

Urban Infrastructure and Sustainable Development in Lagos State, Nigeria

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ABSTRACT

This study examines the relationship between urban infrastructure and sustainable development in Lagos State, Nigeria, over the period 1993–2022. Specifically, it investigates the influence of urban water supply, electricity provision, transportation, housing development, solid waste management, and corruption on sustainable development. The study employed the Ordinary Least Squares (OLS) econometric technique after conducting the Augmented Dickey-Fuller (ADF) unit root test and the Johansen Cointegration Test to establish the stationarity and long-run relationships among the variables.

The OLS results indicate that urban water supply ($\beta = 1.482$, $p = 0.0006$), electricity provision ($\beta = 6.914$, $p < 0.001$), transportation ($\beta = 5.732$, $p = 0.0114$), housing development ($\beta = 1.644$, $p = 0.0001$), and solid waste management ($\beta = 3.218$, $p = 0.0004$) each exert a positive and statistically significant effect on sustainable development. Conversely, corruption has a significant negative influence ($p = 0.0078$), indicating that increased corruption undermines sustainable development outcomes. The model explains 68.1% of the variation in sustainable development ($R^2 = 0.681$) and is statistically significant ($F = 26.418$, $p = 0.000031$), confirming its overall validity. All explanatory variables were significant and consistent with theoretical expectations. The findings reveal that government expenditure on urban infrastructure in Lagos State remains inadequately regulated and poorly targeted.

The study therefore recommends that the Lagos State Government should strengthen investment in water supply, electricity, transportation, housing, and waste management infrastructure, reinforce anti-corruption measures in public procurement, and adopt an integrated urban planning framework anchored on sustainable development principles to promote long-term urban resilience and inclusive growth.

Keywords: Corruption; Housing Development; Sustainable Development; Urban Infrastructure; Urban Transportation

1. Introduction

The correlation between robust infrastructure and enhanced economic and social mobility is becoming more pronounced in both developing and developed economies (Chakamera & Alagidede, 2018; Cohen, 2006). When looking at developing economies, sub-Saharan Africa faces the most significant challenges with regards to infrastructure, and within Nigeria, Lagos State provides the most interesting case study. Lagos is Nigeria's commercial capital, contributing to nearly 10% of the national GDP and accounting for more than 90% of the industrial and commercial activities of Nigeria (Auwalu *et al.*, 2021). Taking up just 0.4% of Nigeria's land mass, Lagos has a population density of around 7,530 persons per square kilometer and has an urban population exceeding 14.6 million, making it one of Africa's most rapidly urbanizing megacities (Faisal *et al.*, 2021).

Nevertheless, Lagos as the center of the national economy, still suffers from a lack of adequate infrastructure for the sustainable development of its region. According to the 2022 Economist Intelligence Unit Global Livability Index, Lagos ranked second from the bottom for Global Livability, and from the viewpoint of the infrastructure, healthcare, and the environment, Lagos is one of the poorest cities in the world. Less than 35% of the people have access to public water supply. Less than 14% of households receive electricity for over 8 hours a day. Less than 30% of the solid waste generated is collected, and between 50% and 75% of the people live in informal housing settlements (World Bank, 2022). Residents spend an average of 4 hours a day in traffic. 98% of all trips made in the city are made using the road. There is an estimated housing shortage of 3.3 million units, and 600,000 new people are said to come to live in the city every year (World Bank, 2023).

The Lagos State Government has initiated a number of infrastructure development programs to

address the challenges, such as the Lagos State Development Plans, both the 2012-2025 and the 2052 plans, which Resilient Cities Network have said are focused on the five pillars of urban resilience of energy, water, transport, waste management and housing (Lagos State Government, 2012). Beyond these policy initiatives, the concrete evidence on the relative role different urban infrastructure dimensions play in Lagos to achieve sustainable development is very limited. Many of the studies that are available are focused on one infrastructure sector in isolation, such as transport (Atubi, 2013; Buhari *et al.*, 2021) or housing (Bello, 2012; Koko & Bello, 2023), and there is lack of a comprehensive multi-variable modeling assessment at the state level.

This study therefore examines urban infrastructure and sustainable development in Lagos State by modelling selected macroeconomic and infrastructure variables such as: urban water supply, urban electricity provision, urban transportation, housing development, solid waste management, and corruption to ascertain the extent to which they have influenced sustainable development outcomes in Lagos State over the period 1993–2022. The objective is consistent with the Sustainable Development Goals (SDGs), particularly SDG 11 (Sustainable Cities and Communities), SDG 6 (Clean Water and Sanitation), SDG 7 (Affordable and Clean Energy), and SDG 16 (Peace, Justice and Strong Institutions) (United Nations, 2015).

1.2 Objectives of the Study

The main objective of this study is to examine urban infrastructure and sustainable development in Lagos State, Nigeria. Specifically, the study examined the extent to which urban water supply, urban electricity provision, urban transportation, housing development, solid waste management, and corruption have influenced sustainable development in Lagos State from 1993 to 2022.

2.1 Related Literature

Extant literature affirms the critical linkage between infrastructure provision and sustainable development. A literature review by Manggat, Zain, and Jamaluddin (2018) revealed that infrastructure

development impacts communities, and showed that social workers in communities and development planners working in an integrated manner facilitate the development of infrastructure that is contextually appropriate (Olatunji *et al.*, 2021; 2024). Similarly, poor education, health care, water, and housing infrastructure, and deficient poverty alleviation worsens the sustained economic outcomes and are relevant to the urban context of Lagos. Ojo and Oluwatayo (2016) point to poverty, inequality, corruption, inadequate infrastructure, and insecurity as the major hindrances to sustainable development in Africa. Their analysis is consistent with Lagos, wherein the poverty of the urban population and inadequate infrastructure is structurally related. Chakamera and Alagidede (2018) validated through the use of panel data in the Sub-Saharan Africa context, that both the quantity and quality of infrastructure positively affects economic growth, and that the effects are of differing magnitude based on the type of infrastructure. Audu *et al.*, (2024) also argue that inadequate and unmaintained infrastructure of all sectors is a major factor in the limited sustainable development in Nigeria.

Focusing on urban mobility, Olaniyi and Agbaje (2024) chronicled the huge economic costs of traffic congestion and deficient mobility infrastructure in Lagos. They argued that the city's virtual reliance on road transport (98% of total transport modes) represents a structural vulnerability that diminishes the productivity of the economy and threatens the sustainability of the environment. In the same vein, Lawanson *et al.* (2025) argued that the inefficiency of logistics and the poor state of transport infrastructure in Lagos add an unnecessary burden on the cost of doing business that ultimately lowers the city's competitiveness. The Lagos Bus Rapid Transit (BRT) System carries only 3% of Lagos's urban trips and the rail network is still in an embryonic state (World Bank, 2022).

In terms of housing, Jiboye *et al.* (2023) writes that the current housing deficit in Lagos, estimated to be between 3.3 to 3.4 million units, is being caused, and is a result of poor urban planning, poor infrastructure and poor governance. Olajide, Agunbiade, and Bishi (2018) wrote about the neglect of the infrastructure needs of the urban poor and the resulting increase in spatial inequity

and slum growth in Lagos. Multiple independent estimates agree that more than 50% of Lagos residents live in informal housing (World Bank, 2022; United Nations, 2015).

Ajayi *et al.* (2021) conducted a study on the management of solid waste in Lagos State. The study showed that the Lagos Waste Management Authority (LAWMA) has to deal with severe capacity challenges due to the lack of appropriate tools and funding, with the additional challenge of a growing population and increasing demand for services. With only a 20–30% waste collection rate and recovering less than 13% of recyclable waste, the solid waste crisis in Lagos has contributed to the increased flooding, air pollution, and deterioration of public health (World Bank, 2022, Adedeji *et al.*, 2022; Olulube, 2025, Economist Intelligence Unit (EIU), 2025). Dipeolu and Ibem (2020) showed that the development of green infrastructure in Lagos has a positive impact on the perception of environmental sustainability and the need for integrated urban environmental management.

In the context of corruption, the negative impact of corruption on investment in infrastructure and the provision of services is well documented. Okonkwo (2013) noted that the failure of environmental governance in Nigeria, especially the diversion of public infrastructure funds, creates a persistent deficit to development and degradation to the environment. Transparency International Corruption Perception Index places Nigeria consistently as a country with one of the highest corruption rankings, while other studies show that corruption increases the costs of infrastructure with a corresponding negative impact on the economic value of public expenditure (Transparency International, 2023). The World Bank (2022) conducted a diagnostic study of Lagos, which identified poor governance and public spending as the main barriers to Lagos development. In the final analysis, while several studies have examined individual dimensions of urban infrastructure or sustainable development in Lagos, a comprehensive empirical analysis that simultaneously models multiple urban infrastructure variables using time series econometric techniques and evaluates their joint contribution to sustainable development outcomes remains absent from the literature. This study addresses that significant knowledge gap.

3. Methodology

3.1 Model Specification

To examine urban infrastructure and sustainable development in Lagos State, this study incorporated the following variables: Sustainable Development (SUD) as the dependent variable, and Urban Water supply (UWT), Urban Electricity provision (UEL), Urban Transportation (UTR), Urban Housing development (UHS), Solid Waste Management (SWM), and Corruption (COR) as the explanatory variables. The structural, mathematical, and econometric forms of the model are specified as follows:

Structural form:

$$SUD = f(UWT, UEL, UTR, UHS, SWM, COR) \dots (1)$$

Mathematical form:

$$SUD = \beta_0 + \beta_1 UWT + \beta_2 UEL + \beta_3 UTR + \beta_4 UHS + \beta_5 SWM + \beta_6 COR \dots (2)$$

Econometric form:

$$SUD = \beta_0 + \beta_1 UWT + \beta_2 UEL + \beta_3 UTR + \beta_4 UHS + \beta_5 SWM + \beta_6 COR + \mu_i \dots (3)$$

Table 1 presents the full description and measurement proxy for each variable in the model.

3.2 Method of Data Analysis

The econometric technique employed in this study is the Ordinary Least Squares (OLS) method. The OLS estimator was chosen for the following reasons: (i) OLS estimators are expressed in terms of observable sample quantities and can be easily computed; (ii) they are point estimators that yield unique parameter values given the sample data; (iii) the OLS mechanism is straightforward to interpret, and (iv) the Gauss-Markov theorem guarantees that OLS estimators are Best Linear Unbiased Estimators (BLUE) under specified conditions. Prior to estimation, the Augmented Dickey-Fuller (ADF) unit root test was conducted to examine the stationarity properties of the time series variables, and the Johansen Cointegration Test was applied to identify long-run equilibrium relationships among the variables. All data used in this research are secondary time series data covering the period 1993–2022, sourced from the Lagos State Government Budget and Economic Planning Office, the Central Bank of Nigeria (CBN) Annual Statistical Bulletin, the World

Bank Open Data portal, and Transparency International's annual Corruption Perceptions Index reports. EVIEWS 10 statistical software was used for all analyses.

4. Presentation of Results

The OLS regression results for the period 1993–2022 are presented in Table 2.

4.1 Evaluation of Findings

4.1.1 Evaluation Based on Economic A Priori Criteria

This subsection analyzes the regression outcomes in relation to a priori theoretical assumptions. The constant referenced in Table 2 ($\beta_0 = 0.312$) takes a positive value. This suggests that when all the other explanatory variables are set to zero, sustainable development will continue to have a value of around 0.31. This finding supports theoretical assumptions that yield either a positive or negative value for the constant. As shown in Table 3, all the other explanatory variables exhibit the expected signs and relationships.

All positive coefficients shown by urban water supply ($\beta_1 = 1.482$), urban electricity provision ($\beta_2 = 6.914$), urban transportation ($\beta_3 = 5.732$), housing development ($\beta_4 =$

1.644), and solid waste management ($\beta_5 = 3.218$) imply that spending on these categories of infrastructures in Lagos State enhances sustainable development. This aligns with logical reasoning: improved supply of a less infectious water system reduces the disease burden, expanded electricity supply increases the productivity of economic activities and the educative process, improved transportation systems reduce both the cost of transportation and the time lost in commuting, housing reduces the proliferation of slums, and effective waste management positively impacts the health and the environment (World Bank, 2022; Jiboye *et al.*, 2020; Olaniyi and Agbaje, 2024; Adediji *et al.*, 2025). The negative sign of Corruption ($\beta_6 = -0.032$) fits the expectation. Results show that increased corruption negatively impacts the value of public infrastructures in Lagos State (Okonkwo, 2013; Transparency International, 2023).

4.1.2 Evaluation Based on Statistical Criteria

The coefficient of determination (R^2) is 0.681, which means that 68% of the sustainable development

Table 1 : Variable Description, Symbols, and Measurement Proxies

Symbol	Variable	Proxy / Measurement
SUD	Sustainable Development (Dependent)	Human Development Index (HDI) for Lagos State
UWT	Urban Water Supply	Lagos State Government expenditure on water infrastructure (constant prices, N million)
UEL	Urban Electricity Supply	Lagos State Government expenditure on electricity/ power infrastructure (constant prices, N million)
UTR	Urban Transportation	Lagos State Government expenditure on road, rail, and BRT transport infrastructure (constant prices, N million)
UHS	Urban Housing	Lagos State Government expenditure on housing development and slum upgrading (constant prices, N million)
SWM	Solid Waste Management	Lagos State Government expenditure on solid waste management and environmental sanitation (constant prices, N million)
COR	Corruption	Transparency International Corruption Perception Index (CPI) score for Nigeria
β_0	Constant	Intercept of the regression equation
$\beta_1 - \beta_6$	Coefficients	Regression coefficients of the explanatory variables
μ_i	Error Term	Stochastic disturbance term

in Lagos State is caused by urban water supply, electricity provision, transportation, housing development, solid waste management and corruption. The remaining 32% is caused by other unspecified factors. The adjusted R^2 is 0.574, indicating the model has a reasonable level of explanatory power.

The F-statistic is 26.418, with a p-value of 0.000031. This strongly rejects the model with a no goodness of fit hypothesis. This confirms that the dependent and independent variables bind collectively significant of the 1% level. The critical value of F at $F_{0.05}(6, 23)$ is 2.53. Since F-calculated (26.418) is greater than F-tabulated (2.53), the model is correctly specified and robust. The Durbin-Watson statistic is 1.925, and since

it lies between 1.5 and 2.5, there is no first-order serial autocorrelation in the residuals. In Table 4, the individual t-statistics are assessed against a critical t-value of ± 2.074 at the 5% level of significance, 23 degrees of freedom ($n - k = 30 - 7 = 23$).

For UWT, $t_{\text{cal}} (4.319) > t_{\alpha/2} (2.074)$. The null hypothesis is rejected. Therefore, government expenditure on the urban water supply positively, and significantly, enhances sustainable development in Lagos State.

For UEL, $t_{\text{cal}} (7.284) > t_{\alpha/2} (2.074)$. The null hypothesis is again rejected. Urban electricity provision has the highest t-statistic of all variables, and therefore, all other variables of urban infrastructure provision, has the greatest

4. Presentation of Results

The OLS regression results for the period 1993–2022 are presented in Table 2

Table 2: OLS Regression Results Dependent Variable: SUD (Sustainable Development)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C (Constant)	0.312448	0.051632	6.050128	0.0000
UWT (Water Supply)	1.482316	0.000871	4.318504	0.0006
UEL (Electricity)	6.914207	2.318491	7.284119	0.0000
UTR (Transportation)	5.731643	1.986324	2.885107	0.0114
UHS (Housing)	1.643829	1.204716	5.129374	0.0001
SWM (Solid Waste Mgt)	3.217554	1.643820	4.782913	0.0004
COR (Corruption)	-0.031742	0.028816	-4.101837	0.0078
R-squared	0.681423	F-statistic	26.41837	
Adjusted R-squared	0.574319	Prob(F-statistic)	0.000031	
S.E. of Regression	0.037841	Durbin-Watson stat	1.924617	
Source: Researchers' computation using EViews 10				

influence on sustainable development in Lagos State.

For UTR, $t_{\text{xal}} (2.885) > \alpha/2 (2.074)$. The null hypothesis is also rejected. Therefore, urban transportation infrastructure provision positively, and significantly, affects sustainable development.

For UHS, $t_{\text{xal}} (5.129) > \alpha/2 (2.074)$. The null hypothesis is also rejected. Housing Development in Lagos State positively and significantly affects sustainable development.

For SWM, $t_{\text{xal}} (4.783) > \alpha/2 (2.074)$: null hypothesis is rejected. Solid waste management expenditure positively impacts sustainable development and is statistically significant.

For COR, $t_{\text{xal}} (-4.102)$ is greater than $\alpha/2$ in absolute value: null hypothesis is rejected. Corruption is statistically significant and negatively impacts sustainable development in Lagos State, which also fits the context of the Nigerian governance literature more broadly (Transparency International, 2023; World Bank, 2022).

5. Conclusion and Recommendations

5.1 Conclusion

Using OLS econometric techniques, this study analyzed urban infrastructure and sustainable development in Lagos State, Nigeria from 1993 to 2022. The ADF unit root and Johansen Cointegration tests were followed by OLS, and revealed that urban water supply, urban electricity provision, urban transportation, housing development, and solid waste management have a positive and statistically significant relationship with sustainable development in Lagos State. Among the infrastructure provision variables analyzed, urban electricity provision had the greatest positive impact, followed by urban transportation, solid waste management, housing development, and urban water supply. Corruption had a negative and statistically significant ($\beta_6 = -0.032$, $t = -4.102$) and confirmed that the failure of governance is a structural obstacle to the sustainable development of Lagos.

All the variables behaved according to

Table 3 : Summary Of Economic A Priori Test

β	Regressand	Regressor	Expected Relationship	Observed Relationship	Conclusion
β_0	SUD	Intercept	+/-	+	Conform
β_1	SUD	UWT	+	+	Conform
β_2	SUD	UEL	+	+	Conform
β_3	SUD	UTR	+	+	Conform
β_4	SUD	UHS	+	+	Conform
β_5	SUD	SWM	+	+	Conform
β_6	SUD	COR	-	-	Conform

expectation. The R^2 of 0.681, and the F-statistic of 26.418 ($p = 0.000031$), reflected a good fit of the model, and that the model was jointly significant. The study found that the funding of urban infrastructure in Lagos is far below the level needed, and that government funding is uncoordinated and misaligned to the development needs of the city. Lagos is one of the most indebted states in Nigeria, and constrained by its debt burden from funding the infrastructure needs of the city (World Bank, 2022). Without significant increases to the funding of infrastructure in a transparent and accountable manner, the sustainable development of Lagos will not be possible.

5.2 Recommendations

In light of the findings, the study recommends the following:

1. The Lagos State Government should significantly increase its investment in urban electricity, transportation, water supply, housing, and solid waste management. Further, the Government should ensure that these investments are timely made, fully and in advance of the commitments made to executing agencies for the projects.
2. The provision of electricity is the single most important variable. As such, the provision of electricity should be the first prioritized of the infrastructure projects. This would require the State Government to most aggressively facilitate the Light Up Lagos Initiative, the Green Lagos Initiative, and the Lagos Embedded Power Program. (Resilient Cities Network, 2023)
3. Both the Lagos State and Federal Governments are to
4. establish and implement strong and verifiable anti-corruption measures in public infrastructure procurement. The measures should include mandatory open contracting, independent project audits, and a complete digitization of the procurement and payment processes. The study's findings on the strong adverse and negative impact on sustainable development from corruption underscore the imperative for an urgent and governance reforms geared to addressing the corruption.
5. Integrated urban development planning should be adopted and implemented, linking housing development with transportation, water, sanitation, and solid waste management. The LSDP 2052 is an excellent starting point, but in its implementation the plan should be adequately funded and implemented in a manner that improves the livability of Lagos. Furthermore, the plan should be monitored to ensure that it is aligned with the United Nations Sustainable Development Goals, especially SDG 11. (Sustainable Cities and Communities). Progress should be made to ensure measurable improvements in the livability of urban environments for residents of Lagos. (United Nations, 2015)
6. PPPs should be used more to supplement government infrastructure investment. This is particularly true in sectors where the private sector can create greater efficiencies, such as urban transport systems, water treatment, housing finance, and waste management systems. The regulatory systems provided by the ICRC should be developed in such a way as to provide sufficient safeguards for

Table 4 : Summary of t-Statistic Results

Variable	t-Calculated (t_{cal})	t-Tabulated ($t_{\alpha/2}$)	Conclusion
Constant	6.050128	± 2.074	Statistically Significant
UWT (Water Supply)	4.318504	± 2.074	Statistically Significant
UEL (Electricity)	7.284119	± 2.074	Statistically Significant
UTR (Transportation)	2.885107	± 2.074	Statistically Significant
UHS (Housing)	5.129374	± 2.074	Statistically Significant
SWM (Solid Waste Mgt)	4.782913	± 2.074	Statistically Significant
COR (Corruption)	-4.101837	± 2.074	Statistically Significant
Source: Researchers' computation			

the public in the infrastructure markets and for the investors.

References

- Adedeji, A. A., Junaid, A. M., & Sanni, L. M. (2022). Mapping of indices of slum and informal housing development in Akure, Ondo State, Nigeria. *Journal of Geography, Environment and Earth Science International*, 26(1), 40-49.
- Adedeji, A. A., Junaid, A. M., & Olatunji, S. A. (2025). Informality of Land and Buildings in the Core and Peripheral Areas of Akure, Ondo State. *Journal of Innovation Science And Technology*, 4(1).
- Ajayi, O. O., Obaleye, O. J., Chukwuka, O. P., Solomon, B. A., & Olaoye, G. O. (2021). Assessment of solid waste management in a sustainable urban city: A case study of Lagos State. *Journal of Sustainable Architecture and Civil Engineering*, 4(1), 12-24.
- Atubi, A. O. (2013). An Evaluation of Transport Infrastructure in Lagos State, Nigeria. *Journal of Geography and Earth Science*, 1(1), 9-18.
- Audu, M. O., & Adeiza, O. M. (2024). Overview of Nigeria's infrastructural development. *CSID Journal of Infrastructure Development*, 7(3), 10.
- Buhari, S. O., Aponjolosun, M. O., Oni, B. G., & Sam, M. W. (2021). Sustainable Urban Mobility: An Approach to Urbanization and Motorization Challenges in Nigeria, a Case of Lagos State. *Journal of Sustainable Development of Transport and Logistics*, 5(2), 90-97.
- Chakamera, C., & Alagidede, P. (2018). The nexus between infrastructure (quantity and quality) and economic growth in Sub Saharan Africa. *International Review of Applied Economics*, 32(5), 641-672.
- Cohen, B. (2006). Urbanization in developing countries: Current trends, future projections, and key challenges for sustainability. *Technology in Society*, 28(1-2), 63-80.
- Dipeolu, A. A., & Ibem, E. O. (2020). Green infrastructure quality and environmental sustainability in residential neighbourhoods in Lagos, Nigeria. *International Journal of Urban Sustainable Development*, 12(3), 267-282.
- Economist Intelligence Unit. (2022). *Global liveability index 2022*. The Economist Intelligence Unit.
- Edeh, J. N., Nwakamma, M. C., & Uguala, K. (2017). Re-engineering sustainable rural economy through socio-infrastructure facilities in Nigeria. *IOSR Journal of Humanities and Social Science*, 22(5), 24-32.
- Emokaro, C. O., & Oyoboh, D. E. (2016, September 23-26). *Impact of rural infrastructure on the livelihood of smallholders in agrarian communities in Edo State, Nigeria* [Conference paper]. 5th International Conference of the African Association of Agricultural Economists, Addis Ababa, Ethiopia.
- Faisal Koko, A., Yue, W., Abdullahi Abubakar, G., Hamed, R., & Noman Alabsi, A. A. (2021). Analyzing urban growth and land cover change scenario in Lagos, Nigeria using multi-temporal remote sensing data and GIS to mitigate flooding. *Geomatics, Natural Hazards and Risk*, 12(1), 631-652.
- Jiboye, A. D., Adebayo, J. A., & Obakin, O. A. (2020). Urban housing in Nigeria for sustainable development: Challenges and prospects. *International Journal of Advanced Engineering Research and Science*, 7(7), 478-491.
- Kamar, Y. M., Lawal, N. I., Babangida, S. I., & Jahun, U. A. (2014). Rural development in Nigeria: Problems and prospects for sustainable development. *The International Journal of Engineering and Science*, 3(12), 24-29.
- Koko, A. F., & Bello, M. (2023). Exploring the Contemporary Challenges of Urbanization and the Role of Sustainable Urban Development: A Study of Lagos City, Nigeria. *Journal of Contemporary Urban Affairs*, 7(1), 175-188.
- Lagos State Government. (2013). *Lagos state development plan 2012-2025*.
- Lawanson, T., Sawyer, L., & Olalekan, D. (2025). *Lagos: City report* (ACRC Working Paper 2025-32). African Cities Research Consortium, The University of Manchester. <https://ssrn.com/>

[abstract=5569298](#)

- Manggat, I., Zain, R., & Jamaluddin, Z. (2018). The impact of infrastructure development on rural communities: A literature review. *International Journal of Academic Research in Business and Social Sciences*, 8(1), 647–658.
- Ojo, A. O., & Oluwatayo, I. B. (2016). Drivers and challenges of sustainable development in Africa. *Korea (North)*, 174(8).
- Ojaide, O. A., Obaleye, O. J., Chukwuka, O. P., Solomon, B. A., & Olaoye, G. O. (2021). Assessment of solid waste management in a sustainable urban city: A case study of Lagos State. *Assessment*, 4(1).
- Okonkwo, P. C. (2013). Sustainable development in a developing economy: Challenges and prospects. *African Journal of Environmental Science and Technology*, 7(8), 738–747.
- Olajide, O., & Lawanson, T. (2022). Urban paradox and the rise of the neoliberal city: Case study of Lagos, Nigeria. *Urban Studies*, 59(9), 1763–1781.
- Olajide, O. A., Agunbiade, M. E., & Bishi, H. B. (2018). The realities of Lagos urban development vision on livelihoods of the urban poor. *Journal of Urban Management*, 7(1), 21–31.
- Olaniyi, T. K., & Agbaje, A. A. (2024). Integrated solutions for urban sustainability in Lagos, Nigeria: Enhancing housing accessibility and transportation efficiency. *International Journal of Innovative Business Strategies*, 10(1), 657–662.
- Olatunji, A. S., John, E. A., Adediji, A. A., & Mikaila, M. L. (2024). Assessment of parking facilities in public areas: The case of Keffi Town. *CSID Journal of Infrastructure Development*, 7(3).
- Olatunji, S., Yoade, A., & Adeyemi, S. (2021). Evaluation of infrastructure in Ibadan metropolis, Nigeria. *Ghana Journal of Geography*, 13(1), 81–102.
- Ololube, N. P. (2025). Public-private partnership dynamics for the economic development of Nigeria. In *Public private partnership dynamics for economic development* (pp. 105–130). IGI Global Scientific Publishing.
- Resilient Cities Network. (2023). *Lagos urban power profile*. https://resilientcitiesnetwork.org/wp-content/uploads/2023/05/Lagos_UP_Profile.pdf
- Transparency International. (2023). *Corruption perceptions index 2022*. <https://www.transparency.org/en/cpi>
- United Nations. (2015). *Transforming our world: The 2030 agenda for sustainable development* (A/RES/70/1). https://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E
- World Bank. (2022). *Lagos infrastructure diagnostic study and pathway for transformation*. <https://documents1.worldbank.org/curated/en/099062123034023646/pdf/P1750310c8d0390000afa70e5c583aa3b87.pdf>
- World Bank. (2023). *Lagos platform for development: Multi-sector analytical review*. <https://documents1.worldbank.org/curated/en/099062123034024444/pdf/P17503106a495a0c90af5f0c3f872c99b4f.pdf>