



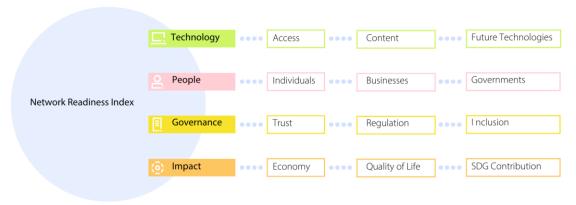




Zambia

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.

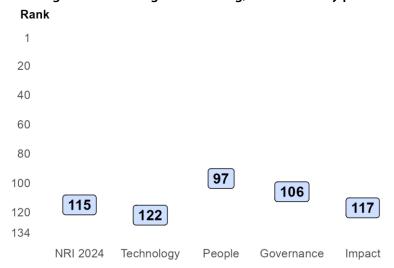
Figure 1: The NRI 2024 model



Global NRI position of Zambia

Zambia ranks 115th out of the 133 economies included in the NRI 2024 (Figure 2). Its main strength relates to People. The greatest scope for improvement, meanwhile, concerns Technology.

Figure 2: Zambia global ranking, overall and by pillar







2024



Performance at sub-pillar level

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

Table 1: Zambia rankings by sub-pillar

Sub-pillar	Rank	Sub-pillar	Rank
Businesses	73	Economy	113
Governments	76	Access	114
Trust	92	Quality of Life	116
SDG Contribution	92	Inclusion	120
Regulation	94	Future Technologies	122
Individuals	104	Content	127

NRI score and income

Figure 3 shows the position of Zambia 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, Zambia 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.

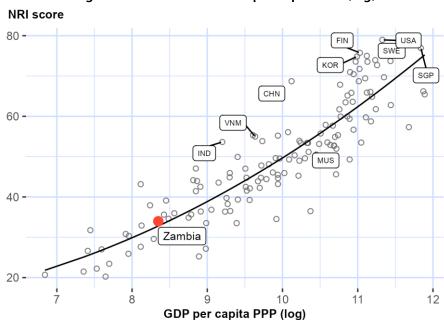


Figure 3: NRI score and GDP per capita PPP (log)

Note: USA = United States (rank: 1), SGP = Singapore (rank: 2), FIN = Finland (3), SWE = Sweden (4), KOR = Republic of Korea (5), CHN = China (17), and IND = India (49). Zambia belongs to the group of lower-middle-income countries, where the best performer is Viet Nam (VNM). The top performer of its region-Africa-is Mauritius (MUS).







Performance against its income group and region

Lower-middle-income countries

Zambia is ranked 27th in the group of lower-middle-income countries (Figure 4, left panel). In terms of pillar performance, it has a score higher than the income group average in one of the four pillars: People. At the sub-pillar level, it outperforms lower-middle-income countries in four of the twelve sub-pillars: Businesses, Governments, Trust and Regulation.

Africa

Zambia is ranked 15th within Africa (Figure 4, right panel). It has a score above the regional average in two of the four pillars: People and Governance. With regard to sub-pillars, it outperforms the average in Africa in six of the twelve sub-pillars: Individuals, Businesses, Governments, Trust, Regulation and SDG Contribution.

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

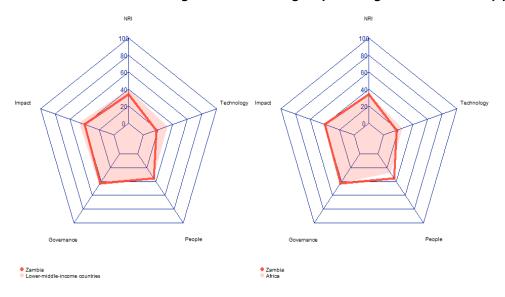


Table 2: Zambia scores vs. averages of its income group and region, overall and by pillar

Dimension	Zambia	Lower-middle- income countries	Africa
NRI	33.97	39.67	34.11
Technology	17.70	32.71	25.27
People	35.61	34.14	27.46
Governance	42.48	44.34	41.69
Impact	40.10	47.49	42.01









Strongest and weakest indicators

The indicators where Zambia performs particularly well include 3.2.4 E-commerce legislation, 3.2.5 Privacy protection by law content, and 4.2.2 Freedom to make life choices (Table 3). By contrast, the economy's weakest indicators include 3.3.3 Availability of local online content, 4.2.4 Healthy life expectancy at birth, and 1.2.2 Internet domain registrations.

Table 3: Highlight of Strengths and Opportunities for Zambia

Strongest indicators	Rank	Weakest indicators	Rank
3.2.4 E-commerce legislation	1	3.2.3 Regulation of emerging technologies	110
3.2.5 Privacy protection by law content	31	4.2.3 Income inequality	113
4.2.2 Freedom to make life choices	53	3.3.5 Rural gap in use of digital payments	115
2.2.1 Firms with website	65	3.3.2 Socioeconomic gap in use of digital payments	119
3.1.3 Online access to financial account	65	3.1.4 Internet shopping	121
2.3.3 Government promotion of emerging technologies	72	1.1.2 Handset prices	122
1.2.4 AI scientific publications	76	4.2.1 Happiness	122
4.3.5 SDG 11: Sustainable Cities and Communities	78	1.2.2 Internet domain registrations	124
3.1.2 Cybersecurity	80	3.3.3 Availability of local online content	126
4.3.3 SDG 5: Women's economic opportunity	80	4.2.4 Healthy life expectancy at birth	126

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











NRI 2024 At-A-Glance: Zambia

Network Readiness Index Rank: 115 (out of 133) Score: 33.97

Pillar/sub-pillar	Rank	Score	Pillar/sub-pillar	Rank	Score
A. Technology pillar	122	17.70	C. Governance pillar	106	42.48
1st sub-pillar: Access	114	34.60	1st sub-pillar: Trust	92	34.81
2nd sub-pillar: Content	127	1.79	2nd sub-pillar: Regulation	94	60.32
3rd sub-pillar: Future Technologies	122	16.69	3rd sub-pillar: Inclusion	120	32.31
B. People pillar	97	35.61	D. Impact pillar	117	40.10
1st sub-pillar: Individuals	104	36.74	1st sub-pillar: Economy	113	21.00
2nd sub-pillar: Businesses	73	33.94	2nd sub-pillar: Quality of Life	116	40.49
3rd sub-pillar: Governments	76	36.14	3rd sub-pillar: SDG Contribution	92	58.81

The Network Readiness Index in detail

Indicator	Rank	Score		Indicator	Rank	Score	
A. Technology pillar	122	17.70		C. Governance pillar	106	42.48	
1st sub-pillar: Access	114	34.60		1st sub-pillar: Trust	92	34.81	
1.1.1 Mobile tariffs	108	40.44		3.1.1 Secure Internet servers	115	29.25	
1.1.2 Handset prices	122	28.42	0	3.1.2 Cybersecurity	80	68.92	•
1.1.3 FTTH/building Internet subscriptions	111	9.91		3.1.3 Online access to financial account	65	39.10	•
1.1.4 Population covered by at least a 3G mobile network	95	58.31		3.1.4 Internet shopping	121	1.97	0
1.1.5 International Internet bandwidth	101	64.74		2nd sub-pillar: Regulation	94	60.32	
1.1.6 Internet access in schools	84	5.81		3.2.1 Regulatory quality	100	35.60	
2nd sub-pillar: Content	127	1.79		3.2.2 ICT regulatory environment	97	68.69	
1.2.1 GitHub commits	117	0.61		3.2.3 Regulation of emerging technologies	110	14.01	0
1.2.2 Internet domain registrations	124	0.10	0	3.2.4 E-commerce legislation	1	100.00	•
1.2.3 Mobile apps development	NA	NA		3.2.5 Privacy protection by law content	31	83.30	•
1.2.4 AI scientific publications	76	4.64	•	3rd sub-pillar: Inclusion	120	32.31	
3rd sub-pillar: Future Technologies	122	16.69		3.3.1 E-Participation	89	36.05	
1.3.1 Adoption of emerging technologies	NA	NA		3.3.2 Socioeconomic gap in use of digital payments	119	36.39	0
1.3.2 Investment in emerging technologies	90	31.25		3.3.3 Availability of local online content	126	21.39	0
1.3.3 Robot density	NA	NA		3.3.4 Gender gap in Internet use	94	43.91	











Indicator	Rank	Score	Indicator	Rank	Score	
1.3.4 Computer software spending	117	2.14	3.3.5 Rural gap in use of digital payments	115	23.83	0
B. People pillar	97	35.61	D. Impact pillar	117	40.10	
1st sub-pillar: Individuals	104	36.74	1st sub-pillar: Economy	113	21.00	
2.1.1 Mobile broadband internet traffic within the country	86	6.33	4.1.1 ICT patent applications	NA	NA	
2.1.2 ICT skills in the education system	81	47.18	4.1.2 Domestic market scale	93	42.19	
2.1.3 Use of virtual social networks	114	11.05	4.1.3 Prevalence of gig economy	110	18.90	
2.1.4 Adult literacy rate	69	82.42	4.1.4 ICT services exports	116	1.91	
2.1.5 AI talent concentration	NA	NA	2nd sub-pillar: Quality of Life	116	40.49	
2nd sub-pillar: Businesses	73	33.94	4.2.1 Happiness	122	11.07	0
2.2.1 Firms with website	65	52.50	4.2.2 Freedom to make life choices	53	81.22	•
2.2.2 Number of venture capital deals invested in AI	NA	NA	4.2.3 Income inequality	113	29.56	0
2.2.3 Annual investment in telecommunication services	91	44.38	4.2.4 Healthy life expectancy at birth	126	28.78	0
2.2.4 Public cloud computing market scale	106	4.95	3rd sub-pillar: SDG Contribution	92	58.81	
3rd sub-pillar: Governments	76	36.14	4.3.1 SDG 3: Good Health and Well-Being	100	43.55	
2.3.1 Government online services	109	38.26	4.3.2 SDG 4: Quality Education	NA	NA	
2.3.2 Data Capabilities	NA	NA	4.3.3 SDG 5: Women's economic opportunity	80	74.36	•
2.3.3 Government promotion of investment in emerging technologies	72	34.02	4.3.4 SDG 7: Affordable and Clean Energy	120	50.80	
2.3.4 R&D expenditure by governments and higher education	NA	NA	4.3.5 SDG 11: Sustainable Cities and Communities	78	58.98	•

NOTE: \bullet a strength and \circ a weakness.







Sources

Dutta, S., & Lanvin, B. (eds.) (2024). The Network Readiness Index 2024. Oxford, UK; Washington DC, USA.

Dutta, S., & Lanvin, B. (eds.) (2023). The Network Readiness Index 2023: Trust in Network Society: A Crisis of the Digital Age. Oxford, UK; Washington DC, USA.

Dutta, S., & Lanvin, B. (eds.) (2022). The Network Readiness Index 2022: Benchmarking the Future of the Network Economy. Washington DC: Portulans Institute.

Berry, B. (2019). berryFunctions: Function Collection Related to Plotting and Hydrology. R package version 1.18.2. URL: https://CRAN.R-project.org/package=berryFunctions

Dutta, S., & Lanvin, B. (eds.) (2019). The Network Readiness Index 2019: Towards a Future-Ready Society. Washington DC: Portulans Institute.

Dutta, S., & Lanvin, B. (eds.) (2020). The Network Readiness Index 2020: Fostering Digital Transformation in a post-COVID Global Economy. Washington DC: Portulans Institute.

Dutta, S., & Lanvin, B. (eds.) (2021). The Network Readiness Index 2021: Shaping the Global Recovery. How digital technologies can make the post-COVID world more equal. Washington DC: Portulans Institute.

Gohel, D. (2019). officer: Manipulation of Microsoft Word and PowerPoint Documents. R package version 0.3.6. URL: https://CRAN.R-project.org/package=officer

Gohel, D. (2019). flextable: Functions for Tabular Reporting. R package version 0.5.6. URL: https://CRAN.R-project.org/package=flextable

Milton Bache, S. & Wickham, H. (2014). magrittr: A Forward-Pipe Operator for R. R package version 1.5. URL: https://CRAN.R-project.org/package=magrittr

Nakazawa, M. (2019). fmsb: Functions for Medical Statistics Book with some Demographic Data. R package version 0.7.0. URL: https://CRAN.R-project.org/package=fmsb

R Core Team (2018). R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria. URL: https://www.R-project.org/.

Slowikowski, K. (2019). ggrepel: Automatically Position Non-Overlapping Text Labels with 'ggplot2'. R package version 0.8.1. URL: https://CRAN.R-project.org/package=ggrepel

Wickham, H. (2007). Reshaping Data with the reshape Package. Journal of Statistical Software, 21(12), 1-20. URL: http://www.jstatsoft.org/v21/i12/.

Wickham, H. (2016). ggplot2: Elegant Graphics for Data Analysis. Springer-Verlag. New York.

Wickham et al., (2019). Welcome to the tidyverse. Journal of Open Source Software, 4(43), 1686, URL: https://doi.org/10.21105/joss.01686