



Uganda

The Network Readiness Index (NRI) is one of the leading global indices on the application and impact of information and communication technology (ICT) in economies around the world. In its latest version of 2023 the NRI Report maps the network-based readiness landscape of 134 economies based on their performances in four different pillars: Technology, People, Governance, and Impact. Each of these pillars is itself comprised of three sub-pillars (see Figure 1) that have been populated by a total of 58 variables.

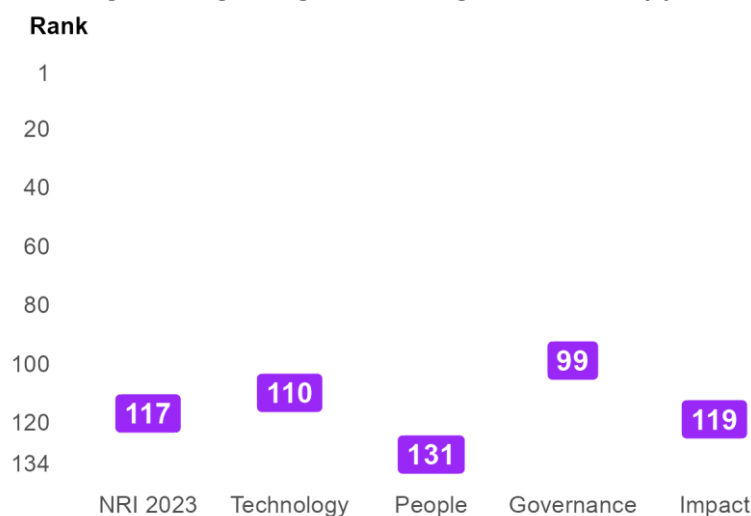
Figure 1: The NRI 2023 model



Global NRI position of Uganda

Uganda ranks 117th out of the 134 economies included in the NRI 2023 (Figure 2). Its main strength relates to Governance. The greatest scope for improvement, meanwhile, concerns People.

Figure 2: Uganda global ranking, overall and by pillar



Performance at sub-pillar level

When it comes to sub-pillars, the strongest showings of Uganda relate to Trust, Regulation and Access, among others (Table 1). More could be done, though, to improve the economy's performances in the SDG Contribution, Individuals and Businesses sub-pillars.

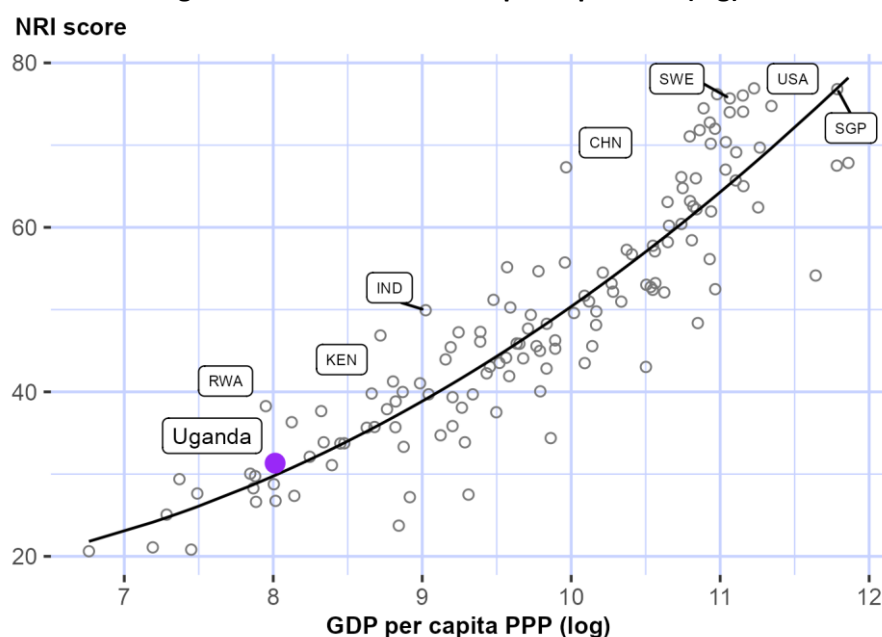
Table 1: Uganda rankings by sub-pillar

Sub-pillar	Rank	Sub-pillar	Rank
Trust	85	Governments	110
Regulation	92	Content	113
Access	104	Quality of Life	115
Future Technologies	104	SDG Contribution	120
Inclusion	106	Individuals	121
Economy	106	Businesses	134

NRI score and income

Figure 3 shows the position of Uganda in terms of both NRI score and GDP per capita (PPP). The trend line shows the expected NRI score given an economy's income level. As can be seen, Uganda is slightly above the trend line, which suggests that its network readiness is more or less in line with what would be expected given its income level.

Figure 3: NRI score and GDP per capita PPP (log)



Note: USA = United States (rank: 1), SGP = Singapore (rank: 2), FIN = Finland (3), NLD = Netherlands (4), SWE = Sweden (5), CHN = China (20), IND = India (61). Uganda belongs to the group of low-income countries, where the best performer is Rwanda (RWA). The top performer of its region-Africa-is Kenya (KEN).

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Performance against its income group and region

Low-income countries

Uganda is ranked 2nd in the group of low-income countries (Figure 4, left panel). In terms of pillar performance, it has a score higher than the income group average in three of the four pillars: NRI, Technology, Governance and Impact. At the sub-pillar level, it outperforms low-income countries in eleven of the twelve sub-pillars: Access, Content, Future Technologies, Individuals, Governments, Trust, Regulation, Inclusion, Economy, Quality of Life and SDG Contribution.

Africa

Uganda is ranked 15th within Africa (Figure 4, right panel). It has a score above the regional average in two of the four pillars: Technology and Governance. With regard to sub-pillars, it outperforms the average in Africa in seven of the twelve sub-pillars: Access, Content, Trust, Regulation, Inclusion, Economy and Quality of Life.

Figure 4: Performance of Uganda against its income group and region, overall and by pillar

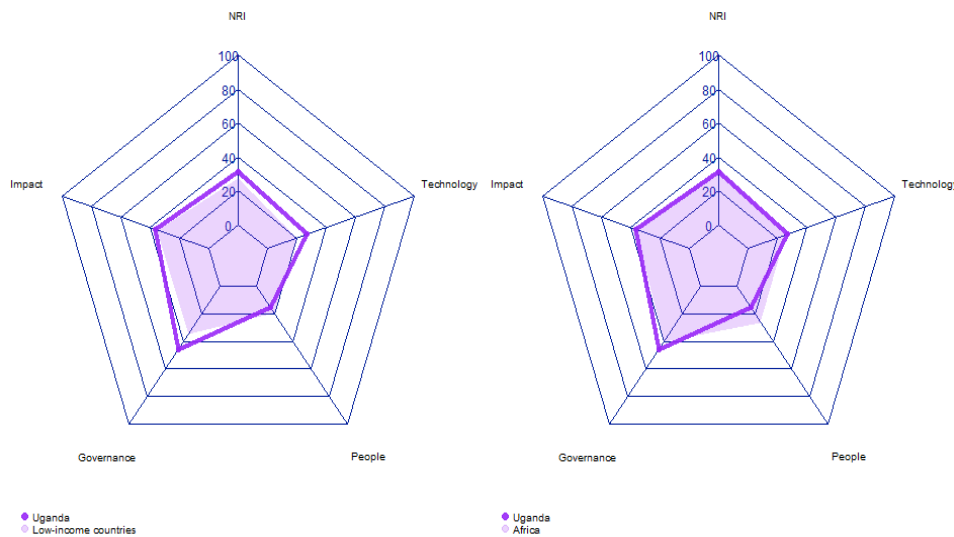


Table 2: Uganda scores vs. averages of its income group and region, overall and by pillar

Dimension	Uganda	Low-income countries	Africa
NRI	31.33	27.19	32.14
Technology	27.11	19.75	25.14
People	15.56	19.57	26.19
Governance	46.10	34.61	40.44
Impact	36.55	34.82	36.77

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Strongest and weakest indicators

The indicators where Uganda performs particularly well include 3.2.4 E-commerce legislation, 1.1.5 International Internet bandwidth, and 3.2.2 ICT regulatory environment (Table 3). By contrast, the economy's weakest indicators include 2.1.3 Use of virtual social networks, 4.3.4 SDG 7: Affordable and Clean Energy, and 2.1.4 Tertiary enrollment.

Table 3: Highlight of Strengths and Opportunities for Uganda

Strongest indicators	Rank	Weakest indicators	Rank
3.2.4 E-commerce legislation	1	2.2.1 Firms with website	107
1.1.5 International Internet bandwidth	34	1.3.4 Computer software spending	124
3.2.2 ICT regulatory environment	58	2.1.4 Tertiary enrollment	126
1.2.4 AI scientific publications	62	4.3.4 SDG 7: Affordable and Clean Energy	130
3.1.3 Online access to financial account	63	2.1.3 Use of virtual social networks	132
3.3.5 Rural gap in use of digital payments	71		
4.1.6 ICT services exports	76		
4.3.3 SDG 5: Women's economic opportunity	76		
1.3.2 Investment in emerging technologies	78		
3.1.2 Cybersecurity	79		
4.1.4 Domestic market size	80		

Note: For the full list of strengths and weaknesses, see At-A-Glance table.

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NRI 2023 At-A-Glance: Uganda

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Rank: 117 (out of 134)

Score: 31.33

Pillar/sub-pillar	Rank	Score	Pillar/sub-pillar	Rank	Score
A. Technology pillar	110	27.11	C. Governance pillar	99	46.10
1st sub-pillar: Access	104	47.41	1st sub-pillar: Trust	85	34.46
2nd sub-pillar: Content	113	11.71	2nd sub-pillar: Regulation	92	59.73
3rd sub-pillar: Future Technologies	104	22.20	3rd sub-pillar: Inclusion	106	44.11
B. People pillar	131	15.56	D. Impact pillar	119	36.55
1st sub-pillar: Individuals	121	20.12	1st sub-pillar: Economy	106	17.39
2nd sub-pillar: Businesses	134	4.61	2nd sub-pillar: Quality of Life	115	47.13
3rd sub-pillar: Governments	110	21.96	3rd sub-pillar: SDG Contribution	120	45.14

The Network Readiness Index in detail

Indicator	Rank	Score	Indicator	Rank	Score
A. Technology pillar	110	27.11	C. Governance pillar	99	46.10
1st sub-pillar: Access	104	47.41	1st sub-pillar: Trust	85	34.46
1.1.1 Mobile tariffs	112	29.42	3.1.1 Secure Internet servers	118	28.41
1.1.2 Handset prices	107	29.98	3.1.2 Cybersecurity	79	69.45 •
1.1.3 FTTH/building Internet subscriptions	115	6.44	3.1.3 Online access to financial account	63	30.31 •
1.1.4 Population covered by at least a 3G mobile network	114	94.47	3.1.4 Internet shopping	91	9.67
1.1.5 International Internet bandwidth	34	76.76 •	2nd sub-pillar: Regulation	92	59.73
1.1.6 Internet access in schools	NA	NA	3.2.1 Regulatory quality	96	38.83
2nd sub-pillar: Content	113	11.71	3.2.2 ICT regulatory environment	58	84.71 •
1.2.1 GitHub commits	110	1.24	3.2.3 Regulation of emerging technologies	100	23.64
1.2.2 Internet domain registrations	122	0.15	3.2.4 E-commerce legislation	1	100.00 •
1.2.3 Mobile apps development	113	38.77	3.2.5 Privacy protection by law content	93	51.49
1.2.4 AI scientific publications	62	6.67 •	3rd sub-pillar: Inclusion	106	44.11
3rd sub-pillar: Future Technologies	104	22.20	3.3.1 E-Participation	87	39.54
1.3.1 Adoption of emerging technologies	102	29.80	3.3.2 Socioeconomic gap in use of digital payments	105	51.47
1.3.2 Investment in emerging technologies	78	36.00 •	3.3.3 Availability of local online content	123	23.56

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Indicator	Rank	Score	Indicator	Rank	Score
1.3.3 Robot density	NA	NA	3.3.4 Gender gap in Internet use	NA	NA
1.3.4 Computer software spending	124	0.81	3.3.5 Rural gap in use of digital payments	71	61.87
B. People pillar	131	15.56	D. Impact pillar	119	36.55
<i>1st sub-pillar: Individuals</i>	121	20.12	<i>1st sub-pillar: Economy</i>	106	17.39
2.1.1 Mobile broadband internet traffic within the country	82	6.00	4.1.1 High-tech and medium-high-tech manufacturing	NA	NA
2.1.2 ICT skills in the education system	NA	NA	4.1.2 High-tech exports	96	3.57
2.1.3 Use of virtual social networks	132	1.56	4.1.3 PCT patent applications	91	0.63
2.1.4 Tertiary enrollment	126	1.58	4.1.4 Domestic market size	80	47.07
2.1.5 Adult literacy rate	83	71.33	4.1.5 Prevalence of gig economy	102	25.29
2.1.6 AI talent concentration	NA	NA	4.1.6 ICT services exports	76	10.38
<i>2nd sub-pillar: Businesses</i>	134	4.61	<i>2nd sub-pillar: Quality of Life</i>	115	47.13
2.2.1 Firms with website	107	11.21	4.2.1 Happiness	110	34.82
2.2.2 GERD financed by business enterprise	84	4.21	4.2.2 Freedom to make life choices	105	55.93
2.2.3 Knowledge intensive employment	120	2.87	4.2.3 Income inequality	92	51.01
2.2.4 Annual investment in telecommunication services	NA	NA	4.2.4 Healthy life expectancy at birth	108	46.78
2.2.5 GERD performed by business enterprise	85	0.14	<i>3rd sub-pillar: SDG Contribution</i>	120	45.14
<i>3rd sub-pillar: Governments</i>	110	21.96	4.3.1 SDG 3: Good Health and Well-Being	110	36.40
2.3.1 Government online services	96	46.61	4.3.2 SDG 4: Quality Education	NA	NA
2.3.2 Publication and use of open data	86	11.76	4.3.3 SDG 5: Women's economic opportunity	76	73.45
2.3.3 Government promotion of investment in emerging tech	97	27.09	4.3.4 SDG 7: Affordable and Clean Energy	130	27.02
2.3.4 R&D expenditure by governments and higher education	98	2.39	4.3.5 SDG 11: Sustainable Cities and Communities	106	43.67

NOTE: ● a strength and ○ a weakness.

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