

MYANMAR

129th Myanmar ranks 129th among the 131 economies featured in the GII 2020.

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.

The following table shows the rankings of Myanmar over the past three years, noting that 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 Myanmar in the GII 2020 is between ranks 105 and 129.

Rankings of Myanmar (2018–2020)

	GII	Innovation inputs	Innovation outputs
2020	129	129	120

- Myanmar performs better in innovation outputs than innovation inputs in 2020.
- This year Myanmar ranks 129th in innovation inputs and 120th in innovation outputs.

29th Myanmar ranks 29th among the 29 lower middle-income group economies.

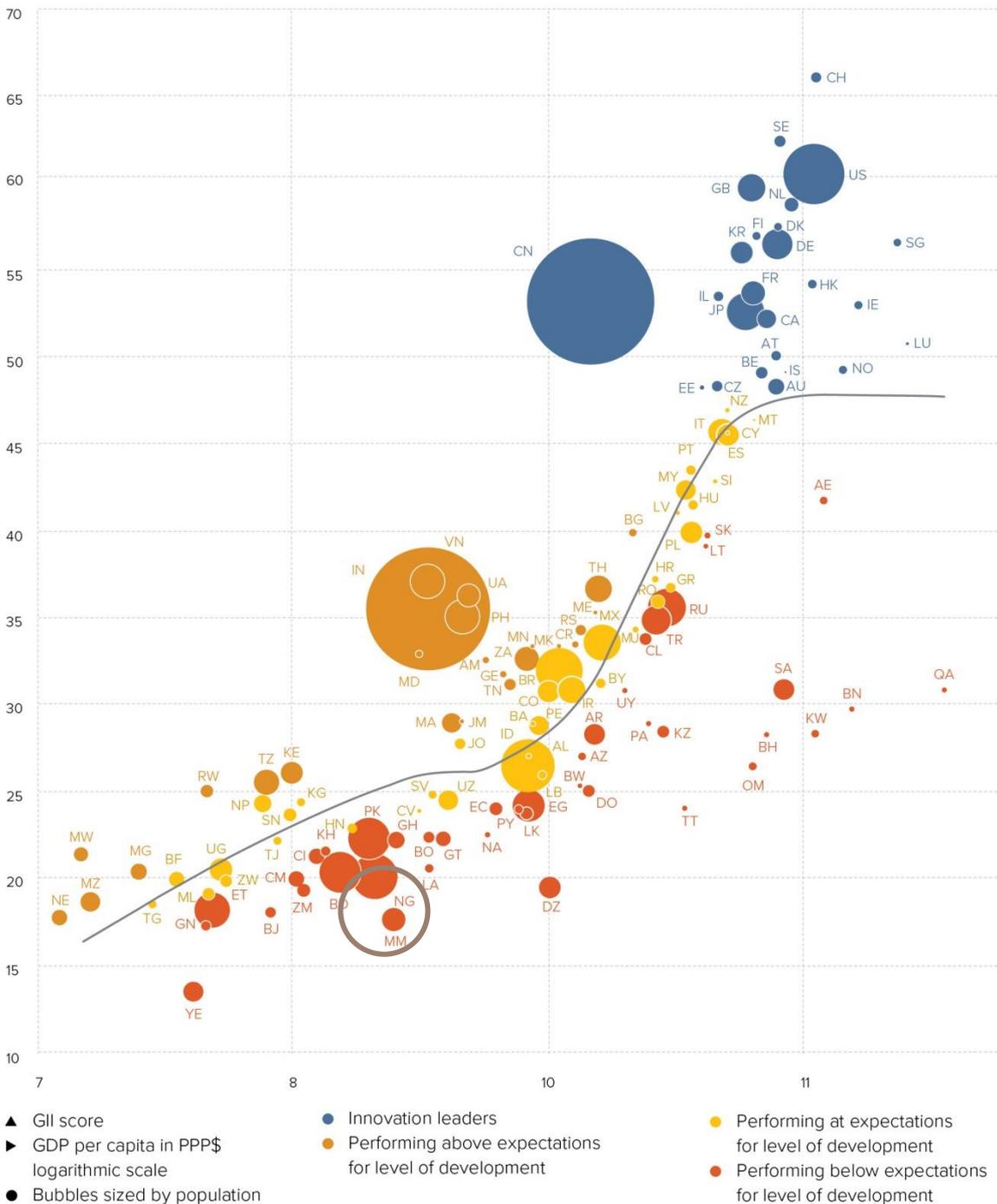
17th Myanmar ranks 17th among the 17 economies in South East Asia, East Asia, and Oceania.

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, Myanmar's performance is below expectations for its level of development.

The positive relationship between innovation and development

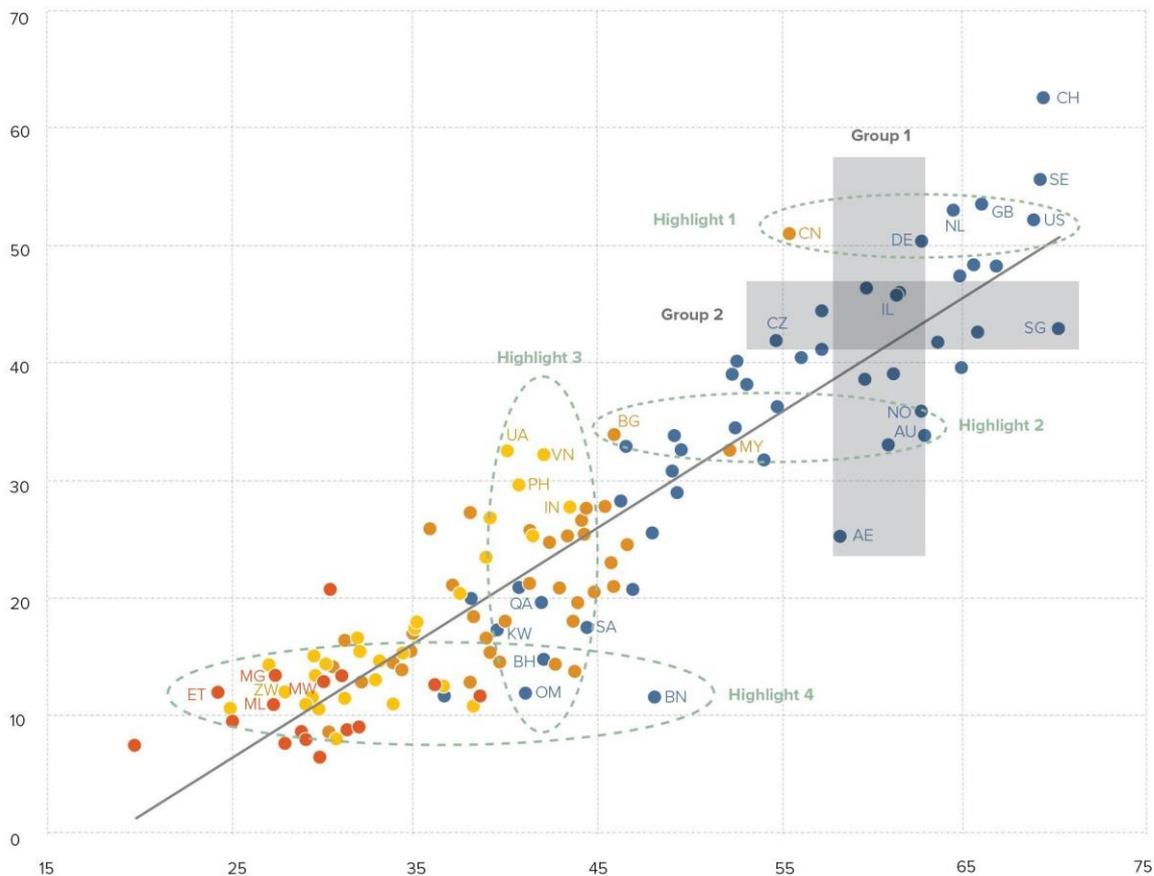


EFFECTIVELY TRANSLATING INNOVATION INVESTMENTS INTO INNOVATION OUTPUTS

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.

Myanmar produces more innovation outputs relative to its level of innovation investments.

Innovation input to output performance, 2020

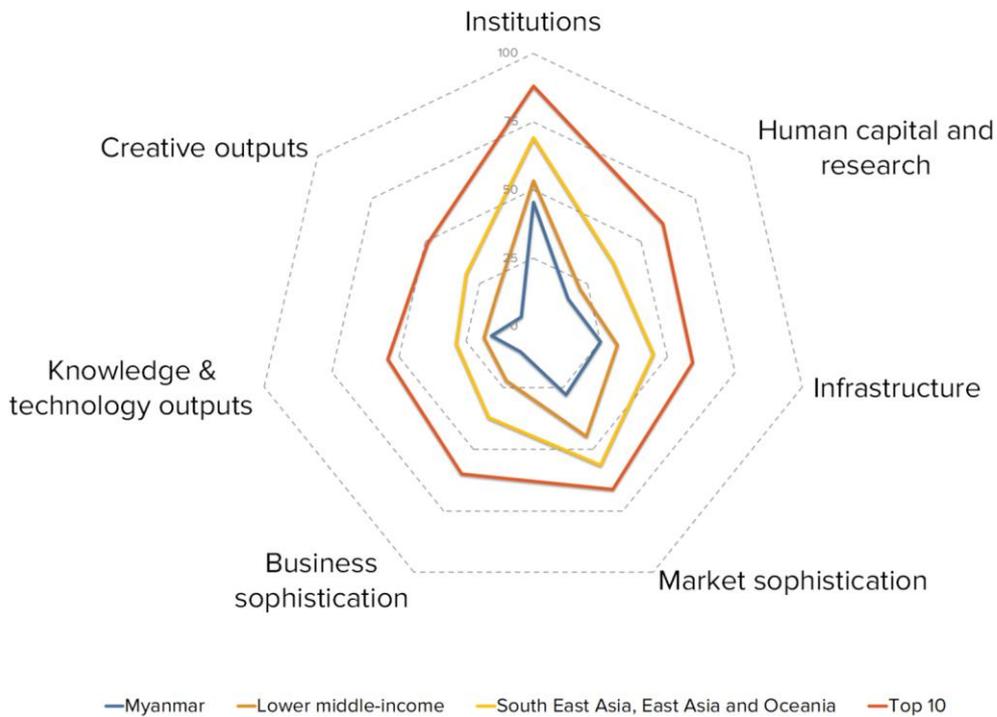


▲ Output score ● High income group ● Lower middle-income group — Fitted values
 ► Input score ● Upper middle-income group ● Low income group

AU	Australia	IN	India	NL	Netherlands	CH	Switzerland
BH	Bahrain	IL	Israel	NO	Norway	UA	Ukraine
BN	Brunei Darussalam	KW	Kuwait	OM	Oman	AE	United Arab Emirates
BG	Bulgaria	MG	Madagascar	PH	Philippines	GB	United Kingdom
CN	China	MW	Malawi	QA	Qatar	US	United States of America
CZ	Czech Republic	ML	Mali	SA	Saudi Arabia	VN	Viet Nam
ET	Ethiopia	MY	Malaysia	SG	Singapore	ZW	Zimbabwe
DE	Germany			SE	Sweden		

BENCHMARKING MYANMAR AGAINST OTHER LOWER MIDDLE-INCOME GROUP ECONOMIES AND SOUTH EAST ASIA, EAST ASIA, AND OCEANIA

Myanmar's scores in the seven GII pillars



Lower middle-income group economies

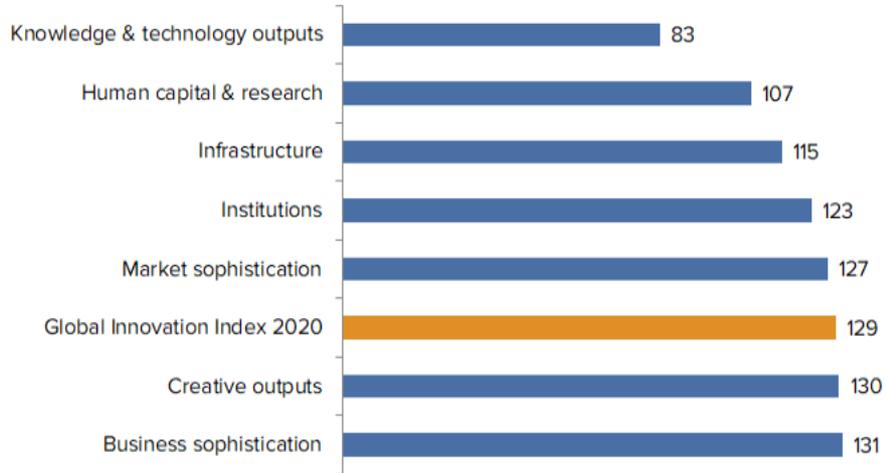
Myanmar scores below average for its income group in all pillars.

South East Asia, East Asia, and Oceania

Myanmar performs below the regional average in all GII pillars.

OVERVIEW OF MYANMAR RANKINGS IN THE SEVEN GII AREAS

Myanmar performs best in Knowledge & technology outputs and its weakest performance is in Business sophistication.



*The highest possible ranking in each pillar is 1.

INNOVATION STRENGTHS AND WEAKNESSES

The table below gives an overview of the strengths and weaknesses of Myanmar in the GII 2020.

Strengths			Weaknesses		
Code	Indicator name	Rank	Code	Indicator name	Rank
1.3.1	Ease of starting a business*	58	2.1.1	Expenditure on education, % GDP	116
2.2.2	Graduates in science & engineering, %	10	2.2.3	Tertiary inbound mobility, %	111
3.2.3	Gross capital formation, % GDP	15	2.3.3	Global R&D companies, top 3, mn US\$	42
3.3.1	GDP/unit of energy use	26	2.3.4	QS university ranking, average score top 3*	77
4.3.1	Applied tariff rate, weighted avg., %	51	3.1.4	E-participation*	129
4.3.3	Domestic market scale, bn PPP\$	50	3.3.2	Environmental performance*	129
5.3.4	FDI net inflows, % GDP	34	4.1	Credit	130
6.2.1	Growth rate of PPP\$ GDP/worker, %	3	4.1.1	Ease of getting credit*	129
6.3.4	FDI net outflows, % GDP	9	5	Business sophistication	131
7.2.5	Creative goods exports, % total trade	42	5.1	Knowledge workers	131
			5.1.2	Firms offering formal training, %	95
			5.1.4	GERD financed by business, %	103
			5.2.5	Patent families 2+ offices/bn PPP\$ GDP	101
			7	Creative outputs	130
			7.3	Online creativity	130

STRENGTHS

GII strengths for Myanmar are found in all GII pillars.

- Institutions (123): exhibits strengths in the indicator Ease of starting a business (58).
- Human capital & research (107): shows strengths in the indicator Graduates in science & engineering (10).
- Infrastructure (115): demonstrates strengths in the indicators Gross capital formation (15) and GDP/unit of energy use (26).
- Market sophistication (127): displays strengths in the indicators Applied tariff rate (51) and Domestic market scale (50).
- Business sophistication (131): reveals strengths in the indicator FDI net inflows (34).
- Knowledge & technology outputs (83): exhibits strengths in the indicators Growth rate of PPP\$ GDP/worker (3) and FDI net outflows (9).
- Creative outputs (130): shows strengths in the indicator Creative goods exports (42).

WEAKNESSES

GII weaknesses for Myanmar are found in five of the seven GII pillars.

- Human capital & research (107): reveals weaknesses in the indicators Expenditure on education (116), Tertiary inbound mobility (111), Global R&D companies (42) and QS university ranking (77).
- Infrastructure (115): displays weaknesses in the indicators E-participation (129) and Environmental performance (129).
- Market sophistication (127): shows weaknesses in the sub-pillar Credit (130) and in the indicator Ease of getting credit (129).
- Business sophistication (131): demonstrates weaknesses in the sub-pillar Knowledge workers (131) and in the indicators Firms offering formal training (95), GERD financed by business (103) and Patent families 2+ offices (101).
- Creative outputs (130): exhibits weaknesses in the sub-pillar Online creativity (130).

DATA AVAILABILITY

The following tables list data that are either missing or outdated for Myanmar.

Missing data

Code	Indicator name	Country year	Model year	Source
2.1.4	PISA scales in reading, maths, & science	n/a	2018	OECD Programme for International Student Assessment (PISA)
4.2.2	Market capitalization, % GDP	n/a	2018	World Federation of Exchanges
5.1.3	GERD performed by business, % GDP	n/a	2018	UNESCO Institute for Statistics; Eurostat; OECD – Main Science and Technology Indicators
5.2.1	University/industry research collaboration [†]	n/a	2019	World Economic Forum
5.2.2	State of cluster development [†]	n/a	2019	World Economic Forum
5.3.5	Research talent, % in business enterprise	n/a	2018	UNESCO Institute for Statistics; Eurostat; OECD – Main Science and Technology Indicators
6.1.1	Patents by origin/bn PPP\$ GDP	n/a	2018	World Intellectual Property Organization
6.1.2	PCT patents by origin/bn PPP\$ GDP	n/a	2019	World Intellectual Property Organization
6.1.3	Utility models by origin/bn PPP\$ GDP	n/a	2018	World Intellectual Property Organization
6.2.3	Computer software spending, % GDP	n/a	2019	IHS Global Insight
7.1.3	Industrial designs by origin/bn PPP\$ GDP	n/a	2018	World Intellectual Property Organization
7.1.4	ICTs & organizational model creation [†]	n/a	2018	World Economic Forum
7.2.3	Entertainment & Media market/th pop. 15–69	n/a	2018	PwC
7.3.3	Wikipedia edits/mn pop. 15–69	n/a	2019	Wikimedia Foundation

Outdated data

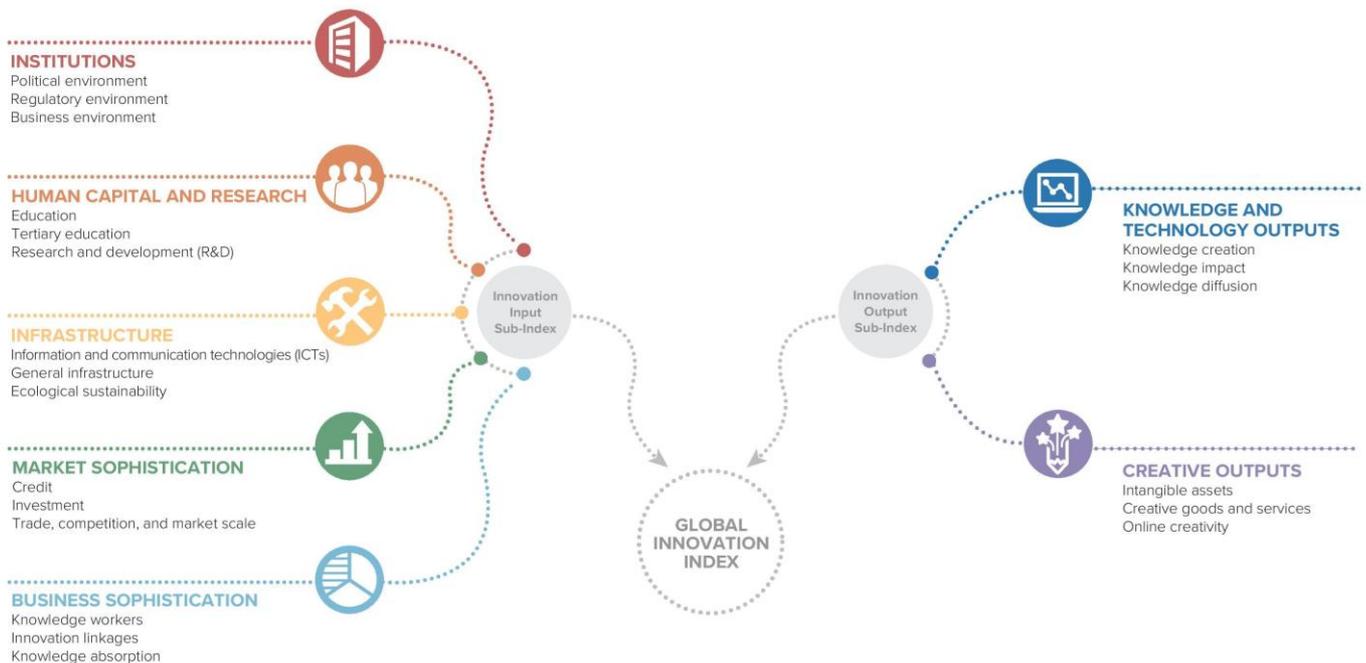
Code	Indicator name	Country year	Model year	Source
2.3.1	Researchers, FTE/mn pop.	2017	2018	UNESCO Institute for Statistics; Eurostat; OECD – Main Science and Technology Indicators
2.3.2	Gross expenditure on R&D, % GDP	2017	2018	UNESCO Institute for Statistics; Eurostat; OECD – Main Science and Technology Indicators
4.3.1	Applied tariff rate, weighted avg., %	2015	2018	World Bank
4.3.2	Intensity of local competition [†]	2015	2018	World Economic Forum
5.1.2	Firms offering formal training, %	2015	2018	World Bank
6.2.5	High- and medium-high-tech manufacturing, %	2011	2017	United Nations Industrial Development Organization
7.1.1	Trademarks by origin/bn PPP\$ GDP	2012	2018	World Intellectual Property Organization
7.2.2	National feature films/mn pop. 15–69	2015	2017	UNESCO Institute for Statistics
7.2.4	Printing and other media, % manufacturing	2011	2017	United Nations Industrial Development Organization

ABOUT THE GLOBAL INNOVATION INDEX

The Global Innovation Index (GII) is co-published by Cornell University, INSEAD, and the World Intellectual Property Organization (WIPO), a specialized agency of the United Nations. In 2020, the GII presents its 13th edition devoted to the theme *Who Will Finance Innovation?*

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.

Framework of the Global Innovation Index 2020



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.

