

URBANISATION RESEARCH
NIGERIA (URN) CONFERENCE
**HOW CAN NIGERIA
BENEFIT FROM
URBANISATION?**

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Shehu Musa Yar'Adua Centre
Central Business District
Abuja

DESIGN OF A CITY INFRASTRUCTURE QUALITY INDEX (CIQI)



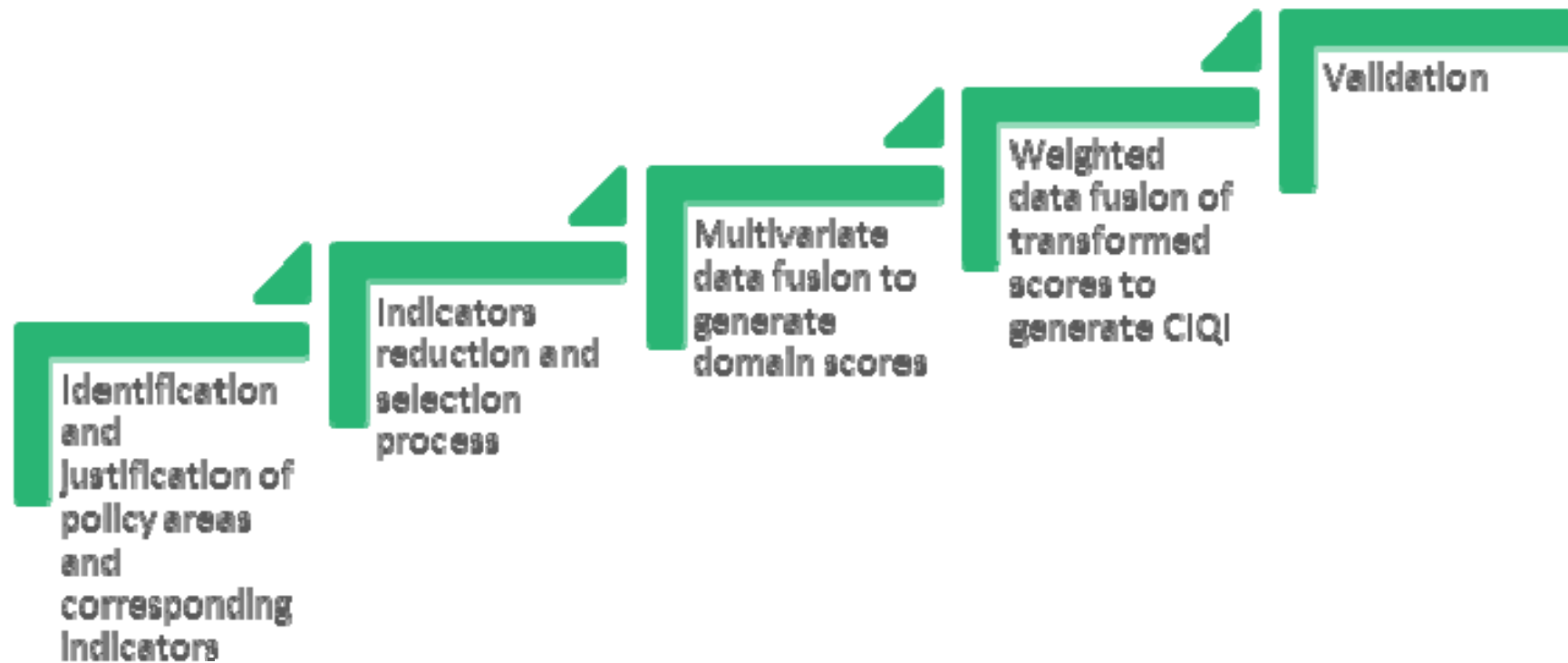
INTRODUCTION

- Designed a City Infrastructure Quality Index (CIQI) aimed at providing a relative measure of performance in urban infrastructure in Nigeria, focusing specifically on factors of production and resources for inclusive economic growth and development.
- CIQI intends to (i) bolster awareness and guidance for identifying and establishing priorities in relation to the provision of infrastructure and services; (ii) track the progress of urban infrastructure quality and extent over time, and (iii) perform comparative analyses between Nigerian cities.

CONTEXT FOR CIQI

- In the last decade Nigeria has seen a economic growth, linked to a potentially transformative urbanisation process, and based on large-scale demographic and social change
- Infrastructure is essential to enhance the productivity gains from urbanisation.
- The positive role of infrastructure in economic growth and development is widely acknowledged in the academic and policy literature
- Infrastructure investments have contributed more than half to Africa's economic growth in recent years in terms of GDP.
- In Nigeria, lack of funding has often limited significant additions to infrastructure and service capacity, and there is often a lack of funds for the maintenance of existing infrastructure.

CIQI DESIGN



INDICATORS FOR CIQI

- **Power (1) and Transportation (2):** CIQI indicators cover power and transportation infrastructure and services, given their impact on economic growth and productivity.
- **Industrial Land (3):** CIQI indicators also attempt to capture the situation regarding space and accommodation of both formal and informal economic activities in the land use and urban development process.
- **Information and Communication Technologies (ICT) (4):** ICT, which includes voice telephony (mobile phones) and data communication (mainly broadband), is the fourth theme covered by CIQI indicators.

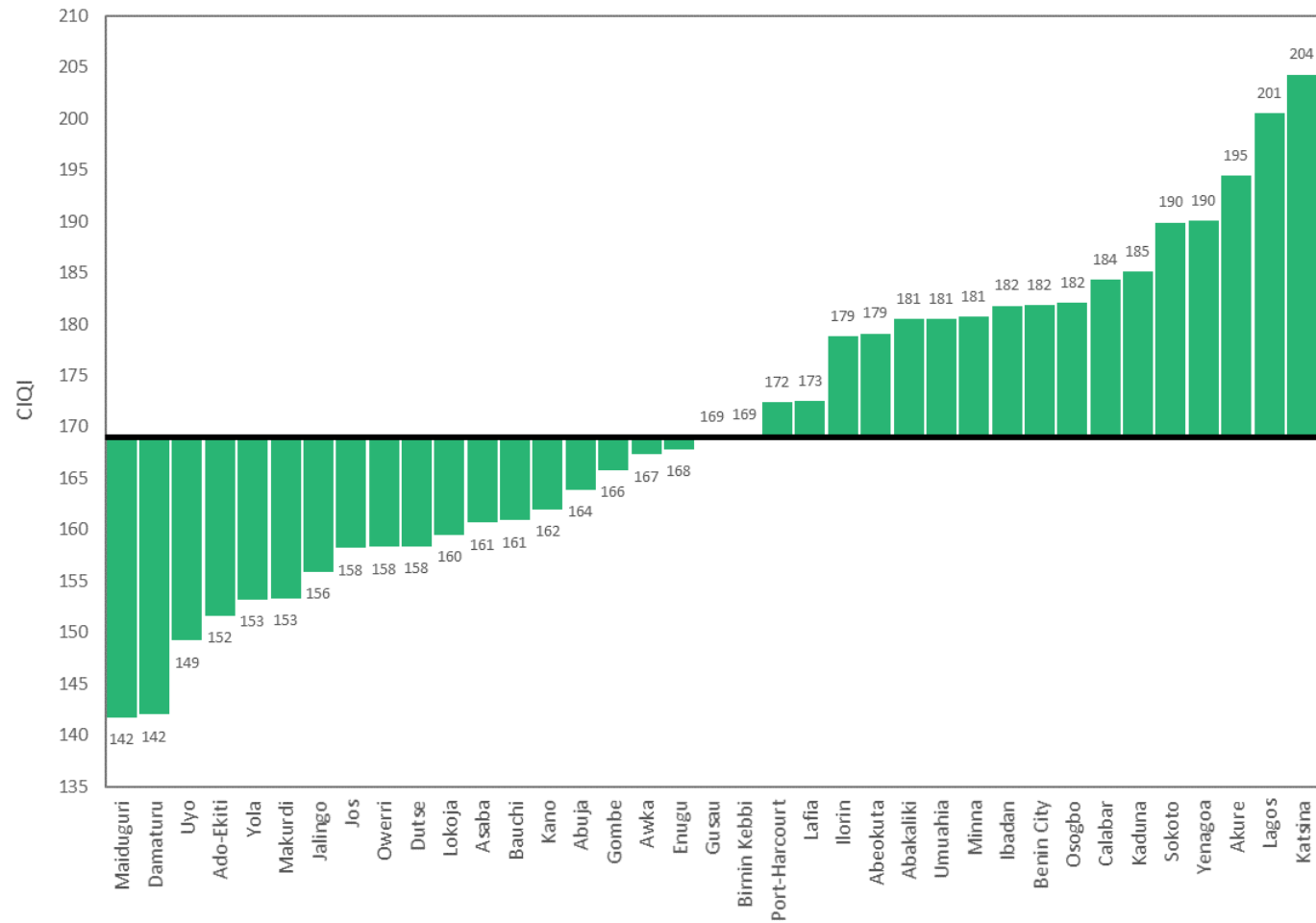
CIQI DATA AND METHODOLOGY

- For piloting CIQI consideration was given to existing data sources
- The World Bank's Enterprise Survey was chosen as the appropriate dataset for piloting CIQI, which has been conducted over three periods – 2007, 2009 and 2014.
- The 2007 and 2009 datasets were fused together and used to construct the baseline CIQI.
- The baseline CIQI is constructed for 37 cities across Nigeria for which data is available. In total, responses from 5,541 establishments are included in the baseline analysis.
- The 2014 dataset was used for trend analysis.

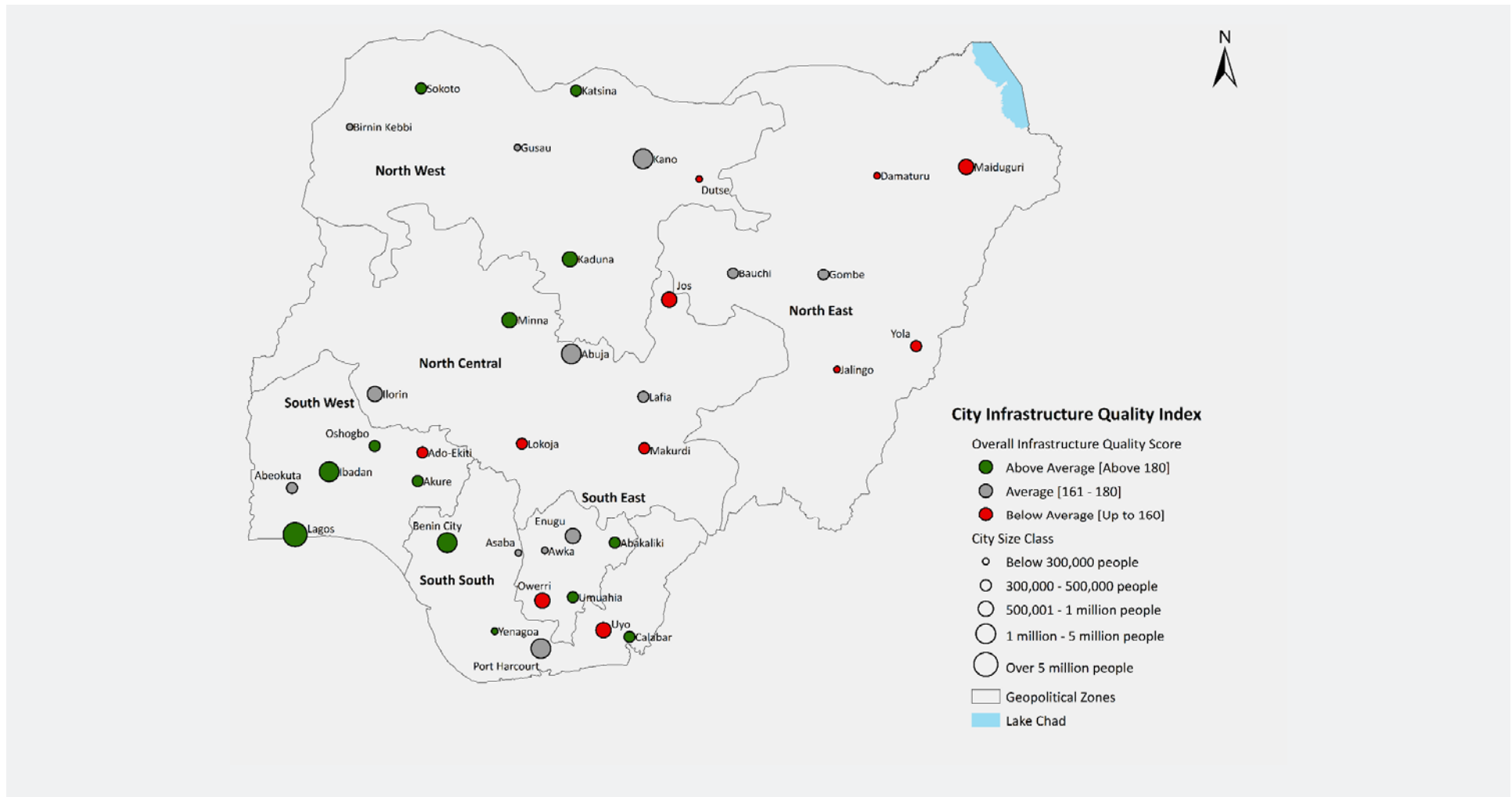
SELECTION OF PROXY INDICATORS

Policy area	Indicator
Transport	Transport Availability
	Travel Time
	Use of Own Transport
Power	Access to Electricity
	Connection to Electricity Services
	Electricity Consumption
	Power Reliability
Industrial land	Access to Land
	Disputed Land Ownership
	Availability of Commercial Land
	Availability of Government Land
Information and communication technologies (ICT)	Internet Usage
	Telecoms Penetration
	Uptake of High Speed Internet

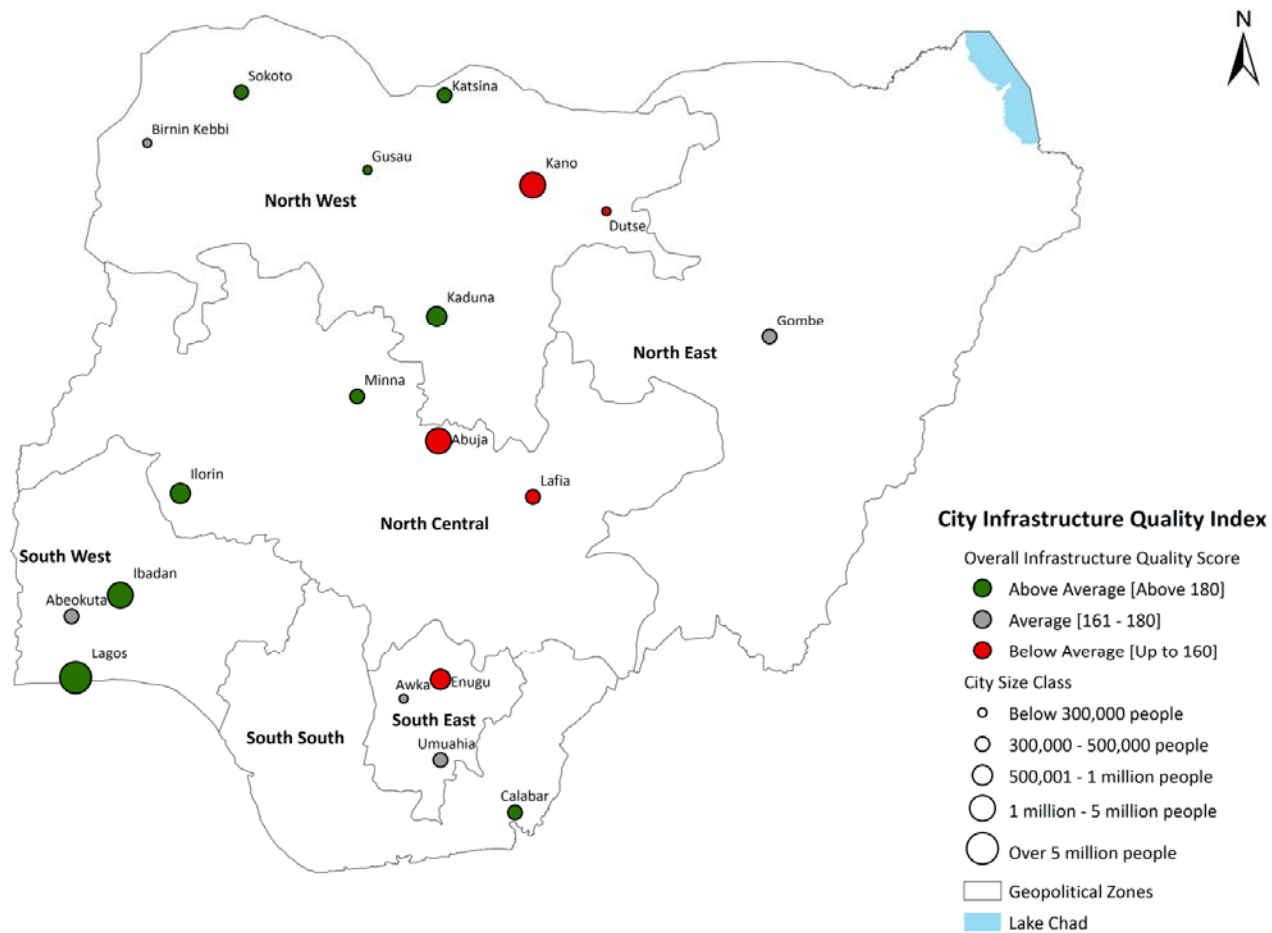
PRELIMINARY FINDINGS FROM PILOTING THE BASELINE CIQI



PRELIMINARY FINDINGS FROM PILOTING THE BASELINE CIQI (2007/09)



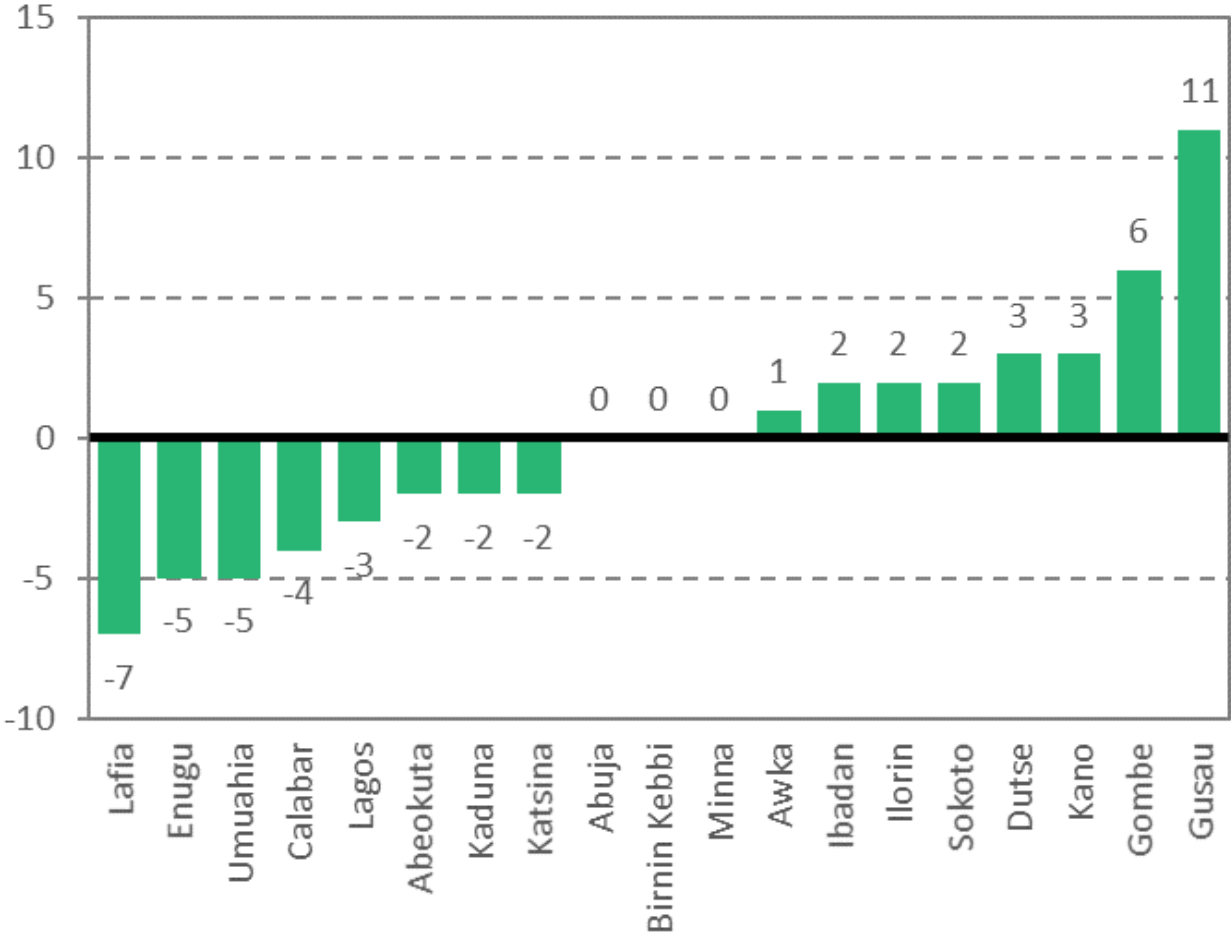
PRELIMINARY FINDINGS FROM CIQI FOR 2014



TREND ANALYSIS: DIRECTION OF CHANGE IN RELATIVE RANKS

City	Geopolitical Zone	2014	2007/09	Δ
Sokoto	North West	1	3	↑
Gusau	North West	2	13	↑
Katsina	North West	3	1	↓
Ibadan	South West	4	6	↑
Lagos	South West	5	2	↓
Kaduna	North West	6	4	↓
Minna	North Central	7	7	—
Ilorin	North Central	8	10	↑
Calabar	South South	9	5	↓
Gombe	North East	10	16	↑
Abeokuta	South West	11	9	↓
Birnin Kebbi	North West	12	12	—
Umuahia	South East	13	8	↓
Awka	South East	14	15	↑
Kano	North West	15	18	↑
Dutse	North West	16	19	↑
Abuja	North Central	17	17	—
Lafia	North Central	18	11	↓

TREND ANALYSIS: MAGNITUDE OF CHANGE



RESEARCH AND POLICY IMPLICATIONS

- In this research we demonstrated that the application of multivariate data analysis can be helpful in understanding and interpreting the dynamics of the quality of city infrastructure.
- However, we note a number of limitations and weaknesses in the analysis: (i) we acknowledge that much of the indicators used are proxy indicators due to some deficiency in data availability; and (ii) for some of the policy areas (notably transport and industrial land) there are very few available indicators.
- Insufficiency in the number of input indicators means there is scope for the integration of multiple datasets. Future analysis could consider bringing together multiple surveys to generate CIQI.
- In addition, where possible, informal but validated open data sources (for example, crowd-sourced data) could also be considered when trying to fill in data gaps.
- Performing trend analysis proved very challenging.

RESEARCH AND POLICY/PROGRAMMING RELEVANCE

- CIQI provides a coherent set of methods and tools for measuring the performance of service and infrastructure quality and extent in Nigerian cities..
- CIQI could further enhance our understanding of the relationship between infrastructure and inclusive economic growth and development, through comparing the CIQI data for the cities to other macroeconomic indicators to identify key trends and relationships.
- CIQI can be used to bolster government and citizen awareness and support for identifying and establishing priorities in relation to the provision of urban infrastructure and services.

THANK YOU

Nikolaos Papachristodoulou
Programme Manager/ URN
Managing Consultant/ ICF
Nikolaos.Papachristodoulou@icf.com

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Nigeria (URN) website at:
urn.icfwebservices.com



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