

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$	GDP per capita, PPP\$	GII 2019 rank
130	131	Low	NAWA	29.2	72.2	1,990.8	129
Score/Value				Score/Value			
Rank				Rank			
INSTITUTIONS.....				27.7	131	◇	
1.1	Political environment.....			0.0	131	◇	
1.1.1	Political and operational stability*.....			0.0	131	◇	
1.1.2	Government effectiveness*.....			0.0	131	◇	
1.2	Regulatory environment.....			31.1	126	◇	
1.2.1	Regulatory quality*.....			1.3	130	◇	
1.2.2	Rule of law*.....			0.0	131	◇	
1.2.3	Cost of redundancy dismissal, salary weeks.....			27.4	109	◇	
1.3	Business environment.....			51.9	124	◇	
1.3.1	Ease of starting a business*.....			76.8	115		
1.3.2	Ease of resolving insolvency*.....			26.9	125	◇	
HUMAN CAPITAL & RESEARCH.....				10.4	[125]		
2.1	Education.....			20.5	[126]		
2.1.1	Expenditure on education, % GDP.....			n/a	n/a		
2.1.2	Government funding/pupil, secondary, % GDP/cap.....			11.8	88		
2.1.3	School life expectancy, years.....			9.1	112		
2.1.4	PISA scales in reading, maths, & science.....			n/a	n/a		
2.1.5	Pupil-teacher ratio, secondary.....			26.8	111		
2.2	Tertiary education.....			10.7	113		
2.2.1	Tertiary enrolment, % gross.....			10.2	109		
2.2.2	Graduates in science & engineering, %.....			n/a	n/a		
2.2.3	Tertiary inbound mobility, %.....			4.3	55	●	
2.3	Research & development (R&D).....			0.0	[121]		
2.3.1	Researchers, FTE/mn pop.....			n/a	n/a		
2.3.2	Gross expenditure on R&D, % GDP.....			n/a	n/a		
2.3.3	Global R&D companies, avg. exp. top 3, mn \$US.....			0.0	42	◇	
2.3.4	QS university ranking, average score top 3*.....			0.0	77	◇	
INFRASTRUCTURE.....				17.1	129	◇	
3.1	Information & communication technologies (ICTs)....			14.7	131	◇	
3.1.1	ICT access*.....			25.5	127		
3.1.2	ICT use*.....			11.7	127		
3.1.3	Government's online service*.....			9.7	130	◇	
3.1.4	E-participation*.....			11.8	130	◇	
3.2	General infrastructure.....			2.4	130	◇	
3.2.1	Electricity output, kWh/mn pop.....			188.2	115		
3.2.2	Logistics performance*.....			9.2	120		
3.2.3	Gross capital formation, % GDP.....			7.9	125	◇	
3.3	Ecological sustainability.....			34.1	51	● ◆	
3.3.1	GDP/unit of energy use.....			20.0	5	● ◆	
3.3.2	Environmental performance*.....			n/a	n/a		
3.3.3	ISO 14001 environmental certificates/bn PPP\$ GDP.....			0.1	121		
MARKET SOPHISTICATION.....				25.5	129	◇	
4.1	Credit.....			0.2	131	◇	
4.1.1	Ease of getting credit*.....			0.0	131	◇	
4.1.2	Domestic credit to private sector, % GDP.....			5.6	128	◇	
4.1.3	Microfinance gross loans, % GDP.....			0.1	61		
4.2	Investment.....			26.0	[110]		
4.2.1	Ease of protecting minority investors*.....			26.0	125	◇	
4.2.2	Market capitalization, % GDP.....			n/a	n/a		
4.2.3	Venture capital deals/bn PPP\$ GDP.....			n/a	n/a		
4.3	Trade, competition, and market scale.....			50.1	115		
4.3.1	Applied tariff rate, weighted avg., %.....			5.0	94	● ◆	
4.3.2	Intensity of local competition*.....			50.4	126	◇	
4.3.3	Domestic market scale, bn PPP\$.....			72.2	93	●	
BUSINESS SOPHISTICATION.....				18.7	[104]		
5.1	Knowledge workers.....			11.7	[122]		
5.1.1	Knowledge-intensive employment, %.....			12.4	101		
5.1.2	Firms offering formal training, %.....			14.3	88	◇	
5.1.3	GERD performed by business, % GDP.....			n/a	n/a		
5.1.4	GERD financed by business, %.....			n/a	n/a		
5.1.5	Females employed w/advanced degrees, %.....			1.1	109		
5.2	Innovation linkages.....			15.9	[105]		
5.2.1	University/industry research collaboration*.....			17.7	126	◇	
5.2.2	State of cluster development*.....			30.8	120	◇	
5.2.3	GERD financed by abroad, % GDP.....			n/a	n/a		
5.2.4	JV-strategic alliance deals/bn PPP\$ GDP.....			n/a	n/a		
5.2.5	Patent families 2+ offices/bn PPP\$ GDP.....			0.0	101	◇	
5.3	Knowledge absorption.....			28.4	64	●	
5.3.1	Intellectual property payments, % total trade.....			1.6	19	● ◆	
5.3.2	High-tech imports, % total trade.....			6.3	88	●	
5.3.3	ICT services imports, % total trade.....			0.4	109		
5.3.4	FDI net inflows, % GDP.....			-1.3	126	◇	
5.3.5	Research talent, % in business enterprise.....			n/a	n/a		
KNOWLEDGE & TECHNOLOGY OUTPUTS....				6.7	128	◇	
6.1	Knowledge creation.....			3.8	116		
6.1.1	Patents by origin/bn PPP\$ GDP.....			0.2	96	●	
6.1.2	PCT patents by origin/bn PPP\$ GDP.....			n/a	n/a		
6.1.3	Utility models by origin/bn PPP\$ GDP.....			0.0	69		
6.1.4	Scientific & technical articles/bn PPP\$ GDP.....			4.3	96	●	
6.1.5	Citable documents H-index.....			3.3	121		
6.2	Knowledge impact.....			0.8	131	◇	
6.2.1	Growth rate of PPP\$ GDP/worker, %.....			-4.2	119	◇	
6.2.2	New businesses/th pop. 15-64.....			n/a	n/a		
6.2.3	Computer software spending, % GDP.....			0.0	106		
6.2.4	ISO 9001 quality certificates/bn PPP\$ GDP.....			0.2	129	◇	
6.2.5	High- and medium-high-tech manufacturing, %.....			1.2	107	◇	
6.3	Knowledge diffusion.....			15.5	91	●	
6.3.1	Intellectual property receipts, % total trade.....			0.1	66	●	
6.3.2	High-tech net exports, % total trade.....			0.1	118		
6.3.3	ICT services exports, % total trade.....			2.6	38	●	
6.3.4	FDI net outflows, % GDP.....			-1.3	129	◇	
CREATIVE OUTPUTS.....				7.8	124		
7.1	Intangible assets.....			13.6	117		
7.1.1	Trademarks by origin/bn PPP\$ GDP.....			58.2	35	● ◆	
7.1.2	Global brand value, top 5,000, % GDP.....			0.0	80	◇	
7.1.3	Industrial designs by origin/bn PPP\$ GDP.....			0.2	97		
7.1.4	ICTs & organizational model creation*.....			21.7	125	◇	
7.2	Creative goods and services.....			0.0	[131]		
7.2.1	Cultural & creative services exports, % total trade.....			n/a	n/a		
7.2.2	National feature films/mn pop. 15-69.....			n/a	n/a		
7.2.3	Entertainment & Media market/th pop. 15-69.....			0.0	63	◇	
7.2.4	Printing and other media, % manufacturing.....			n/a	n/a		
7.2.5	Creative goods exports, % total trade.....			0.0	130	◇	
7.3	Online creativity.....			4.1	114		
7.3.1	Generic top-level domains (TLDs)/th pop. 15-69.....			0.4	114		
7.3.2	Country-code TLDs/th pop. 15-69.....			0.0	128		
7.3.3	Wikipedia edits/mn pop. 15-69.....			20.2	107		
7.3.4	Mobile app creation/bn PPP\$ GDP.....			0.2	80		

NOTES: ● indicates a strength; ○ a weakness; ◆ an income group strength; ◇ an income group weakness; * an index; † a survey question. ⊕ indicates that the economy's data are older than the base year; see Appendix II for details, including the year of the data, at <http://globalinnovationindex.org>. Square brackets [] indicate that the data minimum coverage (DMC) requirements were not met at the sub-pillar or pillar level.