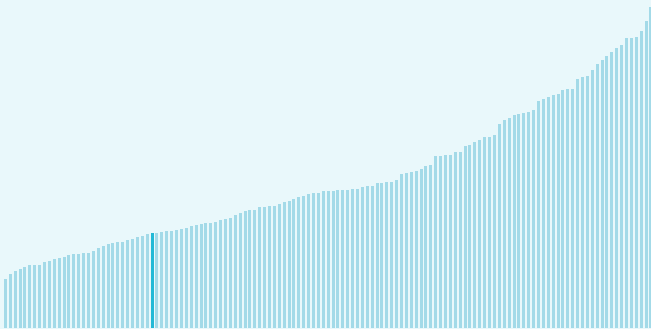




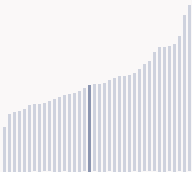
Cambodia ranking in the Global Innovation Index 2024

Cambodia ranks **103rd** among the 133 economies featured in the GII 2024.

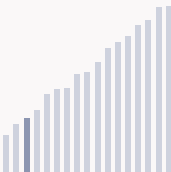
The Global Innovation Index (GII) ranks world economies according to their innovation capabilities. Consisting of roughly 80 indicators, grouped into innovation inputs and outputs, the GII aims to capture the multi-dimensional facets of innovation.



Cambodia ranks **21st** among the 38 lower-middle-income group economies.



Cambodia ranks **15th** among the 17 economies in South East Asia, East Asia, and Oceania.



> Cambodia GII Ranking (2020-2024)

The table shows the rankings of Cambodia over the past four years. Data availability and changes to the GII model framework influence year-on-year comparisons of the GII rankings. The statistical confidence interval for the ranking of Cambodia in the GII 2024 is between ranks 94 and 105.

| Year | GII Position | Innovation Inputs | Innovation Outputs |
|------|--------------|-------------------|--------------------|
| 2020 | 110th | 117th | 101st |
| 2021 | 109th | 106th | 104th |
| 2022 | 97th | 92nd | 102nd |
| 2023 | 101st | 97th | 100th |
| 2024 | 103rd | 97th | 103rd |

Cambodia performs worse in innovation outputs than innovation inputs in 2024.

- This year Cambodia ranks 97th in innovation inputs. This position is the same as last year.
- Cambodia ranks 103rd in innovation outputs. This position is lower than last year.

Cambodia has no clusters in the top 100 S&T clusters of the Global Innovation Index.

Global Innovation Index 2024



> Global Innovation Tracker

The Global Innovation Tracker 2024 shows what is the current state of innovation in Cambodia, how rapidly is technology being embraced and what are the resulting societal impacts.



For Cambodia, 4 indicators have improved in the short-term and 2 indicators have worsened.

Science and innovation investment

| Scientific publications | R&D investments | Venture capital | | International patent filings |
|-------------------------|-----------------|-----------------|-------------|------------------------------|
| | | Deal numbers | Deal values | |
| ▼ -21.8% 2022 - 2023 | n/a | n/a | n/a | n/a |
| ▲ 4.8% 2013 - 2023 | n/a | n/a | n/a | n/a |

Technology adoption

| Safe sanitation | Connectivity | | Robots | Electric vehicles |
|-------------------------------------|----------------------------------|-----|--------|-------------------|
| | Fixed broadband | 5G | | |
| ▲ 4.3% 2021 - 2022 | ▲ 50% 2021 - 2022 | n/a | n/a | n/a |
| ▲ 5.2% 2012 - 2022 | ▲ 31.2% 2012 - 2022 | n/a | n/a | n/a |
| 36.7 per 100 inhabitants in 2022 | 3 per 100 inhabitants in 2022 | n/a | n/a | n/a |

Socioeconomic impact

| Labor productivity | Life expectancy | Temperature change |
|-----------------------|-----------------------|--------------------|
| ▲ 4.4% 2022 - 2023 | ▲ 0.4% 2021 - 2022 | ▲ 1.3°C 2023 |
| ▲ 3.3% 2013 - 2023 | ▲ 0.1% 2012 - 2022 | n/a |
| 9,445 USD in 2023 | 69.9 years in 2022 | |

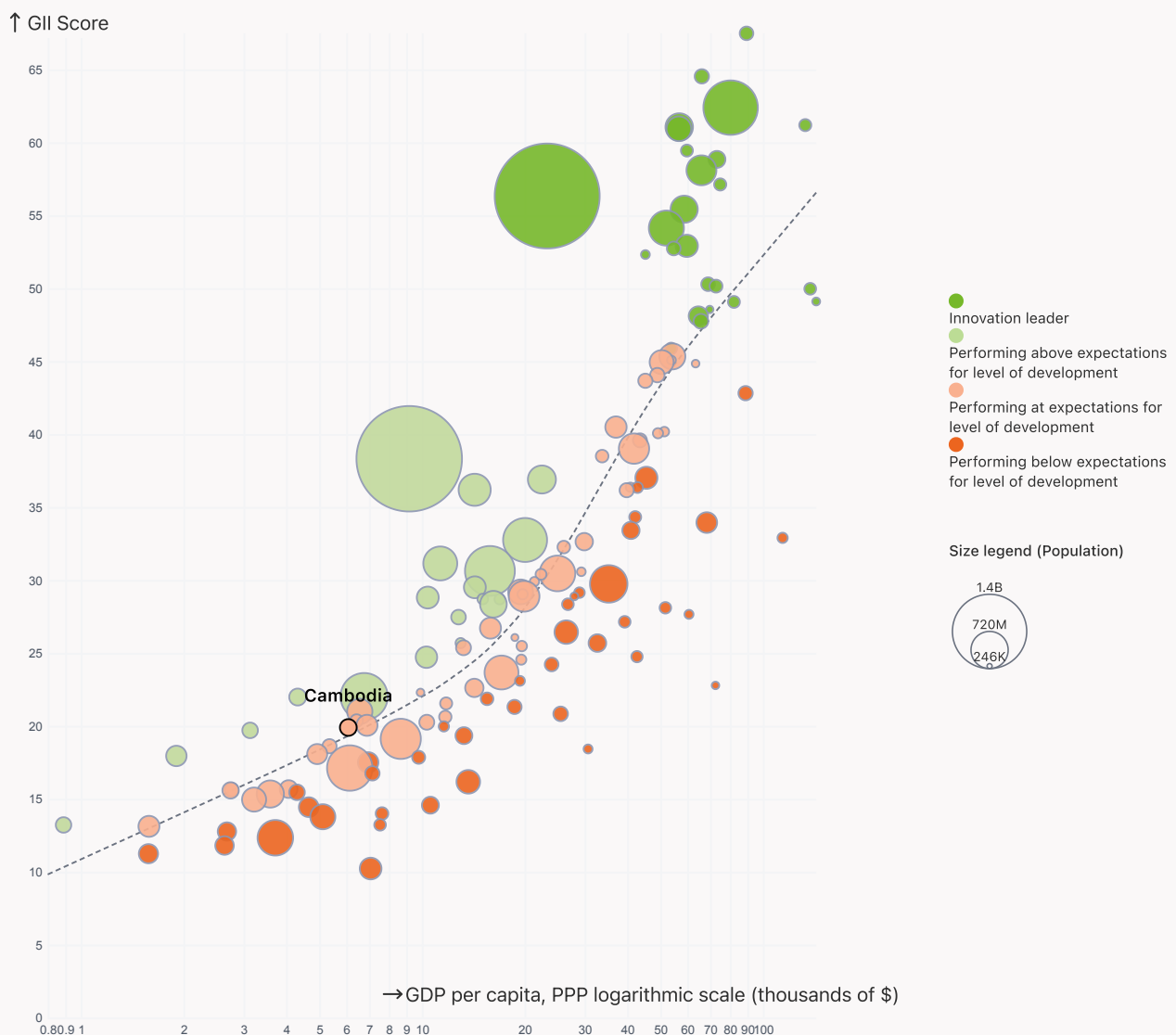
Notes: Not all indicators of the Global Innovation Tracker are used to calculate the Global Innovation Index. Long-term annual growth refers to the compound annual growth rate (CAGR) over the indicated period. For each variable, a one-year growth rate is set for the short run, and ten-year CAGR is set for the long run; time windows might differ when gaps exist in data availability. The end period corresponds to the most recent available observation, which may differ among countries. Temperature change is an exception: it indicates the change in degrees Celsius with respect to the average temperature in the country from 1951–1980. Figures are rounded.

The bubble chart below shows the relationship between income levels (GDP per capita) and innovation performance (GII score). The trend line gives an indication of the expected innovation performance according to income level. Economies appearing above the trend line are performing better than expected and those below are performing below expectations.



Relative to GDP, Cambodia's performance is at expectations for its level of development.

↑ GII Score





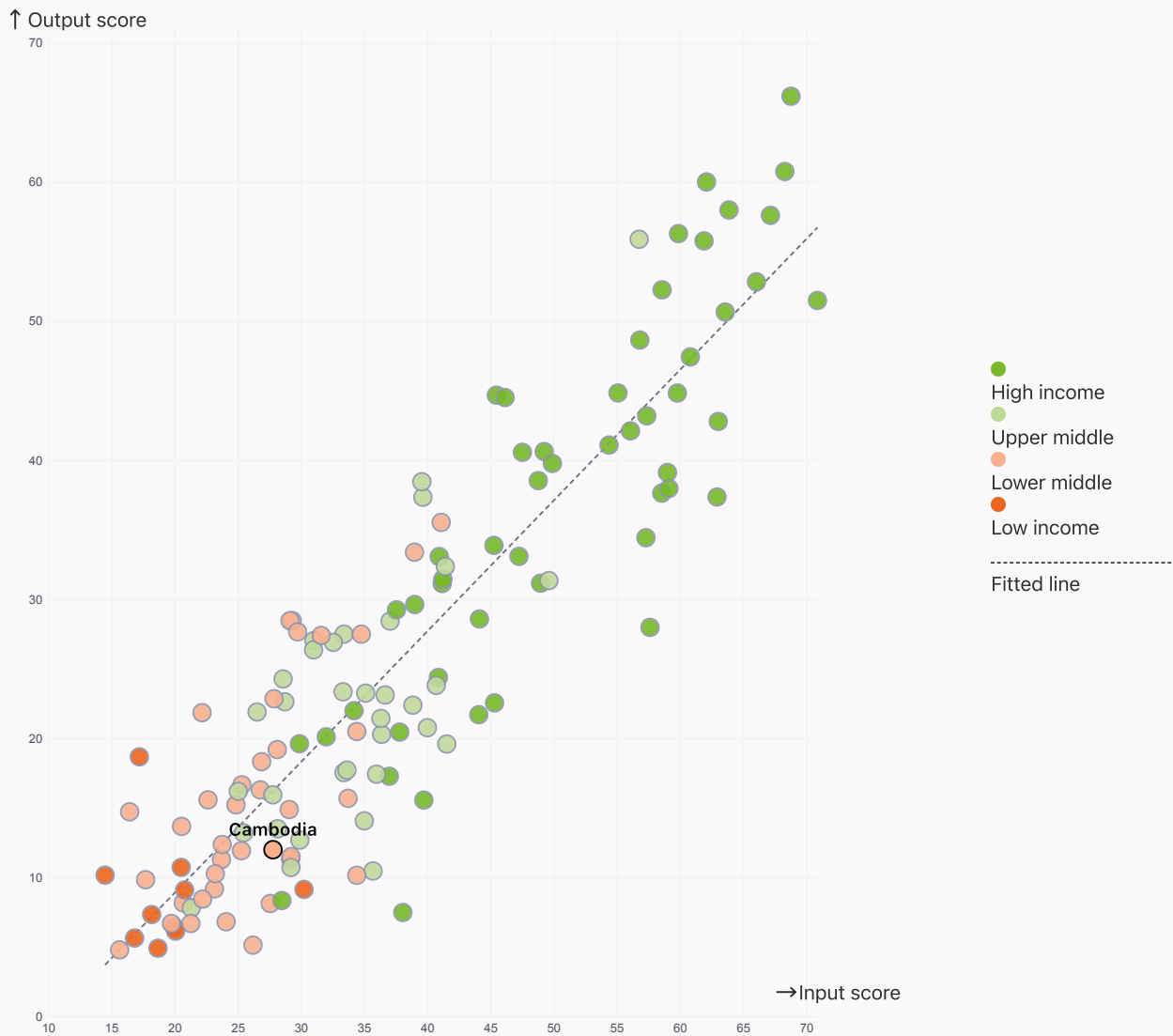
Effectively translating innovation investments into innovation outputs

The chart below shows the relationship between innovation inputs and innovation outputs. Economies above the line are effectively translating costly innovation investments into more and higher-quality outputs.



Cambodia produces less innovation outputs relative to its level of innovation investments.

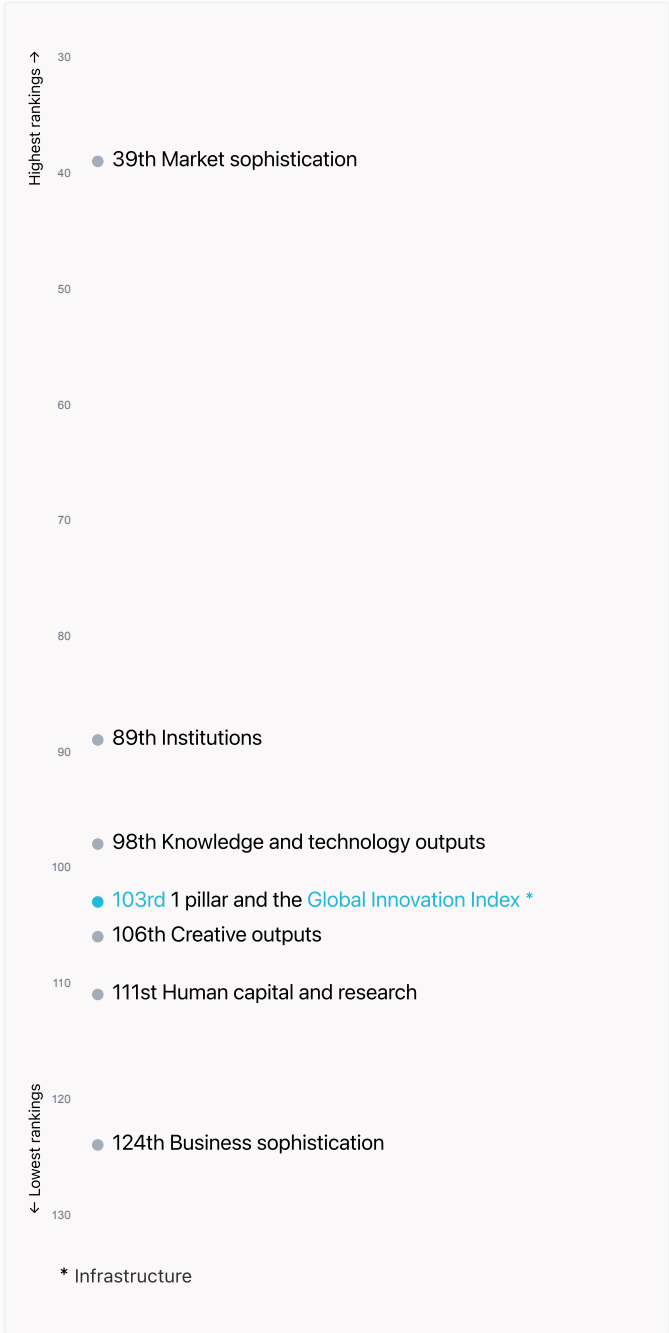
> Relationship between innovation inputs and outputs





Overview of Cambodia's rankings in the seven areas of the GII in 2024

The chart shows the ranking for each of the seven areas that the GII comprises. The strongest areas for Cambodia are those that rank above the GII (shown in blue) and the weakest are those that rank below.



Highest rankings

Cambodia ranks highest in Market sophistication (39th), Institutions (89th), Knowledge and technology outputs (98th) and Infrastructure (103rd).

Lowest rankings

Cambodia ranks lowest in Business sophistication (124th), Human capital and research (111st) and Creative outputs (106th).

The full WIPO Intellectual Property Statistics profile for Cambodia can be found on [this link](#).



Benchmark of Cambodia against other economy groupings for each of the seven areas of the GII Index

The charts shows the relative position of Cambodia (blue bar) against other economy groupings (grey bars), for each of the seven areas of the GII Index.



Lower-Middle-Income economies

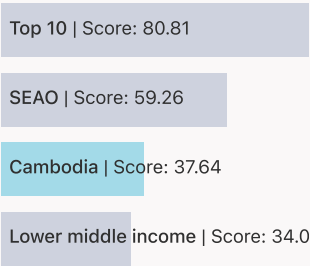
Cambodia performs above the lower-middle-income group average in Institutions, Market sophistication.



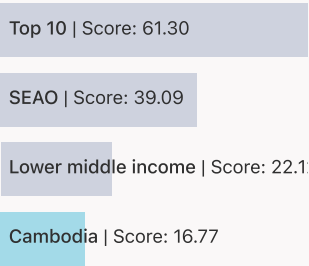
South East Asia, East Asia, And Oceania

Cambodia performs below the regional average in all pillars.

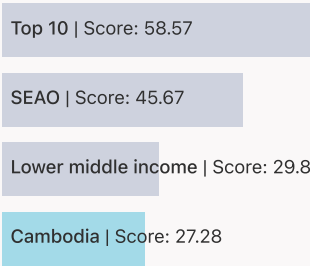
Institutions



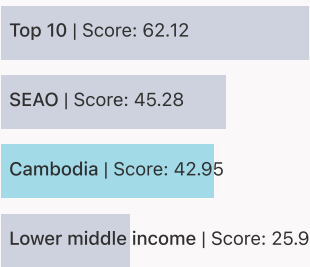
Human capital and research



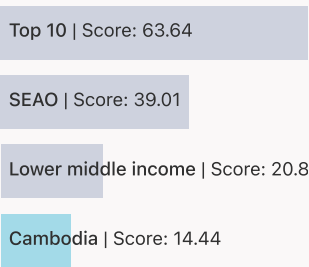
Infrastructure



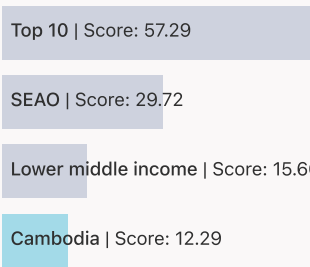
Market sophistication



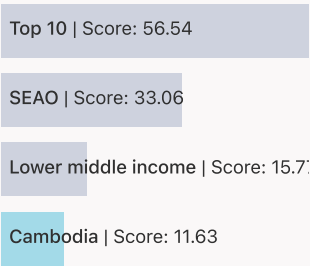
Business sophistication



Knowledge and technology outputs



Creative outputs





Innovation strengths and weaknesses in Cambodia

The table below gives an overview of the indicator strengths and weaknesses of Cambodia in the GII 2024.

Cambodia’s main innovation strengths are **Loans from microfinance institutions, % GDP (rank 1)**, **Domestic credit to private sector, % GDP (rank 5)** and **FDI net inflows, % GDP (rank 7)**.

Strengths

| Rank | Code | Indicator name |
|------|-------|---|
| 1 | 4.1.3 | Loans from microfinance institutions, % GDP |
| 5 | 4.1.2 | Domestic credit to private sector, % GDP |
| 7 | 5.3.4 | FDI net inflows, % GDP |
| 19 | 6.2.1 | Labor productivity growth, % |
| 34 | 2.1.5 | Pupil–teacher ratio, secondary |
| 45 | 7.3.3 | Mobile app creation/bn PPP\$ GDP |
| 45 | 6.3.3 | High-tech exports, % total trade |
| 46 | 5.2.4 | Joint venture/strategic alliance deals/bn PPP\$ GDP |
| 54 | 3.3.2 | Low-carbon energy use, % |
| 55 | 1.1.1 | Operational stability for businesses* |

Weaknesses

| Rank | Code | Indicator name |
|------|-------|---|
| 128 | 6.1.1 | Patents by origin/bn PPP\$ GDP |
| 124 | 2.1.1 | Expenditure on education, % GDP |
| 106 | 2.2.3 | Tertiary inbound mobility, % |
| 102 | 3.2.2 | Logistics performance* |
| 99 | 6.1.2 | PCT patents by origin/bn PPP\$ GDP |
| 86 | 2.1.4 | PISA scales in reading, maths and science |
| 75 | 7.1.3 | Global brand value, top 5,000, % GDP |
| 75 | 2.3.4 | QS university ranking, top 3* |
| 49 | 6.2.2 | Unicorn valuation, % GDP |
| 41 | 2.3.3 | Global corporate R&D investors, top 3, mn USD |



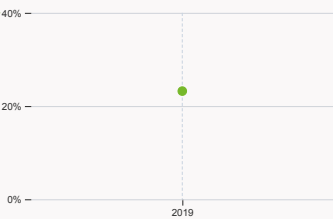
Cambodia's innovation system

As far as practicable, the plots below present unscaled indicator data.

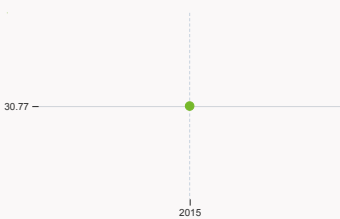
> Innovation inputs in Cambodia



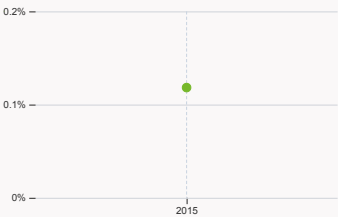
2.1.1 Expenditure on education
was equal to 1.67 % GDP in 2021, down by 1.33 percentage points from the year prior – and equivalent to an indicator rank of 124.



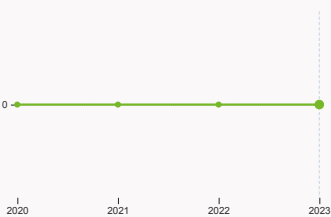
2.2.2 Graduates in science and engineering
was equal to 23.2 % of total graduates in 2019 – and equivalent to an indicator rank of 58.



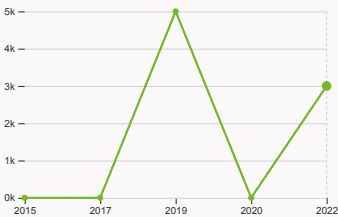
2.3.1 Researchers
was equal to 30.77 FTE per million population in 2015 – and equivalent to an indicator rank of 102.



2.3.2 Gross expenditure on R&D
was equal to 0.12 % GDP in 2015 – and equivalent to an indicator rank of 99.

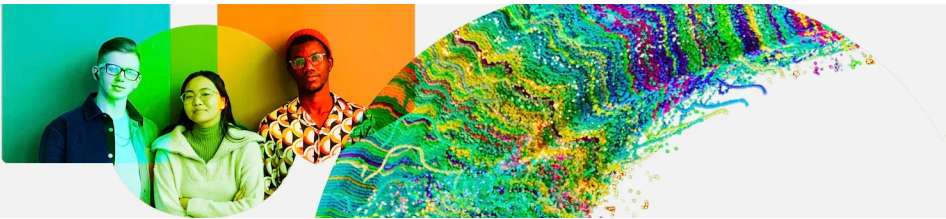


2.3.4 QS university ranking
was equal to an average score of 0 for the top three universities in 2023 with no change from the year prior – and equivalent to an indicator rank of 75.



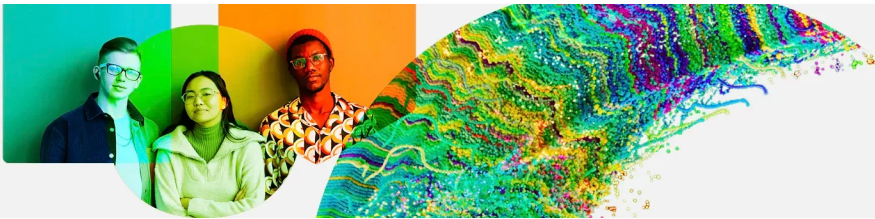
4.2.4 VC received, value
was equal to 3 thousand USD in 2022, up by 300% from the year prior – and equivalent to an indicator rank of 83.

Global Innovation Index 2024

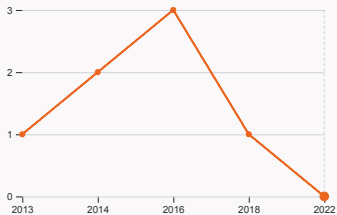


5.1.1 Knowledge-intensive employment

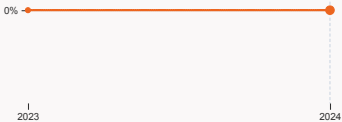
was equal to 5.94 % in 2021, down by 1.11 percentage points from the year prior – and equivalent to an indicator rank of 118.



> Innovation outputs in Cambodia



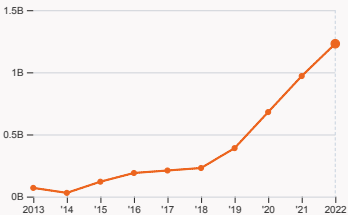
6.1.1 Patents by origin
was equal to 0 patents in 2022, down by 100% from the year prior – and equivalent to an indicator rank of 128.



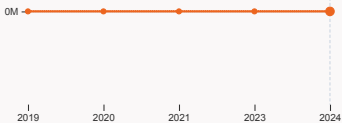
6.2.2 Unicorn valuation
was equal to 0 % GDP in 2024 with no change from the year prior – and equivalent to an indicator rank of 49.



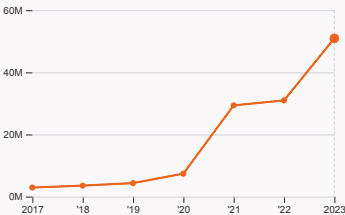
6.3.2 Production and export complexity
was equal to a score of -0.39 in 2021, down by 14.71% from the year prior – and equivalent to an indicator rank of 82.



6.3.3 High-tech exports
was equal to 1.23 billion USD in 2022, up by 26.8% from the year prior – and equivalent to an indicator rank of 45.



7.1.3 Global brand value
was equal to 0 million USD for the brands in the top 5,000 in 2024 with no change from the year prior – and equivalent to an indicator rank of 75.



7.3.3 Mobile app creation
was equal to 50.93 million global downloads of mobile apps in 2023, up by 64.5% from the year prior – and equivalent to an indicator rank of 45.

Global Innovation Index 2024

Cambodia

GII 2024 rank

103

| Output rank | Input rank | Income | Region | Population (mn) | GDP, PPP\$ (bn) | GDP per capita, PPP\$ |
|--|------------|---------------|--------|---|-----------------|-----------------------|
| 103 | 97 | Lower middle | SEAO | 17.4 | 98.3 | 6,086.7 |
| | | Score / Value | Rank | | | |
| Institutions | | 37.6 | 89 | Business sophistication | | |
| 1.1 Institutional environment | | 50.1 | 78 | 5.1 Knowledge workers | | |
| 1.1.1 Operational stability for businesses* | | 65.3 | 55 | 5.1.1 Knowledge-intensive employment, % | | |
| 1.1.2 Government effectiveness* | | 34.8 | 93 | 5.1.2 Firms offering formal training, % | | |
| 1.2 Regulatory environment | | 21.1 | 113 | 5.1.3 GERD performed by business, % GDP | | |
| 1.2.1 Regulatory quality* | | 23.2 | 111 | 5.1.4 GERD financed by business, % | | |
| 1.2.2 Rule of law* | | 19 | 112 | 5.1.5 Females employed w/advanced degrees, % | | |
| 1.3 Business environment | | 41.8 | [76] | 5.2 Innovation linkages | | |
| 1.3.1 Policy stability for doing business† | | 41.8 | 83 | 5.2.1 Public Research-Industry co-publications, % | | |
| 1.3.2 Entrepreneurship policies and culture† | | n/a | n/a | 5.2.2 University-industry R&D collaboration† | | |
| Human capital and research | | 16.8 | 111 | 5.2.3 State of cluster development† | | |
| 2.1 Education | | 32 | [117] | 5.2.4 Joint venture/strategic alliance deals/bn PPP\$ GDP | | |
| 2.1.1 Expenditure on education, % GDP | | 1.7 | 124 | 5.2.5 Patent families/bn PPP\$ GDP | | |
| 2.1.2 Government funding/pupil, secondary, % GDP/cap | | n/a | n/a | 5.3 Knowledge absorption | | |
| 2.1.3 School life expectancy, years | | n/a | n/a | 5.3.1 Intellectual property payments, % total trade | | |
| 2.1.4 PISA scales in reading, maths and science | | 337.4 | 86 | 5.3.2 High-tech imports, % total trade | | |
| 2.1.5 Pupil-teacher ratio, secondary | | 9.9 | 34 | 5.3.3 ICT services imports, % total trade | | |
| 2.2 Tertiary education | | 17.8 | 100 | 5.3.4 FDI net inflows, % GDP | | |
| 2.2.1 Tertiary enrolment, % gross | | 15 | 108 | 5.3.5 Research talent, % in businesses | | |
| 2.2.2 Graduates in science and engineering, % | | 23.2 | 58 | Knowledge and technology outputs | | |
| 2.2.3 Tertiary inbound mobility, % | | 0.3 | 106 | 6.1 Knowledge creation | | |
| 2.3 Research and development (R&D) | | 0.5 | 109 | 6.1.1 Patents by origin/bn PPP\$ GDP | | |
| 2.3.1 Researchers, FTE/mn pop. | | 30.8 | 102 | 6.1.2 PCT patents by origin/bn PPP\$ GDP | | |
| 2.3.2 Gross expenditure on R&D, % GDP | | 0.1 | 99 | 6.1.3 Utility models by origin/bn PPP\$ GDP | | |
| 2.3.3 Global corporate R&D investors, top 3, mn USD | | 0 | 41 | 6.1.4 Scientific and technical articles/bn PPP\$ GDP | | |
| 2.3.4 QS university ranking, top 3* | | 0 | 75 | 6.1.5 Citable documents H-index | | |
| Infrastructure | | 27.3 | 103 | 6.2 Knowledge impact | | |
| 3.1 Information and communication technologies (ICTs) | | 49.9 | 103 | 6.2.1 Labor productivity growth, % | | |
| 3.1.1 ICT access* | | 65.5 | 97 | 6.2.2 Unicorn valuation, % GDP | | |
| 3.1.2 ICT use* | | 71.7 | 82 | 6.2.3 Software spending, % GDP | | |
| 3.1.3 Government's online service* | | 35.7 | 116 | 6.2.4 High-tech manufacturing, % | | |
| 3.1.4 E-participation* | | 26.7 | 108 | 6.3 Knowledge diffusion | | |
| 3.2 General infrastructure | | 16 | 112 | 6.3.1 Intellectual property receipts, % total trade | | |
| 3.2.1 Electricity output, GWh/mn pop. | | 612.5 | 106 | 6.3.2 Production and export complexity | | |
| 3.2.2 Logistics performance* | | 13.6 | 102 | 6.3.3 High-tech exports, % total trade | | |
| 3.2.3 Gross capital formation, % GDP | | 24.3 | 60 | 6.3.4 ICT services exports, % total trade | | |
| 3.3 Ecological sustainability | | 15.9 | 85 | 6.3.5 ISO 9001 quality/bn PPP\$ GDP | | |
| 3.3.1 GDP/unit of energy use | | 8.1 | 90 | Creative outputs | | |
| 3.3.2 Low-carbon energy use, % | | 23.4 | 54 | 7.1 Intangible assets | | |
| 3.3.3 ISO 14001 environment/bn PPP\$ GDP | | 0.6 | 86 | 7.1.1 Intangible asset intensity, top 15, % | | |
| Market sophistication | | 42.9 | 39 | 7.1.2 Trademarks by origin/bn PPP\$ GDP | | |
| 4.1 Credit | | 83.6 | 2 | 7.1.3 Global brand value, top 5,000, % GDP | | |
| 4.1.1 Finance for startups and scaleups† | | n/a | n/a | 7.1.4 Industrial designs by origin/bn PPP\$ GDP | | |
| 4.1.2 Domestic credit to private sector, % GDP | | 180 | 5 | 7.2 Creative goods and services | | |
| 4.1.3 Loans from microfinance institutions, % GDP | | 31.7 | 1 | 7.2.1 Cultural and creative services exports, % total trade | | |
| 4.2 Investment | | 2.6 | 104 | 7.2.2 National feature films/mn pop. 15-69 | | |
| 4.2.1 Market capitalization, % GDP | | n/a | n/a | 7.2.3 Entertainment and media market/th pop. 15-69 | | |
| 4.2.2 Venture capital (VC) investors, deals/bn PPP\$ GDP | | 0.02 | 88 | 7.2.4 Creative goods exports, % total trade | | |
| 4.2.3 VC recipients, deals/bn PPP\$ GDP | | 0.02 | 88 | 7.3 Online creativity | | |
| 4.2.4 VC received, value, % GDP | | 0.0001 | 83 | 7.3.1 Top-level domains (TLDs)/th pop. 15-69 | | |
| 4.3 Trade, diversification and market scale | | 42.6 | 96 | 7.3.2 GitHub commits/mn pop. 15-69 | | |
| 4.3.1 Applied tariff rate, weighted avg., % | | 2.1 | 68 | 7.3.3 Mobile app creation/bn PPP\$ GDP | | |
| 4.3.2 Domestic industry diversification | | n/a | n/a | | | |
| 4.3.3 Domestic market scale, bn PPP\$ | | 98.3 | 90 | | | |

NOTES: ● indicates a strength; ○ a weakness; ◆ an income group strength; ◇ an income group weakness; * an index; † a survey question, ⌚ that the economy's data is outdated. Square brackets [] indicate the data minimum coverage (DMC) requirements were not met at the sub-pillar or pillar level; n/a represents missing values; a dash - indicates an indicator which is not relevant to this economy and thus not considered for DMC thresholds.



Data availability

The following tables list indicators that are either missing or outdated for Cambodia.



Cambodia has missing data for twelve indicators and outdated data for eighteen indicators.

Missing data for Cambodia

| Code | Indicator name | Economy Year | Model Year | Source |
|-------|---|--------------|------------|--|
| 1.3.2 | Entrepreneurship policies and culture ⁺ | n/a | 2023 | Global Entrepreneurship Monitor |
| 2.1.2 | Government funding/pupil, secondary, % GDP/cap | n/a | 2020 | UNESCO Institute for Statistics |
| 2.1.3 | School life expectancy, years | n/a | 2022 | UNESCO Institute for Statistics |
| 4.1.1 | Finance for startups and scaleups ⁺ | n/a | 2023 | Global Entrepreneurship Monitor |
| 4.2.1 | Market capitalization, % GDP | n/a | 2022 | World Federation of Exchanges; World Bank |
| 4.3.2 | Domestic industry diversification | n/a | 2021 | United Nations Industrial Development Organization (UNIDO), Industrial Statistics Database (INDSTAT) Rev.3 and 4 |
| 6.1.3 | Utility models by origin/bn PPP\$ GDP | n/a | 2022 | World Intellectual Property Organization; International Monetary Fund |
| 6.2.4 | High-tech manufacturing, % | n/a | 2021 | United Nations Industrial Development Organization |
| 7.1.1 | Intangible asset intensity, top 15, % | n/a | 2023 | Brand Finance |
| 7.2.1 | Cultural and creative services exports, % total trade | n/a | 2022 | World Trade Organization Global Services Trade Data Hub |
| 7.2.2 | National feature films/mn pop. 15–69 | n/a | 2022 | OMDIA; United Nations, World Population Prospects |
| 7.2.3 | Entertainment and media market/th pop. 15–69 | n/a | 2023 | PwC, GEMO; United Nations, World Population Prospects; International Monetary Fund |

Outdated data for Cambodia

| Code | Indicator name | Economy Year | Model Year | Source |
|-------|--|--------------|------------|--|
| 1.3.1 | Policy stability for doing business ⁺ | 2022 | 2023 | World Economic Forum, Executive Opinion Survey (EOS) |
| 2.1.1 | Expenditure on education, % GDP | 2021 | 2022 | UNESCO Institute for Statistics |
| 2.1.5 | Pupil–teacher ratio, secondary | 2021 | 2022 | UNESCO Institute for Statistics |

Global Innovation Index 2024



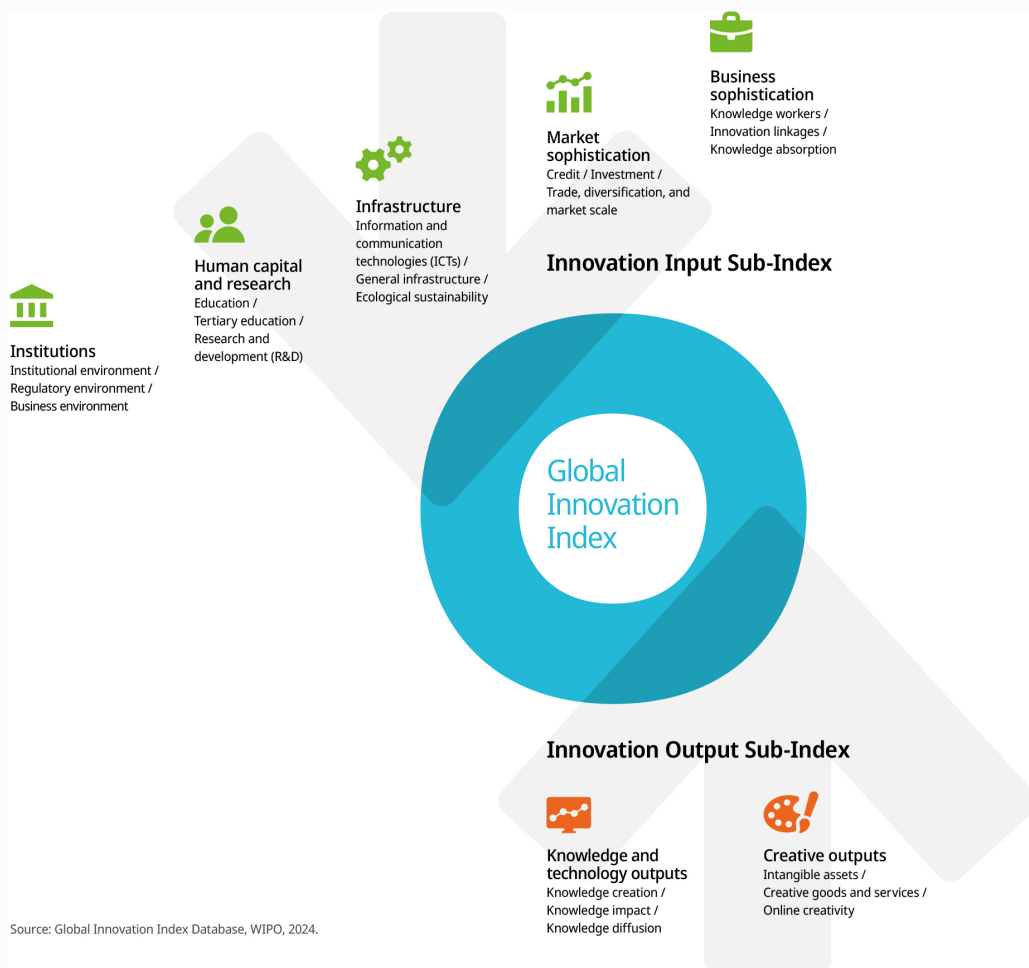
| Code | Indicator name | Economy Year | Model Year | Source |
|-------|--|--------------|------------|---|
| 2.2.2 | Graduates in science and engineering, % | 2019 | 2021 | UNESCO Institute for Statistics; Eurostat; OECD |
| 2.2.3 | Tertiary inbound mobility, % | 2021 | 2022 | UNESCO Institute for Statistics |
| 2.3.1 | Researchers, FTE/mn pop. | 2015 | 2022 | UNESCO Institute for Statistics; Eurostat; OECD; RICYT |
| 2.3.2 | Gross expenditure on R&D, % GDP | 2015 | 2022 | UNESCO Institute for Statistics; Eurostat; OECD; RICYT |
| 3.2.1 | Electricity output, GWh/mn pop. | 2021 | 2022 | International Energy Agency |
| 4.2.3 | VC recipients, deals/bn PPP\$ GDP | 2022 | 2023 | LSEG Data & Analytics; International Monetary Fund |
| 4.2.4 | VC received, value, % GDP | 2022 | 2023 | LSEG Data & Analytics; International Monetary Fund |
| 5.1.1 | Knowledge-intensive employment, % | 2021 | 2022 | International Labour Organization |
| 5.1.3 | GERD performed by business, % GDP | 2015 | 2022 | UNESCO Institute for Statistics; Eurostat; OECD; RICYT |
| 5.1.4 | GERD financed by business, % | 2015 | 2021 | UNESCO Institute for Statistics; Eurostat; OECD; RICYT |
| 5.1.5 | Females employed w/advanced degrees, % | 2021 | 2023 | International Labour Organization |
| 5.2.2 | University-industry R&D collaboration ⁺ | 2022 | 2023 | World Economic Forum, Executive Opinion Survey (EOS) |
| 5.2.3 | State of cluster development ⁺ | 2022 | 2023 | World Economic Forum, Executive Opinion Survey (EOS) |
| 5.3.5 | Research talent, % in businesses | 2015 | 2022 | UNESCO Institute for Statistics; Eurostat; OECD; RICYT |
| 7.1.4 | Industrial designs by origin/bn PPP\$ GDP | 2020 | 2022 | World Intellectual Property Organization; International Monetary Fund |

Global Innovation Index 2024



About the Global Innovation Index

- The Global Innovation Index (GII) is published by the World Intellectual Property Organization (WIPO), a specialized agency of the United Nations.
- Recognizing that innovation is a key driver of economic development, the GII aims to provide an innovation ranking and rich analysis referencing around 130 economies. Over the last decade, the GII has established itself as both a leading reference on innovation and a “tool for action” for economies that incorporate the GII into their innovation agendas.



The Index is a ranking of the innovation capabilities and results of world economies. It measures innovation based on criteria that include institutions, human capital and research, infrastructure, credit, investment, linkages; the creation, absorption and diffusion of knowledge; and creative outputs.

The GII has two sub-indices: the Innovation Input Sub-Index and the Innovation Output Sub-Index, and seven pillars, each consisting of three sub-pillars.