

METHODOLOGY

1.1 Study Area:

The States Governance Index (NDGI) provides statistical assessment of governance performance in 11 States of Nigeria. The States include Abia, Akwa Ibom, Bayelsa, Cross river, Delta, Edo, Imo, Ondo, Rivers, Ekiti and Anambra. Geographically, (see Figure 2.1).

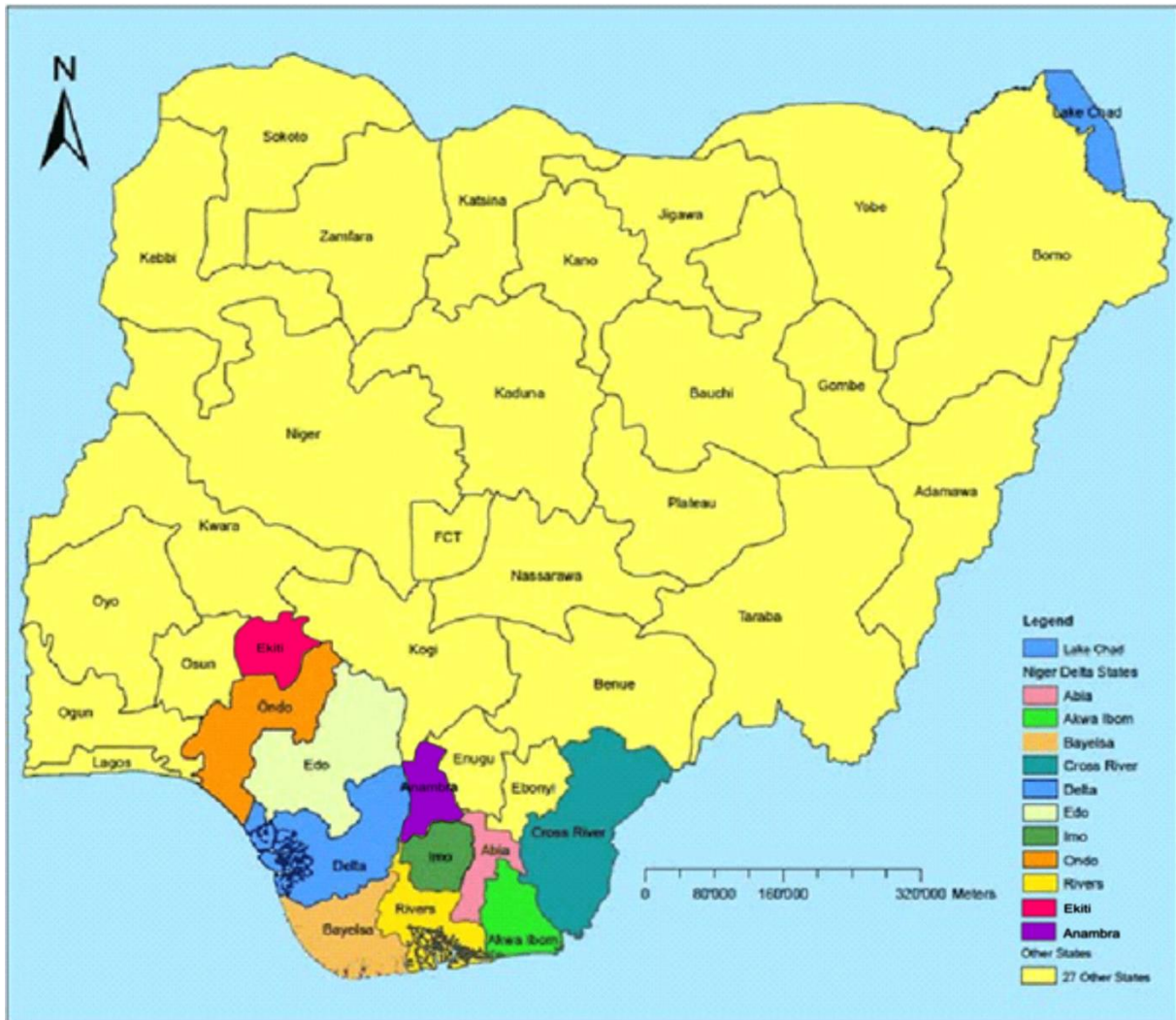


Figure 2.1: Map of Nigeria showing the 11 States

1.2 Data sources:

The States Governance Index (SGI) relied on secondary data sourced from existing indexes or rankings of States in Nigeria on a number of governance issues published by different organisations. The data sources included the following publications or institutions:

- I. Nigerian States Budget Transparency Survey, 2018 report, published by the Civil Resource Development and Documentation Centre (CIRDDOC) Nigeria¹

¹ CIRDDOC 2018. Nigerian States Budget Transparency Survey Report

- II. Corruption in Nigeria: Patterns and Trends Second Survey on Corruption as Experienced by the Population, 2019, published by Nigerian Bureau of Statistics in collaboration with the United Nations Office on Drugs and Crime and UK Aid²
- III. State of the States report, 2019 Edition, published by BudgIT³
- IV. Doing Business in Nigeria 2018 report, published by the World Bank⁴
- V. Nigeria Security Index published by DataPhyte, an arm of Premium Times online newspaper⁵
- VI. Human Development Report by Institute for Management Research, Radboud University 2018⁶ and Global Data Lab⁷

1.3 Measuring Governance indicators

Seven main dimensions (see Table 0.1) that reflect governance in the States were agreed on through a multi-stakeholder endorsed approach. These dimensions were developed in collaboration with stakeholders that spanned the academia, civil society organisations, youths and women groups, persons with disabilities, traditional and religious institutions and government agencies/political leaders in order to arrive at a consensus on the key governance dimensions or themes that reflect governance at subnational level in Nigeria. The stakeholders thus played critical role in arriving at the seven dimension selected as well as in determining the weights assigned to each theme/dimension. A total of 56 stakeholders were contacted through e-questionnaire using SurveyMonkey and through physical meetings to solicit their views on the themes or categories to be included in the governance structure. A follow-up survey, using e-questionnaire, was conducted on 72 target stakeholders to determine the weights to be assigned each identified dimension from the initial survey.

It should be noted that of the 7th dimension identified, *Public policy, administration and legitimacy* could not be used for this particular edition, as there were no available secondary indicator data to capture it. Some of the indicators were expunged in the final analysis due to non-availability of data. Thus, the number of indicators within a dimension is based on data that are available to proxy the dimension. It is our hope that subsequent editions will incorporate new data set in the determination of the states governance index. Details of the governance dimensions, their associated weights, data availability as proxy, operationalization and institutional sources are indicated in Table 0.1.

² NBS 2019. Corruption in Nigeria: Patterns and Trends Second Survey on Corruption as Experienced by the Population, in collaboration with the United Nations Office on Drugs and Crime and UK Aid

³ BudgIT 2019. State of the States Report

⁴ World Bank. 2018. Doing Business in the Nigeria 2018. Washington, DC: World Bank. License: Creative Commons Attribution CC BY 3.0 IGO

⁵ <https://www.dataphyte.com/security/nigeria-security-index-lagos-and-borno-have-highest-concentration-of-violence-among-states/>

⁶ https://en.wikipedia.org/wiki/List_of_Nigerian_states_by_Human_Development_Index

⁷ https://globaldatalab.org/shdi/shdi/?levels=1%2B4&interpolation=0&extrapolation=0&nearest_real=0

Table 0.1: Governance dimensions, indicators, measurement and sources

	Dimension and Weight	Indicators	Availability of Data	Operationalization	Sources
1	Transparency, Accountability and participation/inclusion (30%)	Availability of budget document	Available	State Budget Document Availability Index. This measures the number of publicly available budget documents and their contents	CIRDDOC 2018
		Participation in the budget process	Available	State Public Participation Index. This measures the extent to which the State executive, State House of Assembly and Auditor General involves citizens throughout the budget process	CIRDDOC 2018
2	Human Development (15%)	Human Development Index	Available	The Radboud University ranks the states in Nigeria by the international HDI-methodology. This measures the wellbeing of the people, ie whether people are well fed, sheltered, healthy and other issues like work, education, voting, participating in community life and freedom of choice (The measure of achievements is grouped into three basic dimensions of human development: a long and healthy life – health (life expectancy) , access to knowledge - education (year of schooling and child school attendance) and a decent standard of living – living standard (Log of) Gross national income per capita (LGNIc))	Radboud University, and Global Data Lab 2018
3	Legality, Rule of Law and Regulatory Quality (20%)	Dealing with construction permits	Available	Dealing with construction permits. Records the procedures, time and cost required for a small or medium-size domestic business to obtain the approvals needed to build a commercial warehouse and connect it to water and sewerage; assesses the quality control and safety mechanisms in the construction permitting system	World Bank. 2018
		Ease of registration of business	Available	Starting a business. Records the procedures, time, cost and paid-in minimum capital required for a small or medium-size domestic limited liability company to formally operate; includes a gender dimension to account for any gender discriminatory practices	World Bank. 2018
		Enforcing contracts	Available	Enforcing contracts. Records the time and cost for resolving a commercial dispute through a local first-instance court, which hears arguments on the merits of the case and appoints an expert to provide an opinion on the quality of the goods in dispute; assesses the existence of good practices in the court system	World Bank. 2018
		Ease of registering property	Available	Registering property. Records the procedures, time and cost required to transfer a property title from one domestic firm to another so that the buyer can use the property to expand its business, use it as collateral or, if necessary, sell it; assesses the quality of the land administration system; includes a gender dimension to account for any gender discriminatory practices.	World Bank. 2018
4		Public access to procurement information	Available	This measures how robust States procurement processes are and how much information is provided throughout the process (The Nigeria State Budget Transparency survey)	CIRDDOC 2018

	Dimension and Weight	Indicators	Availability of Data	Operationalization	Sources
	Level of corruption and Access to information (12%)	Level of corruption/prevalence of bribery	Available	The prevalence of bribery in Nigeria is calculated as the number of adult Nigerians who had at least one contact with a public official and who paid a bribe to a public official, or were asked to pay a bribe by a public official, on at least one occasion in the 12 months prior to the survey, as a percentage of all adult Nigerians who had at least one contact with a public official	NBS UNODC/ UKAID (2019)
5	Security (11%)	Crime rate and number of deaths arising majorly from crime	Available	This speaks to number of death arising largely from crime.	Dataphytes (2020)
6	Fiscal sustainability (12%)	Fiscal sustainability	Available	The fiscal sustainability ranking is anchored on three key indices: <ul style="list-style-type: none"> • States' ability to meet their recurrent expenditures independently of the federal government; • State's ability to meet their recurrent expenditures with both its internally generated revenue and federal allocations; and, How long it would take States to pay off their total debt stock.	BudgIT 2019.
7	<i>Public policy, administration and legitimacy</i>		Data not assessed		

1.4 Assumptions

Some key assumptions undergird the governance index development process. An important one was that the indicators used for the study are true proxies for the dimensions under which they were placed. Secondly, a total of 11 indicators were captured or identified and distributed across six governance dimensions or categories; we assumed the identified indicators were properly placed or distributed in the appropriate governance dimensions. It is not unlikely that an indicator may appear relevant to two or more governance dimensions; however, the final decision as to indicator placement in the different dimensions was informed after consultation with the States Governance Index advisory group.

The data set or distribution was examined for missing values. Interestingly, no missing point was observed across the eleven governance indicators used. The data set was equally probed for outliers. We did not find any case that calls for serious concern; an exception was the indicator – ‘*public participation*’ in which five States had zero values (not missing data), while the highest State had 56%. In this case, we did not see the need to treat or expunge the extreme cases as the values themselves reflected a picture of or captures the state of governance.

It is important for readers to understand that the governance scores or rankings for each State presented in this report are relative, reflecting the performance of each State in relation to the other States. This is borne out of the computation procedure adopted which normalized the raw data set into a scale range of 0.0 – 100.0. An implication for this, therefore, is that the ranking of any State is not affected by the governance performance (good or poor) of the other States. Thus, marginal differences in scores (or ranks) between States should be viewed with caution, while attention should be paid to the standard errors and confidence intervals for each State.

1.5 Index Computation process

This section describes the process adopted in the computation of the States Governance Index (SGI).

Step 1: The first step was the identification and assignment of data from diverse sources to the six governance dimensions or categories derived through a multi-stakeholder endorsed process involving CSOs, women and youth groups, persons with disabilities, religious and traditional leaders, academia, civil servants and politicians. Stakeholders were selected across the 11 States. The distribution of the indicators across the dimensions are captured in Table 0.1.

Step 2: The second stage was to address polarities (positive or negative statements or orientation) associated with the data set. The focus of the states governance index (SGI) is to measure and compare governance across the States using or interpreting the index as a positive outcome or parameter. The implication of this approach is that a state with a higher index will be assumed to have performed better, on the average, on all components of the index, than another state with a lower index. Unfortunately, not reversing/transforming the negative variables into positive values will result in a false interpretation of governance index between two states, as a higher value for a negative parameter will contribute or translate to a higher score, which can be misleading.

Examining the data set comprising of 11 variables/ parameters, two of the indicator variables (i. *prevalence of bribery and security*; ii. *Security (No of death with crime & road accident being the major cause)*) were measured as negative outcomes. This means their contribution to the overall GI should be negative i.e., higher values should, for purpose of proper interpretation of the GI, should lower the GI. These variables had to be reverse first before incorporating them in the overall governance structure. Only in this way can their inclusion in the computation be meaningful and lead to positive interpretation of the overall index. Basically,

what was done was to subtract the original raw data from 101. So, for example, if the original or raw data had a value of 27.2% as *Prevalence of bribery* score, to reverse this, we minus this value from 101 depicted as follows:

$$\text{Reversed value} = 101 - \text{raw value}$$

Applying the above formula to the above figures, we have

$$73.8 = 101 - 27.2$$

The final score (73.8) is thus interpreted as “Non-prevalence of bribery score” as opposed to “prevalence of bribery” which the original score represented. For the parameter “*Security (No of death with crime & road accident being the major cause)*”, a two-step procedure was adopted. In the first instance, the parameter/ variable was transformed into percentage by dividing the value of each state by the total number of deaths across the 14 states & multiplying by 100. The second step was the reversal to the values to reflect ‘less death rate’ using the above formula. Thus, the final value reflects States with ‘*less number of deaths relative to other states*’

Step 3: The third step was the normalization or rescaling of the data. This is necessitated by the fact that the data used for the development of the NDGI came from different sources (or institutions) with diverse scaling. For example, though several data (e.g. budget transparency, ease of registering property) were measured as percentages, few others such as security was measured as number. Thus, the data set comprise mix values measured on different scale. The normalization or standardization procedure ensures all data set are bound between 0 and 1. Although several procedures are available for this, the method adopted in this study was the min-max normalization method. This method transforms each data into common units and within the same bound of 0 – 1 or 0.00 – 100.0, regardless of the original units of the data. In this method, the maximum value in the original data (i.e. raw data) becomes the highest score while the minimum value in the data have the lowest score. The normalization or standardization formula is given as:

$$X = \frac{\text{Actual value} - \text{Minimum raw value}}{\text{Maximum raw value} - \text{Minimum raw value}}$$

Where X represents the standardized or normalized value.

Important advantages of this approach are that it makes for meaningful comparism of data or variables, the standardized data is not affected by skewed values in the data set and it is free of any assumptions about the distribution of the data.

Step 4: This step involved assigning weights to the different governance dimensions or categories. The SGI assumes an unequal weight to the governance dimensions. The decision to weight the six governance dimensions or categories unequally in the SGI was taken based on the judgment that these dimensions have varied importance in measuring governance in the **States**. A survey, using e-questionnaire, was conducted on 72 target stakeholders to determine the weights to be assigned each identified dimension from the initial survey. The stakeholders comprise members of the academia, civil society and government institutions. Each respondent was required to assign a weight, reflecting the importance of the dimension to governance in the States, that range between 0 and 100%. The resultant data was averaged for each dimension to arrive at the final weights.

The dimensions and their weights are shown below. The standardized values or data are then weighted, achieved by multiplying each standardized value of a variable by its assigned weight. Where a governance dimension or category has more than one indicator, the indicators are weighted equally, using the weight of the underlying dimension, after which the average values of the indicators are determined to represent the value for the dimension.

	Dimension	Weight (%)
1	Transparency, Accountability and participation/inclusion	30
2	Human Development	15
3	Legality, Rule of Law and Regulatory Quality	20
4	Level of corruption and Access to information	12
5	Security	11
6	Fiscal sustainability	12

Step 5: The weighted standardized values for the different governance dimensions are summed to get the final governance index. Where a dimension has more than one indicator, the averaged value of its component indicators is what is incorporated in the summation process.

1.6 Using the Report

Users are strongly encouraged to refer to confidence intervals and standard errors of governance scores reported at the State or dimension levels. This report publishes the overall governance index or score for the 11 states including the State-level results for comparison purposes. In addition, to facilitate correct comparisons between or interpretation of governance scores or performance between the States, the standard errors and confidence intervals of the various scores are reported to reflect degrees of uncertainty. For example, score or rank comparisons between two States whose confidence intervals overlap should generally be avoided as they represent a statistical tie. However, several authors have cautioned against concluding this way i.e. an overlapping CI, does not necessarily imply that there is no statistical difference between the two means even though it's true that when confidence intervals don't overlap, the difference between groups is statistically significant.

Users of the report should also be cautious in interpreting governance dimension scores or rankings within a States. For example, a score of 30.0 and 14.3 on '*Transparency, accountability & participation*' and '*Legality, rule of law & regulatory quality*', at face value, suggests that the State under study performed better in the former than in the latter dimension; however, bear in mind that the dimensions were weighed unequally with the former dimension (i.e. '*Transparency, accountability & participation*') weighted 30% and the latter, 20%. So, the likelihood of governance dimensions of higher weights having higher scores is high. Nevertheless, the results did show that some dimensions with lower weights did record higher scores than dimensions with higher weights. However, for correct interpretation of the rankings, this should be borne in mind. Our presentation on the relative performance of governance dimensions in this report is simply to show the relative scores of the dimensions and not strictly for ranking purposes as this approach will represent a bias interpretation.