Global Innovation Index 2025

Nepal ranking in the Global Innovation Index 2025

Nepal ranks 107th among the 139 economies featured in the GII 2025.

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.

Nepal ranks 20th among the 37 Lower middle-income group economies.

Nepal ranks 9th among the 10 economies in Central and Southern Asia.

Nepal GII Ranking (2020-2025)

The table shows the rankings of Nepal over the past six 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 Nepal in the GII 2025 is between ranks 99 and 109.

Year	GII Position	Innovation Inputs	Innovation Outputs
2020	95th	89th	106th
2021	111st	99th	116th
2022	111st	106th	111st
2023	108th	106th	103rd
2024	109th	110th	102nd
2025	107th	107th	101st

Nepal performs better in innovation outputs than innovation inputs in 2025.

This year **Nepal ranks 107th in innovation inputs.** This position is higher than last year.

Nepal ranks 101st in innovation outputs. This position is higher than last year.

Nepal has no clusters in the world's top innovation clusters of the Global Innovation Index.

Global Innovation Index 2025

> Global Innovation Tracker

The Global Innovation Tracker 2025 shows what is the current state of innovation in Nepal, how rapidly is technology being embraced and what are the resulting societal impacts.

For Nepal, 3 indicators have improved in the short-term and 3 indicators have worsened.

Science and innovation investment

	Scientific publications	R&D investments	Venture capital deal numbers	International patent filings
Short term	▼ -0.6 % 2023 - 2024	n/a	▼ -25 % 2023 - 2024	n/a
Long term (annual growth)	▲ 10.2 % 2014 - 2024	n/a	▼ -12 % 2020 - 2024	n/a

Technology adoption

	Safe sanitation	Connectivity		Robots	Electric vehicles
		Fixed broadband	5G		
Short term	▲ 4.4% 2023 - 2024	▲ 13.1% 2021 - 2022	n/a	n/a	n/a
Long term (annual growth)	▲ 5.2% 2014 - 2024	▲ 20.1% 2012 - 2022	n/a	n/a	n/a
Penetration	53.4 per 100 inhabitants in 2024	4.8 per 100 inhabitants in 2022	n/a	n/a	n/a

Socioeconomic impact

	Labor productivity	Life expectancy	Temperature change
Short term	n/a	▲ 0.4 % 2022 - 2023	+ 1.3 °C 2024
Long term (annual growth)	n/a	▲ 0.4 % 2013 - 2023	+ 0.3 °C 2014
Level	n/a	70.4 years in 2023	n/a

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 countries. from 1951–1980. Figures are rounded.

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Expected vs. Observed Innovation Performance

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 Nepal performs at expectations for its level of development.

> Innovation overperformers relative to their economic development

Global Innovation Index 2025

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.

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

> Relationship between innovation inputs and outputs

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Overview of Nepal's rankings in the seven areas of the GII in 2025

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

Highest Rankings

Nepal ranks highest in Market sophistication (61st), Knowledge and technology outputs (98th), Infrastructure (101st) and Creative outputs (103rd).

Lowest Rankings

Nepal ranks lowest in Human capital and research (127th), Business sophistication (124th) and Institutions (113rd).

The full WIPO Intellectual Property Statistics profile for Nepal can be found on https://www.wipo.int/edocs/statistics-country-profile/en/np.pdf

Global Innovation Index 2025

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

Lower middle-income economies

Nepal performs above the Lower middle-income group average in Infrastructure, Market sophistication.

Central and Southern Asia

Nepal performs above the regional average in Market sophistication.

Institutions

- Top 10 | Score: 78.63
- Lower middle-income | Score: 37.2
- Central and Southern Asia | Score:
- Nepal | Score: 32.49

Human capital and research

- Top 10 | Score: 59.30
- Central and Southern Asia | Score:
- Lower middle-income | Score: 20.9
- Nepal | Score: 13.92

Infrastructure

- Top 10 | Score: 61.36
- Central and Southern Asia | Score:
- Nepal | Score: 32.58
- Lower middle-income | Score: 32.1

Market sophistication

- Top 10 | Score: 61.82
- Nepal | Score: 38.38
- Central and Southern Asia | Score:
- Lower middle-income | Score: 28.1

Business sophistication

- Top 10 | Score: 59.10
- Lower middle-income | Score: 25.3
- Central and Southern Asia | Score:
- Nepal | Score: 20.87

Knowledge and technology outputs

- Top 10 | Score: 54.93
- Central and Southern Asia | Score:
- Lower middle-income | Score: 15.4
- Nepal | Score: 13.25

Creative outputs

- Top 10 | Score: 55.98
- Central and Southern Asia | Score:
- Lower middle-income | Score: 13.8
- Nepal | Score: 12.28

Global Innovation Index 2025

Innovation strengths and weaknesses in Nepal

The table below gives an overview of the indicator strengths and weaknesses of Nepal in the GII 2025.

Nepal's best-ranked innovation strengths are **Loans from microfinance institutions, % GDP** (rank 1), **Gross capital formation, % GDP** (rank 11) and **Domestic credit to private sector, % GDP** (rank 26).

Strengths

Rank	Code	Indicator name
1	4.1.3	Loans from microfinance institutions, % GDP
11	3.2.3	Gross capital formation, % GDP
26	4.1.2	Domestic credit to private sector, % GDP
26	3.3.2	Low-carbon energy use, %
33	5.3.2	High-tech imports, % total trade
38	5.1.3	Youth demographic dividend, %
54	7.3.3	Mobile app creation/bn PPP$ GDP
54	5.2.1	Public research–industry co-publications, %
56	6.2.1	Labor productivity growth, %

Weaknesses

Rank	Code	Indicator name
136	4.3.1	Applied tariff rate, weighted avg., %
136	6.3.3	High-tech exports, % total trade
136	5.3.3	ICT services imports, % total trade
130	6.2.3	Software spending, % GDP
126	2.1.5	Pupil–teacher ratio, secondary
100	5.2.5	Patent families/bn PPP$ GDP
81	7.1.3	Global brand value, top 5,000, % GDP
80	2.3.4	QS university ranking, top 3*
53	6.2.2	Unicorn valuation, % GDP
44	2.3.3	Global corporate R&D investors, top 3, mn USD

Global Innovation Index 2025

Nepal's innovation system

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

Innovation inputs in Nepal

2.1.1 Expenditure on education

was equal to 3.96 % GDP in 2023, down by 0.18 percentage points from the year prior – and equivalent to an indicator rank of 79.

2.3.4 QS university ranking

The country does not have any universities in the QS world universities ranking in 2024.

4.3.2 Domestic industry diversification

was equal to an index score of 0.132 in 2020 – and equivalent to an indicator rank of 51.

5.1.1 Knowledge-intensive employment

was equal to 13.23 % of total workforce in 2017 – and equivalent to an indicator rank of 91.

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Innovation outputs in Nepal

6.1.1 Patents by origin

was equal to 20 patents in 2017, up by 81.82% from the year prior – and equivalent to an indicator rank of 98.

6.2.2 Unicorn valuation

The country does not have unicorns in 2025.

6.2.4 High-tech manufacturing

was equal to 779.83 high-tech manufacturing output in million USD in 2020 – and equivalent to an indicator rank of 91.

6.3.2 Production and export complexity

was equal to a score of -0.15 in 2022 – and equivalent to an indicator rank of 69.

6.3.3 High-tech exports

was equal to 2.89 million USD in 2022, down by 59.35% from the year prior – and equivalent to an indicator rank of 136.

7.1.3 Global brand value, top 5,000

The country does not have any brands that make the top 5,000 ranking in 2025.

7.2.2 National feature films

was equal to 50 films in 2019 – and equivalent to an indicator rank of 46.

7.3.3 Mobile app creation

was equal to 51.94 million global downloads of mobile apps in 2024, up by 12.4% from the year prior – and equivalent to an indicator rank of 54.

Nepal

GII 2025 rank **107**

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP$ (bn)	GDP per capita, PPP$
101	107	Lower middle	Central and Southern Asia	29.7	169.1	5,348.1

	Score / Value	Rank	
Institutions	**32.5**	**113**	
1.1 Institutional environment	**34.9**	**110**	
1.1.1 Operational stability for businesses*	46.7	103	
1.1.2 Government effectiveness*	23.2	118	
1.2 Regulatory environment	**36.2**	**105**	
1.2.1 Regulatory quality*	31.5	109	
1.2.2 Rule of law*	41	95	
1.3 Business environment	**26.3**	**[110]**	
1.3.1 Policy stability for doing business†	26.3	112	
1.3.2 Entrepreneurship policies and culture†	n/a	n/a	
Human capital and research	**13.9**	**[127]**	
2.1 Education	**31.8**	**126**	
2.1.1 Expenditure on education, % GDP	4	79	
2.1.2 Government funding/pupil, secondary, % GDP/cap	9.4	87	
2.1.3 School life expectancy, years	13.5	77	◆
2.1.4 PISA scales in reading, maths and science	n/a	n/a	
2.1.5 Pupil–teacher ratio, secondary	33	126	○ ◇
2.2 Tertiary education	**10**	**[117]**	
2.2.1 Tertiary enrolment, % gross	19	105	
2.2.2 Graduates in science and engineering, %	n/a	n/a	
2.2.3 Tertiary inbound mobility, %	n/a	n/a	
2.3 Research and development (R&D)	**0**	**[124]**	
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 corporate R&D investors, top 3, mn USD	0	44	○ ◇
2.3.4 QS university ranking, top 3*	0	80	○ ◇
Infrastructure	**32.6**	**101**	
3.1 Information and communication technologies (ICTs)	**42.2**	**119**	
3.1.1 ICT access*	50.9	117	
3.1.2 ICT use*	n/a	n/a	
3.1.3 Government's online service*	33.6	117	
3.2 General infrastructure	**34.9**	**61**	
3.2.1 Electricity output, GWh/mn pop.	349.9	119	
3.2.2 Logistics performance*	n/a	n/a	
3.2.3 Gross capital formation, % GDP	34.2	11	●
3.3 Ecological sustainability	**20.6**	**67**	
3.3.1 GDP/unit of energy use	7.1	100	
3.3.2 Low-carbon energy use, %	38.4	26	● ◆
3.3.3 ISO 14001 environment/bn PPP$ GDP	0.4	98	
Market sophistication	**38.4**	**61**	◆
4.1 Credit	**67.4**	**7**	◆
4.1.1 Finance for startups and scaleups†	n/a	n/a	
4.1.2 Domestic credit to private sector, % GDP	91.9	26	● ◆
4.1.3 Loans from microfinance institutions, % GDP	9.5	1	● ◆
4.2 Investment	**1**	**114**	
4.2.1 Market capitalization, % GDP	n/a	n/a	
4.2.2 Venture capital (VC) received, deal count/bn PPP$ GDP	0.02	110	
4.2.3 Late-stage VC deal count, % global VC	0.005	84	
4.2.4 VC investors, deal count/bn PPP$ GDP	0.02	103	
4.2.5 VC investor co-participation/bn PPP$ GDP	0.02	88	
4.3 Trade, diversification and market scale	**46.8**	**113**	
4.3.1 Applied tariff rate, weighted avg., %	12.2	136	○ ◇
4.3.2 Domestic industry diversification	86.5	51	
4.3.3 Domestic market scale, bn PPP$	169.1	82	

	Score / Value	Rank	
Business sophistication	**20.9**	**124**	
5.1 Knowledge workers	**28.9**	**[102]**	
5.1.1 Knowledge-intensive employment, %	13.2	91	
5.1.2 Females employed w/advanced degrees, %	2.9	102	
5.1.3 Youth demographic dividend, %	47.5	38	●
5.1.4 GERD performed by business, % GDP	n/a	n/a	
5.1.5 GERD financed by business, %	n/a	n/a	
5.2 Innovation linkages	**15.3**	**113**	
5.2.1 Public research–industry co-publications, %	1.8	54	● ◆
5.2.2 University–industry R&D collaboration†	22.9	105	
5.2.3 University industry & international engagement, top 5*	10.8	92	
5.2.4 State of cluster development†	25.1	117	
5.2.5 Patent families/bn PPP$ GDP	0	100	○ ◇
5.3 Knowledge absorption	**18.4**	**116**	
5.3.1 Intellectual property payments, % total trade	0.0002	130	◇
5.3.2 High-tech imports, % total trade	10.7	33	●
5.3.3 ICT services imports, % total trade	0.2	136	○ ◇
5.3.4 FDI net inflows, % GDP	0.3	124	
5.3.5 Research talent, % in businesses	n/a	n/a	
Knowledge and technology outputs	**13.2**	**98**	
6.1 Knowledge creation	**9.7**	**[84]**	
6.1.1 Patents by origin/bn PPP$ GDP	0.2	98	
6.1.2 PCT patents by inventor origin/bn PPP$ GDP	n/a	n/a	
6.1.3 Utility models by origin/bn PPP$ GDP	-	-	
6.1.4 Scientific and technical articles/bn PPP$ GDP	8.2	83	
6.1.5 Citable documents H-index	8.6	87	
6.2 Knowledge impact	**15.9**	**118**	
6.2.1 Labor productivity growth, %	1.1	56	●
6.2.2 Unicorn valuation, % GDP	0	53	○ ◇
6.2.3 Software spending, % GDP	0.02	130	○ ◇
6.2.4 High-tech manufacturing, %	9	91	
6.3 Knowledge diffusion	**14.1**	**86**	
6.3.1 Intellectual property receipts, % total trade	0.09	61	
6.3.2 Production and export complexity	45.5	69	
6.3.3 High-tech exports, % total trade	0.03	136	○
6.3.4 ICT services exports, % total trade	1.4	77	
6.3.5 ISO 9001 quality/bn PPP$ GDP	3.2	71	
Creative outputs	**12.3**	**103**	
7.1 Intangible assets	**7.9**	**108**	
7.1.1 Intangible asset intensity, top 15, %	n/a	n/a	
7.1.2 Trademarks by origin/bn PPP$ GDP	39.7	45	
7.1.3 Global brand value, top 5,000, % GDP	0	81	○ ◇
7.1.4 Industrial designs by origin/bn PPP$ GDP	0.1	110	
7.2 Creative goods and services	**7.8**	**[79]**	
7.2.1 Cultural and creative services exports, % total trade	n/a	n/a	
7.2.2 National feature films/mn pop. 15–69	2.7	46	
7.2.3 Entertainment and media market/th pop. 15–69	n/a	n/a	
7.2.4 Creative goods exports, % total trade	0.2	78	
7.3 Online creativity	**25.5**	**66**	
7.3.1 Top-level domains (TLDs)/th pop. 15–69	1.3	97	
7.3.2 GitHub commits/mn pop. 15–69	6.6	70	
7.3.3 Mobile app creation/bn PPP$ GDP	68.5	54	●

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 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.

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Data Availability

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

Nepal has missing data for seventeen indicators and outdated data for fifteen indicators.

Missing data for Nepal

Code	Indicator name	Economy year	Model year*	Source
1.3.2	Entrepreneurship policies and culture†	n/a	2024	Global Entrepreneurship Monitor
2.1.4	PISA scales in reading, maths and science	n/a	2022	OECD, PISA
2.2.2	Graduates in science and engineering, %	n/a	2022	UNESCO Institute for Statistics; Eurostat; OECD
2.2.3	Tertiary inbound mobility, %	n/a	2023	UNESCO Institute for Statistics
2.3.1	Researchers, FTE/mn pop.	n/a	2023	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
2.3.2	Gross expenditure on R&D, % GDP	n/a	2023	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
3.1.2	ICT use*	n/a	2023	World Intellectual Property Organization; based on International Telecommunication Union (ITU)
3.2.2	Logistics performance*	n/a	2023	World Bank, Logistics Performance Index 2023
4.1.1	Finance for startups and scaleups†	n/a	2024	Global Entrepreneurship Monitor
4.2.1	Market capitalization, % GDP	n/a	2022	World Federation of Exchanges; World Bank
5.1.4	GERD performed by business, % GDP	n/a	2023	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
5.1.5	GERD financed by business, %	n/a	2022	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
5.3.5	Research talent, % in businesses	n/a	2023	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
6.1.2	PCT patents by inventor origin/bn PPP$ GDP	n/a	2024	World Intellectual Property Organization; International Monetary Fund
7.1.1	Intangible asset intensity, top 15, %	n/a	2024	Brand Finance
7.2.1	Cultural and creative services exports, % total trade	n/a	2023	World Trade Organization, Organisation for Economic Co-operation and Development; United Nations Conference on Trade and Development
7.2.3	Entertainment and media market/th pop. 15–69	n/a	2024	PwC, GEMO; United Nations, World Population Prospects; International Monetary Fund

*Model year corresponds to the most frequent data year (the year that appears most often across all economies in the GII).

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Outdated data for Nepal

Code	Indicator name	Economy year	Model year*	Source
2.1.2	Government funding/pupil, secondary, % GDP/cap	2015	2021	UNESCO Institute for Statistics
3.2.1	Electricity output, GWh/mn pop.	2022	2023	International Energy Agency
4.2.3	Late-stage VC deal count, % global VC	2023	2024	PitchBook Data, Inc.
4.3.1	Applied tariff rate, weighted avg., %	2022	2023	World Trade Organization
4.3.2	Domestic industry diversification	2020	2022	United Nations Industrial Development Organization (UNIDO)
5.1.1	Knowledge-intensive employment, %	2017	2024	International Labour Organization
5.1.2	Females employed w/advanced degrees, %	2017	2024	International Labour Organization
5.3.2	High-tech imports, % total trade	2022	2023	United Nations Comtrade Database; World Trade Organization and United Nations Conference on Trade and Development
6.1.1	Patents by origin/bn PPP$ GDP	2017	2023	World Intellectual Property Organization; International Monetary Fund
6.2.4	High-tech manufacturing, %	2020	2022	United Nations Industrial Development Organization (UNIDO)
6.3.3	High-tech exports, % total trade	2022	2023	United Nations Comtrade Database; World Trade Organization and United Nations Conference on Trade and Development; Trade Data Monitor.
7.1.2	Trademarks by origin/bn PPP$ GDP	2017	2023	World Intellectual Property Organization; International Monetary Fund
7.1.4	Industrial designs by origin/bn PPP$ GDP	2017	2023	World Intellectual Property Organization; International Monetary Fund
7.2.2	National feature films/mn pop. 15–69	2019	2023	OMDIA; United Nations, World Population Prospects
7.2.4	Creative goods exports, % total trade	2022	2023	United Nations Comtrade Database; World Trade Organization and United Nations Conference on Trade and Development

*Model year corresponds to the most frequent data year (the year that appears most often across all economies in the GII).

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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 140 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.