

THE EFFECTS OF URBAN EXPANSION ON LIVELIHOOD ASSETS IN OYI LOCAL GOVERNMENT AREA OF ANAMBRA STATE

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Abstract

Rapid urbanization in Oyi LGA, driven by population growth due to proximity to Onitsha and the emergence of major markets, is causing significant socioeconomic and environmental challenges and has driven the purpose of this work. This study assessed the effects of urban expansion on people's livelihood assets in the Oyi Local Government Area of Anambra State. The study's objectives were to assess how urban expansion has affected the different capitals of livelihood. The study employed a survey design and primary data was collected using a structured questionnaire. A total of 391 households were used for the study. Findings indicate that urban expansion has positively influenced human, financial, and physical capital, and significant negative impacts were observed on natural capital and social capital. The research highlights the need for balanced urban development strategies that enhance economic opportunities while mitigating environmental degradation and preserving social fabric. Hence the study recommended that the relevant authorities enforce environmental impact assessments, invest in community-based initiatives to strengthen social cohesion, and establish transparent, participatory urban planning processes.

INTRODUCTION

The process of urban expansion is a worldwide phenomenon. This phenomenon is now a rising trend seen worldwide, especially at an alarming rate in developing countries (Seto *et al.*, 2017). Estimates suggest global urban extent will increase from 652,825 km² in 2000 to 1.2 million km² by 2030 (Seto *et al.*, 2012 in Yussif *et. Al.*, 2023; Gao and O'Neill, 2020). Studies suggest total urban areas are expected to increase by 80% between 2018 and 2030 (Mahendra and Seto, 2019). Africa particularly, exhibits the fastest urban growth (OECD/SWAC 2020). In other regions, urban expansion is driven by the combined outcomes of population and economic growth, but in Africa, urban expansion is explained almost solely by urban population growth (Seto *et al.* 2011; Mahendra and Seto, 2019). The urban expansion in many parts of Africa is characterized by unplanned and unregulated growth (Gunalp, 2017) that engulfs farmlands (Gwan and Kimengsi, 2020), often along major road networks. Mostly, it gives rise to squatter settlements and neighbourhoods that are under-serviced with water, energy and road networks (Cobbinah and Aboagye 2017), which adversely affect the people's livelihoods. This is due to their low ability to invest in improving human

and institutional capacities, poor service delivery, inadequate/unaffordable housing, and limited job opportunities, whose collective outcomes would be a series of negative sustainability impacts (UN-Habitat, 2020). In Nigeria, the pattern, trend, and characteristics of urbanization have been particularly significant (Aliyu and Amadu, 2017). Nigeria's towns and cities have grown phenomenally, with the urban growth rate consistently above 2% per annum (UNDESA, 2019). Consequently, Nigerian cities' area have rapidly expanded, often unplanned and uncontrolled (Cities Alliance, 2007).

The Oyi Local Government Area of Anambra State in Nigeria has witnessed urban expansion (Ikedigwe *et al.*, 2024). This is most evident in the towns of Nkwelle-Ezunaka, Umunya, and Ogbunike. Urban expansion is often accompanied by increased infrastructure development, population growth, significant transformations in land use, socio-economic dynamics, and the overall urban landscape (Terfa *et al.*, 2020), all of which can significantly alter the livelihoods of the people in the given area. The three towns, Nkwelle-Ezunaka, Umunya, and Ogbunike, situated within this area, present a compelling case for studying these changes due to their rapid urbanization and proximity to Onitsha, a central commercial hub. In recent years, Nkwelle-Ezunaka has experienced a surge in urban development activities (Okeke *et al.*, 2022), as well as Umunya and Ogbunike. These include establishing new residential areas, commercial zones, and infrastructural developments. Urban expansion brings about economic growth and improved infrastructure (Sun and Cui, 2018); however, it also poses challenges and affects residents' livelihoods. These impacts on livelihood can affect social, economic, and environmental aspects of life. Economically, there is potential for increased employment opportunities, enhancement of trade, and the overall growth of local businesses, and consequently, such expansion may lead to increased living costs, displacement of local communities, and changes in traditional livelihoods. The environmental impact, including changes in land use, depletion of natural resources, and increased pollution, must be addressed.

The ever-increasing urban expansion in most urban areas of developing countries, such as Oyi Local Government Area, has posed multiple challenges, particularly to the livelihoods of farming communities in peri-urban areas. The

conversion of agricultural land to urban development is causing decreased agricultural productivity, food insecurity, and the displacement of farmers. This shift fuels rural-to-urban migration, straining urban resources and widening inequalities and also disrupting ecological services and degrading the environment through deforestation and loss of green spaces. Additionally, the socio-cultural structure is threatened by cultural assimilation, the displacement of indigenous populations, and the erosion of traditional values, creating a web of interconnected socio-economic and environmental challenges.

Review of Literature

Sustainable Livelihood

The concept of livelihood dates back to the work of Robert Chambers in the mid-1980s (further developed by Chambers, Conway and others in the early 1990s). The term 'sustainable livelihood' became a development concept in the early 1990s, drawing on advances in the understanding of famine and food insecurity during the 1980s (Haidar, 2009 *in* Tambe, 2022). His concepts join the basics of the Sustainable Livelihoods Approach (SLA) and were finally adopted by the Department for International Development (DFID) in 1997 as a strategy for pro-poor policy intervention. The sustainable livelihood idea was first introduced by the Brundtland Commission on Environment and Development, and the 1992 United Nations Conference on Environment and Development expanded the concept, advocating for the achievement of sustainable livelihoods as a broad goal for poverty eradication (Krantz, 2001 *in* Fahad, 2023).

Tambe (2022) defined livelihood as the capabilities, assets (including both material and social resources), and activities required for a means of living. Peri-urban areas lie between urban and rural areas. There is evidence that these areas are neither urban nor rural but represent the rural-urban transition zone and possess a mix of urban and rural characteristics. The process of urbanization is a two-edged phenomenon with the potential to improve or worsen livelihood conditions for peri-urban dwellers. It is for this reason that as households try to work on changes that come with urbanization, regardless of them being positive or negative, households in peri-urban areas have to adopt a set of behaviours, referred to as Livelihood Strategies, that household members use when responding to opportunities or constraints that come along with urbanization

(UNDP, 2005). The livelihoods that people in these areas depend on are mixed and diverse. Cinner and Bodin (2010) in Ali (2017) stated that diverse livelihood portfolios are common in peri-urban areas and critical to household economies in developed and developing nations. The continuous interaction between urban and rural areas, taking place in peri-urban areas means that inhabitants of peri-urban areas are often exposed to a wide range of livelihood options. Some populations can choose between earning a living on a farm through an agricultural livelihood or non-farm-based livelihoods, including salaried work, engagement in informal economic activities trading, or both.

The Sustainable Livelihood Framework (SLF)

A sustainable livelihood is one that can cope with and recover from stresses and shocks and maintain or enhance its capabilities and assets without damaging the natural resource base (Owusu, 2020). Livelihoods are influenced by the availability of resources and opportunities that are either external to households, like political and socioeconomic factors, and also internal factors such as education levels and the nature of the relationships that family members have with the wider community (Wako, 2022). The capabilities and assets that a household is exposed to form the central theme in understanding livelihoods through the now famous Sustainable Livelihoods Approach (SLA), also known as the Sustainable Livelihood Framework (SLF). While there are several Sustainable Livelihoods Frameworks (SLFs), the two most common SLFs were developed by the United Kingdom's Department for International Development (DFID) and the International Fund for Agricultural Development (IFAD).

The Sustainable Livelihoods Framework presents factors that affect people's livelihoods and considers typical relationships between and among factors (Fanad *et al.*, 2023). It is a vital planning tool for new development activities but also plays a critical role in assessing livelihood sustainability's contribution to existing activities. UNDP (2005) asserts that the sustainable livelihoods framework is a tool for the analysis of people's livelihoods and their sustainability to provide "a common conceptual approach to examining ways through which researchers would analyze livelihood strategies of households or individuals". The DFID Sustainable Livelihoods Framework provides a common ground for

comparing the unquantifiable impacts, allowing researchers to understand better “development impact” as perceived by the local population being studied (Ashley & Hussein, 1999 as cited in Ali, 2017). The SLF also offers the opportunity to merge various approaches when examining issues related to urbanization and how such issues shape and affect livelihoods in rural and peri-urban areas. Being a people-centred approach, the SLF applies to a range of scales that can aid in examining livelihood outcomes for individuals’ households and nations. At the centre of the Sustainable Livelihood Framework are the Assets, also called Capital, on which households or individuals draw to build their livelihoods. The assets are comprised of natural capital, physical capital, social capital, financial capital, and human capital. The concepts that these terms imply are presented below.

1. Natural Capital: This refers to the natural resources people rely on, like land, water, air, and fertile soil for agriculture.
2. Human Capital: This encompasses people's skills, education, knowledge, and health, all influencing their ability to find work and earn a living.
3. Social Capital: This refers to the networks, relationships, and trust people have within their communities. Strong social networks provide support, information sharing, and potential resource access.
4. Financial Capital: This includes savings, income, and access to credit, which allows people to invest in their livelihoods, purchase necessities, and weather financial shocks.
5. Physical Capital: This refers to the infrastructure and tools people use, such as transportation systems, buildings, irrigation systems, and equipment. Good physical capital facilitates production and access to markets.

Access and the utilization of these assets are influenced by the Vulnerability Context, which is the source of insecurity to which poor people and their assets are vulnerable. Policies, organizations, and relationships between individuals, organizations, and authorities further influence access to and use of assets. The strategies that individuals and households adopt produce outcomes that are defined in terms of greater or less well-being. (Source: SLF adapted and modified

from DFID (2000); Krantz (2001), Farrington et al., (2001); Serrate (2017), and Tufa and Mento (2022).

This research, therefore, aims to provide a comprehensive assessment of how urban expansion in Oyi Local Government has influenced the livelihood assets of its residents.

Method

Materials and Methods

Study Area

The study area, Oyi Local Government Area of Anambra State, lies within the coordinates of latitude 6°10' N and 6°19' N, and between longitudes 6°50' E and 6°58' E. Oyi Local Government Area is made up of five communities: Awkuzu, Nkwelle-Ezunaka, Nteje, Ogbunike, and Umunya. It is bounded by Anambra East LGA by the north and west, Njikoka and Dunukofia LGAs by the East, Idemili North LGA by the south, and Onitsha North LGA by the southwest. It has a land area of about 149.6 sq.km. The climate falls within the tropic wet and dry type based on Koppen's classification and belongs to the tropical rainforest vegetation belt.

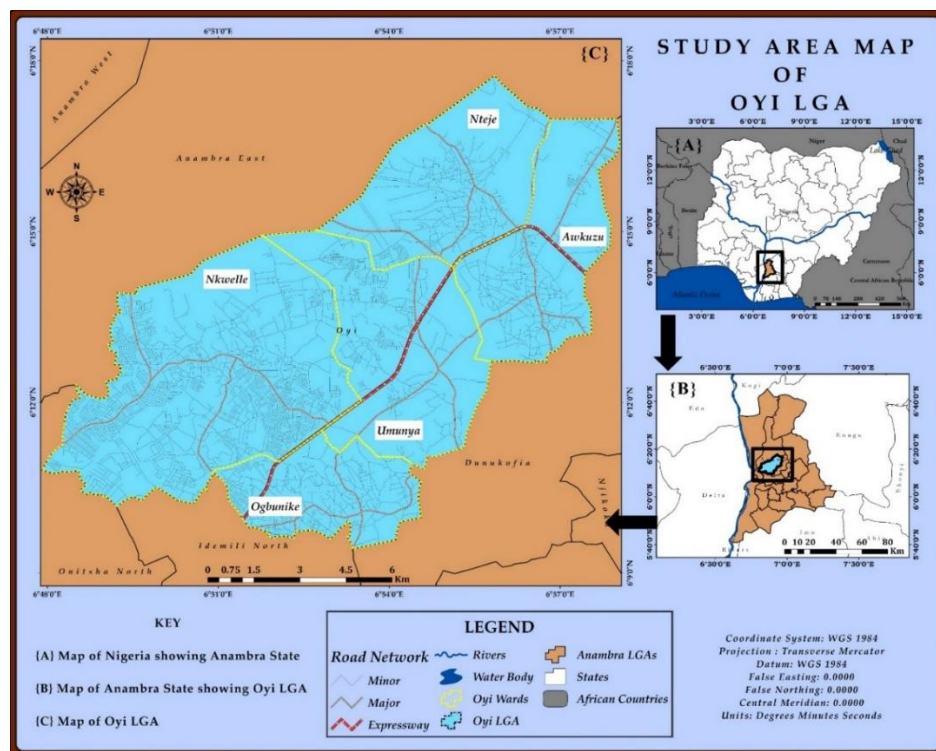


Figure 1: Map of the Study Area

Population and Sampling

Three towns, Nkwelle-Ezunaka, Ogbunike, and Umunya, were purposively selected out of the five towns in Oyi Local Government Area. This resulted from the visible urban expansion in the area. According to NPC (1991), a total of 34,129 persons were residing in the three towns. Projections to 2023 using a growth rate of 2.85 percent show that the population of the areas as of 2023 is 89,481 persons. According to the National Bureau of Statistics (2020), the average number of persons per household is 5.06 persons. Therefore, to get the number of households, the researcher divided the total population by the average number of persons per household. To this end, the population of the study is 17,684 households.

The sample size was determined using the Taro Yamane (1967) theoretical formula for sample size determination, which is represented as:

$$n = \frac{N}{1 + N(e)^2}$$

Where:

N = Population Size = 17,684

n = sample size

e = the level of precision, that is 0.05(5%).

$$\begin{aligned} n &= \frac{17,684}{1 + 17,684 (0.05)^2} \\ &= \frac{17,684}{1 + 17,684 (0.0025)} \\ n &= \frac{17,684}{45.21} \end{aligned}$$

$$n = 391.15$$

Approximately 391 households were taken as samples.

Method of Data Analysis

Results and Discussion

Results

Human Capital

Based on the data presented in Table 1 below, the three communities, Umunya, Ogbunike and Nkwelle-Ezunaka, generally perceived urban expansion as positively impacting human capital. The respondents rated the effects of urban

expansion positively on education, skills development, vocational training, healthcare access, and the adequacy of the health workforce.

Table 1: Mean rating on the effects of urban expansion on human capital

S/N	Item Statements	\bar{x}	Decision
1	Urban expansion has increased education levels in the community.	4.39	Accepted
2	Urban expansion has increased the skills and knowledge necessary for livelihood.	4.19	Accepted
3	Urban expansion has improved access to vocational training opportunities.	3.80	Accepted
4	Urban expansion has made healthcare services more accessible.	3.91	Accepted
5	Urban expansion has improved the adequacy of the health workforce.	4.50	Accepted

Natural Capital

Table 2 below presents the mean ratings for various statements related to the effects of urban expansion on natural capital of people in Oyi Local Government Area. The respondents rated negatively the effects of urban expansion on natural resource availability, management, environmental degradation, and the resilience of natural ecosystems.

Table 2: Mean rating on the effects of urban expansion on natural capital

S/N	Item Statements	\bar{x}	Decision
6	Urban expansion has increased the availability of natural resources for subsistence.	1.55	Rejected
7	Urban expansion has made the management of natural resources more sustainable.	1.58	Rejected
8	Urban expansion has decreased environmental degradation.	1.86	Rejected
9	Urban expansion has increased the resilience of natural ecosystems.	1.79	Rejected

10	Urban expansion has preserved cultural landscapes associated with natural resources.	1.97	Rejected
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Social Capital

Table 3 presents the mean rating of the effects of urban expansion on the social capital of the people. The respondents rated negatively on the effects of urban expansion on social capital aside from the strengthening of social institutions.

Table 3: Mean rating on the effects of urban expansion on social capital

S/N	Item Statements	\bar{x}	Decision
11	Urban expansion has strengthened the community's social institutions.	4.27	Accepted
12	The sense of community in my neighbourhood has strengthened as a result of urban expansion.	1.94	Rejected
13	Urban expansion has strengthened social networks in the community.	2.28	Rejected
14	Urban expansion has increased participation in community decision-making.	1.94	Rejected
15	Urban expansion has increased my participation in local events and community organizations.	2.39	Rejected

Financial Capital

Based on the data presented in Table 4, the communities in Oyi Local Government Area, generally perceive urban expansion as having a positive impact on financial capital. The respondents rated the effects of urban expansion positively on income levels, savings, investments, financial accessibility, and financial literacy. These findings suggest that the community benefits significantly from the economic opportunities and improved financial well-being brought about by urbanization.

Table 1: Mean rating on the effects of urban expansion on financial capital

S/N	Item Statements	\bar{x}	Decision
16	Urban expansion has increased the income levels of community members.	3.40	Accepted

17	Urban expansion has increased savings and investments.	3.59	Accepted
18	Urban expansion has made the financial sector more accessible to all community members.	3.99	Accepted
19	Urban expansion has increased financial literacy in the community.	4.24	Accepted
20	Urban expansion has improved access to credit and loans needed for livelihood.	3.74	Accepted

Physical Capital

Based on the data presented in Table 5 the communities in Oyi Local Government Area, generally perceive urban expansion as having a positive impact on physical capital. The respondents rated positively the effects of urban expansion on infrastructure quality, property values, housing access, and resilience to natural disasters. However, there is a mixed perception regarding inclusive and participatory planning and development.

Table 5: Mean rating on the effects of urban expansion on physical capital

S/N	Item Statements	\bar{x}	Decision
21	Urban expansion has improved the quality of infrastructure.	4.23	Accept
22	Urban expansion has increased property values.	4.41	Accept
23	Urban expansion has improved access to housing.	4.20	Accept
24	Urban expansion has made infrastructure more resilient to natural disasters.	4.25	Accept
25	Urban expansion has led to inclusive and participatory planning and development of infrastructure.	2.88	Reject

CONCLUSION

Effects of Urban Expansion on Human Capital

Urban expansion is widely perceived as enhancing human capital in the study area as shown in table 1 above. The respondents highlighted positive outcomes such as improved education levels, vocational training opportunities, and healthcare access. This aligns with urbanization scenarios in different parts of the

world where urban areas often become hubs for educational and healthcare services due to concentrated investments and infrastructure development (Adewoyin et al., 2018, Mehmood et al., 2020; Thanh, 2021; Ibiang et al., 2023 and Eneiga et al., 2023). In the study area, the existent urban expansion offers enhanced access to schools, vocational training institutions, and advanced healthcare facilities compared to other rural areas. Urban expansion has attracted skilled professionals in the area of healthcare, fostering a more robust health workforce. Moreover, improved infrastructure, such as roads and digital connectivity, facilitates easier access to these resources, further strengthening human capital. However, the benefits of urban expansion on human capital are not evenly distributed. Marginalized populations often struggle to access these improvements due to economic barriers or social inequalities.

Effects of Urban Expansion on Natural Capital

In contrast, the study found overwhelmingly negative perceptions of urban expansion's impact on natural capital. The findings indicate severe challenges, including reduced natural resource availability (mean rating of 1.55), environmental degradation (1.86), and weakened ecosystem resilience (1.79). These findings reflect real-life challenges faced in many urbanizing regions. Urban expansion often involves the conversion of agricultural land, forests, and wetlands into residential or industrial zones. This agrees with the studies of Agyeman (2018), Yusuf et al., (2020) and Onunuga et al., (2021) who found that urbanization has caused a steady decline in natural vegetation and farmlands. In Oyi Local Government Area, rapid urbanization has led to deforestation and the loss of farmland, directly affecting subsistence farming and biodiversity. This mirrors similar trends globally where urban sprawl has led to the loss of critical mangrove ecosystems, increasing vulnerability to flooding.

Effects of Urban Expansion on Social Capital

The responses reveal a complex picture of urban expansion's impact on social capital. The data highlighted a clear divergence between the perceived strengthening of social institutions and the weakening of informal social connections. The strengthening of the social institutions with its high mean of 4.27, indicates that residents of Oyi LGA generally perceive urban expansion as having a positive effect on formal social institutions. The expansion has led to an

increased number of schools and churches, improvements in local government infrastructure and the establishment of new community centres. This is in consonance with the findings of Arif (2023) who noted that urban areas facilitate the formation of new social networks and communities based on shared interests, identities, or experiences and there is the availability and accessibility of public spaces, amenities, and social infrastructure play a crucial role in shaping community cohesion.

The findings also suggest that while formal social institutions may be thriving, the informal social fabric of Oyi LGA is experiencing strain. This is particularly relevant given the strong emphasis on community and kinship ties within Igbo culture, which is prevalent in Oyi LGA. The decline in perceived community cohesion and weaker social ties is attributed to several factors. The rapid urbanization led to increased migration, with newcomers potentially lacking established connections within the community. This influx has disrupted traditional social networks and weakened the sense of shared identity. This agrees with the studies of Baker and O'Brien (2020) Abubakar (2023), Arif (2023), Bandile (2024), and Ridwan (2024). Furthermore, changing land use patterns, driven by development, have displaced traditional gathering spaces and eroded opportunities for informal social interaction. Moreover, the reduction in individual participation in local affairs suggests a potential disconnect between residents and their community. This is due to a variety of factors, including increased work demands, a sense of alienation, and a perception that individual voices are not being heard.

Effects of Urban Expansion on Financial Capital

The study also highlighted the transformative effect of urban expansion on financial capital in Oyi Local Government Area. Respondents noted significant improvements in financial literacy (4.24) and access to financial services (3.99). These findings suggest that urbanization has brought residents closer to formal and informal financial systems, enabling them to diversify their income sources and manage resources more effectively. The growth of mobile banking and microfinance institutions in communities like Nkwelle-Ezunaka and Umunya, and also commercial banks in Ogbunike, has made it easier for residents to save, invest, and access credit facilities. This is particularly evident in the rise of small-

scale businesses, such as transportation services, eateries, and tailoring shops, which have sprung up to meet the demands of an expanding urban population. This finding supports the findings of Shahbaz et al., (2017) and Lee et al., (2019) who found asserted that urbanization improved financial institutions. However, the mean score of 3.40 for increased income levels indicates that while urbanization creates opportunities, its benefits are unevenly distributed. In rural parts of Oyi, such as Umunya, farmers have reported declining incomes due to shrinking agricultural land and rising competition for resources. Urban encroachment has converted much of the arable farmland into residential and commercial estates, forcing many traditional farmers to seek alternative livelihoods. Although some have successfully transitioned into urban jobs, others struggle due to a lack of skills or access to new opportunities. Similarly, the mean score of 3.74 for access to credit and loans reflects progress but also highlights challenges. Residents in peri-urban areas, particularly women and small-scale entrepreneurs, often face barriers to securing loans due to high interest rates or stringent collateral requirements. Another area of improvement is savings and investments, with a mean score of 3.59. Urban expansion has encouraged the establishment of small-scale savings cooperatives. However, long-term investment opportunities remain limited, as many residents prioritize immediate needs over future gains.

Effects of Urban Expansion on Physical Capital

Urban expansion has emerged as a significant driver of socioeconomic transformation in the Oyi Local Government Area (LGA), with both benefits and challenges highlighted by the findings of this study. Researchers have clearly stated that urban expansion improves the physical infrastructures of a given area (Oludele, 2020; Tadele, 2020; Obi et al., 2021, Idoko and Ezeodili, 2021; Kriswandanu et al., 2023; and Wu et al., 2024). Respondents rated the impact of urban expansion on infrastructure quality highly, with a mean score of 4.23. This finding reflects substantial improvements in roads, electricity, water supply, and telecommunications infrastructure, which have facilitated better connectivity and economic activities. The construction and upgrading of major roads, such as the Nteje-Umunya road, Awkuzu-Umunya-Ogbunike road, the Oyi axis of Enugu-Onitsha expressway etc., have enhanced accessibility to urban centres like

Onitsha and Awka. Improved road networks have reduced travel times and boosted commercial activities, enabling residents to transport goods more efficiently. Additionally, expansion in telecommunications infrastructure has seen more mobile network masts installed, leading to better connectivity for both businesses and individuals.

Urban expansion has significantly boosted property values, as indicated by the mean rating of 4.40, which is the highest in the table. The influx of businesses and residents into the Local Government Area has created a high demand for land and housing, leading to substantial appreciation in property prices. The rapid development of Nkwelle-Ezunaka and Ogbunike is a prime example. Ogbunike is known for the Ogbunike Caves, a UNESCO heritage site, due to this, the town has seen a surge in tourism-related investments. Also, the emerging markets in Ogbunike and Nkwelle have increased the value of commercial and residential properties, attracting real estate developers who are capitalizing on the growing demand. Land that was previously undervalued has now become prime real estate, benefiting property owners. Urban expansion has also positively impacted access to housing, with a mean score of 4.20. In the study area, several housing estates have been developed to accommodate the increasing population. For instance, the establishment of the Anambra State Housing Corporation's estates such as Hill-View Estate, Anambra Luxury Place Estate Gra Nkwelle-Ezunaka, and other private estates in the area has provided affordable housing for middle-income earners, reflecting the positive effects of urban expansion on housing accessibility. Respondents acknowledged that urban expansion has made infrastructure more resilient to natural disasters, as reflected in a mean score of 4.25. With urban growth, better engineering standards and disaster preparedness measures have been integrated into new infrastructure projects. Flooding, a recurrent issue in some parts of Oyi LGA, has been mitigated through improved drainage systems in towns like Nkwelle-Ezunaka and Ogbunike. Recent urban projects include the installation of larger culverts and reinforced embankments along flood-prone areas, reducing the impact of seasonal rains on infrastructure and minimizing damage to roads and buildings.

Despite these positive impacts, urban expansion scored low on fostering inclusive and participatory planning and development, with a mean rating of 2.88.

This finding shows a gap in engaging local communities in the decision-making process, leading to dissatisfaction and perceptions of exclusion.

This study assessed the effects of urban expansion on the five livelihood assets of people in Oyi Local Government Area of Anambra State. The findings showed that while urban expansion has undeniably catalyzed improvements in human, financial, and physical capital, leading to enhanced access to education, healthcare, financial services, and infrastructure, it has simultaneously exerted a detrimental effect on natural capital and created complex shifts in social capital. Urban expansion in the study area is generally seen as beneficial for human capital, leading to improved education levels, vocational training opportunities, and healthcare access. Urban centers become hubs for these services due to concentrated investments and infrastructure development, attracting skilled professionals and enhancing resource accessibility. However, the benefits are not evenly distributed, with marginalized populations often facing barriers due to economic and social inequalities. The impact of urban expansion on natural capital is perceived as overwhelmingly negative. Respondents reported significant challenges, including reduced natural resource availability, environmental degradation, and weakened ecosystem resilience. The conversion of natural land into residential and industrial zones has led to deforestation and loss of farmland, impacting subsistence farming and biodiversity. Poor waste management, insufficient green spaces, and unregulated construction further exacerbate these issues.

REFERENCES

- Abubakar, S. Y. (2023). The Effect of Urbanization on the Social, Economic and Religious Lifestyle of Community Dwellers in Kwara State: A Case Study of Communities Around University of Ilorin, Ilorin, *International Journal of Politics and Good Governance*, 10(4), 1-22
- Adewoyin, Yemi & Sa, Nma-Njoku & Sanni, Lekan. (2018). Urbanization, Spatial Distribution of Healthcare Facilities and Inverse Care in Ibadan, Nigeria. 96-111. DOI:10.4314/gjg.v10i2.7.
- Agyeman, S. A. (2018) Impacts of Urban Sprawl on Livelihoods and Ecology in Peri-Urban Fringe of the Greater Accra Metropolitan Area. *West African Journal of Applied Ecology*, 28, 100 – 117

- Ali, Akeel Ellafi (2017) Examination of Effects of Expanding Cities on Peri-Urban Agricultural Areas: Implications on Farmers' Livelihoods in Qarabulli District in the Eastern Part of Tripoli, Libya. Doctoral thesis, University of Huddersfield, available at <http://eprints.hud.ac.uk/id/eprint/34004/>
- Aliyu, A. A. and Amadu L. (2017). Urbanization, cities, and health: The challenges to Nigeria - A review. *Annals of African Medicine*, 16(4):149-158. doi: 10.4103/aam.aam_1_17.
- Arif Alvi (2023). Effects of Urbanization on Community Cohesion in Major Cities of Pakistan, *European Journal of Sociology*, 7(1), 22-31
- Bandile, Andie. (2024). The Effect of Urbanization on Community Social Networks and Support Systems. *International Journal of Humanity and Social Sciences*. 3. 46-59. 10.47941/ijhss.2084.
- Cities Alliance (2007). *Foundation for Urban Development in Africa. The Legacy of Akin Mabogunje*. The Cities Alliance. <http://documents.worldbank.org/curated/en/482851468202163524/pdf/481540WP0urba n10Box338889B01PUBLIC1.pdf>
- Cobbinah, P. and Aboagye, H. (2017) A Ghanaian twist to Urban Sprawl, *Land use Policy*, 61, 231-241. DOI: 10.1016/j.landusepol.2016.10.047
- DFID (2000) *Sustainable Livelihoods Guidance Sheets*. Available at <https://www.livelihoodscentre.org/documents/114097690/114438878/Sustainable+livelihoods+guidance+sheets.pdf/594e5ea6-99a9-2a4e-f288-cbb4ae4bea8b?t=1569512091877>
- Eneiga, R.U. (2023). Influence of Urbanisation on Employment Opportunities of the Urban Dwellers in Enugu State. *Interdisciplinary Research Journal of Management and Social Sciences*, 10(4). DOI: <https://doi.org/10.5281/zenodo.10204109>
- Fahad, S., Nguyen-Thi-Lan, H., Nguyen-Manh, D. (2023) Analyzing the status of multidimensional poverty of rural households by using sustainable livelihood framework: policy implications for economic growth, *Environmental Science and Pollution Research*, **30**, 16106–16119. <https://doi.org/10.1007/s11356-022-23143-0>

- Farrington, J. Ramasut, T and Walker, J (2001) *Sustainable Livelihoods Approaches in Urban Areas: General Lessons, with Illustrations from Indian Cases*, Overseas Development Institute (ODI), London.
- Gao J, and O'Neill B.C (2020) Mapping global urban land for the 21st century with data-driven simulations and Shared Socioeconomic Pathways. *Nat Commun* 11(2302):1–12. <https://doi.org/10.1038/s41467-020-15788-7>
- Güneralp B., Lwasa S., Masundire H., Parnell S. and Seto K.C. (2017). Urbanization in Africa: challenges and opportunities for conservation. *Environmental Research Letters*, 13(1). DOI 10.1088/1748-9326/aa94fe
- Gwan, Akhere & Kimengsi, Jude. (2020). Urban Expansion and the Dynamics of Farmers' Livelihoods: Evidence from Bamenda, Cameroon. *Sustainability*. 12. 1-19. DOI:10.3390/su12145788.
- Ibiang, E.I, Ukpata, M., and Ettah, B.N. (2023) Urbanization and Health Care Challenges in Calabar Metropolis, Cross River State, Nigeria. *International Journal of Innovative Science and Research Technology*, 8(9), 2456-2165
- Idoko, C.O. and Ezeodili, C.O. (2021) Urbanization and housing development in Enugu State Nigeria *University of Nigeria Journal of Political Economy*. 11(1), 254-277
- Ikedigwe, C.A., Akanwa, A. O and Ezeomodo, I. C. (2024). Effect of Urban Expansion on Food Security in Oyi Local Government Area, Anambra State, Nigeria. *International Journal of Research Publication and Reviews*, 5(2), 155-165. <https://ijrpr.com/uploads/V5ISSUE2/IJRPR22476.pdf>
- Krantz, L. (2001). *Sustainable Livelihood Approach to Poverty Reduction: An Introduction*
Available at:
https://www.researchgate.net/publication/269576058_The_sustainable_livelihood_approach_to_poverty_reduction_An_Introduction
- Lee, W. C., T. S. Cheong, and Y. Wu. (2017). The Impacts of Financial Development, Urbanization, and Globalization on Income Inequality: A Regression-based Decomposition Approach. ADBI Working Paper 651. Tokyo: Asian Development Bank Institute. Available: <https://www.adb.org/publications/impacts-financial-development-urbanization-andglobalization-income-inequality>

- Mahendra A, and Seto KC (2019) Upward and Outward Growth: Managing Urban Expansion for More Equitable Cities in the Global South. Working Paper. World Resources Institute Washington DC. www.citiesforall.org
- Mehmood Rashid, Ullah Zia, and Lal Irfan (2021) Human Capital, Urbanization and Dynamics of Economic Growth and Development. *Journal of Human, Earth, and Future*, 2(4). Available online at www.HEFJournal.org
- Obi, H.O., Nwobi, F.O., and Chukwurah, D.J. (2021). The Headscratcher of Urbanization and Infrastructural Challenges in Anambra State (1999-2016), *International Journal of Academic Engineering Research (IJAER)*, 5(6), 1-6
- OECD/SWAC (2020b) Africa's Urban Realities; Better cities for an integrated, prosperous and peaceful continent. "Africa's Urbanisation Dynamics 2020: Africapolis, Mapping A New Urban Geography" Launch. 7 February 2020, 10am–12:30pm, Radisson Blu, Addis Ababa, Ethiopia. <https://www.oecd.org/swac/events/africa-urban-realities-february-2020-concept-note.pdf>
- Okeke, C. A., Uno, J., Academe, S., Emenike, P. C., Abam, T. K., & Omole, D. O. (2022). An integrated assessment of land use impact, riparian vegetation and lithologic variation on streambank stability in a peri-urban watershed (Nigeria). *Scientific Reports*, 12(1), 10989.
- Onanuga, M.Y., Eludoyin, A.O. & Ofoezie, I.E. (2022) Urbanization and its effects on land and water resources in Ijebu land, southwestern Nigeria. *Environmental Development and Sustainability*, 24, 592–616. Available at: <https://doi.org/10.1007/s10668-021-01458-1>
- Owusu F. (2020). Livelihoods in *International Encyclopedia of Human Geography (Second Edition)*, Elsevier, 193-198. Available at <https://doi.org/10.1016/B978-0-08-102295-5.10278-1>.
- Ridwan Sya'rani (2024). Examining the Effects of Urbanization on Social Structures and Environmental Sustainability: Lessons from Urban Development Projects, *Social Studies & Humanities Journal (SOSHUM)*, Vol 1(1) 97-108
- Seto, K. C., Fragkias, M., Güneralp, B., & Reilly, M. K. (2011). A meta-analysis of global urban land expansion, *PLoS One*, 6(8), DOI: <https://doi.org/10.1371/journal.pone.0023777>

- Seto, K.C., Golden, J.S., Alberti, M., and Turner, B.L. (2017). *Sustainability in an urbanizing planet*. Available at: <https://www.pnas.org/doi/epdf/10.1073/pnas.1606037114>
- Shahbaz, M., Bhattacharya, M. and Kumar, M. (2017). Financial Development, Industrialization, Urbanization and the Role of Institutions: A Comparative Analysis between India and China, *Munich Personal RePEc Archive*, Available at: <https://mpa.ub.uni-muenchen.de/81609/>
- Sun, Y., & Cui, Y. (2018). Analyzing urban infrastructure economic benefit using an integrated approach. *Cities*, 79, 124-133.
- Tadele, T.L. (2020). Urban Expansion and Its Impact on the Livelihood of Peripheral Farming Communities: The Case of Assosa Town, Benishangul Gumuz Region, Ethiopia. *Business and Management Horizons*, 8(2), 21-36
- Tambe, S. (2022). Sustainable livelihoods approach. In *Teaching and learning rural livelihoods: A guide for educators, students, and practitioners* (pp. 45-56). Cham: Springer International Publishing. https://doi.org/10.1007/978-981-10-0428-5_2
- Tambe, S. (2022). Sustainable Livelihoods Approach. In: *Teaching and Learning Rural Livelihoods*. Sustainable Development Goals Series. Springer, Cham. https://doi.org/10.1007/978-3-030-90491-3_4
- Thanh Thuy Cu (2021). Urbanization – changes in employment and incomes of people in Vietnam. *Problems and Perspectives in Management*, 19(3), 321-331 DOI:10.21511/ppm.19(3).2021.26
- Tufa, Duguma & Megento, Tebarek. (2022). The effects of farmland conversion on livelihood assets in peri-urban areas of Addis Ababa Metropolitan city, the case of Akaki Kaliti sub-city, Central Ethiopia. *Land Use Policy*. 119. 106197. 10.1016/j.landusepol.2022.106197.
- UNDESA (2019). *World Urbanization Prospects 2018*: Highlights. UN DESA. <https://population.un.org/wup/Publications/Files/WUP2018-Highlights.pdf>
- UNDP, (2005). *Human Development Report; Beyond Scarcity: Power, Poverty and the Global Water Crisis*. New York.
- UN-Habitat (2020b) World Cities Report (2020) The Value of Sustainable Urbanization. United Nations Human Settlements Programme, 2020 https://unhabitat.org/sites/default/files/2020/10/wcr_2020_report.pdf

- Wako, Y. M. (2022). *Analysis of Livelihood Activities Among Pastoral Households in Urban and Peri-urban Areas of Isiolo Town, Northern Kenya* (Doctoral dissertation, University of Nairobi).
- Wu, Y., Qian, P., Yang, L., Tian, Z., & Luo, J. (2024). Analysis of the Impact of Urban Infrastructure on Urbanization Processes at Different Levels from a Spatiotemporal Perspective. *Sustainability*, 16(16), 6888. <https://doi.org/10.3390/su16166888>
- Yussif, K., Dompheh, E. B., & Gasparatos, A. (2023). Sustainability of urban expansion in Africa: a systematic literature review using the Drivers–Pressures–State–Impact–Responses (DPSIR) framework. *Sustainability Science*, 18(3), 1459-1479.
- Yusuf Mohammed Bakoji, Elijah Elizabeth, Anita Humshe Philip, Mohammed Salim Isa, Umar Jauro Abba. Urbanization and its Impact on Agricultural Lands in Growing Cities in Developing Countries: A Case Study of Makurdi, Benue State Nigeria. *International Journal of Economy, Energy and Environment*, 5(4), 41-46. DOI: 10.11648/j.ijeee.20200504.11
- Kriswandanu, A., Muhtadi, M., Suprayitno, E., Wardita, Y. (2023). Effects of Urbanization, Transport Infrastructure, Air Quality, and Health Outcomes on the Quality of Life of Jakarta City Population. *Jurnal Geosains West Science*. 1. 54-63. 10.58812/jgws.v1i02.393.