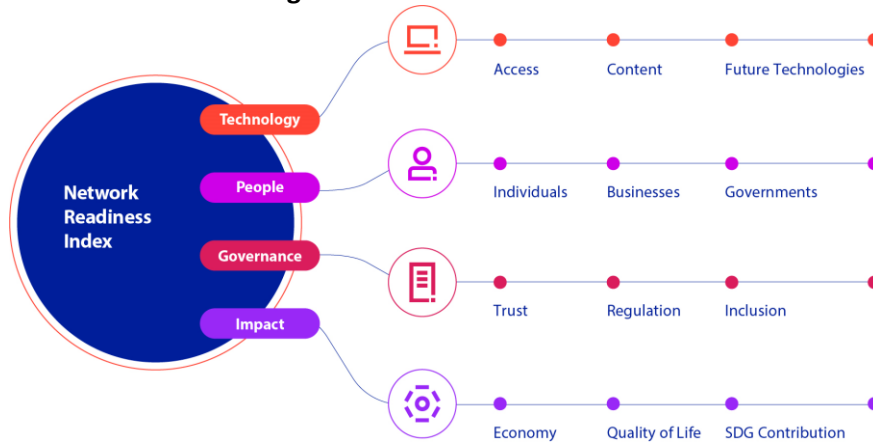




Chad

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.

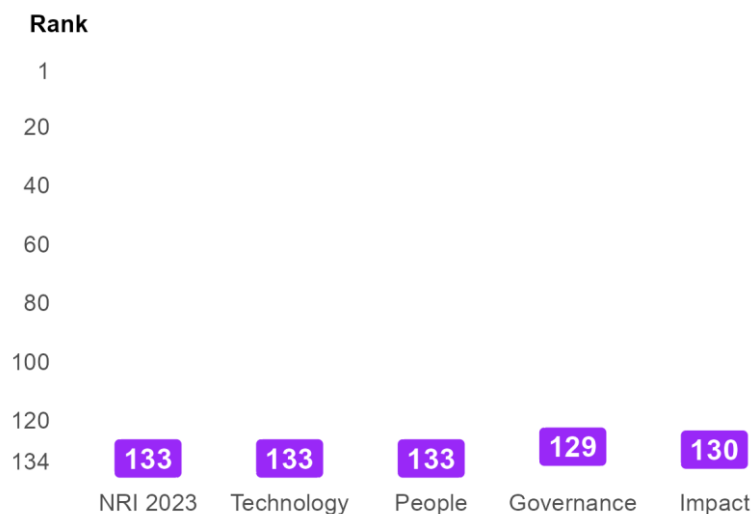
Figure 1: The NRI 2023 model



Global NRI position of Chad

Chad ranks 133rd 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 Technology and People.

Figure 2: Chad global ranking, overall and by pillar



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Performance at sub-pillar level

When it comes to sub-pillars, the strongest showings of Chad relate to Inclusion, Quality of Life and Businesses, among others (Table 1). More could be done, though, to improve the economy's performances in the Content, Future Technologies and Individuals sub-pillars.

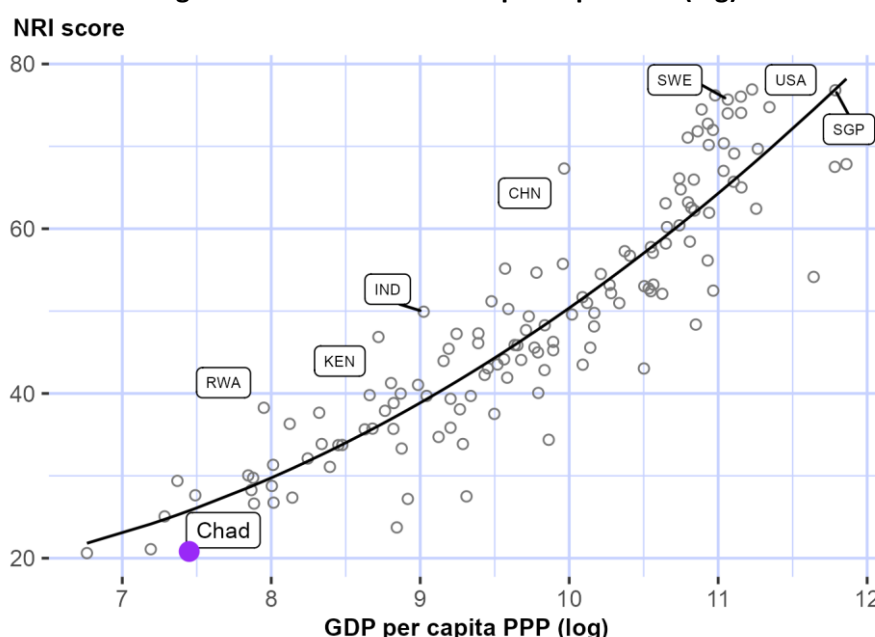
Table 1: Chad rankings by sub-pillar

Sub-pillar	Rank	Sub-pillar	Rank
Inclusion	115	Access	131
Quality of Life	118	Regulation	132
Businesses	121	SDG Contribution	133
Trust	126	Content	134
Economy	126	Future Technologies	134
Governments	130	Individuals	134

NRI score and income

Figure 3 shows the position of Chad 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, Chad is well below the trend line, which suggests that it is underachieving and that one would expect it could raise its network readiness in view of 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). Chad 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).

Performance against its income group and region

Low-income countries

Chad is ranked 11th in the group of low-income countries (Figure 4, left panel). In terms of pillar performance, it has a score below the income group average in each of the four pillars. At the sub-pillar level, it outperforms low-income countries in two of the twelve sub-pillars: Inclusion and Quality of Life.

Africa

Chad is ranked 30th within Africa (Figure 4, right panel). It lags behind its region in each of the four pillars. With regard to sub-pillars, it outperforms the average in Africa in one of the twelve sub-pillars: Quality of Life.

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

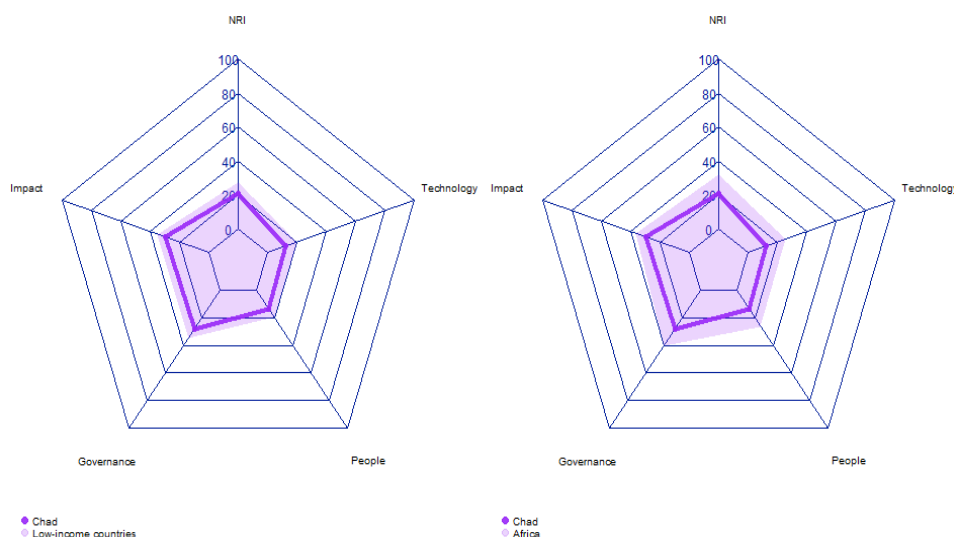


Table 2: Chad scores vs. averages of its income group and region, overall and by pillar

Dimension	Chad	Low-income countries	Africa
NRI	20.82	27.19	32.14
Technology	12.18	19.75	25.14
People	13.73	19.57	26.19
Governance	28.10	34.61	40.44
Impact	29.27	34.82	36.77

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Strongest and weakest indicators

The indicators where Chad performs particularly well include 4.3.4 SDG 7: Affordable and Clean Energy, 3.3.5 Rural gap in use of digital payments, and 4.2.3 Income inequality (Table 3). By contrast, the economy's weakest indicators include 1.1.1 Mobile tariffs, 1.2.1 GitHub commits, 2.1.3 Use of virtual social networks, and 3.1.1 Secure Internet servers.

Table 3: Highlight of Strengths and Opportunities for Chad

Strongest indicators	Rank	Weakest indicators	Rank
4.3.4 SDG 7: Affordable and Clean Energy	55	4.1.3 PCT patent applications	99
3.3.5 Rural gap in use of digital payments	63	3.2.2 ICT regulatory environment	128
4.2.3 Income inequality	63	2.1.4 Tertiary enrollment	129
3.2.5 Privacy protection by law content	71	2.3.1 Government online services	129
2.3.4 R&D expenditure by governments and higher education	76	3.2.1 Regulatory quality	129
3.3.2 Socioeconomic gap in use of digital payments	83	3.2.4 E-commerce legislation	129
3.1.3 Online access to financial account	89	1.2.2 Internet domain registrations	130
3.1.2 Cybersecurity	99	4.2.4 Healthy life expectancy at birth	130
3.3.1 E-Participation	102	1.1.2 Handset prices	132
4.1.6 ICT services exports	104	3.3.3 Availability of local online content	133
		4.3.1 SDG 3: Good Health and Well-Being	133
		4.3.5 SDG 11: Sustainable Cities and Communities	133
		1.1.1 Mobile tariffs	134
		1.2.1 GitHub commits	134
		2.1.3 Use of virtual social networks	134
		3.1.1 Secure Internet servers	134

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

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NRI 2023 At-A-Glance: Chad

Network Readiness Index

Rank: 133 (out of 134)

Score: 20.82

Pillar/sub-pillar	Rank	Score	Pillar/sub-pillar	Rank	Score
A. Technology pillar	133	12.18	C. Governance pillar	129	28.10
1st sub-pillar: Access	131	28.40	1st sub-pillar: Trust	126	15.07
2nd sub-pillar: Content	134	0.07	2nd sub-pillar: Regulation	132	29.36
3rd sub-pillar: Future Technologies	134	8.06	3rd sub-pillar: Inclusion	115	39.86
B. People pillar	133	13.73	D. Impact pillar	130	29.27
1st sub-pillar: Individuals	134	6.37	1st sub-pillar: Economy	126	11.41
2nd sub-pillar: Businesses	121	23.49	2nd sub-pillar: Quality of Life	118	44.72
3rd sub-pillar: Governments	130	11.32	3rd sub-pillar: SDG Contribution	133	31.68

The Network Readiness Index in detail

Indicator	Rank	Score	Indicator	Rank	Score
A. Technology pillar	133	12.18	C. Governance pillar	129	28.10
1st sub-pillar: Access	131	28.40	1st sub-pillar: Trust	126	15.07
1.1.1 Mobile tariffs	134	0.00	3.1.1 Secure Internet servers	134	0.00
1.1.2 Handset prices	132	0.00	3.1.2 Cybersecurity	99	39.39
1.1.3 FTTH/building Internet subscriptions	NA	NA	3.1.3 Online access to financial account	89	16.73
1.1.4 Population covered by at least a 3G mobile network	126	85.83	3.1.4 Internet shopping	113	4.16
1.1.5 International Internet bandwidth	124	56.16	2nd sub-pillar: Regulation	132	29.36
1.1.6 Internet access in schools	84	0.00	3.2.1 Regulatory quality	129	23.51
2nd sub-pillar: Content	134	0.07	3.2.2 ICT regulatory environment	128	52.59
1.2.1 GitHub commits	134	0.00	3.2.3 Regulation of emerging technologies	111	8.31
1.2.2 Internet domain registrations	130	0.05	3.2.4 E-commerce legislation	129	0.00
1.2.3 Mobile apps development	NA	NA	3.2.5 Privacy protection by law content	71	62.39
1.2.4 AI scientific publications	125	0.15	3rd sub-pillar: Inclusion	115	39.86
3rd sub-pillar: Future Technologies	134	8.06	3.3.1 E-Participation	102	30.24
1.3.1 Adoption of emerging technologies	125	3.37	3.3.2 Socioeconomic gap in use of digital payments	83	64.74
1.3.2 Investment in emerging technologies	127	12.75	3.3.3 Availability of local online content	133	0.00
1.3.3 Robot density	NA	NA	3.3.4 Gender gap in Internet use	NA	NA

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Indicator	Rank	Score	Indicator	Rank	Score
1.3.4 Computer software spending	NA	NA	3.3.5 Rural gap in use of digital payments	63	64.45
B. People pillar	133	13.73	D. Impact pillar	130	29.27
<i>1st sub-pillar: Individuals</i>	134	6.37	<i>1st sub-pillar: Economy</i>	126	11.41
2.1.1 Mobile broadband internet traffic within the country	114	0.58	4.1.1 High-tech and medium-high-tech manufacturing	NA	NA
2.1.2 ICT skills in the education system	86	30.93	4.1.2 High-tech exports	NA	NA
2.1.3 Use of virtual social networks	134	0.00	4.1.3 PCT patent applications	99	0.00
2.1.4 Tertiary enrollment	129	0.36	4.1.4 Domestic market size	125	31.64
2.1.5 Adult literacy rate	106	0.00	4.1.5 Prevalence of gig economy	119	10.76
2.1.6 AI talent concentration	NA	NA	4.1.6 ICT services exports	104	3.23
<i>2nd sub-pillar: Businesses</i>	121	23.49	<i>2nd sub-pillar: Quality of Life</i>	118	44.72
2.2.1 Firms with website	112	0.00	4.2.1 Happiness	104	38.02
2.2.2 GERD financed by business enterprise	NA	NA	4.2.2 Freedom to make life choices	112	50.75
2.2.3 Knowledge intensive employment	127	0.18	4.2.3 Income inequality	63	64.07
2.2.4 Annual investment in telecommunication services	115	70.28	4.2.4 Healthy life expectancy at birth	130	26.04
2.2.5 GERD performed by business enterprise	NA	NA	<i>3rd sub-pillar: SDG Contribution</i>	133	31.68
<i>3rd sub-pillar: Governments</i>	130	11.32	4.3.1 SDG 3: Good Health and Well-Being	133	0.00
2.3.1 Government online services	129	19.61	4.3.2 SDG 4: Quality Education	NA	NA
2.3.2 Publication and use of open data	NA	NA	4.3.3 SDG 5: Women's economic opportunity	115	52.21
2.3.3 Government promotion of investment in emerging tech	117	9.12	4.3.4 SDG 7: Affordable and Clean Energy	55	74.49
2.3.4 R&D expenditure by governments and higher education	76	5.23	4.3.5 SDG 11: Sustainable Cities and Communities	133	0.00

NOTE: ● a strength and ○ a weakness.

Network Readiness Index 2023



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