

# NIGERIA

**GKI RANK** 124/154

**GKI SCORE** 37.6

**WORLD AVERAGE** 48.4

## COUNTRY PERFORMANCE SUMMARY

Nigeria is a weak performer in terms of its knowledge infrastructure. It ranks 124th out of 154 countries in the Global Knowledge Index 2021 and 5th out of the 27 countries with low human development.

### AREAS OF STRENGTH

- + Firms constrained with inadequately educated workforce (%)
- + Renewable energy consumption (%)
- + Ecological footprint per capita
- + Gross fixed capital formation (% GDP)
- + Firms producing new goods and services (%)

### AREAS OF IMPROVEMENT

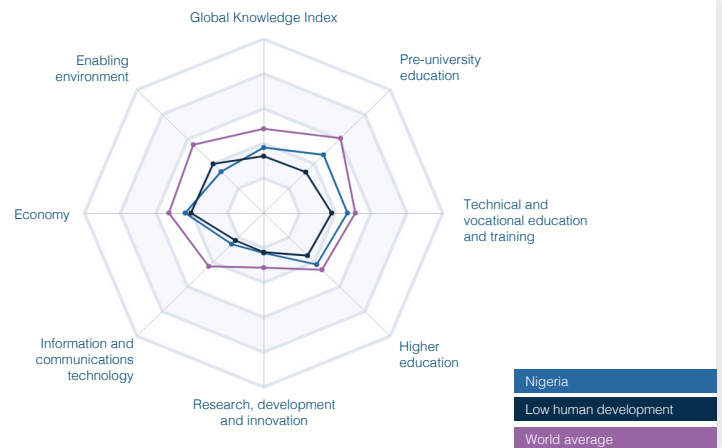
- Transport productive capacity
- Intellectual property receipts (% total trade)
- Cultural goods exports (% exports)
- Fixed-broadband subscriptions by speed per hundred people
- Under-five mortality rate

### KEY INDICATORS

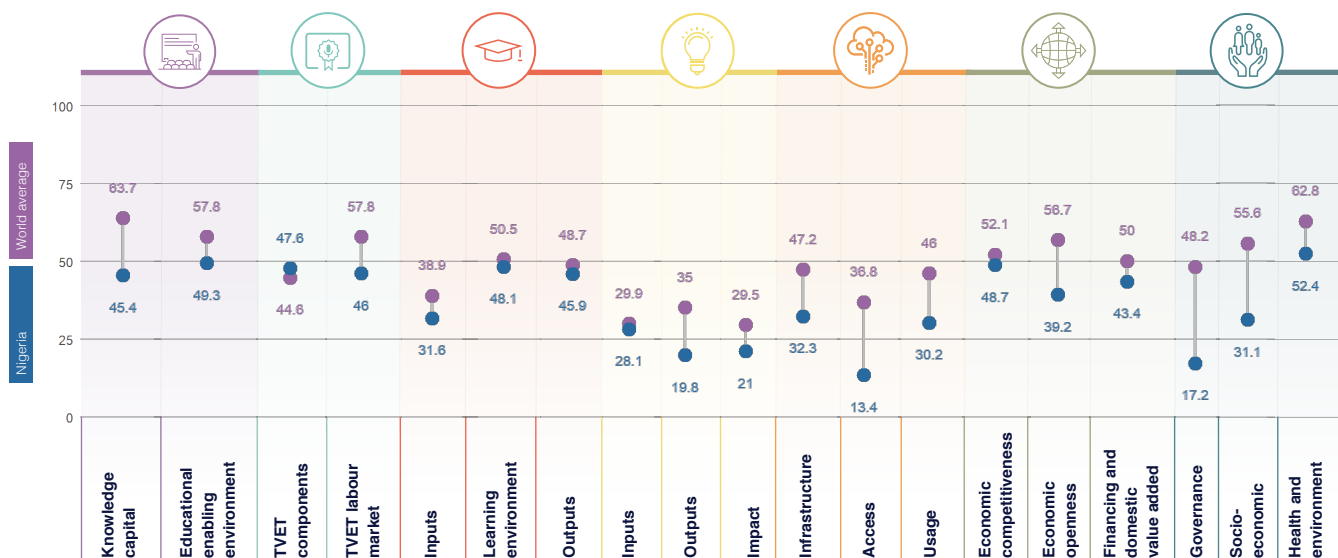
GDP US\$ billions	1,013.531
Population	206,139,587
HDI	0.539

## SECTORAL INDICES

	RANK	VALUE
PRE-UNIVERSITY EDUCATION	117	47.3
TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING	97	46.8
HIGHER EDUCATION	92	41.9
RESEARCH, DEVELOPMENT AND INNOVATION	120	23
INFORMATION AND COMMUNICATIONS TECHNOLOGY	126	25.3
ECONOMY	122	43.8
ENABLING ENVIRONMENT	150	33.6



## GKI PILLARS



# NIGERIA

	Rank	Value		Rank	Value
<b>PRE-UNIVERSITY EDUCATION</b>	<b>117</b>	<b>47.3</b>	<b>HIGHER EDUCATION</b>	<b>92</b>	<b>41.9</b>
<b>Knowledge capital</b>	<b>124</b>	<b>45.4</b>	<b>Inputs</b>	<b>107</b>	<b>31.6</b>
Enrolment	n/a	n/a	Expenditure	n/a	n/a
Net enrolment rate in primary education	n/a	n/a	Government expenditure per tertiary student	n/a	n/a
Net enrolment rate in lower secondary education	n/a	n/a	Teaching staff compensation (% tertiary expenditure)	n/a	n/a
Net enrolment rate in upper secondary education	n/a	n/a	<b>Enrolment</b>	<b>126</b>	<b>2.4</b>
<b>Completion</b>	<b>97</b>	<b>64.1</b>	Enrolment in bachelor's or equivalent level (%)	120	3.1
Years of compulsory education in primary and secondary	67	69.2	Enrolment in master's, doctoral or equivalent (%)	119	1.7
Completion rate in upper secondary education	79	58.9	<b>Resources</b>	<b>80</b>	<b>60.7</b>
Gross intake ratio to the last grade of lower secondary education	n/a	n/a	Pupil-teacher ratio in tertiary education	95	60.7
<b>Outcomes</b>	<b>122</b>	<b>26.7</b>	Researchers in higher education (%)	n/a	n/a
Assessment of 15-year-old students in math, science and reading	n/a	n/a	<b>Learning environment</b>	<b>86</b>	<b>48.1</b>
Learning-adjusted years of schooling	125	26.7	<b>Diversity and academic freedom</b>	<b>45</b>	<b>63.2</b>
<b>Educational enabling environment</b>	<b>108</b>	<b>49.3</b>	Teachers in tertiary education, gender parity	101	37.9
<b>Expenditure</b>	<b>n/a</b>	<b>n/a</b>	Inbound mobility rate	n/a	n/a
Government expenditure on primary education (% GDP)	n/a	n/a	Academic freedom	40	88.6
Government expenditure on secondary education (% GDP)	n/a	n/a	<b>Equity and inclusiveness</b>	<b>71</b>	<b>33.1</b>
Government funding per primary student (% GDP per capita)	n/a	n/a	Gross attendance ratio for tertiary education, gender parity	66	70.3
Government funding per secondary student (% GDP per capita)	n/a	n/a	Gross attendance ratio for tertiary education, wealth parity	55	26.6
<b>Resources</b>	<b>86</b>	<b>64.5</b>	Gross attendance ratio for tertiary education, location parity	65	2.2
Pupil-trained teacher ratio in primary education	81	53.7	<b>Outputs</b>	<b>87</b>	<b>45.9</b>
Pupil-trained teacher ratio in secondary education	45	75.3	<b>Attainment</b>	<b>n/a</b>	<b>n/a</b>
Schools with access to computers in primary education (%)	n/a	n/a	Educational attainment rate, bachelor's or equivalent	n/a	n/a
Schools with access to computers in secondary education (%)	n/a	n/a	Educational attainment rate, master's or equivalent	n/a	n/a
<b>Early learning</b>	<b>120</b>	<b>37.9</b>	Educational attainment rate, doctorate or equivalent	n/a	n/a
Gross enrolment ratio in early childhood education	110	17.5	<b>Employment</b>	<b>101</b>	<b>65.4</b>
Proportion of children who are developmentally on track	53	37.5	Labour force participation rate with advanced education	51	76.8
Proportion of children with stimulating home learning environments	37	58.7	Unemployment rate with advanced education	120	54
Pupil-trained teacher ratio in pre-primary education	n/a	n/a	<b>Impact</b>	<b>122</b>	<b>26.4</b>
<b>Equity and inclusiveness</b>	<b>100</b>	<b>45.5</b>	University-industry collaboration in R&D	135	26.4
Completion rate in upper secondary education, gender parity	102	75.6	Citable documents per R&D personnel in higher education	n/a	n/a
Completion rate in upper secondary education, wealth parity	94	12.9	<b>RESEARCH, DEVELOPMENT AND INNOVATION</b>	<b>120</b>	<b>23</b>
Completion rate in upper secondary education, location parity	82	47.9	<b>Inputs</b>	<b>68</b>	<b>28.1</b>
<b>TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING</b>	<b>97</b>	<b>46.8</b>	Inputs of R&D institutions	n/a	n/a
<b>TVET components</b>	<b>63</b>	<b>47.6</b>	GERD (% GDP)	n/a	n/a
<b>Continuous training and skilling</b>	<b>44</b>	<b>57.9</b>	GERD per researcher	n/a	n/a
Firms offering formal training (%)	65	37.3	Researchers per thousand labour force	n/a	n/a
Labour force with short-cycle tertiary education (%)	40	78.6	Tertiary graduates from STEM programmes (%)	n/a	n/a
Participation rate in formal and non-formal education and training	n/a	n/a	<b>Inputs of RDI in business enterprises</b>	<b>67</b>	<b>27.5</b>
<b>TVET structure</b>	<b>n/a</b>	<b>n/a</b>	GERD performed by business enterprises (%)	n/a	n/a
Government expenditure on vocational education (%)	n/a	n/a	GERD financed by business enterprises (%)	n/a	n/a
Share of students enrolled in secondary vocational programmes	n/a	n/a	Researchers in business enterprises (%)	n/a	n/a
Share of students enrolled in post-secondary vocational programmes	n/a	n/a	Firms that spend on R&D (%)	49	27.5
<b>TVET quality and qualifications</b>	<b>131</b>	<b>37.3</b>	<b>Inputs of societal innovation</b>	<b>94</b>	<b>28.8</b>
Extent of staff training	103	44.1	High-skilled employment (%)	n/a	n/a
Quality of vocational training	136	30.5	Intellectual property payments (% total trade)	80	11.2
Ratio of high-skill TVET occupations earnings to average wage	n/a	n/a	State of cluster development	71	46.3
Ratio of medium-skill TVET occupations earnings to average wage	n/a	n/a	<b>Outputs</b>	<b>136</b>	<b>19.8</b>
<b>TVET labour market</b>	<b>121</b>	<b>46</b>	Outputs of R&D institutions	126	26.9
<b>Efficiency of the labour market</b>	<b>29</b>	<b>75.4</b>	Average documents per researcher	n/a	n/a
Firms constrained with inadequately educated workforce (%)	8	91.2	Citations per document	131	11.7
Employment educational mismatch (%)	n/a	n/a	Patent applications (per 100 billion GDP)	81	42.1
Proportion of skilled production workers	53	63.4	<b>Outputs of RDI in business enterprises</b>	<b>117</b>	<b>22.2</b>
Unemployment rate with vocational education	82	71.6	Intellectual property receipts (% total trade)	117	0
<b>Post-TVET employment</b>	<b>72</b>	<b>46.8</b>	Industrial design applications (per 100 billion GDP)	68	6
Share of TVET occupations	33	66.9	PCT applications (per 100 billion GDP)	136	15.1
Manufacturing employment (%)	104	26.7	Firms producing new goods and services (%)	24	67.6
<b>Equity and inclusiveness</b>	<b>152</b>	<b>15.7</b>			
Enrolment in vocational education, gender parity	n/a	n/a			
Vulnerable employment rate	141	15.7			

# NIGERIA

	Rank	Value		Rank	Value
<b>Outputs of societal innovation</b>	<b>131</b>	<b>3.4</b>	Business agility	87	51.2
Trademark applications (per 100 billion GDP)	104	6.8	Ease of starting a business	91	86.2
Cultural goods exports (% exports)	140	0	Insolvency recovery rate	106	30.2
Printing and publishing output (% manufactured output)	n/a	n/a	Entrepreneurial employee activity rate	84	2.7
<b>Impact</b>	<b>115</b>	<b>21</b>	Extent of corporate transparency	13	85.7
<b>Quality</b>	<b>90</b>	<b>19.1</b>	<b>Economic openness</b>	<b>139</b>	<b>39.2</b>
Research institutions prominence	48	21.8	Trade and diversification	143	42
Growth of innovative companies	54	53	Trade (% GDP)	146	7.2
ISO 9001 quality certificates (% GDP)	138	1.2	High-technology trade (% total trade)	87	42.6
ISO 14001 environmental certificates (% GDP)	147	0.5	Product concentration	148	25.4
<b>Linkages</b>	<b>112</b>	<b>7.6</b>	Market concentration	46	92.8
GERD financed from abroad (%)	n/a	n/a	Financial openness	112	36.5
Joint ventures per strategic alliance deals (% GDP)	95	5.2	Chinn-Ito financial openness	93	30
Computer software spending (% GDP)	83	10	Foreign direct investment, net inflows (% GDP)	138	30.3
<b>Business development</b>	<b>92</b>	<b>36.3</b>	Debt dynamics	97	49.2
New business density per thousand population	94	4	<b>Financing and domestic value added</b>	<b>112</b>	<b>43.4</b>
Firms with new product/service (%)	54	68.6	Financing and taxes	124	47.3
<b>INFORMATION AND COMMUNICATIONS TECHNOLOGY</b>	<b>126</b>	<b>25.3</b>	Domestic credit to private sector (% GDP)	138	3.5
<b>Infrastructure</b>	<b>121</b>	<b>32.3</b>	MSME financing gap (% GDP)	98	37.9
<b>Coverage</b>	<b>136</b>	<b>23.7</b>	Tax and contribution rate (% profit)	65	72.7
3G/4G mobile network coverage (% population)	127	51.7	Bank non-performing loans (%)	83	74.9
Secure Internet servers per 1 million population	118	1.4	Domestic value added	86	39.6
Investment in telecommunication services (% GDP)	117	17.9	Medium- and high-tech activities value added	47	39.1
<b>Quality</b>	<b>129</b>	<b>4.8</b>	Industry and services value added (% GDP)	117	50
Mobile upload and download speeds	93	10.4	Labour underutilization rate	91	62.6
Fixed-broadband upload and download speeds	93	4.2	Output per worker	108	6.7
Fixed-broadband subscriptions by speed per hundred people	136	0	<b>ENABLING ENVIRONMENT</b>	<b>150</b>	<b>33.6</b>
<b>Affordability</b>	<b>94</b>	<b>68.4</b>	<b>Governance</b>	<b>141</b>	<b>17.2</b>
Fixed broadband basket (% GNI per capita)	132	48.5	Political environment	129	18.5
Mobile broadband basket (% GNI per capita)	87	56.6	Peace and stability	149	4.7
Internet and telephony competition	1	100	Voice and accountability	102	32.4
<b>Access</b>	<b>137</b>	<b>13.4</b>	Quality of institutions	138	15.9
<b>Subscriptions</b>	<b>138</b>	<b>13.4</b>	Rule of law	124	21.2
Active mobile-broadband subscriptions per hundred inhabitants	128	17.5	Control of corruption	139	13.5
International Internet bandwidth per user	140	15.4	Government effectiveness	141	13
Households with Internet access at home (%)	141	7.3	<b>Socio-economic</b>	<b>147</b>	<b>31.1</b>
<b>Skills and employment</b>	<b>n/a</b>	<b>n/a</b>	Gender equity	140	39.2
Individuals with standard ICT skills (%)	n/a	n/a	Female-to-male ratio in parliament	148	3.7
Tertiary graduates from ICT programmes (%)	n/a	n/a	Female-to-male labour force participation	82	74.7
ICT employment (%)	n/a	n/a	Female-to-male ratio in Internet usage	n/a	n/a
<b>Usage</b>	<b>125</b>	<b>30.2</b>	Social inclusion	145	30.3
<b>Services</b>	<b>123</b>	<b>23.4</b>	Social protection coverage (% population)	118	8.4
Government online services	105	51.8	Adult literacy rate	109	51.1
Fixed broadband Internet traffic per subscription	77	7.9	Youth not in employment, education or training (%)	136	31.5
Mobile broadband Internet traffic per subscription	100	3.9	<b>Standard of living</b>	<b>122</b>	<b>23.7</b>
Internet users (%)	118	30	Poverty headcount ratio (% population)	103	43.7
<b>Outcomes</b>	<b>107</b>	<b>37</b>	GDP per capita	117	3.8
ICT PCT patent applications (per 100 billion GDP)	104	21.6	<b>Health and environment</b>	<b>143</b>	<b>52.4</b>
E-participation	108	48.8	Health	149	25.3
Internet activities by individuals (%)	n/a	n/a	Universal health coverage	136	42
Trade in digitally deliverable services (% total trade)	69	40.5	Healthy life expectancy (years)	142	34
<b>ECONOMY</b>	<b>122</b>	<b>43.8</b>	Under-five mortality rate	152	0
<b>Economic competitiveness</b>	<b>89</b>	<b>48.7</b>	Environmental performance	13	79.4
Infrastructure investment	101	46.2	Renewable energy consumption (%)	14	82.6
Gross fixed capital formation (% GDP)	24	64.3	Ecological footprint per capita	21	96.6
Logistics performance	107	38.3	Natural hazard exposure	72	59
Transport productive capacity	153	3.5			
Building quality control	72	78.7			

\*All values are normalized to a scale from 0 (worst) to 100 (best).