region. Vele (2008) stressed that the peri-urban

environment is dynamic because of the flow of migrants and the density/heterogeneity of activities present. The links between the peri-urban areas of Makurdi and the city proper are therefore normal as backed by the literature.

The result of the study also shows that Makurdi peri-urban residents patronized markets located in the city proper including Wurukum market (36.4%), North-Bank, Kanshio (13.5%), Modern market (11.2%) amongst others. This finding is consistent with that of the Department of Civil, Building and Environmental Engineering, University of Rome (2011) which concluded that peri-urban areas are complex hybrid system in which the urban and the rural are blended together.

Changing Livelihood Sustenance of the Peri-urban Households in Makurdi

Development of peri-urban areas is rapidly



facilitating land use change, and posing serious livelihood challenges to households in developing countries. This study examined the changing

livelihood options/strategies of peri-urban households in Makurdi town and the result is presented in table 2

TABLE 2: Respondents' Occupation Five Years Ago

Livelihood means	Respondents			
	Occupation 5Years ago	Percentage %	Current occupation	Percentage %
Farming	78	36.4	46	21.4
Civil service	43	20.0	74	34.5
Trade	79	36.9	78	36.4
Others	14	6.5	13	6.0
Total	214	100%	214	100%

Source: Field Survey, 2024.

The information in Table 2 shows that 36.4% respondents that were engaged in farming five years ago has now been reduced to 21.4% as at 2024; while civil service that accounted for 20.0% five years ago has now accounts for 34.5%. This implies that majority of the residents of Peri-urban areas of Makurdi five years were farmers but now changed to non-agriculture sector. This changing livelihood sources occasioned by the emerging peri-urban areas have now enhanced job mobility and brought about the shift toward white-collar jobs (civil service) in the study area. This finding supports the views of Bonye, Aasoglenang & Yiridomoh (2021) in their study on urbanization, agricultural land use change and livelihood adaptation strategies in peri-urban Wa, Ghana, reported that trading/petty business, exchange of labor for pay and migration are significantly related to agricultural land use change as a result of urbanization.

Challenges associated with the Peri-urban Areas of Makurdi Town

The study sought to determine challenges associated with peri-urban areas of Makurdi, and the result of the field survey is presented in figure 5.

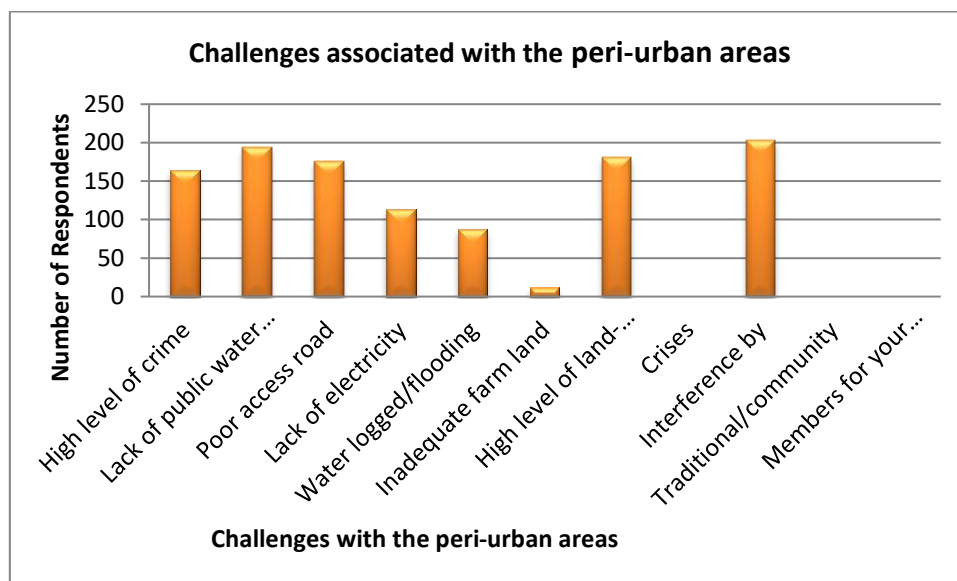


Figure 4: Factors affecting development of peri-urban areas



The major challenges that characterized the peri-urban areas of Makurdi are interference by traditional rulers and community members for allegiance from settlers, lack of public water supply, high-level of land related crisis, poor access road and high level of crime. Similar to this finding, Lawanson, Yadau and Salako (2012) carried out their study on environmental challenges of peri-urban settlements in Lagos mega-city in which they reports that environmental problems such as poor waste management and general lack of infrastructural facilities abound in these areas.

IV. CONCLUSION AND RECOMMENDATION

The trend towards the dispersal of population and employment to the peripheries of metropolitan cities is becoming a world-wide phenomenon, but the drivers tend to differ as well as the character of the emerging peri-urban areas. This study has shown that rural areas located on the outskirts of established cities are becoming more urban in character. This transformation occurs in physical, economic, and social terms, and often in piecemeal fashion resulting to small agricultural communities adjusting to an urban way of life. Key characteristics of the peri-urban areas particularly in Makurdi town include changing economic structure, encompassing a shift from an agriculturally based to a non-agricultural economy as seen in the changing livelihood patterns. Peri-urban areas in Makurdi are dynamic and rapidly changing, with both opportunities and challenges for development. The study recommends effective planning, investment and management as essential for harnessing the potentials of these areas and promoting sustainable development

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