

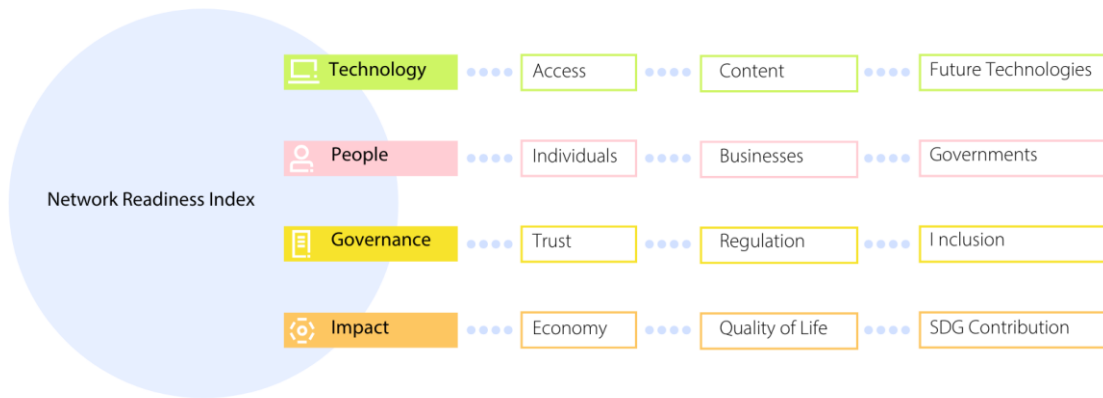
Network Readiness Index 2024



Botswana

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 2024 the NRI Report maps the network-based readiness landscape of 133 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 54 variables.

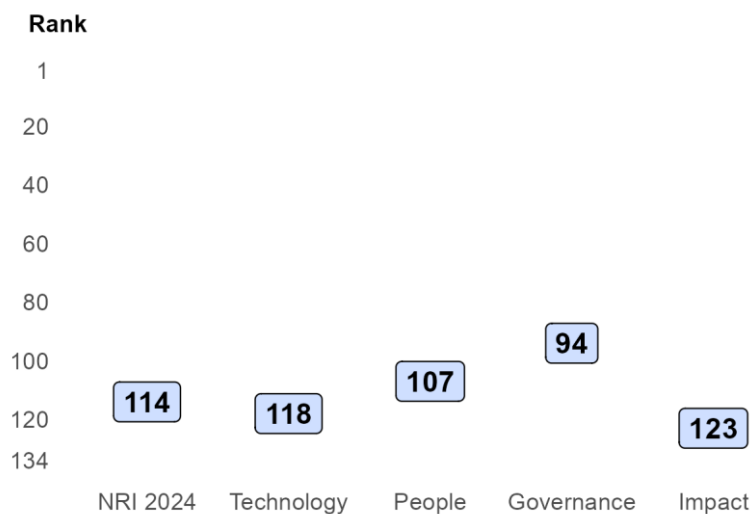
Figure 1: The NRI 2024 model



Global NRI position of Botswana

Botswana ranks 114th out of the 133 economies included in the NRI 2024 (Figure 2). Its main strength relates to Governance. The greatest scope for improvement, meanwhile, concerns Impact.

Figure 2: Botswana 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 Botswana relate to Regulation, SDG Contribution and Individuals, among others (Table 1). More could be done, though, to improve the economy's performances in the Content, Future Technologies and Quality of Life sub-pillars.

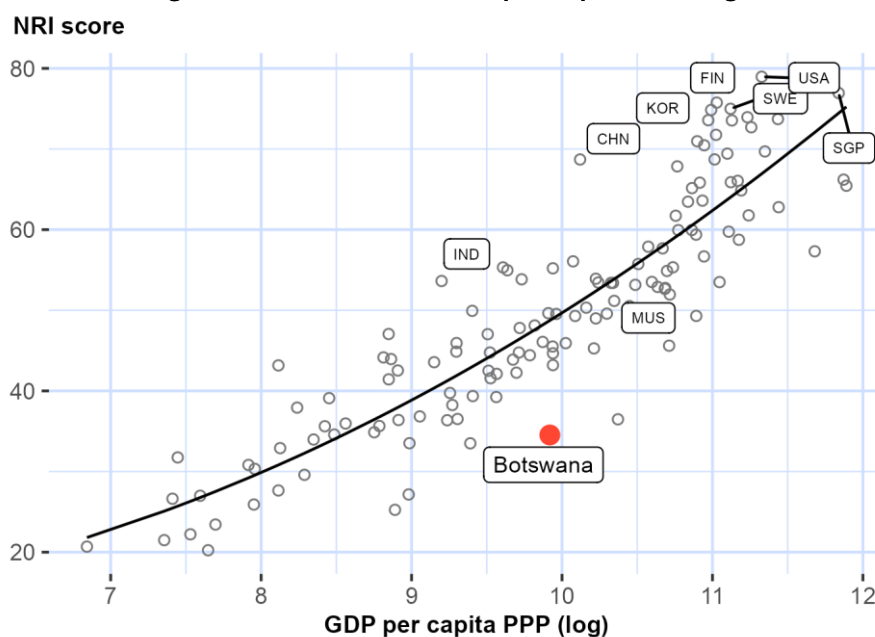
Table 1: Botswana rankings by sub-pillar

Sub-pillar	Rank	Sub-pillar	Rank
Regulation	57	Inclusion	115
SDG Contribution	78	Governments	120
Individuals	85	Economy	124
Trust	87	Content	125
Access	95	Future Technologies	127
Businesses	104	Quality of Life	130

NRI score and income

Figure 3 shows the position of Botswana 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, Botswana 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), SWE = Sweden (4), KOR = Republic of Korea (5), CHN = China (17), and IND = India (49). Botswana belongs to the group of upper-middle-income countries, where the best performer is China (CHN). The top performer of its region-Africa-is Mauritius (MUS).

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Performance against its income group and region

Upper-middle-income countries

Botswana is ranked 35th in the group of upper-middle-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 upper-middle-income countries in one of the twelve sub-pillars: Regulation.

Africa

Botswana is ranked 14th within Africa (Figure 4, right panel). It has a score above the regional average in two of the four pillars: NRI, People and Governance. With regard to sub-pillars, it outperforms the average in Africa in six of the twelve sub-pillars: Access, Individuals, Businesses, Trust, Regulation and SDG Contribution.

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

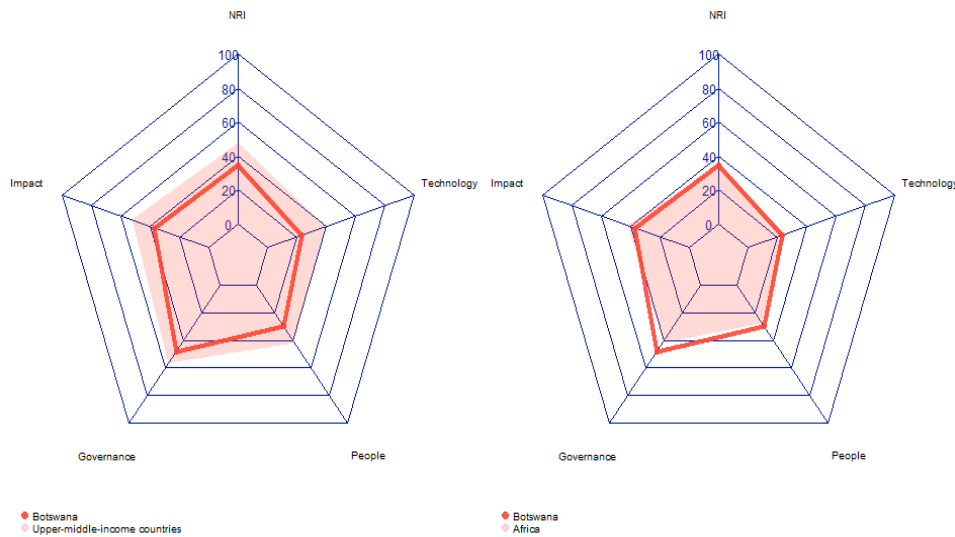


Table 2: Botswana scores vs. averages of its income group and region, overall and by pillar

Dimension	Botswana	Upper-middle-income countries	Africa
NRI	34.54	47.52	34.11
Technology	23.12	39.51	25.27
People	29.89	41.65	27.46
Governance	48.30	56.74	41.69
Impact	36.84	52.19	42.01

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Strongest and weakest indicators

The indicators where Botswana performs particularly well include 3.2.4 E-commerce legislation, 4.3.4 SDG 7: Affordable and Clean Energy, and 3.2.5 Privacy protection by law content (Table 3). By contrast, the economy's weakest indicators include 2.3.1 Government online services, 3.3.1 E-Participation, and 4.2.1 Happiness.

Table 3: Highlight of Strengths and Opportunities for Botswana

Strongest indicators	Rank	Weakest indicators	Rank
3.2.4 E-commerce legislation	1	1.3.1 Adoption of emerging technologies	110
4.3.4 SDG 7: Affordable and Clean Energy	27	4.2.3 Income inequality	115
3.2.5 Privacy protection by law content	37	4.1.3 Prevalence of gig economy	117
3.2.1 Regulatory quality	43	1.2.3 Mobile apps development	123
2.3.4 R&D expenditure by governments and higher education	58	3.3.3 Availability of local online content	123
2.1.2 ICT skills in the education system	62	1.1.3 FTTH/building Internet subscriptions	124
3.1.3 Online access to financial account	64	4.2.4 Healthy life expectancy at birth	124
1.1.2 Handset prices	66	2.3.1 Government online services	128
3.3.5 Rural gap in use of digital payments	68	3.3.1 E-Participation	128
1.1.5 International Internet bandwidth	76	4.2.1 Happiness	128
4.3.5 SDG 11: Sustainable Cities and Communities	82		

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

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NRI 2024 At-A-Glance: Botswana

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Rank: 114 (out of 133)

Score: 34.54

Pillar/sub-pillar	Rank	Score	Pillar/sub-pillar	Rank	Score
A. Technology pillar	118	23.12	C. Governance pillar	94	48.30
1st sub-pillar: Access	95	53.06	1st sub-pillar: Trust	87	36.55
2nd sub-pillar: Content	125	2.41	2nd sub-pillar: Regulation	57	68.98
3rd sub-pillar: Future Technologies	127	13.90	3rd sub-pillar: Inclusion	115	39.36
B. People pillar	107	29.89	D. Impact pillar	123	36.84
1st sub-pillar: Individuals	85	44.37	1st sub-pillar: Economy	124	17.18
2nd sub-pillar: Businesses	104	26.75	2nd sub-pillar: Quality of Life	130	30.86
3rd sub-pillar: Governments	120	18.54	3rd sub-pillar: SDG Contribution	78	62.47

The Network Readiness Index in detail

Indicator	Rank	Score	Indicator	Rank	Score
A. Technology pillar	118	23.12	C. Governance pillar	94	48.30
<i>1st sub-pillar: Access</i>	95	53.06	<i>1st sub-pillar: Trust</i>	87	36.55
1.1.1 Mobile tariffs	93	49.47	3.1.1 Secure Internet servers	88	43.84
1.1.2 Handset prices	66	63.40	• 3.1.2 Cybersecurity	93	53.08
1.1.3 FTTH/building Internet subscriptions	124	4.02	○ 3.1.3 Online access to financial account	64	39.75
1.1.4 Population covered by at least a 3G mobile network	81	78.92	3.1.4 Internet shopping	93	9.51
1.1.5 International Internet bandwidth	76	69.47	• <i>2nd sub-pillar: Regulation</i>	57	68.98
1.1.6 Internet access in schools	NA	NA	3.2.1 Regulatory quality	43	62.60
<i>2nd sub-pillar: Content</i>	125	2.41	3.2.2 ICT regulatory environment	87	73.81
1.2.1 GitHub commits	104	1.88	3.2.3 Regulation of emerging technologies	100	27.60
1.2.2 Internet domain registrations	87	1.40	3.2.4 E-commerce legislation	1	100.00
1.2.3 Mobile apps development	123	5.43	○ 3.2.5 Privacy protection by law content	37	80.89
1.2.4 AI scientific publications	110	0.92	<i>3rd sub-pillar: Inclusion</i>	115	39.36
<i>3rd sub-pillar: Future Technologies</i>	127	13.90	3.3.1 E-Participation	128	15.12
1.3.1 Adoption of emerging technologies	110	0.00	○ 3.3.2 Socioeconomic gap in use of digital payments	94	54.46
1.3.2 Investment in emerging technologies	94	30.75	3.3.3 Availability of local online content	123	23.56
1.3.3 Robot density	NA	NA	3.3.4 Gender gap in Internet use	96	41.21

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Indicator	Rank	Score	Indicator	Rank	Score
1.3.4 Computer software spending	89	10.96	3.3.5 Rural gap in use of digital payments	68	62.45 ●
B. People pillar	107	29.89	D. Impact pillar	123	36.84
<i>1st sub-pillar: Individuals</i>	85	44.37	<i>1st sub-pillar: Economy</i>	124	17.18
2.1.1 Mobile broadband internet traffic within the country	101	3.05	4.1.1 ICT patent applications	NA	NA
2.1.2 ICT skills in the education system	62	57.32 ●	4.1.2 Domestic market scale	111	37.36
2.1.3 Use of virtual social networks	94	36.80	4.1.3 Prevalence of gig economy	117	11.92 ○
2.1.4 Adult literacy rate	71	80.30	4.1.4 ICT services exports	115	2.27
2.1.5 AI talent concentration	NA	NA	<i>2nd sub-pillar: Quality of Life</i>	130	30.86
<i>2nd sub-pillar: Businesses</i>	104	26.75	4.2.1 Happiness	128	3.22 ○
2.2.1 Firms with website	85	36.65	4.2.2 Freedom to make life choices	98	62.12
2.2.2 Number of venture capital deals invested in AI	NA	NA	4.2.3 Income inequality	115	24.94 ○
2.2.3 Annual investment in telecommunication services	110	40.40	4.2.4 Healthy life expectancy at birth	124	29.56 ○
2.2.4 Public cloud computing market scale	112	3.20	<i>3rd sub-pillar: SDG Contribution</i>	78	62.47
<i>3rd sub-pillar: Governments</i>	120	18.54	4.3.1 SDG 3: Good Health and Well-Being	101	41.94
2.3.1 Government online services	128	19.76 ○	4.3.2 SDG 4: Quality Education	NA	NA
2.3.2 Data Capabilities	78	18.73	4.3.3 SDG 5: Women's economic opportunity	119	50.43
2.3.3 Government promotion of investment in emerging technologies	88	25.74	4.3.4 SDG 7: Affordable and Clean Energy	27	88.38 ●
2.3.4 R&D expenditure by governments and higher education	58	9.93 ●	4.3.5 SDG 11: Sustainable Cities and Communities	82	55.29 ●

NOTE: ● a strength and ○ a weakness.

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