



# COSTA RICA

KEY INDICATORS

GDP (US\$ billions):

109.26

Population:

5,153,957

HDI:

0.809

GKI RANK

56 / 132

GKI SCORE

47.2

WORLD AVERAGE

46.5

COUNTRY PERFORMANCE SUMMARY

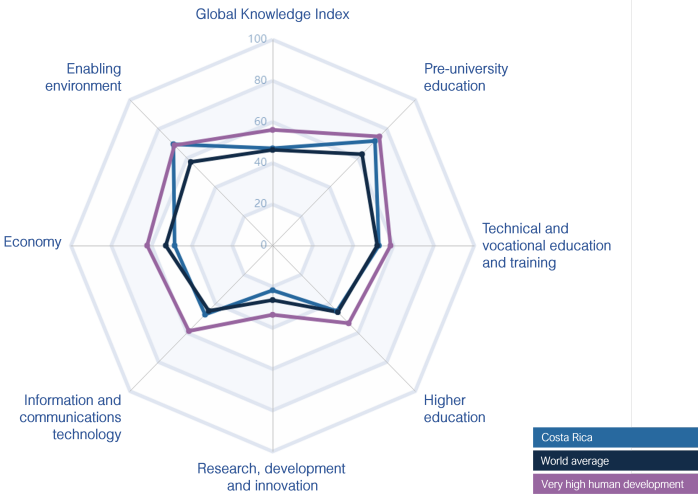
Costa Rica is a moderate performer in terms of its knowledge infrastructure. It ranks 56<sup>th</sup> out of 132 countries in the Global Knowledge Index 2022 and 53<sup>rd</sup> out of the 60 countries with very high human development.

- AREAS OF STRENGTH
- + Female-to-male ratio in parliament
  - + Net enrolment rate in primary education
  - + Firms that spend on R&D (%)
  - + Intellectual property payments (% total trade)
  - + Pupil-trained teacher ratio in primary education

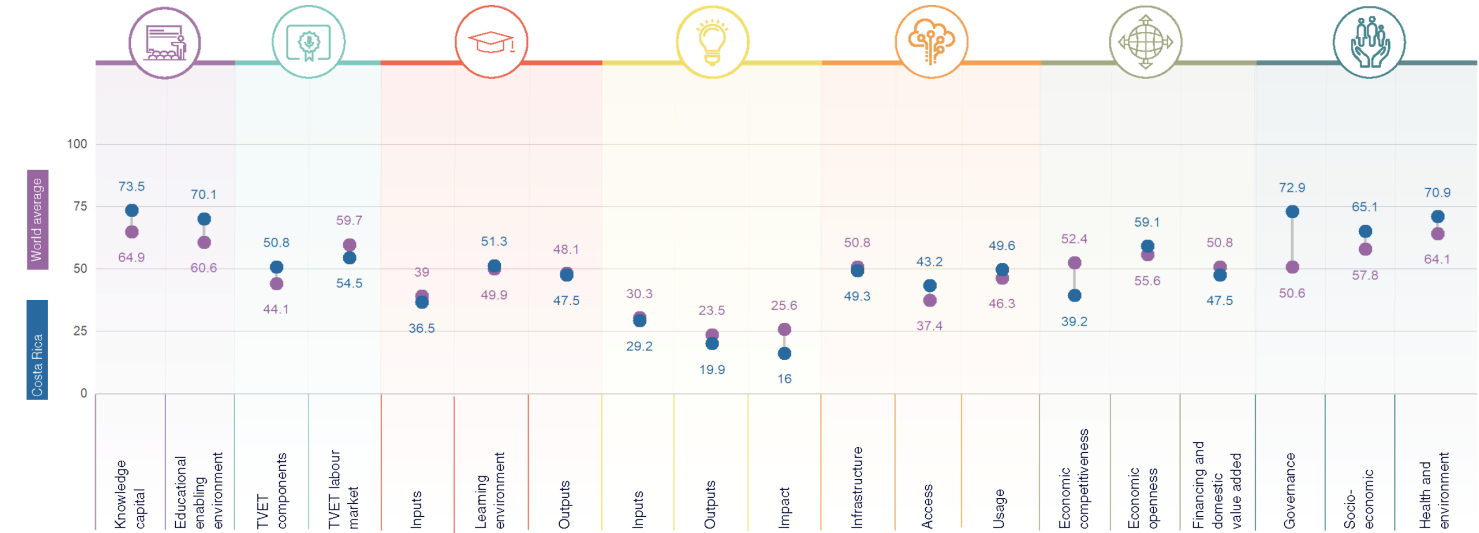
- AREAS OF IMPROVEMENT
- Proportion of skilled production workers
  - Unemployment rate with vocational education
  - Industrial design applications (per 100 billion GDP)
  - Firms with products and services new to the market (%)
  - Entrepreneurial employee activity rate

## SECTORAL INDICES

	RANK	VALUE
PRE-UNIVERSITY EDUCATION	49	71.8
TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING	66	52.7
HIGHER EDUCATION	64	45.1
RESEARCH, DEVELOPMENT AND INNOVATION	81	21.7
INFORMATION AND COMMUNICATIONS TECHNOLOGY	62	47.4
ECONOMY	79	48.6
ENABLING ENVIRONMENT	29	69.6



## GKI PILLARS





# COSTA RICA

		Rank	Value			Rank	Value
PRE-UNIVERSITY EDUCATION				HIGHER EDUCATION			
Knowledge capital		56	73.5	Inputs		83	36.5
Enrolment		36	95.14	Expenditure		82	16.26
Net enrolment rate in primary education		5	99.88	Government expenditure per tertiary student		40	16.26
Net enrolment rate in lower secondary education		69	94.66	Teaching staff compensation (% tertiary expenditure)		n/a	n/a
Net enrolment rate in upper secondary education		38	90.9	Enrolment		61	22.55
Completion		60	75.84	Enrolment in bachelor's or equivalent level (%)		30	36.1
Years of compulsory education in primary and secondary		28	84.62	Enrolment in master's, doctoral or equivalent (%)		77	9
Completion rate in upper secondary education		67	64.79	Resources		41	70.54
Gross intake ratio to the last grade of lower secondary education		23	78.1	Pupil-teacher ratio in tertiary education		n/a	n/a
Outcomes		64	49.49	Researchers in higher education (%)		26	70.54
Assessment of 15-year-old students in math, science and reading		56	36.29	Learning environment		58	51.3
Learning-adjusted years of schooling		53	62.68	Diversity and academic freedom		72	48.25
Educational enabling environment		43	70.1	Teachers in tertiary education, gender parity		n/a	n/a
Expenditure		18	45.67	Inbound mobility rate		87	3.1
Government expenditure on primary education (% GDP)		18	52.31	Academic freedom		21	93.4
Government expenditure on secondary education (% GDP)		14	45.61	Equity and inclusiveness		20	54.4
Government funding per primary student (% GDP per capita)		28	43.35	Gross attendance ratio for tertiary education, gender parity		35	81.5
Government funding per secondary student (% GDP per capita)		32	41.4	Gross attendance ratio for tertiary education, wealth parity		31	14.13
Resources		41	93.23	Gross attendance ratio for tertiary education, location parity		9	67.57
Pupil-trained teacher ratio in primary education		7	95	Outputs		71	47.5
Pupil-trained teacher ratio in secondary education		27	94.38	Attainment		52	20.97
Schools with access to computers in primary education (%)		38	96.79	Educational attainment rate, bachelor's or equivalent		41	44.73
Schools with access to computers in secondary education (%)		57	86.76	Educational attainment rate, master's or equivalent		47	10.69
Early learning		53	66.4	Educational attainment rate, doctoral or equivalent		57	7.48
Gross enrolment ratio in early childhood education		83	28.76	Employment		73	76.25
Proportion of children who are developmentally on track		14	79.69	Labour force participation rate with advanced education		56	75.3
Proportion of children with stimulating home learning environments		25	63.05	Unemployment rate with advanced education		84	77.2
Pupil-trained teacher ratio in pre-primary education		11	94.1	Impact		38	45.32
Equity and inclusiveness		62	74.9	University-industry collaboration in R&D		58	45.32
Completion rate in upper secondary education, gender parity		68	90.55	Citable documents per R&D personnel in higher education		n/a	n/a
Completion rate in upper secondary education, wealth parity		66	42.7	RESEARCH, DEVELOPMENT AND INNOVATION		81	21.7
Completion rate in upper secondary education, location parity		35	91.47	Inputs		60	29.2
TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING				Inputs of R&D institutions		98	19.33
TVET components		34	50.8	GERD (% GDP)		68	6.66
Continuous training and skilling		20	62.57	GERD per researcher		25	26
Firms offering formal training (%)		15	71.98	Researchers per thousand labour force		75	4.41
Labour force participation rate with short-cycle tertiary education		n/a	n/a	Tertiary graduates from STEM programmes (%)		92	40.26
Participation rate in formal and non-formal education and training		21	53.16	Inputs of RDI in business enterprises		49	30
TVET structure		70	44.67	GERD performed by business enterprises (%)		53	3.27
Government expenditure on vocational education (%)		20	48.58	GERD financed by business enterprises (%)		90	1.57
Share of students enrolled in secondary vocational programmes		29	40.77	Researchers in business enterprises (%)		n/a	n/a
Share of students enrolled in post-secondary vocational programmes		n/a	n/a	Firms that spend on R&D (%)		5	85.16
TVET quality and qualifications		44	45.21	Inputs of societal innovation		21	48.17
Extent of staff training		35	60.45	High-skilled employment (%)		77	23.84
Quality of vocational training		13	69.34	Intellectual property payments (% total trade)		7	68.2
Ratio of high-skill TVET occupations earnings to average wage		31	29.04	State of cluster development		42	52.46
Ratio of medium-skill TVET occupations earnings to average wage		98	22	Outputs		73	19.9
TVET labour market		92	54.5	Outputs of R&D institutions		95	16.61
Efficiency of the labour market		129	34.04	Average documents per researcher		37	24.27
Firms constrained with inadequately educated workforce (%)		98	24.75	Citations per document		84	24.77
Employment educational mismatch (%)		57	67.08	Resident patent applications (per 100 billion GDP)		98	0.81
Proportion of skilled production workers		105	9.28	Outputs of RDI in business enterprises		54	19.37
Unemployment rate with vocational education		126	35.04	Intellectual property receipts (% total trade)		74	0.97
Post-TVET employment		70	45.81	Industrial design applications (per 100 billion GDP)		101	0.38
Share of TVET occupations		67	56.72	PCT applications (per 100 billion GDP)		84	0.99
Manufacturing employment (%)		82	34.9	Firms producing new products and services (%)		16	75.16
Equity and inclusiveness		36	83.71	Outputs of societal innovation		45	27.05
Enrolment in vocational education, gender parity		20	91.71	Trademark applications (per 100 billion GDP)		17	59.9
Vulnerable employment rate		62	75.71	Cultural goods exports (% exports)		89	2.37
				Printing and publishing output (% manufactured output)		42	18.88
				Impact		114	16
				Quality		84	16.91
				Research institutions prominence		86	2.42
				Growth of innovative companies		75	47.68
				ISO 9001 quality certificates (per billion GDP)		67	8.45
				ISO 14001 environmental certificates (per billion GDP)		60	9.09
				Linkages		83	11.47
				GERD financed from abroad (%)		82	4.1
				Joint ventures per strategic alliance deals (per billion GDP)		85	3.6
				Computer software spending (% GDP)		36	26.71
				Business development		104	19.71
				New business density per thousand population		38	14.8
				Firms with products and services new to the market (%)		100	24.62



# COSTA RICA

	Rank	Value		Rank	Value
INFORMATION AND COMMUNICATIONS TECHNOLOGY			ENABLING ENVIRONMENT		
Infrastructure	69	49.3	Governance	31	72.9
Coverage	91	37.39	Political environment	18	80.71
3G/4G mobile network coverage (% population)	81	91.93	Peace and stability	21	76.89
Secure Internet servers per 1 million population	63	1.14	Voice and accountability	21	84.54
Investment in telecommunication services (% GDP)	65	19.11	Quality of institutions	47	65.06
Quality	71	16.85	Rule of law	43	66.35
Mobile upload and download speeds	83	7.41	Control of corruption	42	67.79
Fixed-broadband upload and download speeds	75	5.62	Government effectiveness	54	61.06
Fixed-broadband subscriptions by speed per hundred people	61	37.5	Socio-economic	43	65.1
Affordability	45	93.54	Gender equity	11	85.73
Fixed broadband basket (% GNI per capita)	51	90.74	Female-to-male ratio in parliament	5	90
Mobile broadband basket (% GNI per capita)	45	96.14	Female-to-male labour force participation	97	67.18
Internet and telephony competition	81	93.75	Female-to-male ratio in Internet usage	1	100
Access	52	43.2	Social inclusion	55	71.52
Subscriptions	44	57.79	Social protection coverage (% population)	53	56.79
Active mobile-broadband subscriptions per hundred inhabitants	67	35.34	Adult literacy rate	34	97.32
International Internet bandwidth per user	17	56.89	Youth not in employment, education or training (%)	70	60.45
Households with Internet access at home (%)	64	81.13	Standard of living	72	38.07
Skills and employment	58	28.58	Poverty headcount ratio (% population)	79	58.73
Individuals with standard ICT skills (%)	n/a	n/a	GDP per capita	57	17.41
Tertiary graduates from ICT programmes (%)	40	33.77	Health and environment	24	70.9
ICT employment (%)	46	23.4	Health	30	86.82
Usage	56	49.6	Universal health coverage	35	78.21
Services	66	48.05	Healthy life expectancy (years)	29	87.79
Government online services	67	68.12	Under-five mortality rate	51	94.47
Fixed broadband Internet traffic per subscription	33	28.2	Environmental performance	59	54.89
Mobile broadband Internet traffic per subscription	69	14.27	Renewable energy consumption (%)	47	37.16
Internet users (%)	52	81.63	Ecological footprint per capita	61	87.52
Outcomes	46	51.2	Natural hazard exposure	108	40
ICT PCT patent applications (per 100 billion GDP)	73	32.09			
E-participation	63	55.68			
Internet activities by individuals (%)	n/a	n/a			
Trade in digitally deliverable services (% total trade)	18	65.83			
ECONOMY	79	48.6			
Economic competitiveness	112	39.2			
Infrastructure investment	80	45.78			
Gross fixed capital formation (% GDP)	105	27.34			
Logistics performance	71	44.79			
Transport productive capacity	27	37.67			
Building quality control	68	73.33			
Business agility	124	32.63			
Ease of starting a business	111	79.91			
Insolvency recovery rate	87	32.1			
Entrepreneurial employee activity rate	78	4.22			
Extent of corporate transparency	102	14.29			
Economic openness	54	59.1			
Trade and diversification	67	51.28			
Trade (% GDP)	78	18.14			
High-technology trade (% total trade)	45	26.69			
Product concentration	70	74.05			
Market concentration	89	86.26			
Financial openness	51	66.97			
Chinn-Ito financial openness	1	100			
Foreign direct investment, net inflows (% GDP)	28	52.21			
Debt dynamics	94	48.7			
Financing and domestic value added	82	47.5			
Financing and taxes	54	60.87			
Domestic credit to private sector (% GDP)	55	21.35			
MSME financing gap (% GDP)	18	88.01			
Tax and contribution rate (% profit)	121	48.83			
Bank non-performing loans (%)	42	85.29			
Domestic value added	91	34.14			
Medium- and high-tech activities value added	88	16.99			
Industry and services value added (% GDP)	37	60.15			
Labour underutilization rate	116	37.51			
Output per worker	54	21.92			

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