



Sustainable economic growth in Southeast Asia

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Southeast Asia



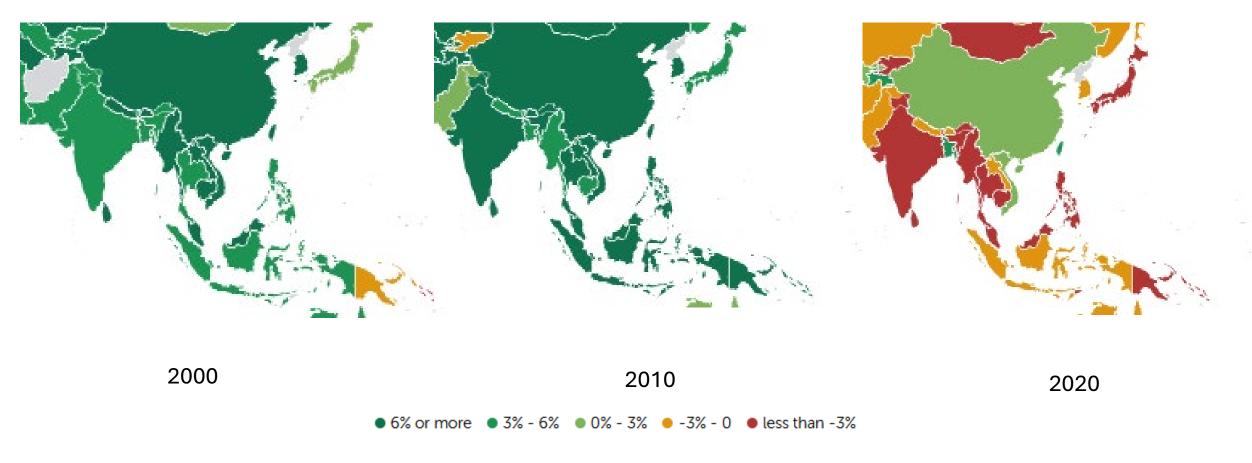
Brunei
Cambodia
Indonesia
Laos
Malaysia
Myanmar
Philippines
Singapore
Timor-Leste
Thailand
Vietnam







Real GDP growth in SEA



SEA is one of the most vibrant growing regions with the average economic growth rate of about 4.6%. Yet, the growth is slow is stagnant in recent years.

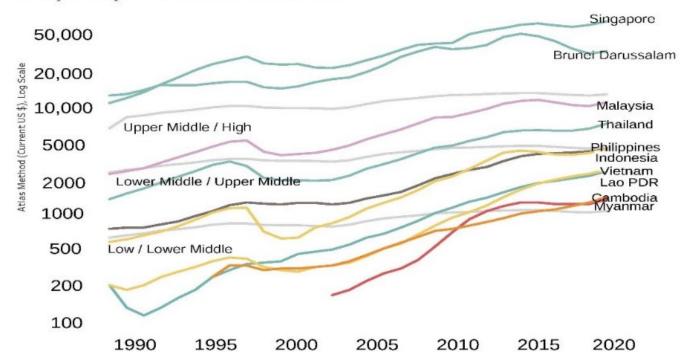
Source: https://www.imf.org





GNI per capita by income group





SEA is diverse in economic development stage.

Source: Mathematics 2022, 10(18), 3259; https://doi.org/10.3390/math10183259





Medium to long-term development ambitions by ASEAN countries

Country	Development ambition	Target year	Document	Country	Development ambition	Target year	Document
Brunei	To be in world's top 10 in quality of life and per capita income	2035	Vision 2035	Myanmar	To be a peaceful, prosperous and democratic Myanmar	2030	The Myanmar Sustainable Development Plan, 2018- 2030
Cambodia	To be a developed country	2050	Prime Minister Hun Sen's statement	Philippines	To become a prosperous middle- class society free of poverty	2040	Our Ambition 2040
Indonesia	To become an advanced and prosperous nation among the world's largest five economies	2045	The Vision of Indonesia 2045	Singapore	To chart Singapore's low-carbon and climate resilient future	2050	Charting Singapore's low- carbon and climate resilient future
Lao PDR	To be an upper-middle-income country	2035	The 8th Five-Year National Socioeconomic Development Plan, 2016-2020	Thailand	To be a developed country with security, prosperity and sustainability in accordance with the Sufficiency Economy Philosophy	2037	National Strategy 2018-2037
Malaysia	To elevate the country's status to a developed economy	2020	The 11th Malaysia Plan	Vietnam	To be in the top three ASEAN countries in industry; to be a modern industrialised country	2030 & 2045	The Political Bureau Resolution No. 23-NQ/TW

ASEAN countries have ambition for economic growth, but most do not emphasize on sustainable growth.

Source: ASEAN climate change report, 2021





Climate Risk Index, 1999-2018

CRI 1999-2018 (1998-2017)	Country	CRI score	Death toll	Deaths per 100 000 inhabitants	Total losses in million US\$ PPP	Losses per unit GDP in %	Number of events (total 1999–2018)
1 (1)	Puerto Rico	6.67	149.90	4.09	4 567.06	3.76	25
2 (3)	Myanmar	10.33	7 052.40	14.29	1 630.06	0.83	55
3 (4)	Haiti	13.83	274.15	2.81	388.93	2.38	78
4 (5)	Philippines	17.67	869.80	0.96	3 118.68	0.57	317
5 (8)	Pakistan	28.83	499.45	0.30	3 792.52	0.53	152
6 (9)	Vietnam	29.83	285.80	0.33	2 018.77	0.47	226
7 (7)	Bangladesh	30.00	577.45	0.39	1 686.33	0.41	191
8 (13)	Thailand	31.00	140.00	0.21	7 764.06	0.87	147
9 (11)	Nepal	31.50	228.00	0.87	225.86	0.40	180
10 (10)	Dominica	32.33	3.35	4.72	133.02	20.80	8

SEA is one of most vulnerable regions to climate change.

Source: https://www.germanwatch.org/en/cri





ASEAN cooperation to climate change

- ASEAN's approach is cooperative but gradual.
- Balances climate ambition with development needs.
- Most actions focus on coordination, capacity-building, and long-term frameworks rather than hard binding commitments.

ASEAN regional framework

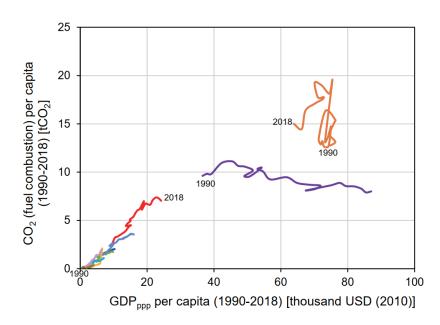
- •ASEAN Working Group on Climate Change (AWGCC)
- leads coordination of policies, information sharing, and joint projects.
- ASEAN Strategic Plan on Environment (ASPEN)
- includes climate resilience, low-carbon development, and environmental governance.
- •ASEAN Plan of Action for Energy Cooperation (APAEC) pushes renewable energy expansion, energy efficiency, and integration of regional power grids.

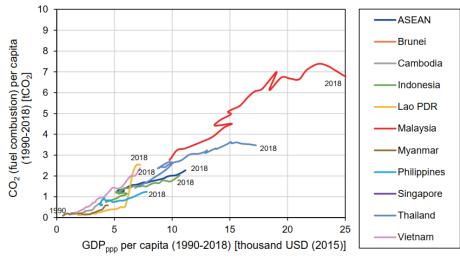




ASEAN CO₂ emissions and economic growth, 1990-2018

- GHG emissions continued to rise due to increasing energy-related CO2 emissions and GHG emissions from the Ag, forestry & land use (AFOLU)/ Land Use, Land-Use Change and Forestry (LULUCF) sector.
- Decoupling of the growth in GDP and energyrelated CO2 emissions is observed only in a few countries.
- Emissions from Singapore have slightly decreased due to an increase in renewable energy.
- It is vital to reduce energy intensity through lower energy demand, increase energy savings, reduce emission intensity, increase the efficiency of energy use, implement green development e.g. promoting renewable energy expansion.





Source: ASEAN climate change report, 2021





ASEAN needs tech dev and transfer to decoupling economic growth.

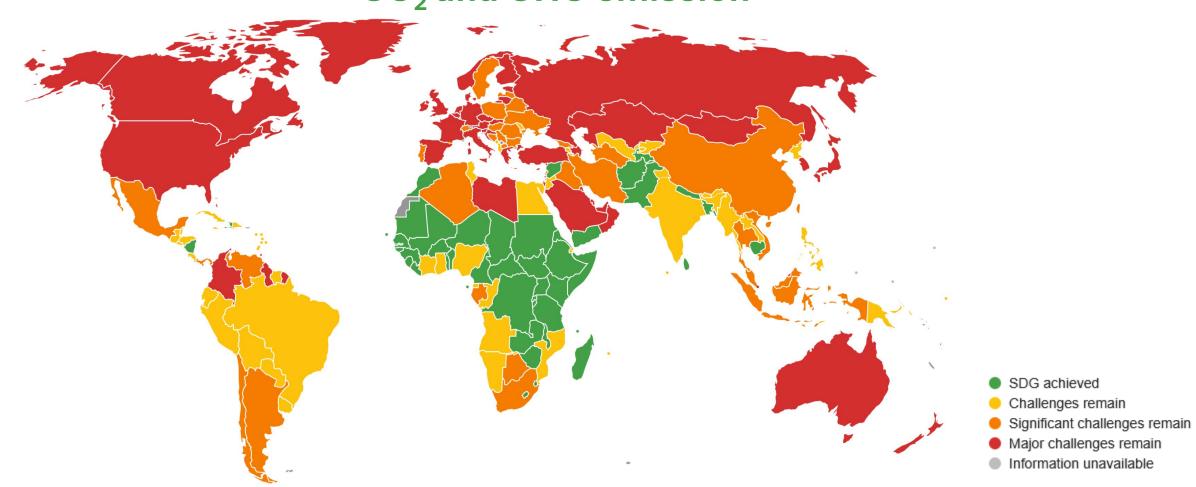
Tracking some sustainable development goals indicators.





SDG13 Climate Action, 2025

CO₂ and GHG emission

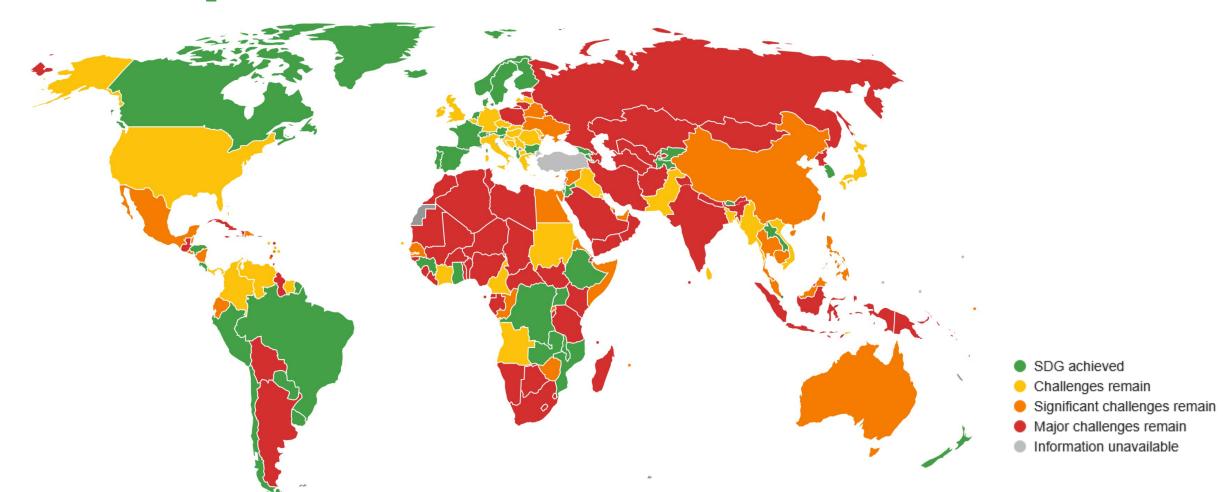






SDG7 Affordable and clean energy, 2025

CO₂ emission from fuel combustion per tot electricity output

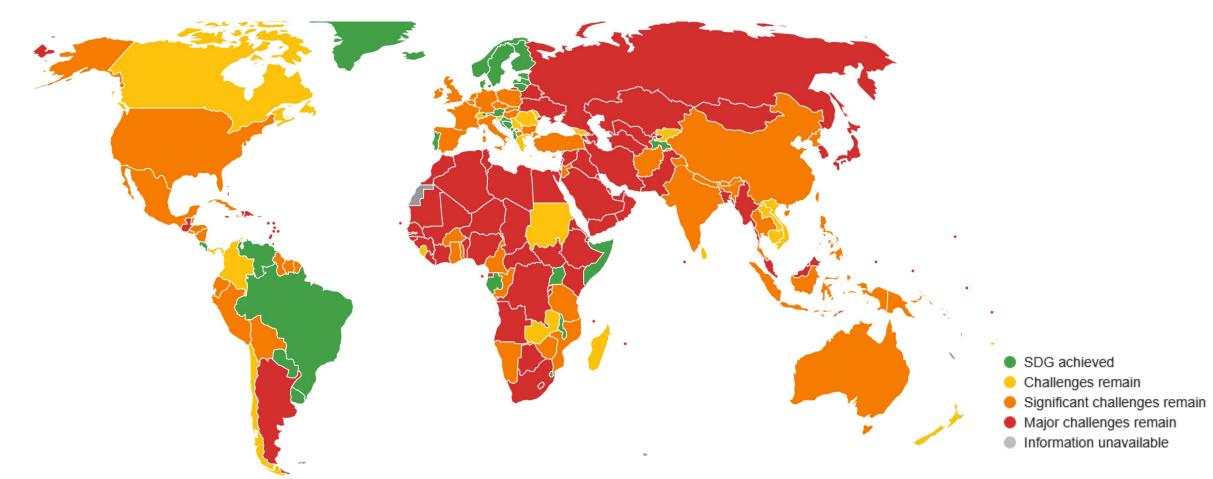






SDG7 Affordable and clean energy, 2025

Renewable energy share to total energy consumption

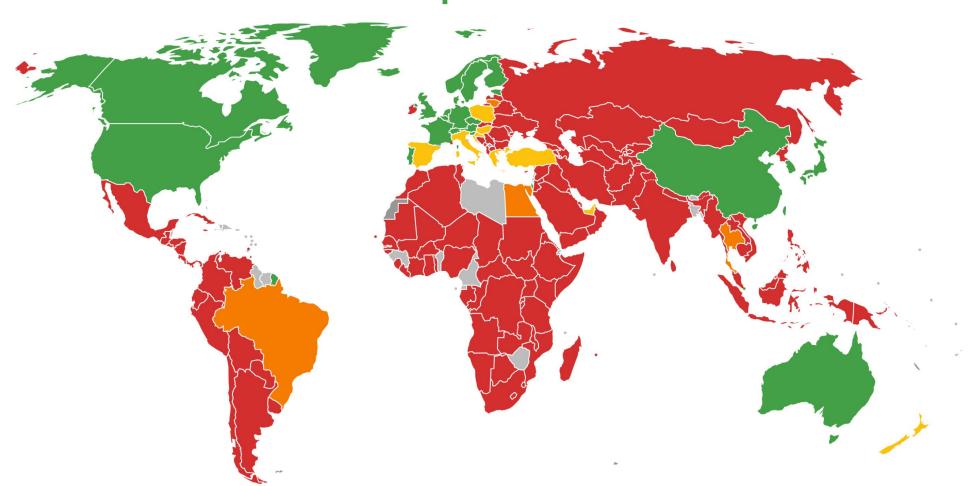






SDG9 Industry, Innovation and Infrastructure, 2025

Expenditure on R&D



% Gross domestic expenditure on R&D to tot GDP

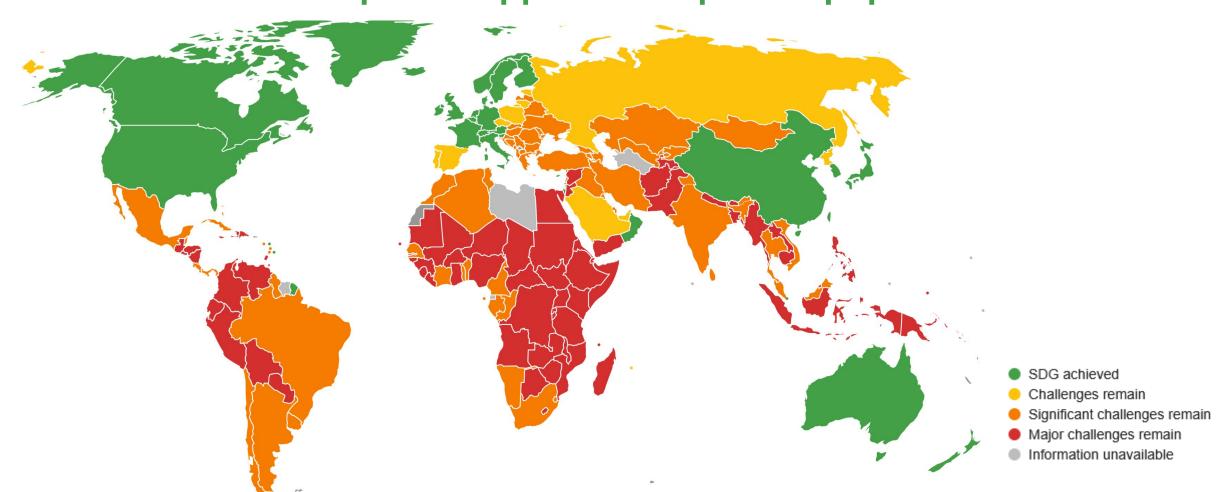
- SDG achieved
- Challenges remain
- Significant challenges remain
- Major challenges remain
- Information unavailable





SDG9 Industry, Innovation and Infrastructure, 2025

Tot patent applications per mil population







Prospects

- Lack of evidence to support how to promote economic growth while reducing or eliminating negative environmental impacts.
- Intra and inter technological transfer to promote sustainable growth needs consideration of finance, readiness, etc.
- Impacts require multi-faceted policy actions.