

KAZAKHSTAN

RANK 72/141

GKI SCORE

46.6

WORLD AVERAGE

47.8

COUNTRY PERFORMANCE SUMMARY

Kazakhstan is a moderate performer in terms of its knowledge infrastructure. It ranks 72nd out of 141 countries in the Global Knowledge Index 2024 and 58th out of the 59 countries with very high human development.

AREAS OF STRENGTH

- Net enrolment rate in upper secondary education
- Completion rate in upper secondary education
- Pupil-trained teacher ratio in pre-primary education
- Poverty headcount ratio (% population)
- Government online services

AREAS OF IMPROVEMENT

- Government expenditure on primary education (% GDP)
- Government funding per primary student (% GDP per capita)
- Government expenditure on vocational education (%)
- Investment in telecommunication services (% GDP)
- Educational attainment rate, master's or equivalent

SECTORAL INDICES

KEY INDICATORS

GDP (US\$ billions): 705.52

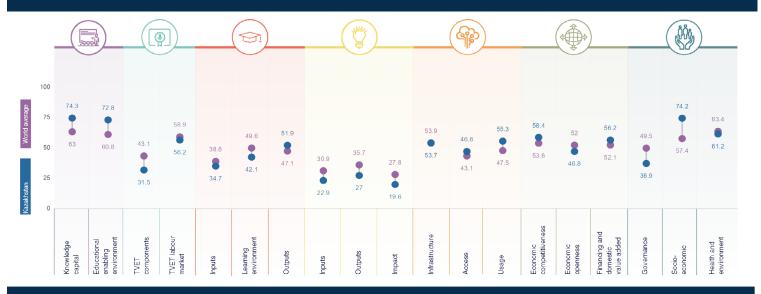
Population: 20,330,104

HDI: 0.802





GKI PILLARS





KAZAKHSTAN

DDE LINIVERSITY EDUCATION		Value
PRE-UNIVERSITY EDUCATION	42	73.5
Knowledge capital	50	74.3
Enrolment	26	96.3
Net enrolment rate in primary education	83	91.2
Net enrolment rate in lower secondary education	51	97.6
Net enrolment rate in upper secondary education	1	100
Completion	33	78.7
Years of compulsory education in primary and secondary	68	69.2
Completion rate in upper secondary education	2	100
Gross intake ratio to the last grade of lower secondary education	43	66.9
Outcomes	59	48
Assessment of 15-year-old students in math, science and reading	52	30.7
Learning-adjusted years of schooling	52	65.3
Educational enabling environment	39	72.8
Expenditure	111	19.8
Government expenditure on primary education (% GDP)	122	0
Government expenditure on secondary education (% GDP)	38	39
Government funding per primary student (% GDP per capita)	116	0
Government funding per secondary student (% GDP per capita)	45	40.2
Resources	19	98.4
Pupil-trained teacher ratio in primary education	15	96.2
Pupil-trained teacher ratio in secondary education	11	97.2
Schools with access to computers in primary education (%)	1	100
Schools with access to computers in secondary education (%)	1	100
Early learning	24	77.5
Gross enrolment ratio in early childhood education	68	44.2
Proportion of children who are developmentally on track	12	79.8
Proportion of children with stimulating home learning environments	8	87.1
Pupil-trained teacher ratio in pre-primary education	3	98.8
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Equity and inclusiveness	18	95.5
	18	
Equity and inclusiveness Completion rate in upper secondary education, gender parity Completion rate in upper secondary education, wealth parity	17	97.8
Completion rate in upper secondary education, gender parity Completion rate in upper secondary education, wealth parity	17 6	97.8 89.7
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Susiness development 49 42.7 New business density per thousand population 46 14.3	Joint ventures per strategic alliance deals (per billion GDP)	101	2
New business density per thousand population 46 14.3	Computer software spending (% GDP)	123	1
	Business development	49	42.7
Firms with products and services new to the market (%) 34 71.2	New business density per thousand population	46	14.3
	Firms with products and services new to the market (%)	34	71.2



KAZAKHSTAN

INFORMATION AND COMMUNICATIONS TESTINGS OF		k Valu
INFORMATION AND COMMUNICATIONS TECHNOLOGY	62	51.9
Infrastructure	73	53.7
Coverage	97	52.1
3G/4G mobile network coverage (% population)	99	88.3
Secure Internet servers per 1 million population	54	64
Investment in telecommunication services (% GDP) Quality	131 76	3.9
Mobile upload and download speeds	58	16.3
Fixed-broadband upload and download speeds	67	22.9
Fixed-broadband subscriptions by speed per hundred people	80	23.4
Affordability	46	88.1
Fixed broadband basket (% GNI per capita)	35	77.5
Mobile broadband basket (% GNI per capita)	67	94.1
Internet and telephony competition	89	92.9
Access	62	46.8
	42	68.5
Subscriptions Active makile breadband subscriptions has bundred inhabitants	59	49.1
Active mobile-broadband subscriptions per hundred inhabitants	59	59.7
International Internet bandwidth per user		
Households with Internet access at home (%)	14	96.8
Skills and employment	70	25.1
Individuals with standard ICT skills (%)	48	30.4
Tertiary graduates from ICT programmes (%)	94	19.8
ICT employment (%)	n/a	n/a
Usage	48	55.3
Services	26	66.2
Government online services	9	93.9
Fixed broadband Internet traffic per subscription	58	27.4
Mobile broadband Internet traffic per subscription	11	51.4
Internet users (%)	29	92.1
Outcomes	68	44.4
ICT PCT patent applications (per 100 billion GDP)	84	35.5
E-participation		
	25	84.9
Internet activities by individuals (%)	70	25.4
Internet activities by individuals (%) Trade in digitally deliverable services (% total trade)	70 75	25.4 31.9
Internet activities by individuals (%) Trade in digitally deliverable services (% total trade) ECONOMY	70 75 60	25.4 31.9 53.8
Internet activities by individuals (%) Trade in digitally deliverable services (% total trade) ECONOMY Economic competitiveness	70 75 60 51	25.4 31.9 53.8 58.4
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Internet activities by individuals (%) Trade in digitally deliverable services (% total trade) ECONOMY Economic competitiveness Infrastructure investment Gross fixed capital formation (% GDP)	70 75 60 51 51 82	25.4 31.9 53.8 58.4 54.7 37.3
Internet activities by individuals (%) Trade in digitally deliverable services (% total trade) ECONOMY Economic competitiveness Infrastructure investment Gross fixed capital formation (% GDP) Logistics performance	70 75 60 51 51 82 79	25.4 31.9 53.8 58.4 54.7 37.3 42.5
Internet activities by individuals (%) Trade in digitally deliverable services (% total trade) ECONOMY Economic competitiveness Infrastructure investment Gross fixed capital formation (% GDP) Logistics performance Transport productive capacity	70 75 60 51 51 82 79 41	25.4 31.9 53.8 58.4 54.7 37.3 42.5 52.4
Internet activities by individuals (%) Trade in digitally deliverable services (% total trade) ECONOMY Economic competitiveness Infrastructure investment Gross fixed capital formation (% GDP) Logistics performance Transport productive capacity Building quality control	70 75 60 51 51 82 79 41 24	25.4 31.9 53.8 58.4 54.7 37.3 42.5 52.4 86.7
Internet activities by individuals (%) Trade in digitally deliverable services (% total trade) ECONOMY Economic competitiveness Infrastructure investment Gross fixed capital formation (% GDP) Logistics performance Transport productive capacity Building quality control Business agility	70 75 60 51 51 82 79 41 24	25.4 31.9 53.8 58.4 54.7 37.3 42.5 52.4 86.7 62.1
Internet activities by individuals (%) Trade in digitally deliverable services (% total trade) ECONOMY ECONOMY ECONOMIC competitiveness Infrastructure investment Gross fixed capital formation (% GDP) Logistics performance Transport productive capacity Building quality control Business agility Ease of starting a business	70 75 60 51 51 82 79 41 24 52	25.4 31.9 53.8 58.4 54.7 37.3 42.5 52.4 86.7 62.1 94.4
Internet activities by individuals (%) Trade in digitally deliverable services (% total trade) ECONOMY ECONOMY ECONOMIC competitiveness Infrastructure investment Gross fixed capital formation (% GDP) Logistics performance Transport productive capacity Building quality control Business agility Ease of starting a business Insolvency recovery rate	70 75 60 51 51 82 79 41 24 52 19	25.4 31.9 53.8 58.4 54.7 37.3 42.5 52.4 86.7 62.1 94.4 43.3
Internet activities by individuals (%) Trade in digitally deliverable services (% total trade) ECONOMY ECONOMY ECONOMIC competitiveness Infrastructure investment Gross fixed capital formation (% GDP) Logistics performance Transport productive capacity Building quality control Business agility Ease of starting a business Insolvency recovery rate Entrepreneurial employee activity rate	70 75 60 51 51 82 79 41 24 52 19 62	25.4 31.9 53.8 58.4 54.7 37.3 42.5 52.4 86.7 62.1 94.4 43.3 24.8
Internet activities by individuals (%) Trade in digitally deliverable services (% total trade) ECONOMY ECONOMY ECONOMIC competitiveness Infrastructure investment Gross fixed capital formation (% GDP) Logistics performance Transport productive capacity Building quality control Business agility Ease of starting a business Insolvency recovery rate Entrepreneurial employee activity rate	70 75 60 51 51 82 79 41 24 52 19	25.4 31.9 53.8 58.4 54.7 37.3 42.5 52.4 86.7 62.1 94.4 43.3 24.8 85.7
Internet activities by individuals (%) Trade in digitally deliverable services (% total trade) ECONOMY ECONOMY ECONOMIC Competitiveness Infrastructure investment Gross fixed capital formation (% GDP) Logistics performance Transport productive capacity Building quality control Business agility Ease of starting a business Insolvency recovery rate Entrepreneurial employee activity rate Extent of corporate transparency	70 75 60 51 51 82 79 41 24 52 19 62	25.4 31.9 53.8 58.4 54.7 37.3 42.5 52.4 86.7 62.1 94.4 43.3 24.8
Internet activities by individuals (%) Trade in digitally deliverable services (% total trade) ECONOMY ECONOMIC ECONOMIC	70 75 60 51 51 82 79 41 24 52 19 62 37	25.4 31.9 53.8 58.4 54.7 37.3 42.5 52.4 86.7 62.1 94.4 43.3 24.8 85.7
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Internet activities by individuals (%) Trade in digitally deliverable services (% total trade) ECONOMY ECONOMIC COMPETITION ECONOMIC COMPETITION Infrastructure investment Gross fixed capital formation (% GDP) Logistics performance Transport productive capacity Building quality control Business agility Ease of starting a business Insolvency recovery rate Entrepreneurial employee activity rate Extent of corporate transparency ECONOMIC OPENNESS Trade and diversification Trade (% GDP)	70 75 60 51 51 82 79 41 24 52 19 62 37 12 84	25.4 31.9 53.8 58.4 54.7 37.3 42.5 52.4 86.7 62.1 94.4 43.3 24.8 85.7 46.8
Internet activities by individuals (%) Trade in digitally deliverable services (% total trade) ECONOMY ECONOMIC ECONOMIC	70 75 60 51 51 82 79 41 24 52 19 62 37 12 84 94	25.4 31.9 53.8 58.4 54.7 37.3 42.5 52.4 86.7 62.1 94.4 43.3 24.8 85.7 46.8 46.4
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Internet activities by individuals (%) Trade in digitally deliverable services (% total trade) ECONOMY Economic competitiveness Infrastructure investment Gross fixed capital formation (% GDP) Logistics performance Transport productive capacity Building quality control Business agility Ease of starting a business Insolvency recovery rate Entrepreneurial employee activity rate Extent of corporate transparency Economic openness Trade and diversification Trade (% GDP) High-technology trade (% total trade) Product concentration Market concentration	70 75 60 51 51 82 79 41 24 52 19 62 37 12 84 94 88 32	25.4 31.9 53.8 58.4 54.7 37.3 42.5 52.4 86.7 62.1 94.4 43.3 24.8 85.7 46.8 46.4 11.4 29.8 48.6
Internet activities by individuals (%) Trade in digitally deliverable services (% total trade) ECONOMY Economic competitiveness Infrastructure investment Gross fixed capital formation (% GDP) Logistics performance Transport productive capacity Building quality control Business agility Ease of starting a business Insolvency recovery rate Entrepreneurial employee activity rate Extent of corporate transparency Economic openness Trade and diversification Trade (% GDP) High-technology trade (% total trade) Product concentration Market concentration Financial openness	70 75 60 51 51 82 79 41 24 52 19 62 37 12 84 94 88 32 127 42	25.4 31.9 53.8 58.4 54.7 37.3 42.5 52.4 86.7 62.1 94.4 43.3 24.8 85.7 46.8 46.4 11.4 29.8 48.6 92.7
Internet activities by individuals (%) Trade in digitally deliverable services (% total trade) ECONOMY Economic competitiveness Infrastructure investment Gross fixed capital formation (% GDP) Logistics performance Transport productive capacity Building quality control Business agility Ease of starting a business Insolvency recovery rate Entrepreneurial employee activity rate Extent of corporate transparency Economic openness Trade and diversification Trade (% GDP) High-technology trade (% total trade) Product concentration Market concentration Financial openness Chinn-Ito financial openness Chinn-Ito financial openness	70 75 60 51 51 82 79 41 24 52 19 62 37 12 84 94 88 32 127 42 78	25.4 31.9 53.8 58.4 54.7 37.3 42.5 52.4 86.7 62.1 94.4 43.3 24.8 85.7 46.8 46.4 11.4 29.8 48.6 92.7 47.3
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Internet activities by individuals (%) Trade in digitally deliverable services (% total trade) ECONOMY Economic competitiveness Infrastructure investment Gross fixed capital formation (% GDP) Logistics performance Transport productive capacity Building quality control Business agility Ease of starting a business Insolvency recovery rate Entrepreneurial employee activity rate Extent of corporate transparency Economic openness Trade and diversification Trade (% GDP) High-technology trade (% total trade) Product concentration Market concentration Financial openness Chinn-Ito financial openness Foreign direct investment, net inflows (% GDP) Debt dynamics	70 75 60 51 51 82 79 41 24 52 19 62 37 12 84 94 88 32 127 42 78 87 81	25.4 31.9 53.8 58.4 54.7 37.3 42.5 52.4 86.7 62.1 94.4 43.3 24.8 85.7 46.8 48.6 92.7 47.3 22.3 39.6
Internet activities by individuals (%) Trade in digitally deliverable services (% total trade) ECONOMY Economic competitiveness Infrastructure investment Gross fixed capital formation (% GDP) Logistics performance Transport productive capacity Building quality control Business agility Ease of starting a business Insolvency recovery rate Entrepreneurial employee activity rate Extent of corporate transparency Economic openness Trade and diversification Trade (% GDP) High-technology trade (% total trade) Product concentration Market concentration Market concentration Financial openness Crinin-Ito financial openness Foreign direct investment, net inflows (% GDP) Debt dynamics Financing and domestic value added	70 75 60 51 51 82 79 41 24 52 19 62 37 12 84 94 88 32 127 42 78 87 81	25.4 31.9 53.8 58.4 54.7 37.3 42.5 52.4 86.7 62.1 94.4 43.3 24.8 85.7 46.8 46.4 41.4 42.9 48.6 92.7 47.3 39.6 80
Internet activities by individuals (%) Trade in digitally deliverable services (% total trade) ECONOMY ECONOMY ECONOMY ECONOMY ECONOMY ECONOMIC competitiveness Infrastructure investment Gross fixed capital formation (% GDP) Logistics performance Transport productive capacity Building quality control Business agility Ease of starting a business Insolvency recovery rate Entrepreneurial employee activity rate Extent of corporate transparency Economic openness Trade and diversification Trade (% GDP) High-technology trade (% total trade) Product concentration Market concentration Market concentration Financial openness Chinn-Ito financial openness Foreign direct investment, net inflows (% GDP) Debt dynamics Financing and domestic value added Financing and taxes	70 75 60 51 51 82 79 41 24 52 19 62 37 12 84 94 88 32 127 42 78 81 36 55	25.4 31.9 53.8 58.4 54.7 37.3 42.5 52.4 86.7 62.1 94.4 43.3 24.8 85.7 46.8 46.4 14.4 29.8 48.6 92.7 47.3 22.3 39.6 80 56.2
Internet activities by individuals (%) Trade in digitally deliverable services (% total trade) ECONOMY ECONOMY ECONOMY ECONOMY ECONOMY ECONOMIC competitiveness Infrastructure investment Gross fixed capital formation (% GDP) Logistics performance Transport productive capacity Building quality control Business agility Ease of starting a business Insolvency recovery rate Entrepreneurial employee activity rate Extent of corporate transparency Economic openness Trade and diversification Trade (% GDP) High-technology trade (% total trade) Product concentration Market concentration Market concentration Financial openness Chinn-Ito financial openness Foreign direct investment, net inflows (% GDP) Debt dynamics Financing and domestic value added Financing and taxes Domestic credit to private sector (% GDP)	70 75 60 51 51 82 79 41 24 52 19 62 37 12 84 94 88 32 127 42 78 81 36 55 64	25.4 31.9 53.8 58.4 54.7 37.3 42.5 52.4 86.7 62.1 94.4 43.3 24.8 85.7 46.8 48.6 49.2 7 47.3 22.3 39.6 80 56.2 60.2
Internet activities by individuals (%) Trade in digitally deliverable services (% total trade) ECONOMY ECONOMY ECONOMY ECONOMY ECONOMY ECONOMIC competitiveness Infrastructure investment Gross fixed capital formation (% GDP) Logistics performance Transport productive capacity Building quality control Business agility Ease of starting a business Insolvency recovery rate Entrepreneurial employee activity rate Extent of corporate transparency ECONOMIC openness Trade and diversification Trade (% GDP) High-technology trade (% total trade) Product concentration Market concentration Market concentration Financial openness Chinn-Ito financial openness Foreign direct investment, net inflows (% GDP) Debt dynamics Financing and domestic value added Financing and taxes Domestic credit to private sector (% GDP) MSME financing gap (% GDP)	70 75 60 51 51 82 79 41 24 52 19 62 37 12 84 94 88 32 127 42 78 81 36 55 64 105	25.4 31.9 53.8 58.4 54.7 37.3 42.5 52.4 86.7 62.1 94.4 43.3 24.8 85.7 46.8 48.6 92.7 47.3 22.3 39.6 80 56.2 60.2 10.5
Internet activities by individuals (%) Trade in digitally deliverable services (% total trade) ECONOMY ECONOMY ECONOMY ECONOMY ECONOMY ECONOMIC competitiveness Infrastructure investment Gross fixed capital formation (% GDP) Logistics performance Transport productive capacity Building quality control Business agility Ease of starting a business Insolvency recovery rate Entrepreneurial employee activity rate Extent of corporate transparency ECONOMIC openness Trade and diversification Trade (% GDP) High-technology trade (% total trade) Product concentration Market concentration Market concentration Financial openness Chinn-Ito financial openness Foreign direct investment, net inflows (% GDP) Debt dynamics Financing and domestic value added Financing and taxes Domestic credit to private sector (% GDP) MSME financing gap (% GDP) Tax and contribution rate (% profit)	70 75 60 51 51 82 79 41 24 52 19 62 37 12 84 94 88 32 127 42 78 81 36 55 64 105 79	25.4 31.9 53.8 58.4 54.7 37.3 42.5 52.4 86.7 62.1 94.4 43.3 24.8 85.7 46.8 46.4 14.4 29.8 48.6 92.7 47.3 39.6 80 56.2 60.2 10.5 70
Internet activities by individuals (%) Trade in digitally deliverable services (% total trade) ECONOMY ECONOMY ECONOMY ECONOMY ECONOMY ECONOMIC competitiveness Infrastructure investment Gross fixed capital formation (% GDP) Logistics performance Transport productive capacity Building quality control Business agility Ease of starting a business Insolvency recovery rate Entrepreneurial employee activity rate Extent of corporate transparency ECONOMIC openness Trade and diversification Trade (% GDP) High-technology trade (% total trade) Product concentration Market concentration Market concentration Financial openness Chinn-Ito financial openness Foreign direct investment, net inflows (% GDP) Debt dynamics Financing and domestic value added Financing and taxes Domestic credit to private sector (% GDP) MSME financing gap (% GDP) Tax and contribution rate (% profit) Bank non-performing loans (%)	70 75 60 51 51 82 79 41 24 52 19 62 37 12 84 94 88 32 127 42 78 81 36 55 64 105 79 34	25.4 31.9 53.8 58.4 54.7 37.3 42.5 52.4 86.7 62.1 94.4 43.3 24.8 85.7 46.8 46.4 14.4 29.8 48.6 92.7 47.3 39.6 80 80 60.2 10.5 70 70 73.2
Internet activities by individuals (%) Trade in digitally deliverable services (% total trade) ECONOMY ECONOMY ECONOMY ECONOMY ECONOMY ECONOMIC competitiveness Infrastructure investment Gross fixed capital formation (% GDP) Logistics performance Transport productive capacity Building quality control Business agility Ease of starting a business Insolvency recovery rate Entrepreneurial employee activity rate Extent of corporate transparency ECONOMIC openness Trade and diversification Trade (% GDP) High-technology trade (% total trade) Product concentration Market concentration Market concentration Financial openness Chinn-Ito financial openness Foreign direct investment, net inflows (% GDP) Debt dynamics Financing and domestic value added Financing and taxes Domestic credit to private sector (% GDP) MSME financing gap (% GDP) Tax and contribution rate (% profit) Bank non-performing loans (%) Domestic value added	70 75 60 51 51 82 79 41 24 52 19 62 37 12 84 94 88 32 127 42 78 87 81 36 55 64 105 79 34 56	25.4 31.9 53.8 58.4 54.7 37.3 42.5 52.4 86.7 62.1 94.4 43.3 24.8 85.7 46.8 46.4 14.4 29.8 48.6 92.7 47.3 39.6 80 60.2 10.5 70 73.2 87
Internet activities by individuals (%) Trade in digitally deliverable services (% total trade) ECONOMY Economic competitiveness Infrastructure investment Gross fixed capital formation (% GDP)	70 75 60 51 51 82 79 41 24 52 19 62 37 12 84 94 88 32 127 42 78 87 81 36 55 64 105 79 34 56 50	25.4 31.9 53.8 58.4 54.7 37.3 42.5 52.4 86.7 62.1 94.4 43.3 24.8 85.7 46.8 46.4 14.4 29.8 48.6 92.7 47.3 39.6 80 00.2 10.5 70 73.2 87 52.3
Internet activities by individuals (%) Trade in digitally deliverable services (% total trade) ECONOMY ECONOMY ECONOMY ECONOMY ECONOMIC competitiveness Infrastructure investment Gross fixed capital formation (% GDP) Logistics performance Transport productive capacity Building quality control Business agility Ease of starting a business Insolvency recovery rate Entrepreneurial employee activity rate Extent of corporate transparency Economic openness Trade and diversification Trade (% GDP) High-technology trade (% total trade) Product concentration Market concentration Market concentration Financial openness Chinn-Ito financial openness Foreign direct investment, net inflows (% GDP) Debt dynamics Financing and domestic value added Financing and taxes Domestic credit to private sector (% GDP) MSME financing agp (% GDP) Tax and contribution rate (% profit) Bank non-performing loans (%) Domestic value added Medium- and high-tech activities value added	70 75 60 51 51 82 79 41 24 52 19 62 37 12 84 94 88 32 127 42 78 87 81 36 55 64 105 79 34 56 50 83	25.4 31.9 53.8 58.4 54.7 37.3 42.5 52.4 86.7 62.1 94.4 43.3 24.8 85.7 46.8 46.4 14.4 29.8 48.6 92.7 47.3 39.6 80 56.2 60.2 10.5 70 73.2 87 52.3 18.7

	Rank	Rank Value	
ENABLING ENVIRONMENT	62	57.4	
Governance	90	36.9	
Political environment	110	26.2	
Peace and stability	91	32.5	
Voice and accountability	119	19.8	
Quality of institutions	70	47.6	
Rule of law	93	35.8	
Control of corruption	68	48.6	
Government effectiveness	59	58.5	
Socio-economic	19	74.2	
Gender equity	73	68.8	
Female-to-male ratio in parliament	104	24.1	
Female-to-male labour force participation	43	84.7	
Female-to-male ratio in Internet usage	72	97.5	
Social inclusion	13	94.7	
Social protection coverage (% population)	27	94.2	
Adult literacy rate	11	99.7	
Youth not in employment, education or training (%)	16	90.2	
Standard of living	16	59.1	
Poverty headcount ratio (% population)	6	92	
GDP per capita	47	26.3	
Health and environment	94	61.2	
Health	64	77.3	
Universal health coverage	38	80.3	
Healthy life expectancy (years)	87	58.3	
Under-five mortality rate	60	93.2	
Environmental performance	121	45.1	
Renewable energy consumption (%)	130	2.1	
Ecological footprint per capita	87	73.2	
Natural hazard exposure	79	60	

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