



GKI RANK 56 /133

GKI SCORE 48.1

WORLD AVERAGE 47.5

COUNTRY PERFORMANCE SUMMARY

Bahrain is a moderate performer in terms of its knowledge infrastructure. It ranks 56th out of 133 countries in the Global Knowledge Index 2023 and 53rd out of the 61 countries with very high human development.

BAHRAIN

KEY INDICATORS

GDP (US\$ billions): 76.342

Population: 1,463,266

HDI: 0.875

AREAS OF STRENGTH

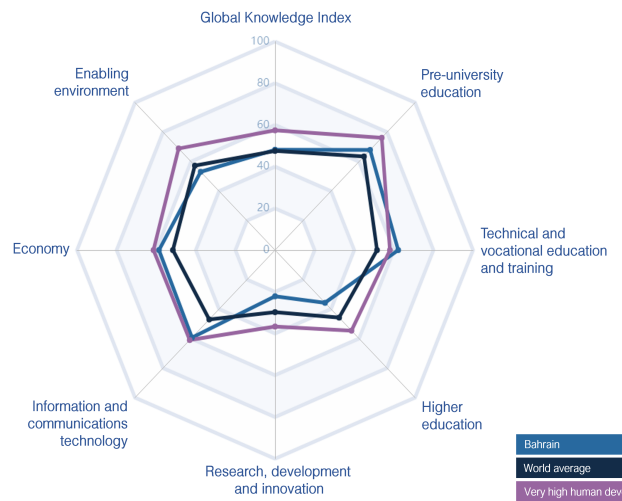
- + Vulnerable employment rate
- + Trade in digitally deliverable services (% total trade)
- + Households with Internet access at home (%)
- + Researchers in higher education (%)
- + Natural hazard exposure

AREAS OF IMPROVEMENT

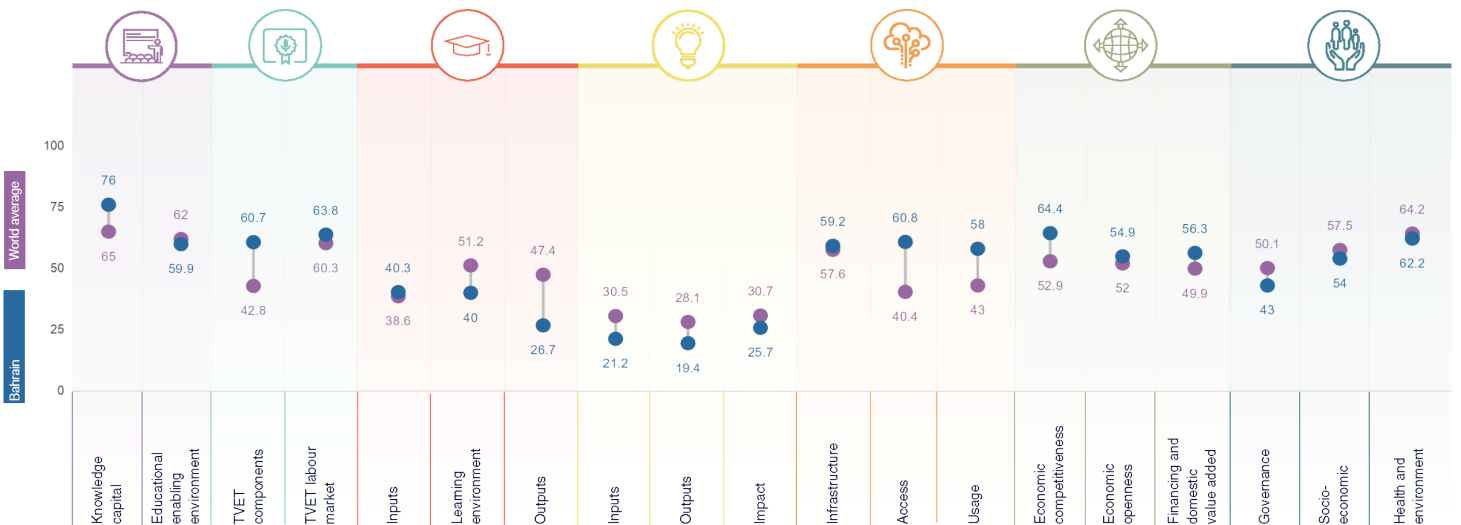
- Renewable energy consumption (%)
- Enrolment in vocational education, gender parity
- Academic freedom
- Researchers in business enterprises (%)
- Ecological footprint per capita

SECTORAL INDICES

	RANK	VALUE
PRE-UNIVERSITY EDUCATION	68	67.9
TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING	21	62.2
HIGHER EDUCATION	102	35.7
RESEARCH, DEVELOPMENT AND INNOVATION	101	22.1
INFORMATION AND COMMUNICATIONS TECHNOLOGY	33	59.3
ECONOMY	40	58.6
ENABLING ENVIRONMENT	75	53.1



GKI PILLARS



	Rank Value			Rank Value	
PRE-UNIVERSITY EDUCATION	68	67.9	HIGHER EDUCATION	102	35.7
Knowledge capital	51	76	Inputs	65	40.3
Enrolment	52	91.5	Expenditure	71	22.6
Net enrolment rate in primary education	92	81.6	Government expenditure per tertiary student	31	22.6
Net enrolment rate in lower secondary education	57	95.6	Teaching staff compensation (% tertiary expenditure)	n/a	n/a
Net enrolment rate in upper secondary education	11	97.4	Enrolment	53	26.4
Completion	72	70.8	Enrolment in bachelor's or equivalent level (%)	16	42.6
Years of compulsory education in primary and secondary	66	69.2	Enrolment in master's, doctoral or equivalent (%)	75	10.2
Completion rate in upper secondary education	n/a	n/a	Resources	34	71.8
Gross intake ratio to the last grade of lower secondary education	30	72.4	Pupil-teacher ratio in tertiary education	95	50.9
Outcomes	40	65.5	Researchers in higher education (%)	3	92.6
Assessment of 15-year-old students in math, science and reading	n/a	n/a	Learning environment	101	40
Learning-adjusted years of schooling	47	65.5	Diversity and academic freedom	93	40
Educational enabling environment	84	59.9	Teachers in tertiary education, gender parity	44	78
Expenditure	95	23.6	Inbound mobility rate	24	37
Government expenditure on primary education (% GDP)	100	19.9	Academic freedom	130	5.1
Government expenditure on secondary education (% GDP)	90	19.5	Equity and inclusiveness	n/a	n/a
Government funding per primary student (% GDP per capita)	85	28.7	Gross attendance ratio for tertiary education, gender parity	n/a	n/a
Government funding per secondary student (% GDP per capita)	66	26.3	Gross attendance ratio for tertiary education, wealth parity	n/a	n/a
Resources	28	96.9	Gross attendance ratio for tertiary education, location parity	n/a	n/a
Pupil-trained teacher ratio in primary education	13	93.5	Outputs	129	26.7
Pupil-trained teacher ratio in secondary education	23	94.1	Attainment	55	21.7
Schools with access to computers in primary education (%)	1	100	Educational attainment rate, bachelor's or equivalent	38	48.5
Schools with access to computers in secondary education (%)	1	100	Educational attainment rate, master's or equivalent	60	7.7
Early learning	72	59.3	Educational attainment rate, doctoral or equivalent	51	8.9
Gross enrolment ratio in early childhood education	97	23.6	Employment	n/a	n/a
Proportion of children who are developmentally on track	n/a	n/a	Labour force participation rate with advanced education	n/a	n/a
Proportion of children with stimulating home learning environments	n/a	n/a	Unemployment rate with advanced education	n/a	n/a
Pupil-trained teacher ratio in pre-primary education	14	94.9	Impact	87	31.8
Equity and inclusiveness	n/a	n/a	University-industry collaboration in R&D	75	43.8
Completion rate in upper secondary education, gender parity	n/a	n/a	Citable documents per R&D personnel in higher education	55	19.8
Completion rate in upper secondary education, wealth parity	n/a	n/a	RESEARCH, DEVELOPMENT AND INNOVATION	101	22.1
Completion rate in upper secondary education, location parity	n/a	n/a	Inputs	95	21.2
TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING	21	62.2	Inputs of R&D institutions	107	15.4
TVET components	10	60.7	GERD (% GDP)	106	1.7
Continuous training and skilling	n/a	n/a	GERD per researcher	60	15.1
Firms offering formal training (%)	n/a	n/a	Researchers per thousand labour force	79	4
Labour force participation rate with short-cycle tertiary education	n/a	n/a	Tertiary graduates from STEM programmes (%)	95	40.7
Participation rate in formal and non-formal education and training	n/a	n/a	Inputs of RDI in business enterprises	109	9.2
TVET structure	40	54.8	GERD performed by business enterprises (%)	77	0.5
Government expenditure on vocational education (%)	n/a	n/a	GERD financed by business enterprises (%)	62	26.9
Share of students enrolled in secondary vocational programmes	83	9.6	Researchers in business enterprises (%)	79	0.1
Share of students enrolled in post-secondary vocational programmes	1	100	Firms that spend on R&D (%)	n/a	n/a
TVET quality and qualifications	7	66.5	Inputs of societal innovation	26	45
Extent of staff training	15	69.9	High-skilled employment (%)	62	31.1
Quality of vocational training	30	63	Intellectual property payments (% total trade)	n/a	n/a
Ratio of high-skill TVET occupations earnings to average wage	n/a	n/a	State of cluster development	31	59
Ratio of medium-skill TVET occupations earnings to average wage	n/a	n/a	Outputs	104	19.4
TVET labour market	63	63.8	Outputs of R&D institutions	90	27.9
Efficiency of the labour market	2	96.5	Average documents per researcher	24	29.7
Firms constrained with inadequately educated workforce (%)	n/a	n/a	Citations per document	43	38.2
Employment educational mismatch (%)	n/a	n/a	Resident patent applications (per 100 billion GDP)	122	15.7
Proportion of skilled production workers	n/a	n/a	Outputs of RDI in business enterprises	126	1.1
Unemployment rate with vocational education	7	96.5	Intellectual property receipts (% total trade)	n/a	n/a
Post-TVET employment	96	37	Industrial design applications (per 100 billion GDP)	116	0.2
Share of TVET occupations	110	30.6	PCT applications (per 100 billion GDP)	67	1.9
Manufacturing employment (%)	54	43.4	Firms producing new products and services (%)	n/a	n/a
Equity and inclusiveness	97	57.9	Outputs of societal innovation	58	20.8
Enrolment in vocational education, gender parity	114	17	Trademark applications (per 100 billion GDP)	116	3.3
Vulnerable employment rate	2	98.9	Cultural goods exports (% exports)	22	33.2
			Printing and publishing output (% manufactured output)	27	25.8
			Impact	89	25.7
			Quality	61	33.5
			Research institutions prominence	84	42.6
			Growth of innovative companies	32	56.4
			ISO 9001 quality certificates (per billion GDP)	40	17
			ISO 14001 environmental certificates (per billion GDP)	44	18.2
			Linkages	32	30.9
			GERD financed from abroad (%)	36	23.7
			Joint ventures per strategic alliance deals (per billion GDP)	16	40.9
			Computer software spending (% GDP)	42	28
			Business development	119	12.7
			New business density per thousand population	43	12.7
			Firms with products and services new to the market (%)	n/a	n/a

	Rank	Value		Rank	Value
INFORMATION AND COMMUNICATIONS TECHNOLOGY			ENABLING ENVIRONMENT		
Infrastructure	64	59.2	Governance	73	43
Coverage	59	63.9	Political environment	113	20.4
3G/4G mobile network coverage (% population)	1	100	Peace and stability	88	30.7
Secure Internet servers per 1 million population	77	48.8	Voice and accountability	124	10.1
Investment in telecommunication services (% GDP)	38	42.9	Quality of institutions	43	65.6
Quality	64	24.6	Rule of law	52	59.4
Mobile upload and download speeds	15	36.2	Control of corruption	40	72.2
Fixed-broadband upload and download speeds	55	14.4	Government effectiveness	44	65.1
Fixed-broadband subscriptions by speed per hundred people	74	23.2	Socio-economic	79	54
Affordability	72	89.1	Gender equity	101	58.8
Fixed broadband basket (% GNI per capita)	75	81.9	Female-to-male ratio in parliament	92	25
Mobile broadband basket (% GNI per capita)	60	93.7	Female-to-male labour force participation	117	51.5
Internet and telephony competition	90	91.7	Female-to-male ratio in Internet usage	1	100
Access	13	60.8	Social inclusion	81	58.7
Subscriptions	4	79.3	Social protection coverage (% population)	49	61.3
Active mobile-broadband subscriptions per hundred inhabitants	8	66.4	Adult literacy rate	n/a	n/a
International Internet bandwidth per user	7	71.4	Youth not in employment, education or training (%)	81	56.2
Households with Internet access at home (%)	1	100	Standard of living	57	44.5
Skills and employment	31	42.3	Poverty headcount ratio (% population)	n/a	n/a
Individuals with standard ICT skills (%)	17	61.1	GDP per capita	18	44.5
Tertiary graduates from ICT programmes (%)	79	23.6	Health and environment	84	62.2
ICT employment (%)	n/a	n/a	Health	55	81.8
Usage	28	58	Universal health coverage	54	76
Services	13	70.9	Healthy life expectancy (years)	64	73.8
Government online services	52	75.2	Under-five mortality rate	51	95.7
Fixed broadband Internet traffic per subscription	12	49.5	Environmental performance	115	42.6
Mobile broadband Internet traffic per subscription	8	59.1	Renewable energy consumption (%)	133	0
Internet users (%)	1	100	Ecological footprint per capita	126	35.9
Outcomes	38	45.1	Natural hazard exposure	3	92
ICT PCT patent applications (per 100 billion GDP)	84	1.3			
E-participation	85	44.3			
Internet activities by individuals (%)	46	48.6			
Trade in digitally deliverable services (% total trade)	3	86.2			
ECONOMY	40	58.6			
Economic competitiveness	26	64.4			
Infrastructure investment	13	65			
Gross fixed capital formation (% GDP)	47	27.9			
Logistics performance	31	62.5			
Transport productive capacity	6	89.5			
Building quality control	45	80			
Business agility	50	63.9			
Ease of starting a business	58	89.6			
Insolvency recovery rate	51	44.9			
Entrepreneurial employee activity rate	n/a	n/a			
Extent of corporate transparency	76	57.1			
Economic openness	61	54.9			
Trade and diversification	69	50.4			
Trade (% GDP)	19	37.4			
High-technology trade (% total trade)	124	7.4			
Product concentration	102	63.7			
Market concentration	34	93.1			
Financial openness	60	59.5			
Chinn-Ito financial openness	1	100			
Foreign direct investment, net inflows (% GDP)	33	38.4			
Debt dynamics	91	40			
Financing and domestic value added	36	56.3			
Financing and taxes	63	60.1			
Domestic credit to private sector (% GDP)	40	26			
MSME financing gap (% GDP)	n/a	n/a			
Tax and contribution rate (% profit)	7	94.1			
Bank non-performing loans (%)	n/a	n/a			
Domestic value added	34	52.6			
Medium- and high-tech activities value added	65	29.9			
Industry and services value added (% GDP)	8	68.3			
Labour underutilization rate	52	75.5			
Output per worker	28	36.9			

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